PORSCHE®

Technical Information

WF50 - Re-programming Front-end Electronics 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:	**As of 2015 up to 2016**
Vehicle Type:	**Cayenne S E-Hybrid (92A)**
Concerns:	**Front-end electronics control unit**
Information:	This is to inform you of a voluntary Workshop Campaign on the above-mentioned vehicles. **The DME control unit and front-end electronics are not switched to sleep mode on the affected vehicles when all the following conditions are met:**

- Ignition is switched off.
- Filler flap release is actuated.
- Fuel tank readiness is not yet reached because the pressure in the fuel tank has not yet been reduced. The procedure can take up to 150 seconds, depending on the pressure conditions in the fuel tank (warning in instrument cluster indicates "Establishing tank readiness").
- Vehicle is locked within 6 seconds.

This software error in the front-end electronics prevents the control units from entering sleep mode. As a result, the closed-circuit current draw is too high until the ignition is switched on.

Action
Required:

ⓘ Information

The **software to be programmed depends** on the **hardware version** of the **front-end electronics** control unit.

To ensure that the **software that is programmed is compatible** with the relevant hardware version, the affected vehicles are assigned to **different campaign scopes**.

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. The front-end electronics control unit must then be re-programmed by **entering** the **programming code specified in the assigned campaign scope**:

- Scope 1: ⇒ *Technical Information 'WF5000 Scope 1 - Re-programming front-end electronics control unit using software version 3300'.*

- Scope 2: ⇒ *Technical Information 'WF5000 Scope 2 - Re-programming front-end electronics control unit using software version 2930'.*

Re-program the front-end electronics control unit using a modified data record.

ⓘ Information

The total time required for programming and coding the control unit is **approx. 5 minutes**.

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 797 vehicles in North America.

Tools:

- **9818 - PIWIS Tester II** with PIWIS Tester test software version **15.700** (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.

Claim
Submission:

See Attachment "A".

Preliminary work

<div style="background:#1f6fb2;color:white;padding:2px 8px;display:inline-block;">**NOTICE**</div>

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.**

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"'.*

Scope 1 - Re-programming front-end electronics control unit using software version 3300

i **Information**

The procedure described here is based on the PIWIS Tester II software version **15.700**.

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.

Work Procedure: 1   **Re-program the front-end electronics 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:	**15.700** (or higher)
Type of control unit programming:	Control unit programming using the **'Campaign' function in the Additional menu** on the PIWIS Tester by entering a programming code.
Programming code:	**T4U6W**

Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. During the programming sequence, the **front-end electronics control unit** is **re-programmed** and then **re-codedautomatically**. **Do not interrupt programming and coding.**
Programming time (approx.):	**5 minutes**
Software version programmed during this campaign:	**3300** Following control unit programming, the software version can be read out of the front-end electronics control unit in the ⇒ 'Extended identification' menu using the PIWIS Tester.
Procedure in the event of the error message "No suitable programming rules found. Cause: Part number of the front-end electronics control unit is not in the programming rules":	Check that the programming code used corresponds to the campaign scope assigned for the relevant vehicle. • ACTUAL software version: 3200 • REQUIRED software version: 3300 • Programming code: T4U6W **or:** • ACTUAL software version: 2900 • REQUIRED software version: 2930 • Programming code: N7C4U
Procedure in the event of other error messages appearing during the programming sequence:	⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"'.*
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

When programming is **complete, continue with** ⇒ *Technical Information 'WF5000 Reading out and erasing fault memories'.*

Scope 2 - Re-programming front-end electronics control unit using software version 2930

Information

The procedure described here is based on the PIWIS Tester II software version **15.700**.

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.

Work Procedure: 1 **Re-program the front-end electronics 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:	**15.700** (or higher)
Type of control unit programming:	Control unit programming using the **'Campaign' function in the Additional menu** on the PIWIS Tester by entering a programming code.
Programming code:	**N7C4U**
Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. During the programming sequence, the **front-end electronics control unit** is **re-programmed** and then **re-codedautomatically**. **Do not interrupt programming and coding.**
Programming time (approx.):	**5 minutes**
Software version programmed during this campaign:	**2930** Following control unit programming, the software version can be read out of the front-end electronics control unit in the ⇒ 'Extended identification' menu using the PIWIS Tester.
Procedure in the event of the error message "No suitable programming rules found. Cause: Part number of the front-end electronics control unit is not in the programming rules":	Check that the programming code used corresponds to the campaign scope assigned for the relevant vehicle. • ACTUAL software version: 2900 • REQUIRED software version: 2930 • Programming code: N7C4U **or:** • ACTUAL software version: 3200 • REQUIRED software version: 3300 • Programming code: T4U6W

| Procedure in the event of other error messages appearing during the programming sequence:	⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"'.*
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

When programming is **complete, continue with** ⇒ *Technical Information 'WF5000 Reading out and erasing fault memories'.*

Reading out and erasing fault memories

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.
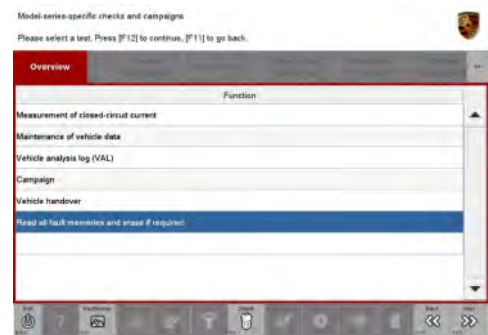
Erasing fault memories

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.

ℹ️ 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 to return to the control unit selection screen ⇒ *Control unit selection*.

Control unit selection

Calibrating electric machine

i **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.

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).

Subsequent work

Work Procedure: 1 Switch off ignition.

2 Disconnect the PIWIS Tester from the vehicle.

3 Switch off and disconnect the battery charger.

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

Attachment "A"

> ### ⓘ 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 WF50

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:

Working time:	
Re-programming front-end electronics control unit using software version 3300	Labor time: **20 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	
Calibrating electric machine	
⇒ **Damage code WF50 066 000 1**	

Scope 2:

Working time:	
Re-programming front-end electronics control unit using software version 2930	Labor time: **20 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	
Calibrating electric machine	
⇒ **Damage code WF50 066 000 1**	

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

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