HONDA THROTTLE CONTROL SYSTEM

Accord, Civic, Prelude

DESCRIPTION

The throttle control system is used to reduce hydrocarbon (HC) emissions during gear shifting and deceleration. The throttle opener diaphragm holds the throttle open slightly as necessary to improve combustion. System consists of a throttle control valve, cranking solenoid valve, control switch solenoid valve, check valve, and dashpot check valve (except on Civic 1300 5-Speed Man. Trans. Federal models).

OPERATION

DASHPOT SYSTEM

This system slows the closing of the throttle. During periods of deceleration, ported vacuum in the carburetor acts on the throttle control valve through the dashpot check valve to hold the throttle open slightly. The fixed orifice in the dashpot check valve gradually decreases the vacuum until the throttle closes completely.

The speed at which the throttle closes is determined by the size of the fixed orifice in the dashpot check valve, the tension of the throttle return spring, and the amount of vacuum generated at the carburetor port above the preset level in the dashpot check valve.

THROTTLE CONTROL VALVE

This system aides engine starting. As starter is engaged, the cranking solenoid valve is activated through the starter relay to allow intake manifold vacuum into the diaphragm. This helps to maintain the correct throttle opening angle.

TESTING

DASHPOT SYSTEM CHECK

1) Connect tachometer to engine. Start engine and allow to reach normal operating temperature (cooling fan on). Disconnect vacuum hose from throttle control valve.

2) Connect hand vacuum pump to throttle control valve and apply 8 in. (200 mm) Hg vacuum. Check that engine speed rises (within 1 minute) to 1500-2500 RPM on Accord and Prelude models or 1200-2200 RPM on Civic models.

3) If speed was too low, widen the adjusting slot in the throttle control valve lever with a screwdriver. If speed was too high, narrow the slot with pliers. If speed cannot be adjusted, or diaphragm will not hold vacuum, replace the throttle control valve and retest. *See Fig. 2.*

Fig. 2: Control Lever Adjusting Slot Location

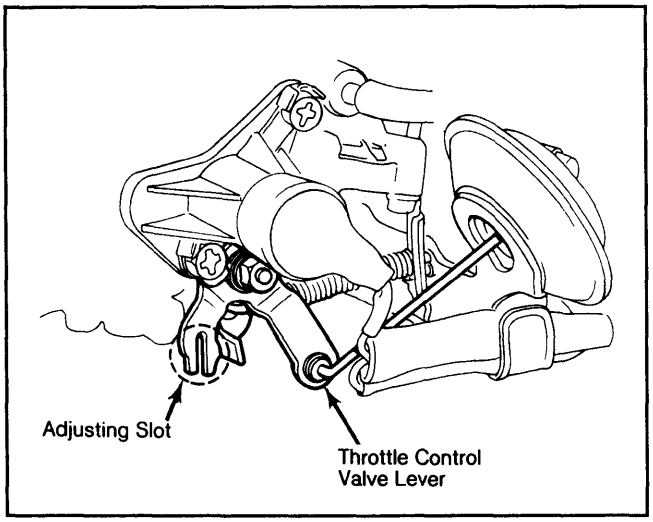
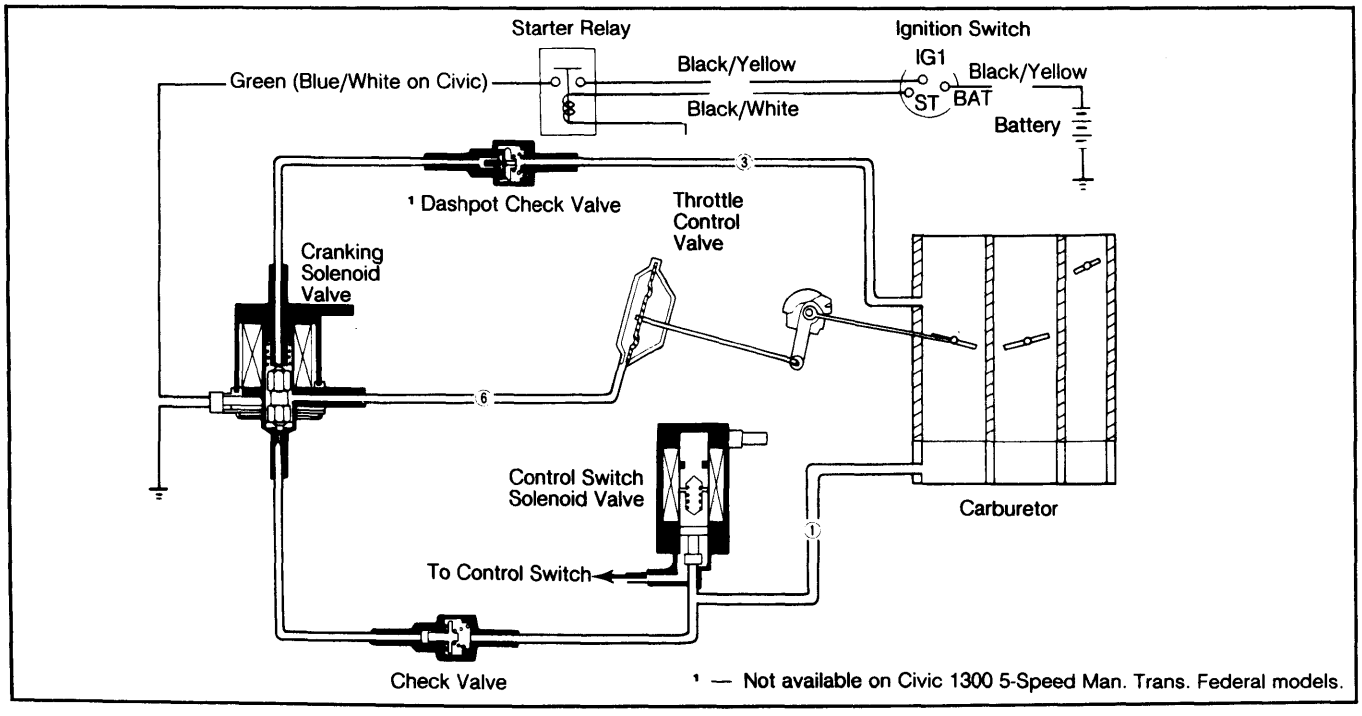


Fig. 1: Honda Throttle Control System Diagram



HONDA THROTTLE CONTROL SYSTEM (Cont.)

CRANKING SOLENOID VALVE CHECK

1) Complete "Dashpot System Check" as outlined previously. Ground coil secondary wire. Turn ignition to "111" and check that throttle control valve arm retracts as engine is cranked.

2) If control valve operates, test is complete. If not, connect the connector and insert positive probe of voltmeter into Blue/Red wire on Accord and Prelude models or Green wire on Civic models.

3) If no voltage was present, check wiring and fuses. If okay, replace starter relay located on relay bracket on Accord models, on fuse box/relay panel on Civic models or on left side of ignition coil on Prelude models.

4) If voltage was present, disconnect hose between cranking solenoid valve and check valve at the solenoid valve. Crank the engine and check for vacuum.

5) If vacuum was present, replace cranking solenoid valve and retest. If no vacuum, check vacuum line for leaks or blockage. If none, replace check valve and retest.