

WG02 - 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. Please refer to Equipment Information EQ1401 for a list of suitable battery chargers/power supplies which should be used to maintain vehicle voltage.

Model Year: 2017

Vehicle Type: 911 (991)

Equipment: Vehicles with PDK transmission (I-no. 250)

Subject: PDK control unit

Information: **The unwarranted error message "Gearbox fault" can appear sporadically in the instrument cluster on the affected vehicles because the diagnostic function for the hydraulic valves in the PDK transmission is too sensitive.**

If this happens, the PDK transmission switches to the reduced driving programme and the Check Engine light in the instrument cluster will be activated.

Remedial action: Re-program the PDK control unit using the PIWIS Tester with test software version **16.400.010** (or higher) installed.

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.**



Information

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

Affected Vehicles: Only the vehicles assigned to the campaign (see also PIWIS Vehicle information). This campaign affects 13 vehicles in North America.

- Tools:
- **9818 - PIWIS Tester II** with PIWIS Tester test software version **16.400.010** (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.

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 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

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 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 - section on "Preliminary work"*.

Carrying out control unit programming



Information

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

Work Procedure: 1 **Re-program PDK control unit.**

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

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

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.

Required PIWIS Tester software version:	16.400.010 (or higher)
Type of control unit programming:	Control unit programming using the ' Automatic programming ' function for the PDK control unit. PDK control unit ⇒ ' 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 first re-programmed and then re-coded automatically . The PDK control unit is then re-programmed and re-coded automatically . Do not interrupt programming and coding.
Programming time (approx):	12 minutes
Procedure in the event of abnormal termination of control unit programming:	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> .

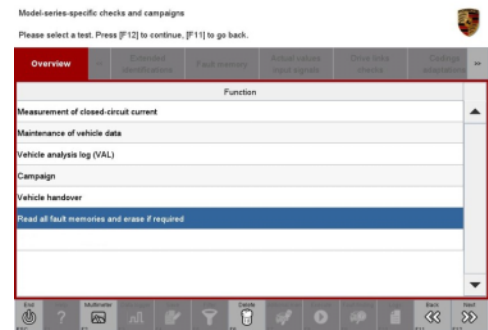
Reading out and erasing fault memory

Work Procedure: 1 Press •F7" in the control unit selection screen ('Overview' menu) to call up the Additional menu.

- 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.

- 3 Once you have read out the fault memories, erase 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.



Erasing fault memories

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



Information

If there are still fault memory entries in individual control units, start the engine briefly and then switch it off again. Wait for approx. 10 seconds before switching the ignition on again and re-establish the connection between the PWIS Tester and the vehicle. Then read out and erase the fault memories of the affected control units again 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 to return to the control unit selection screen ⇒ *Control unit selection*.

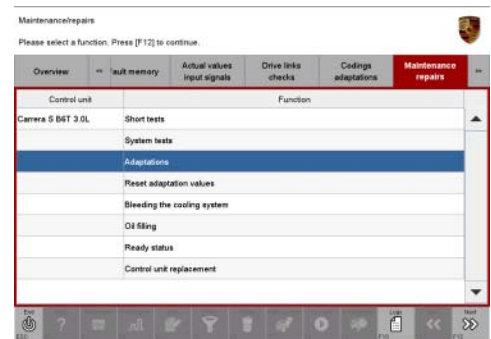


Control unit selection

Performing adaptations

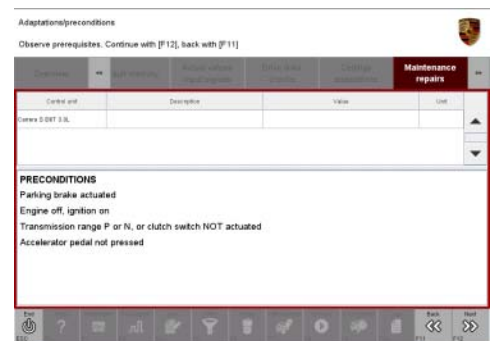
- Work Procedure: 1 Select the '**DME**' control unit in the control unit selection screen ('Overview' menu) and press •F12" ('Next') to confirm your selection.
- 2 Once the DME control unit has been found and is displayed in the overview, select the '**Maintenance/repairs**' menu.

3 Select menu item **'Adaptations'** and confirm your selection by pressing **•F12** ("Next") ⇒ *DME - Adaptations*.



DME - Adaptations

4 Comply with the displayed preconditions and press **•F12** ("Next") to confirm ⇒ *Adaptation preconditions*.



Adaptation preconditions

5 Perform throttle valve adaptation.

- 5.1 Select the **'Throttle valve adaptation'** function so that the text line turns blue ⇒ *Throttle valve adaptation*.
- 5.2 Press **•F8** ("Start") to start throttle valve adaptation.
- 5.3 Follow the instructions on the PIWIS Tester while throttle valve adaptation is being performed.



Throttle valve adaptation

Once the adaptation is complete, a tick will appear in the "Status" field for throttle valve adaptation on the PIWIS Tester display ⇒ *Throttle valve adaptation successful*.

