1 3 35-14

Service Information Bulletin

SB-10055514-4047

SUBJECT	DATE
MCM -SPN 3597/FMI 4 - EPA10 - GHG14	March 2014

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0084	DD Platform	SPN 3597/FMI 4 - EPA10 - GHG14	This is a major update to most of the diagnostics, including the wiring schematic graphic.

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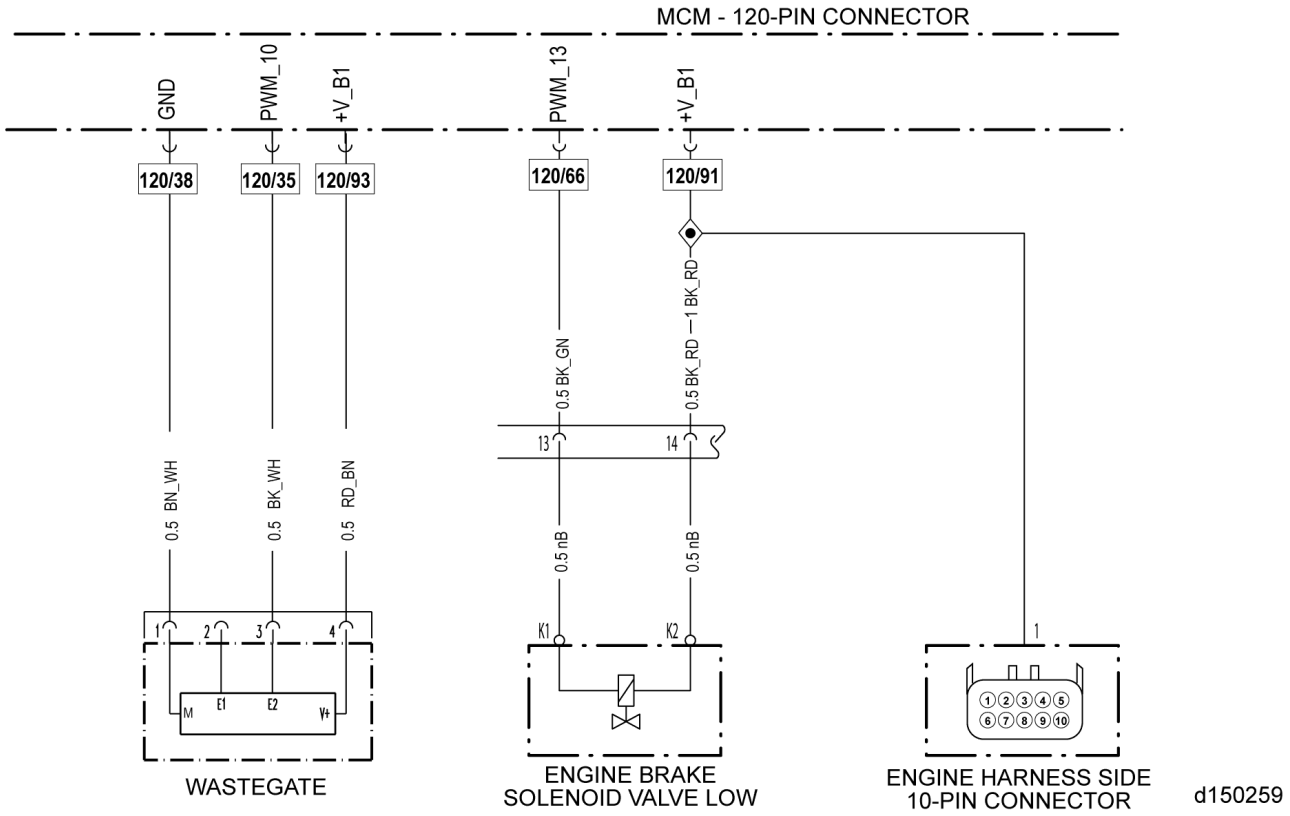
This diagnostic is typically Proportional Valve Bank 1 Circuit Failed Low.



