

Troubleshooting

Flow Chart: 1

Only cooling fan does not come on

Check the cooling fan relay.

Is the relay OK?

NO Replace the relay.

YES

A/C switch: ON
Fan switch: ON
Turn ignition: ON

Measure voltage between BLK/
YEL(+) terminal and body ground.

Is there battery voltage?

NO Repair open in BLK/
YEL wire.

YES

Reconnect the cooling fan relay.

Turn ignition OFF.

Connect BLU terminal to body
ground.

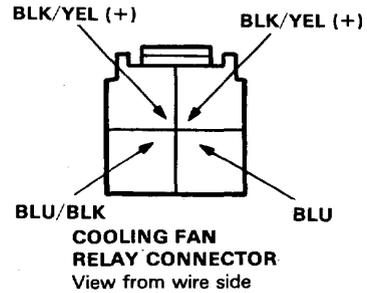
Turn ignition to RUN.

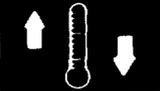
Does cooling fan operate?

YES • Check BLU wire.
• Check coolant tem-
perature switch.

NO

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Disconnect the cooling fan motor connector.

Is cooling fan motor OK? NO Replace the motor.

YES

Measure resistance between BLK wire and ground.

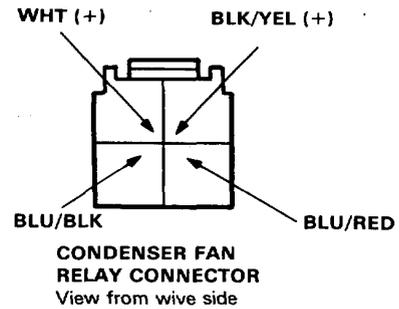
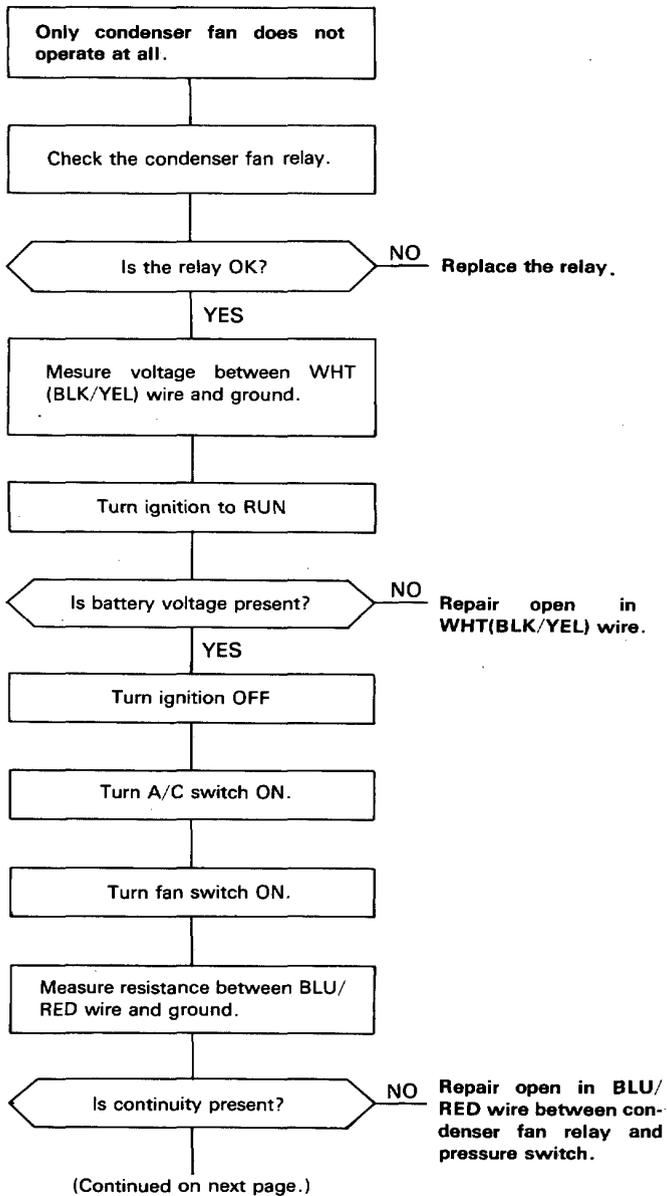
Is continuity present? NO Repair open in BLK wire.

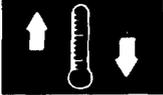
YES

Repair open in BLU/BLK wire between cooling fan relay and motor.

