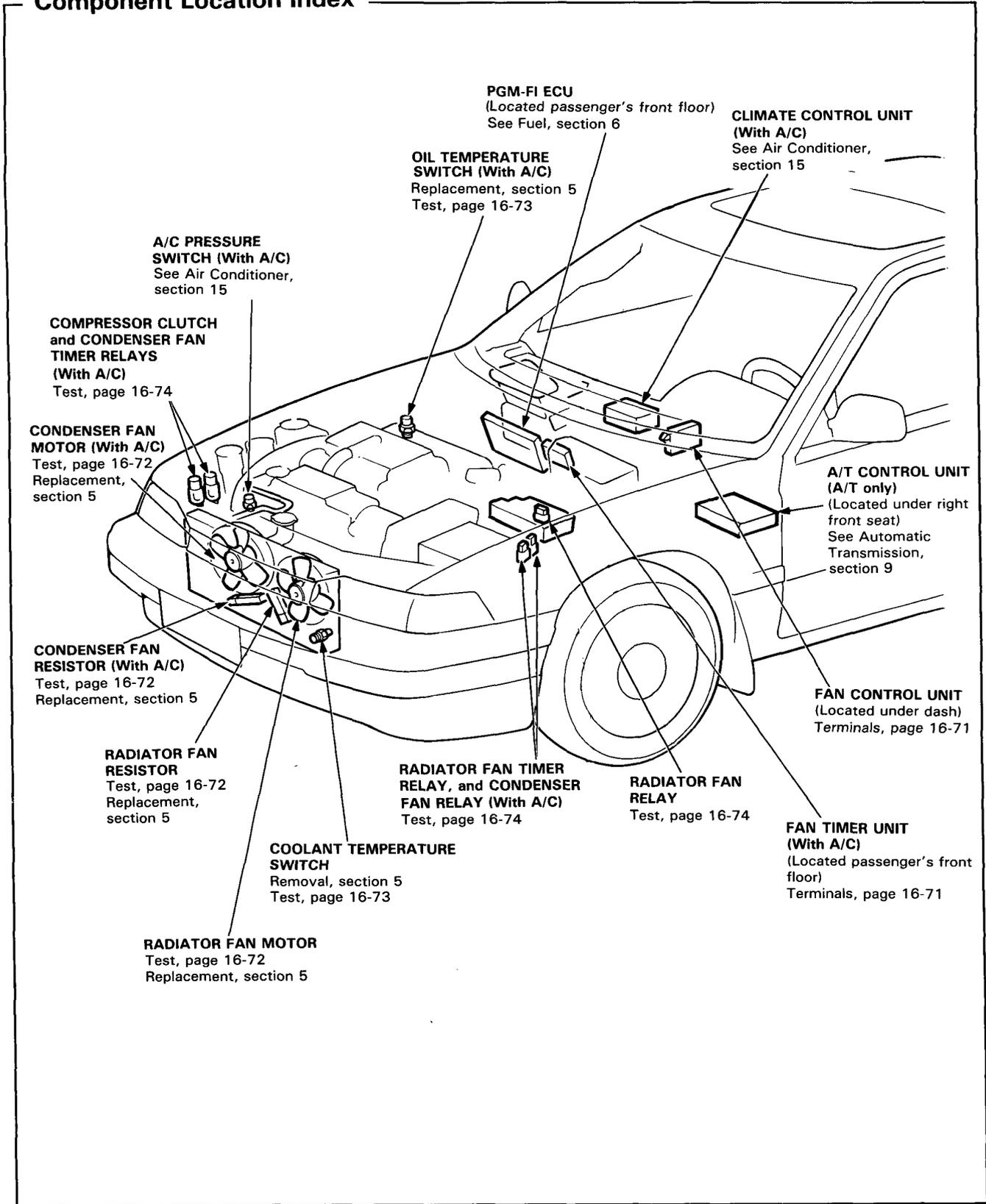


Cooling Fan Control



Component Location Index



PGM-FI ECU
(Located passenger's front floor)
See Fuel, section 6

CLIMATE CONTROL UNIT
(With A/C)
See Air Conditioner,
section 15

OIL TEMPERATURE SWITCH (With A/C)
Replacement, section 5
Test, page 16-73

A/C PRESSURE SWITCH (With A/C)
See Air Conditioner,
section 15

COMPRESSOR CLUTCH and CONDENSER FAN TIMER RELAYS (With A/C)
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CONDENSER FAN MOTOR (With A/C)
Test, page 16-72
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A/T CONTROL UNIT (A/T only)
(Located under right front seat)
See Automatic Transmission,
section 9

