

Emission Control System

Exhaust Gas Recirculation (EGR) System (cont'd)

P1491 The scan tool indicates Diagnostic Trouble Code (DTC) P1491: An insufficient lift of the Exhaust Gas Recirculation (EGR) valve.

- The MIL has been reported on.
- DTC P1491 is stored.

Problem verification:

1. Do the PCM Reset Procedure.
2. Connect the SCS service connector.
3. Start the engine. Hold the engine at 3,000 rpm with no load (in Park or neutral) until the radiator fan comes on.
4. Drive the vehicle on the road for approx. 10 minutes. Try to keep the engine speed in the 1,700 - 2,500 rpm range.

Is DTC P1491 indicated?

NO

Intermittent failure, system is OK at this time. Check for poor connections or loose wires at C251, C254 (located at left shock tower), C107 (EGR valve) and PCM.

YES

Check for vacuum to the EGR valve:

1. Disconnect the No. 11 hose from the EGR valve.
2. Connect vacuum pump/gauge to the hose.
3. Start the engine and let it idle.

Is there any vacuum?

NO

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YES

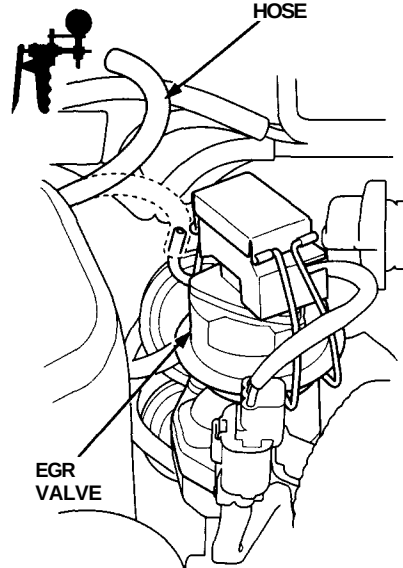
Check for a malfunction in the EGR valve vacuum control solenoid valve:

1. Disconnect the control box 4P connector.
2. Recheck the No. 11 hose for vacuum.

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VACUUM PUMP/GAUGE, 0 - 30 in.Hg
A973X - 041 - XXXXX

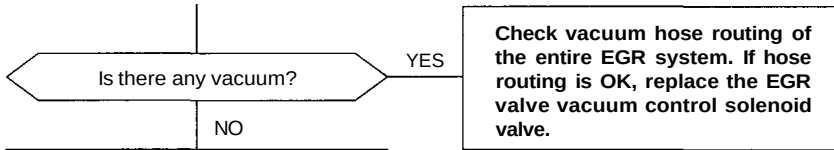
No. 11 VACUUM HOSE



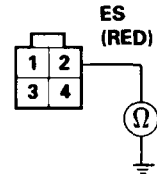
EGR VALVE



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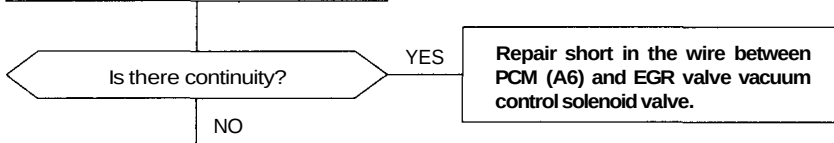
CONTROL BOX 4P CONNECTOR (C257)



Wire side of female terminals

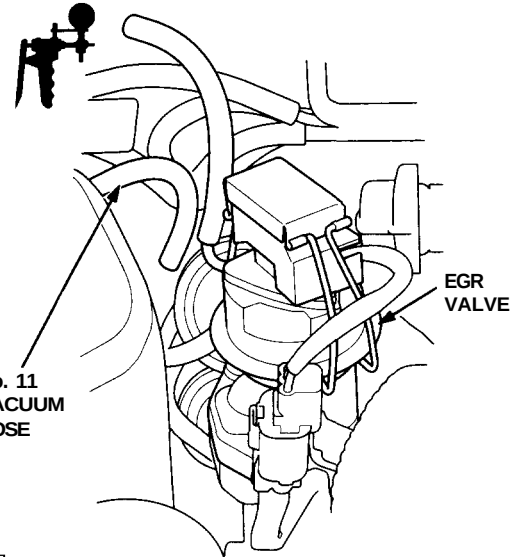
Check for a short in the wire (ES line):

1. Turn the ignition switch OFF.
2. Disconnect the PCM connector A (26P).
3. Check for continuity between body ground and the control box 4P connector terminal No. 2.

