

WE01 - Re-programming DME Control Unit (Workshop Campaign)

Important: **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 S E-Hybrid**

Country/Market: USA (C02)
Canada (C36)

Concerns: **DME control unit**

Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles. **A new DME data record, which increases engine running comfort at idle speed over the entire operating temperature range, is available for the Panamera S E-Hybrid.**

On vehicles manufactured before the introduction of the new DME data record, the DME control unit must be re-programmed using the updated data record in order to prevent possible idle speed fluctuations at certain operating temperatures.

Action Required: Re-program DME control unit.



Information

It takes **about 8 minutes** to **program** the DME control unit.

After programming the DME control unit, the following steps must also be carried out in the specified sequence:

- Reading out and erasing fault memories
- Performing throttle valve adaptation
- Calibrating electric machine
- Adapting the decoupler (separating clutch)*

* For adapting the decoupler (separating clutch), the **state of charge of the high-voltage battery must be at least 15%**. This corresponds to two bars in the battery state of charge display in the instrument cluster.

Please check the state of charge of the high-voltage battery before carrying out the campaign. Charge the high-voltage battery before carrying out the campaign if necessary to ensure that the state of charge is at least 15% and the decoupler can be adapted.

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 417 vehicles in North America.

Tools:

- **9818 - PIWIS Tester II** with PIWIS Tester software version **13.300** (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 Submission: See Attachment "B".

Attachment "A"

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

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

1 Re-program DME 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"*.

Specific information on control unit programming during this campaign:

| | |
|---|--|
| Required PIWIS Tester software version: | 13.300 (or higher) |
| Type of control unit programming: | Control unit programming using the ' Automatic programming ' function for the DME control unit. DME 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 re-programmed and then re-coded automatically . Do not interrupt programming and coding. |
| Programming time (approx): | 8 minutes |
| Porsche part number of the DME data record programmed as part of this campaign: | 970618513 05 (or higher) Following control unit programming, the Porsche part number can be read out of the DME control unit in the ⇒ 'Extended identification' menu using the PIWIS Tester. |
| Procedure in the event of error messages appearing during the programming sequence: | ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - "Fault finding" section'.</i> |
| Procedure in the event of abnormal termination of control unit programming: | Repeat control unit programming by restarting programming. |

- 2 Once control unit programming is complete, switch off ignition and plug in the electric plug connection for the fan blower in the engine compartment.
- 3 Switch on ignition and restore communication between the vehicle and the PIWIS Tester.

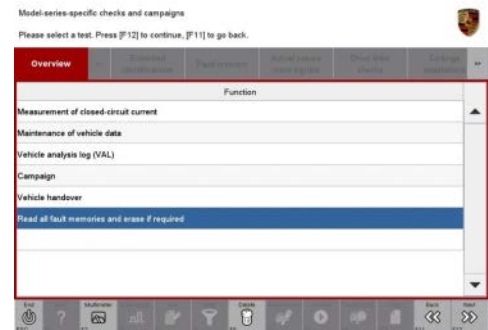
Reading out and erasing fault memories

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.
- 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.



Erasing fault memories

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.

- 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*.

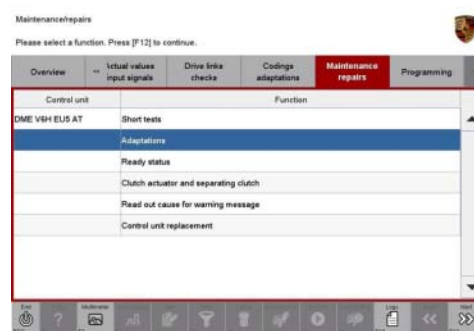


Control unit selection

Performing throttle valve adaptation

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 the menu item ⇒ **'Adaptations'** and press **•>>"** to confirm your selection ⇒ **DME - Adaptations**.
- 4 Comply with the following prerequisites
 - No faults stored in the fault memory
 - Engine off
 - Ignition on
 - Accelerator pedal not pressed
 - Parking brake on



DME - Adaptations

and press **•>>"** to confirm.

- 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

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.

Calibrating electric machine



Information

The electric machine must generally be calibrated after the fault memories of the OBD-relevant control units or the fault memories of all control units have been erased.

The rotor position (phase angle) and rotor temperature are stored during calibration of the electric machine.

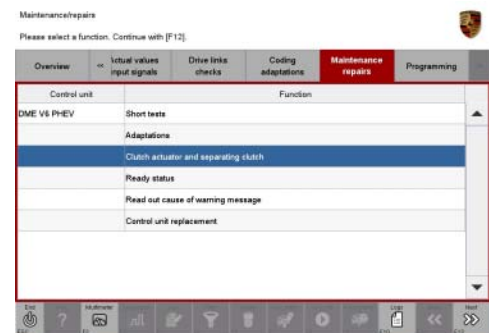
Procedure: **NOTE:** VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.

- 1 Press and hold the brake pedal.
- 2 Turn the ignition key in the ignition lock to position 2 (terminal 50 – engine start) and hold it at this position for about 2 to 3 seconds.
Calibration of the electric machine is clearly audible. Calibration is complete once the calibration noise can no longer be heard.
- 3 Release the ignition key and move it to position 1 (ignition on).

