

**** SOLUTION ****

Title	Diagnostic Trouble Codes (DTC) P2080-64, P2084-64, P242B-64 and P246F-64 Lighting The Malfunction Indicator Lamp (MIL) - US17+OBD19 And Newer Emissions, Model Years 2020 and Newer
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Mack Models

Mack Model	LR , TE - TerraPro , AN - Anthem , GR - Granite , PI - Pinnacle
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Volvo Models

Volvo Model	VN , VNL , VNR , VNX , VAH , VHD
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Emission Standard

Emission Standard	US17+OBD19
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Engine family

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

Cause	Diagnostic Trouble Codes (DTC) P2080, P2084, P242B and/or P246F may set after key off. It has been found that this may be due to incorrect calculation of the "soak" time of ambient temperature.
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Vehicles may exhibit the MIL and one or any combination of the above fault codes from the Engine Control Module (EMS), as well as one or more of the symptoms below:

- **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**

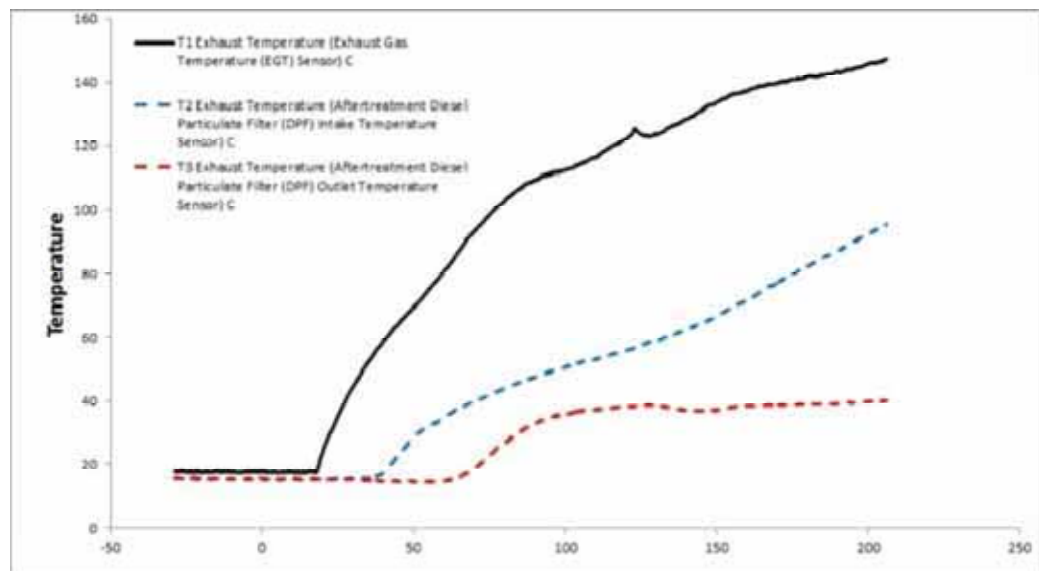
Solution**WARNING**

No parts should be replaced for these fault codes unless a definite sensor failure is found.

Fault Tracing Procedure:

1. Allow the vehicle to sit until the engine and exhaust have reached ambient (air) temperature.
2. Turn the ignition to ON, engine OFF.
2. Using Premium Tech Tool (PTT), run either of the operations below:
 - [2545-08-03-02 Exhaust Aftertreatment Diagnostics](#), option A
 - This will provide a numerical view of exhaust temperatures.
 - [2589-08-03-02 Exhaust Aftertreatment System, Service Regeneration](#)
 - This will provide a graphical view of exhaust temperatures.
3. Ensure that the sensor readings are within 10 °C (18 °F) of one another before starting the engine.
4. Start the engine.
5. Monitor exhaust temperatures on PTT:
 - The sensor temperatures should rise in the order of 1, 2, 3, 4 as shown below after starting the engine.
6. Evaluate results:
 - **If the sensor readings are equal at ambient temperature and rise in the correct order when the engine is running:** No further fault tracing should be performed. Clear the DTCs and return the vehicle to service.
 - **If one or more sensors are displaying a different reading from the others or are spiking instead of smoothly increasing with the engine running:** The sensor(s) should be suspected to be faulty.
 - **If the temperature sensor values rise out of order:** The sensors should be checked to ensure they are installed in the correct positions.

An example of proper temperature sensor function (this example uses a graph from a vehicle with three sensors) can be found below:



This CBR will be updated when new information is available.

NA_Sister solutions	K03573329
Solution visibility	Dealer distribution
Function Group	
Function Group	254 catalytic converter; exhaust emission control equipment
Customer effect	
Main customer effect	regeneration , temperature , calibration/programming/pairing/missing operation , diagnostics/methodology , efficiency/abnormal behavior , fault code/display
Fluid implicated	Diesel Exhaust Fluid (DEF)
Temperature	does not rise in temperature
Fault Codes And Error Codes	
OBDII Diagnostic Trouble Codes (P, U, B Format)	P2080-64 , P2084-64 , P242B-64 , P246F
Conditions	
Vehicle operating mode	on start-up , when stationary
Frequency of occurrence of problem	always
Administration	
Author	UT5061H
Dealer ID	UT5061H
Last modified by	RU4469V
Creation date	20-08-2019 20:08
Date of last update	04-10-2019 16:10
Status	Published

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