WRV3 – Update to Software Network VR11 (Workshop Campaign)

Change Overview:

Release	Date	Change
1	12/10/2024	▪ First publication
2	02/24/2025	▪ Update: Overview of the new features of the software update —> Recuperation ▪ Update: Additional instructions if programming is aborted —> OTA control unit

Model Year: **2025**

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

Concerns: **Software update (software network VR11)**

Cause: **Software optimizations are available for various control units for the Taycan.**

An overview of the new features that will be implemented with the software update can be found in the appendix under ⇒ *Technical Information 'Overview of new features of the software update'*.

Actions:
- Re-program the control units with the **latest** PIWIS Tester software release.
- Minimum requirement: Release **43.000.055** (or higher)
- Replace the Owner's Manual in the on-board folder in the vehicle with an updated version

Checklist: Due to the high number of programming steps **incorrectly** carried out as part of the last software update, a checklist was created to improve the overview of the work to be carried out. The checklist **must be** completed, signed and attached to the PQIS quality line in the PCSS.
For checklist, see ⇒ *Technical Information 'Checklist'*

Affected Vehicles:

Information

For easier representation, all scopes are displayed in a work list.
For the individual points, the work effort is differentiated and remunerated depending on the scope.

Only vehicles assigned to the campaign (see also PCSS Vehicle Information)

- Scope 1: Change vehicle order on instrument cluster and update to software network VR11
- Scope 2: Update to software network VR11 (valid only for Connect markets)
- Scope 3: Update to software network VR11
- Scope 4: Not applicable for NAR

Required tools

Tools:

- **P90999 - P90999 - PIWIS Tester 4**
- Battery charger with a current rating of **at least 90 A**, e.g., **VAS 5908 battery charger 90 A**
- **USB storage medium Type A+C 32 GB (for PCM update)**
- **USB storage medium, Type C (for on-board Owner's Manual update)**

Software update (software network VR11)

Information

As soon as **interaction** is required during programming, this is indicated by activation of the **hazard warning lights**. The hazard warning lights must be deactivated manually after interaction as the hazard warning lights cannot be deactivated automatically via the Tester.

Information

Before starting programming, the battery charger must **necessarily** be:

- Switched off and on once; the battery charger display **must** be off before starting it again because the battery charger automatically switches to trickle charging after 5 hours (default setting in the charger).
- Operate in **charging mode**.
- The vehicle must be on a level surface.
- Air suspension must be at the normal level.
- Switching off air-conditioning system.
- Vehicles with a PVTS contract must have Service mode activated.
- An **active** Internet connection with the PIWIS Tester must be maintained.
- To log in using the PIWIS Tester, the technician is **required**.
- **Place the original remote control in the emergency start tray (note the position)!**
- **The PIWIS Tester must not be charged using the cigarette lighter!**

Work Procedure:

1 The prerequisites for control unit programming are described in the Workshop Manual ⇒ *Workshop Manual '9X00IN Basic Instructions and Procedure for Control Unit Programming Using the PIWIS Tester'*.

2 After the backup documentation process, the integration test is started automatically. The result is **initially to be ignored**.

3 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.

4 Change the vehicle order. **(Only valid for vehicles in Scope 1)**.

4.1 In the control unit selection (**"Overview"** menu) press F7 to call up the Additional menu.

4.2 Select **"Vehicle data care with PIWIS ONLINE"** and press F12 ("Next") to confirm.
The guided Tester procedure starts, and the vehicle data is compared between the vehicle and PIWIS ONLINE.

4.3 Save the changes by pressing F8 .

5 Update software of various control units **(Sequence 1)**. **Valid for all scopes**.

For specific information on control unit programming during this campaign, see the table below.

Information

Please inform the customer that the set values are lost after updating the instrument cluster.

