



Solution

Title (customer effect) Volvo Chassis - Diagnostic Trouble Code (DTC) P2459 Lighting The Malfunction Indicator Lamp (MIL); Possible Frequent Regeneration Requests - **OBD15 And US14+OBD16 (Non-Common Rail) Chassis**

Cause

OBD15 And US14+OBD16 chassis may log DTC P2459 - Diesel Particulate Filter Regeneration Frequency (Bank 1). P2459 may log with or without frequent regeneration requests. Guided Diagnostic steps may complete with No Fault Found.

Solution

Overview

OBD15 And US14+OBD16 chassis may log DTC P2459 during operation. The diagnostic process that this DTC sets for is the monitor of how often regenerations are requested by the Engine Control Module (EMS), and is intended to determine when the Diesel Particulate Filter (DPF) needs to be serviced or indicate a problem causing rapid soot accumulation. Chassis experiencing repeat occurrences of P2459 are most commonly units operating in applications that involve any of the below:

- Frequent stop-and-go operation (food service deliveries, for example)
- Local operation with little to no drive time at stable highway speeds or short overall distance traveled at one time
 - Passive regeneration only occurs when exhaust temperatures are able to reach the correct level and are sustained at that level while the chassis is in motion. These conditions are normally only seen during highway operation.
- Operation requiring an extended amount of idling or operation at low speeds (Paving and construction; mining)

Repair

Verify the chassis emissions level

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

Tech Tool

Tech Tool Links Help

Product Product History Diagnose Test Calibrate Program Impact

Selected Product (N 997222)

Refresh Settings... Manual Selection... Latest Selections... OBD/LVD

Product Details

Chassis ID: N 997222	VIN: 4V4NC9EH2JN997222
Model: VN	Company: Volvo Trucks
Emission Level: US17 + OBD2016	
Electrical System: VERSION3	

For OBD15 And US14+OBD16 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.

- Updated software for OBD15 chassis will have a Main Software (MSW) 23167877 or newer
- Updated software for US14+OBD2016 chassis will have a Main Software (MSW) 23169815 or newer

- In some cases, containment software may have been loaded to the chassis with special instructions provided to the driver.

- **For chassis that have older MSW part numbers than listed above, including chassis with containment previously loaded:**

A. Reprogram the following modules in the order listed.

1. Engine Control Module (EMS)
2. Aftertreatment Control Module (ACM)

B. Reset the soot load, clear DTCs and run a regeneration if P24A4 or P10FE were present before programming the vehicle.

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

Solution visibility

Dealer distribution

Function(s)/component(s) affected

Function affected

DPF , 1 1 0 EMS , MID 128 – EMS , EECU , Diagnostic tool

Function Group

Function Group

254 catalytic converter; exhaust emission control equipment , 258 emissions after-treatment

Customer effect

Main customer effect

regeneration , calibration/programming/pairing/missing operation , diagnostics /methodology , efficiency/abnormal behavior , fault code/display

Lights/Messages on information display

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Fault code(s)

OBD 2013 Diagnostic Trouble Codes

P2459

Conditions

Vehicle operating mode

when driving , when stationary

Frequency of occurrence of problem

always

Road conditions city driving

Administration

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NA_VOLVO_Vehicle_Range

NA_VOLVO_Vehicle_Range
VNX , VNL , VNM , VHD , VAH

Engine family

Engine family 11L Engine , 13L Engine , 16L Engine

Emission Standard

Emission Standard US16 , US15
