WJ65 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 up to 2019**

Vehicle Type: **Panamera (971)**

Equipment:
- 3.0-liter V6 turbo engine
- Rear wheel drive (I-no. 1X2)

Subject: **PDK control unit**

Information: **With the current transmission software, a clicking noise can be heard in the drive train on the affected vehicles under certain driving conditions.**

The customer may hear this noise during a load change while driving slowly, for example.

Remedial Action:
- Check software version of the PDK control unit.
- Depending on the software version installed on the PDK control unit, re-program the PDK control unit using the PIWIS Tester with software version **37.600.030** (or higher) installed, if necessary.

Information

In addition to the **PDK control unit**, the **DME control unit** is also re-programmed automatically. It takes **approx. 15 minutes** in total to **program** both control units.

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 behaviour 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

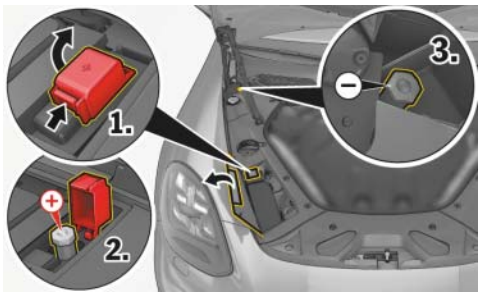
Affected Vehicles: Only the vehicles assigned to the campaign (see also PIWIS Vehicle information). This campaign affects 3,773 vehicles in North America.

Required tools

Tools:
- **9900 - PIWIS Tester 3** with PIWIS Tester software version **37.600.030** (or higher) installed
- Battery charger with a current rating of **at least 90 A**

Reading out software version of the PDK control unit

Work Procedure: 1 Connect a battery charger with a current rating of at least 90 A, 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.

6 Select the **'Transmission electronics (PDK II)'** control unit in the control unit selection screen (**'Overview'** menu) and press •F12 “ ("Next") to confirm your selection.

7 When the question “Create Vehicle Analysis Log (VAL)?” appears, either press •F12 “ ("Yes") to create a VAL or press •F11 “ ("No") if you do not want to create a VAL.

8 Press •F12 “ ("Next") to acknowledge the message that may appear informing you that campaigns for the vehicle are stored in the PIWIS information system.

9 Once the PDK control unit has been found, select the **'Extended identification'** menu.

10 Check software version of the PDK control unit.

Overview of new software versions (including the necessary adaptations):

Exhaust emission standards ULEV2 (I-no. 7 GB) and LEV3 (I-no. 7CE):	Software version **0634**

- If the **new PDK software version** (0634) is **already installed** on the vehicle, the **PDK control unit does not need to be programmed**. In this case, continue with **Step 11**.
- Otherwise, **continue with** ⇒ *Technical Information 'Preparatory work for control unit programming'* and **re-program the PDK control unit**.

11 Select the **'Overview'** menu and then press •F11 “ ("Back") to return to the control unit selection screen.

12 Switch off the ignition.

13 Disconnect the PIWIS Tester from the vehicle.

14 Switch off and disconnect the battery charger.

15 Enter the campaign in the Warranty and Maintenance booklet.

Warranty processing: Scope 1.

Preparatory work for control unit programming

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 or power supply, suitable for AGM type batteries, recommended current rating of 90A fixed voltage 13.5V to 14.5V.**

NOTICE

Completely dead vehicle battery

- **The break in communication in the vehicle system during programming causes safety-relevant functions, e.g. driving light and brake light, to be switched on automatically. This results in an increased current draw, which will run down the vehicle battery.**

⇒ **Before starting control unit programming, connect a suitable battery charger or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V.**

NOTICE

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

- **An unstable Internet connection can interrupt communication between PIWIS Tester and the vehicle communication module (VCI). As a result, control unit programming may be aborted.**

⇒ **During control unit programming, always connect PIWIS Tester to the vehicle communication module (VCI) via the USB cable.**

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.**

Work Procedure: 1 Carry out general preliminary work for control unit programming as described in ⇒*Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*.

Information

The procedure described here is based on the PIWIS Tester 3 software version **37.600.030**.

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.

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

In addition to the **PDK control unit**, the **DME control unit** is also re-programmed automatically. It takes **approx. 15 minutes** in total to **program** both control units.

Required PIWIS Tester software version:	**37.600.030** (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.
Programming sequence:	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-codedautomatically**. **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.
The programming sequence takes (approx.):	**15 minutes**
PDK software version programmed during this campaign:	• Exhaust emission standards ULEV2 (I-no. 7 GB) and LEV3 (I-no. 7CE): **0634** (or higher)

Procedure in the event of **abnormal termination** of control unit programming:	• Switch ignition off and then on again. • Read out and erase fault memories ⇒*Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Subsequent work"'*. • Repeat control unit programming by restarting programming.
Procedure in the event of **other error messages** appearing during the programming sequence:	⇒*Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"'*.

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

Information

Brief breaks in communication between the control units during programming and coding can result in fault memory entries in all control units in the vehicle system, which might **not be deleted automatically**.
In addition to the automatic deletion of the fault memories during programming, the fault memories of all control units must therefore be **read out and deleted again** as described below **after each programming and coding process**.

2.1 Switch off the ignition and wait approx. 10 seconds before switching it on again.

2.2 Start the engine, leave it running for a short time and then stop it again.

2.3 Switch ignition off and then on again.

2.4 Restore communication between the PIWIS Tester and the vehicle.

2.5 Read out the fault memory and check any fault memory entries that are stored.

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.

2.6 Delete fault memory entries.
For instructions, see ⇒*Workshop Manual '9X00IN Basic information and procedure during control unit programming using the PIWIS Tester - section on "Subsequent work"'*.

Concluding work

Work Procedure: 1 Carry out general concluding work for control unit programming as described in ⇒*Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*.

2 Enter the campaign in the Warranty and Maintenance booklet.

Warranty processing

Information

The working times specified were determined especially for the performance of this campaign and may deviate from the working times published in the catalogue of operations contained in PIWIS.

Scope 1: **Reading out PDK software version - PDK control unit does not have to be programmed**

Working time:

Reading out PDK software version — Labor time: **40 TU**

Includes: Connecting and disconnecting battery charger
Connecting and disconnecting PIWIS Tester

⇒ **Damage Code WJ65 066 000 1**

Scope 2: **Re-program PDK control unit**

Working time:

Re-programming PDK control unit — Labor time: **81 TU**

Includes: Connecting and disconnecting battery charger
Connecting and disconnecting PIWIS Tester
Reading out PDK software version
Re-programming DME control unit
Reading out and erasing fault memories

⇒ **Damage Code WJ65 066 000 1**