Check as follows:

1. Turn the ignition OFF.
2. Disconnect the front valve cover fuel injector harness connector.
   Refer to section "Removal of the One-Piece Fuel Injector Wiring Harness - Three-Filter System".
   Refer to section "Removal of the Two-Piece Fuel Injector Wiring Harness - Three-Filter System".
   Refer to section "Removal of the Two-Piece Fuel Injector Wiring Harness - Two-Filter System".
3. Inspect the 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. Are any signs of damage present?
   a. Yes; repair as necessary. Verify repairs.
   b. No; Go to step 4.
4. Turn the ignition ON (key ON, engine OFF).
5. Using DiagnosticLink™, monitor fault code SPN 3597/ FMI 4. Does the fault code change or go inactive?
   a. Yes; Go to step 6.
   b. No; Turn the ignition OFF. Go to step 9.
6. Turn the ignition OFF.
7. Remove the valve cover and disconnect the wires from the low engine brake solenoid.
8. Measure the resistance between pin 14 on the valve cover side of the fuel injector harness connector and ground. Is the resistance less than 10K ohms?
   a. Yes; replace the front under valve cover fuel injector harness.
      Refer to section "Removal of the One-Piece Fuel Injector Wiring Harness - Three-Filter System".
      Refer to section "Removal of the Two-Piece Fuel Injector Wiring Harness - Three-Filter System".
      Refer to section "Removal of the Two-Piece Fuel Injector Wiring Harness - Two-Filter System".
   b. No; replace the engine brake solenoid. Refer to section "Removal of the Engine Brake Solenoid". Verify repairs.

9. Disconnect the engine OEM 10-pin connector.
10. Inspect the 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. Are any signs of damage present?
    a. Yes; repair as necessary. Verify repairs.
    b. No; Go to step 11.
11. Turn the ignition ON (key ON, engine OFF).
12. Using DiagnosticLink™, monitor fault code SPN 3597/FMI 4. Does the fault code change or go inactive?
    a. Yes; inspect fan wiring and solenoid. For wiring schematic information, refer to Original Equipment Manufacturer (OEM) literature.
    b. No; turn the ignition OFF. Go to step 13.
13. Disconnect the wastegate VPOD connector. If not equipped, Go to step 17.
14. Inspect the 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. Are any signs of damage present?
    a. Yes; repair as necessary. Verify repairs.
    b. No; Go to step 15.
15. Turn the ignition ON (key ON, engine OFF).
16. Using DiagnosticLink™, monitor fault code SPN 3597/FMI 4. Does the fault code change or go inactive?
    a. Yes; replace the wastegate VPOD. Refer to section "Removal of the GHG14 DD15 Asymmetrical Turbocharger Wastegate Solenoid".
    b. No; turn the ignition OFF. Go to step 17.
17. Disconnect the MCM 120-pin connector.
18. Inspect the MCM 120-pin and the 120-pin harness connector for signs of corrosion, spread, unseated (pushed out) or damaged pins, connector seal for damage (signs of water or oil intrusion) or signs of wire damage.
    a. If any signs of damage are found, repair as necessary.
    b. If no signs of damage, Go to step 19.
19. Turn the ignition ON (key ON, engine OFF).
20. Using DiagnosticLink™, monitor fault code SPN 3597/FMI 4. Does the fault code change or go inactive?
    a. Yes; Go to step 21.
    b. No; replace the MCM. Refer to section "Removal of the Motor Control Module". Verify repairs.
21. Measure resistance from pin 91 of the MCM 120-pin harness connector and ground. Is resistance greater than 10K ohms?
    a. Yes; repair the short to ground on pin 93 of the MCM 120-pin harness connector. Verify repairs.
    b. No; repair the short to ground on pin 91 of the MCM 120-pin harness connector. Verify repairs.