

## **CHART A-2**

## WON'T FLASH CODE 12 "SERVICE ENGINE SOON" LIGHT ON STEADY

## 5.7L"Y" SERIES FUEL INJECTION (PORT)

There should always be a steady "SERVICE ENGINE SOON" Light when the ignition is "on" and engine stopped. Battery ignition voltage is supplied to the light bulb. The Electronic Control Module (ECM) will turn the light on by grounding circuit 419 at the ECM.

With the diagnostic terminal grounded, the light should flash a Code 12, followed by any trouble code(s) stored in memory.

A steadylight suggests a short to ground in the light control circuit 419, or an open in diagnostic circuit 451.

1. If the light goes off when the ECM connector is disconnected, then circuit 419 is not shorted to ground. Also, check the connector terminals physically for proper contact at this time.

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- 2. This step will check for an open diagnostic circuit 451.
- 3. At this point the "SERVICE ENGINE SOON" light wiring is okay. The problem is a faulty ECM or MEM-CAL. If a Code 12 did not flash, the ECM should be replaced using the original MEM-CAL. Replace the MEM-CAL only after trying an ECM, as a defective MEM-CAL is an unlikely cause of the problem.

Solenoids and relays are turned "ON" and "OFF" by the ECM, using internal electronic switches called "drivers". Each driver is part of a group of four called "Quad-Drivers". Failure of one driver can damage any other driver in the set. Solenoid and relay coil resistance must measure more than 20 ohms. Less resistance will cause early failure of the ECM "driver".

Before replacing ECM, be sure to check the coil resistance of all solenoids and relays controlled by the ECM. See ECM wiring diagram for the solenoid(s) and relay(s) and the coil terminal identification. Also check ECM ground circuits.

