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Service Information Bulletin

SUBJECT	DATE
SPN 4375/FMI 4 and 5 - GHG14	January 2013

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	GHG14 DD Platform	SPN 4375/FMI 4 - GHG14	This is updated information.
		SPN 4375/FMI 5 - GHG14	



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2 SPN 4375/FMI 4 - GHG14

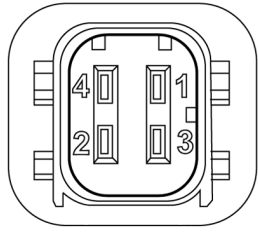
This diagnostic is typically Diesel Exhaust Fluid (DEF) Pump Circuit Failed Low.

Table 1.

SPN 4375/FMI 4	
Description	DEF Pump Circuit Failed Low
Monitored Parameter	DEF Pump
Typical Enabling Conditions	Ignition On
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	SCR ADS Self Check

1. Disconnect the DEF pump harness connector.
2. Inspect the sensor harness for bent, spread, or corroded pins.
 - a. If the pins are bent, spread or corroded, repair as necessary. Go to step 8.
 - b. If connector shows no signs of damage, Go to step 3.
3. Turn ignition ON (key ON, engine OFF).
4. Clear codes.
5. Using DDDL/DDRS 7.08 SP2 or newer, recheck for codes.
6. Is SPN 4375/FMI 4 active with DEF pump disconnected?
 - a. Yes, Go to step 7.
 - b. No, Replace DEF pump. Refer to section "Removal of the Diesel Exhaust Fluid Pump Module". Verify repairs by running Selective Catalytic Reduction Airless Dosing System – SCR ADS Self-Check Routine.

Table 2.

4-Pin	Circuit	ACM2.1-Pin	Connector
Pin 1	Pump rpm Feedback	95	
Pin 2	Pump Supply	1	
Pin 3	Pump rpm Control	20	
Pin 4	Pump GND	31	

NOTE: SPN 3475/FMI 5 may occur with DEF pump disconnected.

7. Conduct a wiggle test on ACM2.1 120-Pin connector, DEF pump harness connector. Does fault code go inactive?
 - a. Yes; Repair the short-to-ground between pin 3 of the DEF pump harness connector and pin 20 of the ACM2.1 120-pin connector. Go to step 8.
 - b. No; Contact Detroit™ Customer Support Center at (800) 445-1980.
8. Run ADS Self-Check to verify repairs. Does test pass with no codes?
 - a. Yes; release vehicle.
 - b. No; Contact Detroit™ Customer Support Center at (800) 445-1980.

3 SPN 4375/FMI 5 - GHG14

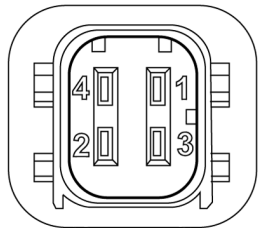
This diagnostic is typically Diesel Exhaust Fluid (DEF) Pump Circuit Failed Open.

Table 3.

SPN 4375/FMI 5	
Description	DEF Pump Circuit Failed Open
Monitored Parameter	DEF Pump
Typical Enabling Conditions	Ignition On
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	SCR ADS Self-Check

1. Turn ignition OFF (key OFF, engine OFF).
2. Disconnect the DEF pump harness connector.
3. Inspect the sensor harness for bent, spread or corroded pins.
 - a. If the pins are bent, spread or corroded, repair as necessary. Go to step 9.
 - b. If connector shows no signs of damage, Go to step 4.

Table 4.

4-Pin	Circuit	ACM2.1-Pin	Connector
Pin 1	Pump rpm Feedback	95	
Pin 2	Pump Supply	1	
Pin 3	Pump rpm Control	20	
Pin 4	Pump GND	31	

4. Measure resistance between DEF pump pins 2 and 3. Is resistance greater than 6K ohms?
 - a. Yes, Replace DEF pump. Refer to section "Removal of the Diesel Exhaust Fluid Pump Module". Verify repairs by running Selective Catalytic Reduction Airless Dosing System – SCR ADS Self-Check Routine.
 - b. No, Go to step 5.
5. Check resistance between pin 3 of the DEF pump connector and pin 20 of the ACM2.1 120-pin connector. Is resistance less than five ohms?
 - a. Yes, Go to step 6.
 - b. No, Repair open in wire between pin 3 of the DEF pump connector and pin 20 of the ACM2.1 120-pin connector. Go to step 9.
6. Check resistance between pin 2 of the DEF pump connector and pin 1 of the ACM2.1 120-pin connector. Is resistance less than five ohms?
 - a. Yes, Go to step 7.
 - b. No, Repair open in wire between pin 2 of the DEF pump connector and pin 1 of the ACM2.1 120-pin connector. Go to step 9.
7. Install a test ACM2.1.
8. Turn ignition ON (key ON, engine OFF). Using DDDL/DDRS 7.08 SP2 or newer, does fault return?

- a. Yes, Contact Detroit™ Customer Support Center at (800) 445-1980.
 - b. No, Turn OFF ignition. Replace ACM2.1. Go to step 9.
9. Rerun SCR ADS Self-Check to verify repairs. Does test pass with no codes?
- a. Yes, release vehicle.
 - b. No, Contact Detroit™ Customer Support Center at (800) 445-1980.