



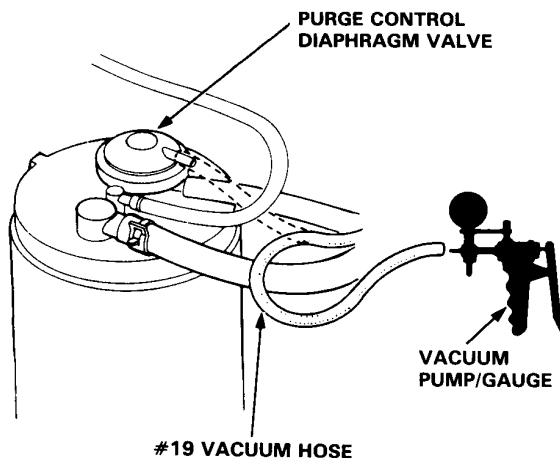
## Evaporative Emission Controls

[KX, KS, KZ model]

### Testing (COLD ENGINE)

NOTE: Engine coolant temperature must be below 63°C (145°F)

1. Disconnect the #19 vacuum hose at purge control diaphragm valve and connect vacuum pump/gauge to the hose.



2. Start the engine and allow to idle.

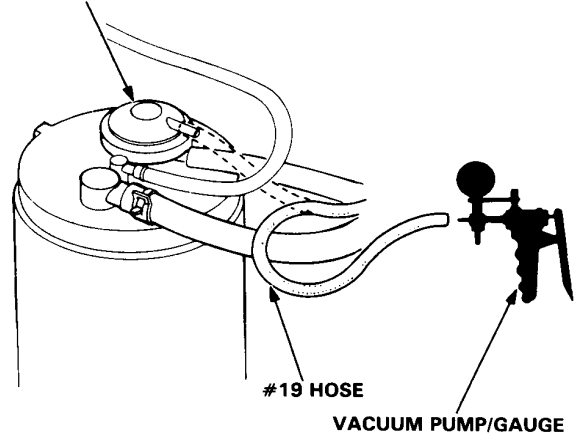
There should be no vacuum.

- If there is no vacuum, go to hot engine test (next column).
- If there is vacuum, go to troubleshooting (page 6-96).

### Testing (HOT ENGINE)

1. Disconnect the #19 vacuum hose at the purge control diaphragm valve and connect a vacuum pump/gauge to the hose.

#### PURGE CONTROL DIAPHRAGM VALVE



2. Start the engine and warm up to normal operating temperature (the cooling fan comes on). Block rear wheels and set the parking brake. Jack up the front of the car and support with safety stands.

**⚠ WARNING** Block rear wheels before jacking up front of car.

Place the shift or selector lever in 2nd gear or 2 range and raise the engine speed to 3,500 min<sup>-1</sup>(rpm). There should be vacuum.

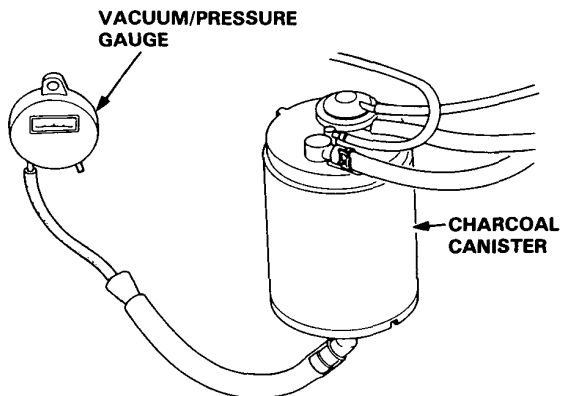
- If there is vacuum, go to step 3.
  - If there is no vacuum, go to troubleshooting (page 6-96).
3. Disconnect a vacuum pump/gauge and reconnect hose.
  4. Remove fuel filler cap.

(cont'd)

# Emission Control System

## Evaporative Emission Controls (cont'd)

5. Remove the canister purge air hose from frame and connect hose to a vacuum gauge as shown.



6. Place the shift or selector lever in 2nd gear or **2** range and raise the engine speed to 3,500 min<sup>-1</sup> (rpm). Vacuum should appear on the gauge within 1 minute.

- If vacuum appears on the gauge in 1 minute, remove the gauge and go on to step 8.

