

Troubleshooting

Flowchart — Fan Motors

Both fans do not run at all.

First check for blown No. 15 (7.5A) and No. 50 (20A) fuses.

Are fuses OK?

NO

Replace blown fuse and recheck.

YES

Disconnect the 2-P connector from the radiator fan motor.

Check for continuity in the BLK wire between the radiator fan motor and body ground.

Is there continuity?

NO

Repair open in the BLK wire between the radiator fan and body ground. If wire is OK, check for a poor ground at G152.

YES

Remove the condenser fan relay.

Measure voltage between the NO. ④ connector terminal of the condenser fan relay connector and body ground.

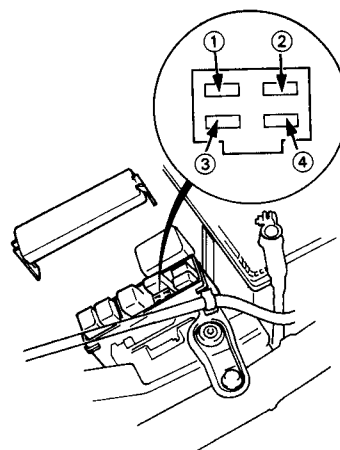
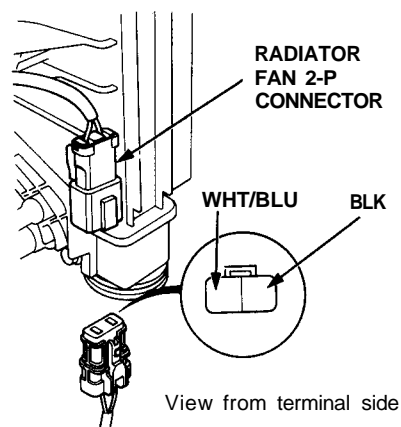
Is there battery voltage?

NO

Repair open in the WHT wire between the No. 50 (20A) fuse and condenser fan relay.

YES

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Disconnect the 2-P connector from condenser fan motor.

Test the condenser fan motor. Connect battery power to the BLU wire terminal and connect the BLK wire terminal to body ground. The condenser fan motor should run.

Does the motor run?

NO

Replace the condenser fan motor.

YES

Remove the radiator fan main relay.

Check for continuity in the WHT/BLU wire between the NO. 4 terminal of the radiator fan main relay connector and the radiator fan.

Is there continuity?

NO

Repair open in the WHT/BLU wire between the radiator fan main relay and radiator fan motor.

YES

Test the radiator fan motor. Connect battery power to the BLU wire terminal and connect the BLK wire terminal to body ground. The radiator fan motor should run.

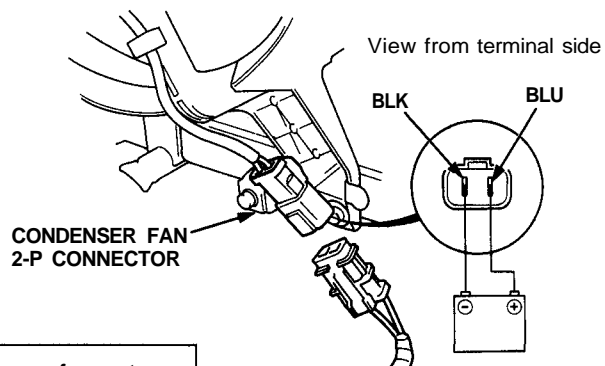
Does the motor run?

NO

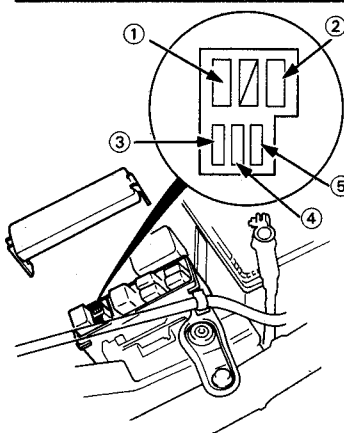
Replace the radiator fan motor.

