



## Volvo Models

**Volvo Model** VNX , VNL , VNM , VHD , VAH

## Engine family

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

## Emission Standard

Emission Standard 2018 , OBD2017 , US17 , US16

## \*\* SOLUTION \*\*

**Title** Volvo Chassis - Particulate Matter (PM) Sensor Diagnostic Trouble Codes (DTC) Illuminating The Malfunction Indicator Lamp (MIL); [Tech Tip TT-014-2016 - US14+OBD16, US17+OBD16 And Newer Emissions, Common Model Year 2017 And Newer - To Be Used For EVERY Visit](#)

**Cause** The PM sensor can log several different codes that illuminate the MIL ( Check Engine Lamp ).

**Solution** **This Solution is relevant regardless of previous visits and sensor replacements. At this time, multiple sensor failures are not uncommon, regardless of how new the sensor is. The same procedure should be followed for every instance.**

**As of 10 April 2018, the Tech Tip below is still current information. If diagnostics indicate that sensor replacement is required, instructions should be followed.**

### Overview

With the implementation of OBD16 Emissions controls (commonly model year 2017), a new sensor was required to monitor particulate matter (PM) levels in exhaust that has already passed through the Emissions Aftertreatment System. Excessive particulate levels at this stage can indicate a damaged or failed Diesel Particulate Filter (DPF). **The PM sensor's only purpose is monitoring and is not used in any EATS (regeneration and NOx conversion) functions. Codes set by the sensor will not affect performance or cause a Derate.**

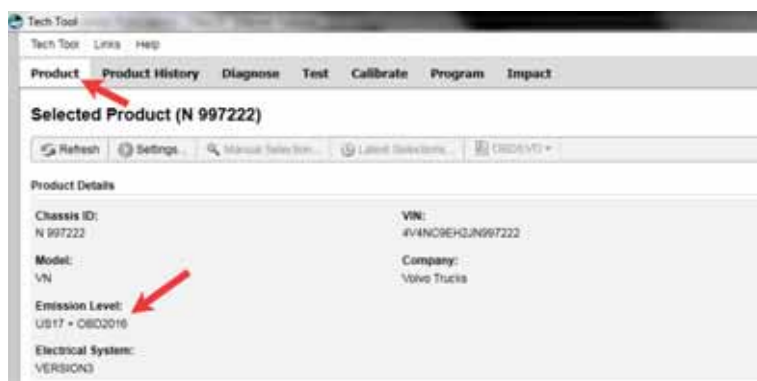
### Repair

If a chassis arrives with a derate warning active, the PM sensor is not the source of the derate and there is a separate existing issue.

### Verify the chassis emissions level

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

seen below:



**For US17+OBD16 (Common Rail Fuel System) Chassis setting DTCs P24DA or P1031 ONLY:**

- Software improvements have been released to address this code. Refer to CBR Solution [K14122525](#).

**For US17+OBD16 Chassis setting any other codes for the PM Sensor,** Proceed with instructions in [Tech Tip TT-014-2016](#).

**For US14+OBD16 (Commonly 2017 model year):** Proceed with instructions in [Tech Tip TT-014-2016](#).

**NOTE:** Prior to installing a new sensor, gently shake the sensor and ensure it does not rattle. If noise is heard, another sensor should be used.

NA_Sister solutions	<a href="#">K00527512</a> , <a href="#">K14122525</a> , <a href="#">K59554255</a>
Campaign code	FSB284-067
Solution visibility	<a href="#">Dealer distribution</a>
<b>Function(s)/component(s) affected</b>	
Function affected	Documentation , TT , DPF , CV electronic control unit , 1 1 0 EMS , EECU , Diagnostic tool
<b>Function Group</b>	
Function Group	2549 miscellaneous , 258 emissions after-treatment
<b>Customer effect</b>	
Main customer effect	soot , regeneration , calibration/programming/pairing/missing operation , diagnostics /methodology , efficiency/abnormal behavior , fault code/display , visual appearance
Lights/Messages on information display	message on display , - - - - , - - / - -
<b>Fault code(s)</b>	
OBD 2013 Diagnostic	P1031 , P1032 , P1033 , P1034 , P249C , P24AE , P24AF , P24B0 , P24B1 , P24B3

Trouble Codes , P24B4 , P24B5 , P24B7 , P24D0 , P24D1 , P24DA , P24FC , P2AB0

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## Conditions

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Vehicle operating mode when driving , when stationary

Frequency of occurrence of problem always

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## Administration

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