

**WMG4 - Re-Programming High-Voltage Charger (OBC) (Workshop Campaign)**

Important: **CRITICAL WARNING** -This campaign includes steps where control unit(s) in the vehicle will be programmed with the PIWIS Tester. The vehicle voltage must be maintained between 13.5 volts and 14.5 volts during this programming. Failure to maintain this voltage could result in damaged control unit(s). Damage caused by inadequate voltage during programming is not a warrantable defect. The technician must verify the actual vehicle voltage in the PIWIS Tester before starting the campaign and also document the actual voltage on the repair order.

Model Year: **2021**

Model Line: **Taycan (Y1A)**  
**Taycan Cross Turismo (Y1B)**

Information: **There is a possibility that the charging process may be restricted due to a software error in the 19.2 kW high-voltage charger (OBC).**

Action required: Re-program the 19.2 kW high-voltage charger using the PIWIS Tester with software version 40.350.035 (or higher) installed.

**Required tools**



**Information**

The Taycan (Y1A/Y1B) is equipped as standard with a **lithium starter battery**.

**Lithium starter batteries** must only be charged using a **suitable battery charger** that has a current and voltage-controlled charge map.

For further information about the battery chargers to be used, see ⇒ *Workshop Manual '270689 Charging battery/vehicle electrical system'*.

- Tools:
- Battery charger with a current rating of **at least 90 A** and **also** with a **current and voltage-controlled charge map** for lithium starter batteries, e.g. **VAS 5908 battery charger 90 A**.
  - **9900 - PIWIS Tester 3** with software version **40.350.035** (or higher) installed.

**Preparatory work**

**NOTICE**

**Fault entry in the fault memory and control unit programming aborted due to low voltage.**

- **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 starting control unit programming, connect a suitable battery charger with a current rating of at least 90 A to the vehicle.

**NOTICE**

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

- An unstable WiFi connection can interrupt communication between the PIWIS Tester and the vehicle communication module (VCI). As a result, control unit programming may be aborted.
- ⇒ During control unit programming, always connect the PIWIS 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.
- ⇒ Position the driver's key with the back facing forward upright between the holding struts in the rear cupholder (emergency start tray) to ensure a permanent radio link between the vehicle and remote control.

**NOTICE**

Programming interrupted.

- Malfunctions in control unit
  - Risk of damage to control unit
- ⇒ Route the line between the vehicle communication module (VCI) and diagnostic socket on the vehicle without tension and make sure that the connector is inserted fully into the diagnostic socket.
- ⇒ Check that the rechargeable battery for the PIWIS Tester is charged sufficiently. Connect the PIWIS Tester to the power supply unit if necessary.

**Information**

To carry out the campaign, the PIWIS Tester must be online and logged into the Porsche Partner Network (PPN).



**Information**

Use the **new** PIWIS Tester data cable to carry out the campaign. The difference between the old ⇒ *PIWIS Tester data cable -1-* and new ⇒ *PIWIS Tester data cable -2-* data cable is shown in the illustration.

If the connection between the vehicle and PIWIS Tester is interrupted, check the data cable for the PIWIS Tester for signs of damage. If the data cable is damaged, it **must** be **replaced**. To do this, follow the instructions in the PPN for "Returning faulty USB cable caps" (PPN portal > Dr Ing. h.c. Porsche AG > Aftersales > Workshop > PIWIS > Documents).



*PIWIS Tester data cable*



**Information**

The procedure described here is based on the PIWIS Tester 3 software version **40.350.035**.

The PIWIS Tester instructions take precedence and in the event of a discrepancy, these are the instructions that must be followed.

A discrepancy may arise with later software versions for example.

Work Procedure: 1 Connect a suitable battery charger, e.g. **Battery charger 90A**, to the jump-start terminals in the luggage compartment and switch it on.



**Information**

To prevent any excessive and potentially noticeable heating of the charging clamp of the negative cable while charging the 12-volt vehicle electrical system battery using an external battery charger, always check the following points:

- Always connect the charging terminal of the negative cable vertically from above to the ground point for the external power connection. Make sure that the charging clamp cable is routed loosely to prevent the charging clamp from tilting sideways at the ground point.
- When connecting the charging clamp, make sure that it is a sufficient distance away from peripheral parts (e.g. pneumatic supply line for air-spring strut).
- Before raising the vehicle using a lifting platform, always disconnect the battery charger completely from the vehicle in order to prevent the connecting line of the charging terminal from becoming taut and the charging terminal tipping sideways at the ground point as a result.

