

# Carburetor

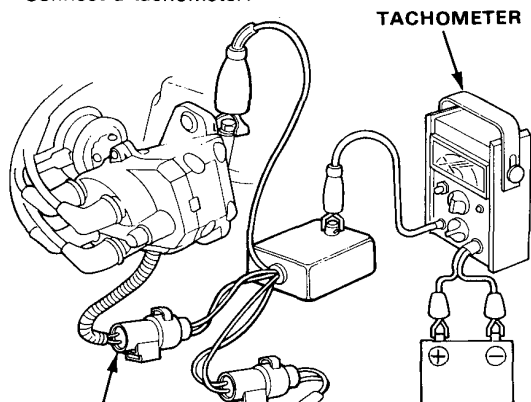
## Idle Control System



[M/T]

NOTE: Snap the accelerator pedal several times and check the idle speed with the accelerator pedal fully returned.

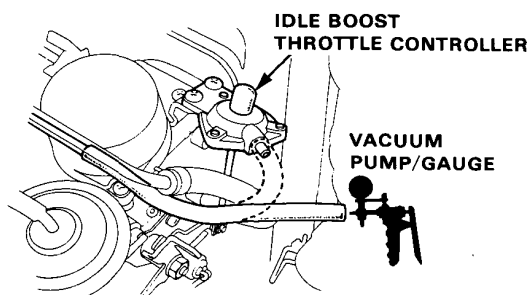
1. Connect a tachometer.



**R.P.M. CONNECTING ADAPTOR  
07JAZ-SH20100**

2. Start the engine and warm up to normal operating temperature (the cooling fan comes on). And warm up the engine further for more than 4 minutes with the engine speed  $2,000 \text{ min}^{-1}$  (rpm).
3. Disconnect the #20 vacuum hose from the idle boost throttle controller and check the vacuum.

There should be no vacuum.



- If there is vacuum, go to troubleshooting (page 6-10).

4. Place choke control knob in 1/8 position, then check the vacuum.

There should be no vacuum.

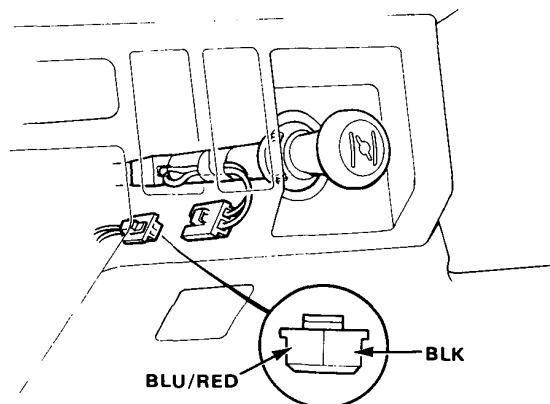
- If there is vacuum, go to troubleshooting (page 6-10).

5. Check the choke lamp.

The choke lamp should come on.

- If it does not come on, go to step 6 through 8.
- If OK, replace the device control unit and retest.

6. Disconnect the 2P connector on the choke switch, and measure voltage between BLU/RED (+) terminal and body ground.



There should be voltage.

- If there is voltage, inspect open in BLK wire between the choke switch and G-401. If OK, replace the choke switch and retest.
- If there is no voltage, inspect open in BLU/RED wire between the choke switch and the device control unit.

7. Check the choke lamp bulb.

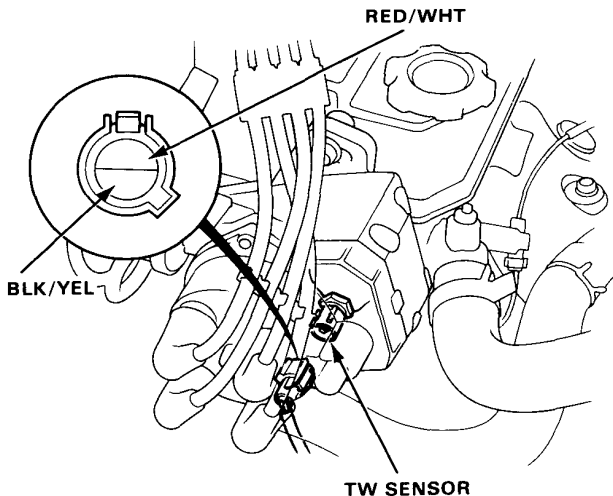
- If not, inspect open in BLU/BLK wire between the combination meter and device control unit, and inspect open in YEL wire between the combination meter and ignition switch as well as No.1 fuse. If OK, replace the choke lamp bulb and retest.