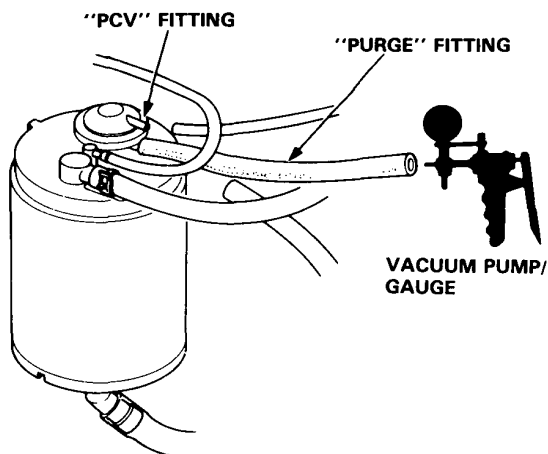
- If no vacuum, disconnect the vacuum gauge and reinstall the fuel filler cap.

7. Remove the charcoal canister and check for signs of damage.

- If damaged, replace the canister.
- If OK, go on to step 8.

8. Stop the engine. Disconnect the hose from the canister PCV fitting. Connect a vacuum pump to the canister PURGE fitting as shown, and apply vacuum.

Vacuum should remain steady.



- If vacuum remains steady, go on to step 9.

- If vacuum drops, replace the canister and retest.

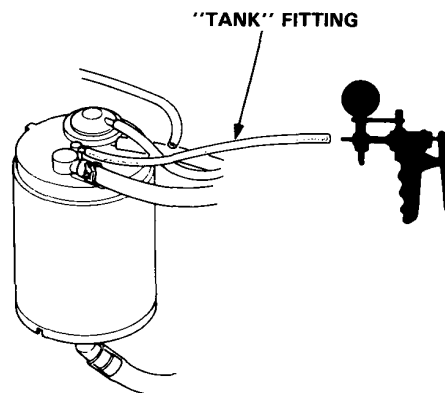
9. Restart the engine. Reconnect the hose to the canister PCV fitting. Raise engine to 3,500 min<sup>-1</sup> (rpm). (in 2nd gear or 2 range)

PURGE side vacuum should drop to zero.

- If PURGE side vacuum does not drop to zero, replace the canister and retest.

10. Connect a vacuum pump to TANK fitting as shown, and apply vacuum.

If should not hold vacuum.



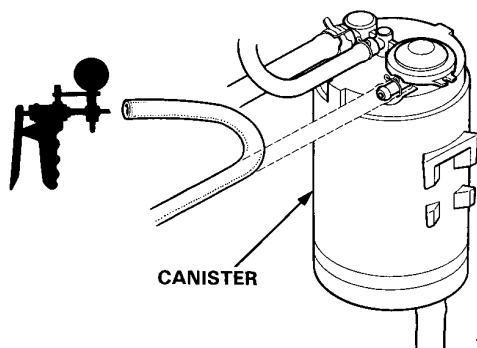
- If it does not hold vacuum, reinstall fuel filler cap and canister; test is complete.

- If it holds vacuum, replace canister and retest.



### [KY model]

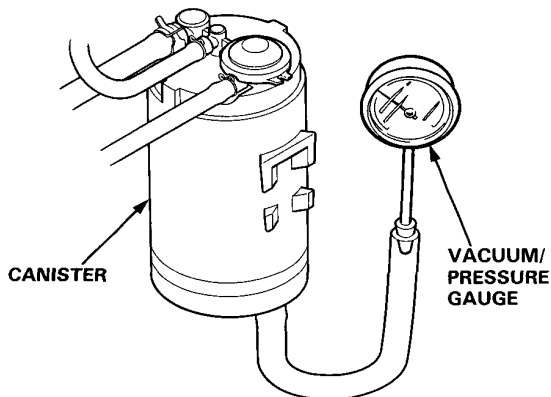
1. Disconnect vacuum hose at the charcoal canister, connect a vacuum pump/gauge to hose.



2. Start the engine and raise speed to 3,500 min<sup>-1</sup> (rpm).

There should be vacuum.

- If vacuum is available, go on to step 3.
  - If vacuum is not available, check the vacuum line.
3. Disconnect a vacuum pump/gauge and reconnect hose. Remove fuel filler cap.
  4. Remove canister purge air hose from frame and connect hose to a vacuum gauge as shown.



