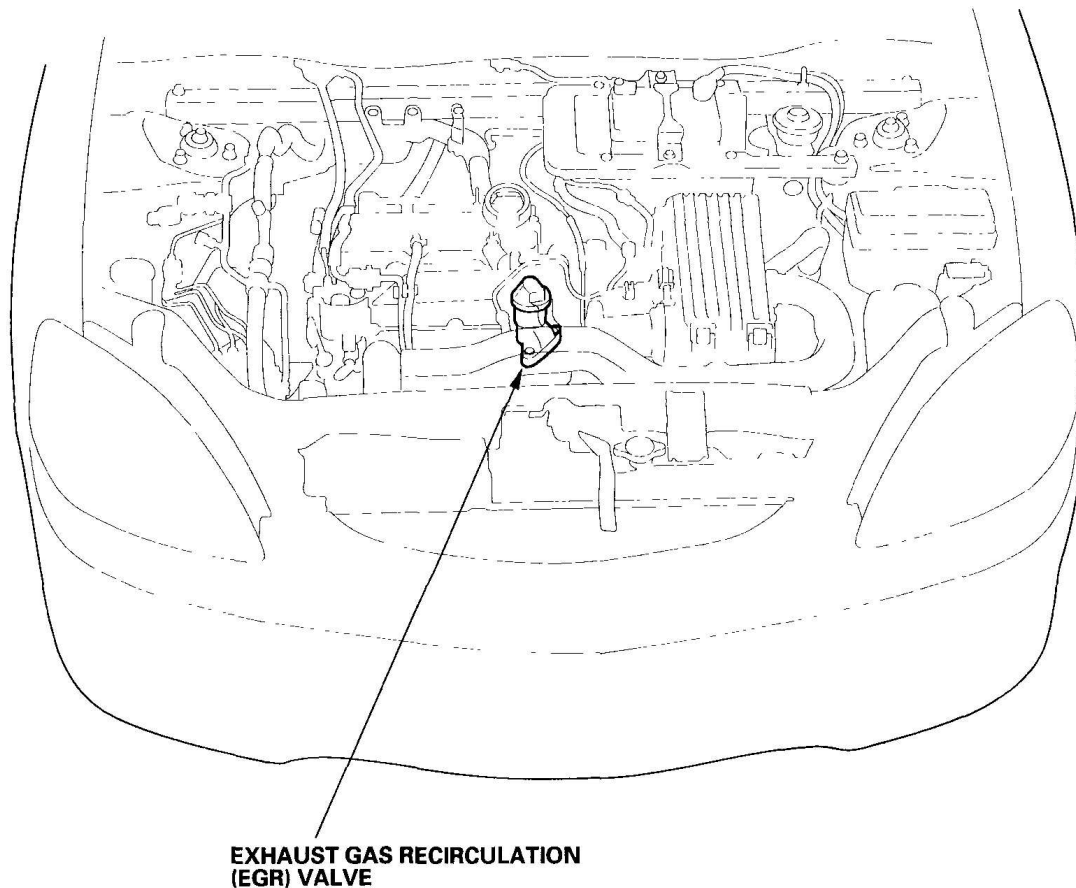


2000-06 ENGINE PERFORMANCE

EGR System - Insight

COMPONENT LOCATION INDEX



G03681092

Fig. 1: Identifying EGR System Component Location
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

A00219294

DTC	Description
DTC P0401	EGR Insufficient Flow
DTC P0404	EGR Control Circuit Range

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	Performance Problem (2004-2006 models)
<u>DTC P0406</u>	EGR Valve Position Sensor Circuit High Voltage (2004-2006 models)
<u>DTC P1491</u>	EGR Valve Insufficient Lift Detected (2000-2003 models)
<u>DTC P1498</u>	EGR Valve Position Sensor Circuit High Voltage (2000-2003 models)

DTC P0401: EGR INSUFFICIENT FLOW

NOTE: Before you troubleshoot, record all freeze data and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Reset the ECM with the HDS (see **HOW TO USE THE HDS (HONDA DIAGNOSTIC SYSTEM)**).
2. Start the engine. Hold the engine speed at 3,000 RPM without load (in Park or neutral) until the radiator fan comes on. Test-drive under these conditions:
 - No any electrical loads.
 - Decelerate from 55 mph (88 km/h) for at least 5 seconds.
3. Check for Temporary DTCs or DTCs with the HDS.

