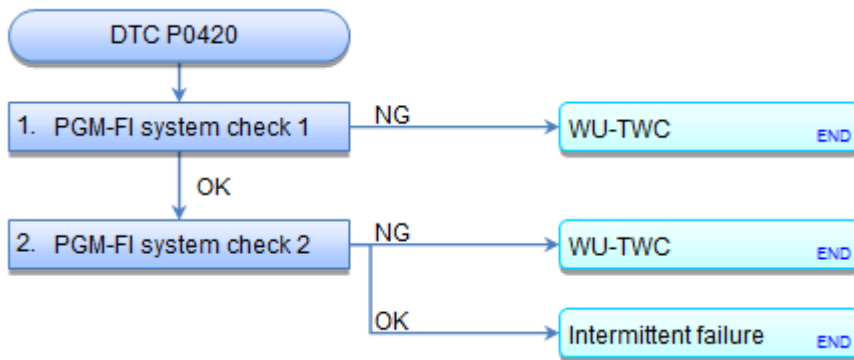


DTC Troubleshooting: P0420



DTC P0420: Catalyst System Efficiency Below Threshold

NOTE:

- Before you troubleshoot, [review the general troubleshooting information](#).
- If some of the DTCs listed below are stored at the same time as DTC P0420, troubleshoot them first, then recheck for DTC P0420.
 - P0137, P0138, P0139, P2270, P2A01: Secondary HO2S (Sensor 2)
 - P0141: Secondary HO2S (Sensor 2) heater
 - P0300: Random misfire
 - P0301, P0302, P0303, P0304: No. 1—No. 4 cylinder misfire detected
- Poor quality fuel may cause this DTC.

DTC Description	Confirmed DTC	Pending DTC
P0420 Catalyst System Efficiency Below Threshold		

DTC (PGM-FI)

1. PGM-FI system check 1:

- 1. Turn the vehicle to the ON mode.
- 2. Clear the DTC with the HDS.

Clear DTC

- 3. Turn the vehicle to the OFF (LOCK) mode.
- 4. [Enter the maintenance mode, then start the engine](#).
- 5. Hold the engine speed at 3,000 rpm without load (in P or N) until the radiator fan comes on, then let it idle.
- 6. Test-drive the vehicle under these conditions:
 - Engine coolant temperature (ECT SENSOR 1) above 158 °F (70 °C)
 - Transmission in D
 - Vehicle speed between 45—75 mph (70—120 km/h) for 5 minutes or more
 - Vehicle speed between 55—75 mph (90—120 km/h) for 10 seconds, then decelerate (with the throttle fully closed). Repeat this three or more times
 - Maintain the vehicle speed at 55 mph (90 km/h) for at least 4 minutes.

Signal	Current conditions	
	Values	Unit
ECT Sensor 1		
Vehicle Speed		

Data List

- 7. Monitor the OBD STATUS for DTC P0420 in the DTCs MENU with the HDS.

DTC Description	OBD STATUS
P0420 Catalyst System Efficiency Below Threshold	

OBD Status

Does the HDS indicate FAILED?

YES [Replace the WU-TWC.](#)■

NO If the HDS indicates EXECUTING, go to step 2. If the HDS indicates OUT OF CONDITION, meet the test conditions and recheck. [If the on-board snapshot of this DTC is recorded, try to reproduce the failure under the same conditions with the on-board snapshot.](#) If the HDS indicates PASSED, intermittent failure the system is OK at this time.

2. PGM-FI system check 2:

- 1. Continue test-drive until a result comes on.

- 2. Monitor the OBD STATUS for DTC P0420 in the DTCs MENU with the HDS.

DTC Description	OBD STATUS
P0420 Catalyst System Efficiency Below Threshold	

OBD Status

Does the HDS indicate FAILED?

YES [Replace the WU-TWC.](#)■

NO If the HDS indicates PASSED, intermittent failure, the system is OK at this time. [If the on-board snapshot of this DTC is recorded, try to reproduce the failure under the same conditions with the on-board snapshot.](#) If the HDS indicates EXECUTING, keep driving until a result comes on. If the HDS indicates OUT OF CONDITION, meet the test conditions and recheck.■