CONDENSER FAN RESISTOR (With A/C)
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FAN CONTROL UNIT
(Located under dash)
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RADIATOR FAN RESISTOR
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RADIATOR FAN TIMER RELAY, and CONDENSER FAN RELAY (With A/C)
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RADIATOR FAN RELAY
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COOLANT TEMPERATURE SWITCH
Removal, section 5
Test, page 16-73

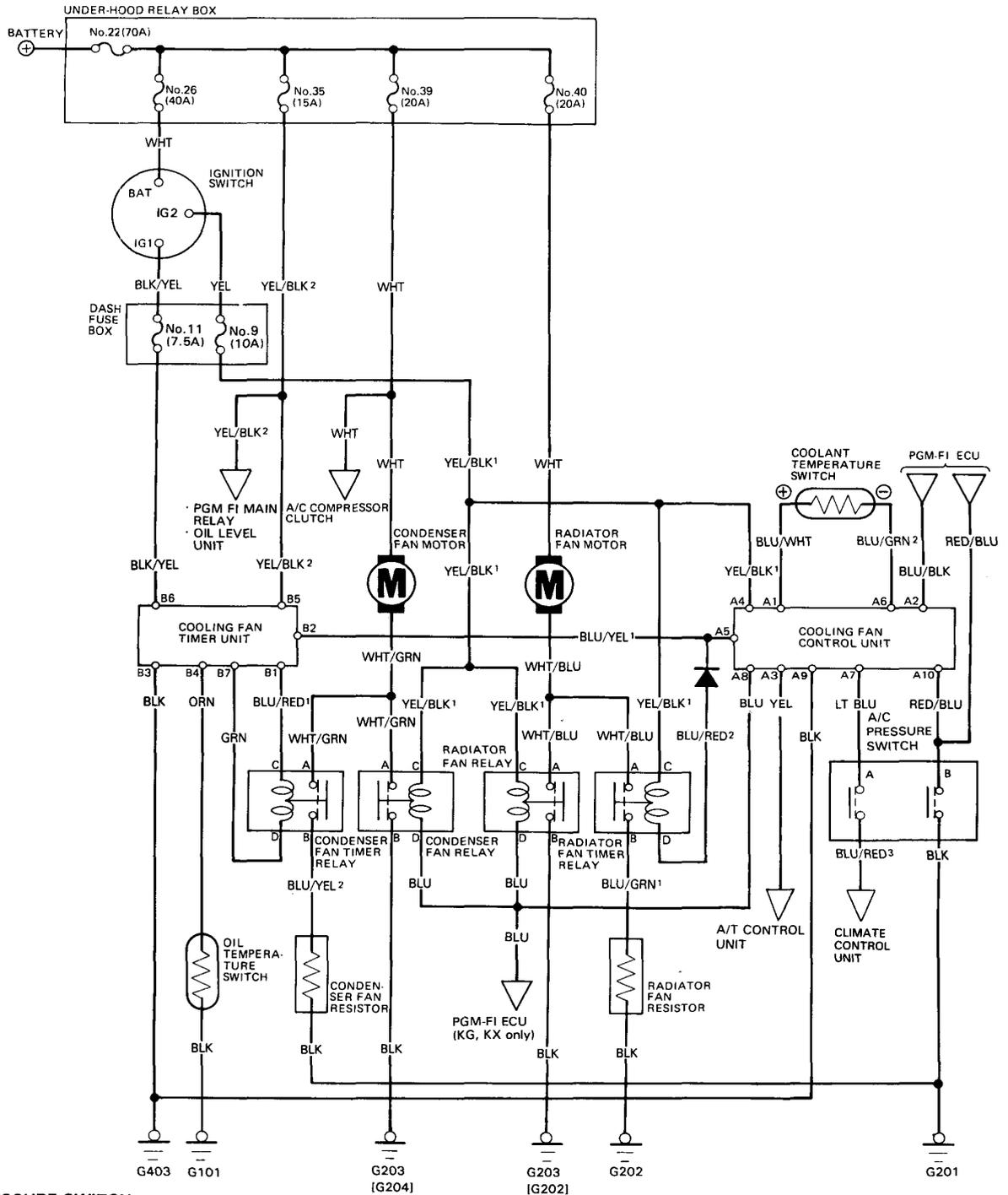
FAN TIMER UNIT (With A/C)
(Located passenger's front floor)
Terminals, page 16-71

