

Emission Control System

Exhaust Gas Recirculation System (cont'd)

(From page 6-235)

Is there any vacuum ?

YES

Disconnect 4P connector from the control box and check the #16 hose for vacuum again.

NO

Move the vacuum pump/gauge to the EGR valve.

With the engine at idle, apply 200 mmHg of vacuum to the EGR valve.

Is there any vacuum ?

YES

Check vacuum hose routing of the entire EGR system. If hose routing is OK, replace EGR control solenoid valve.

NO

Inspect for short to body ground in PNK wire between EGR control solenoid valve and ECU(A8). If wire is OK, substitute a known-good ECU and retest. If symptom/indication goes away, replace the original ECU.

Does the engine stall and does the EGR valve hold vacuum ?

NO

Replace EGR valve.

YES

Disconnect the 4P connector from the control box.

Measure voltage between BLK/YEL (+) terminal on the main wire harness and body ground.

Is there battery voltage ?

NO

Repair open in BLK/YEL wire between the solenoid valve and No. 2 fuse.

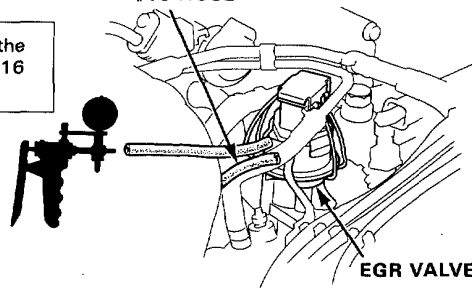
YES

Reconnect the vacuum pump/gauge to the #16 hose.

Start the engine and allow it to idle.

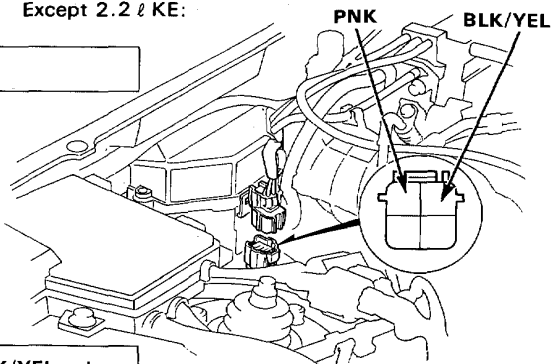
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#16 HOSE



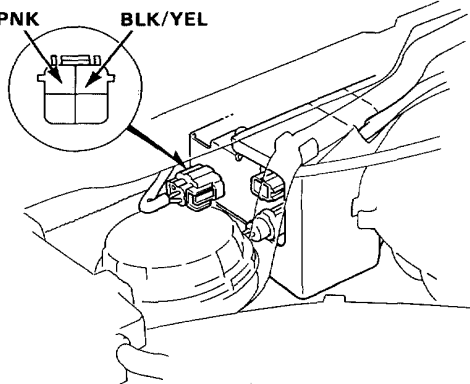
EGR VALVE

Except 2.2 l KE:



2.2 l KE:

PNK BLK/YEL

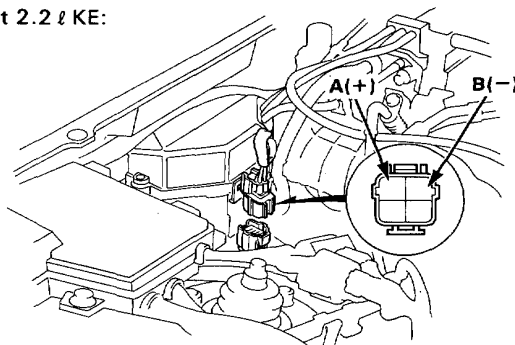




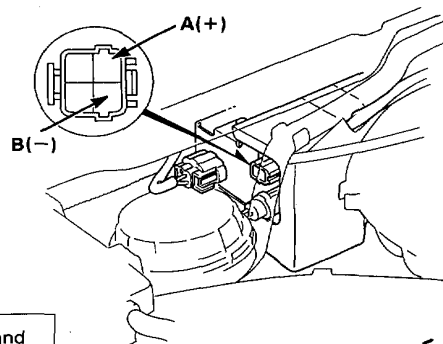
(From page 6-236)

Connect the battery positive terminal to the B terminal of the 4P connector. While watching the vacuum gauge, connect the battery negative terminal to the D terminal.

