P3897

Fault code description

Internal ECU temperature - Data valid but too high, moderately severe on ECU (D375)

Possible cause

1. Inadequate air flow to cool the EAS-3 actuator.
2. Improper mounting of the EAS-3 actuator.
3. Faulty or malfunctioning EAS-3 actuator.

Additional information

The EAS-3 actuator is air cooled, and is equipped with an internal temperature sensor, which monitors the temperature inside the unit during operation. The EAS-3 actuator communicates this temperature reading to the EAS-3 ECU via CAN.

Set condition of fault code

This diagnostic runs during normal operation when dosing is being commanded by the SCR system.

The internal temperature of the diesel exhaust fluid controller is above the warning limits.

Reset condition of fault code

This fault code will change to inactive immediately after the EAS-3 actuator internal temperature drops below the warning limits.

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

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P3897, 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 P3897 active or more than three inactive counts?

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

Step by step 2: Check the EAS-3 actuator mounting location

Step 2A: Inspect the EAS-3 actuator installation

Troubleshooting steps

1. Turn the key switch OFF.
2. Engine not running.
3. Refer to the OEM manual to determine the correct location for the EAS-3 actuator. Verify that the EAS-3 actuator is mounted at the correct location. Make sure the EAS-3 actuator is properly installed and secured.

Is the EAS-3 actuator properly installed?

- Yes – Proceed to step 2B
- No – Relocate/install the EAS-3 actuator correctly. Proceed to step 4A

Step 2B: Check for obstructed or restricted air flow to the EAS-3 actuator

Troubleshooting steps

1. Turn the key switch OFF.
2. Engine not running.
3. Check the EAS-3 actuator mounting area for air flow obstructions. The EAS-3 actuator is designed to be mounted so that air will flow over it to cool it during operation. Restrictions or blockage of the air flow could cause the EAS-3 actuator to overheat. Check for the following:
   - Debris on or around the EAS-3 actuator.
   - Aftermarket shields, flaps or bracket mounted too close to the EAS-3 actuator

Are there air flow restrictions to the EAS-3 actuator?

- Yes – Repair / clean the cause of the restricted air flow. Proceed to step 4A
- No – Contact the vehicle OEM for guidance on EAS-3 actuator mounting - Proceed to step 4A

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 P3897 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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