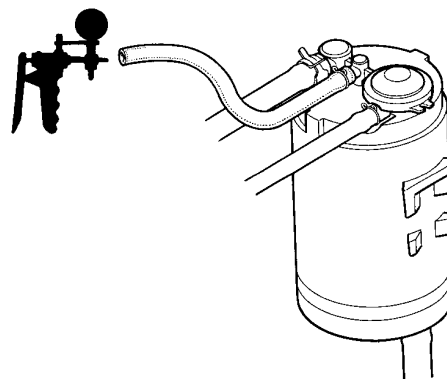
5. Raise engine speed to 3,500 min<sup>-1</sup> (rpm). Vacuum should appear on gauge within 1 minute.

- If vacuum appears on gauge in 1 minute, remove gauge and go on to step 7.
- If no vacuum, disconnect a vacuum pump/gauge and go on to step 6.

6. Remove charcoal canister and check for signs of damage or defects.

- If defective, replace the charcoal canister.
- If OK, go on to step 7.

7. Connect vacuum pump/gauge to TANK fitting as shown, and apply vacuum.



- If vacuum does not remain steady, test is complete.
- If vacuum remains steady, replace the charcoal canister.

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# Emission Control System

## Evaporative Emission Controls (cont'd)

[KX, KS, KZ model]

### Troubleshooting Flowchart    Purge Cut-off Solenoid Valve

Inspection of Purge Cut-off Solenoid Valve

Remove the control box and open the control box lid.

Disconnect the upper vacuum hose of the solenoid valve from the 3-way joint and connect a vacuum pump.

Start the engine.

NOTE: Engine coolant temperature must be below 63° C (145° F)

Apply vacuum.

Does solenoid valve hold vacuum?

YES

Turn the ignition switch OFF.

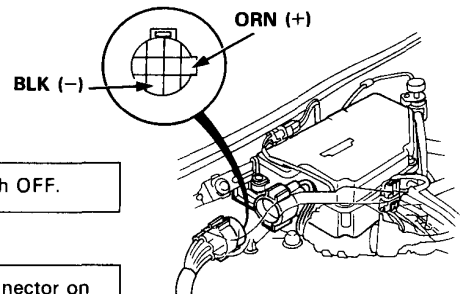
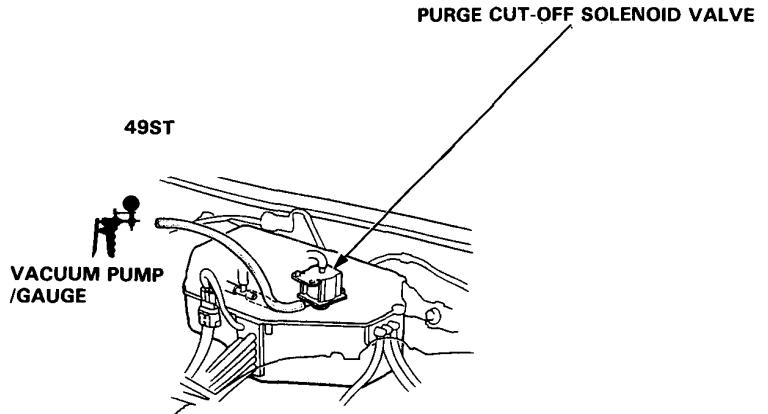
Disconnect the 8P connector on the control box.

