

WLFO - Re-Programming PDK Control Unit (Workshop Campaign)

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 2017**

Vehicle Type: **Panamera 4 E-Hybrid Sport Turismo (971)**
Panamera 4S (971) / Panamera 4S Sport Turismo (971)
Panamera Turbo (971) / Panamera Turbo Sport Turismo (971)
Panamera Turbo S E-Hybrid (971) / Panamera Turbo S E-Hybrid Sport Turismo (971)

Country/Market: USA (C02)

Subject: **PDK control unit**

Information: **The PDK control unit on the affected vehicles was programmed using an outdated software version.**

To ensure that the PDK control unit software corresponds to the latest version, the software for the PDK control unit must be updated.

Remedial Action: Re-program the PDK control unit using the PIWIS Tester with test software version **39.700.030** (or higher) installed.



Information

When the PDK control unit is programmed, the DME control unit is also re-programmed **automatically**. Then, **both** control units are **coded automatically**.
 The total time required for **programming and coding** both control units is **approx. 15 minutes**.



Information

During control unit programming, the old adaptation values of the PDK transmission are deleted. As a result, there is a possibility that after programming the PDK control unit, the gearshift behavior of the PDK transmission will initially be different to what the customer was used to before the measure was carried out.

Please inform the customer about this if necessary and also point out the following:

- The transmission adapts to the customer's driving style after approx. 100 to 150 km (60 to 100 mls), depending on the driving style (sporty or moderate)
- The adaptation can be performed continuously or in stages
- Hard gear changes or jerking of the transmission can sometimes occur during the adaptation phase

Affected Vehicles: Only for vehicles assigned to the campaign (see also PIWIS Vehicle Information). This campaign affects 21 vehicles.

Required tools

Tools:

- **9900 - PIWIS Tester 3** with PIWIS Tester software version **39.700.030** (or higher) installed
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 Battery charger 90A**

Preparatory work

NOTICE

Fault entry in the fault memory and control unit programming aborted due to low-voltage.

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

NOTICE

Control unit programming will be aborted if the WLAN connection is unstable.

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

NOTICE

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

- If the driver's key is not recognized in the vehicle, programming 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.

NOTICE

Use of a PIWIS Tester software version that is older than the prescribed version

- Measure is ineffective
- ⇒ Always use the prescribed version or a higher version of the PIWIS Tester software for control unit programming and coding.



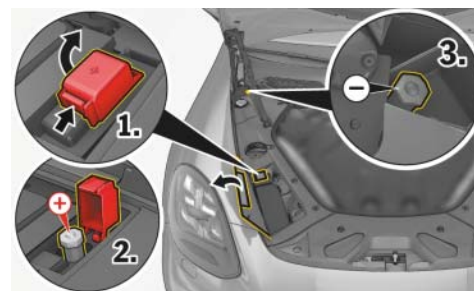
Information

The procedure described here is based on the PIWIS Tester 3 software version **39.700.030**.

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. **VAS 5908 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 the PIWIS Tester 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**' menu. The vehicle type is then read out, the diagnostic application is started and the control unit selection screen is populated.

Re-programming PDK control unit



WARNING

Electrically moved side windows and rear spoiler

- Danger of limbs being trapped or severed
 - Risk of damage to components
- ⇒ Do not reach into the danger area.
- ⇒ Keep third parties away from the danger area.
- ⇒ Do not move components or tools into the danger area.
- ⇒ Retract roll-up sun blinds on the rear side windows before starting programming or coding.

Work Procedure: 1 Re-program PDK control unit.

The basic procedure for control unit programming is described in the Workshop Manual ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*.

For specific information on control unit programming during this campaign, see table below.



Information

Start control unit programming using the "Automatic programming" function of the PDK control unit. The **PDK control unit** and **also** the **DME control unit** will be re-programmed and coded automatically one after the other during the programming sequence. The total time required for **programming and coding** both control units is **approx. 15 minutes**.

Required PIWIS Tester software version:	39.700.030 (or higher)
Type of control unit programming:	Control unit programming using the ' Automatic programming ' function for the PDK control unit: 'Transmission electronics (PDK II)' control unit – ' Coding/programming ' menu – ' Automatic programming ' function.

<p>Programming sequence:</p>	<p>Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence. During the programming sequence, the DME control unit is re-programmed first, then the PDK control unit is re-programmed. Both control units are then re-coded automatically. Do not interrupt programming and coding. Once the control units have been programmed and coded, you will be prompted to switch the ignition off and then back on again after a certain waiting time. Backup documentation of the new software versions is then performed.</p>
<p>The programming sequence takes (approx.):</p>	<p>15 minutes</p>
<p>Software version programmed for the PDK control Unit as part of this campaign:</p>	<ul style="list-style-type: none"> • Panamera 4 E-Hybrid Sport Turismo MY 2018: Software version: 0638 (or higher) Software Part No.: ODS927156N (or higher) • Panamera 4S MY 2017 without I-no. SP7: Software version: 0410 (or higher) Software Part No.: ODS927153M (or higher) • Panamera 4S MY 2017 with I-no. SP7: Software version: 0411 (or higher) Software Part No.: ODS927153N (or higher) • Panamera 4S Sport Turismo MY 2018: Software version: 0607 (or higher) Software Part No.: ODS927153P (or higher) • Panamera Turbo / Panamera Turbo Sport Turismo MY 2018: Software version: 0636 (or higher) Software Part No.: ODS927158AE (or higher) • Panamera Turbo S E-Hybrid/Panamera Turbo S E-Hybrid Sport Turismo MY 2018: Software version: 0611 (or higher) Software Part No.: ODS910159Q (or higher)

Procedure in the event of abnormal termination of control unit programming:	<ul style="list-style-type: none"> • Switch ignition off and then on again. • Read out and erase fault memories ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Subsequent work"</i>. • Repeat control unit programming by restarting programming.
Procedure in the event of other error messages appearing during the programming sequence:	⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"</i> .