RADIATOR FAN MOTOR
Test, page 16-72
Replacement, section 5

Cooling Fan Control

Circuit Diagram (With A/C)

NOTE: Several different wires have the same color. They have been given a number suffix to distinguish them (for example YEL/BLK¹ and YEL/BLK² are not the same).



A/C PRESSURE SWITCH

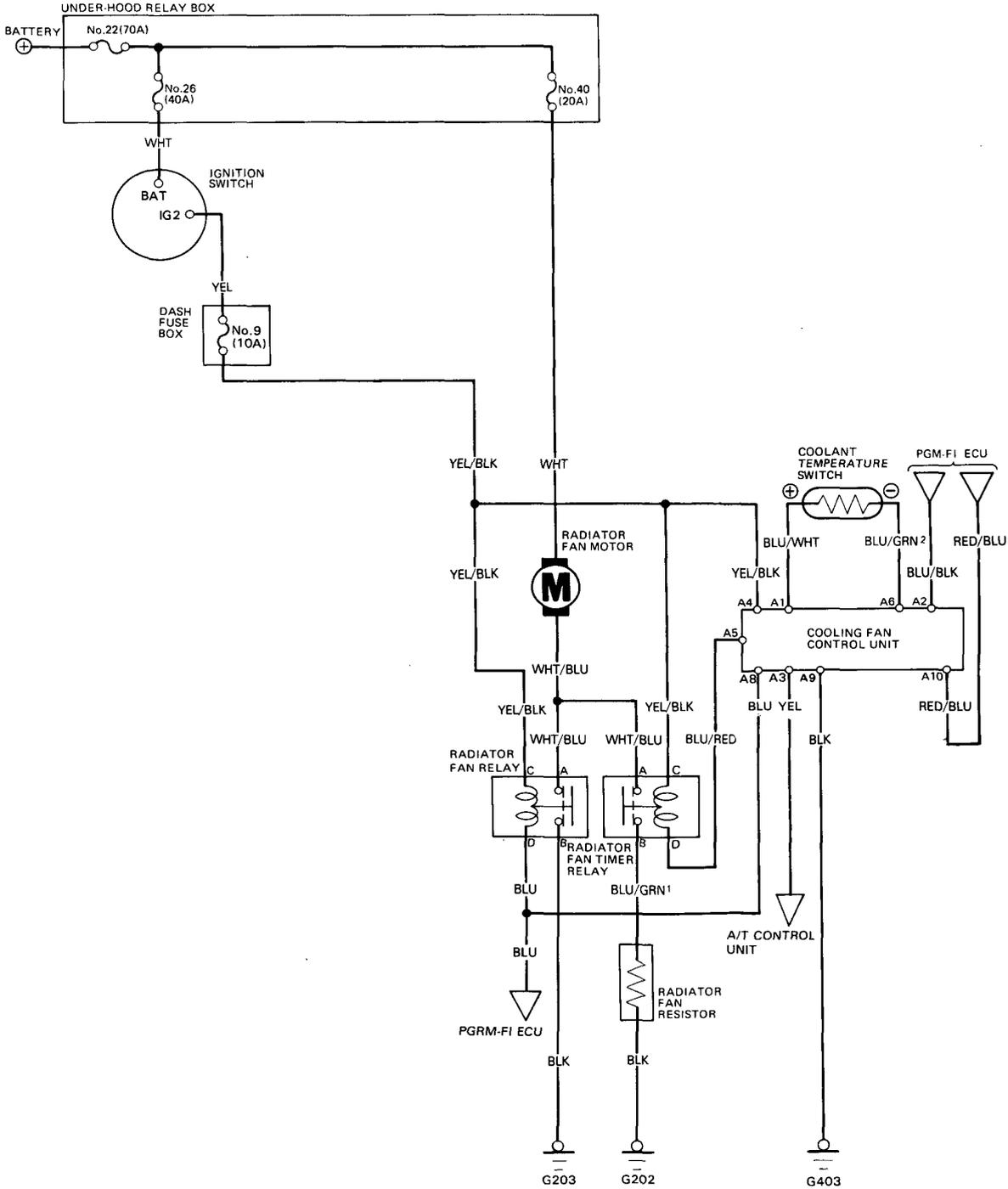
A: ON between 210 kPa (2.1 kg/cm², 30 psi) and 2700 kPa (27 kg/cm², 384 psi)
 B: ON below 1350 kPa (13.5 kg/cm², 192 psi)

