

WF13 - 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: As of 2014 up to 2016

Model Line: Panamera

Concerns: DME control unit

Information: This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles. **New data records for the DME control unit are available for the affected vehicles.**

The new data records optimise the engine's knock control, thereby making it more resilient in terms of knock resistance, particularly for lower quality fuels.



Information

The **measure to be carried out** on the respective vehicle **depends on** the **campaign scope** to which the vehicle is assigned.

Before carrying out the campaign, it is important therefore to **check** the **campaign scope for the vehicle** by entering the vehicle identification number of the respective vehicle in PIWIS ⇒ 'Vehicle information' menu:

- Scope 1: **Re-programming DME control unit** ⇒ *Technical Information 'WF1300 Scope 1: Re-programming DME control unit'*
- Scope 2: **Synchronizing DME data and re-programming DME control unit** ⇒ *Technical Information 'WF1300 Scope 2: Synchronising DME data and re-programming DME control unit'*

Action Required: Re-program DME control unit.



Information

In addition to the **DME control unit**, the **PDK control unit** is also re-programmed automatically. It takes **approx. 12 minutes** in total to **program** the 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 4,601 vehicles in North America.



Information

If other programming campaigns that affect **the same control unit** and involve the **identical procedure** are open for a vehicle in addition to this campaign, the affected control unit must only be programmed **once** using the **current PIWIS Tester software**.

Only the latest campaign must be invoiced during warranty processing.

Other open programming campaigns that affect the same control unit and involve the identical procedure must therefore no longer be carried out.

Proceed as follows in this case:

- In PQIS, mark the campaign as '**cannot be carried out**' with the reason "**Modification of the affected component**". The "**Warranty relevance**" flag must be activated in order to be able to set a warranty claim and close the campaign.
- A warranty claim must be submitted for the campaign in which **0 TU** is entered as the specified **working time** and **no** material items are specified.

Tools:

- **9818 - PIWIS Tester II** with PIWIS Tester software version **15.400** (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: Scope 1 — See Attachment "B"
Scope 2 — See Attachment "C"

Attachment "A": **Work Procedure**

Scope 1: Re-programming DME control unit

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 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.

1 Preliminary work

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 II software version **15.400**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy these are the instructions that must be followed. Deviations may occur with later software versions, for example.

2 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:	15.400 (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.

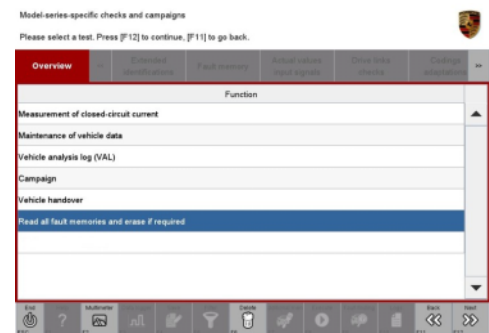
Programming sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence. During the programming sequence, the DME control unit - as well as the PDK control unit - is re-programmed and then re-coded automatically . Do not interrupt programming and coding.
Programming time (approx.):	12 minutes
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 - section on "Troubleshooting"</i> .
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

3 If previously disconnected, re-connect the electric plug connection for the fan blower.

4 **Read out and erase fault memories.**

- 4.1 In the control unit selection screen (⇒ 'Overview' menu), press **•F7** to call up the Additional menu.
- 4.2 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

- 4.3 Once you have read out the fault memories, delete the fault memory entries by pressing **•F8**.
- 4.4 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.

- 4.5 Once you have erased the fault memories, select the ⇒ **'Overview'** menu to return to the control unit selection screen ⇒ *Control unit selection*.

