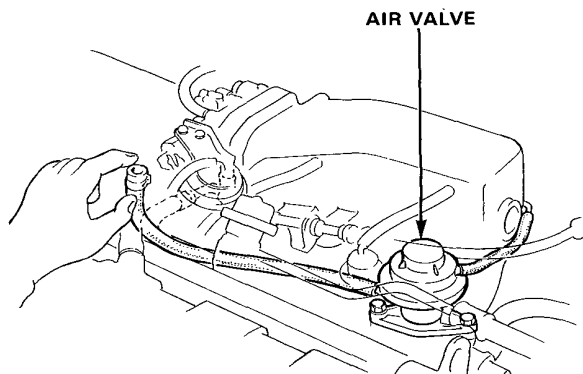


Secondary Air Supply System

System Inspection

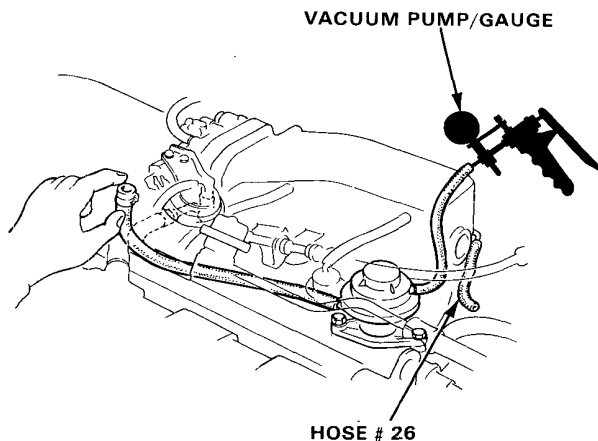
1. Warm up the engine and make sure that the idle speed is steady.
2. Raise the engine speed to around 4,000 min⁻¹(rpm) and release the accelerator pedal suddenly.
3. Make sure that the vacuum appears in the vacuum hose of the air valve after the accelerator pedal released.



- If no vacuum, check for:
 - each vacuum hose for clog, pinch, or disconnection.
 - air valve.
 - air valve control solenoid valve.

Air Valve Inspection

1. Disconnect the vacuum hose # 26 from the air valve and connect a vacuum pump to the valve.
2. Start the engine and make sure that the vacuum appears in the vacuum hose of the air valve while operating the vacuum pump.



3. Make sure that the vacuum disappears in the hose when the vacuum pump is removed.



Sensors

Oxygen Sensor

[KX Model Only]

1. Disconnect the connector of the oxygen sensor.
2. Start the engine and warm up for 2 minutes at 3,000 min⁻¹(rpm) under no load. Raise the engine speed to 4,000min⁻¹(rpm) and release the throttle suddenly at least 5 times.
3. Within one minute after the engine has been warmed up, measure the voltage between the connector terminal and body ground as described in steps 4 and 5.

NOTE: If it takes more than one minute to complete the checks, warm up the engine as in step 2 before continuing.

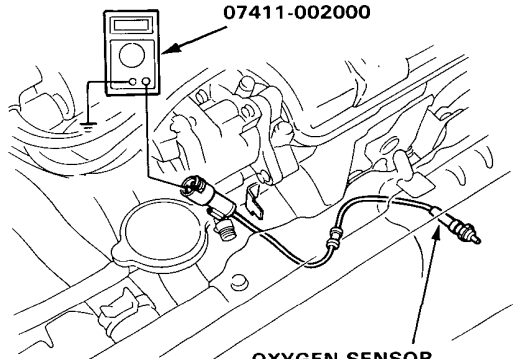
4. Raise the engine speed to 5,000 min⁻¹(rpm) then lower to 2,000min⁻¹(rpm) by operating the accelerator pedal.

Voltage should be below 0.4 V.

5. Disconnect the vacuum hose # 21 from the throttle body; plug the opening in the throttle body. Connect a vacuum pump to the open end of the vacuum hose and apply 300 mmHg, and raise the engine speed to 4,000min⁻¹(rpm).

Voltage should be above 0.6V.

DIGITAL CIRCUIT TESTER
07411-002000



OXYGEN SENSOR
45 N·m (4.5 kg·m, 33 lb·ft)

- Replace the oxygen sensor if the voltages are out of the above ranges.

6. Reconnect the connector.

NOTE:

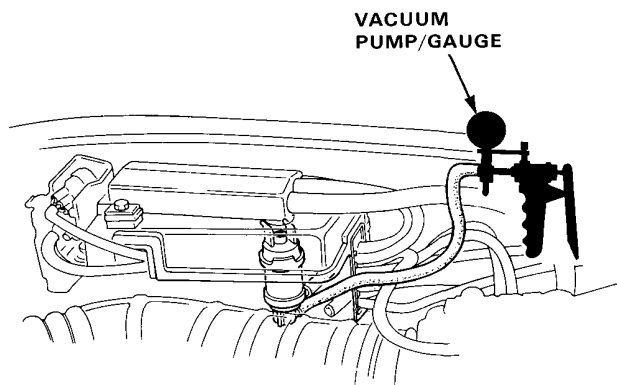
- Avoid damaging the wire harness.
- To prevent cross-threading, first tighten the sensor finger tight, then tighten to the specified torque with a torque wrench.
- Oxygen sensor does not operate when its intake is clogged.
- Be extremely careful not to spray anything over the oxygen sensor.

Air Control Solenoid Valve Inspection

1. Open the control box lid and disconnect the rectangular connector from the control box.
2. Disconnect the lower vacuum hose of the air valve control solenoid valve (between the solenoid valve and the three-way joint) from the joint.
3. Apply vacuum to the hose.

It should hold vacuum.

- If it does not hold vacuum, replace the valve.



4. Connect the battery positive terminal to the Black/Yellow terminal of the control box coupler, and the negative terminal to the Orange terminal.
5. Apply vacuum to the hose.

It should not hold vacuum.

- If it holds vacuum, replace the valve.