Required PIWIS Tester software release:	**43.000.055** (or higher)
Type of control unit programming:	Control unit programming using the **"Campaign" function in the additional menu** on the PIWIS Tester by entering a programming code.
Programming code:	**C1U3B**

Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. **Do not interrupt the programming and coding process.** **After programming has been carried out, the result of the programming must be checked and, in the event of deviations from individual control units, the corresponding control unit must be re-programmed or re-coded.** A backup documentation process for the re-programmed software releases starts as soon as programming and coding is complete.
Programming time (up to):	▪ **201 minutes** ▪ The duration of the programming the control units depends on the build status and can differ from the specified time.
Control units programmed in this campaign:	▪ See ⇒ *Technical Information '9X00IN Overview of control units VR11'*
Procedure if error messages appear during the programming sequence:	⇒ *Workshop Manual '9X00IN Troubleshooting'*.
Procedure if control unit programming is interrupted:	**Continue the campaign sequence to the end, then carry out the integration test again when the test is complete and start programming from the integration test.** Additional instructions for aborted programming ⇒ *Technical Information '9X00IN Additional information if programming is aborted'*

6 When programming is complete, another backup documentation process, including the integration test, is performed. The initial result is to be **ignored** because it sometimes displays control units as being faulty despite programming.

To check this, the integration test **must** be restarted on the start page by pressing the F3 button. This process must be repeated up to three times.

If this results in a discrepancy here, the relevant control unit **must** be re-programmed. The central computer (PCM) control unit is **not** to be programmed initially because this is programmed in sequence 2.

Sequence 2 may **only** be started after successful completion of sequence 1.

7 Select the Guest account from the central display (PCM) and activate **Privacy mode** (available in some countries).

Information

If Privacy mode is not active, programming may be aborted, resulting in a fault in the central computer (PCM). Central computers that are replaced as part of the workshop campaign are checked by Porsche AG; if private mode was not set in the central computer before starting programming, the costs will be re-debited.

8 Re-program the central computer (PCM) **(sequence 2)**. **Valid for all scopes**.

For specific information on control unit programming during this campaign, see the table below.

Preparing USB stick with **required** software (depending on country version)

Overview of software to be used for central computer (PCM): ⇒ *Technical Information '9X00IN Overview of PCM update'*

The battery charger **must be** switched off and on **completely** once **before** sequence 2 due to the automatic switchover (trickle charging).

Required PIWIS Tester software release:	**43.000.055** (or higher)
Type of control unit programming:	In the control unit selection (**"Overview"** menu), select the **PCM central computer** control unit and select the **"Service / Repairs"** menu. Select the **"Install software update"** function and press F12 ("Next") to perform the software update.
Programming code:	**C1U4B**

Programming sequence:	Read and follow the **information and instructions on the PIWIS Tester** during the guided programming sequence. **Do not interrupt the programming and coding process.** A backup documentation process for the re-programmed software releases starts as soon as programming and coding is complete.
Programming time (up to):	**32 minutes**
Control unit programmed in this campaign:	▪ See ⇒ *Technical Information '9X00IN Overview of control units VR11'*
Procedure if error messages appear during the programming sequence:	⇒ *Workshop Manual '9X00IN Troubleshooting'*.
Procedure if control unit programming is interrupted:	Repeat control unit programming by restarting programming. Additional instructions for aborted programming ⇒ *Technical Information '9X00IN Additional information if programming is aborted'*

9 Update the Owner's Manual in the PCM. For more information, see ⇒ *Workshop Manual '9X00IN Diagnostic system: Perform vehicle handover'* (Installing Onboard Owner's Manual section)

Information
The display of the electronic Owner's Manual can take up to 10 minutes after updating the central computer. During the test drive, check whether the electronic Owner's Manual are displayed on the central computer.

10 Carry out PSM position detection, pressing the brake and P-button and shifting the gears from P to R to N and back to P.

11 Standardize side windows.

Information
The wheel electronics must be taught during the test drive and must **not** be carried out by the technician.

12 Remove the **PIWIS Tester (VCI)** from the vehicle.

12.1 Lock the vehicle.

12.2 Establish bus idle for **at least** 5 minutes.

12.3 Re-connect the PIWIS Tester (VCI) after bus idle.

13 Read out all **fault memories**, processing and deleting existing faults if necessary.

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.

14 Press F3 to start the integration test in the control unit selection.
All affected control units should now be successfully re-programmed or checked in the control unit overview and their status.

Information

If a deviation in the system test is still indicated despite programming being carried out, this must be repeated. If the deviation persists, contact Technical Support.

