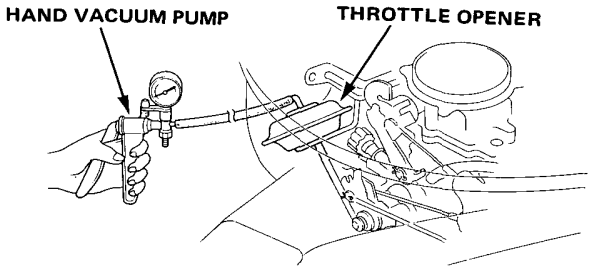
Dashpot

Inspection

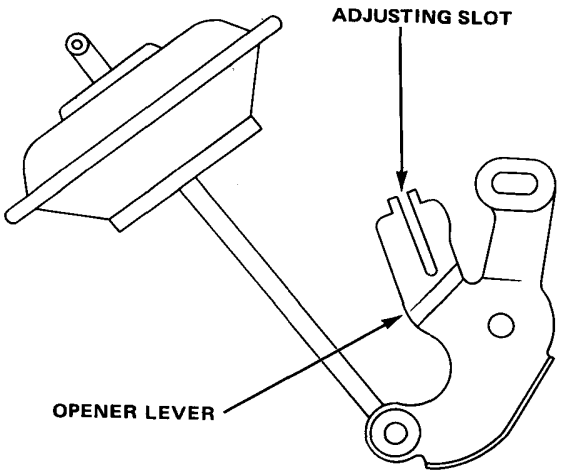
1. Connect a tachometer, start the engine and allow it to reach normal operating temperature (cooling fan comes on).

2. Disconnect vacuum hose from the throttle opener, connect a hand vacuum pump to the opener and apply 400 mmHg (16 in.Hg) vacuum.

   Engine speed should rise to 2,600–3,700 min^{-1} (rpm) within 1 minute.



- If the engine speed rises to 2,600–3,700 min^{-1} (rpm), go on to step 3.
- If rpm is too LOW: Widen the adjusting slot in the opener lever with a screwdriver.



- If the rpm is too HIGH: Narrow the adjusting slot in the lever with long nose pliers.
- If the rpm cannot be adjusted, or the diaphragm will not hold vacuum, replace the throttle opener and re-test.

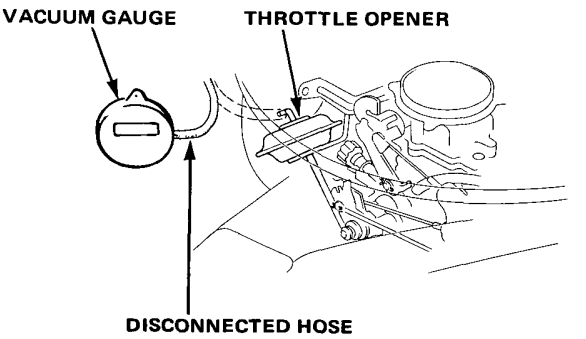
3. Disconnect the vacuum pump and reconnect the hose. Raise the engine speed to 3500 rpm and maintain for 2 to 3 seconds. Release the throttle suddenly, and watch how long the throttle opener arm takes to fully extend.

   Return time should be 1 to 4 seconds.

   - If the engine speed returns to idle in 1 to 4 seconds with the arm fully extended, go on to throttle opener check on page 12-18.
   - If return to idle takes less than 1 second, go on to step 4.
   - If the throttle takes longer than 4 seconds to return, go on to step 5.

4. Disconnect the hose from the throttle opener and connect a vacuum gauge to the disconnected hose. Start and run the engine at 4000 rpm.

   Vacuum should be at least 30 mmHg (1.2 in.Hg) at 4000 rpm.



- If vacuum is at least 30 mmHg (1.2 in.Hg) at 4000 rpm, replace the control valve (Swiss, Swedish and Australian models of manual transmission and Canadian model) or dashpot check valve (other models) and re-test.
- If vacuum is below 30 mmHg (1.2 in.Hg), check for vacuum at the carburetor port.
  - If there is no vacuum, clean the carburetor port and re-test.
  - If vacuum is present, check the vacuum line for leaks, blockage or disconnected hose and re-test.

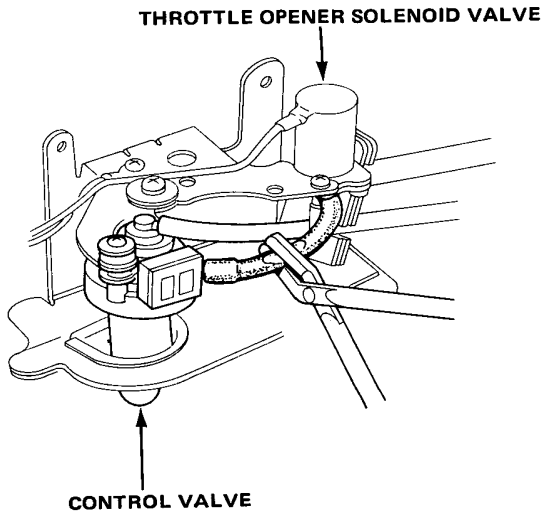
(cont'd)

Dashpot

Inspection (cont'd)

(Only Swiss, Swedish and Australian Models of Manual Transmission and Canadian Model.)

5. Pinch the hose between the throttle opener solenoid valve and control valve and repeat step 3.
   - If there is no change, replace the control valve and repeat step 3.
   - If the throttle return time is within the limits with hose pinched, check for voltage at the throttle opener solenoid valve (yellow/white wire of the control box connector)
     - If voltage is present, replace the speed sensor and re-test.
     - If there is no voltage, replace the throttle opener solenoid valve and re-test.



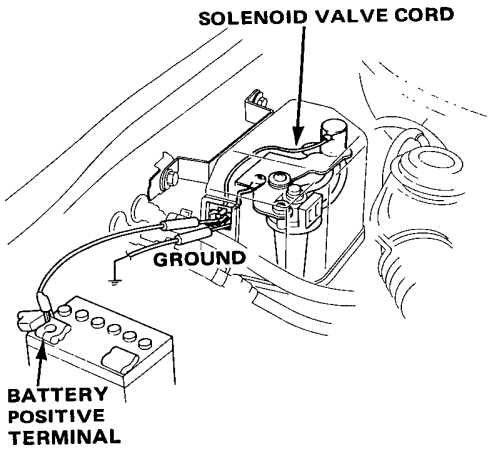
Throttle Opener

Inspection

(Only Swiss, Swedish and Australian Models of Manual Transmission and Canadian Model.)

NOTE: Dashpot check should be completed before testing.

1. Start the engine and allow it to reach normal operating temperature (cooling fan comes on).
2. Bypass the speed sensor by jumping the battery (+) voltage to the yellow/white wire at the control box connector.
3. Raise the engine speed to 3,500 min^{-1} (rpm) and release the throttle. The return time to the idle should be longer than the dashpot check time (1—4 seconds) but not longer than 6 seconds.



   - If the return time to the idle takes longer than the time you recorded for the dashpot system, but not longer than 6 seconds, the throttle opener is OK. Go on to step 5.
   - If the return time is longer than 6 seconds, replace the throttle control valve and retest.
   - If the return time is less than the time you recorded for the dashpot system, go on to step 4.
4. Remove the vacuum line connecting the throttle opener solenoid valve to the control valve. Check for vacuum at the throttle opener solenoid valve.
   - If vacuum is present, replace the control valve and re-test.
   - If no vacuum, replace the throttle opener solenoid valve and re-test.
5. Disconnect the battery jumper and stop the engine.