P0480

Fault code description

Electronically controlled fan - Open circuit on ECU (D365) pin (C74)

Possible cause

1. Open circuit in the harness to the fan clutch actuator.
2. Failed electric air solenoid.

Additional information

The fan clutch is controlled by an electric over air solenoid that is generally located on the firewall.

Set condition of fault code

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Reset condition of fault code

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P0480, Diagnostic information

Technical data

Refer to the OEM service manual for more information.

Location of component(s)

Refer to the OEM service manual for more information.

Electrical diagram(s)

"PMCI-2"

Description of component(s)

Refer to the OEM service manual for more information.

Block diagram

"PMCI-2"

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.

- This troubleshooting tree is based on the assumption that supply power and earth to the PMCI are functioning properly.
- Disconnecting the PMCI 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 in Rapido.

- It is necessary to exit the 'active errors' screen 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 codes. Refer to the 'possible causes' section in Rapido.

Step by step 1: Check fault codes

Step 1A: Check for fault codes

Troubleshooting steps

1. Use DAVIE to check for fault codes.

Is fault code P0480 active?

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

Step by step 2: Fan clutch and the electrical circuit

Step 2A: Inspect the fan clutch and actuator connector pins

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the fan clutch connector from the electric air solenoid.
3. Visually inspect the associated component connections and wiring for any of the following:
   - Corroded or dirty pins.
   - Damaged pins.
   - Pushed back or expanded pins.
   - Loose connector.
   - Moisture in or on the connector.
   - Damage to the connector shell.
   - Missing or damaged connector seals.

- Wire insulation damage.

Dirty or damaged pins/connector?

- Yes – A dirty or damaged connection has been detected. If possible, clean, repair or replace the damaged connector on the harness or the air solenoid. Proceed to step 3A.
- No – Proceed to step 2B.

Step 2B: Measure the supply voltage to the fan clutch actuator

Troubleshooting steps

1. Turn the key switch ON
2. Disconnect the fan clutch connector from the electric air solenoid.
3. Measure the voltage from the supply pin to the firewall ground.

Is there 12 V at the supply pin?

- Yes – Proceed to step 2C.
- No – A damaged harness has been detected. Replace harness. Proceed to step 3A.

Step 2C: Check the continuity between pin C74 on the PMCI and the signal pin on the fan clutch actuator connector

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the J3 connector on the PMCI.
3. Disconnect the fan clutch connector from the electric air solenoid.
4. Measure the continuity between pin C74 on the PMCI and the signal pin on the fan clutch connector.

Is there continuity?

- Yes – Proceed to step 2D.
- No – A damaged harness has been detected. Replace harness. Proceed to

step 3A.

Step 2D: Measure the resistance of the electric air solenoid

Troubleshooting steps

1. Turn the key switch OFF.
2. Disconnect the fan clutch connector from the electric over air solenoid.
3. Measure the resistance of the electric air solenoid.

Is the resistance between 30 Ω and 40 Ω?

- Yes – Proceed to step 3D.
- No – A damaged electric air solenoid has been detected. Replace the solenoid. Proceed to step 3A.

Step by step 3: Clear the Fault Code

Step 3A: 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 P0480 inactive?

- Yes – Proceed to step 3B.
- No – Return to the troubleshooting steps. Proceed to step 1A.

Step 3B: 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. Proceed to step 4A.

Step by step 4: Contact PACCAR Engine Support Center

Step 4A: Assistance.

Contact the PACCAR Engine Support Center for further assistance.

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