

WMGO – Retrofitting Tire Pressure Monitoring (TPM) Control Unit (Stop Delivery)

Important: **CRITICAL WARNING** -This campaign includes steps where control unit(s) in the vehicle will be programmed with the PIWIS Tester. The vehicle voltage must be maintained between 13.5 volts and 14.5 volts during this programming. Failure to maintain this voltage could result in damaged control unit(s). Damage caused by inadequate voltage during programming is not a warrantable defect. The technician must verify the actual vehicle voltage in the PIWIS Tester before starting the campaign and also document the actual voltage on the repair order.

Model Year: **As of 2021 up to 2022**

Model Line: **Panamera (971)**

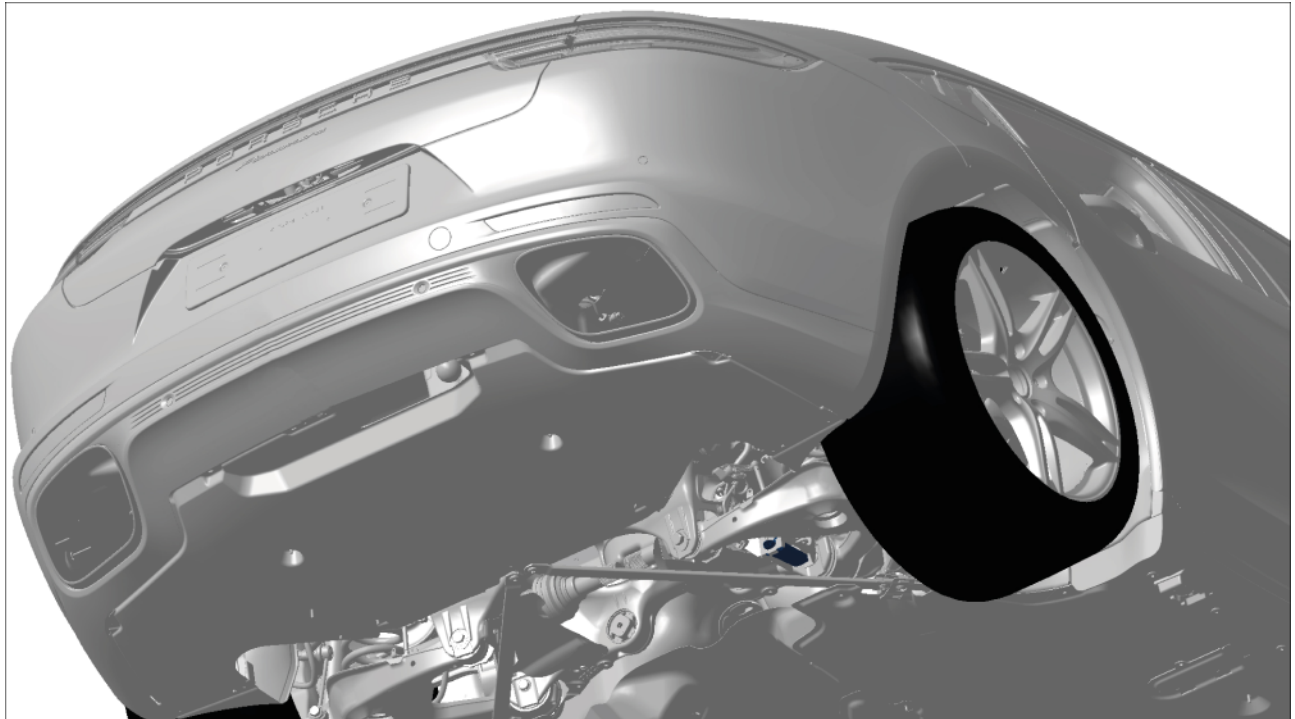
Concerns: **Tire Pressure Monitoring (TPM) control unit**

Information: **Due to worldwide semiconductor shortages experienced by some suppliers, the affected vehicles were built without the control unit for the Tire Pressure Monitoring (TPM) system.** The Tire Pressure Monitoring (TPM) system is therefore not available on these vehicles.