YES

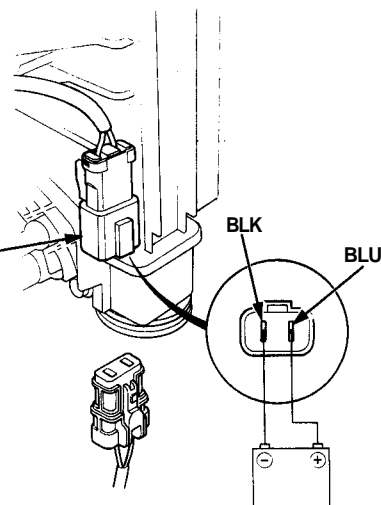
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View from terminal side



RADIATOR FAN
2-P CONNECTOR



View from terminal side

(cont'd)

Troubleshooting

Flowchart — Fan Motors (cont'd)

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Check for continuity in the PNK wire between the NO. 3 terminal of the condenser fan relay connector and the condenser fan.

Is there continuity?

YES

Test the condenser fan relay.
(See page 21-65)

Is there relay OK?

YES

Check for continuity in the WHT/GRN wire between the NO. 2 terminal of radiator fan main relay connector and the condenser fan.

Is there continuity?

YES

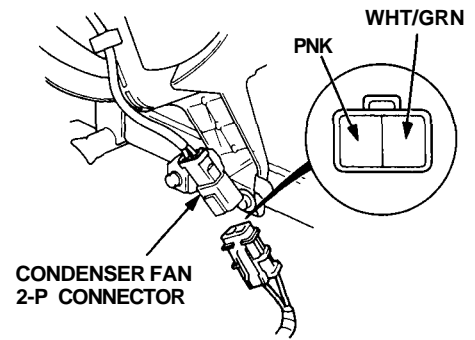
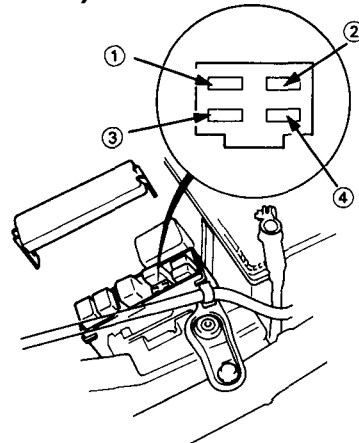
(To page 21-43)

NO

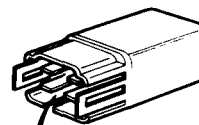
Repair open in the PNK wire between the condenser fan relay and condenser fan.

NO

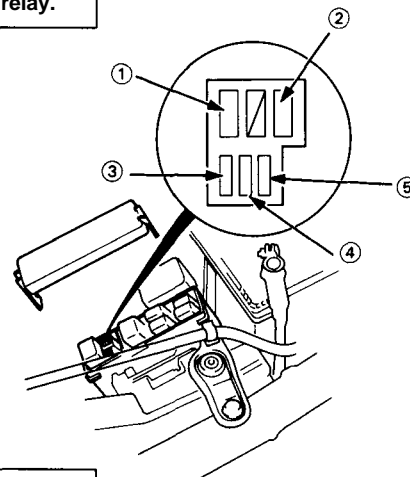
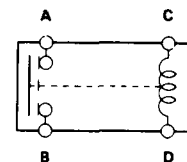
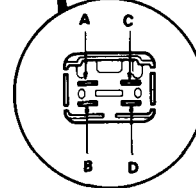
Replace the condenser fan relay.

