PORSCHE®

Technical Information

Lane Keep Assist does not Function After Replacing the Power Steering Gear: Re-Programming Power Steering Control Unit (197/22)

Vehicle Type:	**911 (992)**
Model Year:	**2020**
Equipment:	**Lane Keep Assist incl. traffic sign recognition**
Concerns:	**Power steering control unit**
Reason:	Replacing the power steering gear on the vehicles specified above can mean that Lane Keep Assist is no longer available.
Cause:	This behavior is caused by the software version 430 pre-installed on the power steering gear, which causes incompatibility on model year 2020 (L) vehicles.
Action required:	In the event of a customer complaint or after replacing the power steering gear, the software version of the power-steering control unit must be checked and re-programmed if necessary using the PIWIS Tester with PIWIS Tester software version **41.375.040** (or higher) installed.

Required tools

Tool:	• Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 battery charger 90A**. For further information about the battery chargers to be used, see the corresponding Workshop Manual. ⇒ *Workshop Manual '270689 Charging vehicle electrical system and battery'*
	• **9900 - PIWIS Tester 3** with PIWIS Tester software version **41.375.040** (or higher) installed

Preparatory work

NOTICE

Fault entry in the fault memory or control unit programming aborted, as the case may be, 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 commencing work, connect a suitable battery charger with a charging current of at least 90 A to the jump-start terminals in the engine compartment.**

NOTICE

Control unit programming will be aborted if the Wi-Fi connection is unstable.

AfterSales

- **An unstable Wi-Fi connection can interrupt communication between the PIWIS Tester II 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 detected.

- **If the driver's key is not detected 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 ensure a continuous radio link between the vehicle and the driver's key.**

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 – chapter on "Preliminary work"'*.

Checking software version of power steering control unit

Work Procedure: 1   Check software version of the power steering control unit.

    1.1   Select **Power steering** control unit.

    1.2   Select the **Extended identifications** menu.

    1.3   Check software version of the **power steering** control unit.

        1.3.1   If the software version is **'0120' (911 Carrera vehicles) or '0220' (911 Turbo vehicles), the control unit** is already at the required version; continue with ⇒ *Technical Information '9X00IN Concluding work'*.

        1.3.2   If the software version is earlier than **'0430'**, re-program the power steering control unit. ⇒ *Technical Information '9X00IN Re-programming power steering control unit'*

Re-programming power steering control unit

Information

The procedure described here is based on the PIWIS Tester 3 software version **41.375.040**.

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.

Work Procedure: 1   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 table below.

Required PIWIS Tester software version:	**41.375.040** (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:	**L7S6F**
Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. **Do not interrupt programming and coding.** A backup documentation process for the re-programmed software versions starts as soon as programming and coding is complete.
Programming time (approx.):	**6 minutes**
Software version programmed during this campaign:	• 911 Carrera vehicles: **0120** • 911 Turbo vehicles: **0220** Following control unit programming, the software version can be read out from the relevant control unit in the ⇒ 'Extended identifications' menu using the PIWIS Tester.
Procedure in the event of 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 a termination in the control unit programming:	Repeat control unit programming by restarting programming.

Concluding work

Work Procedure: 1   Carry out general reworking for control unit programming as described in ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - Reworking section'.*

2   Teach the power steering gear if necessary. ⇒ *Workshop Manual '489025 Teach power steering gear'*

⚠️ **WARNING**

Function tests as part of a test drive on public roads

- **Endangering other road users**

⇒ **Only carry out the required tests if the road, weather, traffic and regulations are conducive to doing so.**

    3   Check the function of Lane Keep Assist during a test drive.

ℹ️ Information

Lane Keeping Assist uses a camera to detect divider line markings on the road and helps the driver to stay in lane by making corrective steering inputs (active at approximately 65 km/h – 250 km/h).

Invoicing

For documentation and invoicing in the event of a warranty, state the work items required depending on the scope of work and the specified PCSS encryption in the warranty claim:

APOS	Labor operation	I No.
48900101	Check power steering gear	
48902551	Programming power-steering gear	

PCSS encryption:

Location (FES5)	48900	Power steering gear
Damage type (SA4)	1111	incompatible software version

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

⇒ *Workshop Manual '489025 Teach power steering gear'*