

**WLB7 - Replacing Oxygen Sensors Downstream of Catalytic Converter (Workshop Campaign)**

Vehicle type: **Panamera 4 E-Hybrid (971)**  
**Panamera 4 E-Hybrid Executive (971)**  
**Panamera 4 E-Hybrid Sport Turismo (971)**

Model Year: **2018**

Country/market:

- USA (C02)
- Canada (C36)
- Puerto Rico (C02)

Equipment: 2.9-liter V6 biturbo engine with hybrid drive

Subject: **Oxygen sensors downstream of catalytic converter**

Information: **Oxygen sensors downstream of catalytic converter with a silicone protective tube are installed on the connecting line on the affected vehicles. Gas coming from this protective tube can contaminate the measuring electrode on the reference air side of the respective oxygen sensor over the service life of the vehicles.**

As a result, it is no longer possible to correctly measure the oxygen content in the ambient air and consequently, in the exhaust gas and the Check Engine light will be activated.

Remedial Action: Replace oxygen sensors downstream of catalytic converter with oxygen sensors with an acrylic protective tube.

Affected Vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information). There are 9,936 vehicles affected by this campaign in North America.

**Parts required**

Part Info:	Part No.	Designation – Use	Qty.
	00004330438	⇒ Oxygen sensor – downstream of catalytic converter, hybrid vehicles	2 ea.

**Required tools**

Tools:

- **9900 - PIWIS Tester 3**
- **VAS 6883 Insulated Tool Set**

- **3337 - Ring wrench set for oxygen sensor**
- Torque wrench, 2–10 Nm (1.5–7.5 ftlb.), e.g. **VAG 1783 Torque wrench, 2-10 Nm (1.5-7.5 ftlb.) — locally available**
- Torque wrench, 20–100 Nm (15–74 ftlb.), e.g. **VAS 5820 Torque wrench, 20-100 Nm (15-74 ftlb.) — locally available**
- Torque angle torque wrench, 4–400 Nm (3–296 ftlb.), e.g. **VAS 6942 Digital torque wrench, 20-400 Nm (15-296 ftlb.) — locally available**

**Additional tools required if the high-voltage system cannot be isolated automatically using the PIWIS Tester:**

- **VAS 6558/9–6 High-voltage test adapter HVA 280**
- **T40262 - Locking cap**

### Replacing oxygen sensors downstream of catalytic converter

Work

Procedure:



**This procedure can only be performed under the direct supervision of a certified Porsche High Voltage Technician (HVT).**

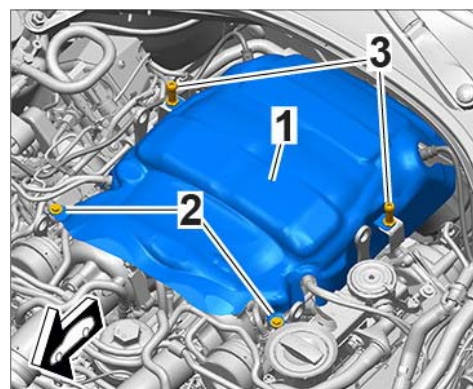
- 1 Observe warning notes and information on the high-voltage system in hybrid vehicles ⇒ *Workshop Manual '2X00IN General warning notes for working on the high-voltage electrical system'*.
- 2 Isolate the high-voltage system from the power supply using the PIWIS Tester and complete the relevant documentation ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*.
- 3 Remove strut (dome strut) ⇒ *Workshop Manual '408619 Removing and installing strut (dome strut)'*.
- 4 Remove engine cover (design cover) ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*.



#### Hot components

- **Risk of burns**
- ⇒ **Let hot components cool down.**
- ⇒ **Wear personal protective gear.**

- 5 Remove heat shield ⇒ *Removing heat shield for turbocharger -1-* for turbocharger.
  - 5.1 Loosen and unscrew fastening screws ⇒ *Removing heat shield for turbocharger -2-* for the heat shield.
  - 5.2 Loosen and unscrew rear fastening pins for the engine cover (ball pins) ⇒ *Removing heat shield for turbocharger -3-*.
  - 5.3 Guide out and remove heat shield ⇒ *Removing heat shield for turbocharger -1-*.