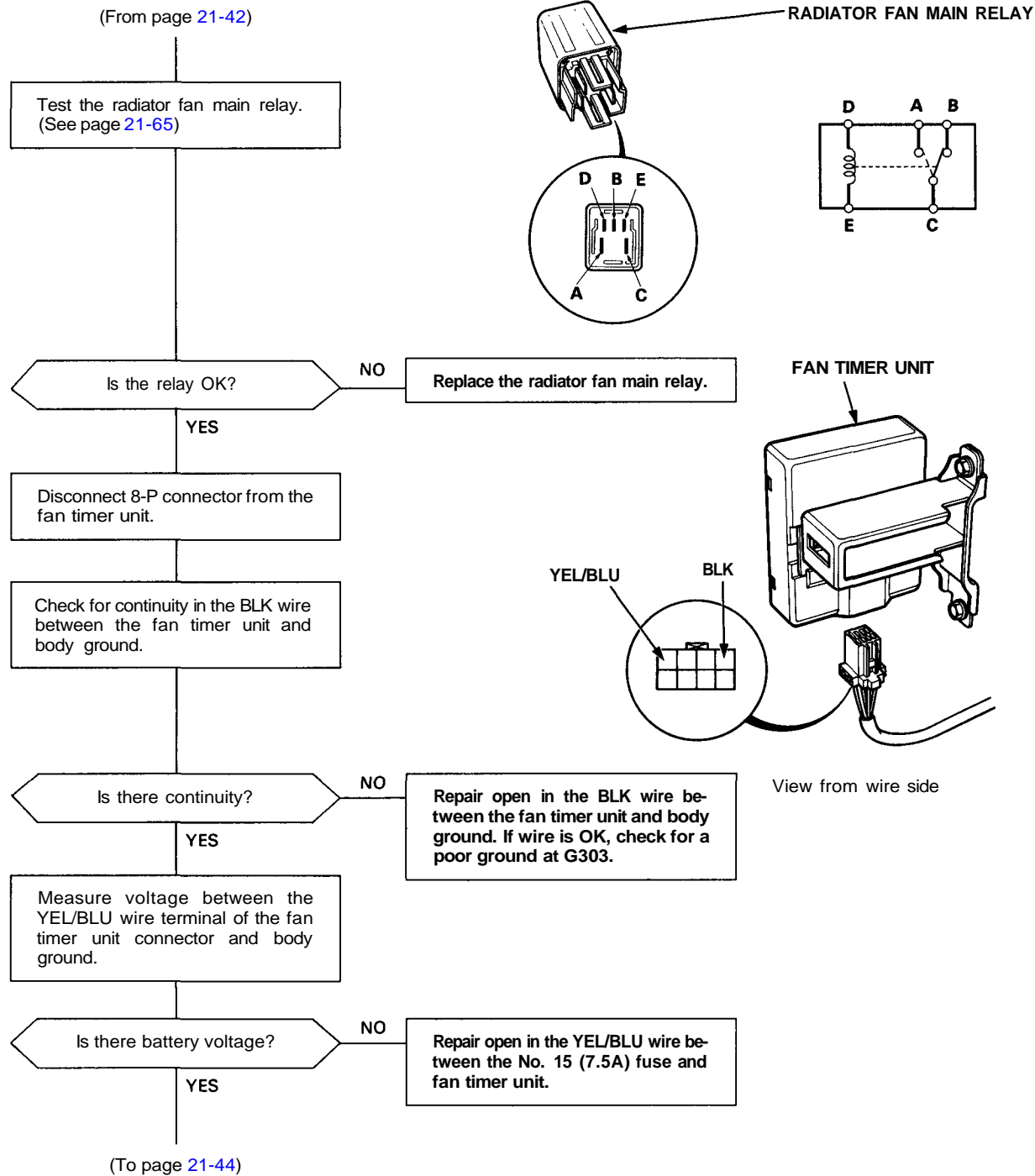


View from terminal side



CONDENSER FAN RELAY

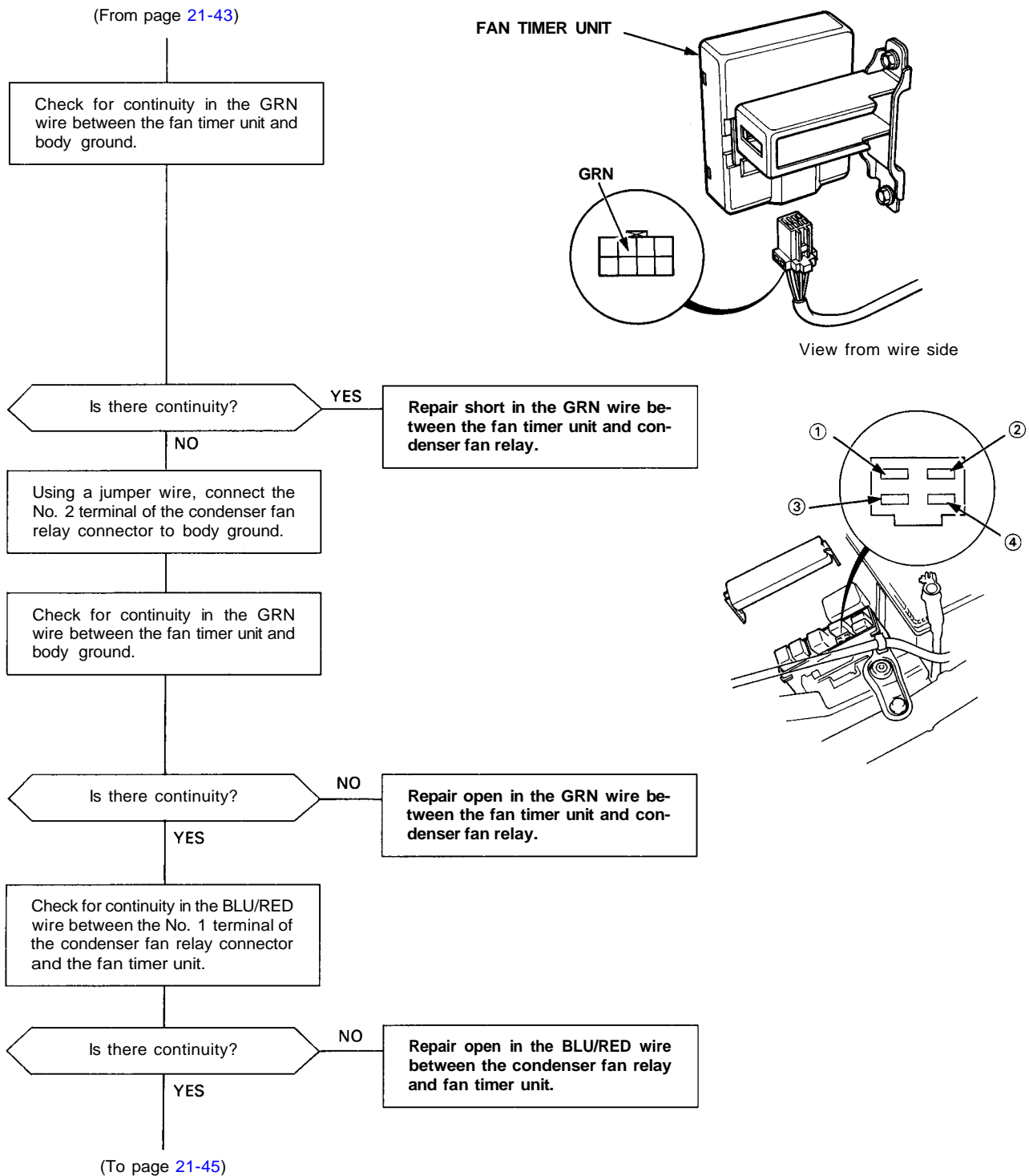




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Troubleshooting

Flowchart — Fan Motors (cont'd)





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Disconnect