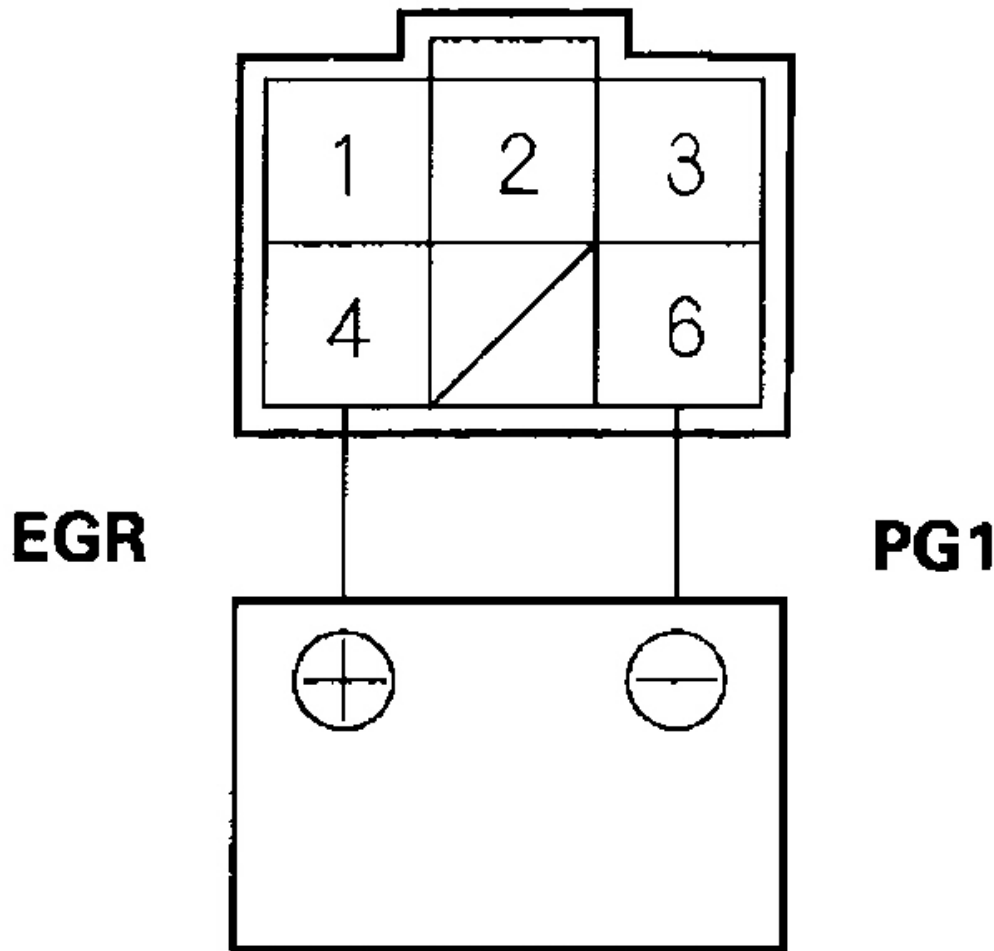
Is DTC P0401 indicated?

YES -Clean the intake manifold EGR port with carburetor cleaner. Clean the passage inside the EGR valve with carburetor cleaner, or replace the EGR valve.

NO -Intermittent failure, go to step 4.

4. Turn the ignition switch OFF.
5. Disconnect the EGR valve 6P connector.
6. Connect the battery positive terminal to EGR valve 6P connector terminal No. 4 with a jumper wire.

EGR VALVE 6P CONNECTOR



Terminal side of male terminals

G03681093

Fig. 2: Connecting Battery Positive Terminal To EGR Valve 6P Connector Terminal No. 4 With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Start the engine, and let it idle, then connect battery negative terminal No. 6 with a jumper wire.

Did the engine stall or run rough?

YES -Intermittent failure, system is OK at this time.

NO -Clean the intake manifold EGR port with carburetor cleaner. Clean the passage inside the EGR valve with carburetor cleaner, or replace the EGR valve.

DTC P0404: EGR CONTROL CIRCUIT RANGE PERFORMANCE PROBLEM (2004-2006 MODELS); DTC P1491: EGR VALVE INSUFFICIENT LIFT DETECTED (2000-2003 MODELS)

NOTE:

- Information marked with an asterisk (*) applies to 2004-2006 models.
- Information marked with double asterisk (**) applies to 2000-2003 models.
- Before you troubleshoot, record all freeze data and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Reset the ECM with the HDS (see **HDS CLEAR COMMAND**).
2. Start the engine. Hold the engine speed at 3,000 RPM without load (in Park or neutral) until the radiator fan comes on.
3. Drive the vehicle under load for about 10 minutes. Try to keep the engine speed in the 1,500-2,500 RPM range.
4. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0404 (P1491)** indicated?*