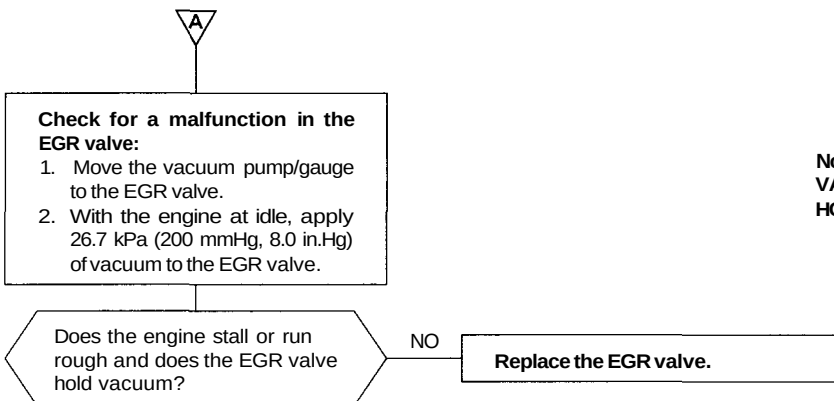


Substitute a known-good PCM and recheck (see page 11-42 for immobilizer information). If symptom/indication goes away, replace the original PCM.

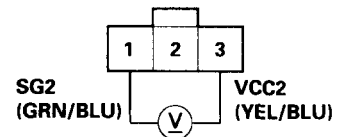
VACUUM PUMP/GAUGE,
0 - 30 in.Hg
A973X - 041 -
XXXXX



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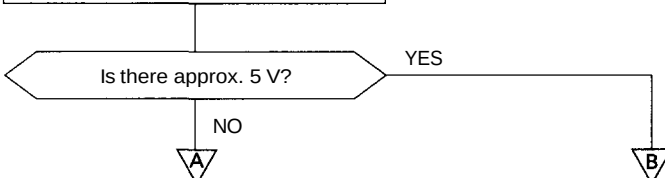
EGR VALVE POSITION SENSOR CONNECTOR (C107)



Wire side of female terminals

Check for an open in the wire (VCC2line):

1. Turn the ignition switch OFF.
2. Disconnect the EGR valve position sensor 3P connector.
3. Turn the ignition switch ON (II).
4. Measure voltage between the EGR valve position sensor 3P connector terminals No. 1 and No. 3.



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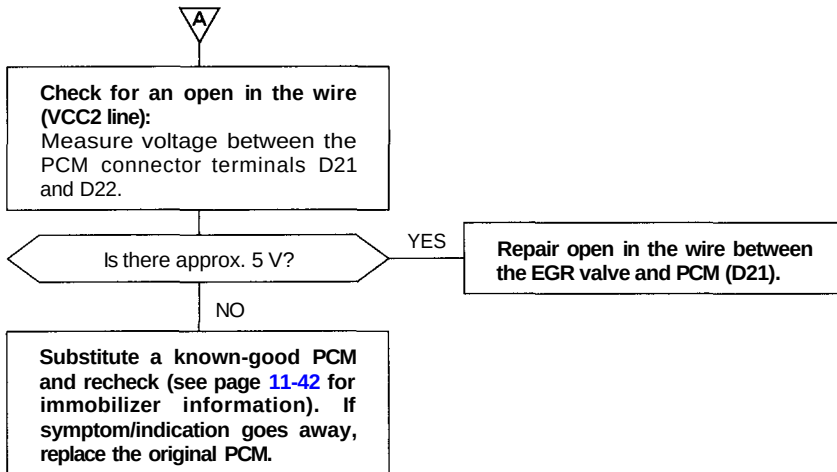
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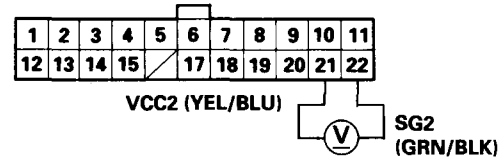
Emission Control System

Exhaust Gas Recirculation (EGR) System (cont'd)