the 12-P connector from the fan control unit.

Check for continuity in the BLU/YEL wire between the fan control unit and the fan timer unit.

Is there continuity?

YES

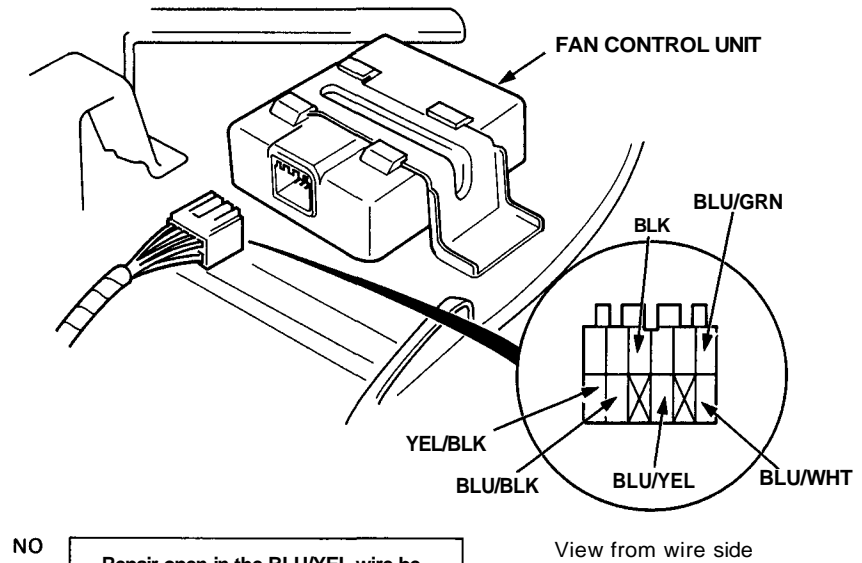
Reinstall both relays, reconnect both fan motors and the fan timer unit.

