

**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 GHG , US16

**\*\* SOLUTION \*\***

**Title** Volvo Chassis - Particulate Matter ( PM ) Sensor Diagnostic Trouble Codes ( DTC ) Illuminating The Malfunction Indicator Lamp ( MIL ); Tech Tip TT-014-2016 - **OBD16 And Newer Emissions (Commonly Model Year 2017, Includes Common Rail Fuel System Chassis) - 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.**

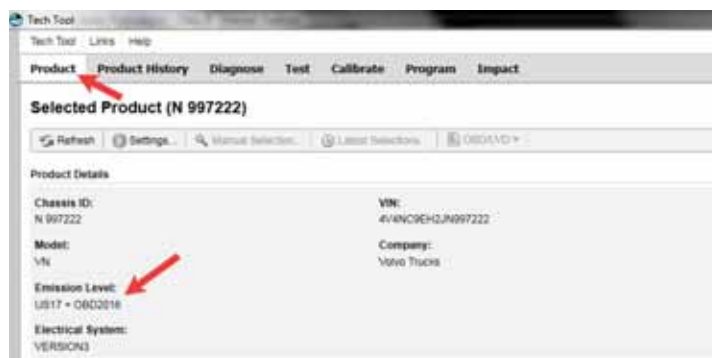
**Repair**

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                      | Dealer distribution                                                                                                                                                        |
| <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

---

## Conditions

---

Vehicle operating mode when driving , when stationary

---

Frequency of occurrence of problem always

---

## Administration

---

Author ut01793

---

Last modified by RU4469V

---

Creation date 09-12-2016 22:12

---

Date of last update 15-06-2018 22:06

---

Review date 15-04-2018 00:04

---

Status Published

---

Average score 1.5714285373687744

---

Number of scores 7

---