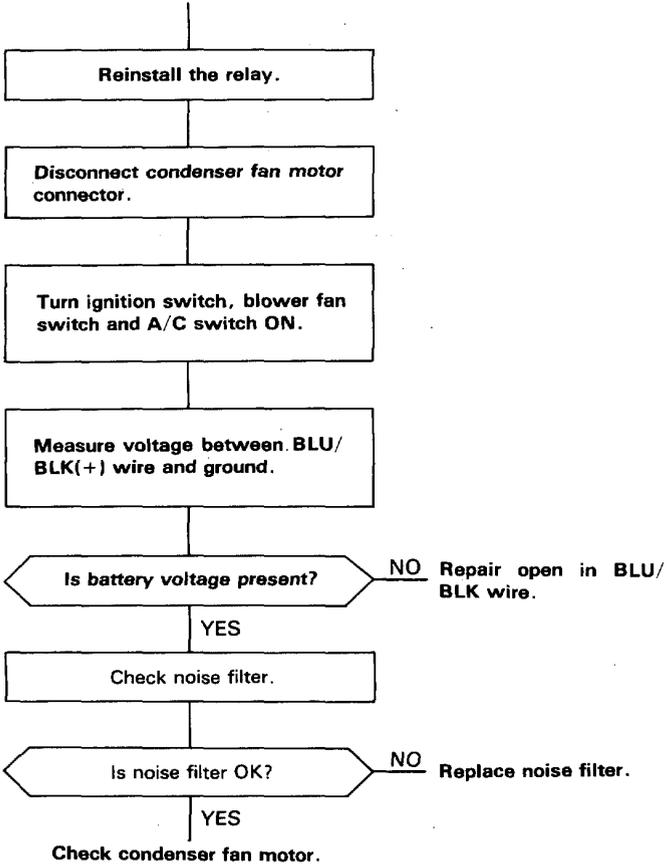
Troubleshooting

Flow Chart:2





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Troubleshooting

Flow Chart:3

A/C compressor clutch does not engage and cooling fans do not run.

- Ignition SW:ON
- A/C SW:ON
- FAN SW:ON

Does A/C ON indicator light?

NO

YES

Is A/C pressure switch open? (should be closed)

YES

Check refrigerant pressure. If pressure is good, replace A/C pressure switch.

Is A/C thermostat open?(should be closed)

YES

Check evaporator temperature. If temperature is above 41°F, replace A/C thermostat.

NO

Measure resistance BLU/RED₂ wire between pressure switch and A/C thermostat.

Is there continuity?

NO

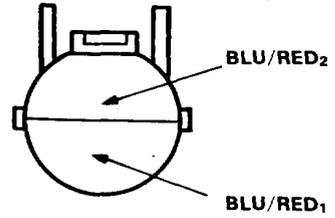
Repair open in BLU/RED₂ wire

YES

Measure resistance BLU/RED₃ wire between thermostat and A/C switch



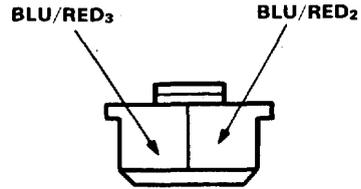
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PRESSURE SWITCH CONNECTOR

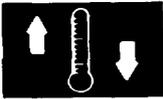


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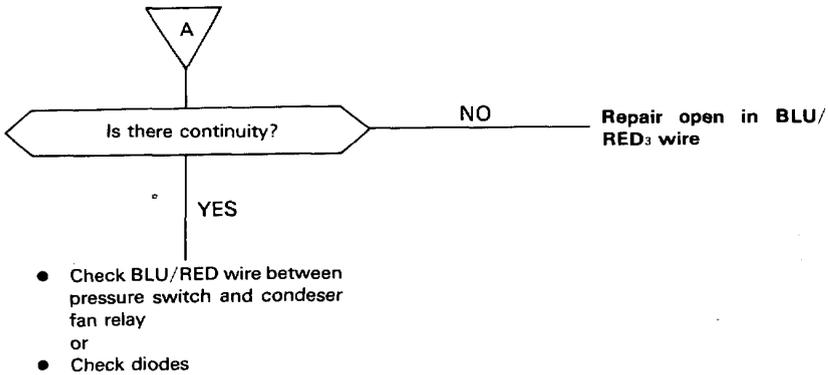


