



## STAR ONLINE PUBLICATION



**Case Number: S2118000004**

**Release Date: April 2021**

**Symptom/Vehicle Issue:** Malfunction Indicator Lamp (MIL) Illumination. Diagnostic Trouble Codes (DTCs) P225D – NOX Sensor 1/1 Performance, Signal Stuck Low And/Or P225C – NOX Sensor 1/1 Performance, Signal Stuck High, Set.

**NOTE:** Please ensure the PCM is at the latest available calibration before proceeding. Refer to all applicable published TSBs for current flash procedures.

**NOTE:** Be sure to diagnose and repair any additional PCM DTCs first before diagnosing P225C, or P225D.

**Discussion:** Some customers may experience a MIL illumination. Upon further investigation, a technician may find DTC P225D and/or P225C set in the Powertrain Control Module (PCM).

An analysis of returned NOx sensors that were replaced for these DTCs has revealed that the majority of these sensors are Trouble Not Found (TNF). Further research has revealed that there are several other different possible causes that can lead to these DTCs. The other possible cases are:

- **Intake System Leaks** – Including leaks in the Charge Air Cooler (CAC) system.
- **EGR System Leaks** – Including, but not limited to, an LP EGR valve that is partially stuck open.
- **Fuel System Issues** – Including fuel contamination that could lead to the sensor ports becoming clogged with soot.
- **Skewed MAF Sensor Inputs**
- **Skewed Engine Coolant Temp Sensor Inputs**

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

**Contact STAR Center, or your Technical Assistance Center Via TechCONNECT or eCONTACT ticket if no solution is found**



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The current diagnostic flow charts for these DTCs are currently being revised to add these additional possible causes into the diagnostic steps. When diagnosing a vehicle with the above DTCs, please inspect/test for these additional areas, and repair as necessary. If diagnosis reveals no trouble found, engineering is currently investigating the issue for a possible future software update.

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