[]: RHD



(Without A/C)

NOTE: Several different wires have the same color. They have been given a number suffix to distinguish them (for example BLU/GRN¹ and BLU/GRN² are not the same).



Cooling Fan Control

Troubleshooting

NOTE: The numbers in the table show the troubleshooting sequence.

With A/C:

Item to be inspected		Blown No. 39 (20 A) or No. 40 (20 A) fuse (in the under-hood relay box)	Radiator fan or condenser fan motor	Blown No. 9 (10A) fuse (in the dash fuse box)	Coolant temperature switch	Faulty fan control unit	Blown No. 35 (15 A) fuse (in the under-hood relay box)	Resistor	Relay	Faulty fan timer unit	A/C and PGM-FI systems	Blown No. 11 (7.5 A) fuse (in the dash fuse box)	Faulty A/C pressure switch or oil temperature switch	Poor ground	Open circuit in wires or loose or disconnected terminals
Symptom															
Only one fan operates (with engine and A/C ON).		1	2												WHT, WHT/GRN or WHT/BLU
Fans do not rotate.	Under all conditions.			1	2	3								G403	BLU/WHT, BLU/GRN ² or YEL/BLK ¹
	At low speed.						4	2	3	1	5			G201, G202 or G403	BLU/YEL ¹ , BLU/YEL ² , BLU/RED ¹ , BLU/RED ² , YEL/BLK ¹ , YEL/BLK ² , BLU/GRN ¹ or GRN
	At high speed.				2	3			1					G203 [G202 or 204]	YEL/BLK ¹ or BLU
Compressor clutch does not engage as necessary.					2	3					1				LT BLU, BLU/RED ³ or BLU/BLK
Fan timer unit falls to function properly.									3			1	2	G101 or G201	ORN or RED/BLU

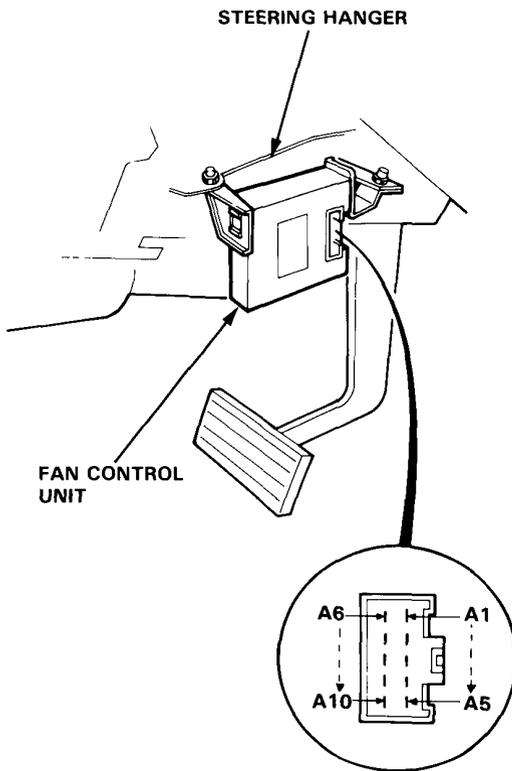
[]: RHD

Without A/C:

