

2007 Honda Element EX

2007-08 ENGINE Fan Controls - Element

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COMPONENT LOCATION INDEX

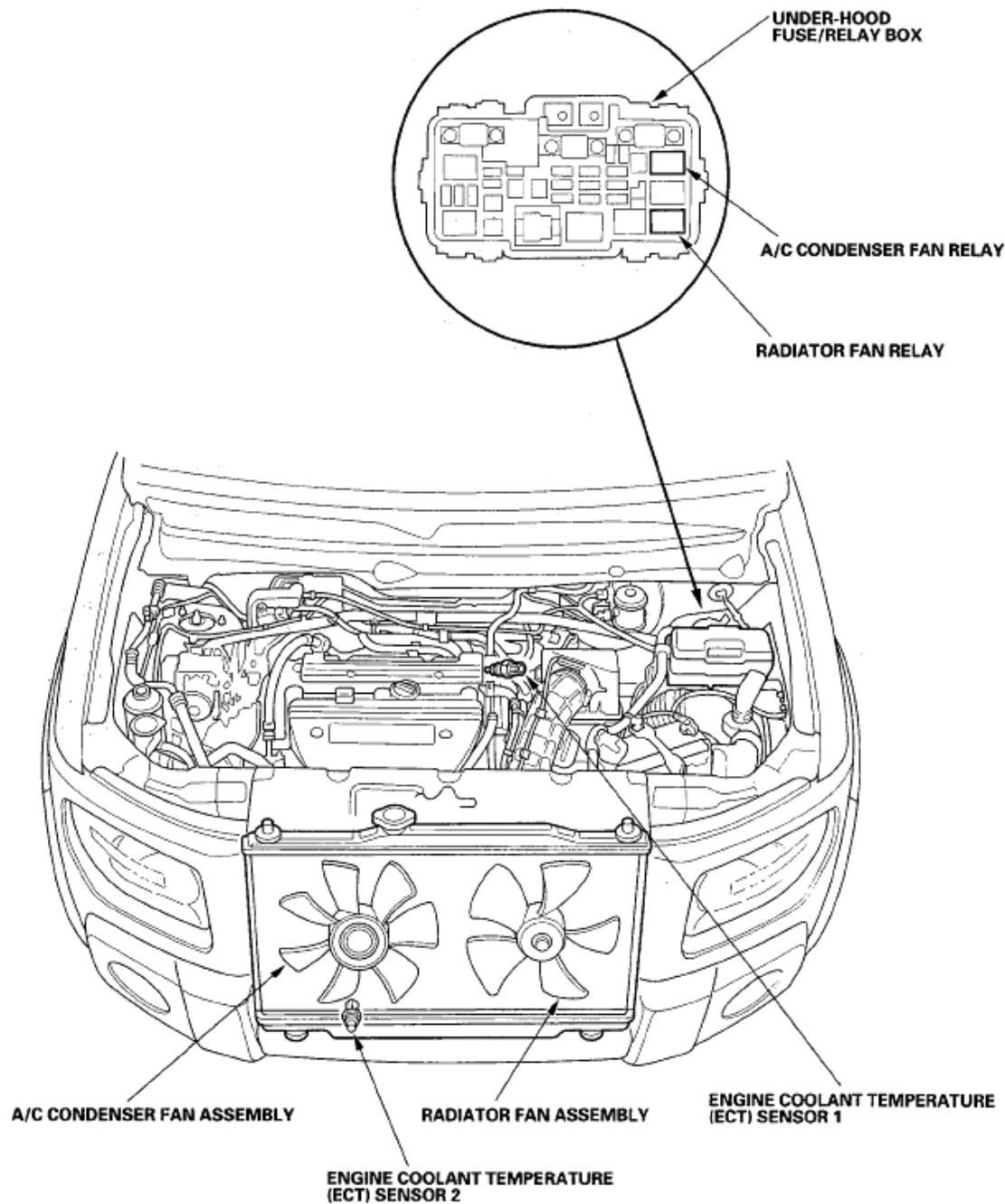


Fig. 1: Identifying Fan Control Component Location
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SYMPTOM TROUBLESHOOTING INDEX

