



Solution

Title (customer effect) Diagnostic Trouble Codes (DTC) P2080, P2084, P242B Lighting The Malfunction Indicator Lamp (MIL) - **US14+OBD13 And OBD15 Emissions (Commonly Model Years 2015 And 2016)**

Cause Diagnostic Trouble Codes (DTC) P2080, P2084, P242B can set due to incorrect calculation of " soak " time of ambient temperature after key off.

Solution

Overview

Vehicles may exhibit the MIL lamp and one or any combination of the following fault codes and symptoms:

ECM - Engine Control Module

P2080 - Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 1)

P2084 - Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 2)

P242B - Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 3)

Failure Mode Identifier (FMI) 64 - Signal plausibility failure

No Diesel Exhaust Fluid (DEF) Dosing

DEF will not be injected with these faults active.

Unable To Complete A Parked Regeneration

Aftertreatment Hydrocarbon Injector (AHI) injection will not take place with these faults active.

Parked Regeneration Runs Too Long, And Does Not Complete

NO PARTS SHOULD BE REPLACED for these DTCs unless a sensor failure is confirmed.

Repair

- Verify the chassis emissions level

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



For US14+OBD13 (Commonly Model Year 2015) Chassis:

- Software improvements have been released to address this code. If any of these codes are present, the following items should be checked and updated as necessary.

- Engine Control Module (EMS) Main Software (MSW) part number should be 22489791 or later.
- Parameter CWW should be set to 10.

If CWW is not set to 10, the Vehicle Electronic Control Unit (VECU) needs to be programmed after the EMS.

For OBD15 (Commonly Model Year 2016) Chassis:

- Software improvements have been released to address this code. If any of these codes are present, Engine Control Module (EMS) software should be checked and updated as necessary.

- Main Software (MSW) part number should be 22644015 or later.

If Software is current:

- Review the Detailed Status Information for the relevant code on the DTC Readout.

DTC List (2 items)

| Control Unit | DTC | Status |
|-----------------------------|--|--------|
| Brake ECU (MD 136) | SID 69: Axle load sensor, FM 2: Data erratic, intermittent, or incorrect | Active |
| Engine Control Module (EMS) | P223F04: NOx Sensor Gas Outlet Removal, Signal Plausibility Failure | Active |

NOx Sensor Gas Outlet Removal

Detailed status information

| Title | Value |
|---|-------|
| Confirmed DTC | True |
| Pending DTC | False |
| Test failed | True |
| Test failed since last clear | True |
| Test failed this operation cycle | True |
| Test not completed since last clear | False |
| Test not completed this operation cycle | False |
| Warning indicator requested | False |

- If Confirmed DTC is **TRUE**: Proceed with diagnostics
- If Confirmed DTC is **FALSE**: Disregard and focus on other symptoms or DTCs relevant to the complaint.

Internal comments (BO) No parts should be replaced for these fault codes, unless a definite sensor failure is found.

Solution visibility [Dealer distribution](#)

Function(s)/component(s) affected

Function affected engine , exhaust , DEF Dosing , CV electronic control unit , 1 1 0 EMS , 2 1 0 ACM , EECU , Diagnostic tool

Function Group



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

Customer effect

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

Fluid implicated AdBlue

Temperature does not rise in temperature

Lights/Messages on information display  other ,  Engine equipment fault warning pictogram , message on display , - - - , - - / - -

Fault code(s)

OBD 2013 Diagnostic Trouble Codes POWERTRAIN , P2080 , P2084 , P242B

Conditions

Vehicle operating mode on start-up , when stationary

Frequency of occurrence of problem always

Administration

Author UT0389H

Last modified by RU4469V

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NA_Reviewer Jeremy Newton

NA_Author_Group GTT

NA_MACK_Vehicle_Range

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Cabover , LR , LEU , MRU , 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

US15 , US13 OBD , US14 GHG
