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Service Information Bulletin

SUBJECT	DATE
SPN 3509 (ACM) (GHG17) SPN 3510 (ACM) (GHG17)	October 2016

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0191	GHG17 DD Platform	SPN 3509/FMI 3 - GHG17	Updated GHG17 procedures with new graphics.
		SPN 3509/FMI 4 - GHG17	
		SPN 3510/FMI 3 - GHG17	
		SPN 3510/FMI 4 - GHG17	

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.



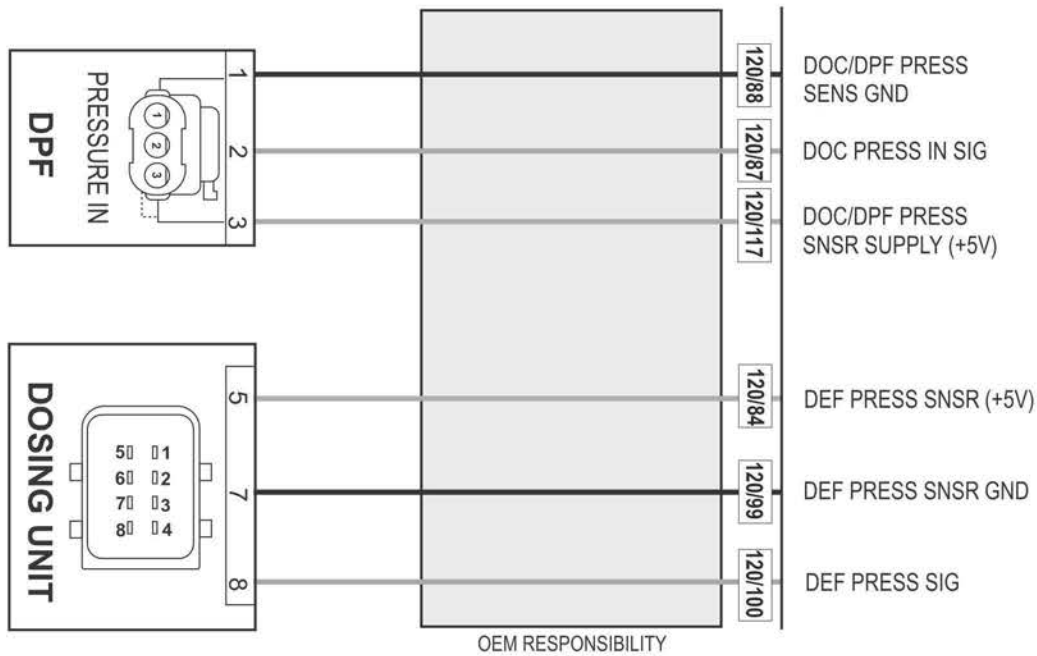
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2 SPN 3509/FMI 3 - GHG17

The 5V Sensor Supply Bank 1 Circuit Failed High

Table 1.

SPN 3509/FMI 3	
Description	5V Sensor Supply Bank 1 Circuit Failed High
Monitored Parameter	Aftertreatment Control Module (ACM) 5V Internal Power Supply
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	Two Seconds
Dash Lamps	MIL, CEL
Engine Reaction	
Verification	Engine Idle (One Minute)



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NOTE: Additional faults SPN 3610/ FMI 3 Diesel Particulate Filter (DPF) Outlet Pressure Circuit Failed High and SPN 3609/FMI 3 DPF Inlet Pressure Circuit Failed High may also be present.

Check as follows:

1. Turn the ignition ON (key ON, engine OFF).
2. Disconnect the Diesel Oxidation Catalyst (DOC) inlet pressure sensor connector.
3. Inspect the sensor harness for bent, spread, or corroded pins. Is any damage present?
 - a. Yes; repair as necessary.
 - b. No; Go to step 4.