TROUBLESHOOTING CHART

Symptom	Diagnostic procedure	Also check for
Engine overheats	<ol style="list-style-type: none"> 1. Check the coolant level. 2. Check for any engine coolant leakage (from gaskets, hoses, O-rings, etc.). 3. Check for dirt, leaves, or insects on radiator and A/C condenser. 4. Check for deteriorated coolant. 5. Check for a damaged or deformed fan shroud. 6. Inspect the fan motors (see <u>FAN MOTOR TEST</u>) or fan relays (see <u>POWER RELAY TEST</u>). 7. Check the radiator cap (see <u>RADIATOR CAP TEST</u>). 8. Check the thermostat (see <u>FAN MOTOR TEST</u>). 9. Inspect the water pump (see <u>WATER PUMP INSPECTION</u>). 10. Check for a plugged or deteriorated radiator hoses. 11. Check for plugged heater core or hoses. 12. Check for a damaged cylinder head gasket. 	
The radiator fan does not run at all	<ol style="list-style-type: none"> 1. Check for PGM-FI DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>). 2. Radiator fan circuit troubleshooting (see <u>RADIATOR FAN CIRCUIT TROUBLESHOOTING</u>). 	Cleanliness and tightness of all connectors
The radiator fan does not run for engine cooling, but it runs with the A/C on	<ol style="list-style-type: none"> 1. Check for PGM-FI DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>). 2. Radiator fan circuit troubleshooting (see <u>RADIATOR FAN CIRCUIT TROUBLESHOOTING</u>). 	Cleanliness and tightness of all connectors
The A/C condenser fan does not run at all (but the radiator	A/C condenser fan circuit troubleshooting (see <u>A/C CONDENSER FAN CIRCUIT</u>	<ul style="list-style-type: none"> • HVAC DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>)

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fan runs with the A/C on)	<u>TROUBLESHOOTING</u>).	<ul style="list-style-type: none">• Cleanliness and tightness of all connectors
Both the radiator fan and the A/C condenser fan do not run with the A/C on (but the A/C compressor runs with the A/C on)	Radiator and A/C condenser fan common circuit troubleshooting (see <u>RADIATOR AND A/C CONDENSER FAN COMMON CIRCUIT TROUBLESHOOTING</u>).	<ul style="list-style-type: none">• HVAC DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>)• Cleanliness and tightness of all connectors