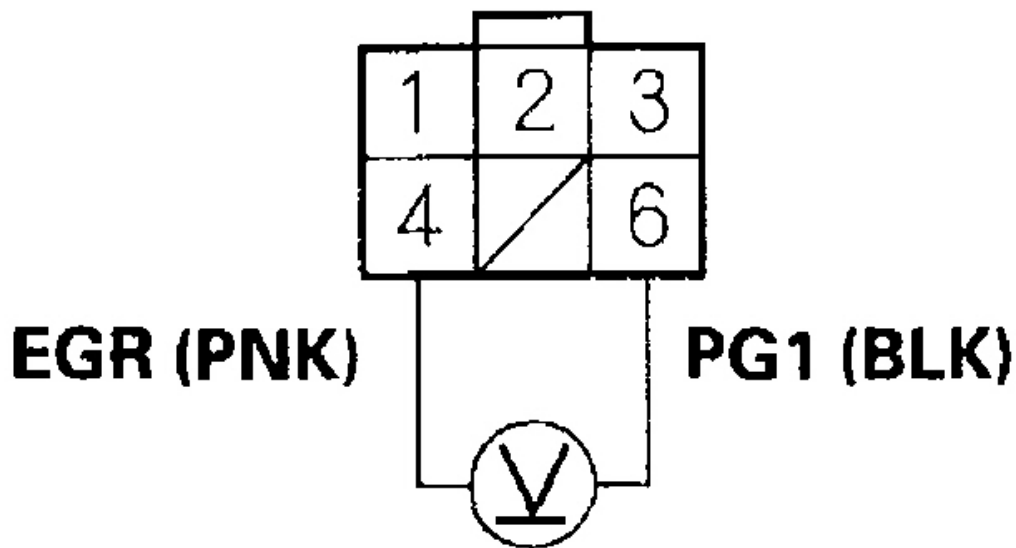
YES -Go to step 5.

NO -Intermittent failure, system is OK at this time. Check for poor connections or loose terminals at the EGR valve and the ECM.

5. Turn the ignition switch OFF.
6. Disconnect the EGR valve 6P connector.

7. Start the engine, and let it idle.
8. Measure voltage between EGR valve 6P connector terminals No. 4 and No. 6.

EGR VALVE 6P CONNECTOR



Wire side of female terminals

G03681094

Fig. 3: Measuring Voltage Between EGR Valve 6P Connector Terminals No. 4 And No. 6

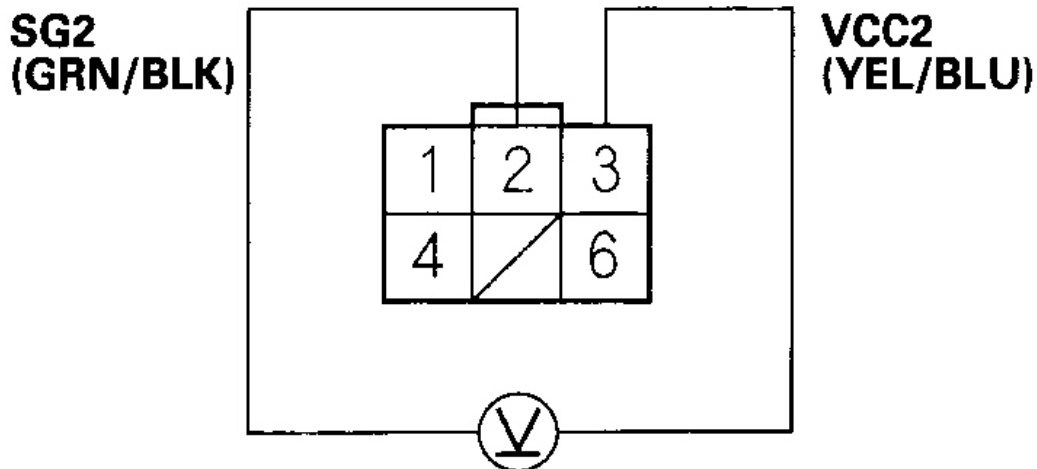
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES -Update the ECM if it does not have the latest software, or substitute a known-good ECM; 2000-2001 M/T models (see **HOW TO TROUBLESHOOT CIRCUITS AT THE ECM**), 2002-2006 M/T models and CVT model (see **ECM UPDATING AND SUBSTITUTION FOR TESTING-2002-2006 M/T MODELS AND CVT MODEL**), then recheck. If the symptom/indication goes away with a known-good ECM, replace the original ECM (see **ECM REPLACEMENT**).

NO -Go to step 9.

9. Turn the ignition switch OFF.
10. Turn the ignition switch ON (II).
11. Measure voltage between EGR valve 6P connector terminals No. 2 and No. 3.

