Active Red Warning Message “Electrical System Fault - Stop Vehicle Safely” / Fault Memory Entry “P0E9D00” In the Front (A49) or Rear (A50) High-Voltage Power Electronics Control Units (53/25)

Model Line: **Taycan (Y1A / Y1B / Y1C)**

Model Year: **As of 2020 up to 2024**

Concerns: **Front high-voltage power electronics (A49)**
Rear high-voltage power electronics (A50)

Cause: **The customer is complaining about the red warning message “Electrical system fault - Stop vehicle safely” lighting up on the instrument cluster.**
The following fault memory entry is stored in the fault memory of the front high-voltage power electronics control unit (A49) and/or the rear high-voltage power electronics control unit (A50):

- **P0E9D00** – DC/DC converter – current sensor 2, short circuit to ground (00AC8E)

After a change in operational readiness (ignition change), the fault will no longer be active to begin with.

Cause: The cause may be a diagnostic threshold that is set too low for current monitoring in the software of the front (A49) and rear (A50) power electronics control units.

Action: If there is a customer complaint, re-program the front high-voltage power electronics control unit (A49) **and** rear high-voltage power electronics control unit (A50).
Then perform a test drive and check the fault memory of the front high-voltage power electronics control units (A49) **and** rear high-voltage power electronics control unit (A50) again.

Information
The minimum requirement for programming is the PIWIS Tester software release: **43.500.000** (or higher)

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 Charge battery and vehicle electrical system'*

Re-programming control unit for front high-voltage power electronics (A49) and control unit for rear high-voltage power electronics (A50)

Work Procedure: 1 Re-program control units for high-voltage power electronics at the front (A49) and rear (A50).

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'*

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

Required PIWIS Tester test software release:	**43.500.000** (or higher)
Type of control unit programming:	Control unit programming using the **"Automatic programming"** function of the respective control unit: Control unit for **"Front high-voltage power electronics (A49)"** and control unit for **"Rear high-voltage power electronics (A50)**" – **"Coding / programming"** menu – **"Automatic programming"** function.
Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. As part of the programming sequence, the respective **control units for high-voltage power electronics at the front (A49) and rear (A50)** are **reprogrammed** and then **automaticallyrecoded**. **Do not interrupt the programming and coding process.** Once the control units have been programmed and coded, you will be prompted to switch the ignition off and then back on again after a certain waiting time. Backup documentation of the new software releases is then performed.
Programming time:	Programming takes up to **15 minutes**, depending on equipment.

Data record programmed during this programming:	▪ **Control unit for front high-voltage power electronics (A49)** ▪ **Control unit for rear high-voltage power electronics (A50)** Software release: **0023** (or higher) 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.

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

4 Switch off and disconnect the battery charger.
⇒ *Workshop Manual '270689 Charging vehicle electrical system battery'*

Perform a test drive and check the fault memory.

Information

After the software update has been completed, perform a test drive with increased torque demand.

Work Procedure: 1 After the test drive, check the fault memory of the control units for the front high-voltage power electronics (A49) and of the control unit for the rear high-voltage power electronics (A50) again for the fault memory entry "**P0E9D00** – DC/DC converter – current sensor 2, short circuit to ground (00AC8E)".

Assessment		Action
(✓)	Fault memory entry **not** saved again.	**End of action.**
(✗)	Fault memory entry saved again.	Work through guided troubleshooting.

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
27912540	Re-programming control unit for high-voltage power electronics	

PCSS encryption:

Location (FES5)	27910	High-voltage power electronics
Damage type (SA4)	1134	Programming error