WC27 Re-programming PDK Control Unit (Workshop Campaign)

Vehicle Type: **911 Carrera (991)/911 Carrera S (991)**

Model Year: **2012**

Concerns: **PDK control unit**

Information: This is to inform you of a voluntary Workshop Campaign on certain 911 Carrera (991) and 911 Carrera S (991) vehicles.

The PDK control unit can sometimes be misdiagnosed on the affected vehicles due to a software error if the engine is switched off in selector-lever positions "P" or "D" and is then re-started again in selector-lever position "N".

As a result, fault code "P1772 – Gear valve 2 stuck on pressure" is stored in the fault memory of the PDK control unit and the PDK transmission switches to the reduced driving program until the ignition is switched off and on again.

Action Required: Re-program the PDK control unit using a modified data record.

Information
Programming takes approx. **12 minutes** to complete **in total**.

Affected Vehicles: The VIN(s) can be checked by using PIWIS Vehicle Information link to verify if the campaign affects the vehicle. This Campaign is scope specific to the VIN! Failure to verify in PIWIS may result in an improper repair.

Tools: PIWIS Tester II 9818 with software version **10.500** (or higher) installed.
Battery charger HFL 65 1353 **(current rating of 40 A)**.

Administrative Procedure: See Attachment "A"

Preliminary 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 40 A to the vehicle.**

NOTICE

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

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

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

NOTICE

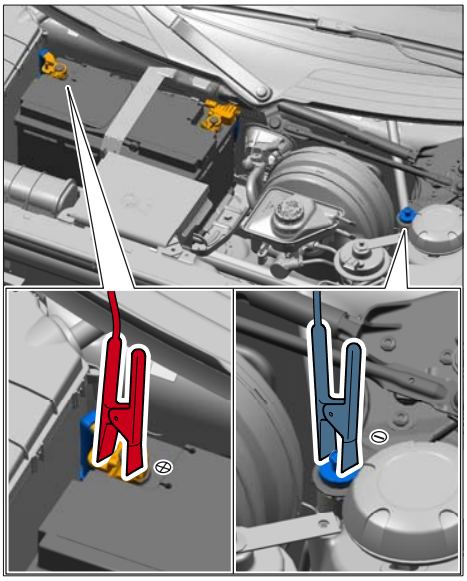
Control unit programming will be aborted if the vehicle key is not recognized

- **If the vehicle key is not recognized in vehicles with Porsche Entry & Drive, programming cannot be started or will be interrupted.**

⇒ **Switch on the ignition using the original vehicle key. To do this, replace the original vehicle key in the ignition lock with the plastic key fob if it was previously removed at the start of this procedure.**

Work Procedure:

1 Connect a battery charger with a current rating of **at least 40 A**.
First connect the positive cable of the charger to the positive terminal of the battery and then connect the negative cable of the charger to the ground point for jump-lead starting ⇒*External power connection*.



External power connection

2 Switch on the ignition using the **original vehicle key**. On vehicles with "Porsche Entry & Drive", do this by replacing the control panel in the ignition lock with the original vehicle key if necessary.

3 PIWIS Tester II 9818 with software version **10.500** (or higher) installed must be connected to the vehicle communication module (VCI) via the **USB cable**. Then, connect the communication module to the vehicle and switch on the PIWIS Tester.

Carrying out control unit programming

Work Procedure:

Information

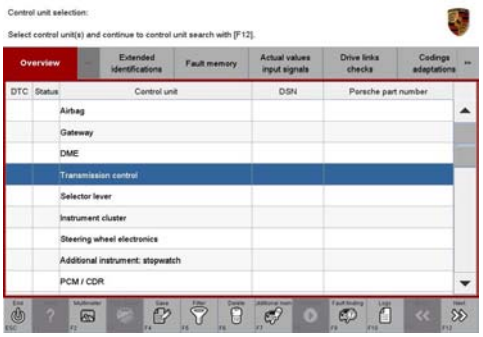
The procedure described here is based on the PIWIS Tester II software version **10.500**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed. (e.g. A discrepancy may arise with later software versions)

1 On the PIWIS Tester start screen, call up the ⇒ **'Diagnostics'** menu and select vehicle type ⇒ **'911'** ⇒ **'991'**.

The diagnostic application is then started and the control unit selection screen is populated.

2 Select the control unit ⇒ **'Transmission control'** in the control unit selection screen (⇒ **"Overview"** menu) and press [>>] to confirm your selection.



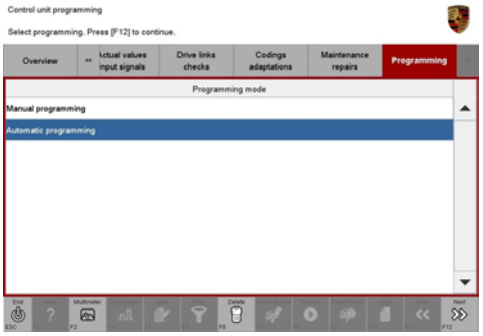
Control unit selection - Transmission control

3 When the question "Create Vehicle Analysis Log (VAL)?" appears, either press [F12] to create a VAL or press [F11] if you do not want to create a VAL.

4 Press [>>] to acknowledge the message informing you that campaigns for the vehicle are stored in the PIWIS information system.

5 Once the PDK control unit has been found, select the ⇒ **'Programming'** menu.

6 Select the ⇒ **'Automatic programming'** function and press [>>] to confirm your selection ⇒ *Automatic programming*.



Automatic programming

Information

During automatic programming of the **PDK** control unit, the **DME** control unit is **also** re-programmed automatically.
The names of the control units to be programmed (in this case: PDK, DME) and the data record names, Porsche part numbers and status are displayed.

7 Press [F8] ("Execute") to start programming.

Several bars, showing the progress of the programming process, appear consecutively during programming.
The programming procedure runs automatically (programming takes approx. 12 minutes in total).
Do not interrupt programming.

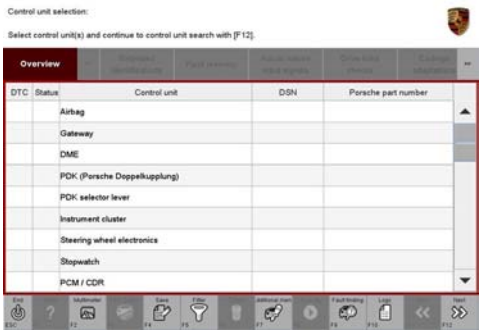
When programming is complete, the message "Programming was completed successfully" will be displayed.

Information

If programming is interrupted (e.g. due to a voltage drop or if communication is aborted, etc.) or if programming could not be carried out successfully (error message "Programming unsuccessful"), programming must be repeated.

8 Once programming is completed successfully, press [>>] to continue.

9 Select the ⇒ **'Overview'** menu and press [<<] to return to the control unit selection screen ⇒ *Control unit selection*.



Control unit selection

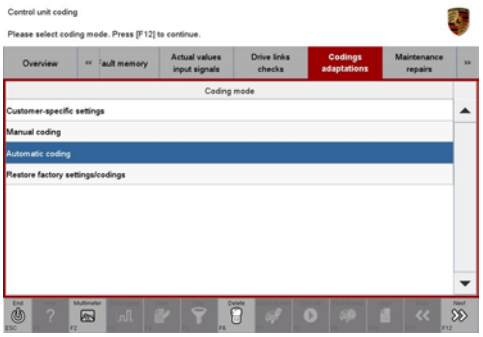
Carrying out control unit coding

Work Procedure:

1 Select the control units **'DME'** and **'PDK'/'Transmission Control'** in the control unit selection screen (⇒ 'Overview' menu) and press [>>] to confirm your selection.

2 Once the DME and PDK control units have been found and are displayed in the overview, select the ⇒ **'Codings/adaptations'** menu.

3 Select the ⇒ **'Automatic coding'** function and press [>>] to start coding ⇒ *Automatic coding*.



Automatic coding

When coding is complete, the message "Coding has been completed successfully" is displayed and a tick appears in the 'Status' box.

If coding is not completed successfully (error message "Coding was not completed successfully"), coding must be **repeated**.

4 Once coding is completed successfully, press [>>] to continue.

5 Select the ⇒ **'Overview'** menu and press [<<] to return to the control unit selection screen.

6 Switch off the ignition. Wait approx. 10 seconds and then switch the ignition back on again.

7 Restore communication between the PIWIS Tester and the vehicle.

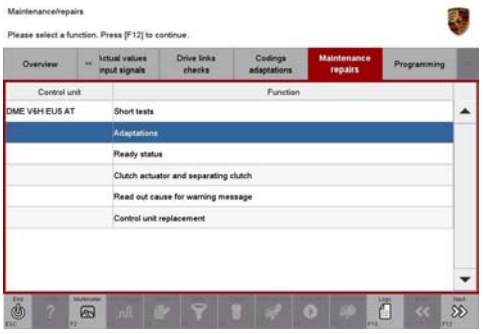
Performing throttle valve adaptation

Work Procedure:

1 Select the **'DME'** control unit in the control unit selection screen ('Overview' menu) and press [>>] to confirm your selection.

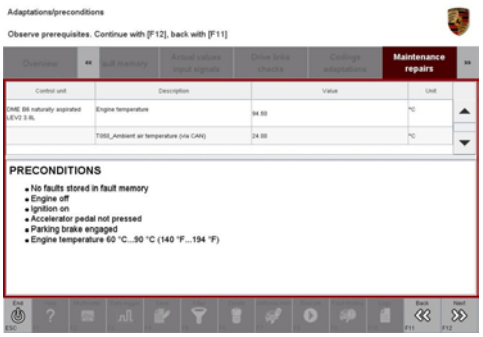
2 Once the DME control unit has been found and is displayed in the overview, select the ⇒ **'Maintenance/repairs'** menu.

3 Select menu item ⇒ **'Adaptations'** and press [>>] to confirm ⇒ *DME - Adaptations*.



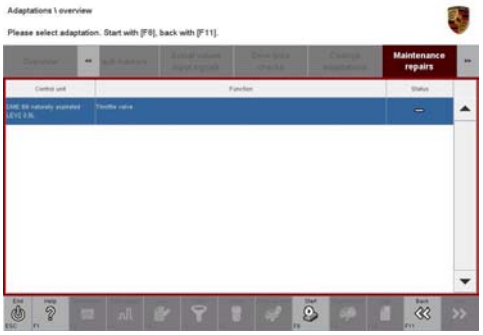
DME - Adaptations

4 Comply with the displayed preconditions and press [>>] to confirm ⇒ *Adaptations - preconditions*.



Adaptations - preconditions

5 Select the ⇒ **'Throttle valve'** function so that the corresponding text line turns blue and press [F8] to start throttle valve adaptation ⇒ *Throttle valve adaptation*.



Throttle valve adaptation

6 Follow the instructions on the PIWIS Tester while throttle valve adaptation is being performed.

Once throttle valve adaptation is complete, a tick appears in the "Value" field on the PIWIS Tester display.

If throttle valve adaptation is **not** completed successfully, adaptation must be **repeated**.

7 Press [F8] ("Stop") to end throttle valve adaptation.

8 Press [<<] to return to the start page of the ⇒ **'Maintenance/repairs'** menu.

9 Select the ⇒ **'Overview'** menu and press [<<] to return to the control unit selection screen.

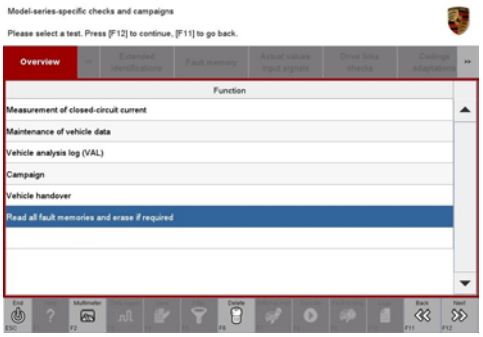
Reading out and erasing fault memory

Work Procedure:

1 In the control unit selection screen (⇒ 'Overview' menu), press F7 to call up the Additional menu.

2 Select the function "Read all fault memories and erase if required" and press >> to confirm ⇒ *Erasing fault memories*.

The fault memories of the control units are read out.



Erasing fault memories

3 Once you have read out the fault memories, delete the fault memory entries by pressing F8 .

4 Press F12 ("Yes") in response to the question as to whether you really want to delete all fault memory entries.

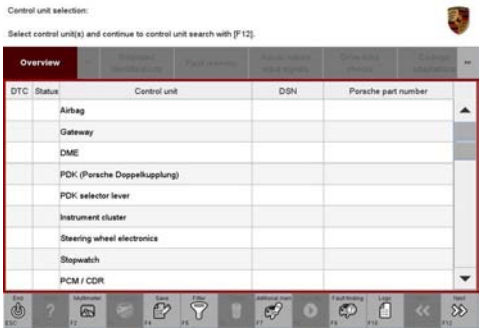
The faults stored in the fault memories of the various control units are deleted.

Information

If the fault memories of individual control units (e.g. DME, PDK, etc.) cannot be erased, switch off the ignition, disconnect the PIWIS Tester diagnostic connector from the diagnostic socket and lock the vehicle using the vehicle key.
Wait for approx. 1 minute and then read out the fault memories of these control units again and erase the fault memories separately.

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

5 Once you have erased the fault memories, select the ⇒ **'Overview'** menu and press [<<] to return to the control unit selection screen ⇒ *Control unit selection*.



Control unit selection

Subsequent work

Wok Procedure: 1 Switch off the ignition.

2 Disconnect the PIWIS Tester from the vehicle.

3 On vehicles with Porsche “Entry & Drive”, replace the original vehicle key in the ignition lock with the plastic key fob if it was previously removed at the start of this procedure.

4 Switch off and disconnect the battery charger.

5 Enter the workshop campaign in the Warranty and Maintenance booklet.

Attachment "A":

Administrative Procedure - Workshop Campaign WC27

Warranty claims should be submitted via WWS/PQIS.
Note: Open campaigns can be checked by using the PIWIS Vehicle Information link.
Labor, parts, and sublet will be automatically inserted when Technician is selected in WWS/PQIS.

Scope:

Working time:

Re-programming PDK control unit — Labor time: **50 TU**

Includes:
- Re-programming DME control unit
- Connecting and disconnecting battery charger
- Connecting and disconnecting PIWIS Tester
- Coding PDK and DME control unit
- Performing throttle valve adaptation

Reading out and erasing fault memory

Invoicing: ⇒ Damage code WC27 066 000 1

Dealership Distribution Routing	Service Manager	_____	Shop Foreman	_____	Service Technician	_____	_____	_____	_____
	Asst. Manager	_____	Warranty Admin.	_____	Service Technician	_____	_____	_____	_____