Adapting the separating clutch

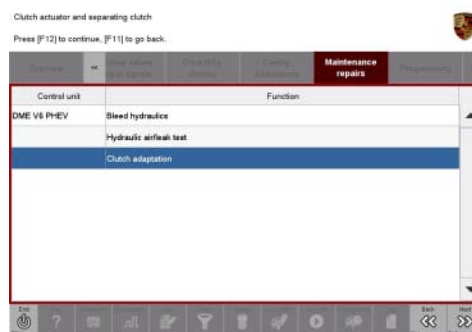
Procedure: **NOTE:** VEHICLE VOLTAGE MUST REMAIN BETWEEN 13.5 AND 14.5 VOLTS DURING THE ENTIRE WORK PROCEDURE.

- 1 Switch ignition off and then back on again after about 3 seconds.
Restore communication between PIWIS Tester II and the vehicle by pressing **•F12** .
- 2 Select **'DME'** control unit in the control unit selection screen ('Overview' menu) and press **•>>** to confirm your selection.
- 3 Once the DME control unit has been found and is displayed in the overview, select the **⇒ 'Maintenance/repairs'** menu.
- 4 Select the menu item **⇒ 'Clutch actuator and decoupler (separating clutch)'** and press **•>>** to confirm your selection **⇒ Clutch actuator and separating clutch**.
- 5 Read and comply with the preconditions for the state of charge of the high-voltage battery and confirm by pressing **•>>** .



Clutch actuator and separating clutch

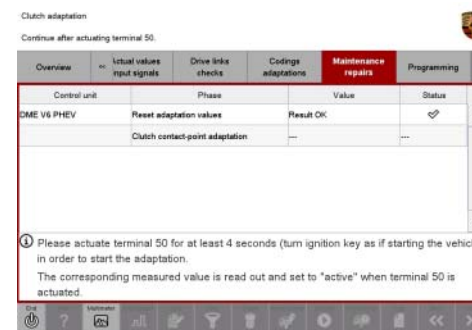
- 6 Select the ⇒ **'Clutch adaptation'** function and press •>>“ to confirm your selection ⇒ *Separating clutch adaptation*.
- 7 Read and follow the instructions for starting the electric motor and performing adaptation. Press the brake pedal and then press •>>“ to start the adaptation.
- 8 During adaptation, the adaptation values will first be deleted ⇒ *Resetting adaptation values*. The clutch contact point and the clutch characteristic will then be adapted ⇒ *Adapting contact point* and ⇒ *Adapting characteristic*. Start each step by pressing •F8“ and follow the instructions on the PIWIS Tester.



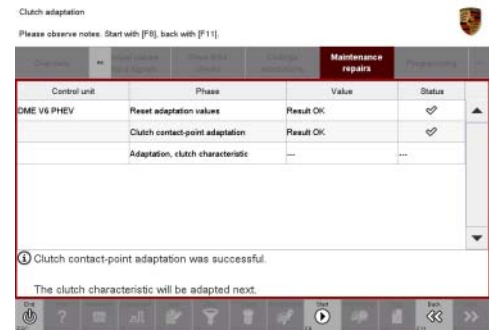
Separating clutch adaptation



Resetting adaptation values



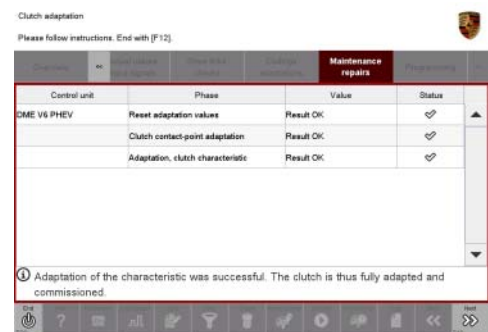
Adapting contact point

*Adapting characteristic*

- 9 Once the separating clutch adaptation is complete, a tick will appear in the "Status" field in the PIWIS Tester display ⇒ *Adaptation successful*.
Press •>>" to continue.

If the separating clutch adaptation is **not** completed successfully, the process must be **repeated**.
To do this, first erase the fault memories of all control units and calibrate the electric machine. Then carry out the separating clutch adaptation again.

- 10 Press •<<" to return to the start page of the ⇒ **'Maintenance/repairs'** menu.
- 11 Select the ⇒ **'Overview'** menu and press •<<" to return to the control unit selection screen.

*Adaptation successful*

Subsequent work

- Procedure:
- 1 Switch off 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 driver's key in the ignition lock with the control panel again.
 - 5 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 may differ from the working times published in the Labor Operation List in PIWIS.

Claim Submission - Workshop Campaign WE01

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 control unit Labor time: **37 TU**

Includes: Disconnecting and connecting electric plug connection for fan blower

 Connecting and disconnecting battery charger

 Connecting and disconnecting PIWIS Tester

 Reading out and erasing fault memories

 Performing throttle valve adaptation

 Calibrating electric machine

 Adapting decoupler (Separating clutch)

⇒ Damage code WE01 066 000 1

References: ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*

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