

1 05 06-18**Service Information Bulletin**

SUBJECT	DATE
SPN 411 (MCM) (EPA10; GHG14)	May 2018

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	EPA10/ GHG14 DD Platform - Heavy Duty	SPN 411/FMI 2 - EPA10 - GHG14	The diagnostic procedures have been updated. Removed the reference to call the CSC and the unnecessary circuit checks with no circuit fault codes present.
		SPN 411/FMI 0 - EPA10 - GHG14	

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.



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2 SPN 411/FMI 2 - EPA10 - GHG14

Exhaust Gas Recirculation Delta P Sensor Out Of Calibration

Table 1.

SPN 411/FMI 2	
Description	EGR delta Pressure Sensor Out Of Calibration
Monitored Parameter	EGR delta Pressure
Typical Enabling Conditions	Coolant Temperature Greater than 80°C (176°F)
Monitor Sequence	None
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	15 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate
Verification	Coolant Temperature Greater than 80°C (176°F), then engine off for 15 Seconds, then Key ON

1. Turn the ignition ON (key ON, engine OFF).
2. Connect DiagnosticLink[®].
3. Check for multiple fault codes. Are fault codes SPN 411/FMI 3 or FMI 4 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Monitor the EGR Delta P sensor voltage. Is the voltage between 0.55 and 0.83 volts?
 - a. Yes, Go to step 7.
 - b. No, Go to step 5.
5. Remove the EGR delta P sensor from the mounting pad, but leave the electrical harness connected. Refer to section "Removal of the Delta P Sensor".
6. Monitor the EGR Delta P sensor voltage again. Is the voltage between 0.55 and 0.83 volts?
 - a. Yes; clean the venturi pipe and the sensor. Then reinstall the sensor. Refer to section "Cleaning of the Exhaust Gas Recirculation Venturi Pipe Delta P Sensor Ports".
 - b. No; Go to step 7.
7. Disconnect and inspect the EGR Delta P sensor electrical connector. Refer to section "Electrical Connector Inspection". Are there any corroded, damaged, bent or spread pins?
 - a. Yes; repair the pins as necessary. Refer to section "Electrical Connector Inspection".
 - b. No; replace the EGR Delta P sensor. Refer to section "Removal of the Delta P Sensor".

3 SPN 411/FMI 0 - EPA10 - GHG14

Exhaust Gas Recirculation Differential Pressure Is Too High At Low Speeds And Loads

Table 2.

SPN 411/FMI 0	
Description	EGR Differential Pressure Too High (Low Box)
Monitored Parameter	EGR delta Pressure Sensor
Typical Enabling Conditions	Start with Engine OFF, Idle Speed Less than 900 rpm, Coolant Temperature Greater than 65°C (149°F), DPF Zone 0.
Monitor Sequence	None
Execution Frequency	Once Per Drive Cycle.
Typical Duration	20
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	Shut Engine OFF if it is Running. Start Engine and Warm it Up By Driving the Vehicle Such that Coolant Temperature is Greater than 65°C (149°F), then Let Vehicle Idle for Greater than Five Minutes at Less than 900 rpm.

1. Turn the ignition ON (key ON, engine OFF).
2. Connect DiagnosticLink[®].
3. Check for multiple fault codes. Are fault codes SPN 411/FMI 3 or FMI 4 also present?
 - a. Yes; diagnose the other fault codes first.
 - b. No; Go to step 4.
4. Monitor the EGR Delta P sensor voltage. Is the voltage between 0.55 and 0.83 volts?
 - a. Yes; Go to step 7.
 - b. No; Go to step 5.
5. Remove the EGR delta P sensor from the mounting pad, leaving electrical harness connected. Refer to section "Removal of the Delta P Sensor".
6. Monitor the EGR Delta P sensor voltage again. Is the voltage between 0.55 and 0.83 volts?
 - a. Yes; clean the venturi pipe and the sensor. Then reinstall the sensor. Refer to section "Cleaning of the Exhaust Gas Recirculation Venturi Pipe Delta P Sensor Ports".
 - b. No; Go to step 7.
7. Disconnect and inspect the EGR delta P sensor electrical connector. Refer to section "Electrical Connector Inspection". Are there any corroded, damaged, bent or spread pins?
 - a. Yes; repair the pins as necessary. Refer to section "Electrical Connector Inspection".
 - b. No; replace the EGR Delta P sensor. Refer to section "Removal of the Delta P Sensor".