P3804

Fault code description

NOx sensor after catalyst - Data valid but too low, During driving

Possible cause

1. DEF deposits/crystallisation and/or leaks into the exhaust stream.
2. Drifted NOx after catalyst sensor

Additional information

The NOx sensor is permanently attached to the NOx control module and reports continuously to the EAS-3 unit. The NOx sensor assembly is serviced as a single component and individual components cannot be replaced.

The signal value was detected to be lower than expected during a fuel inhibit coasting or engine brake event.

The signal from this sensor is monitored only when the conditions listed in 'set conditions of faultcode' are met.

This fault may result in engine torque reduction or vehicle speed limiting.

Set condition of fault code

This diagnostic runs when the exhaust gas temperature at the aftertreatment intake NOx sensor is above 302°F (150°C) and the average temperature before and after the SCR catalyst is below 482°F (250°C). The engine has been running under the conditions where the EAS-3 unit has been monitoring the NOx level for a minimum of 18 seconds.

The EAS-3 unit detects that the outlet NOx sensor reading is not stable at zero during these conditions.

Reset condition of fault code

To validate the repair, start and run the engine to raise the exhaust temperature. This may be

done by either driving the vehicle or initiating a stationary regeneration using DAVIE.

The exhaust gas temperature after the SCR catalyst must be above 302°F (150°C) before the sensor can run its internal diagnostic.

In order for this internal diagnostic to run, it will be necessary to induce fuel inhibit coasting or an engine brake event for a minimum of 18 seconds.

This fault code will change to inactive immediately after the diagnostic runs and passes.

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P3804, Diagnostic information

Technical data

"Sensor, NOx after catalyst (F843)"

Location of component(s)

"Location information, EAS-3"

Electrical diagram(s)

Refer to the OEM service manual for more information.

Description of component(s)

"Sensor, NOx after catalyst (F843)"

Block diagram

"Block diagram 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, electrical 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.

- Disconnecting the EAS 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.
- It is necessary to exit the fault code menu 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 fault codes. Refer to the 'possible causes' section.

Step by step 1: Check fault codes

Step 1A: Check for fault codes

Troubleshooting steps

1. Turn the key switch ON.
2. Use DAVIE to check for line heating fault codes.

Is fault code P3804 active?

- Yes – Proceed with the appropriate fault code
- No – Proceed to step 3A

Step 1B: Check for fault codes

Troubleshooting steps

1. Turn the key switch ON.
2. Use DAVIE to check for fault codes.

Is fault code P3808, P3809, P3812, P3962, P3963, P3806, P3818 or P3807 active?

- Yes – Proceed with the appropriate fault code
- No – Proceed to step 2A

Step by step 2: Check the DEF decomposition pipe

Step 2A: Check for deposits in the decomposition pipe

Troubleshooting steps

1. Turn the key switch OFF.
2. Engine off.
3. Remove the decomposition pipe from the

vehicle.

4. Inspect for excessive DEF deposits and crystallisation.

Are excessive deposits/crystallisation found inside the decomposition pipe?

- Yes – Clean and re-install the decomposition pipe - Proceed to step 3A
- No – A damaged NOx after catalyst sensor has been detected. Replace the NOx sensor. Proceed to step 3A

Step by step 3: Clear the fault code

Step 3A: Disable the fault code

Troubleshooting steps

1. Connect all components.
2. Operate the system within the 'reset condition of the fault code' found in the fault code information.
3. Use DAVIE to verify if the fault codes are inactive.

Is fault code P3804 inactive?

- Yes – Proceed to step 3B
- No – Return to the troubleshooting steps. Proceed to step 1A

  If all the steps have been completed and checked again, contact the Engine Support Center for further instructions.

Step 3B: Clear the inactive fault codes

Troubleshooting steps

1. Connect all components.
2. Turn the key switch ON.
3. Use DAVIE to clear the inactive fault codes.

Have all the fault codes been cleared?

- Yes – Repair complete

- No – Troubleshoot any remaining active fault codes

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