

1 01 37-17



Service Information Bulletin

SUBJECT	DATE
SPN 3361/FMI 5 (ACM) (GHG17) SPN 3361/FMI 5 (ACM) (GHG14)	January 2017

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0191	GHG17 Heavy Duty	SPN 3361/FMI 5 - GHG17	The diagnostic procedure has been updated. There is a new wiring graphic for the GHG17 since there is no intermediate vehicle harness on GHG17 models.
DDC-SVC-MAN-0084	GHG14 Heavy Duty	SPN 3361/FMI 5 - GHG14	

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.



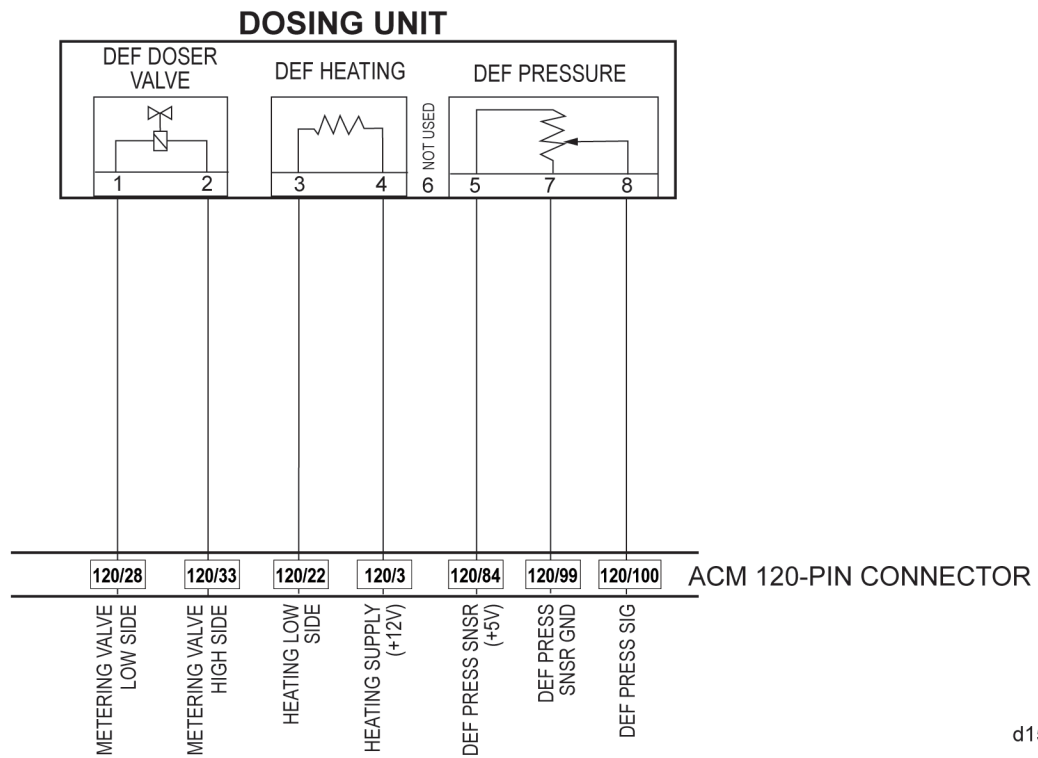
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2 SPN 3361/FMI 5 - GHG17

Diesel Exhaust Fluid System Circuit Failed Open

Table 1.

SPN 3361/FMI 5	
Description	This Fault Code Sets When the Aftertreatment Control Module (ACM) Detects an Open in the Diesel Exhaust Fluid DEF Doser Valve Electrical Circuit
Monitored Parameter	DEF Dosing Unit Voltage
Typical Enabling Conditions	DEF Dosing Enabled Then Disabled
Monitor Sequence	None
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	50 Seconds (max)
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	Key OFF Five Minutes After Repair



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Check as follows:

1. Turn the ignition OFF.
2. Disconnect and inspect the DEF dosing unit electrical connector harness side. Is there corrosion present?
 - a. Yes; replace the DEF dosing unit and the aftertreatment harness. Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit". Verify repairs.
 - b. No; Go to step 3.
3. Are any of the pins or the connector damaged?
 - a. Yes; Go to step 4.
 - b. No; Go to step 5.

