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Service Information Bulletin

SUBJECT	DATE
SPN 521030 (MCM) (GHG17)	April 2019

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0191	GHG17 DD Platform	SPN 521030 / FMI 9 - GHG17	New procedure.

DiagnosticLink users: Please update the troubleshooting guides in DiagnosticLink with this newest version. To update the tool troubleshooting guide, open DiagnosticLink and from the Help – Troubleshooting Guides menu, select the appropriate troubleshooting manual, then click Update.

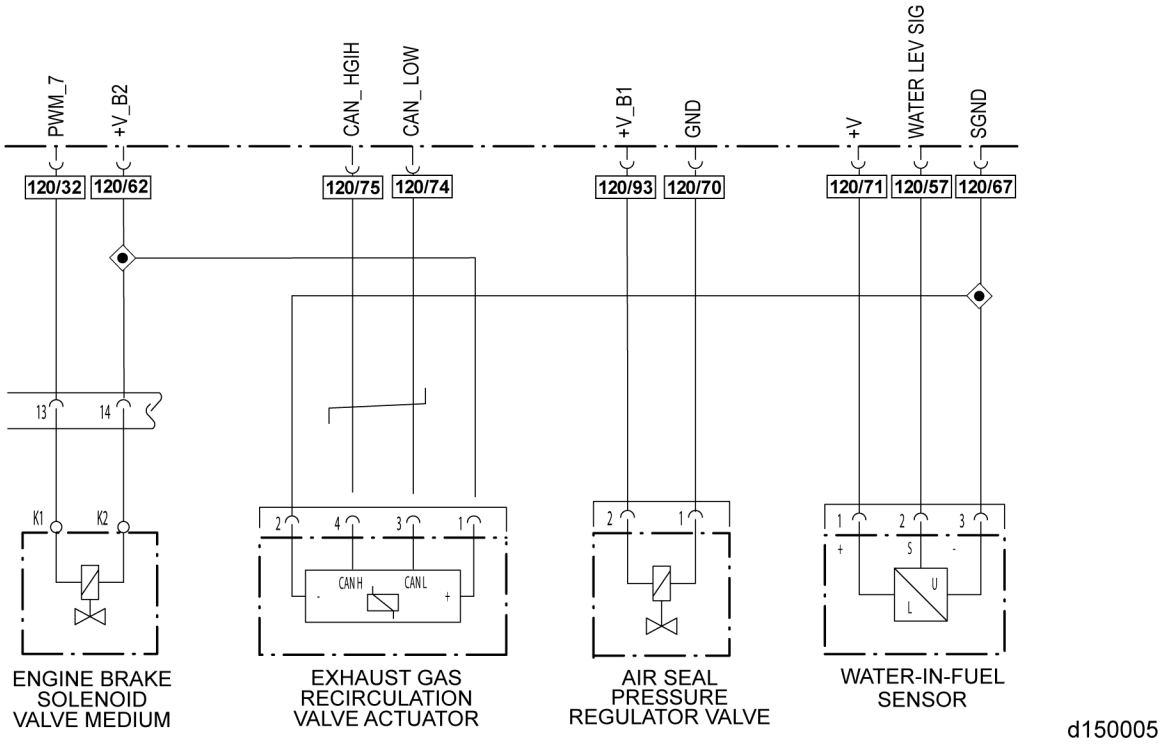
13400 Outer Drive, West, Detroit, Michigan 48239-4001
Telephone: 313-592-5000
www.demanddetroit.com

2 SPN 521030/FMI 9 - GHG17

Smart Remote Actuator 3 (EGR), No Communication

Table 1.

SPN 521030/FMI 9	
Description	The Fault Code Sets When the Motor Control Module (MCM) Does Not Receive a Message from the Exhaust Gas Recirculation (EGR) Valve Actuator
Monitored Parameter	MCM Communication From the EGR Valve Actuator
Typical Enabling Conditions	Ignition ON
Monitor Sequence	None
Execution Frequency	Always Enabled
Typical Duration	Two Seconds
Dash Lamps	MIL, CEL
Engine Reaction	None
Verification	Ignition ON



Check as follows:

1. Check for low battery voltage fault codes. Is fault code 520296/FMI 3 present?
    a. Yes; diagnose the low battery voltage fault code first.
    b. No; Go to step 2.
2. Check for multiple EGR fault codes. Are there any other EGR valve actuator fault codes also active?
    a. Yes; replace the EGR valve actuator.
    b. No; Go to step 3.
3. Turn then ignition OFF.

4. Disconnect and inspect the EGR valve actuator electrical connector components side. Are there any damaged, corroded, or spread pins?
    a. Yes; replace the EGR valve actuator.
    b. No; Go to step 5.
5. Inspect the EGR valve actuator electrical connector harness side. Are there any damaged, corroded, or spread pins?
    a. Yes; repair the connector as necessary.
    b. No; Go to step 6.
6. Turn the ignition ON (key ON, engine OFF).
7. Measure the voltage between pins 1 and 2. Is the voltage greater than 11 volts?
    a. Yes; Go to step 9.
    b. No; Go to step 8.
8. Measure the voltage between pin 1 and ground. Is the voltage greater than 11 volts?
    a. Yes; repair the ground circuit between pin 2 of the EGR valve actuator electrical connector harness side and the circuit splice.
    b. No; repair the voltage circuit between pin 1 of the EGR valve actuator electrical connector harness side and the circuit splice.
9. Turn the ignition OFF.
10. Measure the resistance between pins 3 and 4 of the EGR valve actuator electrical connector harness side. Is the resistance between 55 and 65 ohms?
    a. Yes: replace the EGR valve actuator.
    b. No; Go to step 11.
11. Disconnect and inspect the 120-pin MCM electrical connector components side. Are there any damaged or corroded pins?
    a. Yes; replace the MCM.
    b. No; Go to step 12.
12. Inspect the 120-pin MCM electrical connector harness side. Are there any damaged, corroded or spread pins?
    a. Yes; repair as necessary.
    b. No; Go to step 13.
13. Measure the resistance between pin 3 of the EGR valve actuator electrical connector harness side and pin 74 of the 120-pin MCM electrical connector harness side. Is the resistance less than five ohms?
    a. Yes; Go to step 14.
    b. No; repair the communication circuit between pin 3 of the EGR valve actuator electrical connector harness side and pin 74 of the 120-pin MCM electrical connector harness side.
14. Measure the resistance between pin 4 of the EGR valve actuator electrical connector harness side and pin 75 of the 120-pin MCM electrical connector harness side. Is the resistance less than five ohms?
    a. Yes; replace the MCM.
    b. No; repair the communication circuit between pin 4 of the EGR valve actuator electrical connector harness side and pin 75 of the 120-pin MCM electrical connector harness side.

