

Control Unit for High-Voltage Battery (BMC) Loss of Capacity / Range Implausible: Reset Cell Modules (SY 248/24)

Model Line: **Macan (XAB)**

Model Year: **As of 2024**

Concerns: **Cell modules**

Symptom: **The customer complains that the displayed battery level does not match the displayed range.**

Remedial Action: If there is a customer complaint, reset the cell modules using the PIWIS Tester.

Required tools

- Tools:
- **P90999 - PIWIS Tester 4**
 - Battery charger with a current rating of **at least 90 A** and a **current and voltage-controlled charge map** for lithium starter batteries, e.g. **VAS 5908 battery charger 90 A**. For further information about the battery chargers to be used, see the corresponding Workshop Manual. ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

Reset the cell modules using the PIWIS Tester



Information

After resetting the cell modules, the high-voltage battery adapts to the "start of life capacity" after the next learning phase.

- Work Procedure:
- 1 Create vehicle analysis log (VAL).
 - 1.1 Connect and switch on the battery charger.
⇒ *Workshop Manual '270689 Charging battery/vehicle electrical system'*
 - 1.2 Place the original remote control in the emergency start tray.
 - 1.3 Connect the **P90999 - PIWIS Tester 4**, establish readiness for operation and start the diagnostic application.
 - 1.4 Mark the created Vehicle Analysis Log (VAL) with the attribute "**Pre-VAL**" and return it using the PIWIS Tester after the action is completed.
 - 2 Deactivate the high-voltage system.
⇒ *Workshop Manual '931083 Deactivate and activate high-voltage system'*
 - 3 Reset the cell modules using the PIWIS Tester.

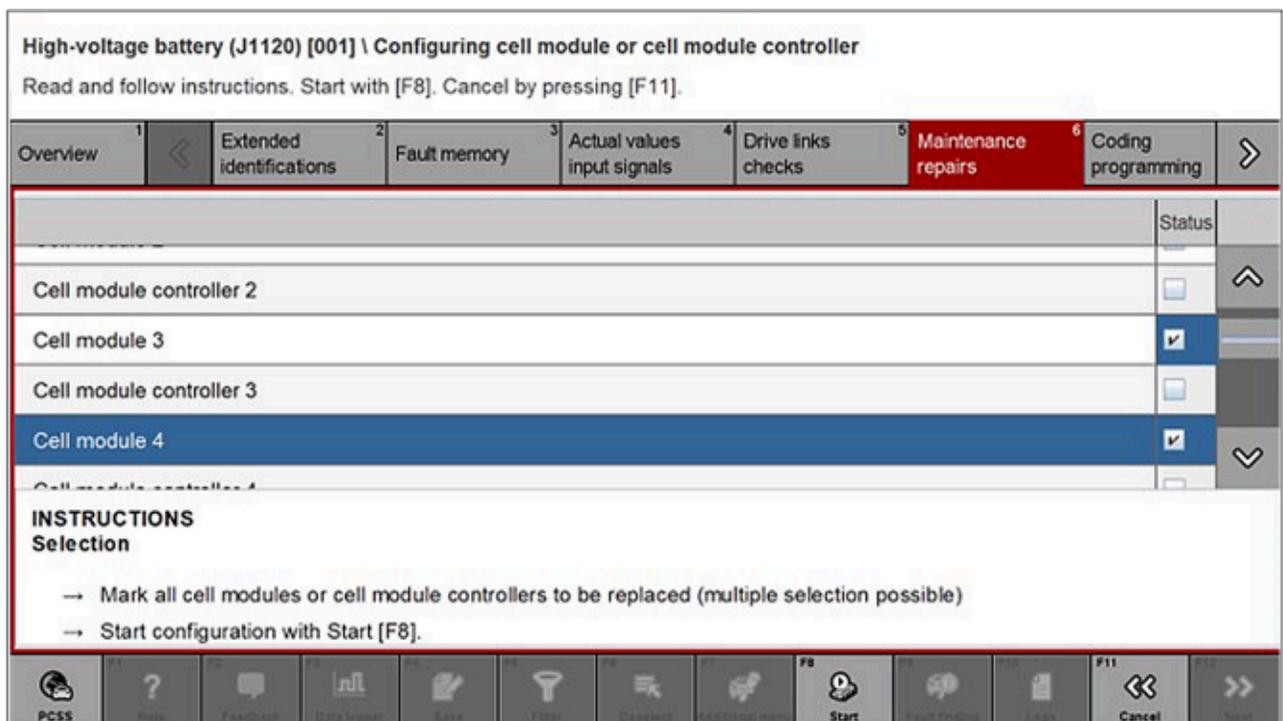
- 3.1 Select the "**High-voltage battery (J1120)**" control unit in the "**Overview**" control unit selection and confirm your selection by pressing **[F12]** ("Next").
- 3.2 Select the "**Service / repairs**" menu. Then select the "**Teach cell module and/or cell module controller**" function and confirm by pressing **[F12]** ("Next").
- 3.3 Follow the instructions and notes of the PIWIS Tester.
- 3.4 Select cell modules and reset the cell modules by pressing **[F8]** ("Start").



Information

A maximum of four cell modules can be reset simultaneously. For this reason, the cell modules must be reset one after the other.

- Cell modules: 1–4
- Cell modules: 5 – 8
- Cell modules: 9 – 12



Selection of cell modules in the PIWIS Tester

- 4 Activate the high-voltage system.
⇒ *Workshop Manual '931083 Deactivate and activate high-voltage system'*
- 5 Read out and delete all control unit fault memories.
- 6 Establish bus idle for at least **1 hour** on the vehicle.

Location (FES5)**For this purpose:**

- Disconnect the battery charger
- End diagnostic application, end readiness for operation, and disconnect **P90999 - PIWIS Tester 4** from vehicle
- Lock the vehicle
- Place driver's key outside the frequency range of the vehicle

7 Fully charge high-voltage battery after bus idle.

8 Re-establish bus idle for at least **1 hour** on the vehicle.

For this purpose:

- Remove high-voltage charger from the vehicle
- Lock the vehicle
- Place driver's key outside the frequency range of the vehicle

9 Create vehicle analysis log (VAL).

9.1 Connect and switch on the battery charger.

⇒ *Workshop Manual '270689 Charging battery/vehicle electrical system'*

9.2 Place the original remote control in the emergency start tray.

9.3 Connect the **P90999 - PIWIS Tester 4**, establish readiness for operation and start the diagnostic application.

9.4 Mark the created Vehicle Analysis Log (VAL) with the attribute "**Post-VAL**" and return it using the PIWIS Tester after the action is completed.

10 End diagnostic application, end readiness for operation, disconnect **P90999 - PIWIS Tester 4** from vehicle.

11 Switch off and disconnect the battery charger.

⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
93252540	Reset the cell modules using the PIWIS Tester	

PCSS encryption:

	93010	Cell module
Damage type (SA4)	4076	Energy balance too low

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