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

- 5.4 Press •F8" ('Stop') to end throttle valve adaptation.

- 6 Perform radiator shutter adaptation.

NOTICE

Electrically moved components

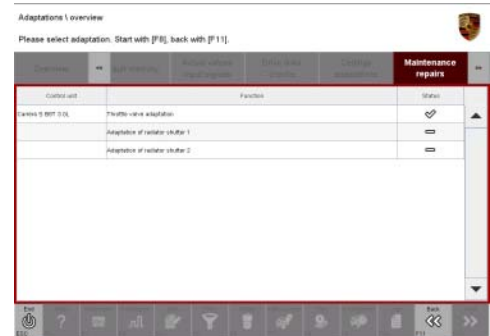
- **Danger of limbs being trapped or severed**
 - **Risk of damage to components**
- ⇒ **Do not reach into the danger area.**
- ⇒ **Do not move components or tools into the danger area.**
- ⇒ **Keep third parties away from the danger area.**

- 6.1 Select the '**Radiator shutter 1 adaptation**' function so that the text line turns blue ⇒ *Radiator shutter 1 adaptation*.
- 6.2 Press •F8" ('Start') to start radiator shutter 1 adaptation.
- 6.3 Follow the instructions on the PIWIS Tester while radiator shutter 1 adaptation is being performed.

Once the adaptation is complete, a tick will appear in the "Status" field for radiator shutter 1 adaptation on the PIWIS Tester display ⇒ *Radiator shutter 1 adaptation successful*.

If radiator shutter 1 adaptation is **not** completed successfully, the adaptation must be **repeated**.

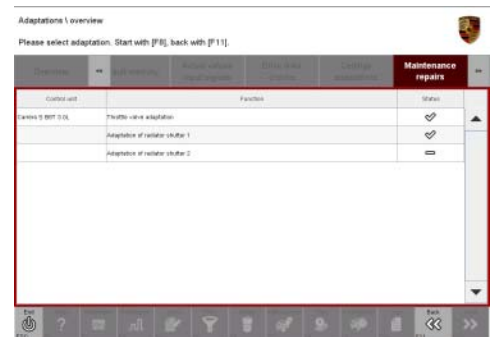
- 6.4 Press •F8" ('Stop') to end radiator shutter 1 adaptation.



Throttle valve adaptation successful

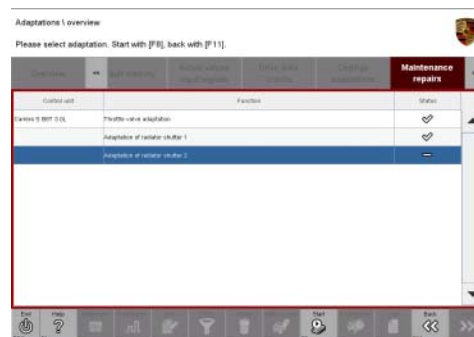


Radiator shutter 1 adaptation



Radiator shutter 1 adaptation successful

- 6.5 Select the '**Radiator shutter 2 adaptation**' function so that the text line turns blue ⇒ *Radiator shutter 2 adaptation*.
- 6.6 Press •F8" ('Start') to start radiator shutter 2 adaptation.
- 6.7 Follow the instructions on the PIWIS Tester while radiator shutter 2 adaptation is being performed.

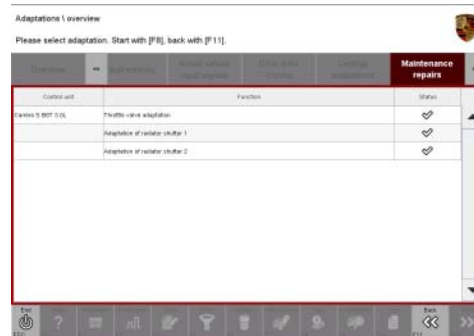


Radiator shutter 2 adaptation

Once the adaptation is complete, a tick will appear in the "Status" field for radiator shutter 2 adaptation on the PIWIS Tester display ⇒ *Radiator shutter 2 adaptation successful*.

If radiator shutter 2 adaptation is **not** completed successfully, the adaptation must be **repeated**.

- 6.8 Press •F8" ('Stop') to end radiator shutter 2 adaptation.



Radiator shutter 2 adaptation successful

- 7 Press •F11" ('Back') to return to the start page of the '**Maintenance/repairs**' menu.
- 8 Select the '**Overview**' menu and press •F11" ('Back') to return to the control unit selection screen.

Concluding Work

- Work Procedure:
- 1 Switch off the ignition.
 - 2 Disconnect the PIWIS Tester from the vehicle.
 - 3 Switch off and disconnect the battery charger.
 - 4 On vehicles with Porsche Entry & Drive, replace the original vehicle key in the ignition lock with the control panel again.

Invoicing



Information

The specified working time was determined specifically for carrying out this campaign and may differ from the working times published in the Labour Operation List in PIWIS.

Scope:

Working time:

Re-programming PDK control unit

Labor time: **57 TU**

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

⇒ **Damage Code WG02 066 000 1**

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