1974-79 EXHAUST EMISSION SYSTEMS
General Motors Coasting Richer System

LUV

DESCRIPTION

Coasting richer system is used to prevent excessive emissions which could be created when engine is decelerating or coasting. A lean mixture, resulting from closed throttle valve for extended period of time, will create inefficient combustion. This system richens air/fuel mixture through an auxiliary fuel supply system. Coasting richer system consists of transmission switch, clutch switch, accelerator switch, engine speed sensor (if equipped), and coasting richer solenoid valve.

OPERATION

When engine speed sensor, accelerator switch, clutch switch, and transmission switch are on, coasting solenoid valve on secondary side of carburetor is energized. This opens fuel passage from coasting jet and air bleed which supplies additional fuel into lower part of secondary throttle. Fuel mixture is now enriched temporarily for efficient combustion during coasting.

ACCELERATOR SWITCH

Switch is connected to accelerator linkage and is on, completing circuit to solenoid, when accelerator pedal is NOT depressed. When it is depressed, accelerator switch opens electrical circuit to coasting solenoid.

CLUTCH SWITCH

Located near clutch pedal, switch is turned off when clutch is pedal depressed, opening circuit to coasting richer solenoid valve.

TRANSMISSION SWITCH

Switch is installed on transmission shift quadrant or on shift lever. On automatic transmission, switch is turned on when shift lever is placed in any forward gear (3rd or 4th gear on manual transmission).

ENGINE SPEED SENSOR

1976-78 California Models - Engine speed sensor detects engine RPM by sensing pulses from ignition coil. When engine speed exceeds 1600 RPM, engine speed sensor turns on and coasting richer solenoid valve may be energized.

TESTING

ACCELERATOR SWITCH

Check that clearance between accelerator switch and accelerator pedal linkage is .04-.05" (1.0-1.3 mm). Detach electrical connector and install continuity tester. Switch should be on when pedal is released and off when pedal is depressed.

CLUTCH SWITCH

Switch plunger should contact accelerator linkage with .02-.04" (0.5-1.0 mm) plunger extended from switch. Attach continuity tester to clutch switch and check that switch is on when pedal is released and off when pedal is depressed.

TRANSMISSION SWITCH

Automatic Transmission - **1)** Adjust switch if engine can be started in any gear position other than Park or Neutral. If necessary, loosen screws holding switch.

2) Adjust switch so center of switch arm aligns with Neutral position indicator line on case when shift lever is in Neutral position. Check adjustment by making sure engine starts in Park or Neutral positions only.

Manual Transmission - Detach wiring connector and install continuity tester. When transmission is placed in 3rd or 4th gear, switch should show continuity. No continuity should be present when in any other gear. On 1976-78 California models, switch will show continuity in all gear positions except Neutral.

ENGINE SPEED SENSOR

1976-78 California Models - Disconnect engine speed sensor. Connect jumper wire between Black, Black/Red, and Black/Yellow terminals. With engine above 1500 RPM, check for continuity between Black/White color coded terminals. Engine speed sensor is okay if continuity exists.

MAINTENANCE

Inspect components of coasting richer system for proper operation every 15,000 miles.

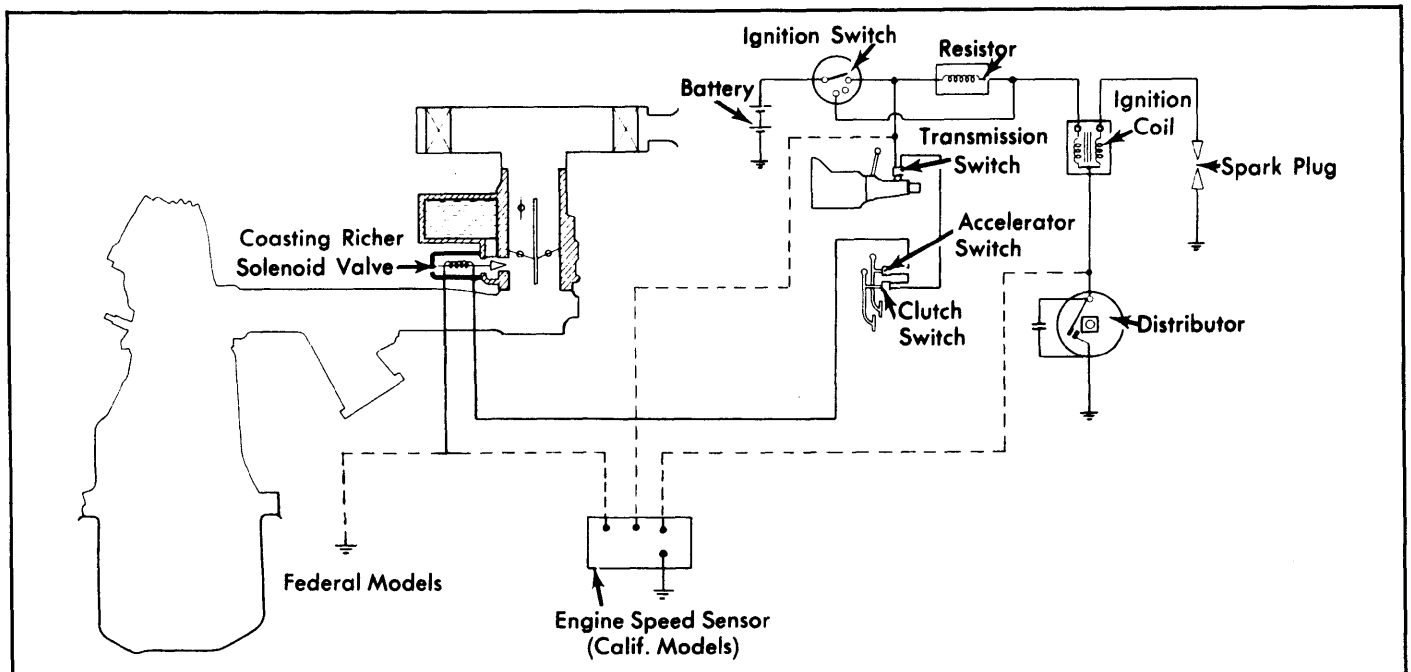

Fig. 1: 1974-78 LUV Coasting Richer System (1979 Models Similar)