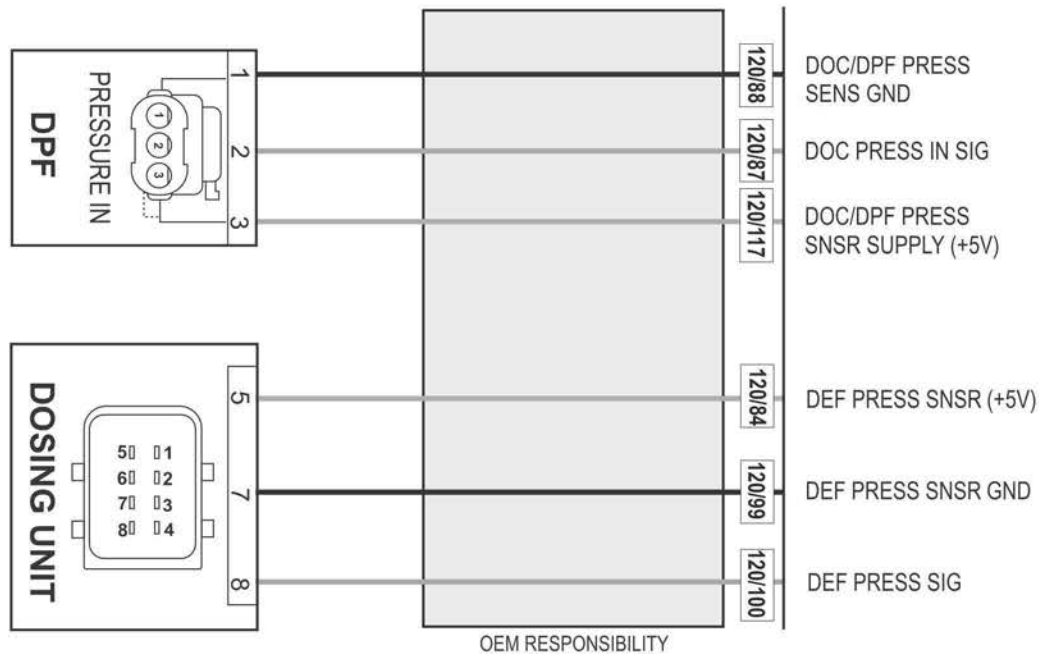
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4. Measure the voltage between pin 3 on the harness side of the DOC inlet pressure sensor connector and ground. Is voltage greater than 5.5 volts?
 - a. Yes; repair the short to battery between pin 3 of the DOC inlet pressure sensor connector and pin 117 of the ACM 120-pin connector.
 - b. No; repair the short to battery between pin 1 of the DOC inlet pressure sensor connector and pin 88 of the ACM 120-pin connector.

3 SPN 3509/FMI 4 - GHG17

The 5V Sensor Supply Bank 1 Circuit Failed Low

Table 2.

SPN 3509/FMI 4	
Description	5V Sensor Supply Bank 1 Circuit Failed Low
Monitored Parameter	Aftertreatment Control Module (ACM) 5V Internal Power Supply
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	Two Seconds
Dash Lamps	MIL, CEL
Engine Reaction	
Verification	Engine Idle (One Minute)



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Check as follows:

1. Turn the ignition OFF.
2. Disconnect the Diesel Oxidation Catalyst (DOC) inlet pressure sensor connector.
3. Inspect the sensor harness for bent, spread, or corroded pins. Is any damage present?
 - a. Yes; repair as necessary. Verify repairs.
 - b. No; Go to step 4.
4. Disconnect the ACM 120-pin connector.
5. Measure the resistance between pin 3 on the harness side of the DOC inlet pressure sensor connector and ground. Is the resistance less than 1k ohms?

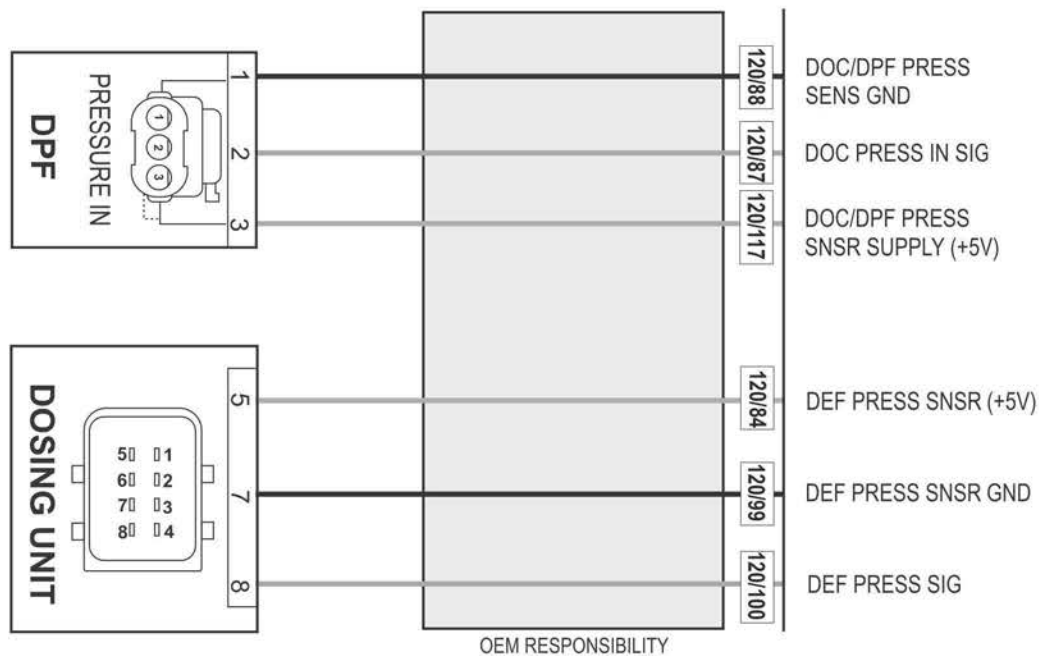
- a. Yes; repair the wire between pin 3 of the DOC inlet pressure sensor connector and pin 117 of the ACM 120-pin connector. Verify repairs.
- b. No; replace the DOC inlet pressure sensor.
For 1-BOX™, Refer to section "Removal of the Diesel Oxidation Catalyst Inlet Pressure Sensor". Verify repair.
For 2-BOX, Refer to section "Removal of the Diesel Oxidation Catalyst Inlet Pressure Sensor". Verify repair.

