

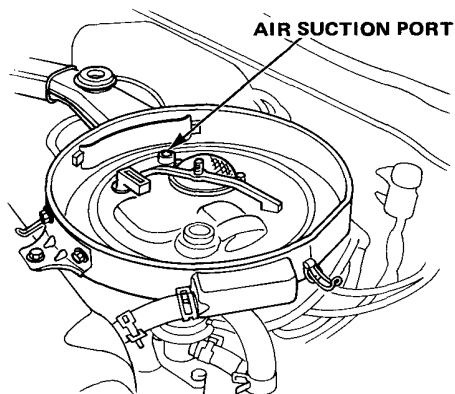
# Air Injection System

## Air Suction Valve

[Australian and Swiss Models] ;

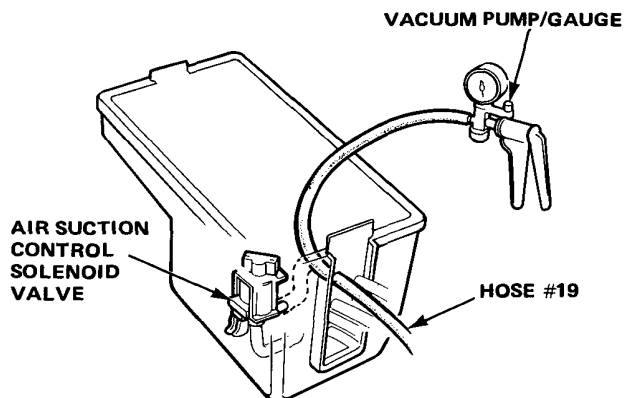
1. Remove the air cleaner cover and filter.
2. Start the engine and check for air suction noise (bubbling noise) from the air suction port at idle.

Bubbling noise should be heard.

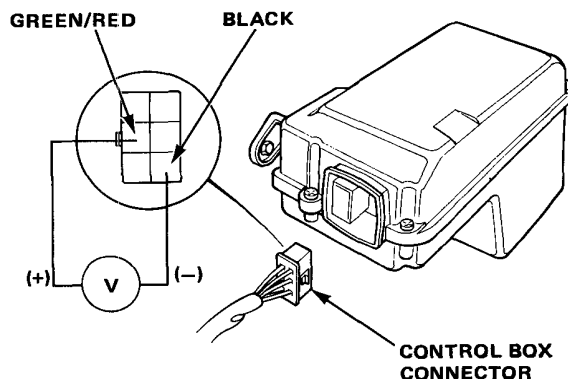


- If bubbling noise is heard, go on to step 4.
  - If bubbling noise is not heard, disconnect hose #5 from the air suction valve and check for vacuum.
    - If there is vacuum, replace the air suction valve and re-test.
    - If there is no vacuum, reconnect hose #5 and go on to step 3.
3. Remove the control box from the fire wall, then remove the control box cover.

Disconnect hose #19 from air suction control solenoid valve and check for vacuum at the hose #19.



- If there is no vacuum, check the vacuum line #19.
- If there is vacuum, check for voltage at the control box connector.



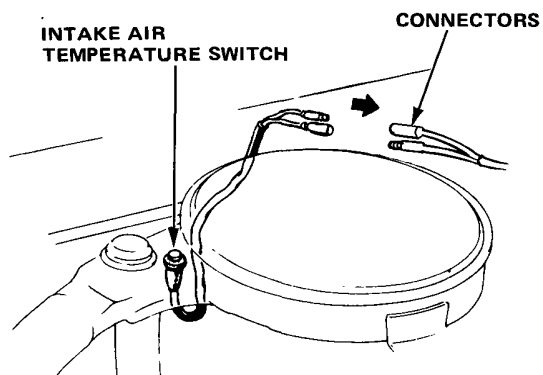
- If there is voltage, replace the air suction control solenoid valve and re-test.
  - If there is no voltage, go to troubleshooting (page 12-23).
4. Raise engine speed to 1,200 min<sup>-1</sup> (rpm).

There should be no bubbling noise.

    - If there is no bubbling noise, go on to step 7.
    - If bubbling noise is heard, disconnect hose #5 from the air section valve and check for vacuum.
      - If there is vacuum, go on to step 6.
      - If there is no vacuum, replace the air suction valve and re-test.
  6. Raise engine speed to 1,200 min<sup>-1</sup> (rpm) and check for voltage at the air suction control solenoid valve.
    - If there is voltage, go to troubleshooting (page 12-23).
    - If no voltage, replace the air suction control solenoid valve and re-test.

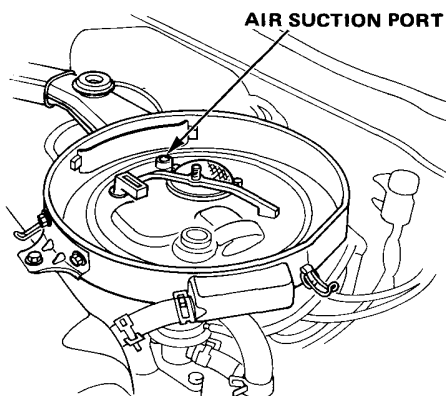


7. Wait for the engine to warm up (cooling fan comes on) and disconnect intake air temperature switch connectors.



8. Raise engine speed to approximately  $3,000 \text{ min}^{-1}$  (rpm), then suddenly release the throttle and check for air suction noise (bubbling noise) from the air suction port.

Bubbling noise should be heard.



- If bubbling noise is heard, go on to step 9.
- If bubbling noise is not heard, go on to trouble-shooting (page 12-23).

**NOTE:** Intake air temperature must be below intake air temperature switch set temperature ( $2^{\circ}\text{C}$ ,  $35.6^{\circ}\text{F}$ ).

9. Reconnect intake air temperature switch connectors, then repeat inspection step 8.

Bubbling noise should not be heard.

- If bubbling noise is heard, go on to trouble-shooting (page 12-23).
- If no bubbling noise, test is complete.