

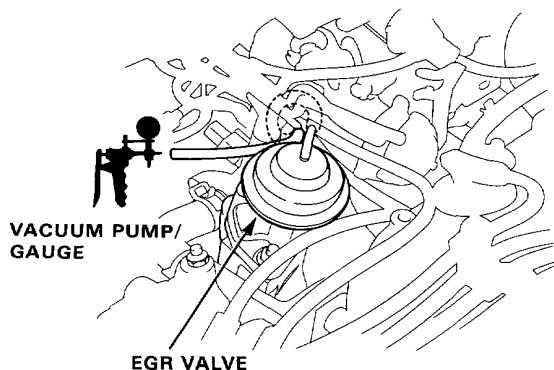
# Emission Control System

## EGR System

### Testing (COLD ENGINE)

NOTE: The engine coolant temperature must be below the thermostatic valve B set temperature (55°C, 131°F).

1. Disconnect the vacuum hose from the EGR valve and connect a vacuum gauge to the hose.



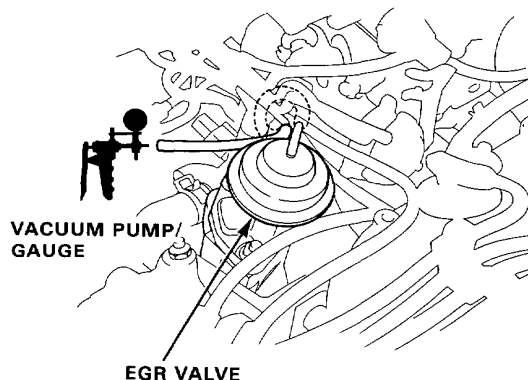
2. Start the engine and raise the engine speed to 3,000  $\text{min}^{-1}$  (rpm)

Vacuum should not be available.

- If vacuum is not available, go on to the hot engine inspection (right column).
- If vacuum is available, replace thermostatic valve B and retest.

### Testing (HOT ENGINE)

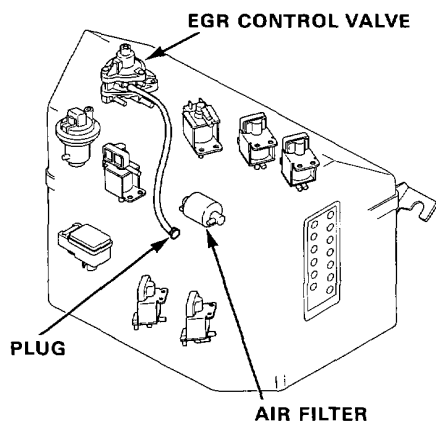
1. Disconnect the vacuum hose from the EGR valve and connect a vacuum gauge to the hose.



2. Start the engine and wait for the cooling fan to come on.
3. Remove the control box and remove the control box cover.

Vacuum should be as shown below:

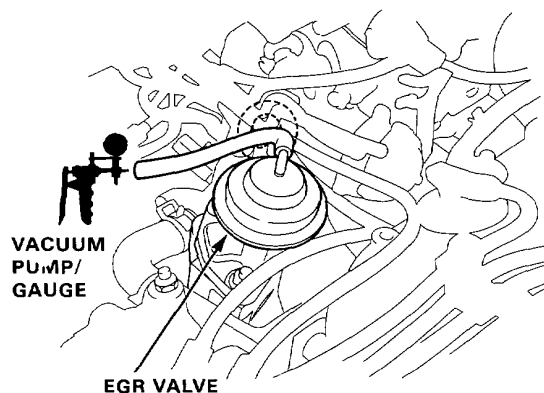
Condition		Vacuum at EGR hose
1	Idle	No
2	3,000 $\text{min}^{-1}$ (rpm)	Yes, 50—152 mm
3	3,000 $\text{min}^{-1}$ (rpm) with blocked vacuum bleed (shown next column)	Less than 50 mm Hg
4	Rapid acceleration	Yes, 50—152 mm Hg
5	Deceleration	No



- If vacuum is available at idle (condition 1) check the vacuum hoses for proper routing and connections, then check for correct idle speed and idle mixture, and make adjustment as necessary.
- If there is no vacuum in conditions 2 and 4, check the #10, #11, #15, #16 and #17 vacuum line for proper connection, cracks, blockage or disconnected hose. If OK, replace the thermostatic valve B and retest.
- If vacuum is more than 50 mm Hg in condition 3, replace the EGR control valve and check the vacuum hoses for proper routing and connections.

## EGR Valve

1. Start engine and allow to idle.
2. Disconnect vacuum hose from EGR Valve and connect a vacuum pump to EGR Valve



3. Apply 150 mm Hg (6 in. Hg) vacuum to EGR Valve. Vacuum should remain steady and engine should die.
  - If vacuum remains steady and engine dies, EGR valve is working properly, remove the vacuum pump and reconnect EGR vacuum hose ; test is complete.
  - If vacuum does not remain steady and engine does not die, replace EGR valve and retest.
  - If vacuum remains steady but engine does not die : Remove EGR valve ; check EGR valve and manifold for blockage, clean or replace as necessary and retest.