# Vehicle Not Ready to Drive / Fault Memory Entry "Fuse for High-Voltage System" (P0A9500 / P0E2F00) in High-Voltage Battery Control Unit - Observe Work Procedure (66/22)

Change Overview:

| Revision | Date | Change |
|---|---|---|
| 0 | 11/05/2022 | ▪ First publication |
| 1 | 12/04/2023 | ▪ Reference to "Questionnaire for TI 66/22" added<br>▪ Component also to be replaced added (high-voltage distributor booster)<br>▪ "Action Required" section suitably changed<br>▪ Section "Required parts, tools and materials" adapted<br>▪ Section "Working position and PCSS encryption" adapted |
| 2 | 04/13/2026 | ▪ Requirement for PRMS ticket adjusted<br>▪ "Action" section extended (fuse for high-voltage system may be replaced once)<br>▪ Work procedure revised<br>▪ Checklist adapted |

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

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

Concerns: **High-voltage battery control unit (BMC)**

Information: Observe the required work procedure for the complaint "Vehicle not ready to drive" in connection with the following fault memory entries relating to the fuse for the high-voltage system:

- **P0A9500** – Fuse for high-voltage system (140009)
- **P0E2F00** – Fuse 2 for high-voltage system (14000A)
- **P0E3000** – Fuse 3 for high-voltage system (14000B)

Action:

**Information**

The Taycan high-voltage battery has 3 fuses (4 fuses in certain equipment variants):

- one **front fuse** for protecting the front high-voltage system (affecting all components running from the high-voltage battery via the traction cable to the high-voltage booster),
- one **rear fuse** for protecting the rear drivetrain,
- one **main fuse** for protecting the high-voltage battery itself
- and one **pyro fuse** that interrupts the power supply to the high-voltage system in the event of an accident, boosts vehicle safety and protection against contact and prevents unintentional discharge of the high-voltage battery.

If the front fuse has blown, it is most likely that this occurred during the charging process or (rather rare and less likely) one of the components in the front vehicle area is the cause.
If the rear fuse has blown, this usually indicates a problem with the electric motor or power electronics. These components should be checked when searching for the cause.

**Information**

A fuse is not tripped without reason. The source of the fault always needs to be identified and corrected in order to prevent the fuse from being blown again.

**Work procedure when a fuse is tripped:**

- **Front fuse** 'P0A9500 – Fuse for high-voltage system (140009)': ⇒ *Technical Information 'Work procedure when the front fuse is tripped'*
- **Rear fuse** 'P0E2F00 – Fuse 2 for high-voltage system (14000A)': ⇒ *Technical Information 'Work procedure when the rear fuse is tripped '*
- **Main fuse** 'P0E3000 – Fuse 3 for high-voltage system (14000B)': ⇒ *Technical Information 'Work procedure when the main fuse is tripped'*

## Work procedure when the front fuse is tripped

Work Procedure:

1 Ask the customer about the vehicle conditions when the fuse was tripped.

- Was the vehicle being **charged**?
- Was the vehicle being **driven**?
- What was the vehicle doing **when the fuse was tripped**?

2 If the fuse was tripped during charging: Carefully complete the TI 66/22 questionnaire together with the customer.
Can be found under the title "2708 - TI 66/22 questionnaire" in the information medium TI - Technical Information, main group 2 - Fuel supply.

3 Perform an insulation measurement to determine whether other components were affected by the reason why the fuse was tripped.

4 Replace identified defective components. Then – depending on the number of times the fuse was tripped in the past – replace either only the E-box (fuse) or the entire high-voltage battery assembly (high-voltage battery, high-voltage battery control unit, battery separator).

**For the work procedure for replacing the E-box, see**: ⇒ *Workshop Manual 'Removing and installing E-box'*
**and**
⇒ *Workshop Manual 'Replacing e-box'*

For the **work procedure for replacing the high-voltage battery assembly, see**: ⇒ *Workshop Manual '270855 Replace the high-voltage battery'*

**Information**

For vehicles produced before 10/10/2023, the high-voltage distributor (booster) must be replaced as well. This does not apply to vehicles for which the high-voltage distributor (booster) was already replaced after 10/10/2023.

For the work procedure, see: ⇒*Workshop Manual '279819 Remove and install high-voltage distributor (booster)'*

and

⇒*Workshop Manual '279855 Replacing high-voltage distributor (booster)'*

**Work procedure when the rear fuse is tripped**

Work Procedure:

1 Ask the customer about the vehicle conditions when the fuse was tripped.

- Was the vehicle being **driven**?
- What was the vehicle doing **when the fuse was tripped**?

2 If the fuse was tripped while driving, check the rear power electronics and the electric machine.

- Check all fault memory entries and rectify them using Guided Fault Finding.
- Measuring diodes
- Measuring capacitance
- Measuring winding resistance

**Information**

Abnormal components that do not pass the measurements need to be replaced.

3 If the coolant circuit has overheated, check its function and flush it if necessary.
In addition, check the electric passenger compartment heater. Observe Technical Information (TI) 35/25 as well.
⇒*Technical Information '279855 Insufficient or imperceptible heating output in the passenger compartment: Observe work procedure for fault diagnosis (35/25)'*

4 Perform an insulation measurement to determine whether other components were affected by the reason why the fuse was tripped.