Except 2.2 l KE:



2.2 l KE:



Is there approx. 200 mmHg within 1 second?

NO

YES

Turn the ignition switch OFF and reconnect the 4P connector.

Turn the ignition switch OFF and inspect the #16 and #24 hoses for leaks, restrictions, or mis-routing.

Are the hose OK?

NO

Connect as necessary.

YES

Disconnect the lower hose on EGR control solenoid valve and connect a vacuum gauge to the hose.

Start the engine and allow it to idle.

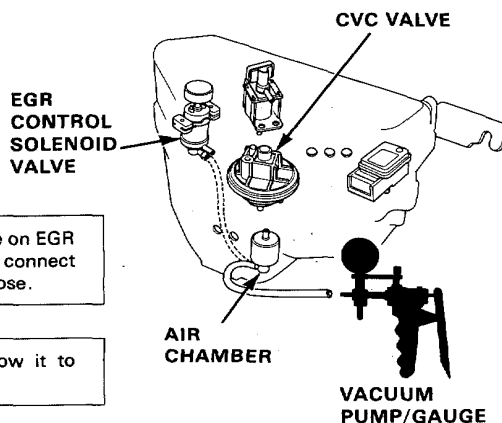
Is there 150–250mmHg of vacuum?

NO

Replace CVC valve.

YES

Replace the EGR control solenoid valve.



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(cont'd)

Emission Control System

Exhaust Gas Recirculation System (cont'd)

(From page 6-237)

Connect the test harness between the EGR valve lift sensor and engine wire harness.

Turn the ignition switch ON.

Measure voltage between RED (+) terminal and GRN (-) terminal.

Is there approx. 5 V ?

NO

- Repair open in YEL/WHT wire between EGR valve and ECU (D20).
- Repair open in GRN/WHT wire between EGR valve and ECU (D22).

YES

Measure voltage between WHT (+) terminal and GRN (-) terminal.

Is there approx. 1.2V ?

NO

- Replace EGR valve.
- Repair short in WHT/BLK wire between ECU (D12) and EGR valve lift sensor.
- Substitute a known-good ECU and recheck. If prescribed voltage is now available, replace the original ECU.

YES

While watching the voltmeter, slowly apply a continuous 200 mmHg of vacuum to the EGR valve. Repeat several times, completely releasing vacuum between.

Is the maximum voltage approx. 4 V ?

NO

Replace EGR valve.

YES

Does the voltage consistently increase/decrease as the vacuum increases/decreases ?

NO

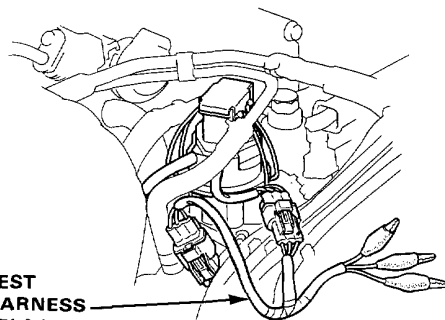
Replace EGR valve.

YES

Reconnect the #16 hose to the EGR valve.

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TEST
HARNESS
07LAJ-
PT30200





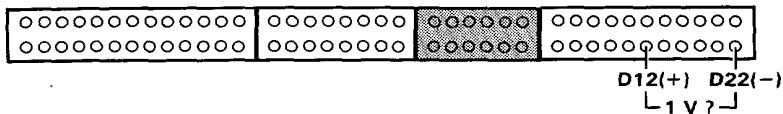
(From page 6-238)

Turn the ignition switch OFF.

Connect the ECU test harness between the ECU and connector (page 6-150).

Start the engine and allow it to idle.

Measure voltage between D12 (+) terminal and D22 (-) terminal.



Is there approx. 1.2 V ?

NO

Repair open in WHT/BLK wire between ECU (D12) and the sensor.

YES

Connect A11 terminal to A26 terminal with a jumper wire.

Did the engine stall ?

NO

Repair open in PNK wire between ECU (A11) and EGR control solenoid valve.

YES

Substitute a known-good ECU and recheck. If symptom/indication goes away, replace the original ECU.