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Service Information Bulletin

SUBJECT	DATE
DD Platform GHG 14 SPN 3361 FMI 3, 4, 5 UPDATE	January 2013

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	GHG 14 DD Platform	SPN 3361/FMI 3 - 5 GHG14	Revised and added steps to procedure.



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2 SPN 3361/FMI 3 - GHG14

This diagnostic is typically a Diesel Exhaust Fluid (DEF) System Circuit Failed High.

Table 1.

SPN 3361/FMI 3	
Description	DEF System Circuit Failed High
Monitored Parameter	DEF Dosing Unit Voltage
Typical Enabling Conditions	DEF Dosing enabled
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 seconds
Dash Lamps	None
Engine Reaction	Derate 25%
Verification	DEF Quantity Check

NOTE: Fault will remain active until key cycle with five-minute ACM2.1 power down.

NOTE: Clear code if active.

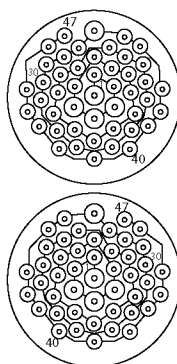
1. Connect to DDDL/DDRS 7.08 SP2 or newer.
2. Unbolt the DEF Dosing Unit from Aftertreatment only. Do not disconnect the DEF lines or electrical connector. Allow Dosing Unit to spray DEF into a DEF safe container. Refer to section "Removal of the GHG14 Dosing System Doser".
3. Turn the ignition ON (key ON, engine OFF).
4. Start the DEF Quantity Check. Immediately Go to step 5.

NOTE: Steps 5 and 6 need to be completed during DEF Quantity Check.

5. Does the fault become active?
 - a. Yes; Go to step 7.
 - b. No; Go to step 6.
6. Conduct a wiggle test on ACM2.1 120-Pin connector, ATS Harness and DEF Dosing Unit Connector. Does fault code go active?
 - a. Yes; Repair the short to battery voltage between pin 1 of the DEF Dosing Unit connector and pin 28 of the ACM2.1 120-pin connector, Go to step 12.
 - b. No; Complete DEF Quantity Check, Go to step 7.

NOTE: After performing DEF Quantity Check be sure to leave the DEF Dosing Unit disconnected.

7. Turn the ignition OFF (key OFF, engine OFF).
8. Inspect the Dosing Unit, 47-pin, ACM2.1 120-pin connectors. Inspect the harness for bent, spread or corroded pins.



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Table 2.

Dosing Unit			
8-Pin	Circuit	ACM2.1 - Pin	Connector
1	Dosing Unit Low Side	28	
2	Dosing Unit High Side	33	
3	Heating Low Side	22	
4	Heating Supply	3	
5	Sensor Supply 5V	84	
6	Not Used	Not Used	
7	Sensor Ground	99	
8	DEF Pressure Signal	100	

- a. If the pins are bent, spread or corroded. Repair as necessary. Go to step 12.
 - b. If connector shows no signs of damage, Go to step 9.
9. Install a test ACM2.1.
 10. Reconnect ACM 2.1 120-pin connector and DEF Dosing Unit Connector.
 11. Connect to DDDL/DDRS 7.08 SP2 or newer.
 12. Turn the ignition ON (key ON, engine OFF).
 13. Does code return?
 - a. Yes, Reinstall original ACM2.1. Clear codes. Go to step 14..
 - b. No, Replace ACM2.1. Validate repairs.
 14. Perform DEF Quantity Check. Does the fault remain inactive and test complete?
 - a. Yes; clear the fault and release the vehicle.
 - b. No; capture a Log File and contact Detroit™ Customer Support Center at (800) 445-1980.

3 SPN 3361/FMI 4 - GHG14

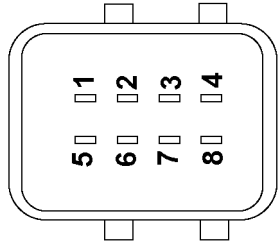
This diagnostic is typically a Diesel Exhaust Fluid (DEF) System Circuit Failed Low.

Table 3.

