P2199

Fault code description

Temperature before turbo (humidity sensor) - Out of range, At ignition on

Possible cause

1. Faulty sensor
2. Faulty wiring
3. Air system leaks

Additional information

Sensor value compared to a corrected average engine power up temperature

Set condition of fault code

This diagnostic starts when the ignition is switched on after the engine was switched off for at least three hours.

Reset condition of fault code

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

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P2199, 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 1: Visual Inspections

Troubleshooting steps

1. 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 If this related fault is no longer active, then this issue has been resolved.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, proceed to step 2.

- No – Proceed to step 2.

Step by step 2: Air side pressure test

Troubleshooting steps

1. Perform the prescribed test to determine if there are any leaks in the air system.

Does the test fail to complete or result in a failed state?

- Yes – Proceed to step 3.
- No – Proceed to step 4.

Step by step 3: Electrical Checks humidity sensor (F852).

Troubleshooting steps

1. Refer to Rapido electrical diagrams or the links at the top of this document to confirm that the electrical values are within the specified ranges or limits.
2. Check the supply and signal voltages.
3. Check the cable continuity for open or short circuit.

Are the 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, proceed to step 4.
- No – Proceed to step 4.

Step by step 4: Humidity sensor

Troubleshooting steps

1. Replace the humidity sensor and use DAVIE to re-check for the presence of active faults.

Is the fault code inactive?

- Yes – Troubleshooting completed.
- No – Proceed to step 5.

Step by step 5: Contact PACCAR Engine Support Center

Contact the PACCAR Engine Support Center for further assistance.

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