U1118

Fault code description

CAN communication - Message (EXH_GAS_CORR) data error, NOx after SCR reading stable from aftertreatment system

Possible cause

1. Check for other NOx sensor faults and solve these first.
2. Faulty NOx after catalyst sensor.

Additional information

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Set condition of fault code

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Reset condition of fault code

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U1118, Diagnostic information

Technical data

"CAN connections of PMCI-2 electronic unit (D365)"

Location of component(s)

"Location information, PMCI-2"

Electrical diagram(s)

"PMCI-2"

Description of component(s)

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Block diagram

"PMCI-2"

Step by step troubleshooting

Perform the troubleshooting steps below using the breakout harness, if necessary, to check electrical components such as sensors, electrical control units, and harnesses. Back probing is not recommended, as it could damage the harness. The ignition should always be in the OFF position when connecting or disconnecting electrical components to reduce the likelihood of damage to the components.

- This troubleshooting tree is based on the assumption that supply power and ground to the PMCI are functioning properly.
- Disconnecting the PMCI connectors during the troubleshooting process will result in multiple errors.
- For specific electrical component information and pin out locations, always refer to the technical data

in Rapido.

- Exit the 'active errors' screen in DAVIE and run the diagnostic test again to identify a change in errors.
- Remember that the truck's operational or mechanical issues may be the root cause of both active and inactive codes. Refer to the 'possible causes' section in Rapido.

Step by step 1: Check fault codes

Troubleshooting steps

1. Turn the key switch ON.
2. Use DAVIE to check whether the fault code is present as an active or inactive fault code.

Is this fault code present as an active or inactive fault code?

- Yes – Proceed to step 2
- No – Proceed to any other fault codes present.

Step by step 2: Make sure software is up to date

Troubleshooting steps

1. Make sure the software is up to date.

Is this software up to date?

- Yes – Proceed to step 3.
- No – Update the software. Proceed to step 3.

Step 3: Check connectors at controllers

Troubleshooting steps

1. Inspect connectors at controllers (check for loose/damaged pins/terminals/seals in connector). As well as any broken/damaged wiring to controllers.

2. Check the pin and terminal integrity on system components (controller, sensors, and harness).
3. Check for corroded/damaged pins and spread terminals.
4. Check for damaged connector shell, loose connector, missing seal, and moisture in connector.

Was an issue found?

- Yes – Resolve issue found. Proceed to step 8.
- No – Proceed to step 4.

Step 4: Pin out and check for damage

Troubleshooting steps

1. Visual inspection of aftertreatment harness for severe pinching, crushing or any other potential damage.
2. Check the following resistances:
   - Disconnect the PMCI and verify that the resistance is 120 Ω (±12 Ω). Reconnect the PMCI.
   - Disconnect the DCU and verify that the resistance is 120 Ω (±12 Ω). Reconnect the DCU.
   - Disconnect the forward NOx sensor and verify that the resistance is 60 Ω (±6 Ω). Reconnect the forward NOx sensor.
   - Disconnect the rear NOx sensor and verify that the resistance is 60 Ω (±6 Ω). Reconnect the rear NOx sensor.
   - Disconnect the ACM and verify that the resistance is 60 Ω (±6 Ω). Reconnect the ACM.

Does the electrical system pass all these tests?

- Yes – Proceed to step 5.

- No – Resolve the electrical issues. Proceed to step 8.

Step 5: Isolate each component

Troubleshooting steps

1. Key OFF
2. Disconnect the DCU.
3. Key ON.
4. Check DAVIE to see if the fault code becomes inactive.
5. Reconnect the DCU.
6. Repeat this step for the following components:
   - Forward NOx sensor
   - Rear NOx sensor
   - ACM

Has the fault code become inactive while isolating any of the components?

- Yes – Solve the fault code for this component. Proceed to step 8.
- No – Proceed to step 6.

Step 6: Perform wiggle test if issue is intermittent

Troubleshooting steps

1. If issue is intermittent, perform a wiggle test on the aftertreatment harness and all connectors to recreate the fault code.

Does the wiggle test result in fault codes or intermittent connection to any controllers?

- Yes – Proceed to step 7.
- No – Proceed to step 7.

Step 7: Verify all campaigns have been performed

Troubleshooting steps

1. Verify that all campaigns have been performed on the truck.

Have all campaigns been performed?

- Yes – Proceed to step 8.
- No – Perform campaigns. Proceed to step 8.

Step 8: Check to see if the fault has been resolved

Troubleshooting steps

1. Warm the truck to operating temperature.
2. Check DAVIE to see whether the fault code has been resolved.

Has the fault code been resolved?

- Yes – Release the truck
- No – Contact the Engine Support Center for further assistance.

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