

<b>2006 Acura MDX</b>
2003-06 ENGINE Fan Controls - MDX

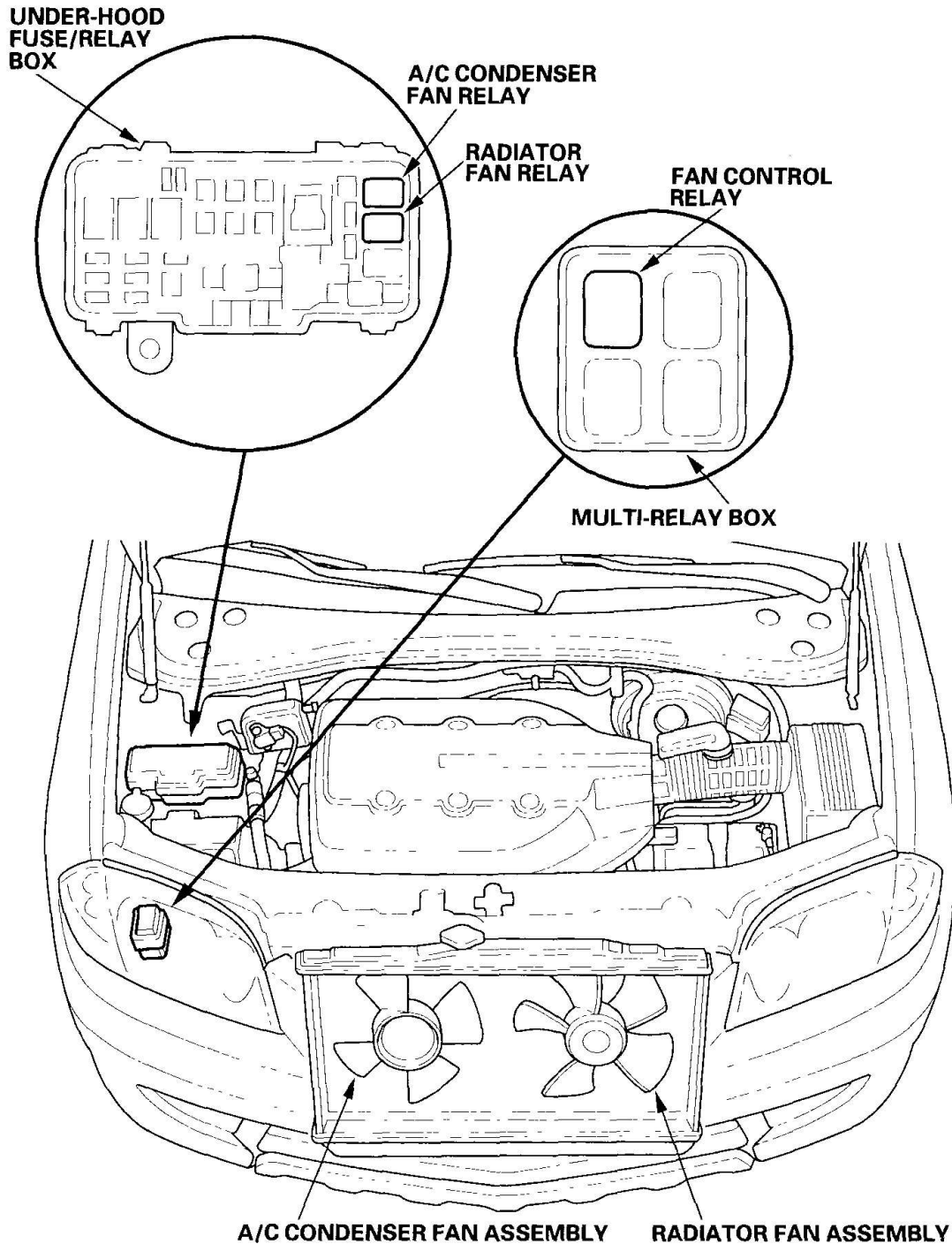
**2003-06 ENGINE**

**Fan Controls - MDX**

**COMPONENT LOCATION INDEX**

## 2006 Acura MDX

2003-06 ENGINE Fan Controls - MDX



G03639559

**Fig. 1: Locating Fan Controls Components**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

**2006 Acura MDX**

2003-06 ENGINE Fan Controls - MDX

**SYMPTOM TROUBLESHOOTING INDEX**

Symptom	Diagnostic Procedure
Engine overheats	<ol style="list-style-type: none"><li>1. Inspect the water pump (see <b><u>WATER PUMP INSPECTION</u></b> ).</li><li>2. Check the thermostat (see <b><u>THERMOSTAT TEST</u></b> ).</li><li>3. Check for any engine coolant leakage (from gaskets, hoses, O-rings, etc.).</li><li>4. Check for dirt, leaves, or insects on radiator and A/C condenser.</li><li>5. Check for a damaged or deformed fan shroud.</li><li>6. Check for plugged or deteriorated radiator hoses.</li><li>7. Check the radiator cap (see <b><u>RADIATOR CAP TEST</u></b> ).</li><li>8. Inspect the fan motors (see <b><u>FAN MOTOR TEST</u></b> ) or fan relays (see <b><u>POWER RELAY TEST</u></b> ).</li><li>9. Check for plugged heater core or hoses.</li><li>10. Check the coolant level.</li><li>11. Check for deteriorated coolant.</li><li>12. Check for a damaged cylinder head gasket.</li></ol>
