P006C

Fault code description

Humidity sensor, pressure - Data erratic, intermittent or incorrect at ignition on

Possible cause

- Breakdown in communication in the CAN network
- Open circuit, short circuit to earth or short circuit to supply in the CAN network wiring
- Humidity sensor deviation

Additional information

The humidity sensor communicates with the PMCI ECU via E-CAN. The sensor measures the following three properties of the VTG turbo charge air drawn into the inlet air pipe: Relative humidity, pressure and temperature.

For this diagnostic, the pressure reading of the humidity sensor (F852) is compared with an average of other pressure sensor readings on/of the engine.

Set condition of fault code

Two seconds after key-on the pre-VTG air pressure sensor reading is compared with the average of the other four air and exhaust pressure sensors. If the difference is greater than 6 kPa (0.87 psi) then the fault is set.

Reset condition of fault code

This fault is reset when the diagnostic is run with fault condition not present.

The key must be off for at least 15 seconds. Turn the key on and wait at least 10 seconds before starting. Start the engine and idle for 2 minutes.

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P006C, Diagnostic information

Technical data

"Sensor, humidity (F852)"

Location of component(s)

"Location information, PMCI-2"

Electrical diagram(s)

"PMCI-2"

Description of component(s)

"Humidity sensor (F852)"

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 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 the associated component connections and wiring for any of the following:

- Loose or broken clamps on the air system
- Dirt or debris build-up (blockage) at the

front of the intercooler

- Moisture or dirt in the connections
- Damage to the wire harness or insulation
- Damaged or disconnected ECU connections
- Battery damage, contacts that are not tight
- Cuts, holes or abrasions in the air piping
- Incorrectly installed sensor

Was there evidence of any of the above?

- Yes – Clean, adjust, repair or replace affected components for any issues identified.

  Use DAVIE to re-check for the presence of active faults.

  If this related fault is no longer active, then this issue has been resolved. If this related fault is still active, continue to step 2.
- No – Proceed to step 2.

Step 2

Electrical Checks humidity sensor - For all electrical checks and diagrams, refer to the Engine Service Rapido diagram viewer for detailed schematics, connector pin locations and corresponding signal values.

Confirm that the following electrical values are within specified ranges or limits.

1. Check for supply and signal voltages.
2. Check for cable continuity (no open or short circuit).

Are measured electrical values outside of the expected range or limits?

- Yes – Make the appropriate repairs or component replacements.

  Use DAVIE to re-check for the presence of active faults.

  If this related fault is no longer active, then

this issue has been resolved. If this related fault is still active, continue to step 3.

- No – Proceed to step 3.

Step 3

Replace: humidity sensor

1. Replace the identified sensor.
2. Use DAVIE to re-check for the presence of active faults.

Is the fault code inactive?

- Yes – Issue has been resolved.
- No – Proceed to step 5.

Step 5

Contact the Engine Support Center (ESC) for further assistance.

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