Using a jumper wire, connect the BLU/YEL wire terminal of the fan control unit to body ground.

Do both fan motors run at low speed?

YES

Substitute a known-good fan control unit and recheck. If symptom/indication goes away, replace the original fan control unit.



NO

Repair open in the BLU/YEL wire between the fan control unit and the fan timer unit.

NO

Replace the fan timer unit.

Troubleshooting

Flowchart — Fan Motors

Both fans do not run at high speed.

First check for blown fuse No. 47 (20A).

Is the fuse OK?

NO

Replace blown No. 47 (20A) fuse.

YES

Remove the radiator fan relay.

Measure voltage between the NO. 1 terminal of radiator fan relay connector and body ground.

Is there battery voltage?

NO

Repair open in the WHT wire between the No. 47 (20A) fuse and radiator fan relay.

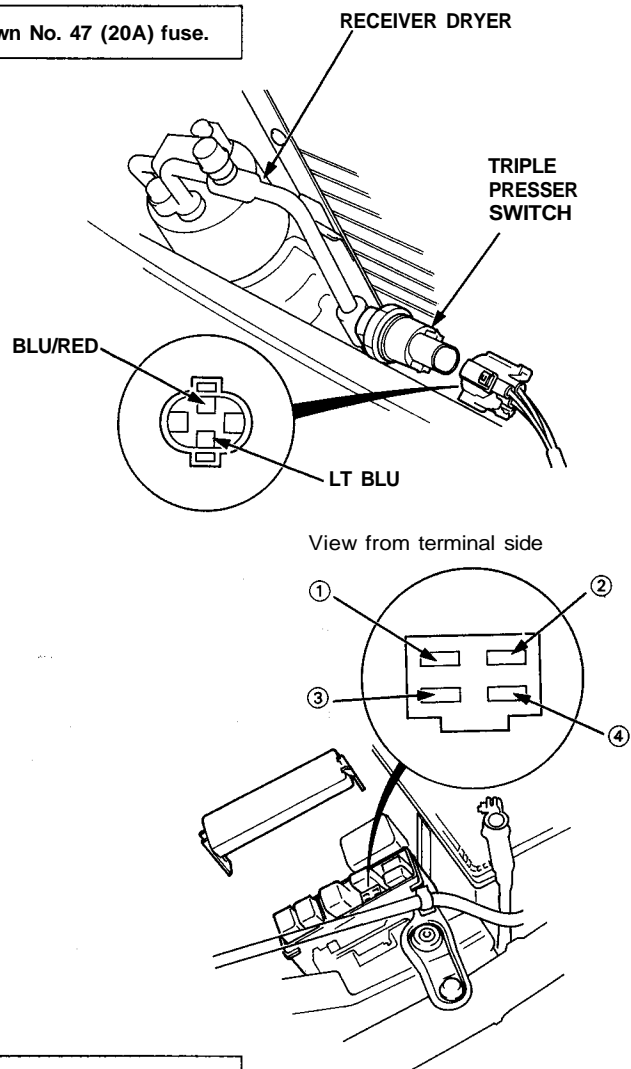
YES

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NOTE:

The fans should run at high speed when:

- there is excessive high-side pressure in the A/C system.
- engine coolant temperature exceeds 194°F





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Turn the ignition switch ON.

Measure voltage between the NO. 4 terminal of the radiator fan relay connector and body ground.

Is there battery voltage?

NO

Repair open in the YEL/BLK wire between the No. 3 (15A) fuse and radiator fan relay.

YES

Turn the ignition switch OFF.

