P3839

Fault code description

Fuel pressure fuel intake module (Relative) - Voltage too low or short circuit to ground on ECU (D374) pin (A72)

Possible cause

1. Open signal circuit in the harness, connector or sensor.
2. Signal wire shorted to ground.
3. Faulty fuel pressure sensor.

Additional information

For aftertreatment operation, the EAS-3 ECU will use a default value of 0 PSI (0 bar) for the fuel pressure.

Active DPF regeneration will be disabled. It will be enabled if the fault code is NOT active in the next key cycle.

The fuel pressure sensor and fuel shut-off valve are located in the fuel intake module.

Set condition of fault code

This diagnostic runs continuously when the key switch is in the ON position.

The EAS-3 ECU detects that the fuel pressure signal voltage is less than 0.25 VDC for more than two seconds.

Reset condition of fault code

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

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P3839, Diagnostic information

Technical data

"Intake module, fuel (L072)"

Location of component(s)

"Location information, EAS-3"

Electrical diagram(s)

Refer to the OEM service manual for more information.

Description of component(s)

"Intake module, fuel (L072)"

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 P3839 inactive?

- Yes – Proceed to step 4A
- No – Proceed to step 2A

Step by step 2: Check the fuel pressure sensor and the circuit

Step 2A: Inspect the fuel pressure sensor and connector pins

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the fuel pressure sensor from the harness.
3. Inspect the fuel pressure sensor connector for:
    1. Corroded or dirty pins
    2. Damaged pins
    3. Pushed back or expanded pins
    4. Loose connector
    5. Moisture in or on the connector
    6. Connector shell damaged
    7. Missing or damaged connector seals
    8. Wire insulation damage

Dirty or damaged pins/connector?

- Yes – A dirty or damaged connection has been detected. Clean, repair or replace the damaged connection or harness if possible - Proceed to step 4A
- No – Proceed to step 2B

Step 2B: Check the sensor supply voltage and earth circuit

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the fuel pressure sensor from the harness.
3. Turn the key switch ON.
4. Measure the voltage between the fuel pressure sensor supply pin and the fuel pressure sensor earth pin at the connector.

Is the voltage 4.75 to 5.25 VDC?

- Yes – Proceed to step 2C
- No – Proceed to step 3A

Step 2C: Check the circuit response

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the fuel pressure sensor from the harness.
3. Place a jumper wire between the sensor supply pin and the signal pin at the sensor connector of the fuel pressure sensor.
4. Turn the key switch ON.
5. Check for the appropriate circuit response after 30 seconds.
6. Use DAVIE to read the fault codes.

Is fault code P3838 active?

- Yes – Proceed to step 2D

- No – Proceed to step 3A

Step 2D: Check the fault codes and verify the sensor condition

Troubleshooting steps

1. Turn the key switch OFF.
2. Connect the fuel pressure sensor to the harness.
3. Turn the key switch ON.
4. Check for the appropriate circuit response after 30 seconds.
5. Use DAVIE to read the fault codes.

Is fault code P3839 active?

- Yes – A damaged sensor has been detected. Replace the sensor - Proceed to step 4A
- No – The removal and re-installation of the connector corrected the fault - Proceed to step 4A

Step by step 3: Check the EAS-3 unit and the harness

Step 3A: Inspect the EAS-3 unit and the harness connector pins

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 unit from the harness.
3. Inspect the harness and EAS-3 unit connector for:
    1. Corroded or dirty pins
    2. Damaged pins
    3. Pushed back or expanded pins
    4. Loose connector
    5. Moisture in or on the connector
    6. Connector shell damaged
    7. Missing or damaged connector seals

8. Wire insulation damage

Dirty or damaged pins/connector?

- Yes – A dirty or damaged connection has been detected. Clean, repair or replace the damaged connection or harness if possible - Proceed to step 4A
- No – Proceed to step 3B

Step 3B: Check for an open circuit in the harness

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 unit from the harness.
3. Disconnect the fuel pressure sensor from the harness.
4. Check for an open circuit.
5. Measure the resistance of the fuel pressure sensor supply wire between the EAS-3 unit connector pin and the sensor connector pin.

Is the resistance less than 10 ohms?

- Yes – Proceed to step 3C
- No – An open circuit has been detected in the harness. Repair or replace the harness - Proceed to step 4A

Step 3C: Check for an open circuit in the harness

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 unit from the harness.
3. Disconnect the fuel pressure sensor from the harness.
4. Check for an open circuit.
5. Measure the resistance of the fuel pressure sensor signal wire between the EAS-3 unit connector pin and the sensor

connector pin.

Is the resistance less than 10 ohms?

- Yes – Proceed to step 3C
- No – An open circuit has been detected in the harness. Repair or replace the harness - Proceed to step 4A

Step 3D: Check for a pin-to-pin short circuit in the harness

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 unit from the harness.
3. Disconnect the fuel pressure sensor from the harness.
4. Check for a pin-to-pin short circuit.
5. Measure the resistance between the EAS-3 unit connector fuel pressure sensor signal pin and all other pins in the harness.

Is the resistance greater than 100k ohms?

- Yes – Proceed to step 3E
- No – A pin-to-pin short circuit has been detected in the harness. Repair or replace the harness - Proceed to step 4A

Step 3E: Check for a pin-to-earth short circuit

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 unit from the harness.
3. Disconnect the fuel pressure sensor from the harness.
4. Check for a pin-to-earth short circuit.
5. Measure the resistance between the EAS-3 unit connector fuel pressure sensor signal pin and earth.

Is the resistance greater than 100k ohms?

- Yes – Proceed to step 3F
- No – A pin-to-earth short circuit has been detected in the harness. Repair or replace the harness - Proceed to step 4A

Step 3F: Check for an inactive fault code

Troubleshooting steps

1. Connect all components.
2. Turn the key switch ON.
3. Check for the appropriate circuit response after 30 seconds.
4. Use DAVIE to read the fault codes.

Is fault code P3839 inactive?

- Yes – The removal and re-installation of the connector corrected the fault - Proceed to step 4A
- 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 by step 4: Clear the fault code

Step 4A: 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 whether the fault codes are inactive.

Is fault code P3839 inactive?

- Yes – Proceed to step 4B
- 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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