Action required: Retrofit Tire Pressure Monitoring (TPM) control unit.

Affected Vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information).

Installation
Position:



Installation position of TPM control unit

– Tire Pressure Monitoring (TPM) control unit (**retrofit**)

Parts required

Only valid for Cayenne (9YA / 9YB) / Panamera (971)

Parts Info:	Part No.	Designation	Qty.
	V04015001DE	⇒ Control unit for Tire Pressure Monitoring (TPM)	1 ea.

Required tools

- Tools:
- Battery charger with a current rating of **at least 90 A** and, if required, **also with a current and voltage-controlled charge map** for lithium starter batteries, e.g. **VAS 5908 battery charger 90A**
 - **9900 - PIWIS Tester 3** with PIWIS Tester software version **40.300.020** (or higher) installed
 - **V.A.G 1783 - Torque wrench, 2-10 Nm (1.5-7.5 ftlb.)**

Retrofitting Tire Pressure Monitoring (TPM) control unit

- Work Procedure: 1 Raise the vehicle on a lifting platform.
 ⇒ *Workshop Manual '4X00IN Lifting the vehicle'*
- 2 Install Tire Pressure Monitoring (TPM) control unit.
 ⇒ *Workshop Manual '443419 Removing and installing Tyre Pressure Monitoring (TPM) control unit'*
- 3 Lower the vehicle.

Teaching the Tire Pressure Monitoring (TPM) control unit

NOTICE

Fault entry in the fault memory and/or control unit coding aborted due to undervoltage.

- Increased current draw during diagnosis or control unit coding can cause a drop in voltage, which can result in one or more fault entries and the abnormal termination of the coding process.
- ⇒ Before starting control unit coding, connect a suitable battery charger with a current rating of at least 90 A to the vehicle.

NOTICE

Coding will be aborted if the WiFi connection is unstable.

- An unstable WiFi connection can interrupt communication between the PIWIS Tester and the vehicle communication module (VCI). As a result, coding may be aborted.
- ⇒ During control unit coding, always connect the PIWIS Tester to the vehicle communication module (VCI) via the USB cable.

NOTICE

Control unit coding will be aborted if the driver's key is not recognized

- If the driver's key is not recognized in the vehicle, coding cannot be started or will be interrupted.
- ⇒ Place the driver's key with the back facing down into the front left storage compartment in the center console to guarantee a continuous radio link between the vehicle and the driver's key.



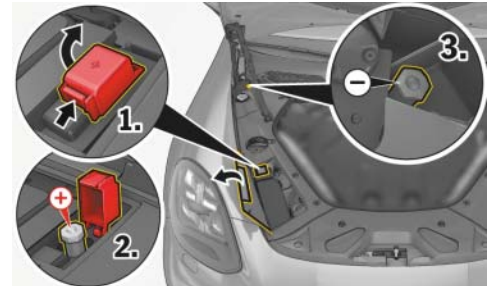
Information

The procedure described here is based on the PIWIS Tester 3 software version **40.300.020**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed.

A discrepancy may arise with later software versions for example.

- Work Procedure: 1 Connect a battery charger with a current rating of at least 90 A, e.g. **Battery charger 90A**, to the jump-start terminals in the engine compartment and switch it on ⇒ *Jump-start terminals*.



Jump-start terminals

- 2 Place the driver's key with the back facing down in the front left storage compartment in the center console ⇒ *Driver's key in storage compartment*. This will guarantee an uninterrupted radio link between the vehicle and the driver's key.



Driver's key in storage compartment

- 3 Connect **9900 - PIWIS Tester 3** to the vehicle communication module (VCI) via the **USB cable**. Then connect the communication module to the vehicle and switch on the PIWIS Tester.

- 4 Switch on the ignition.

- 5 On the PIWIS Tester start screen, call up the **'Diagnostics'** application.

The vehicle type is then read out, the diagnostic application is started and the control unit selection screen is populated.