4 SPN 3510/FMI 3 - GHG17

Aftertreatment Control Module 2 Sensor Supply 2 Short to Battery

Table 3.

SPN 3510/FMI 3	
Description	5V Sensor Supply Bank 2 Circuit Failed High
Monitored Parameter	Motor Control Module (MCM) 5V Internal Power Supply
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	Two Seconds
Dash Lamps	MIL, CEL
Engine Reaction	
Verification	Engine Idle (One Minute)



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Check as follows:

1. Turn the ignition ON (key ON, engine OFF).
2. Disconnect the Diesel Exhaust Fluid (DEF) dosing unit electrical connector.
3. Inspect the DEF dosing unit harness for bent, spread, or corroded pins. Is any damage present?
 - a. Yes; repair as necessary. Verify repairs.
 - b. No; Go to step 4.
4. Measure the voltage between pin 5 on the harness side of the DEF dosing unit connector and ground. Is the voltage greater than 5.5 volts?
 - a. Yes; repair the short to battery between pin 5 of the DEF dosing unit connector and pin 84 of the Aftertreatment Control Module (ACM) 120-pin connector. Verify repairs.

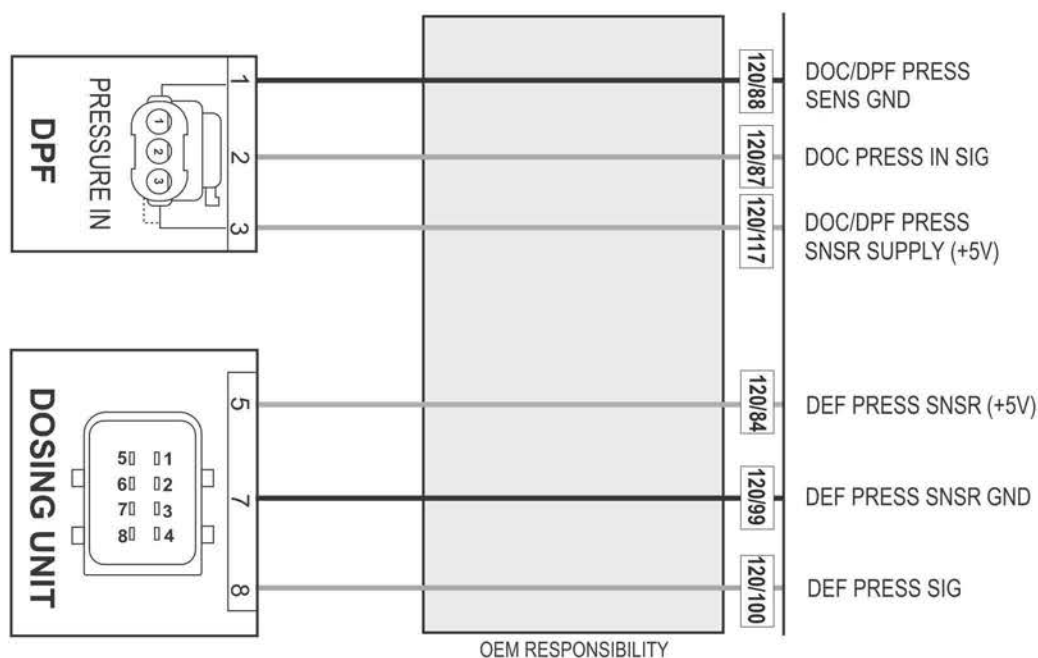
- b. No; repair the short between pin 7 of the DEF dosing unit connector and pin 99 of the ACM 120-pin connector. Verify repairs.

5 SPN 3510/FMI 4 - GHG17

Aftertreatment Control Module 2 Sensor Supply Bank 2 Short to Ground

Table 4.

SPN 3510/FMI 4	
Description	5V Sensor Supply Bank 2 Circuit Failed Low
Monitored Parameter	Motor Control Module (MCM) 5V Internal Power Supply
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	Two Seconds
Dash Lamps	MIL, CEL
Engine Reaction	
Verification	Engine Idle (One Minute)



d150445

Check as follows:

1. Turn the ignition OFF.
2. Disconnect the Diesel Exhaust Fluid (DEF) dosing unit electrical connector.
3. Inspect the DEF dosing unit harness for bent, spread, or corroded pins. Is any damage present?
 - a. Yes; repair as necessary. Verify repairs.
 - b. No; Go to step 4.
4. Disconnect the Aftertreatment Control Module (ACM) 120-pin connector.
5. Measure the resistance between pin 5 on the harness side of the DEF dosing unit connector and ground. Is the resistance less than 1K ohms?

- a. Yes; repair the wire between pin 5 of the DEF dosing unit connector and pin 84 of the ACM 120-pin connector.
Verify repairs.
- b. No; replace the DEF doser unit.