Test the radiator fan relay.
(See page 21-65)

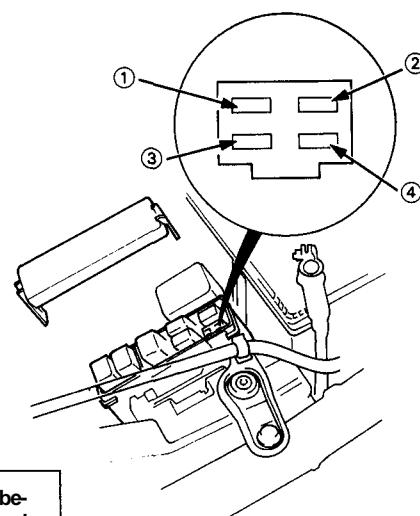
Is the relay OK?

NO

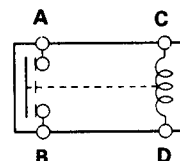
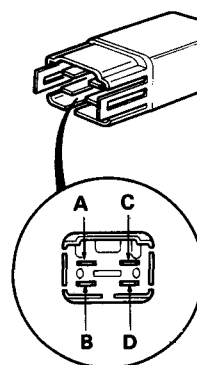
Replace the radiator fan relay.

YES

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RADIATOR FAN RELAY



(cont'd)

Troubleshooting

Flowchart — Fan Motors (cont'd)

(From page 21-47)

Disconnect the 2-P connector from the radiator fan motor.

Check for continuity in the WHT/BLU wire between the NO. 3 terminal of the radiator fan relay connector and radiator fan.

Is there continuity?

NO

Repair open in the WHT/BLU wire between the radiator fan relay and radiator fan.

YES

Remove the radiator fan main relay.

Turn the ignition switch ON.

Measure voltage between the NO. 5 terminal of radiator fan main relay connector and body ground.

Is there battery voltage?

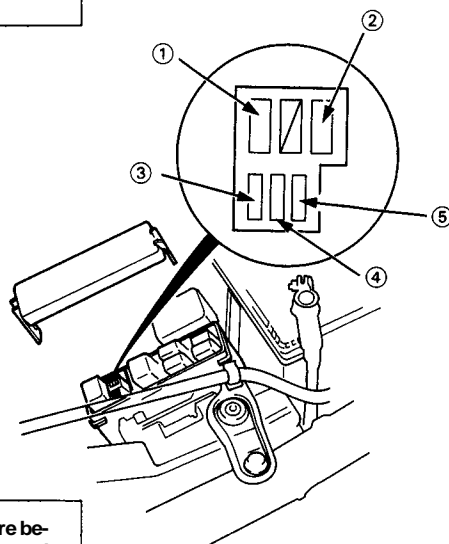
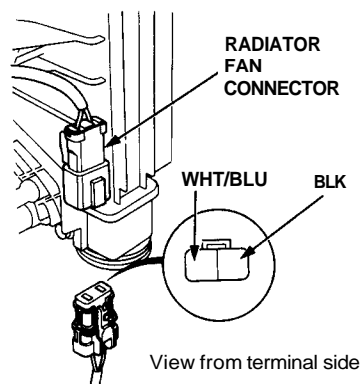
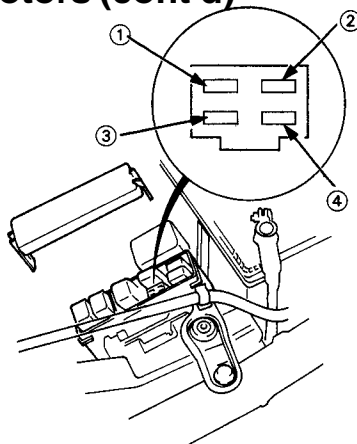
NO

Repair open in the YEL/BLK wire between the No. 3 (15A) fuse and radiator fan main relay.