- 6 **Re-code Tire Pressure Monitoring (TPM) control unit automatically.**

Required PIWIS Tester software version:	40.300.020 (or higher)
Type of control unit coding:	Control unit coding using the 'Automatic coding' function for the control unit: 'Tire pressure monitoring' control unit – 'Coding/programming' menu – 'Automatic coding' function.

Coding sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided procedure. Do not interrupt coding. When coding is complete, the message "Coding has been completed successfully" is displayed and a tick appears in the 'Status' box.
Procedure if control unit coding is not successful :	Repeat control unit coding.

7 Teach wheel electronics (wheel IDs).

- 7.1 Select 'Tire pressure monitoring' control unit.
- 7.2 Select the 'Maintenance/repairs' menu.
- 7.3 Select 'Teach wheel IDs' and press •F12" ('Next') to confirm.

Follow the instructions on the PIWIS Tester during the menu-guided procedure.



Information

You will then be prompted to relieve the tire pressure on all tires one after the other for approx. 5 seconds.

- 7.4 Adapt tire pressure according to specifications.

8 Read out and erase the fault memories of all control units.

- 8.1 Press •F7" in the control unit selection screen ('Overview' menu) to call up the Additional menu.
- 8.2 Select the function "Read all fault memories and erase if required" and press •F12" ('Next') to confirm ⇒ *Erasing fault memories*.

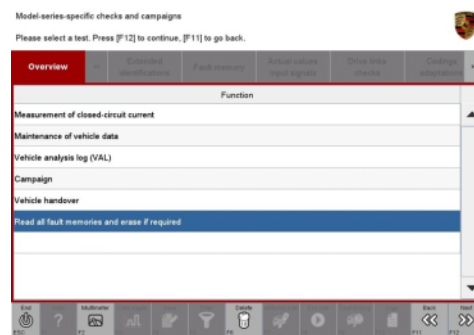
The fault memories of the control units are read out.

- 8.3 Once you have read out the fault memories, check the fault memory entries.



Information

If control units are found to have faults that are **not** caused by control unit coding, these must first be **found** and **corrected**. This work **cannot** be invoiced under the workshop campaign number.



Erasing fault memories

- 8.4 Press •F8" to delete fault memory entries.

- 8.5 Press •F12“ ('Yes') in response to the question as to whether you really want to delete all fault memory entries.

The faults stored in the fault memories of the various control units are deleted.



Information

If fault memory entries for individual control units cannot be deleted, proceed as follows:

- Switch off ignition.
 - Disconnect the PIWIS Tester diagnostic connector from the diagnostic socket.
 - Lock the vehicle using the driver's key.
 - Wait approx. 1 minute before unlocking the vehicle again.
 - Start the engine, leave it running for a short time and then stop it again.
 - Switch off the ignition and wait approx. 10 seconds before switching it back on again.
 - Plug the PIWIS Tester diagnostic connector into the diagnostic socket again and restore communication with the vehicle.
 - Read out the fault memory again and delete any fault memory entries that are stored.
- 8.6 Once you have erased the fault memories, select the '**Overview**' menu to return to the control unit selection screen ⇒ *Control unit selection*.
- 9 Switch off ignition.
- 10 Disconnect the PIWIS Tester from the vehicle.
- 11 Switch off and disconnect the battery charger.
- 12 Enter the campaign in the Warranty and Maintenance booklet.



Control unit selection

Warranty processing



Information

Scope 1 is a dummy scope that was posted to each vehicle.

The campaign **cannot** be invoiced via this scope.

- Scope 2-5: Not valid for this vehicle type.
- Scope 6: Retrofit Tire Pressure Monitoring (TPM) control unit
- Applies to **Panamera (971)**

Working time:

Retrofitting Tire Pressure Monitoring (TPM) control unit

Labor time: **97 TU**

- Includes:
- Installing Tire Pressure Monitoring (TPM) control unit
 - Connecting and disconnecting battery charger
 - Connecting and disconnecting PIWIS Tester
 - Coding control unit
 - Teaching wheel electronics
 - Reading out and erasing fault memories

Parts required:

V04015001DE Control unit for Tire Pressure Monitoring (TPM) 1 ea.

⇒ **Damage Code WMGO 066 000 1**

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