U1702

Fault code description

CAN communication - Message (AT1T1I) data error, AdBlue tank heating from aftertreatment system

Possible cause

- Check the aftertreatment for tank heater-related faults

Additional information

-

Set condition of fault code

-

Reset condition of fault code

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M028817 - 07/22/2015 16:17:36

U1702, Diagnostic information

Technical data

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

"CAN connection, EAS-3 (D374)"

Location of component(s)

"Location information, PMCI-2"

Electrical diagram(s)

"PMCI-2"

"EAS-3"

Description of component(s)

-

Block diagram

"PMCI-2"

"EAS-3"

Step by step troubleshooting

Please perform the troubleshooting steps below by utilising the breakout harness if necessary to check electrical components such as sensors, electronic control units or 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 electrical components.

- This troubleshooting tree is based on the assumption that supply power and earth 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.

- It is necessary to 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 1: Check for 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 2: Make sure the 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 electronic control units

Troubleshooting steps

1. Inspect the connectors at the electronic control units (check for loose/damaged

pins/terminals/seals in connector). As well as any broken/damaged wiring to the electronic control units.

2. Check the pin and terminal integrity on system components (electronic control units, 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 ECU and verify that the resistance is 120 Ω (±12 Ω). Reconnect the PMCI ECU.
   - Disconnect the EAS-3 actuator and verify that the resistance is 120 Ω (±12 Ω). Reconnect the EAS-3 actuator.
   - Disconnect the NOx sensor before the catalyst and verify that the resistance is 60 Ω (±6 Ω). Reconnect the NOx sensor before the catalyst.
   - Disconnect the NOx sensor after the catalyst and verify that the resistance is 60 Ω (±6 Ω). Reconnect the NOx sensor after the catalyst.
   - Disconnect the EAS-3 ECU and verify that the resistance is 60 Ω (±6 Ω).

Reconnect the EAS-3 ECU.

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. Turn the key switch OFF
2. Disconnect the EAS-3 actuator.
3. Turn the key switch ON.
4. Check with DAVIE to see if the fault code becomes inactive.
5. Reconnect the EAS-3 actuator.
6. Repeat this step for the following components:
   - NOx sensor before the catalyst
   - NOx sensor after the catalyst
   - EAS-3 ECU

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 the 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 electronic control units?

- 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 by step 8: Check to see if the fault has been resolved

Troubleshooting steps

1. Warm the truck to operating temperature.
2. Use 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.

M050771 - 07/23/2015 03:06:15