

WKJ9 - Re-Programming Control Unit for Assistance Systems (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: 2020

Model line: 911 (992)

Subject: Control unit for assistance systems

Information: **Due to a software error in the control unit for assistance systems, there is a possibility that the assistance systems "Porsche Active Safe (PAS)" and "Lane Keep Assist" will stop working at times on the affected vehicles.**
If this happens, the warning messages "PAS restricted" and/or "Lane Keep Assist not available" will be displayed in the instrument cluster.

Remedial Action: Re-program control unit for assistance systems using the PIWIS Tester with test software version **38.950.010** (or higher) installed.



Information

During the campaign, the control unit for assistance systems is re-programmed and then re-coded **automatically**.

The time required for **programming and coding** depends on the control unit variant for the assistance systems (variant **A**, variant **B** or variant **C**) installed in the vehicle and is up to **approx. 60 minutes**.

Affected Vehicles: Only vehicles assigned to the campaign (see also PCSS Vehicle Information). This campaign affects 5,613 vehicles in North America.

Required tools



Information

The new 911 Carrera (992) comes with either a **lithium starter battery** (I-no. J2A) or an **AGM starter battery** (I-no. JOV, J4K) as standard.

This depends on the following:

- Country version
- Model type
- Vehicle equipment

Lithium starter batteries must only be charged using a **suitable battery charger** that has a current and voltage-controlled charge map.

For further information about the battery chargers to be used, see ⇒ *Workshop Manual '270689 Charging battery/vehicle electrical system'*.

- Tools:
- Battery charger with a current rating of **at least 90 A** and - if required - **also** with a **current and voltage-controlled charge map** for lithium starter batteries, e.g. **Battery charger, 90 A**
 - **9900 - PIWIS Tester 3** with PIWIS Tester software version **38.950.010** (or higher) installed

Preparatory work

NOTICE

Fault entry in the fault memory and control unit programming aborted due to undervoltage.

- 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 with a current rating of at least 90 A to the vehicle.

NOTICE

Control unit programming will be aborted if the WLAN connection is unstable.

- An unstable WiFi connection can interrupt communication between the PIWIS Tester and the vehicle communication module (VCI). As a result, control unit programming may be aborted.
- ⇒ During control unit programming, always connect the 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 in the area in front of the storage compartment under the armrest (emergency start tray) in order to guarantee a permanent radio link between the vehicle and driver's key.

NOTICE

Programming interrupted

- Malfunctions in control unit
 - Risk of damage to control unit
- ⇒ Route the line between the vehicle communication module (VCI) and diagnostic socket on the vehicle without tension and make sure that the connector is inserted fully into the diagnostic socket.
- ⇒ Check that the rechargeable battery for the PIWIS Tester is charged sufficiently. Connect the PIWIS Tester to the power supply unit if necessary.



Information

The control unit for assistance systems is programmed using an IP connection between the gateway control unit and the control unit for assistance systems.

Work Procedure: 1 Connect a suitable battery charger, e.g. **Battery charger 90A**, to the jump-start terminals in the luggage compartment and switch it on.

- 2 Place the driver's key with the back facing down in the area in front of the storage compartment under the armrest (emergency start tray) in order to guarantee a permanent radio link between the vehicle and driver's key ⇒ *Emergency start tray*.



Emergency start tray

- 3 **9900 - PIWIS Tester 3** must be connected to the vehicle communication module (VCI) via the **USB cable**. Then, connect the communication module to the vehicle and switch on the PIWIS Tester.

Due to the long programming time, the **PIWIS Tester must be operated via the power supply unit**.

**Information**

Use the **new** PIWIS Tester data cable to carry out the campaign. The difference between the old ⇒ *PIWIS Tester data cable -1-* and new ⇒ *PIWIS Tester data cable -2-* data cable is shown in the illustration.

