

# Carburetor

## Idle Control System

### Testing

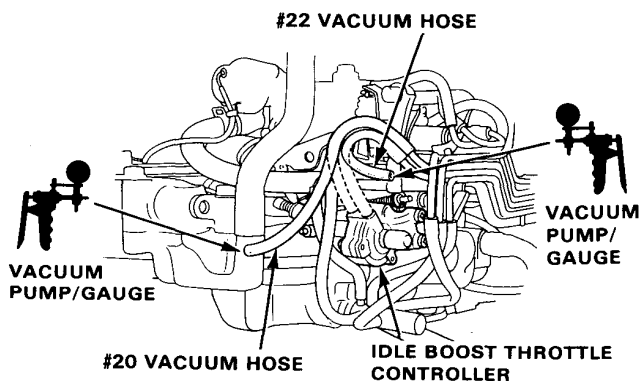
1. Start the engine and warm up to normal operating temperature (the cooling fan comes on).
2. Check the idle speed with headlights, heater blower, rear window defogger, cooling fan and air conditioner off.

Idle speed should be:

Manual	$800 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (in "D")

- If OK, go to step 4.
  - If not, go to step 3.
3. Disconnect the two vacuum hoses at idle boost throttle controller and check each for vacuum.

There should be no vacuum in both hoses.



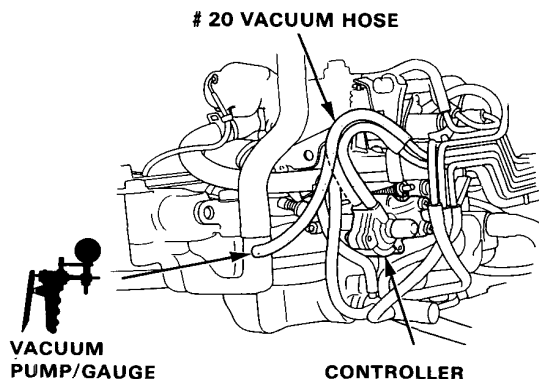
- If there is no vacuum, check the throttle valve shaft for binding or sticking and replace the idle boost throttle controller.
  - If there is vacuum at the #20 vacuum hose, go to idle boost solenoid valve troubleshooting (page 6-33).
  - If there is vacuum at the #22 vacuum hose, go to A/C idle boost solenoid valve troubleshooting (page 6-35).
4. Disconnect the connector on the P/S oil pressure switch, and check the idle speed.

Idle speed should be:

Manual	$950 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$820 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (in "D")

- If OK, go to step 6.
- If not, go to step 5.

5. Disconnect the #20 vacuum hose at idle boost throttle controller and check vacuum wheel is turning. There should be vacuum.



- If there is vacuum, check the throttle valve shaft for binding or sticking and replace the idle boost throttle controller.
  - If there is no vacuum, check the #20 and #12 vacuum line for proper connection, cracks, blockage or disconnected hose. If OK, go to the idle boost solenoid valve troubleshooting (page 6-33).
6. Check the idle speed with the A/C on.

Idle speed should be:

Manual	$800 \pm 50 \text{ min}^{-1} \text{ (rpm)}$
Automatic	$750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$ (in "D")

- If not, disconnect the two vacuum hoses at idle boost throttle controller and check each for vacuum.
- If there is no vacuum at the #20 vacuum hose, check the #20 and #12 vacuum line for proper connection, cracks, blockage or disconnected hose. If OK, go to the idle boost solenoid valve troubleshooting (page 6-33).
- If there is no vacuum at the #22 vacuum hose, check the #22 and #12 vacuum line for proper connection, cracks, blockage or disconnected hose. If OK, go to the A/C idle boost solenoid valve troubleshooting (page 6-35).



## Troubleshooting Flowchart Idle Boost Solenoid Valve

Inspection of Idle Boost Solenoid Valve.

Open the control box.

Disconnect the lower vacuum hose of the solenoid valve from the joint and connect a vacuum pump.

Disconnect #20 vacuum hose of the solenoid valve from the vacuum hose manifold and connect a vacuum gauge.

Start the engine.

Apply vacuum.

Is vacuum indicated on the gauge?

YES

Turn the ignition switch OFF.

Disconnect the connector on the control box.

Start the engine.

Measure voltage between RED (+) and BLK (-) terminals

Is there voltage?

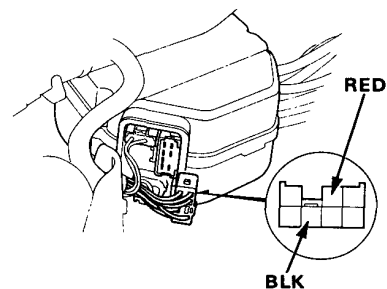
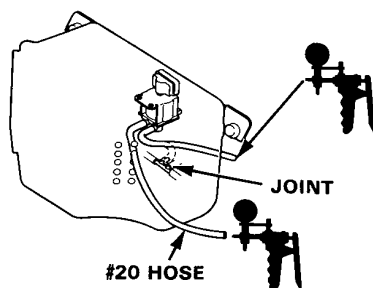
YES

Replace the solenoid valve.

NO

Turn steering wheel slowly.

Apply vacuum.