(cont'd)

# Carburetor

## Idle Control System (cont'd)

8. Disconnect the 2P connector on the TW switch, and measure voltage between BLK/YEL (+) terminal and body ground.



There should be voltage.

- If there is voltage, inspect open in RED/WHT wire between the TW switch and the control unit. If OK, replace the TW switch and retest.
- If there is no voltage, inspect open in BLK/YEL wire between the TW switch and the ignition switch as well as No. 14 fuse.

9. Disconnect the 2P connector on the TW switch and check the choke lamp.

The choke lamp should not come on.

- If it comes on, inspect short in BLU/BLK wire between the combination meter and the device control unit.

10. Check the vacuum.

There should be vacuum.

- If there is no vacuum, go to troubleshooting (page 6-10).

11. Warm up the engine further for more than 2 minutes with the engine speed  $2,000 \text{ min}^{-1}$  (rpm).

12. Connect the TW switch and place choke control knob in 1/8 position, then check the choke lamp and vacuum.

The choke lamp should not come on and there should be vacuum.

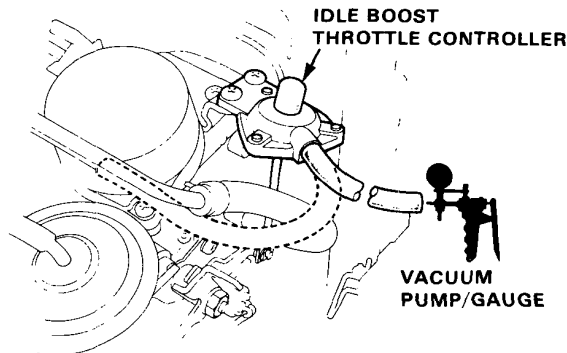
- If not, replace the device control unit and retest.

13. Recheck the choke lamp and the vacuum.

The choke lamp should come on and there should be no vacuum within 4 minutes.

- If not, replace the device control unit and retest.

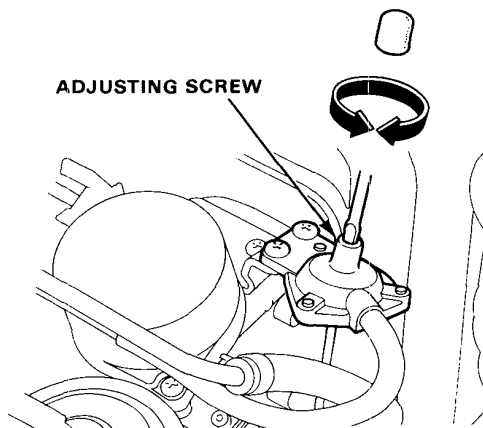
14. Place choke control knob in full open position. Connect a vacuum pump to the idle boost throttle controller.



15. Apply 400 mm Hg (16 in. Hg) vacuum to the idle boost throttle controller, then check the idle speed.

Idle speed should be:  $1,500 \pm 100 \text{ min}^{-1}$  (rpm)

Adjust the idle speed, if necessary, by turning the adjusting screw.





[A/T]

NOTE: Snap the accelerator pedal several times and check the idle speed with the accelerator pedal fully returned.

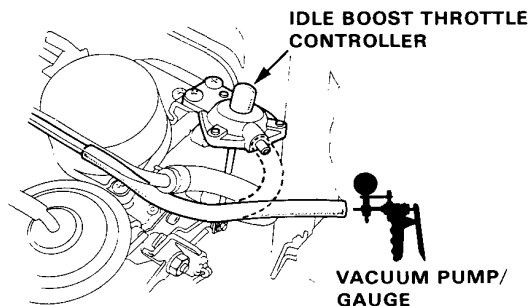
1. Start the engine and warm up to normal operating temperature (the cooling fan comes on).
2. Check the idle speed with headlights, heater blower, rear window defogger, cooling fan and air conditioner off.

**Idle speed should be:**

**$700 \pm 50 \text{ min}^{-1} \text{ (rpm)}$  (except **N** or **P**)**

- If OK, go to step 4.
  - If not, go to step 3.
3. Disconnect the vacuum hose from the idle boost throttle controller and check the vacuum.