The radiator fan runs at low speed, but does not run at high speed when the engine coolant temperature is above 206°F (97°C)	Radiator fan high speed circuit troubleshooting (see <b><u>RADIATOR FAN HIGH SPEED CIRCUIT TROUBLESHOOTING</u></b> ).
With the A/C off and the engine coolant temperature at 206°F (97°C) or below, the A/C condenser fan runs at high speed and the radiator fan does not run. When the engine coolant temperature is above 206°F (97°C), both fans run at high speed	Remove the fan control relay, and test it. <ul style="list-style-type: none"><li>• If the relay is faulty, replace it.</li><li>• If the relay is OK, repair a short in the wire between fan control relay 5P socket terminal No. 1 and A/C condenser fan motor 2P connector terminal No. 1.</li></ul>
Both the radiator fan and the A/C condenser fan run at high speed with the ignition switch ON (II), the A/C off, and the engine coolant temperature below 204°F (95°C)	Check for a short in the wire between radiator fan relay 4P socket terminal No. 4 and PCM connector terminal B28.
Both the radiator fan and the A/C condenser fan run at low speed with the ignition switch ON (II) and the A/C off	Check for a short in the wire between A/C condenser fan relay 4P socket terminal No. 4 and PCM connector terminal B14.
Both the radiator fan and the A/C condenser fan do not run at low speed with the A/C on	Radiator and A/C condenser fans low speed circuit troubleshooting (see <b><u>RADIATOR AND A/C CONDENSER FAN LOW SPEED CIRCUIT TROUBLESHOOTING</u></b> ).