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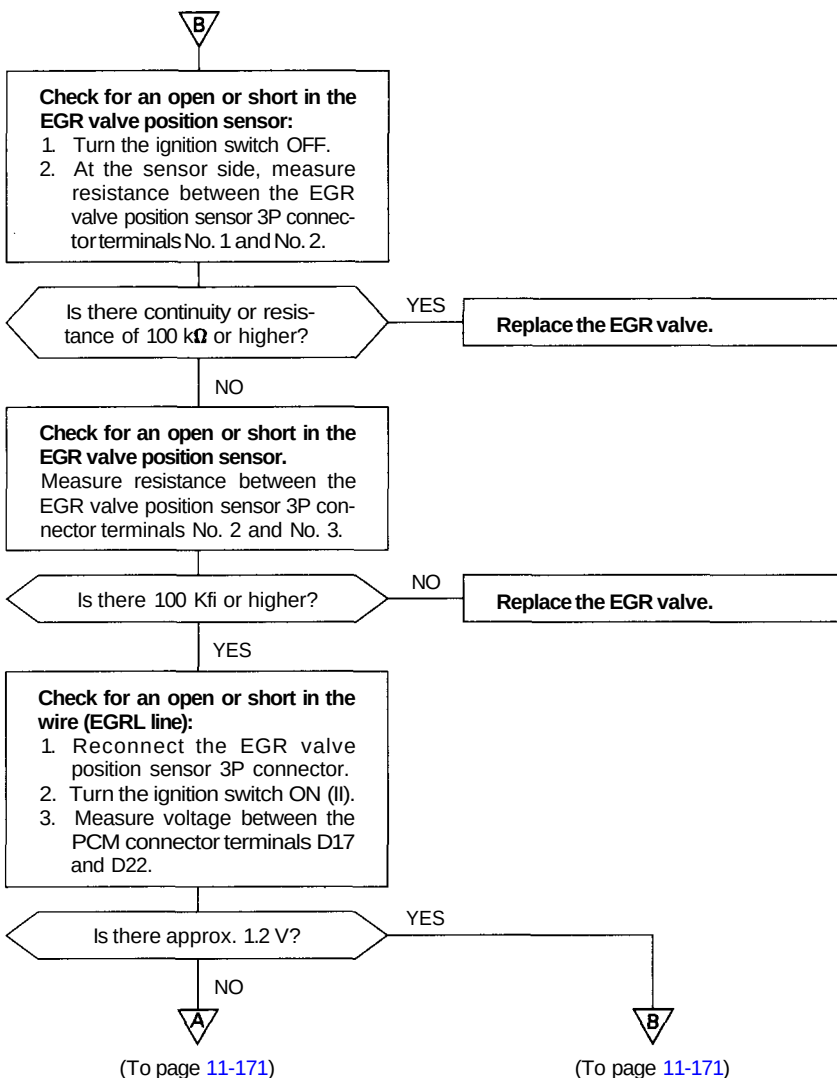


PCM CONNECTOR D (22P)

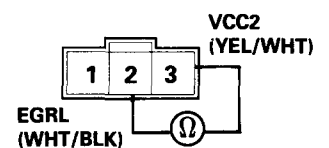
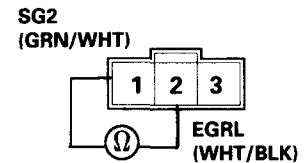


Wire side of female terminals

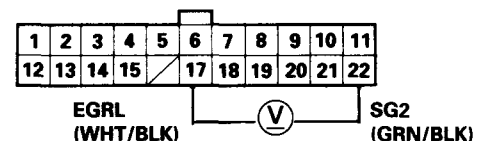
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EGR VALVE POSITION SENSOR CONNECTOR



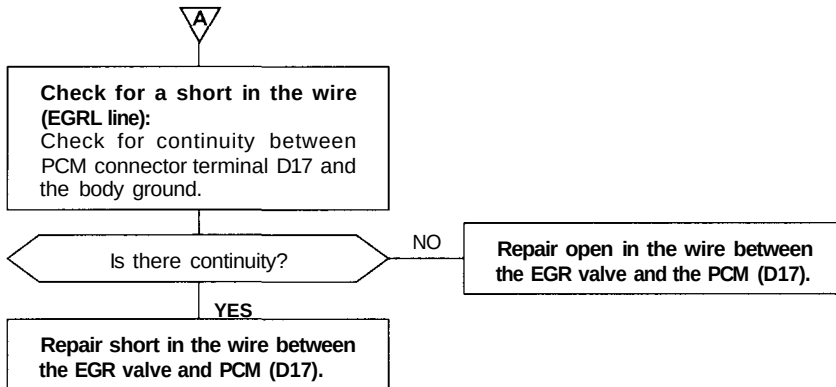
PCM CONNECTOR D (22P)



