

Message “Engine Control Fault” in the Instrument Cluster/Fault Memory Entries to the Oxygen Sensor Downstream of the Catalytic Converter (96/23)

Vehicle Type: **Panamera (971) / Panamera 4 (971)
Panamera Executive (971) / Panamera 4 Executive (971)
Panamera 4 Sport Turismo (971)**

Model Year: **As of 2017 up to 2020**

Equipment: 3.0-liter turbo V6 engine

Concerns: **O2S behind cat. converter**

Cause: **The message ‘Engine control fault’ is displayed in the instrument cluster and the following entries are stored in the fault memory of the DME control unit:**

- **P227000** - Oxygen sensor downstream of catalytic converter, bank 1 – signal too lean
- **P227200** - Oxygen sensor downstream of catalytic converter, bank 2 – signal too lean
- **P209600** - Oxygen sensor correction downstream of catalytic converter, bank 1 – above lean control limit
- **P209800** - Lambda correction behind catalytic converter, bank 2 – above lean control limit

At high ambient temperatures around the oxygen sensors downstream of the catalytic converter, the measuring electrodes may become contaminated over the service life of the vehicle which can lead to a functional impairment of the oxygen sensors and thus to the described fault pattern.

Action: If customer complains, replace oxygen sensor to catalytic converter and turbocharger shield.

Required parts

Parts Info:	Part No.	Designation – Location	Number
	00004330437	⇒ Oxygen sensor – downstream of catalytic converter	1 piece
	PAE119607A	⇒ Heat shield – Turbocharger	1 piece
	WHT008539	⇒ Hexagon-head bolt with inner multiple-tooth head (Duo) M10 x 80 – Dome strut to body	2 pieces

PAF912696	⇒ M10 hexagon nut – Dome strut to body	2 pieces
N 10664503	⇒ Hexagon-head bolt, M8 x 45 – Side strut to body	2 pieces

Required tools

Tools:

- **3337 - Ring wrench set for oxygen sensor**
- Torque wrench, 2 – 10 Nm (1.5 – 7.5 ftlb.), e.g. **V.A.G 1783 - torque wrench, 2 – 10 Nm (1.5 – 7.5 ftlb.)**
- Torque wrench, 20–100 Nm (15–74 ftlb.), e.g. **VAS 5820 - Torque wrench, 20-100 Nm (15-74 ftlb.)**
- Torque–torque –wrench, 20–400 Nm (15-296 ftlb.), e.g. **VAS 6942 - Digital torque–torque –wrench, 20–400 Nm (15-296 ftlb.)**
- **9866 - Support**
- **9866/2 - Support**
- **9900 - PIWIS Tester 3**
- Battery charger with a current rating of **at least 90 A, VAS 5908 - battery charger 90 A**

Replacing oxygen sensor to catalytic converter and turbocharger shield

Work Procedure:



Information

New oxygen sensors are pre-greased.

- 1 Replace oxygen sensor to catalytic converter and turbocharger shield.
⇒ *Workshop Manual '247319 Removing and installing oxygen sensor O2S behind cat converter (V6 Monoturbo)'*
- 2 Read out all fault memories using the PIWIS tester, process and delete existing faults if necessary.

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
24734940	Rework oxygen sensor downstream of catalytic converter	

PCSS encryption:

Location (FES5)	24730	Oxygen sensor downstream of catalytic converter
Damage type (SA4)	1611	does not function

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