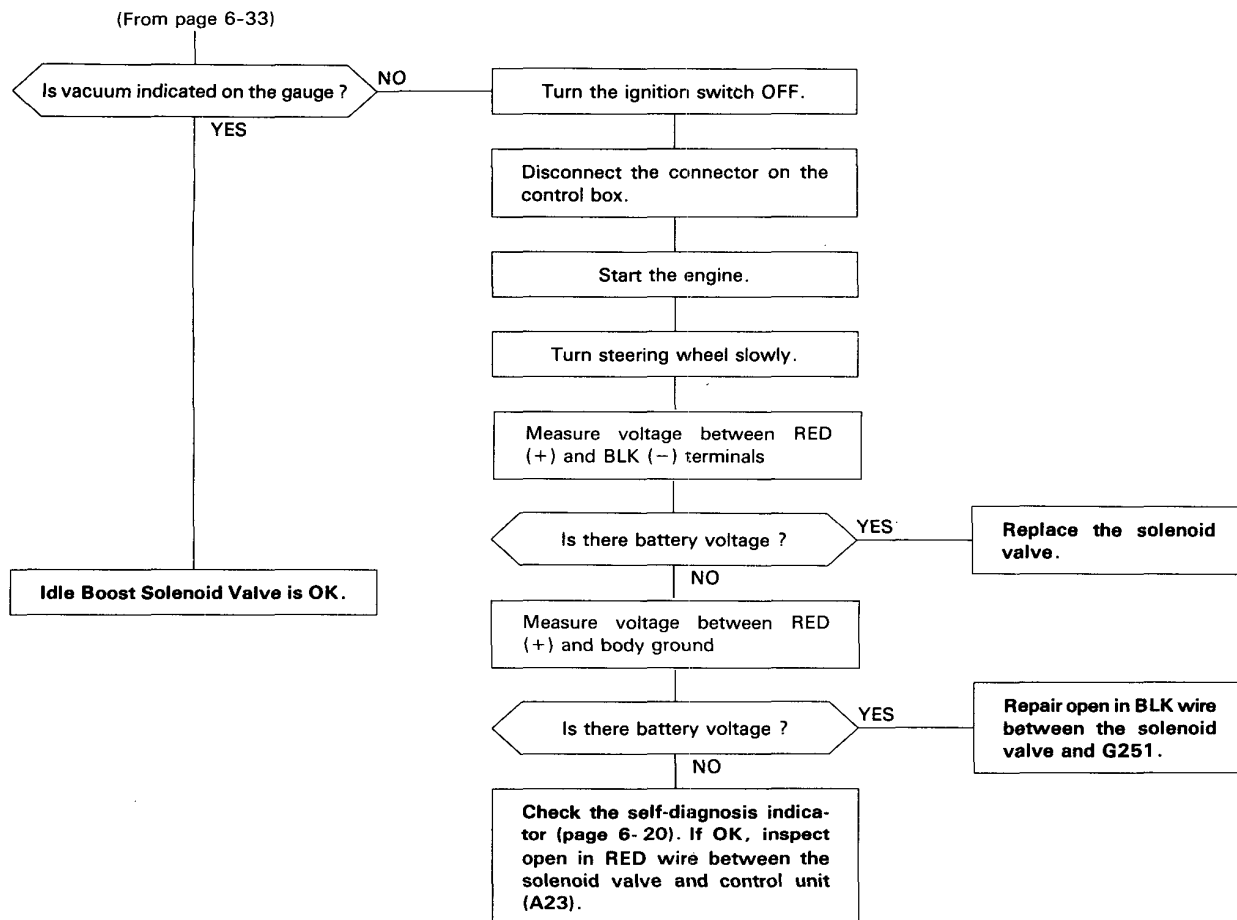
Check the self-diagnosis indicator (page 6-20).  
If OK, check the input troubleshooting (page 6-20).

(To page 6-34)

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# Carburetor

## Idle Control System (cont'd)





## Troubleshooting Flowchart A/C Idle Boost Solenoid Valve

Inspection of A/C Idle Boost Solenoid Valve

Open the control box.

Disconnect the lower vacuum hose of the solenoid valve from the joint and connect a vacuum pump.

Disconnect #22 vacuum hose of the solenoid valve from the vacuum hose manifold and connect a vacuum gauge.

Start the engine.

Apply vacuum.

Is vacuum indicated on the gauge?

YES

Turn the ignition switch OFF.

Disconnect the connector on the control box.

Start the engine.

Measure voltage between GRN (+) terminal and BLK (–) terminal.

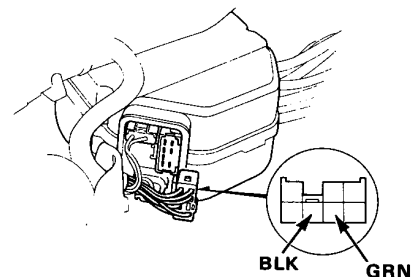
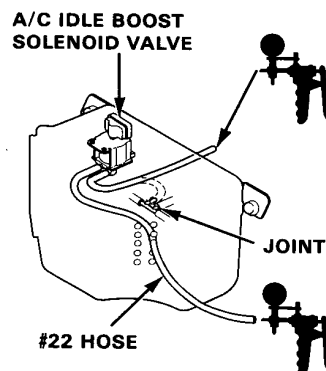
Is there voltage?

YES

Check the self-diagnosis indicator (page 6-20).  
If OK, check the input troubleshooting (page 6-20).

NO

Replace the solenoid valve.



(To page 6-36)

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## Idle Control System (cont'd)

