

## P3956

### Fault code description

NOx sensor before catalyst - Heater element malfunction

### Possible cause

1. The voltage supplied to the NOx before catalyst sensor is outside the specified values.
2. The NOx before catalyst sensor has malfunctioned or is damaged.
3. The NOx before catalyst sensor internal heater has malfunctioned.

### Additional information

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### Set condition of fault code

This diagnostic runs continuously when the engine is running and the exhaust gas temperature before DOC is above 302°F (150°C) for five seconds.

The NOx before catalyst sensor heater element does not increase the sensor temperature to the required operating temperature within the required time threshold. or the heater element is not able to maintain the operating temperature of the sensor.

### Reset condition of fault code

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

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## P3956, Diagnostic information

### Technical data

["Sensor, NOx before catalyst \(F844\)"](#)

### 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 before catalyst \(F844\)"](#)

### 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 fault codes.

#### Is fault code P3956 active?

- **Yes** – Proceed to step 1B
- **No** – Proceed to step 2A

### 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 P3953, P3954, P3955, P3960, P3952 active or inactive?

- **Yes** – Proceed with the appropriate fault code
- **No** – Proceed to step 1C

### Step 1C: 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 P3798, P3967, P3800, P3801, P3802 active?

- **Yes** – Proceed with the appropriate fault

code

- **No** – An internal error has been detected in the NOx sensor heater. Replace the NOx sensor. Proceed to step 2A

## Step by step 2: Clear the fault code

### Step 2A: 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 P3956 inactive?

- **Yes** – Proceed to step 2B
- **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 4B: 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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