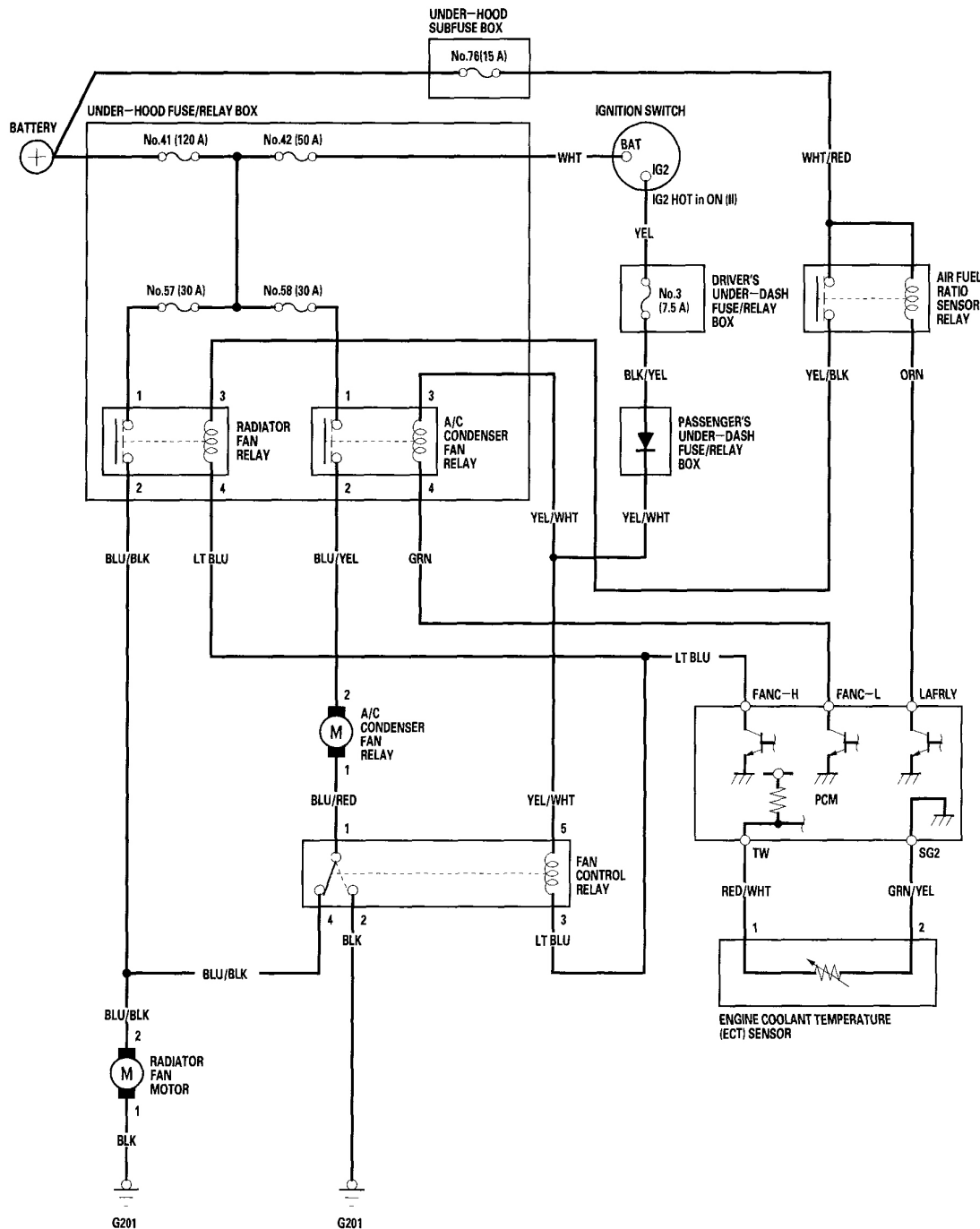
2006 Acura MDX
2003-06 ENGINE Fan Controls - MDX

The A/C condenser fan does not run at all. The radiator fan does not run at low speed, but it runs at high speed	A/C condenser fans high speed circuit troubleshooting (see <b><u>RADIATOR AND A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING</u></b> ).
Both the radiator fan and the A/C condenser fan do not run at high speed when the engine coolant temperature is above 206°F (97°C)	Check for an open in the wire between radiator fan relay 4P socket terminal No. 4 and PCM connector terminal A7.