There should be no vacuum.



- 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, go to troubleshooting (page 6-12).

4. Check the idle speed with the A/C on.

**Idle speed should be:  $750 \pm 50 \text{ min}^{-1} \text{ (rpm)}$**

- If not, disconnect the vacuum hose from the idle boost throttle controller and check the vacuum.

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, go to troubleshooting (page 6-12).

(cont'd)

# Carburetor

## Idle Control System (cont'd)

[M/T]

### Troubleshooting Flow Chart Idle Boost Solenoid Valve

Inspection of Idle Boost Solenoid Valve.

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

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

Start the engine and warm up to normal operating temperature (the cooling fan comes on). And warm up the engine further for more than 4 minutes with the engine speed  $2,000 \text{ min}^{-1}$  (rpm).

Apply vacuum.

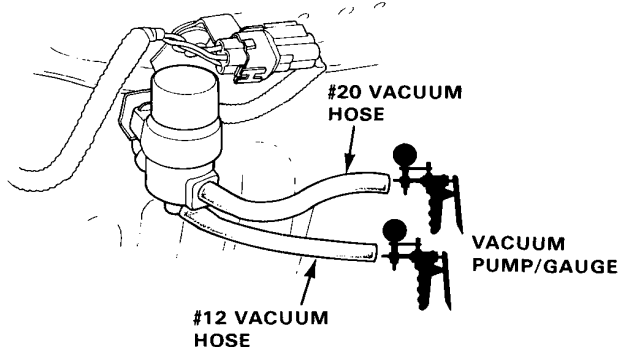
Does solenoid valve hold vacuum?

NO

YES

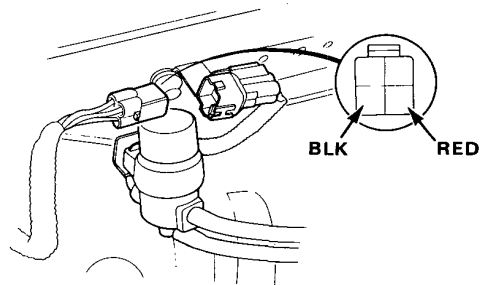
Disconnect the connector from the TW sensor and place choke control knob in 1/8 position, then apply vacuum.

(To page 6-11)



Disconnect the 4P connector near the solenoid valve.

Measure voltage between RED (+) terminal and BLK (-) terminal on the wire harness.