View from wire side

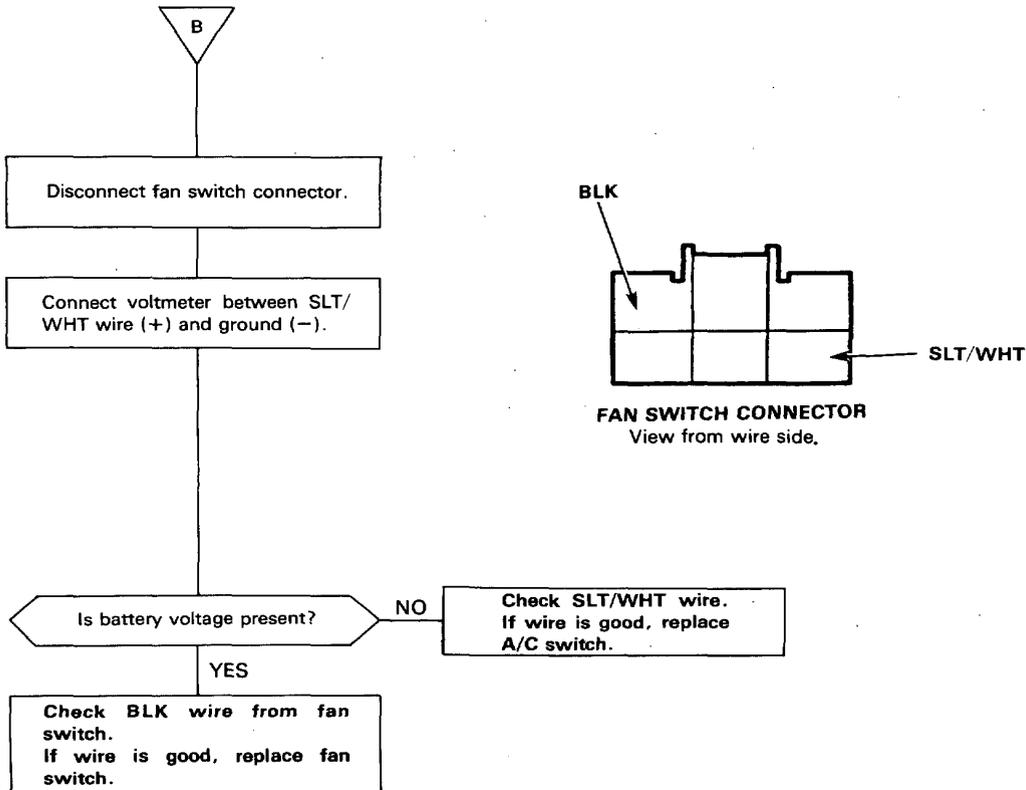
A/C THERMOSTAT CONNECTOR



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Troubleshooting

Flow Chart:4

Compressor does not come on.

Inspect No. 18 and 31 fuses.

Are the fuses OK?

NO

Replace the fuse(s).

YES

Disconnect the 4-P connector from the compressor clutch relay.

Measure voltage between the WHT terminal (+) and body ground.

Turn the ignition switch on.

Is there battery voltage?

NO

Repair open in WHT wire between the fuse box and compressor clutch relay.

YES

Measure voltage between the BLK/YEL terminal(+) and body ground.

Is there battery voltage?

NO

Repair open in BLK/YEL wire between the fuse box and compressor clutch relay.

YES

Connect the jumper wire between the WHT terminal and RED terminal.

Does the compressor clutch engage?

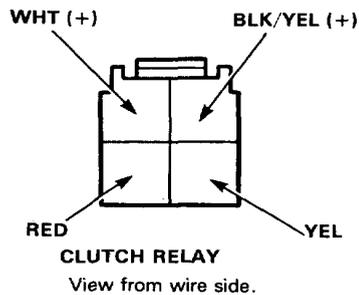
NO

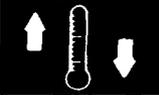
Turn the ignition OFF and Reconnect the 4-P connector to the compressor clutch relay

YES

(To 15-33 page)

(To page 15-34)

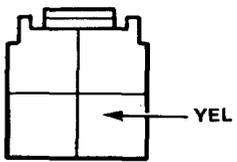




(from 15-32 page)

Turn the ignition switch OFF and reconnect the 4-P reconector to the compressor clutch relay.

Turn the ignition switch on and connect the jumper wire between the YEL terminal and body ground.



CLUTCH RELAY
View from wire side.

Does the compressor clutch engage? NO → Replace the compressor clutch relay.

YES → PGM-FI Engine / Carbureted Engine

- PGM-FI Engine
 - Check the A/C signals.
 - Compressor clutch relay – ECU
 - A/C switch – ECU
 - See fuel and emissions section.

Carbureted Engine
Disconnect 6P connector from the delay control unit.

Connect a jumper wire between YEL terminal and body ground.

Does the compressor clutch engage? NO → Repair open in YEL wire between compressor relay and delay control unit.

Measure voltage between the BLK/YEL terminal (+) and body ground.

Is there battery voltage? NO → Repair open in BLK/YEL wire between the fuse box and delay control unit.

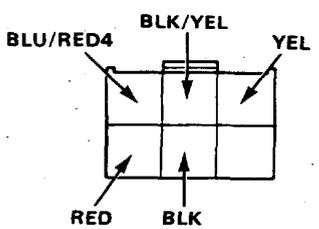
Check the continuity between BLK terminal and body ground.