Fan does not rotate.	Under all conditions.			1	2	3								G403	WHT or WHT/BLU
	At low speed.						3		2	1				G202	BLU/RED, YEL/BLK or BLU/GRN ¹
	At high speed.				2	3			1					G203	YEL/BLK or BLU



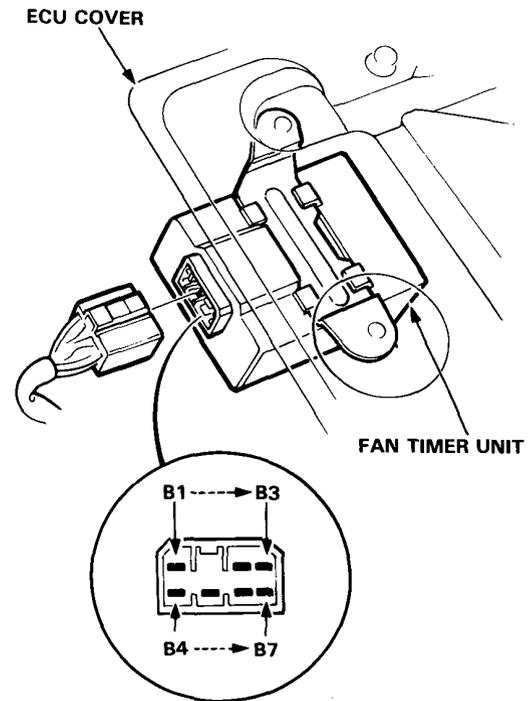
Control Unit Terminals



Terminal	Wire	Destination
A1	BLU/WHT	Coolant temperature switch ⊕
A2	BLU/BLK	A/C cut signal (To PGM-FI ECU)
A3	YEL	Lock-up control signal (To A/T control unit)
A4	YEL/BLK	IG2 (Main power supply)
A5	BLU/YEL [BLU/RED]	Condenser [and radiator] fan timer relays ⊖
A6	BLU/GRN	Coolant temperature switch ⊖
A7	LT BLU	A/C pressure switch A
A8	BLU	Radiator and condenser fan relays ⊖
A9	BLK	Ground
A10	RED/BLU	A/C pressure switch B

[]: LHD

Timer Unit Terminals



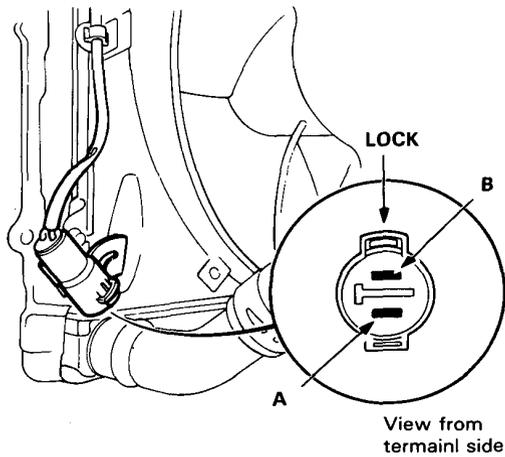
Terminal	Wire	Destination
B1	BLU/RED	Condenser fan timer relay ⊕
B2	BLU/YEL	Power supply (For condenser fan timer relay with ignition switch ON)
B3	BLK	Ground
B4	ORN	Oil temperature switch
B5	YEL/BLK	Power supply (For condenser fan timer relay with ignition switch OFF)
B6	BLK/YEL	IG1 (Timer reset signal)
B7	GRN	Condenser fan timer relay ⊖