- 2 Position the **driver's key** with the back facing forward upright between the holding struts in the rear cupholder (**emergency start tray**) to guarantee a permanent radio link between the vehicle and remote control ⇒ *Emergency start tray*.
- 3 Connect **9900 - PIWIS Tester 3** to the vehicle communication module (VCI) via the **USB cable**. Then, connect the communication module to the vehicle and switch on the PIWIS Tester.  
**Operate the PIWIS Tester via the power supply unit** due to the long programming time.
- 4 Establish operational readiness (switch on ignition).
- 5 On the PIWIS Tester start screen, call up the '**Diagnostics**' application.  
The vehicle type is then read out, the diagnostic application is started and the control unit selection screen is populated.
- 6 Create vehicle analysis log (VAL) using the PIWIS Tester.  
Mark the vehicle analysis log you have just created with the attribute "**Pre-VAL**" and after carrying out the campaign, return it using the PIWIS Tester.



*Emergency start tray*

### Re-programming high-voltage charger (OBC)

Work Procedure: 1 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'*.

**For specific information on control unit programming in this sequence, see the table below:**

Required PIWIS Tester software version:	<b>40.350.035</b> (or higher)
Type of control unit programming:	Control unit programming using the ' <b>Campaign</b> ' function <b>in the Additional menu</b> on the PIWIS Tester by entering a programming code.
Programming code:	<b>R5N7M</b>

Programming sequence:	<p>Read and follow the <b>information and instructions on the PIWIS Tester</b> during the guided programming sequence.</p> <p><b>Do not interrupt programming and coding.</b></p> <p>A backup documentation process for the re-programmed software versions starts as soon as programming and coding is complete.</p>
Programming time (approx.):	<b>5 minutes</b>
Software version programmed during this sequence:	<ul style="list-style-type: none"> <li>High-voltage charger (OBC) 1243</li> </ul> <p>Following control unit programming, the software version can be read out of the relevant control unit in the 'Extended identifications' menu using the PIWIS Tester.</p>
Procedure in the event of abnormal termination of control unit programming:	<ul style="list-style-type: none"> <li>End and restore operational readiness (switch ignition off and then on again).</li> <li>Read out and erase the fault memory ⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'</i>.</li> <li>Repeat control unit programming by entering the programming code again, whereby extended logging must be started using the key combination •Ctrl" + •L" .</li> <li>Extended logging records diagnostic software data, particularly vehicle communication data, which is required for analysing the issues that caused programming to be aborted.</li> <li>If control unit programming is aborted a second time, end operational readiness for approx. 15 minutes (switch off ignition) and repeat the procedure described here again.</li> </ul>
Procedure in the event of error messages appearing during the programming sequence:	⇒ <i>Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"</i> .

**Concluding work**

Work Procedure: 1 Read out and erase the fault memories of all control units.

- 1.1 Press •F7" in the control unit selection screen ('Overview' menu) to call up the Additional menu.

- 1.2 Select the function "Read all fault memories and erase if required" and press •F12" ('Next') to confirm your selection ⇒ *Erasing fault memories.*

The fault memories of the control units are read out.

- 1.3 Once you have read out the fault memories, check the fault memory entries.



#### Information

If control units are found to have faults that are **not** caused by control unit programming, these must first be **found** and **corrected**. This work **cannot** be invoiced under the workshop campaign number.

- 1.4 Press •F8" to delete fault memory entries.

- 1.5 Press •F12" ('Yes') in response to the question as to whether you really want to delete all fault memory entries.

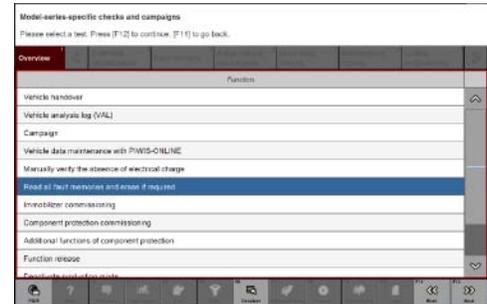
The faults stored in the fault memories of the various control units are deleted.