EGR VALVE 6P CONNECTOR

Wire side of female terminals

G03681095

Fig. 4: Measuring Voltage Between EGR Valve 6P Connector Terminals No. 2 And No. 3

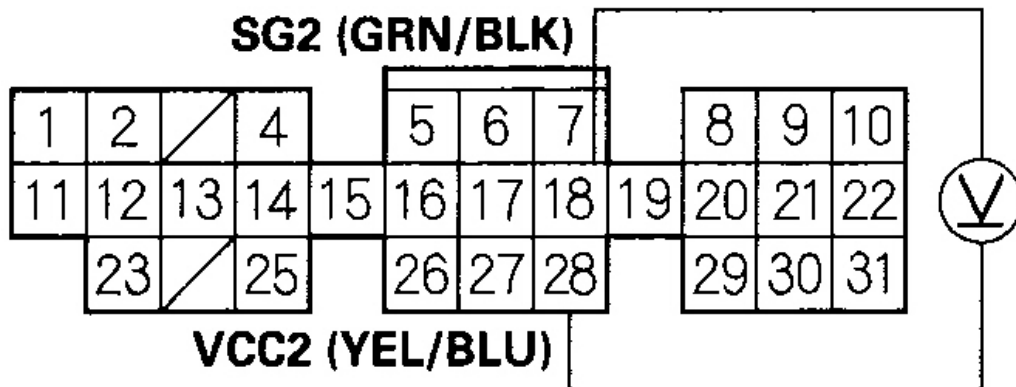
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Go to step 13 .

NO -Go to step 12.

12. Measure voltage between ECM connector terminals C18 and C28.

ECM CONNECTOR C (31P)

Wire side of female terminals

G03681096

Fig. 5: Measuring Voltage Between ECM Connector Terminals C18 And C28

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

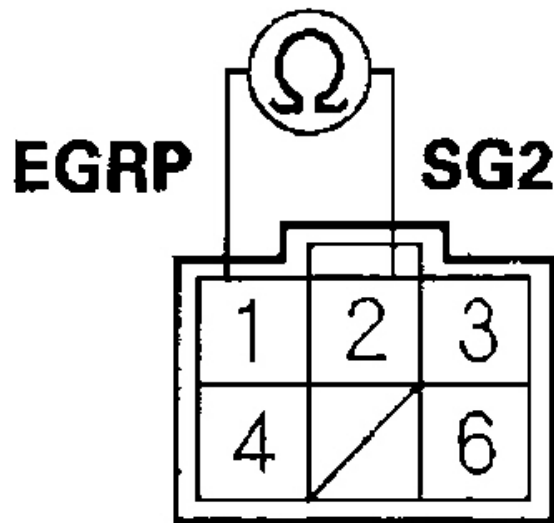
YES -Repair open in the wire between the EGR valve and the ECM (C18).

NO -Update the ECM if it does not have the latest software, or substitute a known-good ECM; 2000-2001 M/T models (see **HOW TO TROUBLESHOOT CIRCUITS AT THE ECM**), 2002-2006 M/T models and CVT model (see **ECM UPDATING AND SUBSTITUTION FOR TESTING-2002-2006 M/T MODELS AND CVT MODEL**), then recheck. If the symptom/indication goes away with a known-good ECM,

replace the original ECM (see **ECM REPLACEMENT**).

13. Turn the ignition switch OFF.
14. At the sensor side, measure resistance between EGR valve 6P connector terminals No. 1 and No. 2.

EGR VALVE 6P CONNECTOR



Terminal side of male terminals

G03681097

Fig. 6: Measuring Resistance Between EGR Valve 6P Connector

Terminals No. 1 And No. 2

Courtesy of AMERICAN HONDA MOTOR CO., INC.

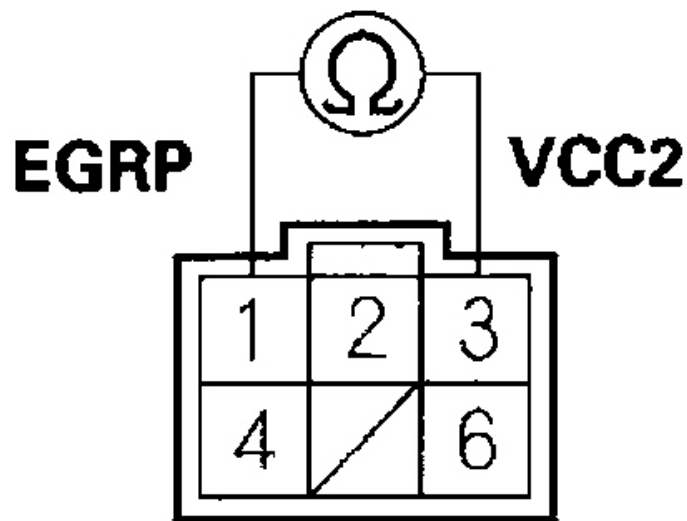
Is there continuity or resistance of 100 k ohm or more?

YES -Replace the EGR valve.

NO -Go to step 15.

15. At the sensor side, measure resistance between EGR valve 6P connector terminals No. 1 and No. 3.

EGR VALVE 6P CONNECTOR



Terminal side of male terminals

G03681098

**Fig. 7: Measuring Resistance Between EGR Valve 6P Connector
Terminals No. 1 And No. 3**

Courtesy of AMERICAN HONDA MOTOR CO., INC.