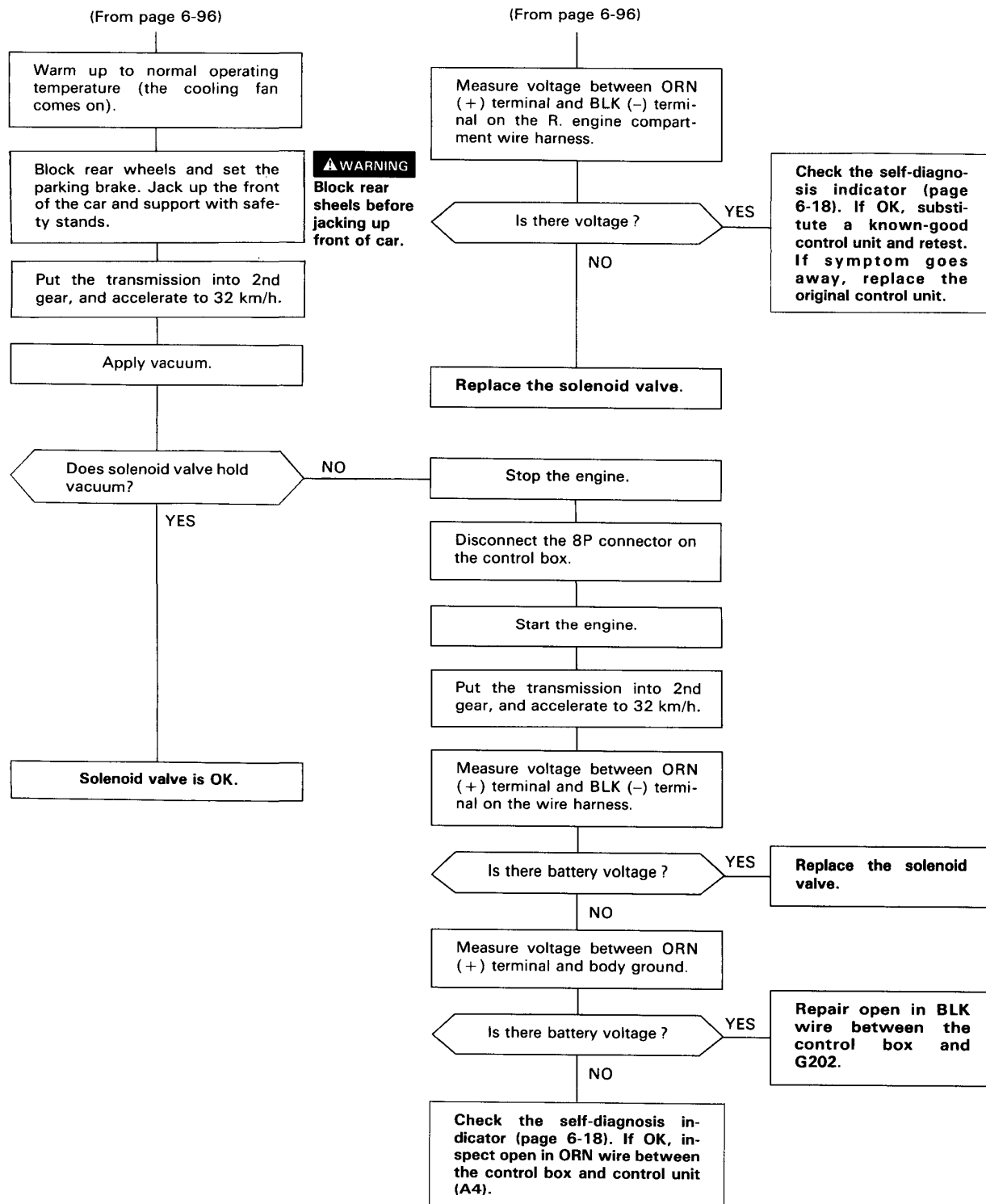
Start the engine.

NO

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# Emission Control System

## Evaporative Emission Controls (cont'd)

[KX, KS, KZ model]

### Troubleshooting Flowchart Inner Vent Solenoid Valve

Inspection of Inner Solenoid Valve

Remove the air cleaner cover and filter element.

Disconnect two vacuum hose from the carburetor and connect a vacuum pump.

Start the engine and warm up to normal operating temperature (the cooling fan comes on).

Apply vacuum.

Does solenoid valve hold vacuum?

YES

Turn the ignition switch OFF.

Disconnect the GRN/RED connector and BLK connector near the air cleaner.

Start the engine.

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

Is there battery voltage?

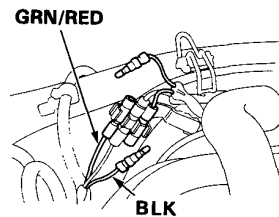
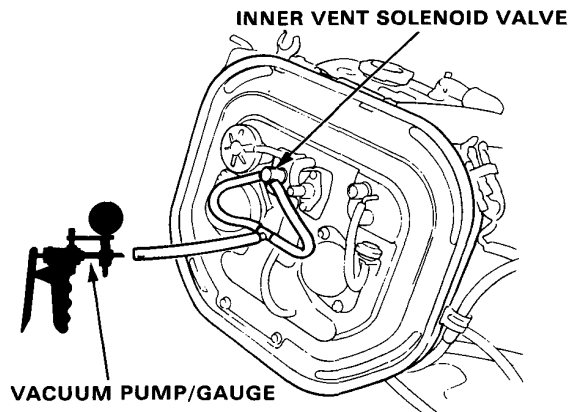
YES