If the connection between the vehicle and PIWIS Tester is interrupted, check the data cable for the PIWIS Tester for signs of damage. If the data cable is damaged, it **must be replaced**. To do this, follow the instructions in the PPN for "Returning faulty USB cable caps" (PPN portal > Dr Ing. h.c. F. Porsche AG > Aftersales > Workshop > PIWIS > Documents).

- 4 Switch on the ignition.

**Information**

The procedure described here is based on the PIWIS Tester 3 software version **38.950.010**.

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.

- 5 On the PIWIS Tester start screen, call up the '**Diagnostics**' application.

The vehicle type is then read out, the diagnostic application is started and the control unit selection screen is populated.



PIWIS Tester data cable

Re-program control unit for assistance systems**WARNING****Electrically moved rear spoiler**

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

Procedure: 1 **Re-program control unit for assistance systems.**

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:	38.950.010 (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:	D7J8F
Programming sequence:	Read and follow the information and instructions on the PIWIS Tester during the guided programming sequence. The control unit for assistance systems is re-programmed and then re-coded automatically during the programming sequence. Do not interrupt programming and coding.
Programming time (approx):	Variant A: approx. 20 minutes Variant B: approx. 30 minutes Variant C: approx. 60 minutes
Software version programmed during this campaign:	Variant A Software version: 0295 Software part number: 4KE907107AP Variant B Software version: 0295 Software part number: 4KE907107AQ Variant C Software version: 0295 Software part number: 4KE907107AR Following control unit programming, the software version can be read out of the control unit for assistance systems 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. • Read out and erase fault memories ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'</i>. • 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

Work Procedure: 1 Read out 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 your selection ⇒ *Erasing fault memories*.

The fault memories of the control units are read out.

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



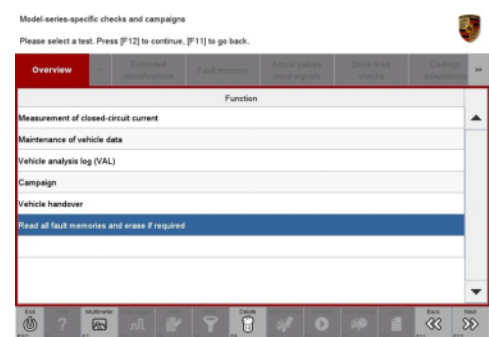
Information

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.

1.4 Press •F8" to delete fault memory entries.

1.5 Press •F12" ('Yes') in response to the question as to whether you really want to delete all fault memory entries.

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



Erasing fault memories

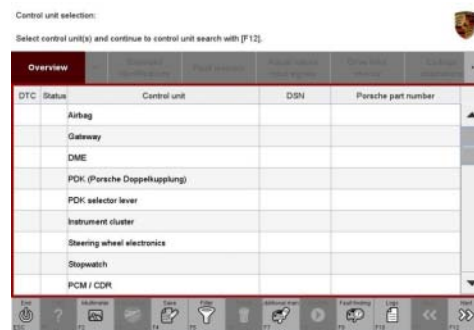


Information

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.
- Repeat this procedure if necessary.

1.6 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



Electrically moved rear spoiler

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

2 Manually retract the rear spoiler, which was extended automatically during programming. To do this, select the menu '**CAR**' – '**DRIVE**' in the PCM and then select the '**Spoiler**' function and **press and hold** the spoiler button until the rear spoiler is **fully retracted**.

3 Switch off the ignition.

- 4 Disconnect the PIWIS Tester from the vehicle.
- 5 Switch off and disconnect the battery charger.
- 6 Enter the campaign in the Warranty and Maintenance booklet.

Warranty processing

Scope 1:

Working time:

Re-programming control unit for assistance systems

Labor time: **59 TU**

Includes: Connecting and disconnecting battery charger
Connecting and disconnecting PIWIS Tester
Reading out and erasing fault memories

⇒ **Damage Code WKJ9 66 000 1**

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