P0761 Shift Solenoid 'C' Circuit Range/Performance (Au...

P0761 Shift Solenoid 'C' Circuit Range/Performance - Automatic Transmission

Possible Causes

- S3 has failed (a mechanical fault)
- Transmission has internal problems (e.g., in the brake, clutch or gears)
- S3 connector is damaged (check pins for damage, and for moisture)
- S3 is stuck open or stuck closed
- Valve body is blocked or sticking

Setting Conditions

Engine running; vehicle driven to over 50 mph and then back to idle speed several times, and the ECM detected the "requested" gear for driving did not match the "actual" gear. Shift solenoid 'C' is referred to as S3. This DTC indicates "stuck ON malfunction" or "stuck OFF malfunction" of the shift solenoid valve S3. The ECM commands gear shifts by turning the shift solenoid valves On/Off. With the gear position commanded by the ECM and the actual gear position are not same, the ECM sets this trouble code.

Malfunction Indicator Lamp (Manual and Automatic Transmission)

Malfunction Indicator Lamp

The Malfunction Indicator Lamp (MIL) alerts the driver that the Engine Control Module (ECM) or Powertrain Control Module (PCM) has detected an OBD II emission-related component or system fault. When this type of malfunction occurs, an OBD II Diagnostic Trouble Code (DTC) will be set by the PCM. The MIL is located on the instrument cluster and is labeled CHECK ENGINE, SERVICE ENGINE SOON, or is identified with an ISO standard engine symbol (i.e., a picture of an engine)

Bulb Test

Each time the ignition switch is turned to the "on" position, the MIL indicator is illuminated for about 3 seconds (which is a function of the PCM)

MIL Lamp-On Message

Each time the PCM detects an Emissions related fault, the MIL is illuminated to inform the driver that the vehicle needs to be taken in for service.

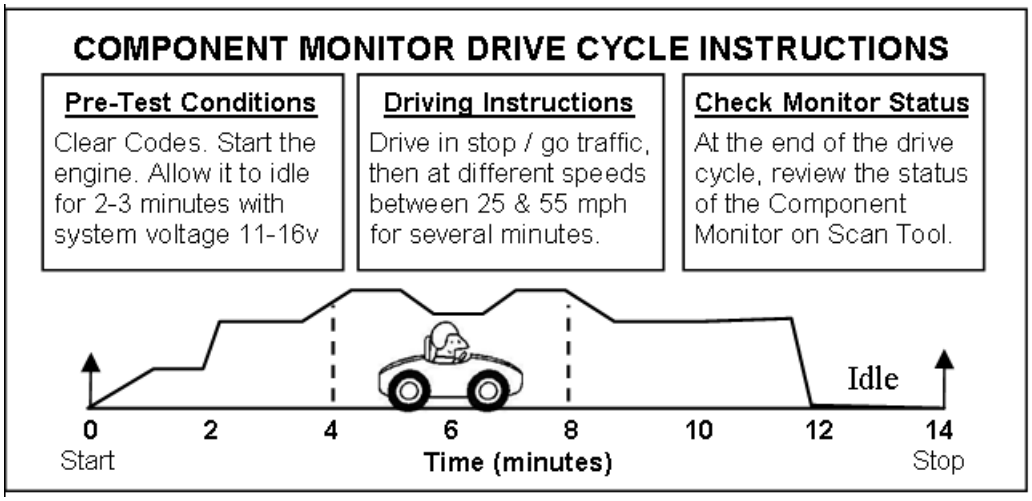
COMPONENT MONITOR DRIVE CYCLE INSTRUCTIONS

- Do not turn off the ignition switch during the test procedure.
- All Onboard Diagnostic Monitors are cleared when the battery is disconnected or when the ECM / PCM / TCM is cleared with the Scan Tool.
- This drive cycle can be used to determine if the Readiness code for this Monitor will run and complete, and if the MIL will remain off after the vehicle is driven.
- Operating Ranges: When a range of values is provided, try to operate the vehicle in the middle of the range. For example, if the vehicle speed range calls for 45-55 mph, drive the vehicle as close as possible to 50 mph. If the engine speed should be 1,000-2,000 rpm, try to operate the engine at 1,500 rpm.
- Scan Tool Data: There are certain Parameter Identification (PID) values that must be within range before this Monitor will "run". It can be helpful to pull up those PID items on the Scan Tool so an assistant can view them during testing.
- The Readiness code for this Monitor defaults to "continuous" or "monitoring" because this Monitor runs continuously when the engine is cranking or running.

COMPONENT MONITOR PRETEST CONDITIONS

- MIL off with no eission related DTC's present.
- Accessories turned off (A/C, fan motor, headlights and rear window defroster).

TEST PROCEDURE

1. Connect the Scan Tool to the data link connector (DLC). Use the Scan Tool to clear any stored DTC's and to reset the Onboard Diagnostic Monitors.
2. Start the engine and allow it to run at idle speed for 1-2 minutes.
3. Accelerate at part-throttle to 40 mph and maintain that speed for several minutes. Bring the vehicle to a stop, and then allow the engine to idle with the transmission in Drive (in Neutral for M/T) for 2 minutes.

4. Then accelerate at moderate throttle to 50 mph and maintain that speed for 15 seconds. Bring the vehicle to a stop, and then accelerate to 40 mph and maintain that speed for 15 seconds. Repeat this step at least 3 times. Bring the vehicle to a stop in a safe place, but do not turn off the ignition key.
5. Check for any Pending codes in the Generic OBD II section of the Scan Tool. If no Pending codes are set, the Component Monitor test is complete. If any Pending codes are set, refer to the appropriate trouble code repair information to make the repair.