YES

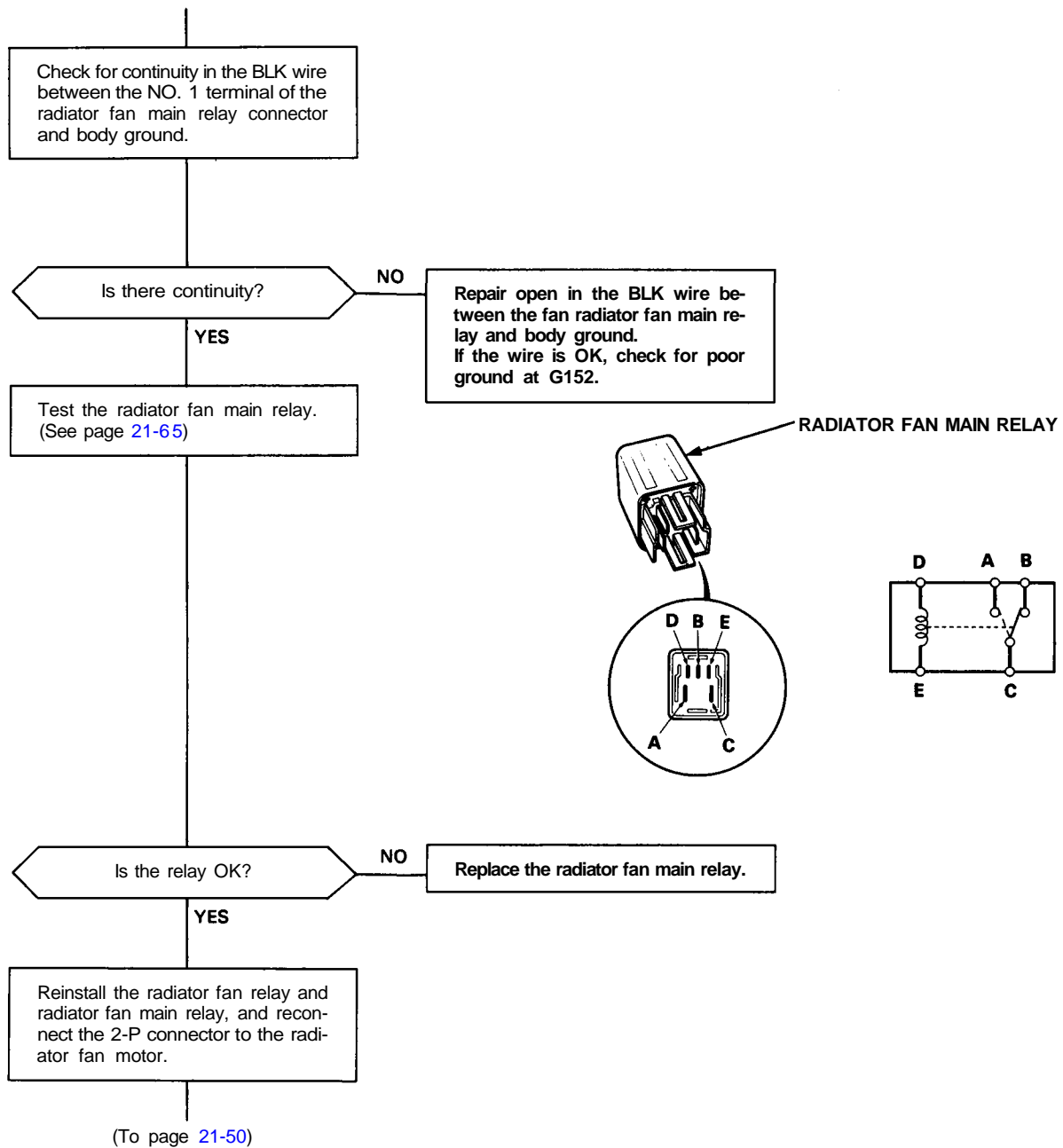
Turn the ignition switch OFF.

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(From page 21-48)



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Troubleshooting

Flowchart — Fan Motors (cont'd)

(From page 21-49)

Disconnect the 12-P connector from the fan control unit.

Turn the ignition switch ON.

Using a jumper wire, connect the BLU wire terminal and the BLU/YEL wire terminal in the fan control unit connector to body ground.

Do the fans run at high speed?

NO

Repair open in the BLU wire between the fan control unit and relay box.

YES

At the fan control unit connector, check resistance between the BLU/WHT and BLU/GRN wire terminals.

Is the resistance between 0.5 and 1.2 k Ω ?

YES

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NO

Disconnect the coolant temperature sensor and measure resistance across its terminals.