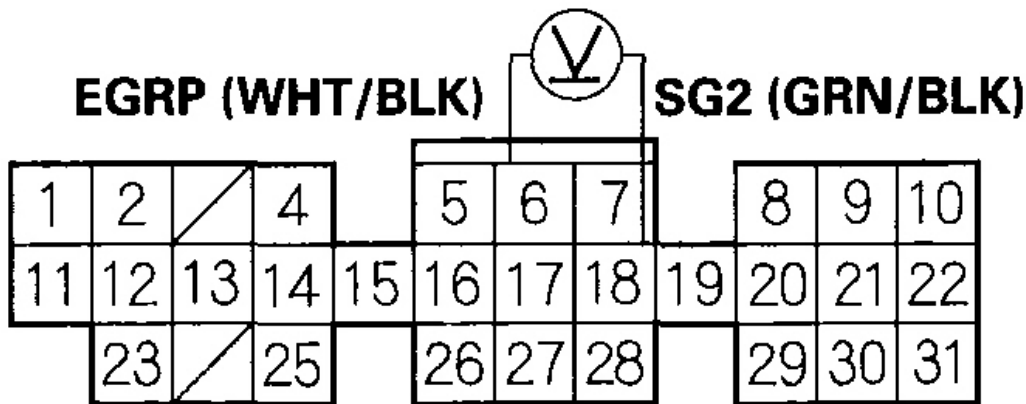
Is there 100 k ohm. or more?

YES -Replace the EGR valve.

NO -Go to step 16.

16. Reconnect the EGR valve 6P connector.
17. Turn the ignition switch ON (II).
18. Measure voltage between ECM connector terminals C6 and C18.

ECM CONNECTOR C (31P)



Wire side of female terminals

G03681099

Fig. 8: Measuring Voltage Between ECM Connector Terminals C6 And C18

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 1.2 V?

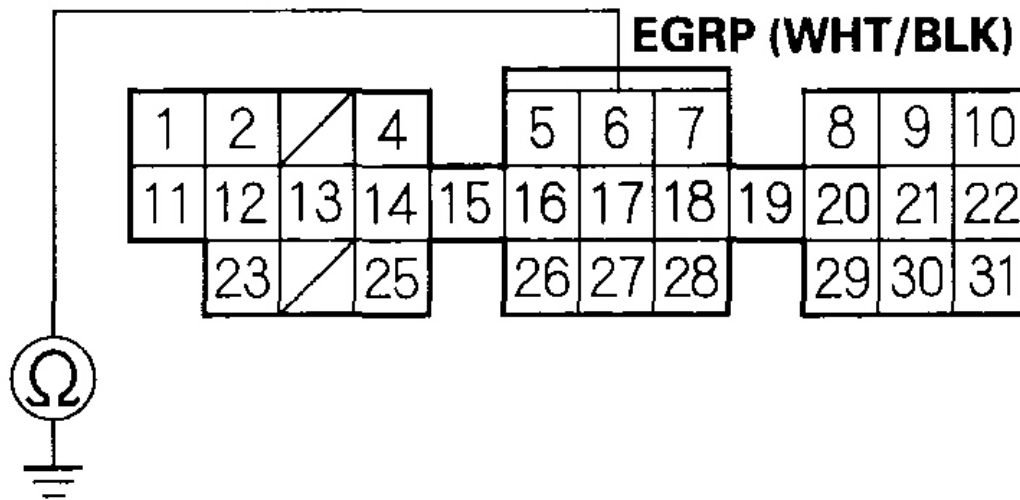
YES -Go to step 21 .

NO -Go to step 19.

19. Turn the ignition switch OFF.

20. Check for continuity between ECM connector terminal C6 and body ground.

ECM CONNECTOR C (31P)



Wire side of female terminals

G03681100

Fig. 9: Checking For Continuity Between ECM Connector Terminal C6 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

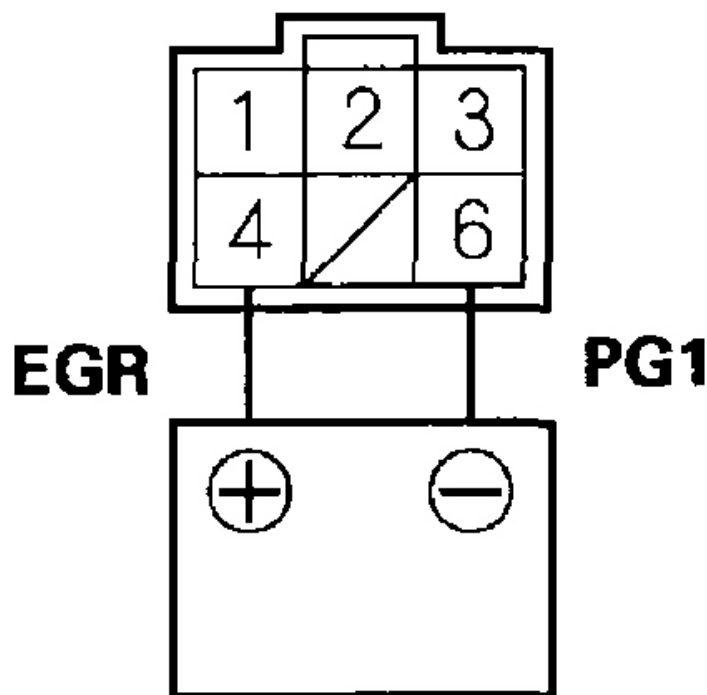
Is there continuity?