CIRCUIT DIAGRAM

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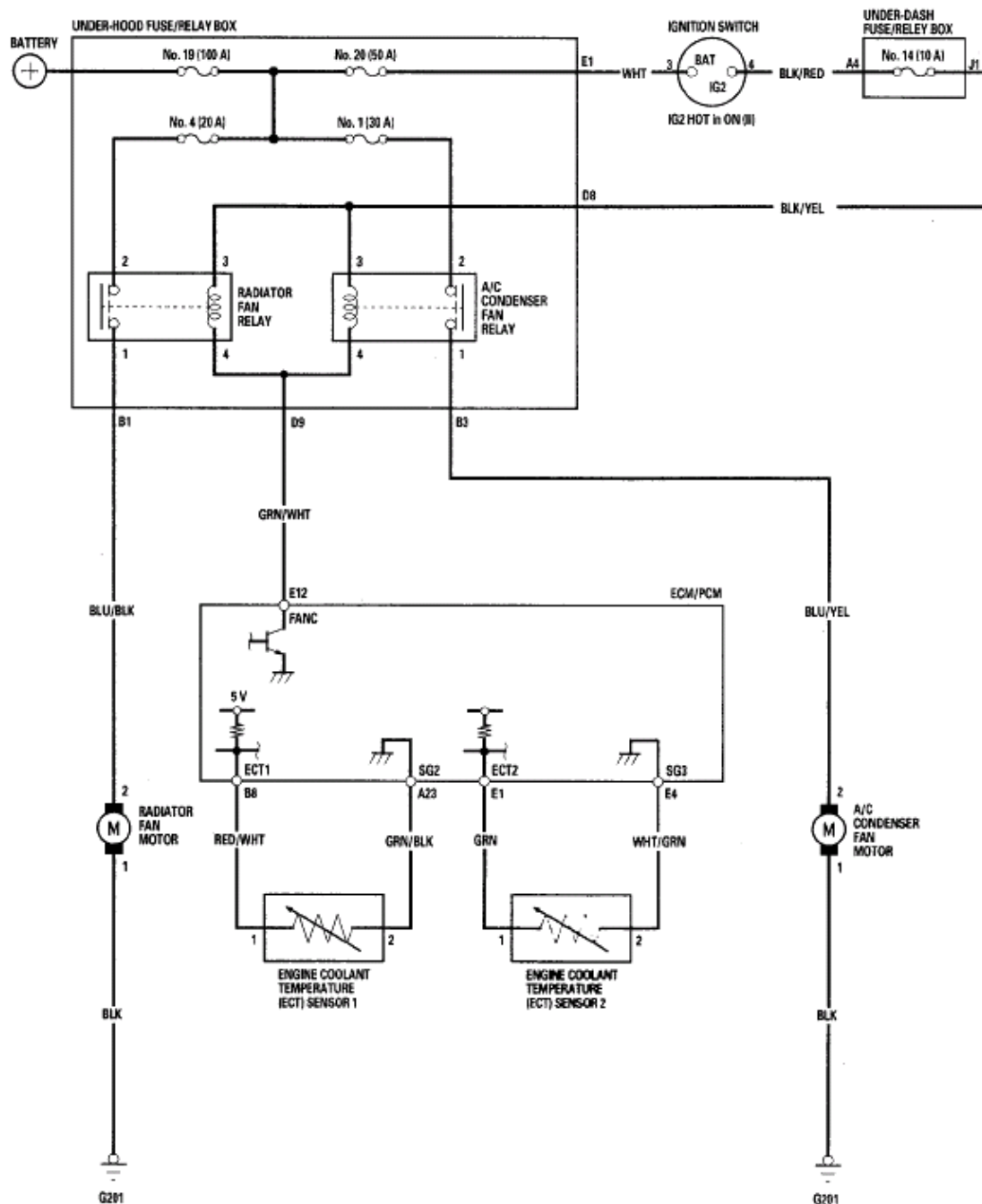


Fig. 2: Fan Control Circuit Diagram

Courtesy of AMERICAN HONDA MOTOR CO., INC.

RADIATOR FAN CIRCUIT TROUBLESHOOTING

1. Check for the PGM-FI DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**).

Are DTC P2183, P2184, and/or P2185 indicated?

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YES - Do the appropriate troubleshooting, then recheck.

NO - Go to step 2.

2. Check the No. 4 (20 A), fuse in the under-hood fuse/relay box, and No. 14 (10 A), fuse in the under-dash fuse/relay box.

Are the fuses OK?

YES - Go to step 3.

NO - Replace the fuse(s) and recheck.

3. Remove the radiator fan relay from the under-hood fuse/relay box, and test it (see **POWER RELAY TEST**).

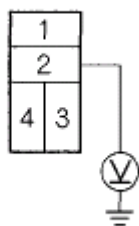
Is the relay OK?

YES - Go to step 4.

NO - Replace the radiator fan relay.

4. Measure the voltage between the radiator fan relay 4P socket terminal No. 2 and body ground.

RADIATOR FAN RELAY 4P SOCKET



Terminal side of female terminals

Fig. 3: Measuring Voltage Between Radiator Fan Relay 4P Socket Terminal No. 2 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

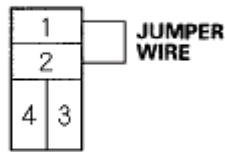
Is there battery voltage?

YES - Go to step 5.

