

1974-79 EXHAUST EMISSION SYSTEMS

Honda Throttle Opener System

3-233

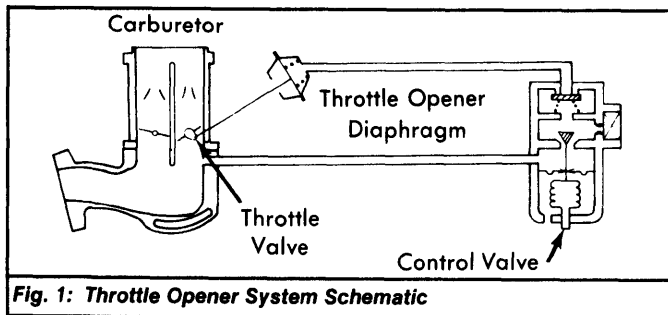
Civic

DESCRIPTION

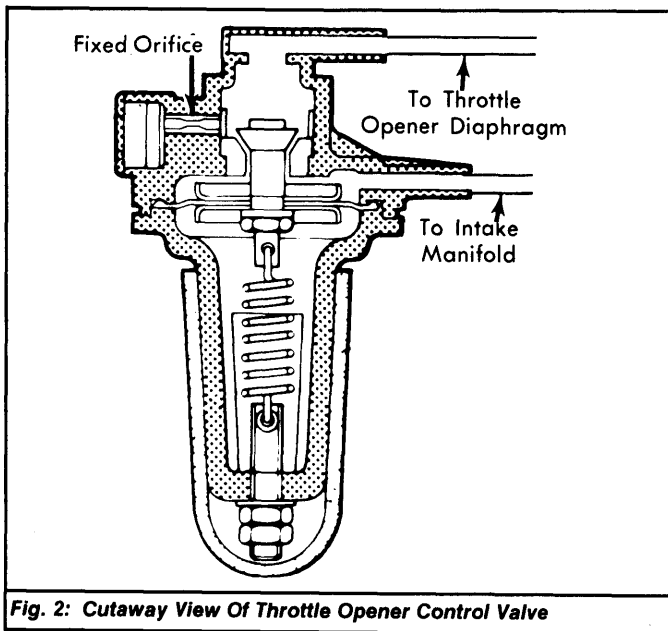
The throttle opener system, used on manual transmission models only, holds the throttle open slightly during deceleration to prevent high hydrocarbon (HC) emissions caused by incombustible mixtures. The system consists of a throttle control valve and a throttle opener diaphragm.

OPERATION

The throttle opener system is designed to prevent misfire during deceleration by causing the throttle valve to remain slightly open allowing better combustion. The control valve is set to allow the passage of vacuum to the throttle diaphragm when the intake manifold vacuum is equal to or greater than the control valve preset vacuum during deceleration.



Under normal operating conditions, the intake manifold vacuum is less than the preset vacuum of the control valve and the valve is not actuated. However, a sudden change in vacuum (throttle suddenly closed) will actuate the throttle opener for the required time interval. The throttle opener then returns to the normal position as the vacuum remaining in the throttle opener and control valve is returned to atmospheric pressure through the orifice in the control valve.



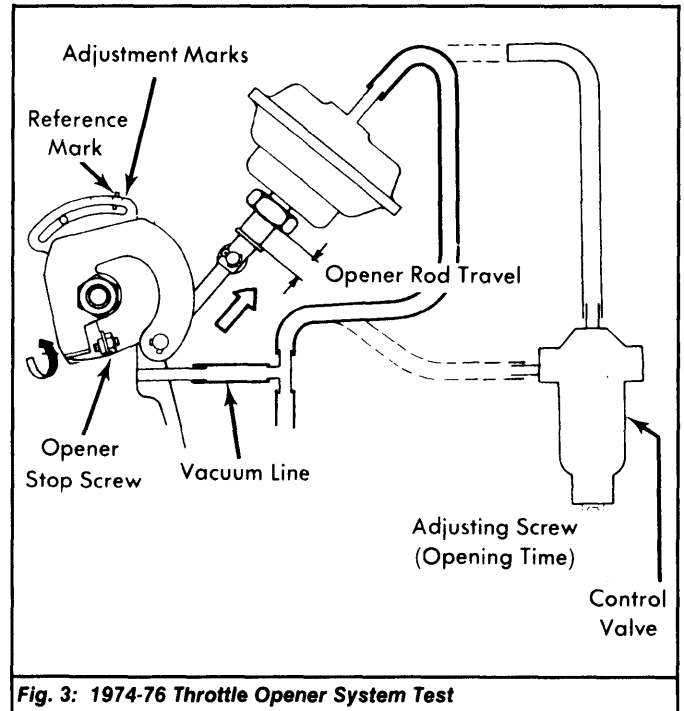
TESTING

THROTTLE OPENER SYSTEM

1974-76 Models - 1) Check for loose, disconnected or deteriorated vacuum hoses. Replace as necessary. With engine idling at normal operating temperature, disconnect vacuum hose from intake manifold and connect hose directly to throttle opener diaphragm. See Fig. 3.

