



Mack Models

Mack Model LEU , LR , MRU - TerraPro , CHU - Pinnacle, Axle back , CXU - Pinnacle, Axle front , GU - Granite , TD - Titan

Volvo Models

Volvo Model VNL , VNM , VNX , VAH , VHD

Engine family

Engine family 11L Engine , 13L Engine , 16L Engine , MP7 , MP8 , MP10

Emission Standard

Emission Standard US10+OBD13 , US14 , US14+OBD15 , US14+OBD16 , US14 CNG , US17

** SOLUTION **

Title ** Tech Tip ** TT - 007 - 2015 - Diagnosing The Aftertreatment Control Module DTCs P202D, P208E, P20E8 - OBD13 (Commonly Model Year 2014); Newer Chassis AFTER Reviewing Other Solutions

Cause Chassis is logging the following fault codes intermittently with a potential No Fault Found using Guided Diagnostics (GD). These may cause illumination of the MIL lamp. P208E and P20E8 may be accompanied by Inducement / P1000. One or more of these faults may be logged together. The causes not covered in GD are bad electrical connections (FCUT) reporting low DEF pressure, or contamination in the system causing actual low pressure.

Solution This solution should only be used for initial checks for OBD13 chassis. For all newer chassis, this solution should not be followed unless the other solutions pertaining to the correct emission level have been followed **first** with no fault found.

1. Inspect the electrical circuit connections between the ACM and the DEF pump at the DEF pump connector, ACM connector, and FCUT connector. Pay special attention to the FCUT connector. A minor amount of oxidation or corrosion will cause these DTCs.

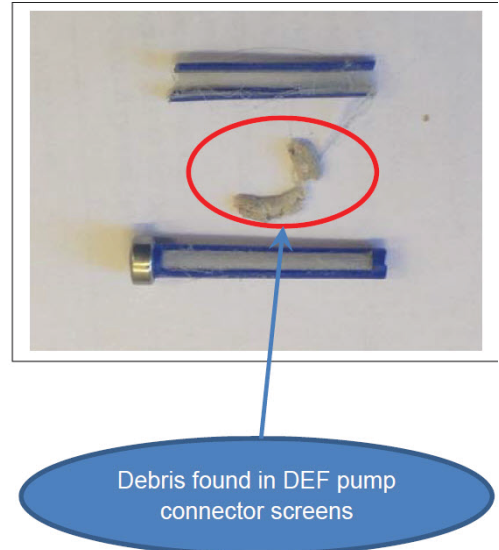
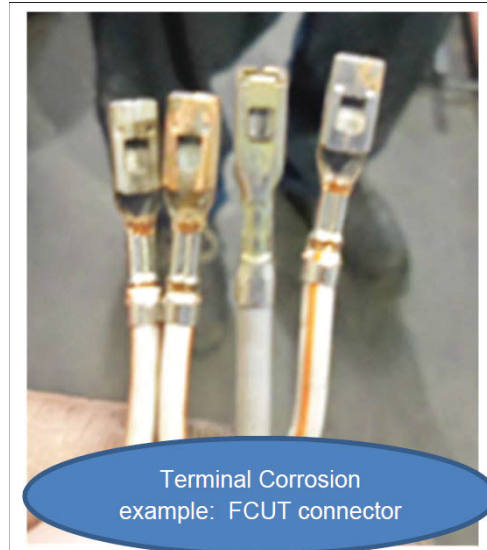


First inspection-the connector looks OK



After removing the red retainer, corrosion is seen present in the connector.

If any corrosion is found in the FCUT connector, replace terminals on the front chassis harness and urea tank harness as required.



2. Inspect DEF system for contamination and clean as required. Debris can build up in the filter screens under normal operation and remain trapped in the system due to the reversion cycle at key off.

NOTE: If at any point a failure is found the root should be diagnosed from that point. No further step should be completed until the problem has been verified.

Remove all of the DEF fluid lines and flush out with compressed air and water.

Remove the Inlet and backflow connectors and inspect the filter screens for debris and replace as required. Reference Impact 2589-11-02-05 Aftertreatment Diesel Exhaust Fluid (DEF) Contamination Flush

Remove the level sensor / sending unit from the DEF tank. If contamination is found in the tank, the pickup filter must be replaced with the latest updated part number in Impact. The tank must be completely flushed.

When re-priming the system with fresh DEF, remove the fluid connector from the DEF doser and place into a container, start the engine and allow a small amount of fresh fluid to purge.

Verify that the DEF line connectors have a secure seal on the tube ends when reconnecting the lines.

3. If the above actions do not resolve the complaint, proceed with the applicable Guided Diagnostics. Terminal Corrosion example: FCUT connector Debris found in DEF pump connector screens

Solution visibility	Dealer distribution
Function(s)/component(s) affected	
Function affected	1 1 0 EMS , 2 1 0 ACM , Urea control unit , Diagnostic tool , Documentation , TT , exhaust , DEF Dosing , DPF , SCR
Function Group	
Function Group	254 catalytic converter; exhaust emission control equipment , 258 emissions after-treatment
Customer effect	
Main customer effect	diagnostics/methodology , efficiency/abnormal behavior , fault code/display
Fluid problem	contamination
Fluid implicated	AdBlue
Fault code(s)	
OBDII Diagnostic Trouble Codes (2013-)	P1000 , P208E-00 , P20E8
Conditions	
Vehicle operating mode	when driving , when stationary
Frequency of occurrence of problem	always
Administration	
Author	A241298
Last modified by	A241298
Creation date	17-01-2017 17:01
Date of last update	11-02-2019 17:02
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