NO - Replace the under-hood fuse/relay box.

5. Connect the radiator fan relay 4P socket terminals No. 1 and No. 2 with a jumper wire.

RADIATOR FAN RELAY 4P SOCKET



Terminal side of female terminals

Fig. 4: Connecting Radiator Fan Relay 4P Socket Terminals No. 1 And 2 With Jumper Wire
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

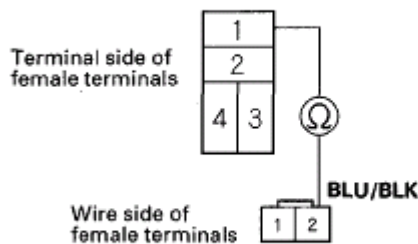
Does the radiator fan run?

YES - Go to step 9.

NO - Go to step 6.

6. Disconnect the radiator fan motor 2P connector.
7. Check for continuity between the radiator fan relay 4P socket terminal No. 1 and the radiator fan motor 2P connector terminal No. 2.

RADIATOR FAN RELAY 4P SOCKET



RADIATOR FAN MOTOR 2P CONNECTOR

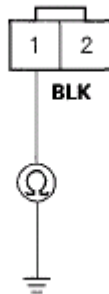
Fig. 5: Checking Continuity Between Radiator Fan Relay 4P Socket Terminal No. 1 And Radiator Fan Motor 2P Connector Terminal No. 2
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 8.

NO - Repair open in the wire between the under-hood fuse/relay box and the radiator fan motor 2P connector terminal No. 2.

8. Check for continuity between the radiator fan motor 2P connector terminal No. 1 and body ground.

RADIATOR FAN MOTOR 2P CONNECTOR

Wire side of female terminals

Fig. 6: Checking Continuity Between Radiator Fan Motor 2P Connector Terminal No. 1 And Body Ground

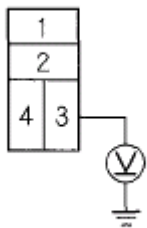
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Replace the radiator fan motor.

NO - Repair open in the wire between radiator fan motor 2P connector terminal No. 1 and body ground. If the wire is OK, check for a poor ground at G201.

9. Disconnect the jumper, and turn the ignition switch ON (II). Check for voltage between the radiator fan relay 4P socket terminal No. 3 and body ground.

RADIATOR FAN RELAY 4P SOCKET

Terminal side of female terminals

Fig. 7: Checking Voltage Between Radiator Fan Relay 4P Socket Terminal No. 3 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 10.

NO - Repair open in the wire between the under-hood fuse/relay box and under-dash fuse/relay box.

10. Check for continuity between the radiator fan relay 4P socket terminal No. 4 and the engine control module (ECM)/powertrain control module (PCM) connector terminal E12.

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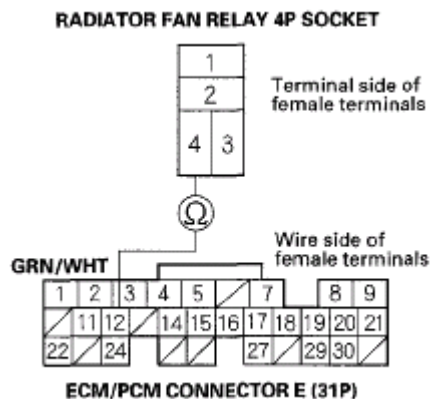


Fig. 8: Checking Continuity Between Radiator Fan Relay 4P Socket Terminal No. 4 And ECM/PCM Connector Terminal E12

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Update the ECM/PCM if it does not have the latest software (see **UPDATING THE ECM/PCM**), or substitute a known-good ECM/PCM (see **SUBSTITUTING THE ECM/PCM**), then recheck. If the symptom/indication goes away with a known good ECM/PCM, replace the original ECM/PCM (see **ECM/PCM REPLACEMENT**).

NO - Repair open in the wire between the ECM/PCM connector terminal E12 and the under-hood fuse/relay box.