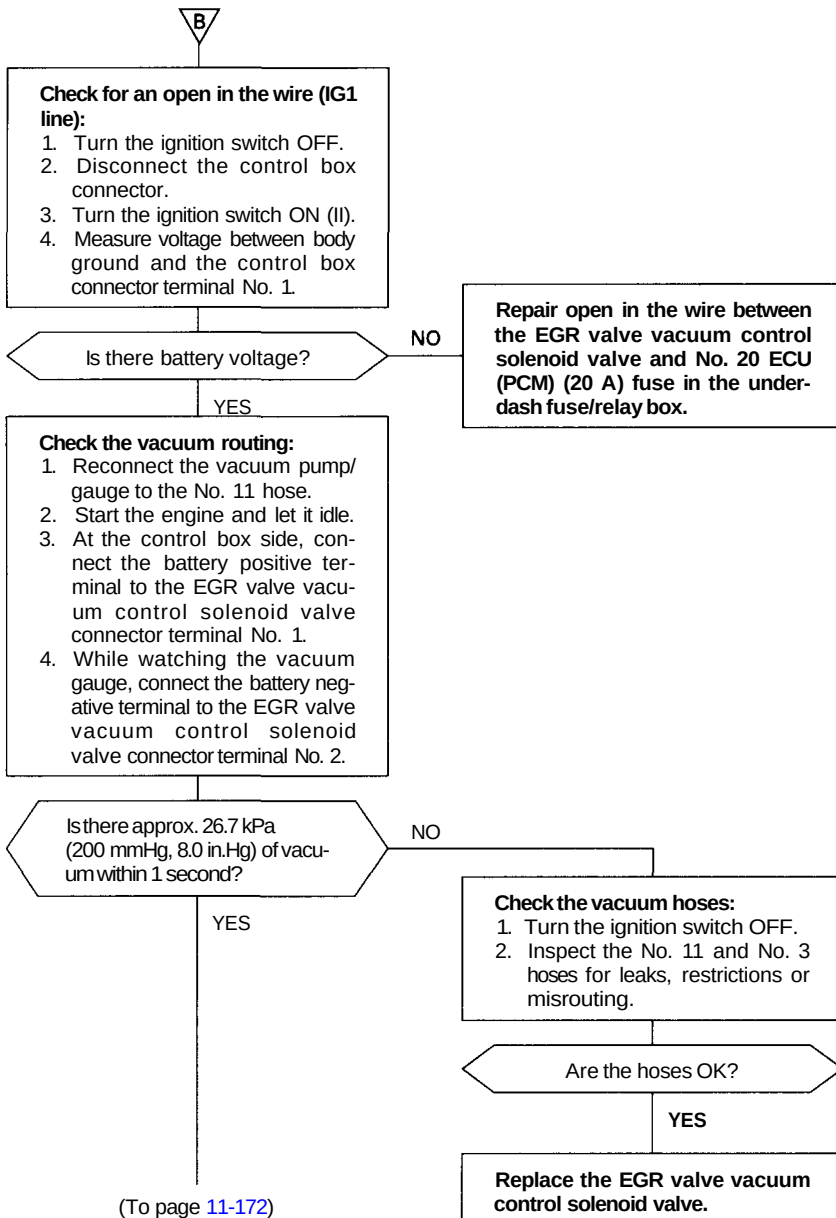
Wire side of female terminals



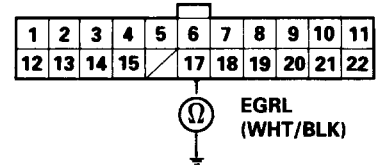
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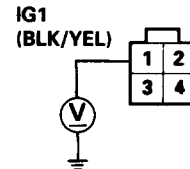


PCM CONNECTOR D (22P)



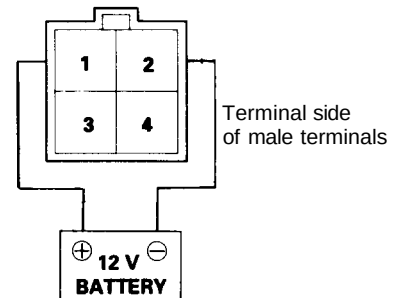
Wire side of female terminals

CONTROL BOX 4P CONNECTOR (C257)



Wire side of female terminals

CONTROL BOX 4P CONNECTOR



(cont'd)

Emission Control System

Exhaust Gas Recirculation (EGR) System (cont'd)

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Check for an open in the wire (ES line):

1. Turn the ignition switch OFF and reconnect the control box connector.
2. Reconnect the No. 11 hose to the EGR valve.
3. Start the engine and let it idle.
4. Connect PCM connector terminals A6 and A12 with a jumper wire.

Does the engine stall or run rough?

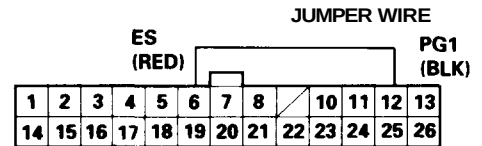
NO

Repair open in the wire between PCM (A6) and EGR valve vacuum control solenoid valve.

YES

Substitute a known-good PCM and recheck (see page [11-42](#) for immobilizer information). If symptom/indication goes away, replace the original PCM.

PCM CONNECTOR A (26P)



Wire side of female terminals