2) Observe that throttle opener rod retracts when engine speed is increased. Reference mark on throttle opener bracket should be between adjustment marks on throttle lever.

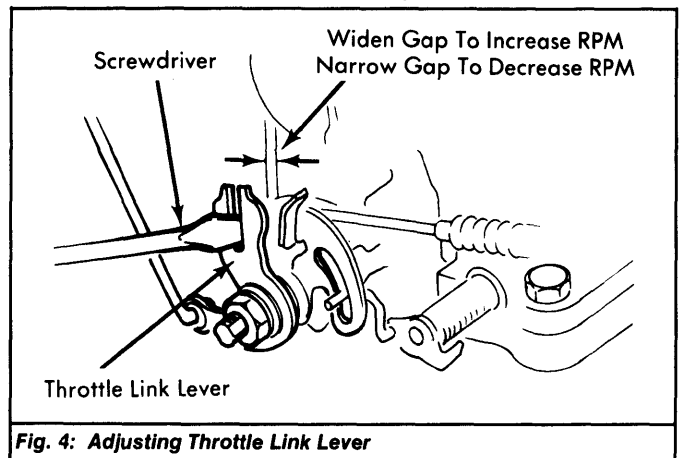
3) Check throttle opener rod for full retraction of .20" (5 mm). If fully retracted, adjust throttle opener stop screw to center reference mark between adjustment marks.



4) If full retraction is not possible, connect vacuum gauge to manifold vacuum hose. If no vacuum is present, clean port in intake manifold and check carburetor linkage for sticking or binding.

5) Reconnect hoses to original locations and check that control valve will retract throttle opener at least 1/2 its total travel for 1 second when throttle is closed suddenly from 3500 RPM.

6) If not, disconnect hose connected to 4-way fitting and air temperature control check valve. Connect a vacuum gauge to hose. When throttle is closed suddenly from 3500 RPM, vacuum reading should be 19-20 in. Hg. If not, turn control valve adjustment screw.



1977-79 Models - 1) Check for loose, disconnected or deteriorated vacuum hoses. Replace as necessary. With engine at normal operating temperature and idle speed set to specifications, disconnect vacuum hose from throttle opener diaphragm and connect a hand-held vacuum pump to diaphragm.

2) Draw at least 16 in. Hg of vacuum with pump and check idle speed. Engine speed should increase to 1100-1700 RPM. If engine speed

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Honda Throttle Opener System (Cont.)

does not increase, adjust throttle link lever. See Fig. 4. If speed cannot be adjusted or diaphragm will not hold vacuum, replace throttle opener diaphragm unit.

3) Reconnect vacuum line to throttle opener diaphragm. Hold engine speed at 3500 RPM, release throttle, and note time required for throttle to close. Time should be 2-8 seconds. If not, turn control valve adjusting nut clockwise to decrease time or counterclockwise to increase time. See Fig. 5. If time cannot be adjusted, replace control valve and repeat testing procedure.

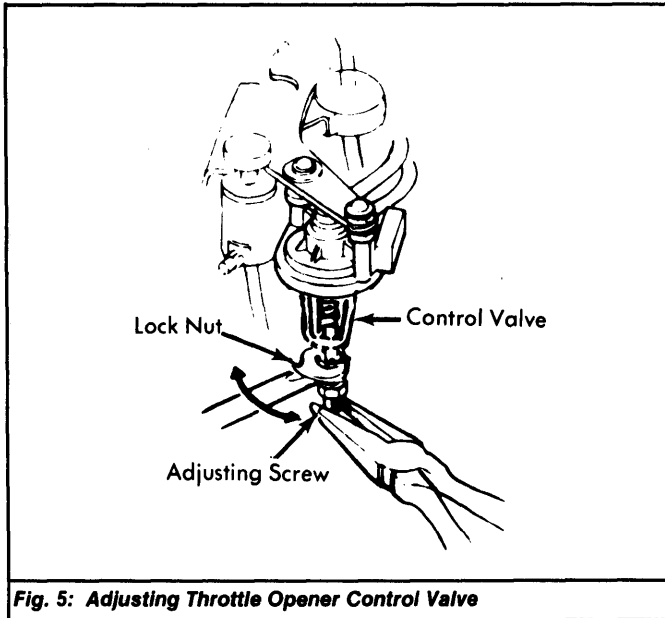


Fig. 5: Adjusting Throttle Opener Control Valve