## CIRCUIT DIAGRAM

## 2006 Acura MDX

### 2003-06 ENGINE Fan Controls - MDX



G03639560

**Fig. 2: Fan Controls Circuit Diagram**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

## RADIATOR FAN HIGH SPEED CIRCUIT TROUBLESHOOTING

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

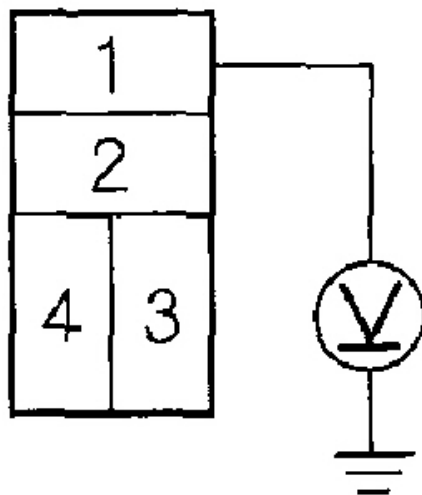
**Is the relay OK?**

**YES** - Go to step 2.

**NO** - Replace the radiator fan relay.

2. Turn the ignition switch ON (II).
3. Measure the voltage between radiator fan relay 4P socket terminal No. 1 and body ground.

## **RADIATOR FAN RELAY 4P SOCKET**



***Terminal side of female terminals***

**G03639561**

**Fig. 3: Measuring Voltage Between Radiator Fan Relay 4P Socket Terminal 1 And Body Ground**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

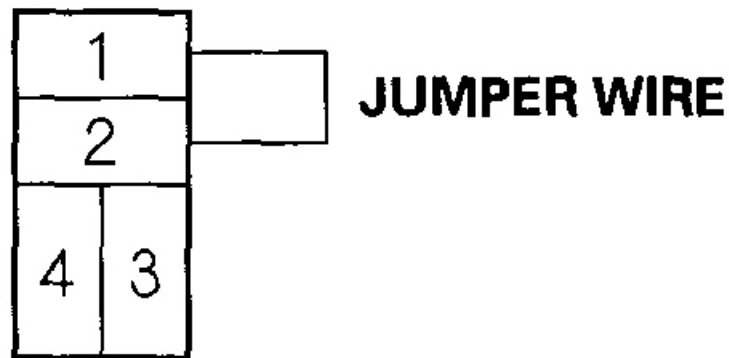
**Is there battery voltage?**

**YES** - Go to step 4.

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

4. Connect 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**

**G03639562**

**Fig. 4: Connecting Radiator Fan Relay 4P Socket Terminals 1 And 2 With A Jumper Wire**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

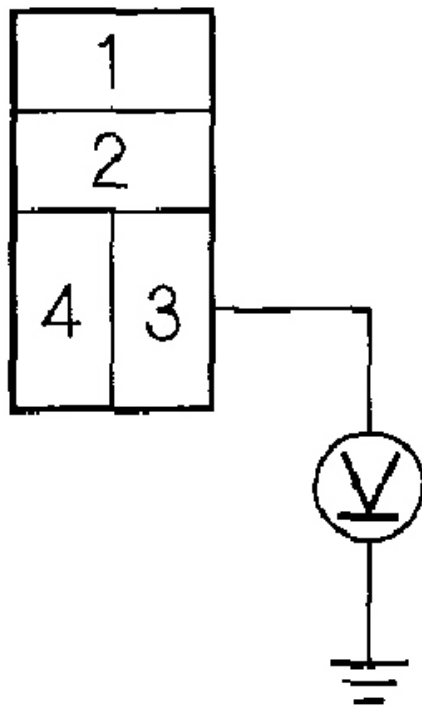
**Does the radiator fan run at high speed?**

**YES** - Go to step 5.

**NO** - -Repair an open in the wire between radiator fan relay 4P socket terminal No. 2 and radiator fan motor 2P connector terminal No. 2.

5. Measure voltage between radiator fan relay 4P socket terminal No. 3 and body ground.

## **RADIATOR FAN RELAY 4P SOCKET**



**Terminal side of female terminals**

**G03639563**

**Fig. 5: Measuring Voltage Between Radiator Fan Relay 4P Socket Terminal 3 And Body Ground**  
Courtesy of AMERICAN HONDA MOTOR CO., INC.

**Is there battery voltage?**



## 2006 Acura MDX

### 2003-06 ENGINE Fan Controls - MDX

**YES** - Repair an open in the wire between radiator fan relay 4P socket terminal No. 4 and the PCM.

**NO** - Repair an open in the wire between radiator fan relay 4P socket terminal No. 3 and the air fuel ratio sensor relay 4P socket terminal No. 2.