



Solution

Title (customer effect) Engine Diagnostic Trouble Codes (DTC's) P24A0 And P249F Lighting The Malfunction Indicator Lamp (MIL) - **OBD15 (Commonly Model Year 2016) And Newer (Includes Common Rail Fuel System)**

Cause Diagnostic Trouble Codes (DTC) P24A0 and P249F Lighting The Malfunction Indicator Lamp (MIL). Troubleshooting steps leading to No Fault Found. The following emissions levels are affected:

- OBD15 - Model Year 2016
 - US14+OBD16 - Model Year 2017 (Non-Common Rail Fuel System)
 - US17+OBD16 - Model Year 2018 (Common Rail Fuel System)
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Solution

Overview

Vehicles may display the MIL and one or both of the following DTCs:

- P24A0 - Closed Loop DPF Regeneration Control At Limit - Temperature Too Low
- P249F - Excessive Time To Enter Closed Loop DPF Regeneration Control

These DTCs set from monitors on operations requiring Aftertreatment Hydrocarbon Injector (AHI, 7th Injector) input, including:

- Moving Crystal Sublimations (OBD15 and OBD16 emissions levels)
- Moving Sulfur Regenerations (US17 / OBD2016 emission level only)

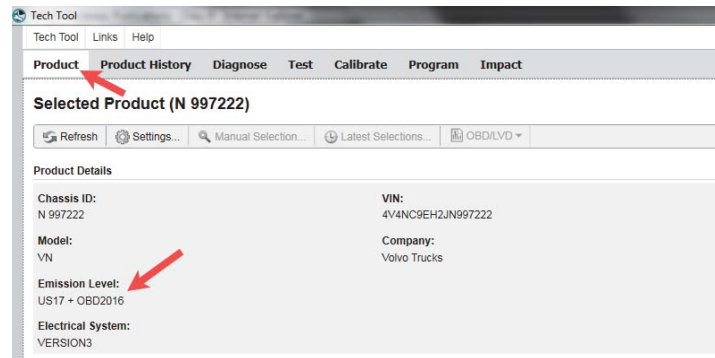
These operations run in the background and are transparent to the driver. The fault codes **do not inhibit regeneration** or cause any operational problem with the vehicle except for the MIL illuminating. The regen will continue normally even with the fault codes present. The faults may set over a several day period due to the amount of time it takes to complete some moving regenerations.

Repair Information

Verify the chassis emissions level

- Details can be found in the Product Details box on the Product tab in PTT as seen

below:



For OBD15 And US14+OBD16 (Commonly Year Models 2016 and 2017, Non-Common Rail) Chassis:

- Software improvements have been released to address these codes. If one or both codes are present and there are no other symptoms to indicate a physical issue, software should be checked and updated as necessary.

- **One or two modules can be affected by this update. Ensure the proper instructions are followed:**

- **If the chassis has had containment software loaded previously:**

- Reprogram the Engine Control Module (EMS) **ONLY**

- **If the chassis has not had software containment**

- Reprogram the following modules in the order listed.
 1. Engine Control Module (EMS)
 2. Aftertreatment Control Module (ACM)

- If the chassis returns for frequent recurrence of the code following the software update, normal Guided Diagnostic procedures will need to be followed.

For US17+OBD16 (Common Rail Fuel System) chassis:

- **Verify that EMS and ACM software do not have any updates available**
- Perform a sulfur regen using Premium Tech Tool (PTT) and clear DTCs.
- This will temporarily resolve the fault codes. **Do Not** change any components on subject vehicles with these fault codes.

Internal comments (BO)

For US17+OBD2016 emission level vehicles, the next software release (most likely in September 2017) will be an improvement to this diagnostic.

Note: After the final corrective action is released for QJ 1-6720277401 rcl0 P249F, P24A0, EACH vehicle that has received the Containment Action 4 **MUST** be returned to a Dealership to load the final Software and Data Sets.

Temporary solution

Temporary solution

Solution visibility

Dealer distribution

Function(s)/component(s) affected

Function affected	engine , exhaust , EGR , CV electronic control unit , 1 1 0 EMS , MID 128 – EMS , MID 140 – IC04 / IC05 , EECU , Diagnostic tool
Function Group	
Function Group	254 catalytic converter; exhaust emission control equipment , 258 emissions after-treatment , 2841 Electronic Control Unit
Customer effect	
Main customer effect	regeneration , calibration/programming/pairing/missing operation , diagnostics /methodology , fault code/display
Lights/Messages on information display	message on display , - - - - , - - / - -
Fault code(s)	
OBD 2013 Diagnostic Trouble Codes	POWERTRAIN , P249F00 , P24A0
Conditions	
Vehicle operating mode	when driving , when stationary
Frequency of occurrence of problem	always
Administration	
Author	ut0389h
Last modified by	RU4469V
Creation date	12-01-2017 21:01
Date of last update	07-02-2018 20:02
Review date	16-02-2017 00:02
Status	Published
Average score	2.142857074737549
Number of scores	7
NA_Author_Group	GTT
NA_MACK_Vehicle_Range	
NA_MACK_Vehicle_Range	Conventional , CHU , CXU , GU
NA_VOLVO_Vehicle_Range	
NA_VOLVO_Vehicle_Range	Conventional , VNL , VNM , VHD , VAH
Engine family	
Engine family	Volvo , 11L Engine , 13L Engine , Mack , MP7 , MP8
Emission Standard	
Emission Standard	2018 , OBD2017 , US17 GHG , US16 , US15 , US14 GHG