TOYOTA DECELERATION FUEL CUT SYSTEM

Celica
Corolla
Corona
Land Cruiser
Pickup
Tercel

DESCRIPTION

This system aids in emission control and engine performance during prolonged periods of deceleration. The system will cut off part of the fuel to the carburetor slow circuit, thus leaning the mixture and preventing afterburning and overheating which results from a rich mixture. System consists of a fuel cut solenoid, vacuum switch, computer, and connecting tubing and wiring.

OPERATION

On all models except Tercel, the slow speed circuit in the carburetor operates except during prolonged periods of deceleration at high engine speeds. Under these conditions, the computer turns off the fuel cut solenoid valve and the mixture is leaned out. This prevents overheating and afterburning in the catalytic converter.

The Calif. Tercel secondary system and Federal Tercel system are operated only by a vacuum switch. There is no speed sensor or computer, and VCV (Federal models only) is used only for hose connection, not for vacuum control. The Calif. primary system is the same as those on all other models.

Deceleration Fuel Cut Operation

Application	Above Engine RPM	Above Vacuum In. (mm) Hg
Celica, Corona, Pickup	2590	16.75 (425)
Corolla	2390	16.75 (425)
Land Cruiser	1800	14.00 (355)
Tercel		
Calif.	2290①	16.75 (425)
Federal	----	8.85 (225)

① — Primary system only.

TESTING

DECELERATION FUEL CUT SYSTEM

Tercel (Calif. Secondary & Federal) — Start engine and run at idle. Disconnect vacuum hose to the vacuum switch. A click should be heard at the 2nd fuel cut solenoid. If so, system is working properly. If not, test switch and solenoid valve.

All Others — 1) Start engine and check that it idles properly. Pinch off hose to vacuum switch.

2) Gradually increase engine speed to 2000 RPM (Land Cruiser), 2300 RPM (Calif. Tercel), 2500 RPM (Corolla), or 3000 RPM (all others). Engine should misfire slightly for last 500 RPM as speed is raised.

NOTE — *Perform this procedure quickly to avoid overheating and damage to converter.*

3) Release hose and raise engine speed, checking to see that engine runs smoothly.

4) Unplug wiring connector to solenoid valve. Engine should now idle roughly. If this responds as indicated, system is operating normally.

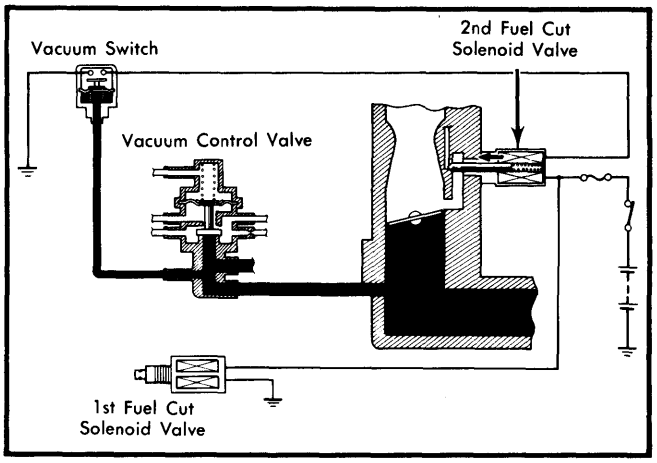

Fig. 1 Deceleration Fuel Cut System (Federal Tercel)

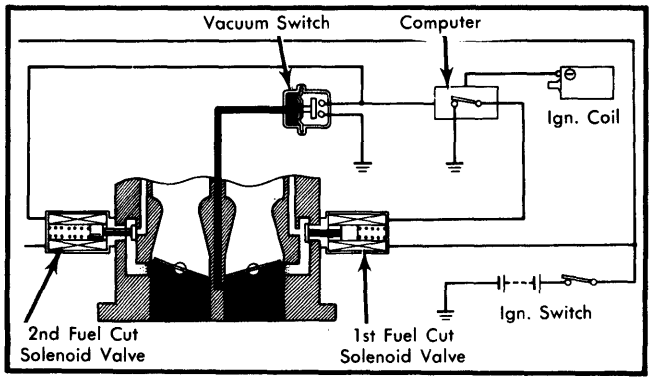

Fig. 2 Deceleration Fuel Cut System (Calif. Tercel)

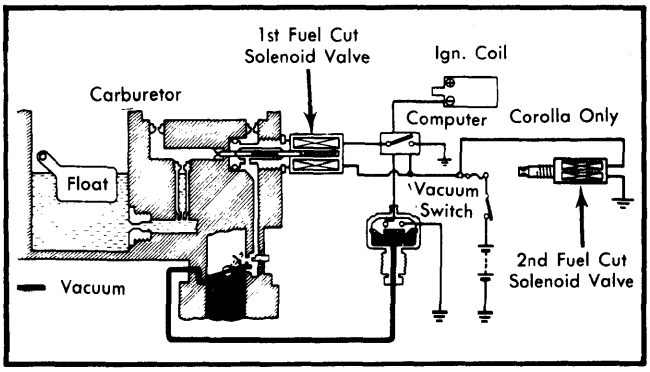

Fig. 3 Deceleration Fuel Cut System (All Others)

SOLENOID VALVE

Remove valve from engine and apply battery voltage to terminals. Solenoid should click if operating properly. Check "O" ring for damage and replace if necessary.

VACUUM SWITCH

Disconnect wiring connector from switch. Check for continuity between terminal and body of switch with engine stopped. With engine running there should be no continuity.