Cooling Fan Control

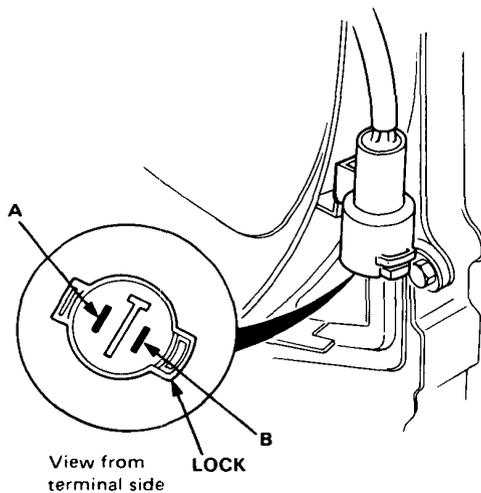
Fan Motor Test

1. Disconnect the 2-P connector from the fan motor.
2. Test motor operation by connecting battery positive to the A terminal, and negative to the B terminal.
3. If the motor fails to run smoothly, replace it.

Radiator Fan Motor:



Condenser Fan Motor:



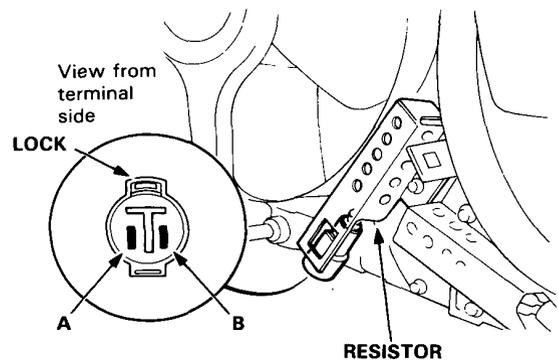
Resistor Test

1. Disconnect the 2-P connector from the resistor.
2. Using an ohmmeter, measure resistance between the A and B terminals. Replace the resistor if the resistance is not within specifications.

NOTE: Resistance will vary with the resistor temperature; specifications are at 20°C (70°F).

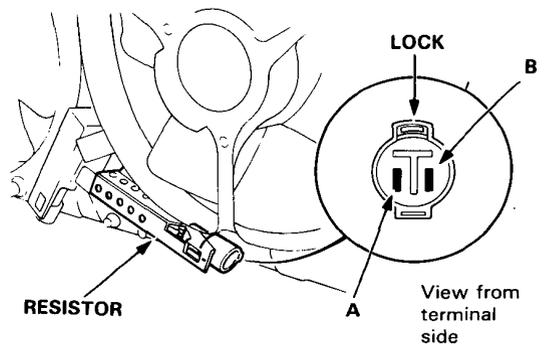
Radiator Fan Resistor

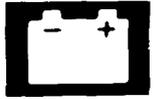
Resistance: 0.9—1.1 ohms



Condenser Fan Resistor

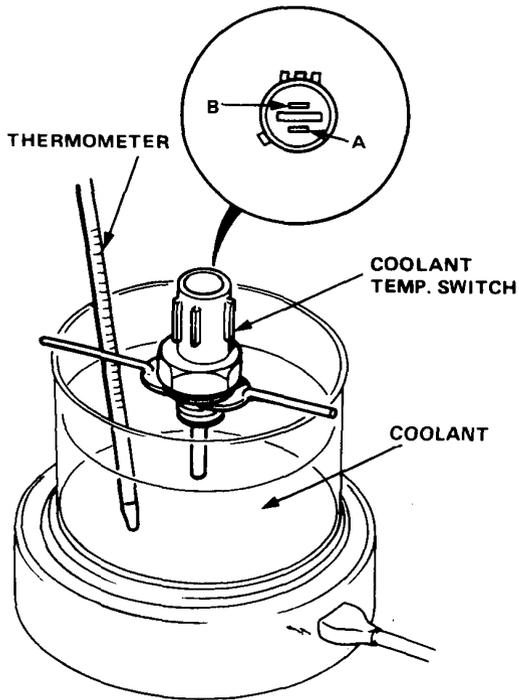
Resistance: 0.5—0.7 ohms





Coolant Temperature Switch Test

1. Remove the coolant temperature switch from the radiator.
2. Suspend the coolant temperature switch in a container of coolant as shown.