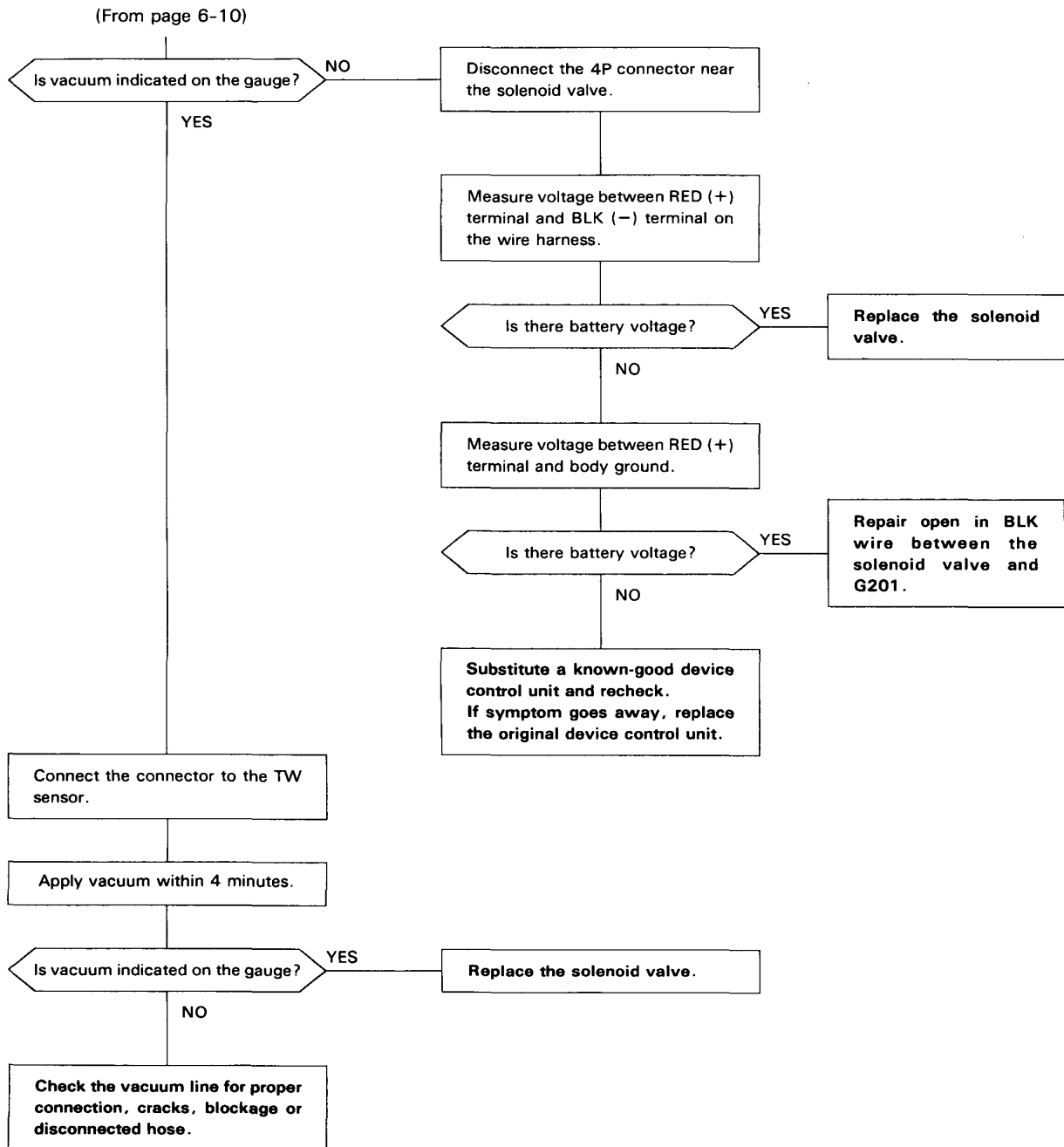
Is there voltage?

YES

NO

Replace the solenoid valve.

Substitute a known-good device control unit and recheck. If symptom goes away, replace the original device control unit.



(cont'd)

# Carburetor

## Idle Control System (cont'd)

[A/T]

### Troubleshooting Flow Chart A/C Idle Boost Solenoid Valve

Inspection of A/C Idle Boost Solenoid Valve.

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

Disconnect the upper vacuum hose of the solenoid valve from the idle boost throttle controller and connect a vacuum gauge.

Start the engine.

Apply vacuum.

Does solenoid valve hold vacuum?

NO

Disconnect the connector near the solenoid valve.

Measure voltage between RED (+) terminal and body ground.

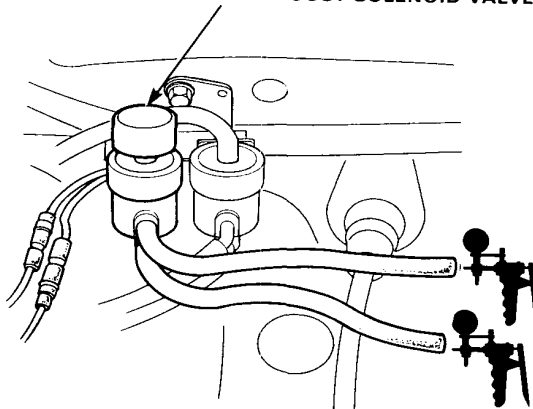
YES

Turn the A/C switch ON.

Apply vacuum.

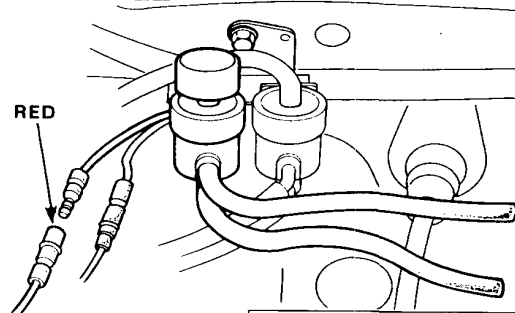
(To page 6-13)

A/C IDLE BOOST SOLENOID VALVE



VACUUM PUMP/  
GAUGE

RED



Is there voltage?

YES

Check the compressor control unit.

NO

Replace the solenoid valve.