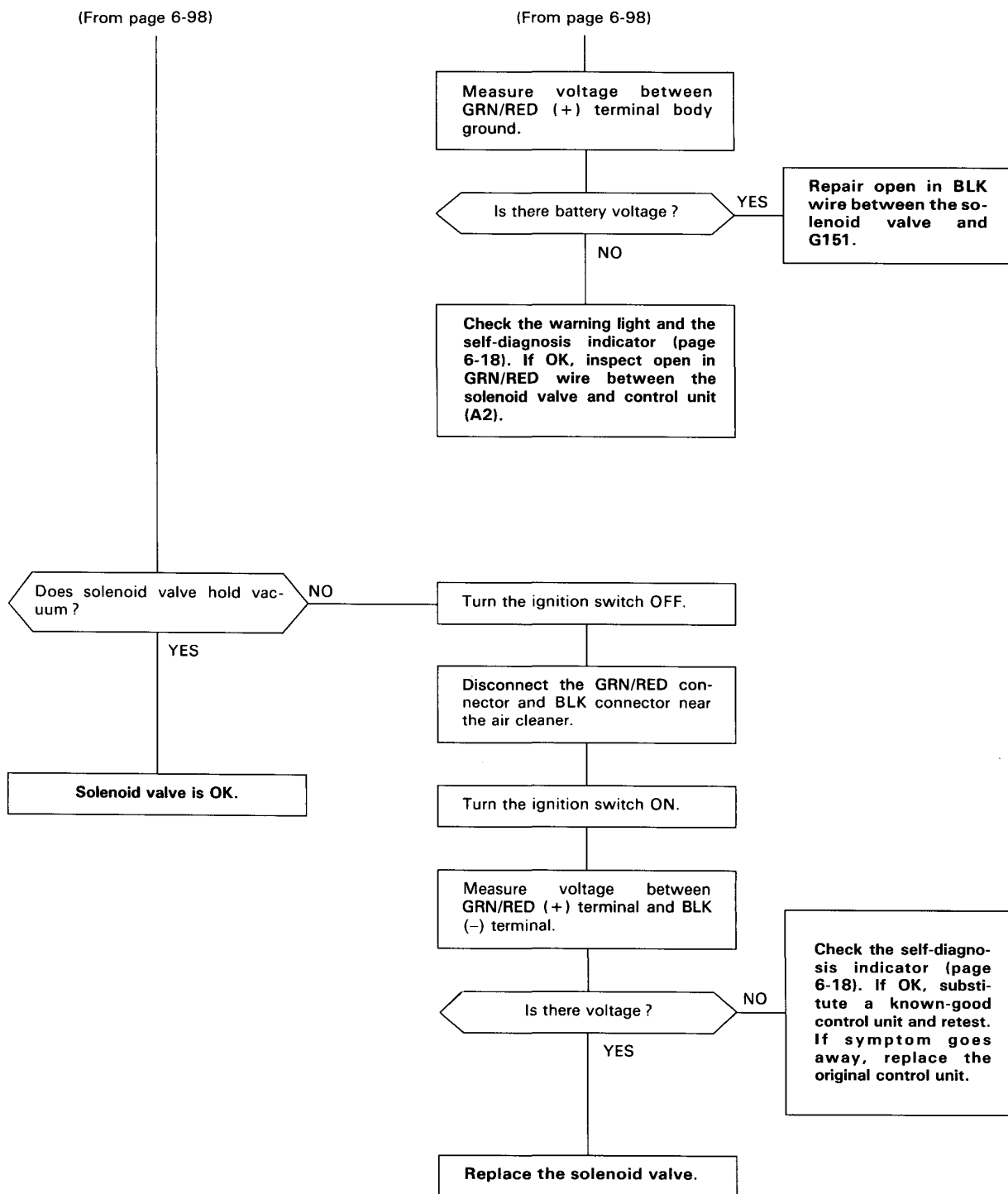
Replace the solenoid valve.

NO

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# Emission Control System

## Evaporative Emission Controls (cont'd)

[KX, KS, KZ model]

### Troubleshooting Flowchart Air vent Cut-off Solenoid Valve

Inspection of Air Vent Cut-off Solenoid Valve.

Disconnect the upper hose of the solenoid valve from the air cleaner and connect a vacuum pump.

Disconnect the lower hose of the solenoid valve.

Start the engine and warm up to normal operating temperature (the cooling fan comes on).

Apply vacuum.

Does solenoid valve hold vacuum?

NO

Stop the engine.

Apply vacuum.

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YES

Turn the ignition switch OFF.

Connect the ECU test harness between the control unit and connector (page 6-16)

Start the engine.

Measure voltage between D2 (+) terminal and A26 (-) terminal.

(To page 6-101)

