

## 1 03 24-17



## Service Information Bulletin

SUBJECT	DATE
SPN 4817 (MCM) (GHG17)	March 2017

### Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0193	GHG17 DD5 Medium Duty	SPN 4817/FMI 18 - GHG17	Added an exclusion statement for fault manager fault codes and added a step to check the MCM software with fuel map.

DiagnosticLink users: Please update the troubleshooting guides in DiagnosticLink with this newest version. To update the tool troubleshooting guide, open DiagnosticLink and from the Help – Troubleshooting Guides menu, select the appropriate troubleshooting manual, then click Update.



13400 Outer Drive, West, Detroit, Michigan 48239-4001  
Telephone: 313-592-5000  
[www.demanddetroit.com](http://www.demanddetroit.com)

## 2 SPN 4817/FMI 18 - GHG17

Boost Wastegate Error Deviation Low

**Table 1.**

SPN 4817/FMI 18	
Description	This Fault Code Sets when the Motor Control Module (MCM) Detects That the Measured Intake Manifold Pressure is Lower than the Desired Intake Manifold Pressure by More than the Accepted Threshold
Monitored Parameter	Intake Manifold Pressure
Typical Enabling Conditions	Engine Coolant Temperature greater than 65°C (149°F) Engine Speed greater than 1130 rpm Barometric Pressure greater than 755 mbar (10.9 psi) Vehicle Speed greater than 90 kph (55 mph)
Monitor Sequence	None
Execution Frequency	Always When Typical Enabling Conditions Are Met
Typical Duration	15 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	25% Derate
Verification	Once the Engine Coolant Temperature is Above 65°C (149°F), Road Test the Vehicle Above 90 kph (55 mph), rpm greater than 1130 for Five Minutes



### WARNING: PERSONAL INJURY

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

- Always start and operate an engine in a well ventilated area.
- If operating an engine in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system or emission control system.



### WARNING: PERSONAL INJURY

To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.



### WARNING: ENGINE EXHAUST

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

Check as follows:

1. Connect DiagnosticLink<sup>®</sup>.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple fault codes. Are there also fault codes present for the turbocharger actuator, intake manifold pressure sensor or barometric pressure sensor (excluding fault manager fault codes)?
  - a. Yes; diagnose the other fault codes first.
  - b. No; Go to step 4.

**Table 2.**

<b>MCM21T - Motor Control Module 2.1</b>	
<b>Device Configuration</b>	
Fuel Map Part Number	A042 448 26 35 ZGS 001
Fuel Map Description	R_M9122_CSL006S103
Certificate Number	934LA_17a_210/575
Software Mode	Running in Application
Rating Code	A0424482635
Application Code	06N04C1702
Application Code Part Number	A0514473035_002
<b>Device Information</b>	
Software Version	9.1.2.2
Diagnostic Version	211
ECU Serial Number	0044230527
Hardware Part Number	A001 446 66 35 ZGS 002
Software Part Number	A040 448 09 35 ZGS 001

4. Check the MCM software level and fuel map level. Is the MCM software 9.1.2.3 with fuel map ZGS 004 or higher?
  - a. Yes; Go to step 5.
  - b. No; update the MCM software using the latest server information. Verify repair. If the fault returns go to step 5.
5. Compare the barometric pressure reading in the MCM to the local barometric pressure reading for your area. Are the readings within 6.89 kPa (1 psi) of each other?
  - a. Yes; Go to step 6.
  - b. No; replace the MCM. Verify repair.
6. Compare the intake manifold pressure reading to the barometric pressure readings. Are the readings within 10.34 kPa (1.5 psi) of each other?
  - a. Yes; Go to step 7.
  - b. No; replace the intake manifold pressure sensor. Verify repair.
7. Remove and inspect the air filter. Is the air filter restricted or excessively dirty?
  - a. Yes; replace the air filter and perform the verification test.
  - b. No; Go to step 8.
8. Inspect the intake system for leaks. Are there any leaks present?
  - a. Yes; repair the leaks as necessary. Verify repair.
  - b. No; Go to step 9.
9. Refer to Original Equipment Manufacturer (OEM) literature and pressure test the Charge Air Cooler (CAC). Does the CAC pass the pressure test?
  - a. Yes; Go to step 10.
  - b. No; replace the CAC. Refer to OEM literature for the charge air cooler removal and installation procedures.
10. Refer to OEM literature and perform the CAC restriction test. Does the CAC pass the restriction test?
  - a. Yes; replace the turbocharger. Verify repair.
  - b. No; replace the CAC. Refer to OEM literature for the CAC removal and installation procedures.