YES -Repair short in the wire between the EGR valve and the ECM (C6).

NO -Repair open in the wire between the EGR valve and the ECM (C6).

21. Turn the ignition switch OFF.
22. Disconnect the EGR valve 6P connector.
23. Connect the battery positive terminal to EGR valve 6P connector terminal No. 4 with a jumper wire.

EGR VALVE 6P CONNECTOR



Terminal side of male terminals

G03681101

Fig. 10: Connecting Battery Positive Terminal To EGR Valve 6P

Connector Terminal No. 4 With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

24. Start the engine, and let it idle, then connect the battery negative terminal to EGR valve 6P connector terminal No. 6 with a jumper wire.

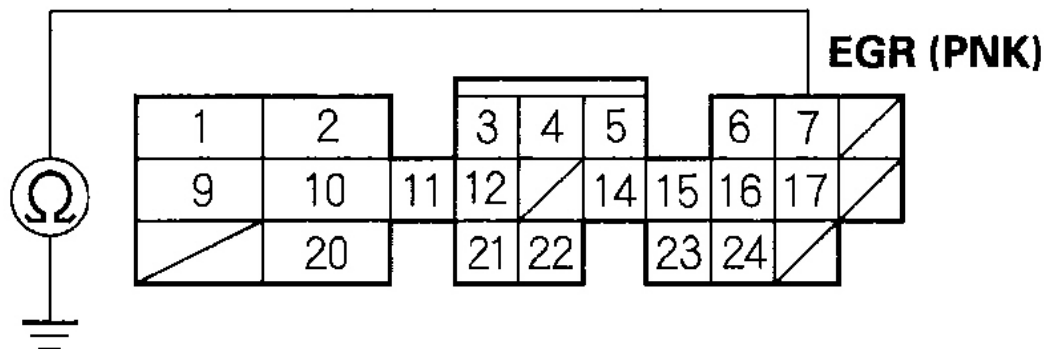
Does the engine stall or run rough?

YES -Go to step 25.

NO -Replace the EGR valve.

25. Turn the ignition switch OFF, and wait for 10 seconds.
 26. Disconnect ECM connector B (25P).
 27. Check for continuity between ECM connector terminal B7 and body ground.

ECM CONNECTOR B (25P)



Wire side of female terminals

G03681102

Fig. 11: Checking For Continuity Between ECM Connector Terminal B7 And Body Ground

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Courtesy of AMERICAN HONDA MOTOR CO., INC.

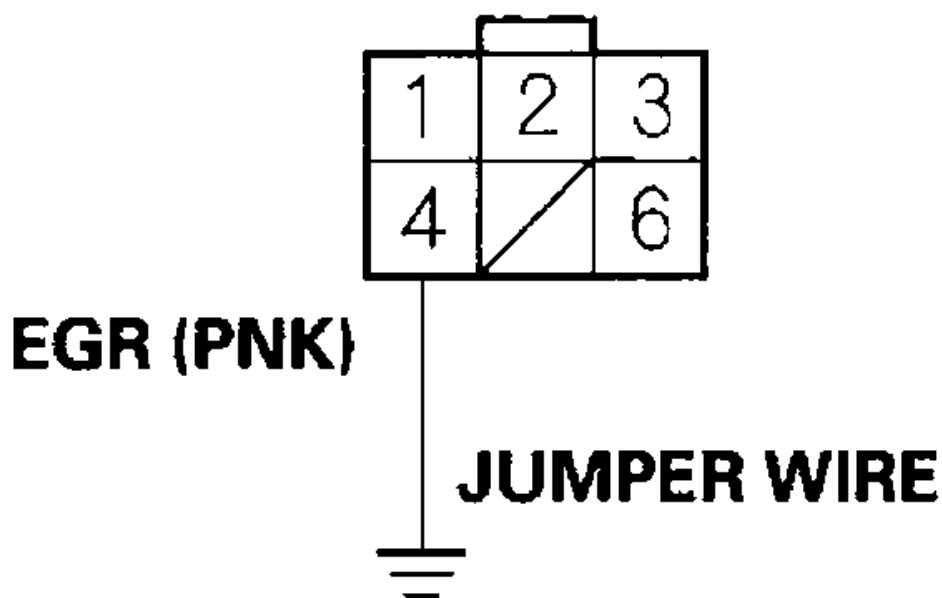
Is there continuity?