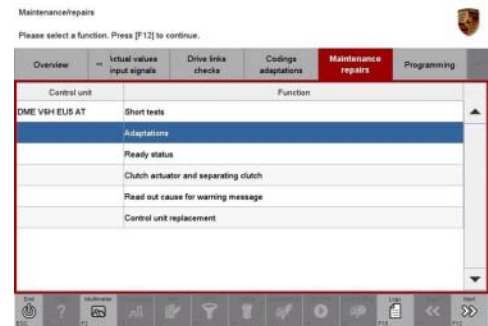


Control unit selection

5 Perform throttle valve adaptation.

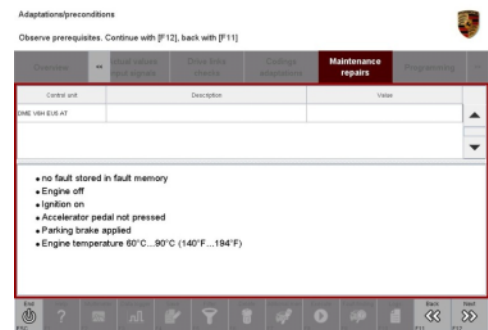
- 5.1 Select the **'DME'** control unit in the control unit selection screen ('Overview' menu) and press •>>” to confirm your selection.
- 5.2 Once the DME control unit has been found and is displayed in the overview, select the ⇒ **'Maintenance/repairs'** menu.

- 5.3 Select menu item ⇒ **'Adaptations'** and press •>>" to confirm your selection ⇒ *DME - Adaptations*.



DME - Adaptations

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



Adaptation preconditions

- 5.5 Select the ⇒ **'Throttle valve adaptation'** function so that the corresponding text line turns blue and start throttle valve adaptation by pressing •F8" ⇒ *Throttle valve adaptation*.



Throttle valve adaptation

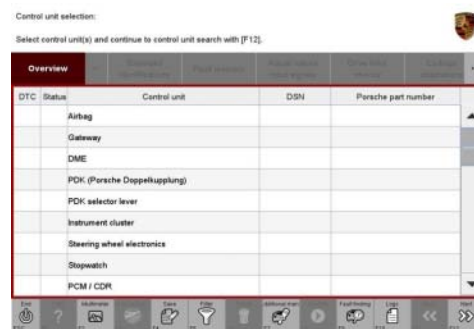
- 5.6 Follow the instructions on the PIWIS Tester while throttle valve adaptation is being performed.

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

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

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

- 5.8 Press •<<" to return to the start page of the ⇒ **'Maintenance/repairs'** menu.
- 5.9 Select the ⇒ **'Overview'** menu to go back to the control unit selection screen ⇒ *Control unit selection*.



Control unit selection

6 Subsequent work



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.**

6.1 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).

6.2 Switch off ignition.

6.3 Disconnect the PIWIS Tester from the vehicle.

6.4 Switch off and disconnect the battery charger.

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

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

**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 Labor Operation List in PIWIS.

Attachment "B": **Claim Submission Scope 1** - Workshop Campaign WF13

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 1: **Re-programming DME control unit.**

Working time:

Re-programming DME control unit

Labor time: **57 TU**

Includes:

- Connecting and disconnecting battery charger
- Connecting and disconnecting PIWIS Tester
- Re-programming PDK control unit
- Reading out and erasing fault memories
- Performing throttle valve adaptation
- Performing engine torque loss adaptation

⇒ Damage code WF13 066 000 1

Scope 2: **Synchronizing DME data and re-programming DME control unit**

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 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.

1 Preliminary work

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'*.

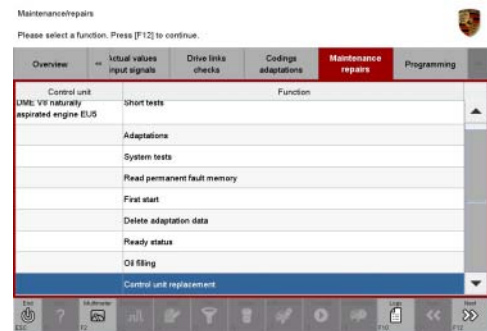
**Information**

The procedure described here is based on the PIWIS Tester II software version **15.400**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy these are the instructions that must be followed. Deviations may occur with later software versions, for example.