SPN 3361/FMI 4	
Description	DEF System Circuit Failed Low
Monitored Parameter	DEF Dosing Unit Voltage
Typical Enabling Conditions	DEF Dosing enabled then disabled
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	50 seconds (max)
Dash Lamps	None
Engine Reaction	Derate 25%
Verification	SCR ADS Self-Check

1. Connect to DDDL/DDRS 7.08 SP2 or newer.
2. Turn the ignition ON (key ON, engine OFF).
3. Perform a Selective Catalyst Reduction SCR ADS Self-check Routine. Does the fault become active at end of test?
 - a. Yes; Go to step 4.
 - b. No; Go to step 5.
4. Inspect the Dosing Unit and connector for bent, spread or corroded pins. Was any damage found?

Table 4.

Dosing Unit			
8-Pin	Circuit	ACM2.1-Pin	Connector
1	Dosing Unit Low side	28	
2	Dosing Unit High side	33	
3	Heating Low side	22	
4	Heating Supply	3	
5	Sensor Supply 5V	84	
6	Not Used	Not used	
7	Sensor Ground	99	
8	DEF Pressure Signal	100	

- a. Yes; Repair as necessary, Go to step 6.
 - b. No; Go to step 5.
5. Conduct a wiggle test on ACM2.1 120-Pin connector, ATS Harness and DEF Dosing Unit Connectors. Does fault code go active?
 - a. Yes; Repair harness as needed, Go to step 6.
 - b. No; Contact Detroit™ Customer Support Center at (800) 445-1980.
6. Cycle the ignition OFF (key OFF, engine OFF).
7. Turn the ignition ON (key ON, engine OFF).
8. Clear codes.
9. Rerun ADS Self-Check Routine to verify repairs.

4 SPN 3361/FMI 5 - GHG14

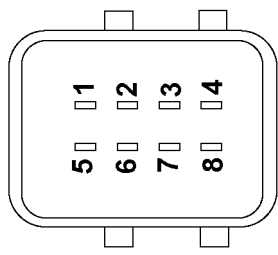
This diagnostic is typically a Diesel Exhaust Fluid (DEF) System Circuit Failed Open.

Table 5.

SPN 3361/FMI 5	
Description	DEF System Circuit Failed Open
Monitored Parameter	DEF Dosing Unit Voltage
Typical Enabling Conditions	DEF Dosing enabled then disabled
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	50 seconds (max)
Dash Lamps	None
Engine Reaction	Derate 25%
Verification	SCR ADS Self-check

1. Connect to DDDL/DDRS 7.08 SP2 or newer.
2. Turn the ignition ON (key ON, engine OFF).
3. Perform a Selective Catalyst Reduction SCR ADS Self-check Routine. Does the fault become active at end of test?
 - a. Yes; Go to step 5.
 - b. No; Go to step 4.
4. Inspect the Dosing Unit and connector for bent, spread or corroded pins. Was any damage found?

Table 6.

Dosing Unit			
8-Pin	Circuit	ACM2.1-Pin	Connector
1	Dosing Unit Low side	28	
2	Dosing Unit High side	33	
3	Heating Low side	22	
4	Heating Supply	3	
5	Sensor Supply 5V	84	
6	Not Used	Not used	
7	Sensor Ground	99	
8	DEF Pressure Signal	100	

- a. Yes; repair as necessary, Go to step 6.
 - b. No; Go to step 6.
5. Measure the resistance across pins 1 and pin 2 of the DEF Dosing Unit. Is the resistance above 10 ohms?
 - a. Yes; Replace Doser Valve. Refer to section "Removal of the GHG14 Dosing System Doser"
 - b. No; Go to step 6.
6. Conduct a wiggle test on ACM2.1 120-Pin connector, ATS Harness and DEF Dosing Unit connectors. Does fault code go active?
 - a. Yes; Repair harness as needed, Go to step 7.
 - b. No; Contact Detroit™ Customer Support Center at (800) 445-1980.
7. Cycle the ignition OFF (key OFF, engine OFF).
8. Turn the ignition ON (key ON, engine OFF).
9. Clear codes using DDDL/DDRS 7.08 SP2 or newer.
10. Rerun ADS Self-Check Routine to verify repairs. Does the fault become active?
 - a. Yes; capture a Log File and contact Detroit™ Customer Support Center at (800) 445-1980.

- b. No, clear the fault and release the vehicle.