YES -Repair short in the wire between the EGR valve and the ECM (B7).

NO -Go to step 28.

28. Connect EGR valve 6P connector terminal No. 4 to body ground with a jumper wire.

EGR VALVE 6P CONNECTOR

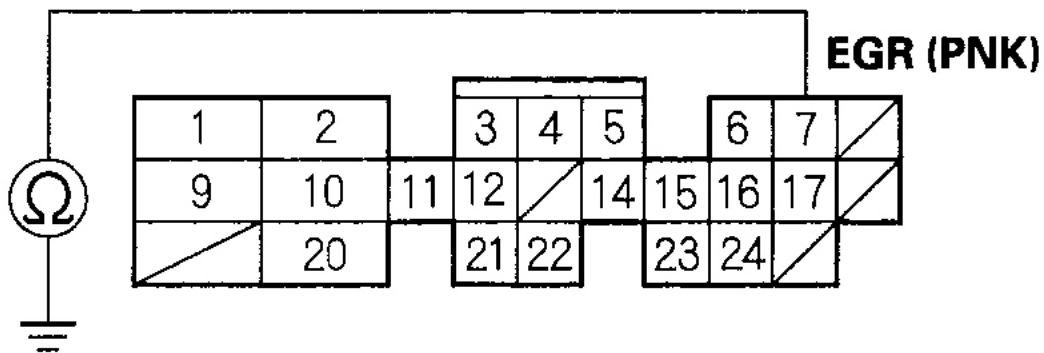


Wire side of female terminals

G03681103

Fig. 12: Connecting EGR Valve 6P Connector Terminal No. 4 To Body Ground With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

29. Check for continuity between ECM connector terminal B7 and body ground.

ECM CONNECTOR B (25P)

Wire side of female terminals

G03681104

Fig. 13: Checking For Continuity Between ECM Connector Terminal B7 And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

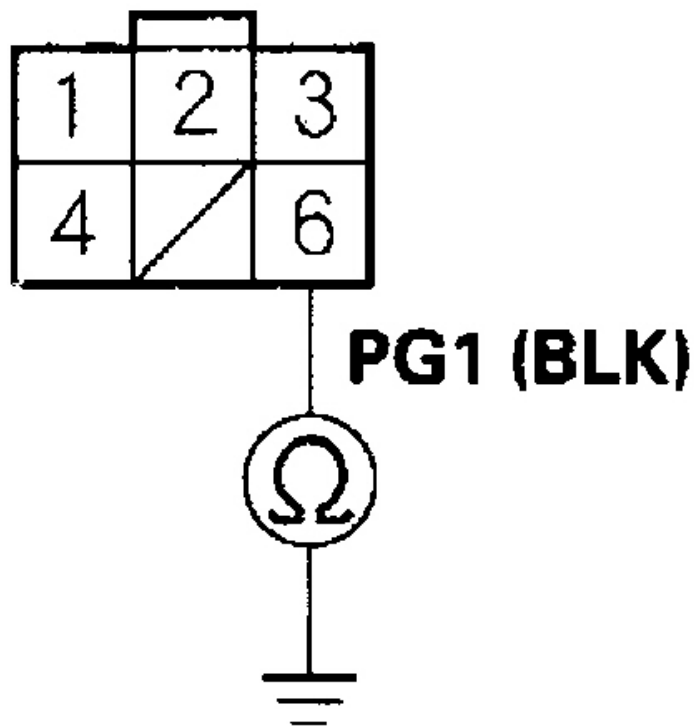
Is there continuity?

YES -Go to step 30.

NO -Repair open in the wire between the EGR valve and the ECM (B7).

30. Check for continuity between EGR valve 6P connector terminal No. 6 and body ground.

EGR VALVE 6P CONNECTOR



Wire side of female terminals

G03681105

Fig. 14: Checking For Continuity Between EGR Valve 6P Connector Terminal No. 6 And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES -Update the ECM if it does not have the latest software, or substitute a known-good ECM; 2000-2001 M/T models (see **HOW TO TROUBLESHOOT CIRCUITS AT THE ECM**), 2002-2006 M/T models and CVT model (see **ECM UPDATING AND SUBSTITUTION FOR TESTING-2002-2006 M/T MODELS AND CVT MODEL**), then recheck. If the symptom/indication goes away with a known-good ECM, replace the original ECM (see **ECM REPLACEMENT**).

NO -Repair open in the wire between the EGR valve and G101.

