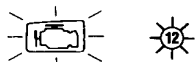




Exhaust Gas Recirculation system



- Check Engine warning light has been reported on.
- LED indicates CODE 12.

Turn the ignition switch OFF.

Remove CLOCK fuse in the under-hood relay box for 10 seconds to reset ECU.

Road test necessary: Warm up the engine to normal operating temperature (cooling fan comes on). Drive the car on the road for approx. 10 minutes. Try to keep the engine speed in the 1700— 2500 range.

Is Check Engine warning light on and does LED indicated CODE 12 ?

NO

YES

With the engine at idle, disconnect the #16 hose from the EGR valve and connect a vacuum pump/gauge to the hose.

Is there any vacuum ?

YES

NO

Move the vacuum pump/gauge to the EGR valve.

Intermittent failure, system is OK at this time.
Check for poor connections or loose wires at EGR valve C235, C236 (located at right shock tower), control box.

#16 HOSE

EGR VALVE

VACUUM
PUMP/GAUGE

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

#16 HOSE

EGR VALVE

(To page 6-180)

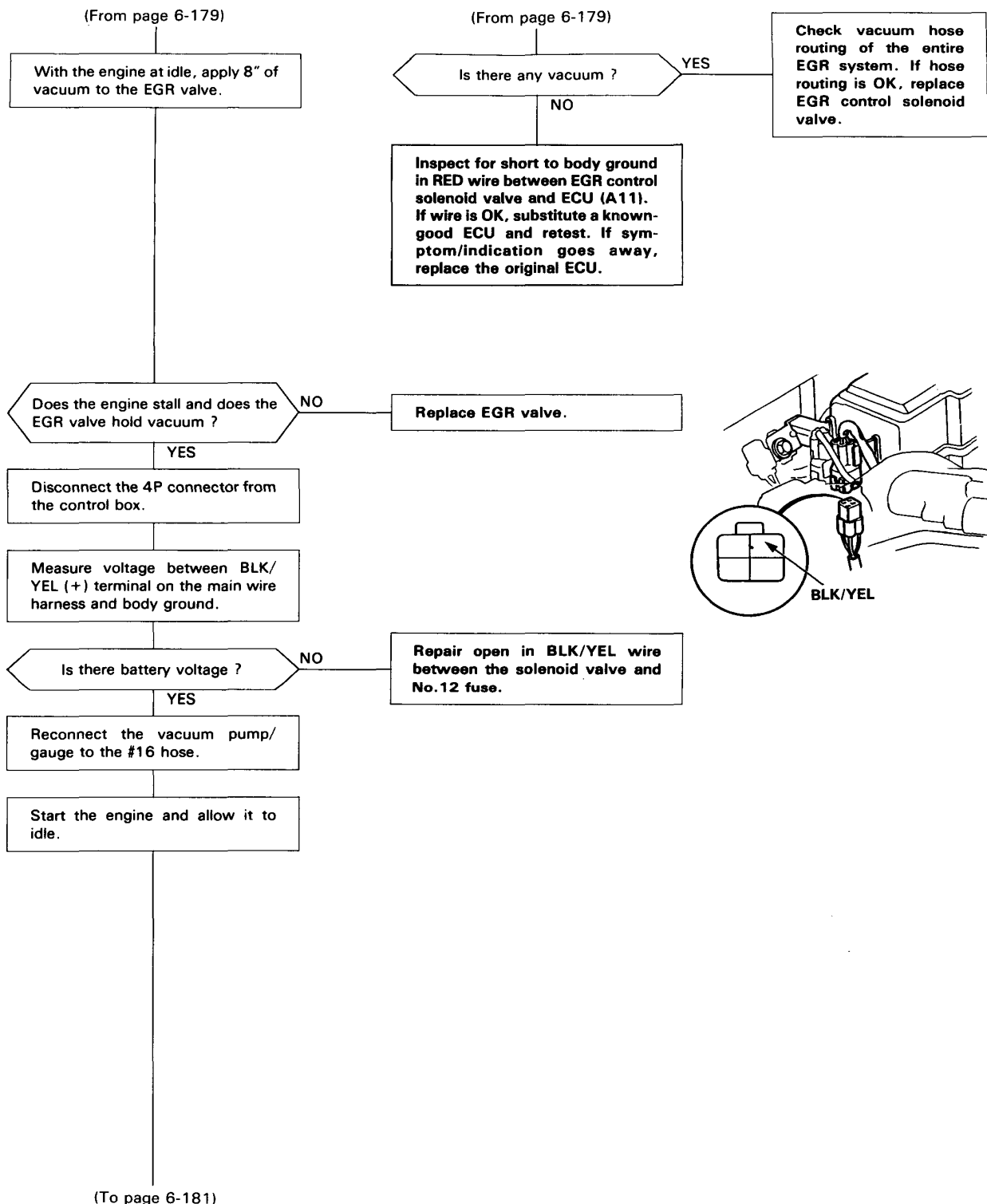
(To page 6-180)

RED

(cont'd)

Emission Control System

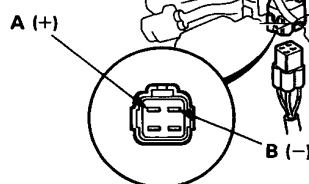
Exhaust Gas Recirculation System (cont'd)





(From page 6-180)

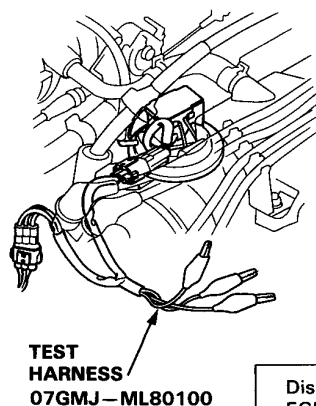
Connect the battery positive terminal to the B terminal of the 4P connector. While watching the vacuum gauge, connect the battery negative terminal to the D terminal.



