Complaint – Charging Process is Cancelled / Check Engine Warning Light is Active: Re-Program High-Voltage Charger (OBC) Control Unit (36/21)

Change overview

Version	Date	Change
0	03/19/2021	▪ First publication with interim solution so that the fault memory can be erased
1	09/03/2021	▪ Adaptation of the required Porsche Tester software version for carrying out control unit programming
2	01/27/2026	▪ Target software and Porsche Tester software release adapted ▪ Update of Action

Vehicle Type: **Cayenne E-Hybrid (9YA/9YB)**
Cayenne Turbo S E-Hybrid (9YA, 9YB)

Model Year: **As of 2019 up to 2021**

Concerns: **High-voltage charger 3.6 kW (M no. KB1) — (OBC) control unit**

Information: Charging process of the high-voltage battery is cancelled and the Check Engine warning light comes on in the instrument cluster. In many cases, it may be possible to continue charging the vehicle once the vehicle plug has been disconnected and then re-connected to the vehicle.

This fault is caused by voltage fluctuations in the supply network (e.g. the domestic connection) to which the high-voltage battery charger is connected.

The entry **'B200000 – Control unit, function restriction (E10105)'** is stored in the fault memory of the high-voltage charger (OBC) control unit as an active fault memory entry, which cannot be deleted initially. As a result, the Check Engine warning light is not deactivated.

Action: In the event of a customer complaint, re-program the high-voltage charger (OBC) control unit using the relevant programming code.

Information

- Control unit programming sets the fault memory entry 'B200000 – Control unit, function restriction (E10105)' to passive, which can then be deleted.
- Replacing the control unit will not correct the problem because the parts that are currently available use the same software as the control unit that was the object of the complaint.

Required tools

Information

The Cayenne is equipped as standard with a **lithium starter battery**, which must only be charged using suitable battery chargers.
For further information about the battery chargers to be used, see:

- ⇒ *Workshop Manual '2706IN General information on the 12-volt lithium-ion battery'*
- ⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

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. **VAS 5908 90 A battery charger**
- **P90999 - P90999 - Porsche Tester 4** with Porsche Tester test software release **43.800.000** (or higher) installed

Preparatory work

WARNING

Electrically moved side windows and 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.**

⇒ **Retract roll-up sun blinds on the rear side windows before starting programming or coding.**

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 getting started, connect a suitable battery charger with a current rating of at least 90 A to the jump-start terminals in the engine compartment.**

NOTICE

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

- **An unstable WiFi connection can interrupt communication between the Porsche Tester and the vehicle communication module (VCI). As a result, control unit programming may be aborted.**

⇒ **During control unit programming, always connect the Porsche Tester to the vehicle communication module (VCI) via the USB cable.**

NOTICE

Control unit programming will be aborted if the vehicle 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 into the front left storage compartment in the center console to guarantee a continuous radio link between the vehicle and the driver's key.**

Work Procedure: 1 Position the driver key in the rear area of the left cupholder in the center console between the holding struts (emergency start tray) in order to guarantee a permanent radio link between the vehicle and driver key ⇒ *Emergency start tray*.

2 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"'*.

Emergency start tray

Re-program high-voltage charger (OBC) control unit

Information

The total time required for control unit programming is **approx. 4 minutes**.

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 - section on "Programming"'*.

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

Required Porsche Tester test software release:	**43.800.000** (or higher)
Type of control unit programming:	Control unit programming using the **'Campaign' function in the Additional menu** on the Porsche Tester by entering a programming code.
Programming code:	**V5P7S**

Programming sequence:	Read and follow the **information and instructions on the Porsche Tester** during the guided programming sequence. During programming, the high-voltage charger (OBC) control unit is **re-programmed** and then **re-coded** automatically. **Do not interrupt programming.**
Programming time (approx):	**4 minutes**
Software part number and software release programmed during this campaign: The software release information in the programmed data record is based on the specified Porsche Tester test software release. Please note that this may be different in a higher release.	See section: ⇒ *Technical Information '9X00IN Overview of the programmed software versions'* Following control unit programming, the software part number and software release can be read out of the "High-voltage charger" control unit (OBC) in the 'Extended identification' menu using the Porsche Tester.
Procedure in the event of error messages appearing during the programming sequence:	⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming - section on "Troubleshooting"'*.
Procedure in the event of abnormal termination of control unit programming:	Repeat control unit programming by restarting programming.

2 Reading out and erasing fault memories.

Information
If control units are found to have faults that are **not** caused by control unit programming, these must first be **found** and **corrected**.

Overview of hardware and software release

Software Overview:

Hardware part number of the high-voltage charger (OBC) control unit	**Model year of the vehicle**	**Software part number**	**Software release before control unit programming**	**Software release after control unit programming**
5QE915682**BE**	K (2019) L (2020)	5QE915682**FB**	6119 or	**6127**

	M (2021)		6123	
5QE915682**BF**	M (2021)	5QE915682**FA**	6119 or 6123	**6127**

Follow-up actions

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

2 Switch off ignition.

3 Disconnect the Porsche Tester from the vehicle.

4 Remove the driver's key from the emergency start tray.

5 Switch off and disconnect the battery charger.

Labor position and PCSS encryption

Labor positions:

APOS	**Labor operation**	**I No.**
27972590	Programming high-voltage charger	

PCSS encryption:

Location (FES5)	27970	High-voltage charger
Damage type (SA4)	1612	does not function at times

References: ⇒ *Workshop Manual '2706IN General information on the 12-volt lithium-ion battery'*

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

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