**DTC P0406: EGR VALVE POSITION SENSOR CIRCUIT HIGH VOLTAGE (2004-2006 MODELS);
DTC P1498: EGR VALVE POSITION SENSOR CIRCUIT HIGH VOLTAGE (2000-2003 MODELS)**

NOTE:

- **Information marked with an asterisk (*) applies to 2004-2006 models.**
- **Information marked with double asterisk (**) applies to 2000-2003 models.**
- **Before you troubleshoot, record all freeze data and review the general troubleshooting information (see **GENERAL TROUBLESHOOTING INFORMATION**).**

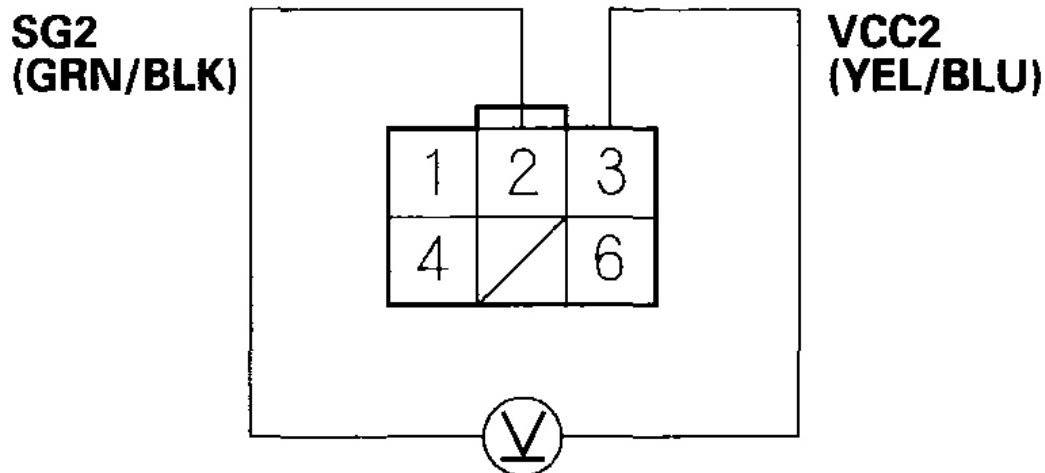
1. Reset the ECM with the HDS (see **HOW TO USE THE HDS (HONDA DIAGNOSTIC SYSTEM)**).
2. Start the engine.
3. Check for Temporary DTCs or DTCs with the HDS.

Is DTC P0404 (P1498)** indicated?*

YES -Go to step 4.

NO -Intermittent failure, system is OK at this time. Check for poor connections or loose terminals the EGR valve and the ECM.

4. Turn the ignition switch OFF.
5. Disconnect the EGR valve 6P connector.
6. Turn the ignition switch ON (II).
7. Measure voltage between EGR valve 6P connector terminals No. 2 and No. 3.

EGR VALVE 6P CONNECTOR

Wire side of female terminals

G03681106

Fig. 15: Measuring Voltage Between EGR Valve 6P Connector Terminals No. 2 And No. 3

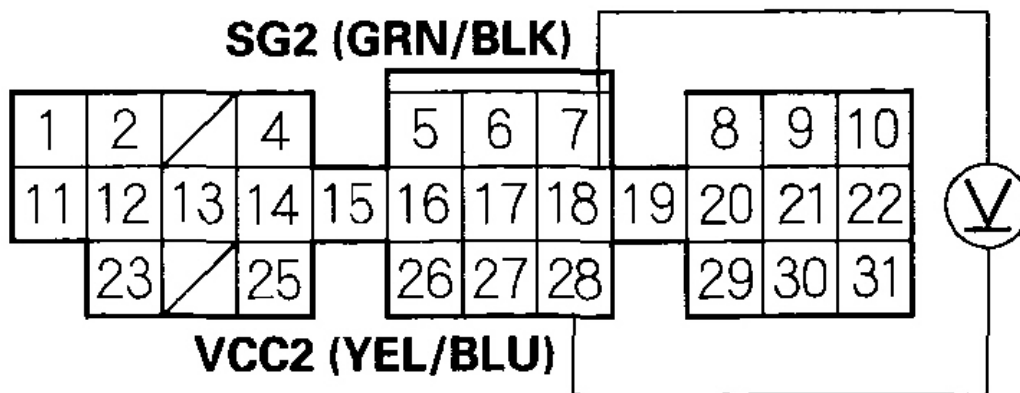
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Replace the EGR valve.

NO -Go to step 8.

8. Measure voltage between ECM connector terminals C18 and C28.

ECM CONNECTOR C (31P)

Wire side of female terminals

G03681107

Fig. 16: Measuring Voltage Between ECM Connector Terminals C18 And C28

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there about 5 V?

YES -Repair open in the wire between the EGR valve and the ECM (C18).

NO -Update the ECM if it does not have the latest software, or substitute a known-good ECM; 2000-2001 M/T models (see **HOW TO TROUBLESHOOT CIRCUITS AT THE ECM**), 2002-2006 M/T models and CVT model (see **ECM UPDATING AND SUBSTITUTION FOR TESTING-2002-2006 M/T MODELS AND CVT MODEL**), then recheck. If the symptom/indication goes away with a known-good ECM,

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replace the original ECM (see **ECM REPLACEMENT**).