

1 11 08-14



Service Information Bulletin

SUBJECT	DATE
SPN 636 (MCM) (EPA07;EPA10;GHG14)	November 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	SPN 636/FMI 11 - EPA07 - EPA10 - GHG14	Several new steps added to the procedure.



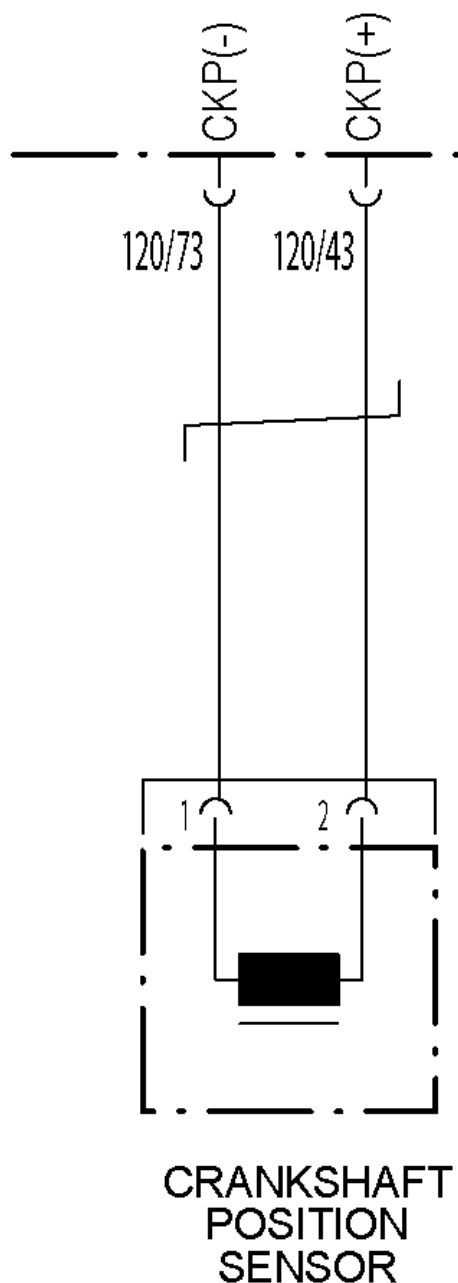
13400 Outer Drive, West, Detroit, Michigan 48239-4001
 Telephone: 313-592-5000
www.demanddetroit.com

2 SPN 636/FMI 11 - EPA07 - EPA10 - GHG14

Crankshaft Position Sensor - Sensor Failure

Table 1.

SPN 636/FMI 11	
Description	Crankshaft Position (CKP) Sensor Failure
Monitored Parameter	Crankshaft Position Sensor
Typical Enabling Conditions	Engine Idle
Monitor Sequence	None
Execution Frequency	Continuous when enabling conditions met
Typical Duration	2 Seconds
Dash Lamps	MIL
Engine Reaction	None
Verification	Engine Idle



d150011a

Check as follows:

1. Disconnect the CKP sensor.
2. Inspect the CKP sensor and harness side connector for signs of damage; bent, spread, broken, unseated (pushed out) or corroded pins, signs of moisture indicating seal damage and signs of wire damage near the connector. Is any damage found?
 - a. Yes; repair as necessary. Verify repair.
 - b. No; Go to step 3.
3. Measure the resistance across pins 1 and 2 of the CKP sensor. Is the resistance between 774 ohms and 946 ohms?
 - a. Yes; Go to step 4.
 - b. No; replace the CKP sensor. Refer to section "Removal of the Crankshaft Position Sensor".
4. Disconnect the 120-pin MCM connector.

5. Inspect the 120-pin MCM and harness connectors for signs of damage; bent, spread, broken, unseated (pushed out) or corroded pins, signs of moisture indicating seal damage and signs of wire damage near the connector. Is any damage found?
 - a. Yes; repair as necessary. Verify repair.
 - b. No; Go to step 6.
6. Measure the resistance across pins 1 and 2 of the CKP sensor harness side connector. Is the resistance greater than 10K ohms?
 - a. Yes; Go to step 7.
 - b. No; repair the short between pins 1 and 2 of the CKP sensor harness side connector and pins 73 and 43 of the 120-pin MCM connector. Verify repair.
7. Measure the resistance between pin 1 of the CKP sensor harness connector and pin 73 of the 120-pin MCM connector. Is the resistance less than five ohms?
 - a. Yes; Go to step 8.
 - b. No; repair the wire between pin 1 of the CKP sensor harness connector and pin 73 of the 120-pin MCM connector. Verify repair.
8. Measure the resistance between pin 2 of the CKP sensor harness connector and pin 43 of the 120-pin MCM connector. Is the resistance less than five ohms?
 - a. Yes; Go to step 9.
 - b. No; repair the wire between pin 2 of the CKP sensor harness connector and pin 43 of the 120-pin MCM connector. Verify repair.
9. Remove the CKP sensor and inspect tip for debris build-up or damage. Is any damage found?
 - a. Yes; replace the CKP sensor. Verify repair.
 - b. No; Go to step 10.
10. Inspect crankshaft flywheel ring gear for wear. Is any damage found?
 - a. Yes; repair as needed. Refer to section "Removal of the Ring Gear".
 - b. No; replace the CKP sensor. Verify repair.