

## STAR ONLINE PUBLICATION

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**Case Number:** S1925000008

**Release Date:** 5/07/2020

**Symptom/Vehicle Issue:** Malfunction Indicator Lamp (MIL) Illumination. Diagnostic Trouble Codes (DTCs) P20E8 – Reductant Pressure Too Low and/or P208B – Reductant Pump 1 Control Performance Set.

**Discussion:** Some customers may experience a MIL illumination. Upon further inspection, you may find DTC P20E8 set in the PCM. This may occur on vehicles with low mileage or during PDI.

In addition, you may encounter this DTC soon after installing a new Diesel Exhaust Fluid pump and/or tank.

The cause of this DTC may be due to air pockets trapped in the internal tank filter as well as external leaks in the DEF system. If you receive a vehicle with this DTC, please follow the following repair procedure in addition to performing normal diagnostics

### Repair Procedure:

1. Prior to clearing the DTCs, obtain a Vehicle Scan Report and save it for your records.

**NOTE: It may be necessary to remove the DEF Tank shield in order to properly inspect for signs of DEF leaks.**

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.

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2. Closely inspect the DEF supply line connections at the pump and injector to ensure there are no leaks. Look for signs of wetness, and/or crystallization around the connections indicating a leak. Please see (Figure 1, and 2.). Repair any leaks before proceeding with the rest of this procedure.



Figure 1.

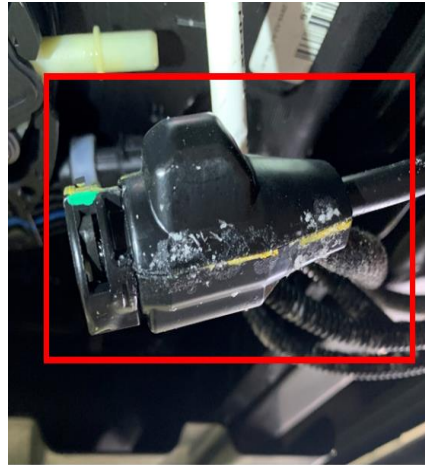


Figure 2.

3. Clear all DTCs
4. Start and run the vehicle for approx. 30 minutes to allow it to warm up

**NOTE: If the DEF system is frozen, it may be best to have the vehicle sit inside overnight to thaw.**

**NOTE: The exhaust must reach full operating temperature before the system will attempt to dose.**

5. Drive the vehicle at speeds greater than 30 mph for approximately 30 minutes. During the drive, attempt several hard turns as well as several aggressive braking and acceleration events to get the fluid to slosh inside the tank.

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6. After approximately 30 minutes, observe the messages in the EVIC
7. Did the “Service DEF” message turn off?  
**YES>>>** No further repairs are necessary at this time. Ensure all codes are cleared and return the vehicle to the customer.  
**NO>>>** Continue to (Step 8)
8. Using Wi-Tech, scan the PCM for DTCs. Did DTC P20E8 return?  
**Yes>>>** Clear DTCs and repeat steps 5-7. If DTC sets resets, further diagnosis is required.  
**NO>>>** The DTC Monitor did not run. Continue with the drive cycle. Once the monitor runs, the message will either turn off (if monitor passes) or DTC will reset (if monitor fails).
9. Did the DTC remain cleared and the “Service DEF” message turn off?  
**YES>>>** No further repairs are necessary at this time. Ensure all codes are cleared and return the vehicle to the customer.  
**NO>>>** Further diagnosis is required. Please follow all normal published diagnostics.

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