P0073

Fault code description

Ambient temperature - Voltage too high or short circuit to supply

Possible cause

1. Faulty wiring
2. Faulty connector
3. Faulty sensor

Additional information

-

Set condition of fault code

The PMCI-2 detects the sensor output voltage is too high (above 4.99 V) or too low (below 3.99 V).

Reset condition of fault code

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

M028181 - 07/22/2015 17:09:56

P0073, Diagnostic information

Technical data

"Sensor, ambient temperature (F748)"

Location of component(s)

Refer to the OEM service manual for more information.

Electrical diagram(s)

Refer to the OEM service manual for more information.

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 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

- The Ambient Air Temperature sensor is located on the driver's side mirror
- The Ambient Air Temperature sensor circuit is integrated into the engine harness and main cab harness, please use the proper diagram for your respective OEM
- This troubleshooting tree is based on the assumption that supply power and earth to the PMCI is 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 any 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 1

Visual inspection- Visually inspect all applicable connectors and harnesses for

corrosion, damage and rubbing during each step of the diagnostic procedure. Proceed to step 2.

Step 2

With Key OFF, disconnect the engine harness from the sensor. Turn the Key ON, measure supply voltage on the harness:

- If the voltage measures above 5.5 volts – Proceed to step 8
- If the voltage measures below 5.5 volts – Proceed to step 3

Step 3

With DAVIE connected, the Key ON and harness disconnected at the sensor, install a jumper wire between the supply and ground wires of the ambient air temperature circuit on the engine harness connector and navigate through DAVIE to read errors.

- If (Active Low Code) – Replace sensor and reconnect harness then proceed to the verification procedure listed at the end of this document
- If (Active High Code) – Proceed to step 4.

Step 4

With DAVIE connected and Key ON, disconnect the engine harness connector A142 from the OEM engine harness and install a jumper wire between supply and ground terminals of the air ambient temperature sensor circuit on the C harness connector.

- If (Active Low Code) – Proceed to step 6.
- If (Active High Code) – Proceed to step 5.

Step 5

With DAVIE connected, the Key ON and the C connector disconnected from the PMCI, install

a jumper wire between supply and ground terminals of the ambient air temperature sensor circuit on the PMCI and navigate to read errors:

- If (Active Low Code) – Replace engine harness and proceed to the verification procedure
- If (Active High Code) – Proceed to step 7

Step 6

The electrical problem resides in the OEM harnesses on the signal or ground wire of the ambient air temperature sensor circuit located between the ambient temperature sensor and the C connector engine harness. With the proper OEM diagram, verify for a short to voltage, open-circuit, or high resistance due to corrosion.

Step 7

Possible PMCI failure – Contact the Engine Support Center for further instructions on replacement of the PMCI.

Step 8

With DAVIE connected and Key ON, disconnect the engine harness connector A142 from the OEM engine harness, and measure the voltage at the air ambient temperature supply terminal on the C harness connector.

- If the voltage measures above 5.5 volts – Proceed to step 9
- If the voltage measures below 5.5 volts – Proceed to step 6

Step 9

With DAVIE connected, the Key ON and the C connector disconnected from the PMCI, measure the voltage at the supply terminal of the ambient air temperature sensor circuit;

- If the voltage measures above 5.5 volts – Proceed to step 7
- If the voltage measures below 5.5 volts – Replace engine harness and proceed to the verification procedure

Verification procedure

With DAVIE connected and Key ON, clear the errors. Start the engine and let it idle to verify with DAVIE that the errors do not re-occur

M046260 - 07/22/2015 18:06:23