

SB-10054285-7663

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Service Information Bulletin

SUBJECT	DATE
SPN 94/FMI 4 EPA07 (MCM)	November 2013

Additions, Revisions, or Updates

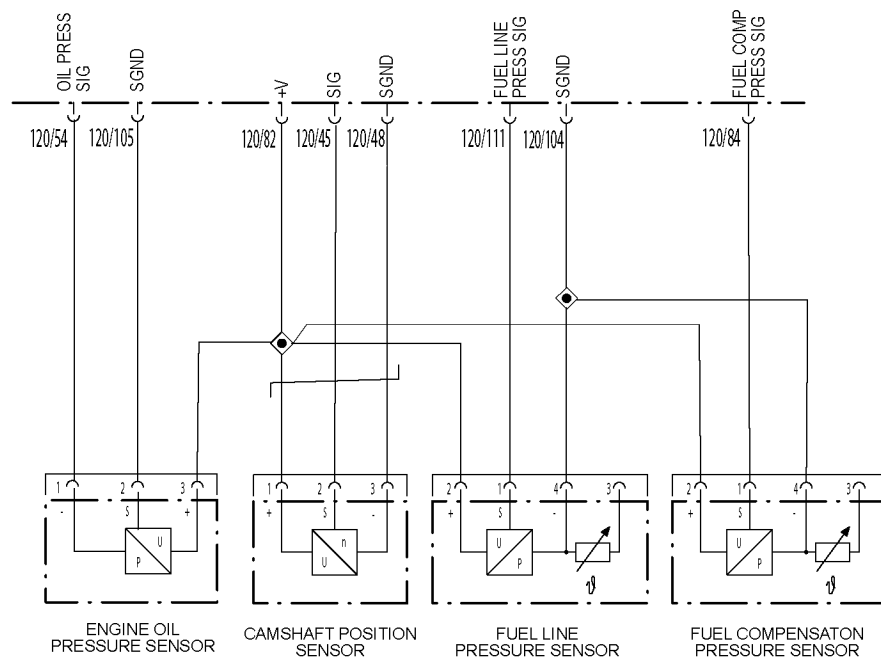
Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	SPN 94/FMI 4	This is a new section.



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2 SPN 94/FMI 4 - EPA07

This diagnostic is typically Fuel Compensation Pressure (FCP) Sensor Circuit Failed Low.



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Check as follows:

1. Connect DDDL/DDRS 7.10 or newer.
2. Turn the ignition ON (key ON, engine OFF).
3. Check for multiple codes.
 - a. If only SPN 94/FMI 4 is present, Go to step 4.
 - b. If SPN 100/FMI 4, SPN 5927/FMI 2, SPN 4077/FMI 4 and SPN 94/FMI 4 are present, repair open 5V supply between pin 82 of the MCM 120-pin connector and the engine oil pressure sensor, Camshaft Position Sensor (CMP), fuel doser line pressure, and FCP sensor harness connectors. Clear codes. Verify repairs.
4. Disconnect the FCP sensor.
5. Inspect the FCP sensor harness connector for signs of damaged, bent, spread, corroded or unseated (pushed out) pins and signs of moisture in the connector or wire damage near the connector.
 - a. If any damage is found, repair as necessary.
 - b. If no damage is found, Go to step 6.
6. Measure the voltage between FCP sensor harness connector pins 2 and 4 (5V supply from MCM) and (ground circuit to MCM).
 - a. If voltage is greater than 4.5 volts, Go to step 8.
 - b. If voltage is less than 4.5 volts, Go to step 7.
7. Measure the voltage between pin 2 of the FCP sensor harness connector and ground (5V supply from MCM) to (battery ground lug by starter).
 - a. If greater than 4.5 volts, Go to step 8.
 - b. If voltage is less than 4.5 volts, repair open wire between pin 82 of the MCM 120-pin connector and pin 2 of the FCP sensor harness connector.
8. Turn the ignition OFF.
9. Disconnect the Motor Control Module (MCM) 120-pin connector.
10. Inspect the MCM harness connector for signs of damaged, bent, spread, corroded or unseated (pushed out) pins and signs of moisture in the connector or wire damage near the connector.
 - a. If any damage is found, repair as necessary.

- b. If no damage is found, Go to step 11.
- 11. Measure the resistance between pin 84 (signal circuit) of the MCM 120-pin harness connector to pin 1 of the FCP sensor harness connector.
 - a. If the resistance is less than 5 ohms , Go to step 12.
 - b. If the resistance is greater than 5 ohms, repair open wire between pin 84 of the MCM 120-pin harness connector and the FCP sensor harness connector.
- 12. Measure the resistance between pins 1 and 4 of the FCP sensor harness connector (signal circuit) and (ground circuit).
 - a. If resistance is less than 10K ohms, repair short between pins 84 and 104 of the MCM 120-pin harness connector and the FCP sensor harness connector.
 - b. If resistance is greater than 10K ohms, Go to step 13.
- 13. Measure the resistance between FCP sensor harness connector pin 1 (signal circuit) and ground (battery ground lug by starter).
 - a. If resistance is less than 10K ohms, repair short to ground between pin 84 of the MCM 120-pin connector and the FCP sensor harness connector.
 - b. If resistance is greater than 10K ohms, replace the FCP sensor. Refer to section "Removal of the Fuel Compensation Pressure Sensor". Go to step 14.
- 14. Clear codes and verify repairs. If fault returns, install a test MCM and retest. If code does not return, replace MCM. Verify repairs.