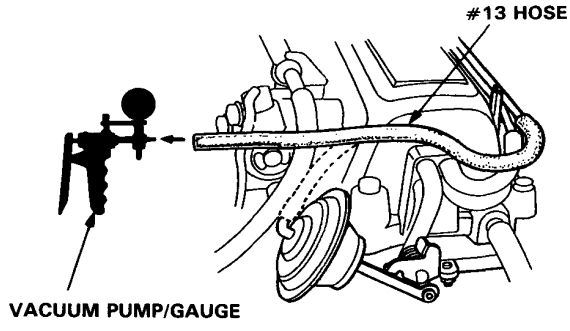
Bypass Control System

Troubleshooting Flow Chart

Inspection of Bypass Control System

Start engine and allow to idle.

Remove #13 vacuum hose from the bypass control diaphragm and connect vacuum gauge to the hose.



Is there vacuum ?

NO

Remove #12 vacuum hose from the vacuum tank, then check for vacuum at the tank.

Is there vacuum ?

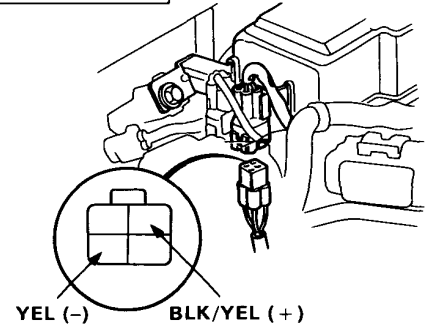
NO

Repair the blockage or vacuum leak between the vacuum tank and the intake manifold.

YES

Disconnect the 4P connector at the control box.

Measure voltage between BLK/YEL (+) terminal and YEL (–) terminal.



Is there battery voltage ?

YES

Replace the bypass control solenoid valve.

NO

Measure voltage between BLK/YEL (+) terminal and body ground.

(To page 6-175)

(To page 6-175)

(From page 6-174)

Raise engine speed to 5,000 min^{-1} (rpm).

Check for vacuum at #13 vacuum hose.

Is there vacuum ?

YES

NO

Bypass control system is OK.

(From page 6-174)

Is there battery voltage?

NO

Repair open in BLK/YEL wire between the 4P connector and No. 12 (10A) fuse.

YES

Turn the ignition switch OFF.

Connect the PGM-FI test harness between the ECU and connector (page 6-116).

Check for continuity of YEL wire between ECU (A17) and the 4P connector.

Does continuity exist ?

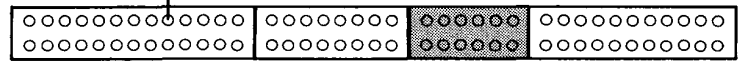
NO

Repair open in YEL wire between ECU (A17) and the 4P connector.

YES

Subsitute a known-good ECU and recheck. If prescribed voltage is now available replace the original ECU.

A17



Disconnect the 4P connector.

Is there vacuum ?

YES

Replace bypass control solenoid valve.

NO

Turn the ignition switch OFF.

Disconnect "A" connector from ECU only, not the main wire harness.

Check for continuity to ground on the YEL wire between ECU (A17) and 4P connector.

Is there continuity to ground ?

YES

Repair short to ground at YEL wire between ECU (A17) and the 4P connector.

NO

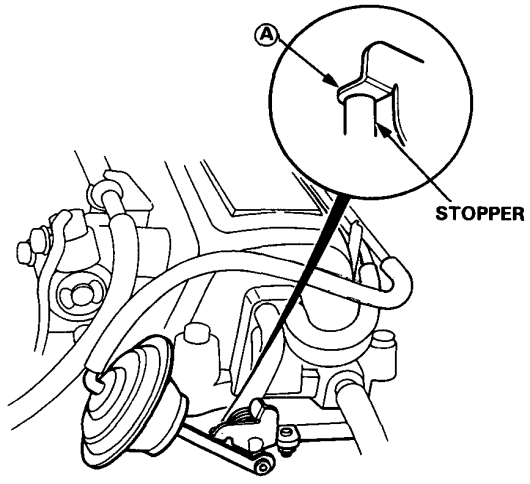
Substitute a known-good ECU and recheck. If symptom goes away, replace the original ECU.

Bypass Valve System

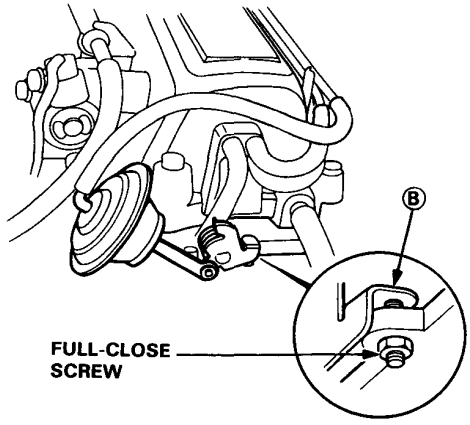
Testing

CAUTION: Do not adjust the bypass valve full-close screw. It was preset at the factory.

1. Check the bypass valve shaft for binding or sticking.
2. Check the bypass valve for smooth movement.
3. Check that Ⓐ of the bypass valve is in close contact with the stopper when the bypass valve is fully open.



4. Check that Ⓑ of the bypass valve is in close contact with the full-close screw when the valve is fully closed.



- If any fault is found, clean the linkage and shafts with carburetor cleaner.

– If the problem still exists after cleaning, disassemble the intake manifold and check the bypass valve (page 6-177).

Bypass Control System

Disassembly