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Service Information Bulletin

SUBJECT	DATE
SPN 3216/FMI 3, 4 (ACM2)(EPA10)	February 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform - EPA10 - ACM	SPN 3216/ FMI 3 - EPA10	Updating diagnostics to check the circuits. Updating wiring schematics.
		SPN 3216/FMI 4 - EPA10	

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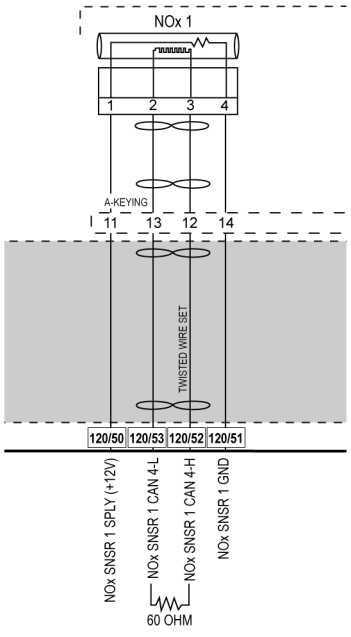
2 SPN 3216/FMI 3 - EPA10

This diagnostic is typically Selective Catalyst Reductions (SCR) Inlet NOx Sensor Circuit Failed High.

This code sets when there is an open on the SCR NOx inlet circuit.

Table 1.

SPN 3216/FMI 3	
Description	Selective Catalyst Reduction Inlet NOx Sensor Circuit Failed High.
Monitored Parameter	SCR NOx inlet sensor
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	None
Verification	Ignition cycle



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Possible causes:

- Failed NOx Sensor
- Circuit fault
- Faulty ACM

1. Connect DiagnosticLink™ 7.10 or newer. Go to step 2.
2. Turn the ignition key ON (Key ON Engine OFF). Go to step 3.
3. Check for multiple codes. Are there multiple circuit high codes for the SCR NOx outlet sensor, the SCR temperature sensors and Diesel Particulate Filter (DPF) pressure sensors?
   a. Yes; replace the ACM. Verify repair.
   b. No; Go to step 4.
4. Disconnect and inspect the SCR inlet NOx sensor connector. Are there any spread or damaged pins?
   a. Yes; repair as necessary. Verify repair.

b. No; Go to step 5.

5. Measure voltage between pin 1 of the SCR inlet NOx sensor connector, harness side, and ground. Is the voltage greater than 10.5 volts?
   a. Yes; Go to step 9.
   b. No; Go to step 6.
6. Turn the ignition OFF. Go to step 7.
7. Disconnect and inspect the 120-pin ACM connector. Are there any spread or damaged pins?
   a. Yes; repair as necessary. Verify repair.
   b. No; Go to step 8.
8. Measure the resistance between pin 50 of the 120-pin ACM connector, harness side, and pin 1 of the SCR inlet NOx sensor connector, harness side. Is the resistance less than 5 ohms?
   a. Yes; replace the ACM. Verify repair.
   b. No; repair the wire between pin 1 of the SCR inlet NOx sensor connector and pin 50 of the 120- pin ACM connector. Verify repair.
9. Measure the resistance between pin 4 of the SCR inlet NOx sensor connector, harness side, and ground. Is the resistance less than 5 ohms?
   a. Yes; replace the SCR NOx inlet sensor.
   b. No; Go to step 10.
10. Remove and inspect the 120-pin ACM connector. Are there any spread or damaged pins?
    a. Yes; repair as necessary. Verify repair.
    b. No; Go to step 11.
11. Measure the resistance between pin 51 of the 120-pin ACM connector, harness side, and pin 4 of the SCR inlet NOx sensor connector, harness side. Is the resistance less than 5 ohms?
    a. Yes; replace the ACM. Verify repair.
    b. No; repair the wire between pin 51 of the 120-pin ACM connector and pin 4 of the SCR inlet NOx sensor connector. Verify repair.

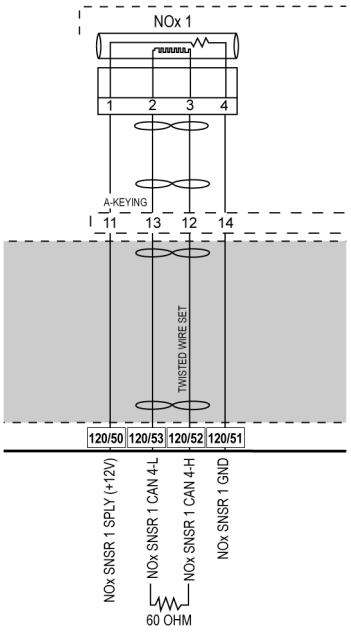
3 SPN 3216/FMI 4 - EPA10

This diagnostic is typically Selective Catalyst Reductions (SCR) Inlet NOx Sensor Circuit Failed Low.

This code sets when there is a short to ground on the SCR NOx inlet circuit.

Table 2.

SPN 3216/FMI 4	
Description	Selective Catalyst Reduction Inlet NOx Sensor Circuit Failed Low.
Monitored Parameter	SCR NOx inlet sensor
Typical Enabling Conditions	Always Enabled
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	2 Seconds
Dash Lamps	MIL, CEL
Engine Reaction	None
Verification	Ignition cycle



Possible causes:

- Failed NOx Sensor
- Circuit fault
- Faulty ACM

1. Connect DiagnosticLink™ or newer. Go to step 2.
2. Turn the ignition key ON (Key ON, Engine OFF). Go to step 3.
3. Disconnect and inspect the SCR NOx inlet sensor connector. Are there any damaged or spread pins?
   a. Yes; repair as necessary. Verify repair.
   b. No; Go to step 4.
4. Does SPN 3216/FMI 4 become inactive and SPN 3216/FMI 3 become active when the SCR inlet NOx sensor connector is disconnected?

a. Yes; replace the SCR inlet NOx sensor. Verify repair.
b. No; Go to step 5.

5. Remove and inspect the Aftertreatment Control Module (ACM) 120-pin connector. Are there any spread or damaged pins?
   a. Yes; repair as necessary. Verify repair.
   b. No; Go to step 6.
6. Measure the resistance between pin 50 of the 120-pin ACM connector, harness side, and pin 1 of the SCR inlet NOx sensor connector, harness side. Is the resistance greater than 10k ohms?
   a. Yes; replace the ACM. Verify repair.
   a. No; repair the wire between pin 50 of the 120-pin ACM connector and pin 1 of the SCR inlet NOx sensor connector. Verify repair.