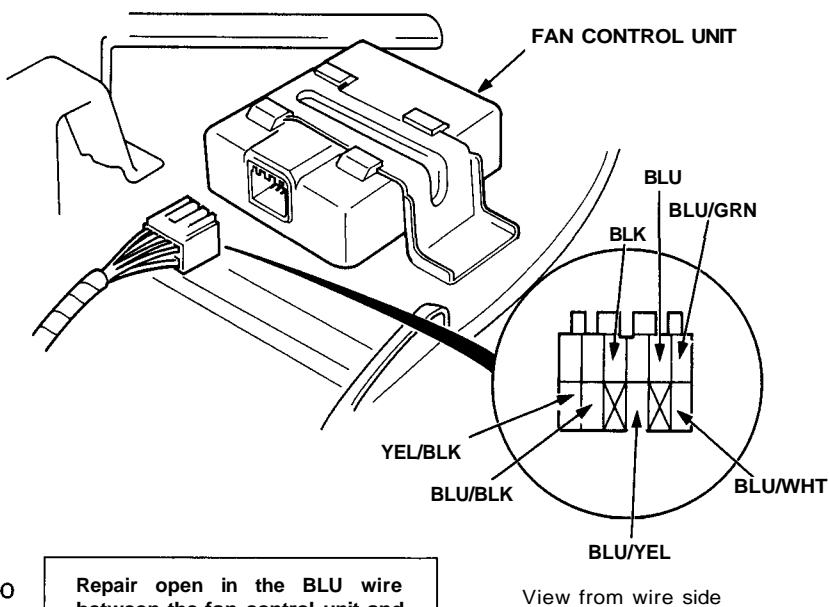
Is the resistance between 0.5 and 1.2 k Ω ?

NO

Replace the coolant temperature sensor.

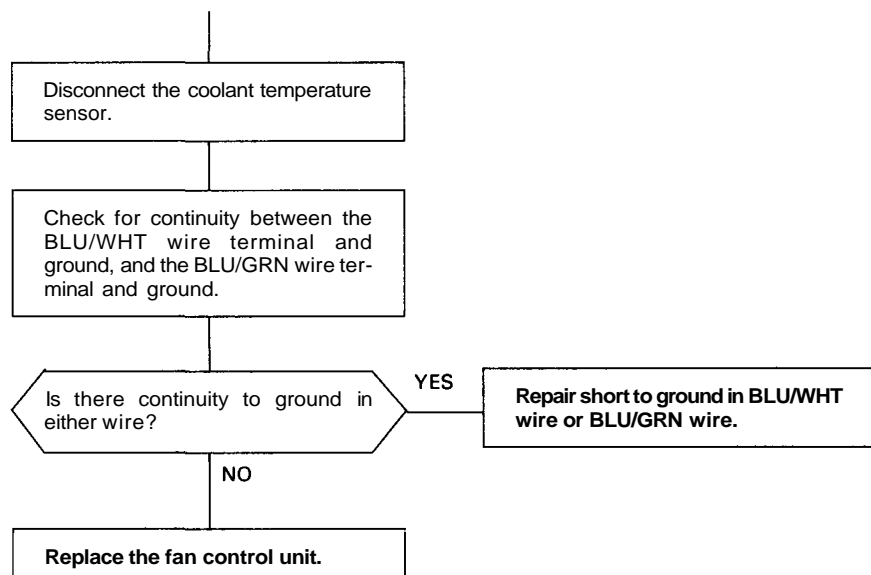
YES

Check for excessive resistance in the BLU/WHT or BLU/GRN wires between the fan control unit and the coolant temperature sensor.





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Troubleshooting

Flowchart — Fan Motors

Fans do not run at low speed.
— High speed operation is OK.
— Compressor will engage when A/C is turned ON.

Disconnect the 12-P connector from the fan control unit.

Turn the ignition switch ON.

Connect the BLU/YEL wire terminal of fan control unit to ground.

Do the fans run at low speed?

YES

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NO

Disconnect the 8-P connector from the fan timer unit.

Check for continuity in the BLU/YEL wire between the fan timer unit and fan control unit.

Is there continuity?

NO

Repair open in BLU/YEL wire between the fan timer unit and fan control unit.

YES

Substitute a known-good fan timer unit and retest. If the symptom/indication goes away, replace the original fan timer unit.

