

WNC3 - Re-Programming 7.2 kW High-Voltage Charger (OBC) (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.

Model Year: **As of 2017 up to 2019**

Vehicle Type: **Panamera 4 E-Hybrid (971)**
Panamera Turbo S E-Hybrid (971)
Panamera 4 S E-Hybrid Executive (971)
Panamera Turbo S E-Hybrid Executive (971)
Panamera Turbo 4 E-Hybrid Sport Turismo (971)

Equipment: Charger, 7.2 kW (M No. KB2)

Concerns: **High-voltage charger (OBC) 7.2 kW**

Information: **Due to a software error in the 7.2 kW (OBC) high-voltage charger, there is a possibility that an unauthorized warning message "Engine cannot be started" in the instrument cluster on the affected vehicles. Remove vehicle plug" is displayed.**

Action required: Re-program the 7.2 kW (OBC) high-voltage charger with updated software.



Information

During the campaign, the high-voltage charger control unit is re-programmed and then re-coded **automatically**.

It takes **about 10 minutes** to **program and code** the control unit.

Affected vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information).

Required tools

- Tool:**
- **9900 - PIWIS Tester 3** with PIWIS Tester software version **40.850.045** (or higher) installed
 - Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 battery charger 90A**

Preliminary 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 suitable battery charger or power supply, suitable for AGM type batteries, recommended current rating of 90A 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 driver's key is not recognized

- If the driver's key is not recognized in the vehicle, programming cannot be started or will be interrupted.
- ⇒ Place the driver's key with the back facing down into the front left storage compartment in the center console to guarantee a continuous radio link between the vehicle and the driver's key.

Work Procedure: Carry out general preliminary work for control unit programming as described in ⇒ *Workshop Manual 'Basic instructions and procedure for control unit programming using the PIWIS Tester'*.

Re-programming the 7.2kW (OBC) high-voltage charger



Information

The procedure described here is based on the PIWIS Tester 3 software version **37.100.010**.

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: **Re-program the high-voltage charger control unit.**

The basic procedure for control unit programming is described in the Workshop Manual ⇒ *Workshop Manual '9X00IN Basic Instructions and Procedure for Control Unit Programming Using the PIWIS Tester'*

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

Required PIWIS Tester software version:	40.850.045 (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:	H9K2C
Programming sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence. During the programming sequence, the high-voltage battery control unit is re-programmed and then re-coded automatically. Do not interrupt programming and coding.
Programming time (approx):	10 minutes
Software version programmed during this campaign:	4703 Following control unit programming, the software version can be read out of the high-voltage charger control unit in the 'Extended identifications' menu using the PIWIS Tester.
Procedure in the event of abnormal termination of control unit programming:	<ul style="list-style-type: none"> • Switch ignition off and then on again. • Repeat control unit programming by entering the programming code again.
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 "Fault finding"</i> .

Concluding work



Information

Brief breaks in communication between the control units during programming and coding can result in fault memory entries in all control units in the vehicle system, which might **not be deleted automatically**.

In addition to the automatic deletion of the fault memories during programming, the fault memories of all control units must therefore be **read out and deleted again** as described below **after each programming and coding process**.

Work Procedure: 1 Retrieve and erase the fault memories of all control units.

1.1 Press **•F7** in the control unit selection screen ('Overview' menu) to call up the Additional menu.

1.2 Select the function "Read all fault memories and erase if required" and press **•F12** ('Next') to confirm ⇒ *Erase fault memory*.

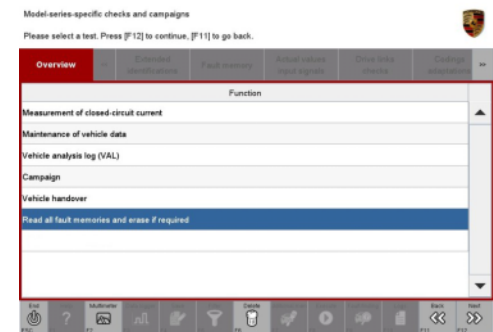
The fault memories of the control units are retrieved.

1.3 Once you have retrieved the fault memories, check the fault memory entries.



Information

If control units are found to have faults that are **not** caused by control unit programming, these must first be **found** and **corrected**. This work **cannot** be invoiced under the workshop campaign number.



Erase fault memory

1.4 Press **•F8** to delete fault memory entries.

1.5 Press **•F12** ('Yes') to confirm whether you really want to delete all fault memory entries.

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

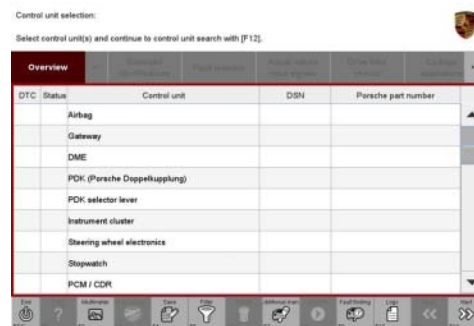


Information

If fault memory entries for individual control units cannot be deleted, proceed as follows:

- Switch off the 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.
- Start the engine, leave it running for a short time and then stop it again.
- Switch off the ignition and wait approx. 10 seconds before switching it back on again.
- Plug the PIWIS Tester diagnostic connector into the diagnostic socket again and restore communication with the vehicle.
- Read out the fault memory again and delete any fault memory entries that are stored.

- 1.6 Once you have erased the fault memories, select the **'Overview'** menu to return to the control unit selection screen. ⇒ *Control unit selection*
- 2 Switch off ignition.
- 3 Disconnect the PIWIS Tester from the vehicle.
- 4 Switch off and disconnect the battery charger.
- 5 Enter the campaign in the Guarantee and Maintenance booklet.



Control unit selection

Warranty processing



Information

The specified working time was determined specifically for carrying out this campaign and includes all necessary preliminary and subsequent work. The working time may differ from the working times published in the Labor Operation List in PIWIS.

Scope 1:

Re-programming the 7.2kW (OBC) high-voltage charger

Labor time:

Re-programming the 7.2kW (OBC) high-voltage charger

Labor time: **42 TU**

- Includes:
- Connecting and disconnecting battery charger
 - Connecting and disconnecting PIWIS Tester
 - Retrieving and erasing fault memories

⇒ **Damage code WNC3 066 000 1**

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