P3929

Fault code description

Pump module - Incomplete purge

Possible cause

1. Voltage supply removed from the EAS-3 system immediately after engine shut-down.
2. DEF contamination

Additional information

The EAS-3 system is programmed to automatically purge itself after the engine has shut down. This fault code indicates that something is not allowing the supply module to fully complete its purge cycle. Failure to complete the purge cycle could lead to deposits forming in the diesel exhaust fluid system or damage to the DEF dosing valve caused by freezing of the DEF.

Set condition of fault code

This diagnostic runs at initial key on.

The EAS-3 unit counts and records the number of complete and incomplete purge cycles. The EAS-3 unit detects the number of incomplete purge cycles (250 times) that have occurred.

Reset condition of fault code

This fault code will change to inactive upon successful completion of a power down and purge cycle of the SCR dosing system.

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

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P3929, Diagnostic information

Technical data

"Pump module (L074)"

Location of component(s)

"Location information, EAS-3"

Electrical diagram(s)

Refer to the OEM service manual for more information.

Description of component(s)

"Pump module (L074)"

Block diagram

"Block diagram EAS-3"

Step by step troubleshooting

Please perform the troubleshooting steps below using 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 P3964, P3861, P3862 or P3863 active?

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

Step by step 2: Check the main switch operation

Step 2A: Inspect the battery main switch (if equipped)

Troubleshooting steps

1. Turn the key switch OFF.
2. Check the battery main switch for:
   - If the vehicle is equipped with an automatic main switch, a built-in delay device must be fitted. This is to prevent the supply voltage being disconnected before the purge cycle is complete.
   - Make sure that the driver is shutting down the engine with the key switch and not via the main switch.
   - Make sure the EAS-3 system remains powered on for at least 30 seconds after the key switch is switched off.

Is the battery main switch shut-down cycle correct?

- Yes – Proceed to step 3A
- No – Repair or prevent the failure - Proceed to step 3A

Step by step 3: Check the DEF quality

Step 3A: Inspect the DEF quality

Troubleshooting steps

1. Turn the key switch OFF.
2. Check the DEF quality:
   - Visually inspect the DEF in the tank for signs of debris or contamination.
   - Use a DEF refractometer to measure the urea concentration.
   - Use the oil test paper to test for diesel fuel or oil contamination in the DEF tank.

Is the DEF free of contamination and within the specifications?

- Yes – Proceed to step 4A
- No – The fluid in the tank is not pure DEF. Drain the tank, clean the system and fill the tank with DEF. 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 P3929 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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