Concluding work

Work Procedure: 1 Read out and erase the fault memories of all control units.

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

The fault memories of the control units are read out.

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

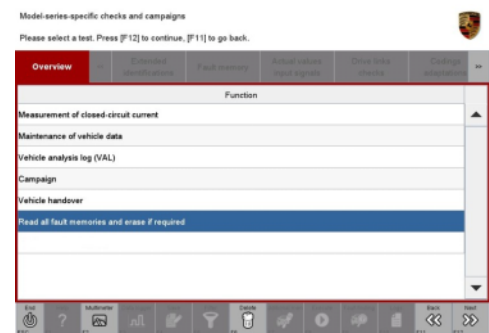


Information

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

- 1.4 Press •F8" to delete fault memory entries.
- 1.5 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.



Erasing fault memories



Information

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

- Switch off the 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.

1.6 Once you have erased the fault memories, select the **'Overview'** menu to return to the control unit selection screen ⇒ *Control unit selection*.

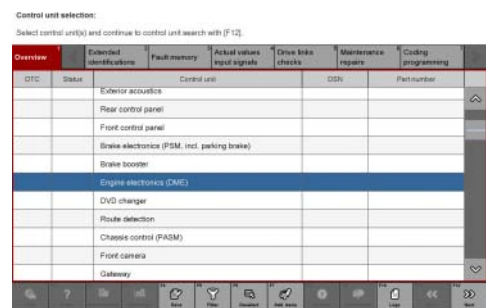
2 Perform adaptation of the DME control unit.

2.1 Select the **'DME' control unit** in the control unit selection screen ('Overview' menu) and press •F12" ('Next') to confirm your selection ⇒ *Selecting DME control unit*.

2.2 Once the DME control unit has been found and is displayed in the overview, select the **'Maintenance/repairs'** menu.

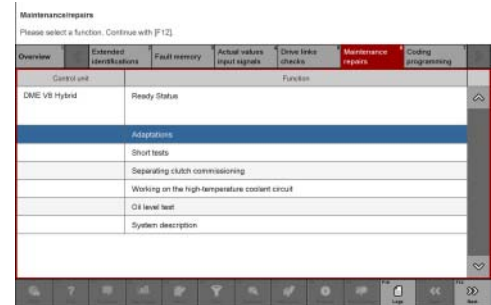


Control unit selection



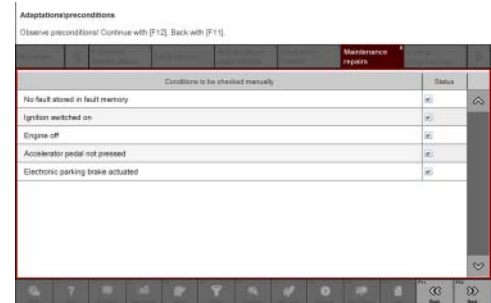
Selecting DME control unit

- 2.3 Select menu item 'Adaptations' and press
 •F12" ('Next') to confirm your selection
 ⇒ *DME control unit adaptations.*



DME control unit adaptations

- 2.4 Comply with the preconditions displayed on the PIWIS Tester and press •F12" ('Next') to confirm ⇒ *Adaptations: Observe the prerequisites.*
- 2.5 Select the **displayed adaptations individually and one after the other** and press •F12" ('Next') to confirm your selection. Then, start the selected adaptation by pressing •F8" ('Start') and follow the instructions on the PIWIS Tester.



Adaptations: Observe the prerequisites



Information

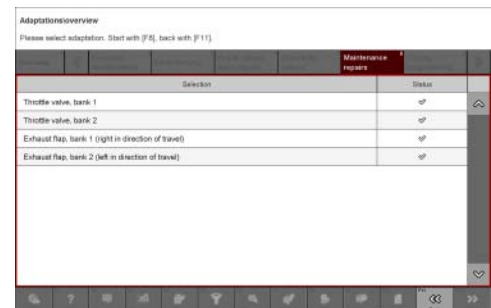
The **type and number** of **DME control unit adaptations** to be carried out depends on the **drive type** of the respective vehicle.

All the adaptations displayed in the PIWIS Tester must be performed individually and one after the other.

After successful adaptation, a tick is placed in the 'Status' field for the relevant adaptation
 ⇒ *Adaptations performed successfully.*

Then, press •F11" ('Back') to return to the selection of adaptations and **repeat** the process until **all the displayed adaptations** have been carried out.

- 2.6 Press •F11" to return to the overview of the **'Maintenance/repairs'** menu.
- 2.7 Select the **'Overview'** menu and press •F11" ('Back') to return to the control unit selection screen.



Adaptations performed successfully

- 3 Disconnect the PIWIS Tester from the vehicle.
- 4 Switch off the ignition.

- 5 Switch off and disconnect the battery charger.
- 6 Enter the campaign in the Warranty and Maintenance booklet.

Warranty processing

Scope 1: **Re-program PDK control unit**

Working time:

Re-programming PDK control unit

Labor time: **80 TU**

Includes:

- Re-programming DME control unit
- Connecting and disconnecting battery charger
- Connecting and disconnecting PIWIS Tester
- Reading out and erasing fault memories
- Performing adaptation

⇒ **Damage Code WLF0 066 000 1**

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