5 Replace identified defective components and then replace the E-box (fuse).
For the work procedure, see: ⇒*Workshop Manual '279855 Removing and installing E-box'*
and
⇒*Workshop Manual '279855 Replacing e-box'*

### Work procedure when the main fuse is tripped

Work Procedure:

**Information**

The main fuse is usually tripped in conjunction with one of the other fuses. It is necessary to specifically investigate which fuse has been tripped in combination:

- For the work procedure when a fuse is tripped at the front, see: ⇒ *Technical Information '279855 Work procedure when the front fuse is tripped'*
- For the work procedure when the rear fuse is tripped, see: ⇒ *Technical Information '279855 Work procedure when the rear fuse is tripped '*
- Work procedure when the pyro fuse is tripped (depending on the respective vehicle equipment) and other steps in the event of an accident ⇒ Individual Troubleshooting.

### Required parts, tools and materials

Parts:

**Required parts:**

– Required parts if the **high-voltage battery assembly** needs to be replaced. –

| Part No. | Designation<br>– Includes / application site | Number |
|---|---|---|
| 9J1915100xx[1] | ⇒ High-voltage battery complete (M No. J9K)<br>Includes:<br>– Battery disconnect element<br>– High-voltage battery control unit | 1 piece(s) |
| **or** | | |
| 9J1915099xx[1] | ⇒ High-voltage battery complete (M No. J9I)<br>Includes:<br>– Battery disconnect element<br>– High-voltage battery control unit | 1 piece(s) |

[1] Select the required high-voltage battery assembly using the Porsche Spare Parts Catalogue (PET).

– Required parts if the **E-box (fuse)** need to be replaced. –

| Part No. | Designation<br>– Location of use | Number |
|---|---|---|
| [2] | ⇒ Battery disconnect element (complete) | 1 piece(s) |
| PAF009770 | ⇒ Internal hexagon round-head bolt, M6 x 32<br>– Battery disconnect element | 9 piece(s) |

[2] Select the required battery separator (E-box) using the Porsche Spare Parts Catalogue (PET).

– Required parts if the **high-voltage distributor (booster)** needs to be replaced. –

| Part No. | Designation<br>– Location of use | Number |
|---|---|---|
| 9J1915539DP | ⇒ Voltage converter high-voltage booster low<br>– All-wheel drive (M No. 1X1)<br>– High-voltage booster low (M No. KM1) | 1 piece(s) |
| **or** | | |
| 9J1915539DQ | ⇒ Voltage converter high-voltage booster high<br>– All-wheel drive (M No. 1X1)<br>– High-voltage booster high (M No. KM2) | 1 piece(s) |
| **or** | | |
| 99J1915539DM | ⇒ Voltage converter high-voltage booster low<br>– Rear wheel drive (M No. 1X2)<br>– High-voltage booster low (M No. KM1) | 1 piece(s) |
| **or** | | |
| 9J1915539DN | ⇒ Voltage converter high-voltage booster high<br>– Rear wheel drive (M No. 1X2)<br>– High-voltage booster high (M No. KM2) | 1 piece(s) |

**Additional parts required for replacing the high-voltage distributor (booster)**

| | | |
|---|---|---|
| N 10261307 | ⇒ Hexagon nut, M10<br>Loosen wiper arm | 2 units |
| PAF912040 | ⇒ Hexagon-head bolt, M5 x 50<br>(Dome) strut to spring strut mount | 4 piece(s) |
| PAF106825 | ⇒ Cheese head bolt with multiple-tooth head M5 x 50<br>Strut to spring strut mount | 4 piece(s) |
| N 10737001 | ⇒ Hexagon nut, self-locking, M6<br>Holder for electric passenger compartment heater on body | 3 units |

Materials: **Required materials** (usually already available in the Porsche Center):

| Part No. | Designation | Quantity |
|---|---|---|
| 00004330516 | ⇒ Coolant additive, 20-liter / 5.28 gal container<br>– Cooling system | As much as required (approx. 1 liter / 33.8 fl oz required per vehicle) |

Tool:

- **P90999 - PIWIS Tester 4**
- **VAS 5908 - Battery charger, 90A**

- **VAS 6883A - Insulated tool set**
- **VAS 6832/9 - Assembly tool**
- **VAS 6832 - Master Gear unit elevating platform**
- **P90012 - Guide pins**
- **VAS 6884 - High-Voltage Cordon**
- **VAS 6122 - Engine plug set**
- **3093 - Hose clamp**
- **VAS 531 011 - Cooling system service equipment**
- **VAS 6675A - Funnel**
- **T40262 - Locking cap**
- **VAS 6410 - Contact surface cleaning set**
- **VAS 6558/9-6A - High-voltage test adapter**
- **VAS 6558A - High-voltage testing module**
- **VAS 6935 - Pole terminal puller**
- **VAS 6890 - Spring band clamp pliers**
- **VAS 6558A/27 - Set of Kelvin clamps and test probes**
- **VAS 681 003A - High-voltage battery charger**
- **VAS 6096/2 - Vacuum pump**

**Labor position and PCSS encryption**

Labor position:

| APOS | Labor operation | I No. |
|---|---|---|
| 03350050 | On-board diagnosis | |
| 03350053 | On-board diagnosis | |
| 27089590 | High-voltage battery troubleshooting | |
| 27080162 | Checking high-voltage battery | |
| 27758359 | Deactivating and activating high-voltage system | |
| 19381756 | Draining and filling coolant | |
| 27985500 | Replacing high-voltage distributor (booster) | |
| 27085500 | Replacing high-voltage battery | |
| 27085555 | Replacing high-voltage battery (E-box) | |
| 27081900 | Removing and installing high-voltage battery | |

PCSS encryption:

| | | |
|---|---|---|
| **Location (FES5)** | 27080 | High-voltage battery |
| **Damage type (SA4)** | 1611 | non-functional |