

**Mack Models**

Mack Model Cabover , LR , LEU , MRU-TerraPro , Conventional , CHU-Pinnacle, Axle back , C XU-Pinnacle, Axel forward , GU-Granite , TD-Titan

Volvo Models

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

Engine family

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

Emission Standard

Emission Standard 2018 , OBD2017 , US17 , US16 , US15 , US10 , US13 OBD , US14

**** SOLUTION ****

Title EGR Fault Codes / Diagnostic Trouble Codes (DTC's) SPN 412 FMI 0,2,5, SPN 4752 FMI 7, SPN 2659 FMI 18 / P040A, P040B, P1121, P2457, P0401, P04D9

Cause EGR Temperature Sensor Fault Codes can cause EGR Mass Flow and EGR Cooler Efficiency codes.

Solution Vehicles may exhibit the Malfunction Indicator Lamp (MIL) and one or any combination of the following fault codes:

ECM - Engine Control Module

Fault Code	DTC	Description
SPN 412 FMI 0	P11 21	EGR Temperature Too High
SPN 412 FMI 2	P04 0B	EGR Temperature Sensor: Rationality Monitor
SPN 412 FMI 5	P04 0A	EGR Temperature Sensor: Open Circuit
SPN 2659 FMI 18	P04 01	Engine Exhaust Gas Recirculation 1 Valve Position Flow Insufficient Detected
SPN 4752 FMI 7	P24 57	EGR Cooler Efficiency Below Threshold
	P04 D9	Closed Loop EGR Control At Limit - Flow Too Low

EGR temperature sensor connector pin fretting can cause erroneous EGR temperature readings that affect other monitors such as EGR cooler efficiency and EGR mass flow. When the EGR faults are logged with many occurrences, correct the EGR temperature sensor faults first, then retest for the other faults.

- Inspect the EGR temperature sensor connector for pin damage, dust, oxidation, or corrosion and replace the sensor as necessary.
- Replace mating engine harness terminals at the EGR temp. Sensor connector. Refer to [SB371-54](#) (Volvo) or [SB371-50](#) (Mack).

Solution visibility	Dealer distribution
Function(s)/component(s) affected	
Function affected	engine , air supply , exhaust , EGR , CV electronic control unit , 1 1 0 EMS , 2 1 0 ACM , MID 128 – EMS , EECU , Diagnostic tool
Function Group	
Function Group	2 engine with mounting and equipment , 25 inlet and exhaust systems , 2841 Electronic Control Unit , 2846 Sensor , 293 EGR (Exhaust Gas Recirculation) , 2932 Cooler
Customer effect	
Main customer effect	soot , regeneration , temperature , calibration/programming/pairing/missing operation , diagnostics/methodology , efficiency/abnormal behavior , fault code/display
Fluid implicated	air
Lights/Messages on information display	message on display , - - - - , - - / - -
Visual appearance	fretted , oxidation
Fault code(s)	
US10 Fault Codes	SPN 4752 , SPN 4752 FMI 7 , SPN 412 , SPN 412 FMI 2 , SPN 412 FMI 0 , SPN 412 FMI 5 , SPN 2659 , SPN 2659 FMI 18
OBD 2013 Diagnostic Trouble Codes	POWERTRAIN , P0401 , P040A , P040B , P04D9 , P1121 , P2457
Conditions	
Vehicle operating mode	when driving , when stationary
Frequency of occurrence of problem	always
Administration	
Author	UT0389H
Last modified by	A241298
Creation date	13-07-2017 14:07
Date of last update	10-10-2018 15:10
Status	Published

Average score	2.9000000953674316
---------------	--------------------

Number of scores	10
------------------	----