Is there continuity? NO → Repair open in BLK wire between delay control unit and body ground or poor ground.

Check the continuity BLU/RED4 terminal between delay control unit and body ground. Then A/C, heater fan switches ON.

Is there continuity? NO → Repair open in BLU/RED4 wire between delay control unit and body ground.

Faulty delay control unit.



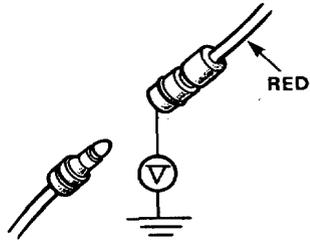
Troubleshooting

Flow Chart: 4 (cont'd)

(From page 15-32)

Disconnect the RED terminal and turn the ignition switch on.

Measure voltage between the RED terminal(+) and body ground.



Is ther battery voltage?

NO

Repair open in RED wire between the compressor clutch relay and compressor clutch connector.

YES

Turn the ignition switch OFF and check the thermal protector(page 22-32, 35).

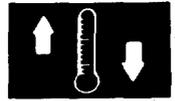
Is the thernal protector OK?

NO

Replace the thermal protector.

YES

Replace the compressor clutch.



Pressure Check

NOTE: Performance Test on page 15-56

TEST RESULTS	RELATED SYMPTOMS	PROBABLE CAUSE	REMEDY
Discharge (high) Pressure abnormally high	After stopping compressor, pressure drops to about 196 kPa (28 psi) quickly, and then falls gradually	Air in system	Evacuate system; then recharge Evacuation: page 15-50 Recharging: 15-52
	No bubbles in sight glass when condenser is cooled by water	Excessive refrigerant in system	Discharge refrigerant as required
	Reduced or no air flow through condenser.	<ul style="list-style-type: none"> · Clogged condenser or radiator fins · Condenser or radiator fan not working properly 	<ul style="list-style-type: none"> · Clean · Check voltage and fan rpm
	Line to condenser is excessively hot	Restricted flow of refrigerant in system	Expansion valve
Discharge pressure abnormally low	Excessive bubbles in sight glass; condenser is not hot	Insufficient refrigerant in system	<ul style="list-style-type: none"> · Charge system · Check for leak
	High and low pressures are balanced soon after stopping compressor	<ul style="list-style-type: none"> · Faulty compressor discharge or inlet valve · Faulty compressor seal 	Replace compressor
	Outlet of expansion valve is not frosted, low pressure gauge indicates vacuum	<ul style="list-style-type: none"> · Faulty expansion valve 	Repair or Replace
Suction (low) pressure abnormally low	Excessive bubbles in sight glass; condenser is not hot Expansion valve is not frosted and low pressure line is not cold. Low pressure gauge indicates vacuum.	Insufficient refrigerant <ul style="list-style-type: none"> · Frozen expansion valve · Faulty expansion valve 	Check for leaks. Charge as required. Replace expansion valve
	Discharge temperature is low and the air flow from vents is restricted	Frozen evaporator	Run the fan with compressor <i>off then check the thermostat and capillary tube.</i>
	Expansion valve frosted	Clogged expansion valve	Clean or Replace
	Receiver dryer is cool (Should be warm during operation)	Clogged receiver dryer	Replace
Suction pressure abnormally high	Low pressure hose and check joint are cooler than around evaporator	<ul style="list-style-type: none"> · Expansion valve open too long · Loose expansion valve 	Repair or Replace
	Suction pressure is lowered when condenser is cooled by water	Excessive refrigerant in system	Discharge refrigerant as necessary
	High and low pressure are equalized as soon as the compressor is stopped	<ul style="list-style-type: none"> · Faulty gasket · Faulty high pressure valve · Foreign particle stuck in high pressure valve 	Replace compressor
Suction and discharge pressures abnormally high	Reduced air flow through condenser	<ul style="list-style-type: none"> · Clogged condenser or radiator fins · Condenser or radiator fan not working properly 	<ul style="list-style-type: none"> · Clean condenser and radiator · Check voltage and fan rpm
	No bubbles in sight glass when condenser is cooled by water	Excessive refrigerant in system	Discharge refrigerant as necessary.
Suction and discharge pressure abnormally low	Low pressure hose and metal end areas are cooler than evaporator	Clogged or kinked low pressure hose parts	Repair or Replace
	Temperature around expansion valve is too low compared with that around receiver-driver.	Clogged high pressure line	Repair or Replace
Refrigerant leaks	Compressor clutch is dirty	Compressor shaft seal leaking	Replace compressor shaft seal
	Compressor bolt(s) are dirty	Leaking around bolt(s)	Replace compressor
	Compressor gasket is wet with oil	Gasket leaking	Replace compressor