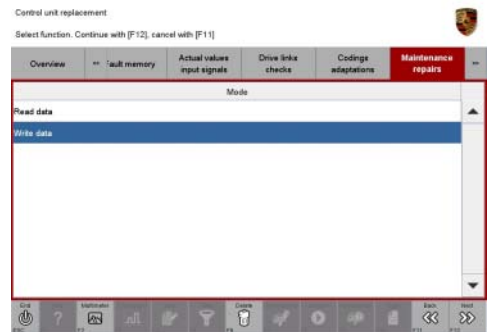
2 Synchronize DME data.

- 2.1 Select the control unit ⇒ **'DME'** in the control unit selection screen (⇒ 'Overview' menu) and press **•>>** to confirm your selection.
- 2.2 Once the DME control unit has been found and is displayed in the overview, select the ⇒ **'Maintenance/repairs'** menu.
- 2.3 Select the ⇒ **'Control unit replacement'** function so that the corresponding text line turns blue and press **•>>** to confirm your selection ⇒ *Control unit replacement*.

*Control unit replacement*

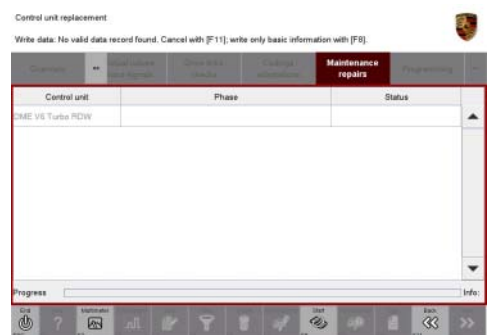
- 2.4 To synchronise the DME data, select the **'Write data'** function so that the corresponding text line turns blue and press **•>>** to confirm your selection ⇒ *Writing data*.

There is no need to read out data before starting data synchronization. The **'Read data'** function does **not** therefore have to be carried out.

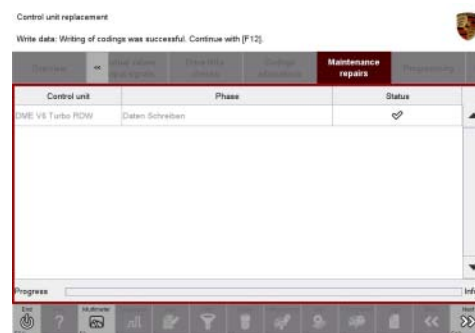
*Writing data*

- 2.5 Since no data was intentionally read out of the DME control unit beforehand, the message "Write data: No valid data record found." **Cancel** with **•F11** . Press **•F8** to write only **basic information**" is displayed ⇒ *Writing basic information*.

Start the **'Write basic information'** function by pressing **•F8** in order to synchronize data.

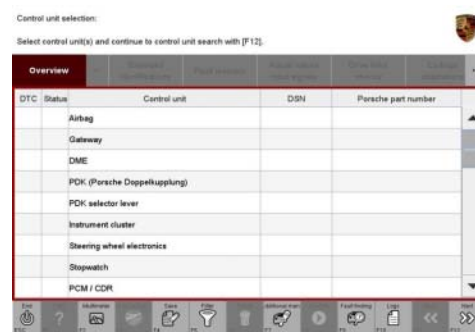
*Writing basic information*

Once the data has been synchronized, the message "Coding has been written successfully" is displayed and a tick appears in the "Status" field ⇒ *Coding has been written successfully.*



Coding has been written successfully

- 2.6 Press •>>" to continue.
- 2.7 Press •<<" to return to the start page of the ⇒ **'Maintenance/repairs'** menu.
- 2.8 Select the ⇒ **'Overview'** menu to go back to the control unit selection screen ⇒ *Control unit selection.*



Control unit selection

3 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:	15.400 (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 - as well as the PDK control unit - is re-programmed and then re-coded automatically . Do not interrupt programming and coding.
Programming time (approx.):	12 minutes
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 - section on "Troubleshooting"</i> .
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