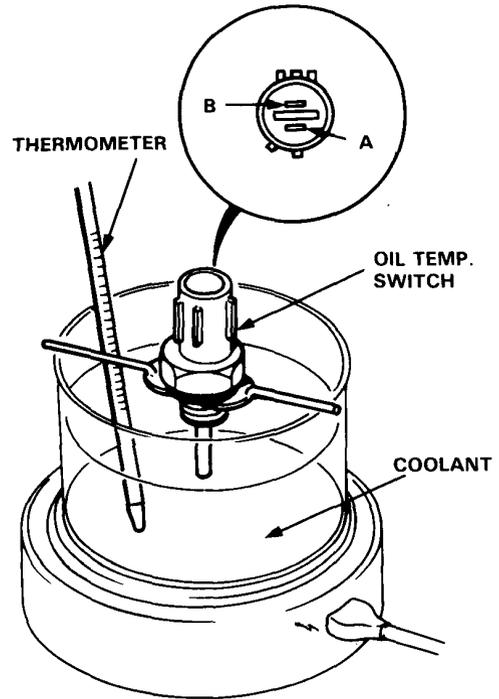
3. Heat the coolant and check coolant temperature with a thermometer (see table below).
4. Measure the resistance between the A and B terminals according to the table.

Temperature	84°C (183°F)	90°C (194°F)	108°C (226°F)	110°C (230°F)
Resistance (kΩ)	1.047 – 1.255	0.872 – 1.024	0.518 – 0.574	0.489 – 0.541

5. If unable to obtain the above readings, replace the temperature switch.

Oil Temperature Switch Test

1. Remove the oil temperature switch from the cylinder head.
2. Suspend the oil temperature switch in a container of coolant as shown.



3. Heat the coolant and check coolant temperature with a thermometer (see table below).
4. Check for continuity between the A and B terminals according to the table.

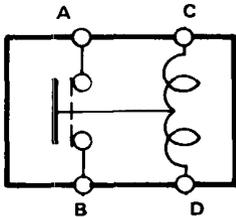
Temperature	Terminal	
	A	B
Above 101 – 109°C (214 – 228°F)	○	○
Below 80.5 – 95.5°C (177 – 204°F)		

Cooling Fan Control

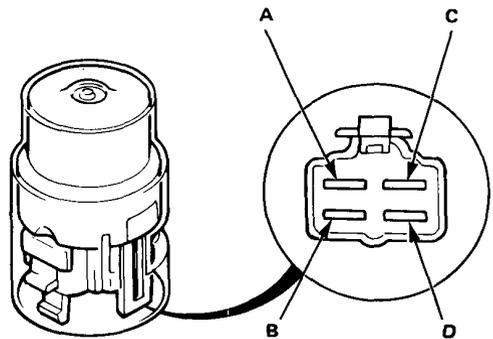
Relay Test

There should be continuity between the A and B terminals when the battery is connected to the C and D terminals.

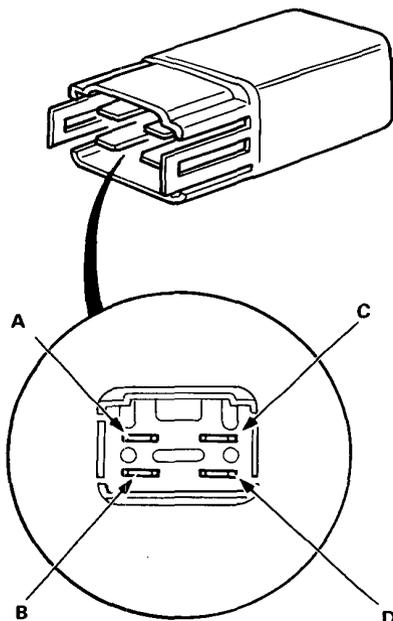
There should be no continuity when the battery is disconnected.



B-Type:



A-Type:



C-Type:

