

**WD45 - Re-programming DME Control Unit (Workshop Campaign)**

Notes: **CRITICAL WARNING** - THIS CAMPAIGN INCLUDES STEPS WHERE SEVERAL CONTROL UNITS IN THE VEHICLE WILL BE PROGRAMMED WITH THE PIWIS TESTER. IT IS CRITICAL THAT THE VEHICLE VOLTAGE BE BETWEEN 13.5 VOLTS AND 14.5 VOLTS DURING THIS PROGRAMMING. OTHERWISE, THE PROGRAMMING COULD FAIL RESULTING IN DAMAGED CONTROL UNITS. CONTROL UNITS DAMAGED BY INADEQUATE VOLTAGE WILL NOT BE COVERED UNDER WARRANTY. THE TECHNICIAN MUST VERIFY THE ACTUAL VEHICLE VOLTAGE IN THE INSTRUMENT CLUSTER OR IN THE PIWIS TESTER BEFORE STARTING THE CAMPAIGN AND ALSO DOCUMENT THE ACTUAL VOLTAGE ON THE REPAIR ORDER. IT IS ALSO ADVISABLE TO MONITOR THE VEHICLE VOLTAGE DURING THE PROGRAMMING VIA THE INSTRUMENT CLUSTER. PLEASE REFER TO EQUIPMENT INFORMATION EQ-1105 FOR A LIST OF SUITABLE BATTERY CHARGERS/POWER SUPPLIES WHICH SHOULD BE USED TO MAINTAIN VEHICLE VOLTAGE.

Model Year: **2014**

Vehicle Type: **Panamera/Panamera 4/Panamera S/Panamera 4S  
Panamera Turbo**

Concerns: **DME control unit**

Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles. **A software error in the DME control unit can cause jerking from the vehicle's drive train during acceleration.**

Action Required: Re-program DME control unit.



**Information**

In addition to the DME control unit, the PDK control unit is also re-programmed and coded automatically. It takes **approx. 12 minutes** in total to **program both control units**.

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. This campaign affects 1,437 vehicles in North America.

Tools: **9818 - PIWIS Tester II** with PIWIS Tester software version **12.700** (or higher) installed.  
Battery Charger/Power Supply - Suitable for AGM Type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V. Refer to Equipment Information EQ-1105.

Work Procedure: See Attachment "A".

Claim See Attachment "B".  
Submission:

### Attachment "A".

#### 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 commencing work, connect a battery charger or power supply - suitable for AGM Type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V to the jump-start terminals in the engine compartment.
- ⇒ Disconnect electric plug connection for the fan blower to prevent the blower from coming on during control unit programming.

#### 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.

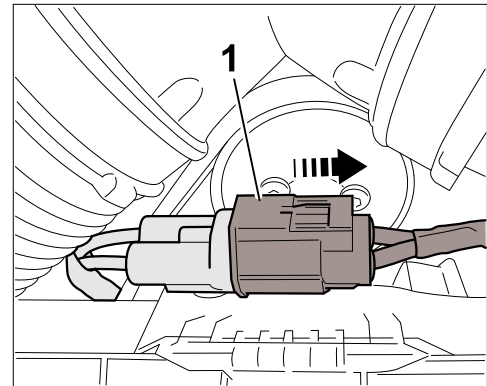
#### NOTICE

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: **NOTE:** VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.

- 1 Disconnect electric plug connection for the fan blower ⇒ *Disconnecting electric plug connection -1-* (⇒ *Disconnecting electric plug connection -arrow-*) to prevent the blower from coming on during control unit programming.  
Having the fan on and the associated increased current draw can cause a drop in voltage, which can result in abnormal termination of control unit programming.



*Disconnecting electric plug connection*

- 2 Connect a battery charger with or power supply, suitable for AGM type batteries, recommended current rating of 70A fixed voltage 13.5V to 14.5V to the jump-start terminals in the engine compartment.
- 3 Switch on the ignition using the **original driver's key**. On vehicles with "Porsche Entry & Drive", do this by replacing the control panel in the ignition lock with the original driver's key if necessary.
- 4 **9818 - PIWIS Tester II** with software version **12.700** (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

**NOTE:** VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.

Work  
Procedure:



#### Information

The procedure described here is based on the PIWIS Tester II software version **12.700**.

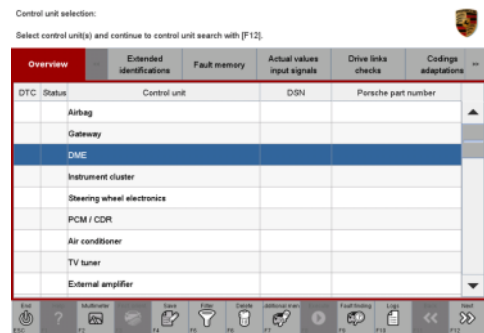
The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed.

A discrepancy may arise with later software versions for example.

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

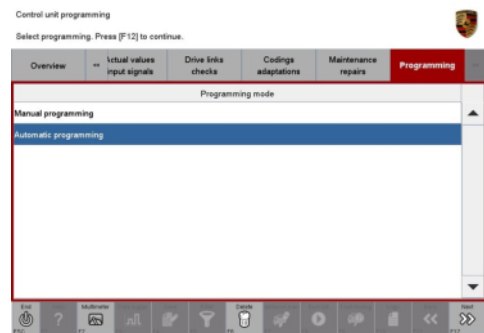
The diagnostic application is then started and the control unit selection screen is populated.

- 2 In the control unit selection screen (⇒ **"Overview"** menu), select the control unit ⇒ **'DME'** and press **•>>"** to confirm your selection ⇒ *Control unit selection - DME*.



*Control unit selection - DME*

- 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 **DME** control unit has been found, select the ⇒ **'Programming'** menu.
- 6 Select the ⇒ **'Automatic programming'** function and press **•>>"** to confirm your selection and start the guided programming sequence ⇒ *DME - Automatic programming*.



*DME - Automatic programming*



### Information

When the **DME** control unit is programmed automatically, the **PDK** control unit is **also** re-programmed automatically.

Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. Then press **•>>"** to continue.

First the **DME** control unit and then the **PDK** control unit is **programmed** using a new data record. Total programming time is **approx. 12 minutes**.

The control units are then **re-coded automatically**.

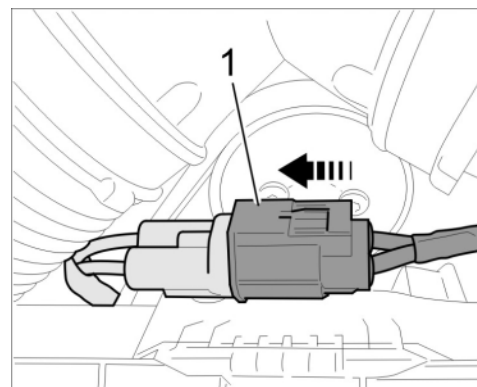
**Do not interrupt programming and coding.**

Once the control units have been re-coded, you will be prompted to switch the ignition off and then back on again after approx. 10 seconds.

- 7 During the waiting time, connect the electric plug connection ⇒ *Connecting electric plug connection -1-* for the fan blower in the engine compartment ⇒ *Connecting electric plug connection -arrow-*.

Once programming is completed successfully (message "Programming was completed successfully"), carry out the work described below.

- 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**.
- If **coding** is not carried out successfully during the guided programming sequence, the DME and PDK control units must be **re-coded again separately** once the guided programming sequence is complete. To do this, select the control units "DME" and "Transmission control" in the control unit selection screen (⇒ "Overview" menu) and press •>>" to confirm your selection. Once the control units have been found, select the "**Codings/adaptations**" menu and re-code the control units using the "**Automatic coding**" function.
- 8 Once the control unit has been programmed and coded successfully, press •>>" to continue.
- 9 Select the ⇒ '**Overview**' menu and press •<<" to return to the control unit selection screen ⇒ *Control unit selection*.



*Connecting electric plug connection*

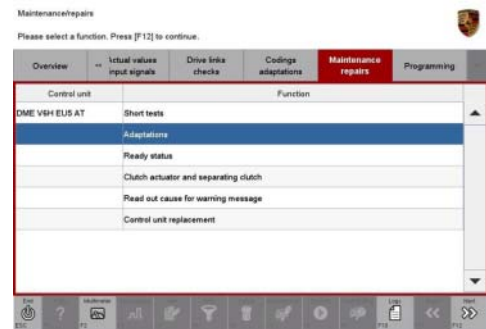


*Control unit selection*

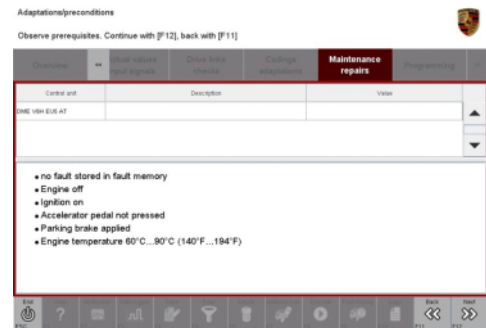
**Performing throttle valve adaptation**

Work Procedure: **NOTE: VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE 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 your selection ⇒ *DME - Adaptations*.

