P3917

Fault code description

EAS-3 actuator ECU sensor supply - Voltage too high

Possible cause

1. Short circuit in the EAS-3 actuator wiring.
2. Short circuit in the pump module.
3. Faulty or malfunctioning EAS-3 actuator.

Additional information

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Set condition of fault code

This diagnostic runs continuously when the key switch is ON.

A reading too high or too low for the operating conditions has been detected in the sensor supply circuit between the EAS-3 actuator and the pump module.

Reset condition of fault code

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

This fault code cannot be cleared with DAVIE.

To validate the repair, start the engine and let it idle for 1 minute.

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P3917, Diagnostic information

Technical data

"Power supply and earth of EAS-3 actuator (D375)"

"CAN connection, EAS-3 actuator (D375)"

Location of component(s)

"Location information, EAS-3"

Electrical diagram(s)

Refer to the OEM service manual for more information.

Description of component(s)

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Block diagram

"Block diagram EAS-3"

Step by step troubleshooting

Please perform the troubleshooting steps below by utilizing 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 P3917 active?

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

Step by step 2: Check the pump module and the circuit

Step 2A: Inspect the pump module and connector pins

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the pump module from the harness.
3. Inspect the pump module harness and 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 circuit response

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the pump module from 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.

Multiple fault codes related to the pump module will become active.

Is fault code P3917 active?

- Yes – Proceed to step 3A
- No – A damaged pump module has been detected. Replace the pump module. Proceed to step 4A

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

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

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 actuator from the harness.
3. Inspect the harness and EAS-3 actuator 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?

- 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 the circuit response

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 actuator from 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.

Multiple fault codes related to the pump module will become active.

Is fault code P3917 active?

- Yes – Contact the Engine Support Center for further instruction on replacement of the EAS-3 actuator - Proceed to step 4A
- No – Proceed to step 3C

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

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the EAS-3 actuator unit from the harness.

3. Disconnect the pump module from the harness.
4. Check for a pin-to-pin short circuit.
5. Measure the resistance between the EAS-3 unit connector 5V pressure sensor supply pin and all other pins in the harness.

Is the resistance greater than 100k ohms?

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

Step 3D: 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 P3917 inactive?

- Yes – The removal and 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 instruction on replacement of the EAS-3 actuator.

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 if the fault codes are inactive.

Is fault code P3917 inactive?

- Yes – Proceed to step 5B
- 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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