#### Information

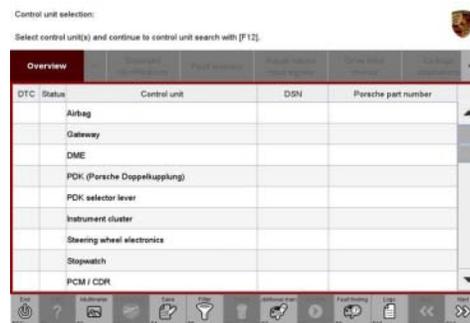
If fault memory entries for individual control units cannot be deleted, proceed as follows:

- End operational readiness (switch off ignition).
- Disconnect the PIWIS Tester diagnostic connector from the diagnostic socket.
- Lock the vehicle using the driver's key and remove the **driver's key from the proximity of the vehicle** (approx. 10 meter/ 32.8 ft).
- **Wait approx. 15 minutes** before unlocking the vehicle again.
- Restore operational readiness (switch on ignition).
- Plug the PIWIS Tester diagnostic connector into the diagnostic socket again and restore communication with the vehicle.
- Read out the fault memory again and delete any fault memory entries that are stored.



*Erasing fault memories*

- 1.6 Once you have erased the fault memories, select the **'Overview'** menu to return to the control unit selection screen ⇒ *Control unit selection*.
- 2 Manually retract the rear spoiler, which extended automatically during programming.
  - 2.1 Select the **'Rear spoiler'** control unit in the control unit selection screen (**'Overview'** menu) and press •F12" ('Next') to confirm.
  - 2.2 Once the rear spoiler control unit has been found and is displayed in the overview, select the **'Maintenance/repairs'** menu.
  - 2.3 Select the function **'Teach rear spoiler'** and press •F12" ('Next') to confirm.
  - 2.4 Read the instructions and confirm by pressing •F12" ('Next').
  - 2.5 Meet the displayed conditions that must be checked manually and tick the relevant **'Status'** box.
  - 2.6 Select the **Teach rear spoiler** function and press •F8" ('Execute') to confirm.
  - 2.7 Once the rear spoiler has been taught and retracted fully, select the **'Overview'** menu to return to the control unit selection screen.



Control unit selection

- 3 End operational readiness (switch off ignition).
- 4 Disconnect the PIWIS Tester from the vehicle.



**Information**

Connect the PIWIS Tester to a network as soon as possible and log into the PPN in order to transfer the backup documentation created during this campaign to the PAG systems.

- 5 Switch off and disconnect the battery charger.
- 6 Enter the campaign in the Warranty and Maintenance booklet.

**Warranty processing**



**Information**

The specified working time was determined specifically for carrying out this campaign and includes all necessary preliminary and subsequent work. The working time may differ from the working times published in the Labor Operation List in the PCSS.



### Information

#### Information on the working time:

Generally, the working time includes all work that requires the active participation of the service technician.

This also covers all required preliminary work and subsequent work.

The working time includes the following activities during control unit programming:

- All required steps for starting or finishing programming
- Required interaction during a programming sequence
- Waiting times until programming starts
- Random check of programming status

If no further interaction by the service technician is required once control unit programming has started because programming is performed automatically, there is no need for the service technician to remain at the vehicle for the entire programming time.

These waiting times are not included in the working time if the total programming time is more than 15 minutes.

If programming takes up to 15 minutes, the full waiting time is included in the working time.

Scope:

#### Re-programming high-voltage charger (OBC)

##### Working time:

Re-programming high-voltage charger (OBC)

Labor time: **75 TU**

Includes:

- Connecting and disconnecting battery charger
- Connecting and disconnecting PIWIS Tester
- Re-programming high-voltage charger (OBC)
- Reading out and erasing fault memory
- Generate Vehicle Analysis Log (before and after)

⇒ Damage Code WMG4 066 000 1

**Important Notice:** Technical Bulletins issued by Porsche Cars North America, Inc. are intended only for use by professional automotive technicians who have attended Porsche service training courses. They are written to inform those technicians of conditions that may occur on some Porsche vehicles, or to provide information that could assist in the proper servicing of a vehicle. Porsche special tools may be necessary in order to perform certain operations identified in these bulletins. Use of tools and procedures other than those Porsche recommends in these bulletins may be detrimental to the safe operation of your vehicle, and may endanger the people working on it. Properly trained Porsche technicians have the equipment, tools, safety instructions, and know-how to do the job properly and safely. Part numbers listed in these bulletins are for reference only. The work procedures updated electronically in the Porsche PIWIS diagnostic and testing device take precedence and, in the event of a discrepancy, the work procedures in the PIWIS Tester are the ones that must be followed.

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