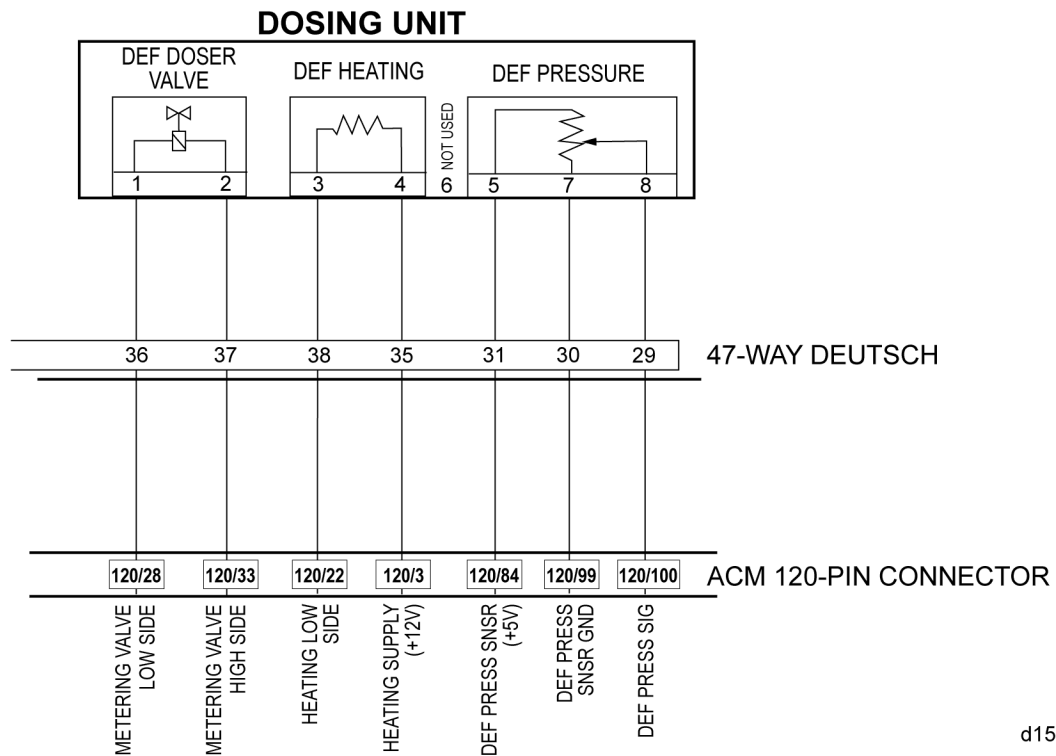
4. Inspect the DEF dosing unit electrical connector component side. Are any of the pins or the connector damaged?
 - a. Yes; replace the DEF dosing unit and the aftertreatment harness.
Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit"
Refer to section "Removal of the 1-BOX™ Aftertreatment Harness"
Verify repairs.
 - b. No; replace the aftertreatment harness. Refer to section "Removal of the 1-BOX™ Aftertreatment Harness".
Verify repairs.
5. Use the appropriate flex probe and check pins 1 and 2 in the DEF dosing unit electrical connector harness side. Is either of the pins spread?
 - a. Yes; replace the aftertreatment harness. Refer to section "Removal of the 1-BOX™ Aftertreatment Harness".
Verify repairs.
 - b. No; Go to step 6.
6. Jump pin 1 to pin 2 on the DEF dosing unit electrical connector harness side.
7. Connect DiagnosticLink®.
8. Turn the ignition ON (key ON, engine OFF).
9. Check the fault codes. Is fault code SPN 3361/FMI 5 now inactive and fault code SPN 3361/FMI 3 now active?
 - a. Yes; replace the DEF dosing unit. Refer to section "Removal of the Diesel Exhaust Fluid Dosing Unit". Verify repairs.
 - b. No; replace the aftertreatment harness.

3 SPN 3361/FMI 5 - GHG14

Diesel Exhaust Fluid System Circuit Failed Open

Table 2.

