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### NA\_MACK\_Vehicle\_Range

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**NA\_MACK\_Vehicle\_Range** LR , LEU , MRU , Conventional , CHU , CXU , GU , M748 , Granite , TD

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### NA\_VOLVO\_Vehicle\_Range

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**NA\_VOLVO\_Vehicle\_Range** VNL , VNM , VHD , VAH

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### Engine family

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Engine family 11L Engine , 13L Engine , 16L Engine , MP7 , MP8 , MP10

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### Emission Standard

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Emission Standard US16 , US15

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### \*\* SOLUTION \*\*

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**Title (customer effect)** Diagnostic Trouble Code ( DTC ) P2698, Diagnostic And Repair Information - **US14+OBD15 And US14+OBD16 (Commonly Model Years 2016 And 2017)**

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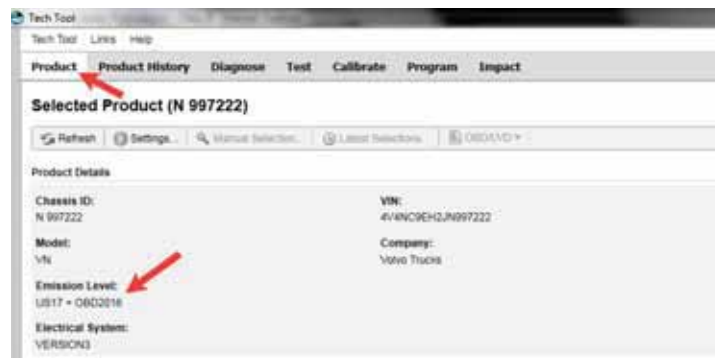
**Cause** Chassis may generate DTC P2698 with no physical symptoms present.

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**Solution** **DO NOT replace any components for this code unless diagnostic steps in this article reveal that a specific component is the issue.**

- Verify the chassis emissions level and ensure that the vehicle is within the applicable range for this solution.

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



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

Control Unit	DTC	Status
Brake ECU (MD 136)	SID 69: Axel load sensor FM 2 Data erratic, intermittent, or incorrect	Active
Engine Control Module (ECM)	P229F6: NOx Sensor Gas Outlet Heated, Signal Plausibility Failure	Active

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.

**- P2698 typically logs with confirmed status for the following reasons:**

- Exhaust gas temperatures
- Aftertreatment Hydrocarbon Injector ( AHI, Seventh Injector ) nozzle low flow
- AHI Module function
- Diesel Oxidation Catalyst ( DOC ) function

## Diagnosis

**Any code pointing specifically to one or more of the components in the above list should be diagnosed FIRST. P2698 is likely a symptom of these codes, not the source.**

1. Check Temperature Sensor readings with the engine and exhaust completely cooled.
  - All three temperature readings should be within 5 °F (3 °C) of one another.
2. Start the engine and watch all three temperature sensor readings during warmup.
  - Expected behavior is for DOC Inlet ( T1 ) temperature to rise first, followed by the Diesel Particulate Filter ( DPF ) Inlet ( T2 ), then DPF Outlet ( T3 ).
  - Once reaching normal idle from a cold start, temperatures should settle with DOC Inlet temperature the highest, followed by DPF Inlet, and DPF Outlet the lowest.
3. Check AHI functions using Operation [2545-08-03-02 Exhaust Aftertreatment Diagnostics](#), located under the Test tab in Premium Tech Tool ( PTT ).
  - Perform Test B and verify correct flow through the 7<sup>th</sup> Injector nozzle.
  - Perform Test D to confirm the AHI module is functioning correctly.
4. **If there is no fault found, the code count is low, and there are no other codes present that could be causing P2698 to log** clear the code and release the truck.
5. **If the chassis has been in for the same fault in confirmed status previously** please create an eService case.
  - Reference this solution's number in the description.

quick visit on cases where repeat failure is observed.

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Solution visibility	Dealer distribution
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### Function(s)/component(s) affected

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Function affected	exhaust , 1 1 0 EMS , 2 1 0 ACM , Diagnostic tool
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### Customer effect

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Main customer effect	regeneration , diagnostics/methodology , fault code/display
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Lights/Messages on information display	 Driver's information warning pictogram
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### Fault code(s)

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OBD 2013 Diagnostic Trouble Codes	P2698
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### Conditions

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Vehicle operating mode	when driving , when stationary
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Frequency of occurrence of problem	random
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### Administration

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Author	UT0031H
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Dealer ID	UT0031H
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Last modified by	RU4469V
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