Mack Models

Mack Model	LR , LEU , MRU , CHU , CXU , GU

Volvo Models

Volvo Model	VNX , VNL , VNM , VHD , VAH

Engine family

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

Emission Standard

Emission Standard	US16 , US15 , US14 GHG

** SOLUTION **

Title	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.
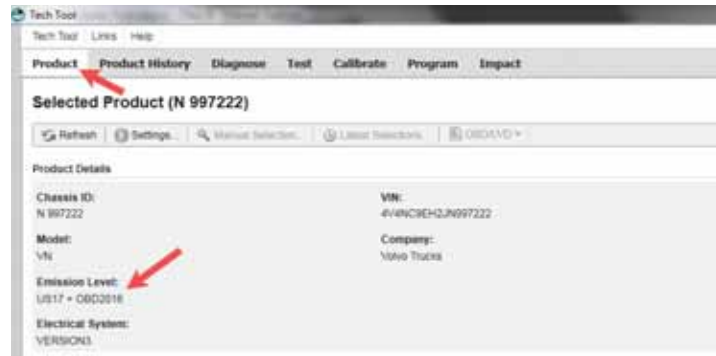
Parked Regeneration Runs Too Long, And Does Not Complete

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 (MID 136)	SID 69: Axel load sensor, FM 2: Data erratic, intermittent, or incorrect	Active	
Engine Control Module (EMS)	P229F64 NOx Sensor Gas Outlet Removed, Signal Plausibility Failure	Active	

NOx Sensor Gas Outlet Removed

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	RU4469V
Dealer ID	RU4469V
Last modified by	RU4469V

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