SPN 3361/FMI 5	
Description	This Fault Code Sets When the Aftertreatment Control Module (ACM) Detects an Open on the Diesel Exhaust Fluid (DEF) Doser Valve Circuit
Monitored Parameter	DEF Dosing Unit Voltage
Typical Enabling Conditions	DEF Dosing Enabled Then Disabled
Monitor Sequence	None
Execution Frequency	Continuous When Enabling Conditions Met
Typical Duration	50 Seconds (Max)
Dash Lamps	MIL, CEL
Engine Reaction	Derate 25%
Verification	Key OFF Five Minutes After Repair



Check as follows:

1. Turn the ignition OFF.
2. Disconnect and inspect the DEF dosing unit electrical connector harness side. Is there corrosion present?
 - a. Yes; replace the harness and the DEF doser.
 - b. No; Go to step 3.
3. Are any of the pins or the connector damaged?
 - a. Yes; Go to step 4.
 - b. No; Go to step 5.
4. Inspect the DEF dosing unit electrical connector component side. Are any of the pins or the connector damaged?

- a. Yes; replace the DEF Dosing Unit and the harness on the aftertreatment system.
Refer to section "Removal of the GHG14 Dosing System Doser"
Refer to section "Removal of the 1-BOX Aftertreatment Harness"
Verify repairs.
 - b. No; replace the harness on the aftertreatment system. Refer to section "Removal of the 1-BOX Aftertreatment Harness". Verify repairs.
5. Use the appropriate flex probes and check pins 1 and 2 in the DEF dosing unit electrical connector harness side. Is either of the pins spread?
 - a. Yes; replace the harness on the aftertreatment system. Refer to section "Removal of the 1-BOX Aftertreatment Harness". Verify repairs.
 - b. No; Go to step 6.
 6. Jump pin 1 to pin 2 on the DEF dosing unit electrical connector harness side.
 7. Connect DiagnosticLink[®].
 8. Turn the ignition ON (key ON, engine OFF).
 9. Check the fault codes. Is fault code SPN 3361/FMI 5 now inactive and fault code SPN 3361/FMI 3 now active?
 - a. Yes; replace the DEF dosing unit. Refer to section "Removal of the GHG14 Dosing System Doser". Verify repairs.
 - b. No; Go to step 10.
 10. Turn the ignition OFF.
 11. Disconnect and inspect the Deutsch 47-way electrical connector harness side. Is there corrosion present?
 - a. Yes; replace both aftertreatment harnesses. Verify repair.
 - b. No; Go to step 12.
 12. Are any of the pins or the connector damaged?
 - a. Yes; Go to step 13.
 - b. No; Go to step 14.
 13. Inspect the DEF Dosing Unit electrical connector component side. Are any of the pins or the connector damaged?
 - a. Yes; repair the aftertreatment harness on the vehicle side and replace the harness on the aftertreatment system. Refer to section "Removal of the 1-BOX Aftertreatment Harness". Verify repairs.
 - b. No; replace the harness on the aftertreatment system. Refer to section "Removal of the 1-BOX Aftertreatment Harness". Verify repairs.
 14. Use the appropriate flex probe and check pins 36 and 37 in the Deutsche 47-way electrical connector, vehicle harness side. Is either of the pins spread?
 - a. Yes; repair the aftertreatment harness vehicle side. Verify repairs.
 - b. No; Go to step 15.
 15. Jump pin 36 to pin 37 on the 47-way Deutsche electrical connector, vehicle harness side.
 16. Turn the ignition ON (key ON, engine OFF).
 17. Check the fault codes. Is fault code SPN 3361/FMI 5 now inactive and fault code SPN 3361/FMI 3 now active?
 - a. Yes; replace the harness on the aftertreatment system. Refer to section "Removal of the 1-BOX Aftertreatment Harness". Verify repairs.
 - b. No; Go to step 18.
 18. Disconnect the ACM 120-pin electrical connector. Measure the resistance between pin 36 of the Deutsch 47-way electrical connector, vehicle harness side and pin 28 of the ACM 120-pin connector, harness side. Is the resistance less than five ohms?
 - a. Yes; repair the open circuit between pin 37 of the Deutsche 47-way electrical connector, vehicle harness side and pin 33 of the ACM 120-pin connector. Verify repairs.
 - b. No; repair the open circuit between pin 36 of the Deutsche 47-way electrical connector, vehicle harness side and pin 28 of the ACM 120-pin connector. Verify repairs.