Front Display and Control Panel (PCM) Replacement Required: Subsequent Update After Replacing Hardware for Front Display and Control Panel (PCM) (93/22)

Model Line: **Macan (95B)**

Model Year: **2019**

Country / Market: USA (C02)

Concerns: **Front display and control panel (PCM display)**

Information: On model year "K" (2019) vehicles, malfunctions can occur between the front display and control panel (PCM) and PCM central computer after replacing the hardware in the front display and control panel (PCM).

Action required: After replacing the hardware, check the software configuration of the front display and control panel (PCM) and PCM central computer. In the event of discrepancies, re-program the front display and control panel (PCM) using the PIWIS Tester and the PIWIS Tester software version **41.100.010** (or higher) installed and the corresponding programming code.

Information

The total time required for control unit programming is **approx. 15 minutes**.

Software: **Overview of the software versions affected**

Control unit	Software version (old status)	Software version (new status)
Front display and control panel (PCM)	0091	0110

Required tools

Tool:

- **9900 - PIWIS Tester 3** with PIWIS Tester software version **41.100.010** (or higher) installed
- **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 battery'*

Preliminary work

NOTICE

Fault entry in the fault memory or control unit programming aborted due to low voltage.

- **Increased current draw during diagnostics 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 work, connect a suitable battery charger with a current rating of at least 90 A to the jump-start terminals.**

NOTICE

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

- **An unstable Wi-Fi connection can interrupt communication between the PIWIS Tester II and the vehicle communication module (VCI). As a result, 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 vehicles with Porsche Entry & Drive, programming cannot be started or will be interrupted.**

⇒ **Switch on the ignition using the original driver's key. To do this, replace the control unit in the ignition lock with the original driver's key if necessary.**

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 – section on "Preliminary work"*.

Checking software version of front display and control panel (PCM) and re-programming front display and control panel (PCM) if necessary

Work Procedure: 1 Check software version of the front display and control panel (PCM) and re-program the front display and control panel (PCM) if necessary:

1.1 Select **'Central computer'** control unit.

1.2 Select **'Front display and control panel (PCM)'** from the selection list.

1.3 Select the **'Extended identifications'** menu.

1.4 Check software version of **Front display and control panel (PCM)**.

Information

Only the software version from **'0110'** is compatible with the software version **'2870' and higher** of the PCM central computer.

1.4.1 If the software version is '0110', no further action is required. Continue with ⇒ *Technical Information '9X00IN Subsequent work'*.

1.4.2 If the software version is '0091', re-program the front display and control panel (PCM). 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"'*.

Information

The procedure described here is based on the PIWIS Tester 3 software version **41.100.010**.

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.

Specific information on control unit programming in the context of this Technical Information:

Required PIWIS Tester software version:	**41.100.010** (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:	**S4N6F**
Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. During the programming sequence, the **front display and operator control panel (PCM)** is re-**programmed** and then re-**codedautomatically**. **Do not interrupt programming and coding.** Documentation of the new software versions is then backed up.
Programming time (approx):	**15 minutes**

Software version programmed during programming:	**0110** Following control unit programming, the software version can be selected from the relevant control unit in the ⇒ 'Extended identifications' menu using the PIWIS Tester. The software version information in the programmed data record is based on the specified PIWIS Tester software version. Please note that this may be different in a higher version.
Procedure in the event of abnormal termination of control unit programming:	• Switch ignition off and then on again. • Select and erase fault memories. ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Rework"'* • Repeat control unit programming by restarting programming.
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 "Troubleshooting"'*.

Concluding work

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

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.
91100103	Checking front display and control panels	
91102553	Programming front display and control panel	

PCSS encryption:

Location (FES5)	91103	PCM DISPLAY
Damage type (SA4)	1614	function not according to specification

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