*Removing heat shield for turbocharger*

- 6 Remove electric passenger compartment heater and set it aside.  
 To do this, loosen and unscrew the heater fastening screws. **Do not disconnect high-voltage plug connections and coolant hoses.**  
 For instructions, see ⇒ *Workshop Manual '828019 Removing and installing electric passenger compartment heater.'*

**CAUTION**

**Risk of damage to sensor if handled incorrectly!**

- ⇒ Do not remove the plastic cap on the thread until just prior to installing the sensor. The grease used on the thread must never get into the connector.
- ⇒ Protect sensors – before and after installing – against mechanical shocks.
- ⇒ Sensors that were dropped on the floor must not be used owing to the risk of a broken ceramic insulator.
- ⇒ The cables must not be twisted or kinked when the sensors are screwed in. Avoid pulling on the cable and connector.
- ⇒ Cleanliness in the housing of the plug connections is of utmost importance for the oxygen sensor to function properly. Particles of dirt can impair the function of the sensor. The connector must therefore be protected against any and all types of soiling.
- ⇒ Sensors with a soiled or damaged connector must no longer be used.
- ⇒ Protect the cables and connectors when carrying or moving the exhaust system with the sensors already installed.
- ⇒ High-pressure cleaning equipment must not be used in the area of the sensors and plug connections.
- ⇒ Contact and corrosion agents, e.g. Stabilant, must not be applied to the plug contacts of the oxygen sensors.

- 7 Remove oxygen sensor downstream of catalytic converter for **cylinder bank 1 and cylinder bank 2** and install a new oxygen sensor ⇒ *Workshop Manual '247319 Removing and installing oxygen sensor downstream of catalytic converter (V6 biturbo)'*.

Part No.	Designation	Qty.
00004330438	Oxygen sensor	2 ea.

- 8 Move electric passenger compartment heater into installation position and fasten it.  
For instructions, see ⇒ *Workshop Manual '828019 Removing and installing electric passenger compartment heater.'*

- 9 Install heat shield ⇒ *Installing heat shield for turbocharger -1-* for turbocharger.

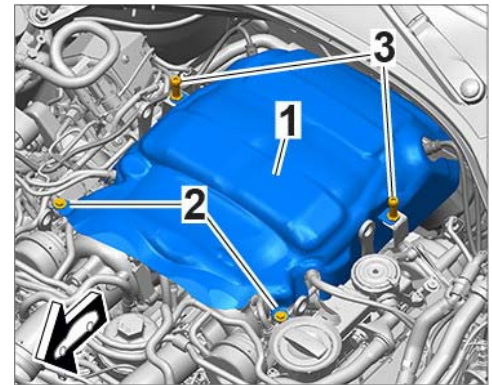
9.1 Guide in and position heat shield ⇒ *Installing heat shield for turbocharger -1-*.

9.2 Screw in and tighten fastening screws ⇒ *Installing heat shield for turbocharger -2-* for the heat shield.

**Tightening torque 9 Nm (6.5 ftlb.)**

9.3 Screw in and tighten rear fastening pins for engine cover (ball pins) ⇒ *Installing heat shield for turbocharger -3-*.

**Tightening torque 4.8 Nm (3.4 ftlb.)**



*Installing heat shield for turbocharger*

- 10 Install engine cover (design cover) ⇒ *Workshop Manual '108319 Removing and installing engine cover (design cover) (V6 Turbo)'*.
- 11 Install strut (dome strut) ⇒ *Workshop Manual '408619 Removing and installing strut (dome strut)'*.
- 12 Start the high-voltage system and complete the relevant start-up documentation. ⇒ *Workshop Manual '2X00IN Isolating high-voltage system from power supply/Starting high-voltage system'*.
- 13 Enter the campaign in the Warranty and Maintenance booklet.

### Warranty processing



#### Information

The specified working time was determined specifically for carrying out this campaign and may differ from the working times published in the Labor Operation List in the PCSS.

Scope 1: **Not relevant** for this **vehicle type**.

Scope 2: **Replacing oxygen sensors downstream of catalytic converter**

- Vehicles with **hybrid drive**

**Working time:**

Replacing oxygen sensors downstream of catalytic converter

Labor time: **129 TU**

Includes: Isolating high-voltage system from power supply and starting high-voltage system  
Removing and installing electric passenger compartment heater  
Removing and installing strut (dome strut)  
Removing and installing engine cover (design cover)  
Removing and installing heat shield for turbocharger

**Parts required:**

00004330438            Oxygen sensor            2 ea.

⇒ **Damage Code WLB7 066 000 2**

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