*DME - Adaptations*

- 4 Comply with the displayed preconditions and press **•>>** to confirm ⇒ *Adaptation preconditions*.

*Adaptation preconditions*

- 5 Select the ⇒ **'Throttle valve adaptation'** 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 will appear in the "Value" field on the PIWIS Tester display.

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

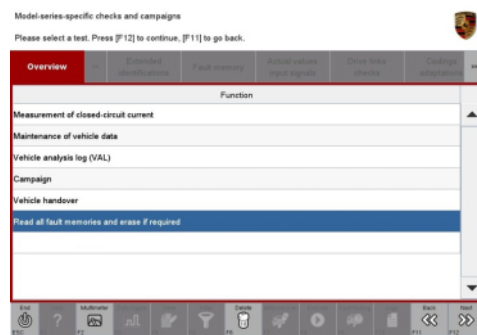
- 7 Press •F8" ("Stop") to end throttle valve adaptation.
- 8 Press •<<" to return to the start page of the ⇒ **'Maintenance/repairs'** menu.
- 9 Select the ⇒ **'Overview'** menu and press •<<" to return to the control unit selection screen.

### Reading out and erasing fault memories

Work Procedure: **NOTE:** VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE 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 erase 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. fault memories of the control units DME, Adaptive Cruise Control (ACC), etc.) cannot be erased, 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.
- Plug the PIWIS Tester diagnostic connector into the diagnostic socket again and restore communication with the vehicle.
- 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.

- 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



**WARNING**

### Exhaust gases

- Risk of Carbon Monoxide (CO) Poisoning

⇒ Before starting the engine, position an exhaust extraction system behind the vehicle's exhaust pipes and switch it on.



### Information

If it is necessary to achieve the ready status after the control units have been programmed, the short tests required for this must be carried out before engine torque loss adaptation is performed (see next step). If in doubt, please contact your importer.

The short tests required to achieve the ready status can be called up using the PIWIS Tester in the control unit ⇒ **'DME'** in the ⇒ **'Maintenance/repairs'** menu under the "Short tests" function.

- The preconditions specified in the PIWIS Tester must be met in order to perform the short tests.
- An engine cold start is required in order to achieve the ready status for the valve lift.
- Do not move the vehicle and bring the engine to the required temperature at idle speed.
- Perform the short tests in sequence.
- Some ready states can only be achieved by means of a test drive under specific driving conditions. If in doubt, contact your importer.
- If a test drive is carried out, this must be done after engine torque loss adaptation.

Work  
Procedure:

**NOTE:** VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.



- 1 Perform engine torque loss adaptation.

To obtain the engine temperature required for engine torque loss adaptation (176 ° F/80 °C), leave the engine running in selector-lever position "P" until the required temperature is reached.

Conditions/procedure for engine torque loss adaptation:

- Engine temperature is at least (176 ° F/80 °C) (the engine temperature can be read out in the "Actual values" menu using the PIWIS Tester).
- Position steering wheel straight ahead.
- PDK selector lever in position P.
- Leave engine running at idle speed for 3 minutes with air conditioning switched off.
- Then leave engine running at idle speed for 3 minutes with air conditioning switched on (normal load).

- 2 Switch off ignition.

- 3 Disconnect the PIWIS Tester from the vehicle.

- 4 Switch off and disconnect the battery charger.

- 5 On vehicles with Porsche Entry & Drive, replace the original driver's key in the ignition lock with the control panel again.

- 6 Enter the workshop campaign in the Warranty and Maintenance booklet.

## Attachment "B"



### Information

The specified working time was determined specifically for carrying out this campaign and includes all required preliminary and subsequent work.

The working time may differ from the working times published in the Labour Operation List in PIWIS.

### Claim Submission - Workshop Campaign WD45

Warranty claims should be submitted via WWS/PQIS.

Open campaigns may be checked by using either the PIWIS Vehicle Information system or through PQIS Job Creation.

Labor, parts, and sublet will be automatically inserted when Technician is selected in WWS/PQIS. If necessary, the required part numbers will need to be manually entered into warranty system by the dealer administrator.

Scope:

**Working time:**

Re-programming DME and PDK control unit

Labor time: **57 TU**

- Includes:
- Disconnecting and connecting electric plug connection for fan blower
  - Connecting and disconnecting battery charger
  - Connecting and disconnecting PIWIS Tester
  - Performing throttle valve adaptation
  - Performing engine torque loss adaptation
  - Reading out and erasing fault memories

⇒ **Damage code WD45 066 000 1**

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