Replacement Requirement for 37 Ah High-Voltage Battery Cell Module on Vehicles up to Model Year 2020 (L): Re-Programming High-Voltage Battery Control Unit (BMC) (63/24)

Change overview:

Release	Date	Change
1	05/23/2024	• First publication
2	08/02/2024	• Software release adapted

Vehicle Type: **Panamera 4 E-Hybrid (971) / Panamera Turbo S E-Hybrid (971)**

Model Year: **As of 2017 up to 2020**

Concerns: **Replacement requirement for high-voltage battery cell module**

Cause: **If cell modules of the high-voltage battery need to be replaced, the only cell modules available for the aforementioned vehicles will be those also used in the vehicles of model year 2021 (M) and later as standard.**
In order to be able to use the modified cell modules on the vehicles mentioned above in a mixed installation with the previous cell modules, software release 0293 must be available on the control unit for the high-voltage battery (BMC).

Overview of high-voltage battery cell modules:

Part No. old (no longer available)	**Designation**
PAB915591	⇒ High-voltage battery module (37Ah)
or	
PAB915591A	⇒ High-voltage battery module (37Ah)

Part No. new*	**Designation**
PAB915591J	⇒ High-voltage battery module (37Ah)
or	
PAB915591H	⇒ High-voltage battery module (37Ah)

***** can only be used in vehicles up to model year 2020 (L) in conjunction with software release **0293** in the high-voltage battery control unit (BMC).

Action: After installing the modified cell modules for the high-voltage battery, check the current software version in the high-voltage battery control unit (BMC) and, if necessary, program it to software version 0293 in accordance with the following description.

Information

The minimum programming requirement is the PIWIS Tester software release: 42.600.060

Information

In addition to the **high-voltage battery control unit (BMC)**, the **high-voltage E-box (BJB)** and **cell modules 1-8 (CMC)** are **also** re-programmed and then re-coded automatically.

The total duration of just the **Programming and coding** of all control units is **approx. 50 minutes**.

Required tools for control unit programming

Tools:

- **P90999 - PIWIS Tester 4** with PIWIS Tester test software release **42.600.060** (or higher) installed
- Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 90 A battery charger**. For further information about the battery chargers to be used, see the corresponding Workshop Manual. ⇒ *Workshop Manual '270689 Charging battery and vehicle electrical system'*

Re-programming high-voltage battery control unit (BMC)

Work Procedure: 1 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"'*.

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

Required PIWIS Tester software release:	**42.600.060** (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:	**M2K4H**

Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. **Do not interrupt programming and coding process.** A backup documentation process for the re-programmed software releases starts as soon as programming and coding is complete.
Programming time (approx.):	**50 minutes**
Software release programmed during this campaign:	• High-voltage battery control unit (BMC): **0293** • Cell module 1-8 (CMC): **0108/0808** • High-voltage E-box (BJB): **0134** Following control unit programming, the software release can be read out from the relevant control unit using the PIWIS Tester in the menu ⇒ "Incremented identifications".
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"'*.
Procedure in the event of a termination in the control unit programming:	Repeat control unit programming by restarting programming.

2 Read out and delete all control unit fault memories.

2.1 In the control unit selection ("Overview" menu) press •F7 " to call up the Additional menu.

2.2 Select the function "Read all fault memories and delete if necessary" and press •F12 " ("Next") to confirm.

3 Exit the diagnostic application, switch off the ignition, disconnect the PIWIS tester from the vehicle.

4 Switch off and disconnect the battery charger.

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
27080190	Checking high-voltage battery control unit	
27942590	Checking and programming high-voltage battery control unit	

PCSS encryption:

Location (FES5)	27080	High-voltage battery
Damage type (SA4)	9744	Part not available