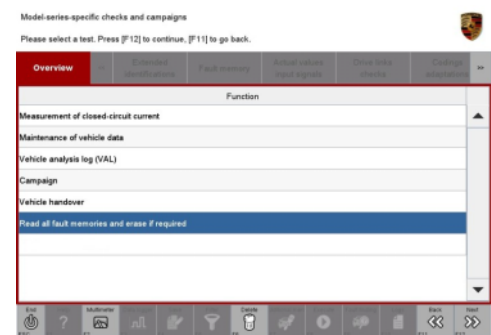
4 If previously disconnected, re-connect the electric plug connection for the fan blower.

5 **Read out and erase fault memories.**

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

5.2 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

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

5.4 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.

- 5.5 Once you have erased the fault memories, select the ⇒ **'Overview'** menu to return to the control unit selection screen ⇒ *Control unit selection*.

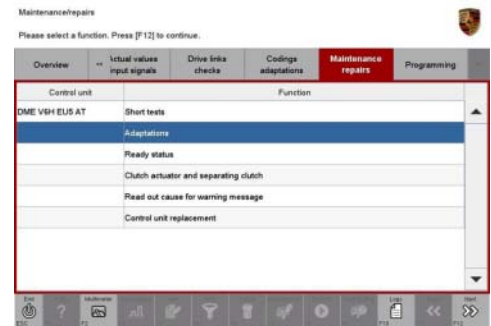


Control unit selection

6 Perform throttle valve adaptation.

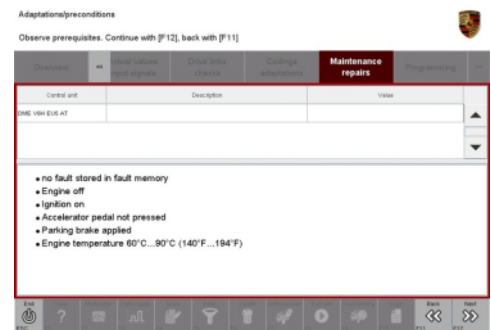
- 6.1 Select the **'DME'** control unit in the control unit selection screen ('Overview' menu) and press •>>“ to confirm your selection.
- 6.2 Once the DME control unit has been found and is displayed in the overview, select the ⇒ **'Maintenance/repairs'** menu.

- 6.3 Select menu item ⇒ **'Adaptations'** and press •>>" to confirm your selection ⇒ *DME - Adaptations*.



DME - Adaptations

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



Adaptation preconditions

- 6.5 Select the ⇒ **'Throttle valve adaptation'** function so that the corresponding text line turns blue and start throttle valve adaptation by pressing •F8" ⇒ *Throttle valve adaptation*.



Throttle valve adaptation

- 6.6 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 in the PIWIS Tester display.

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

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

- 6.8 Press •<<“ to return to the start page of the ⇒ **'Maintenance/repairs'** menu.
- 6.9 Select the ⇒ **'Overview'** menu to go back to the control unit selection screen ⇒ *Control unit selection*.



Control unit selection

7 Subsequent work



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.**

7.1 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).

7.2 Switch off ignition.

7.3 Disconnect the PIWIS Tester from the vehicle.

7.4 Switch off and disconnect the battery charger.

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

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



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 Labor Operation List in PIWIS.

Attachment "C": **Claim Submission Scope 2 - Workshop Campaign WF13**
 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 2: **Synchronizing DME data and re-programming DME control unit.**

Working time:

Synchronizing DME data and re-programming DME control unit	Labor time: 62 TU
Includes:	
Connecting and disconnecting battery charger	
Connecting and disconnecting PIWIS Tester	
Re-programming PDK control unit	
Reading out and erasing fault memories	
Performing throttle valve adaptation	
Performing engine torque loss adaptation	

⇒ Damage code WF13 066 000 1

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Distribution	Asst. Manager _____	Warranty Admin. _____	Service Technician _____
Routing			Service Technician _____

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