Is there approx. 8" within 1 second?

YES

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



TEST HARNESS
07GMJ-ML80100

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 ?

YES

(To page 6-182)

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

Are the hoses OK?

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 6" — 10" of vacuum ?

YES

Replace the EGR control solenoid valve.

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

Connect as necessary.

VACUUM PUMP/GAUGE

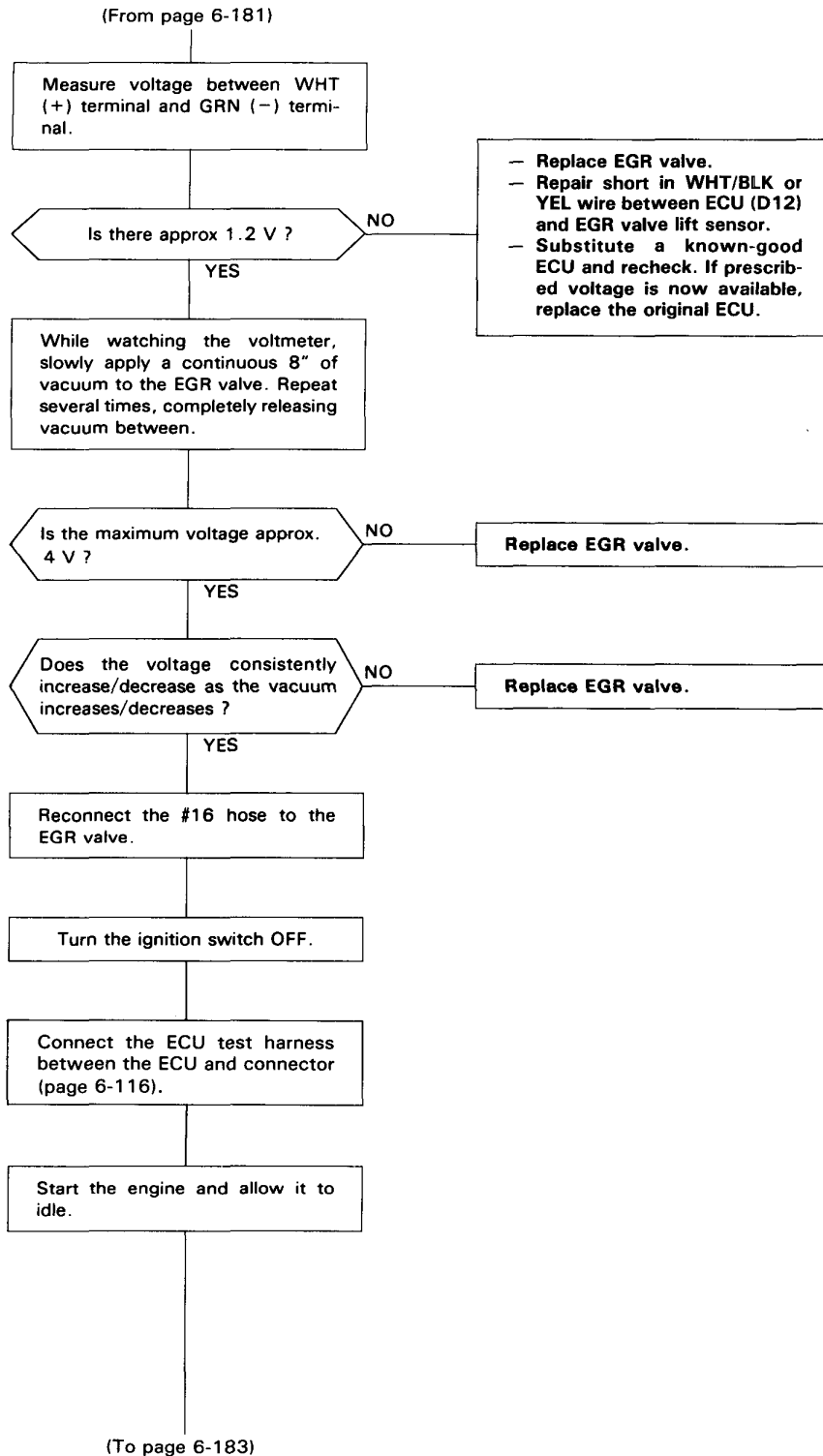
EGR CONTROL SOLENOID VALVE

AIR CHAMBER

(cont'd)

Emission Control System

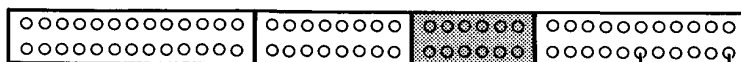
Exhaust Gas Recirculation System (cont'd)





(From page 6-182)

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



D12 (+) D22 (-)
1 V ?

Is there approx. 1.2 V ?

NO

Repair open in WHT/BLK or YEL 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 RED 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.