15 Create Vehicle Analysis Log (VAL) using the PIWIS Tester.
Mark the Vehicle Analysis Log you have created with the attribute **"Post-VAL"** and, after carrying out the campaign, return it using the PIWIS Tester.

16 End the diagnostic application. Switch off ignition. Disconnect the Tester from the vehicle.

17 Update navigation database. **Only valid for vehicles in Scope 3**.

Information

If the navigation database is **not** up-to-date, **malfunctions** cannot be ruled out after updating the central computer (PCM).

The complete update process will take up to 45 minutes.

After inserting the USB stick, a **minimum waiting time** of up to 5 minutes must be observed before starting the update.

If the update does **not start** and the message **Data for the update on the storage medium is invalid** appears, the current navigation database is already on the vehicle. The update can then be cancelled.

The ignition switches off automatically after 30 minutes. For this reason, the driver's door **must** be opened and closed again once after **25 minutes**. If this is not done, the installation process must be repeated.

By re-inserting the USB stick, it can be checked at any time whether the data was loaded successfully.

For more information, see: Programming central computer data update: ⇒ *Workshop Manual '9X00IN Programming navigation update on central computer PCM'*

For an overview of the navigation database, see ⇒ *Technical Information '9X00IN Overview of navigation software for USB stick'*.

18 Switch off and disconnect the battery charger.

19 Replace the Owner's Manual in the vehicle.
For an overview of the Owner's Manuals, see ⇒ *Technical Information '9X00IN Overview of order numbers for Driver's Manuals'*

Information
The vehicle must **only** be handed over to the customer using the new Owner's Manual.

20 Attach the completed checklist to the PQIS quality line. ⇒ *Technical Information '9X00IN Checklist'*

21 Enter the campaign in the Warranty and Maintenance Logbook.

Warranty processing

Scope 1: Change vehicle order on instrument cluster and update to software network VR11

Labor time:

Update software for various control units — Labor time: **197 TU**

Includes:
- Connecting and disconnecting battery charger
- Connect and disconnect PIWIS Tester
- Changing vehicle order on instrument cluster
- Update various control units to software release VR11 (Sequence 1)
- Update software for the central computer (PCM) (sequence 2)
- Installing Owner's Manual in PCM
- Perform rework in the vehicle
- Reading out and deleting fault memories
- Replacing Owner's Manual
- Creating Vehicle Analysis Log (VALs) before and after campaign

Required materials:

WRV30000001	Owner's Manual*	1 piece
WRV30000002	Shipping costs**	1 piece

* The cost of one Owner's Manual will be covered **for each vehicle**. For warranty invoicing, enter Part No. **WRV30000001**, designation "**Owner's Manual**" as an **accessory**, in the amount of **$0.01**.

** **If** you incur **shipping costs** when ordering the Owner's Manual, please invoice these costs under Part No. **WRV30000002**, with the designation "**Shipping costs**" as an additional part. Maximum cost **$5.40**. Please document a copy of the invoice for this in the warranty claim.

⇒ **Damage number WRV3 066 000 1**

Scope 2: Update to software network VR11

Valid only for Connect markets

Labor time:

Update software for various control units — Labor time: **185 TU**

Includes:
- Connecting and disconnecting battery charger
- Connect and disconnect PIWIS Tester
- Update various control units to software release VR11 (Sequence 1)
- Update software for the central computer (PCM) (sequence 2)
- Installing Owner's Manual in PCM
- Perform rework in the vehicle
- Reading out and deleting fault memories
- Replacing Owner's Manual
- Creating Vehicle Analysis Log (VALs) before and after campaign

Required materials:

WRV30000001	Owner's Manual*	1 piece
WRV30000002	Shipping costs**	1 piece

* The cost of one Owner's Manual will be covered **for each vehicle**. For warranty invoicing, enter Part No. **WRV30000001**, designation "**Owner's Manual**" as an **accessory**, in the amount of **$0.01**.

** **If** you incur **shipping costs** when ordering the Owner's Manual, please invoice these costs under Part No. **WRV30000002**, with the designation "**Shipping costs**" as an additional part. Maximum cost **$5.40**. Please document a copy of the invoice for this in the warranty claim.

⇒ **Damage number WRV3 066 000 1**

Scope 3: Update to software network VR11

Labor time:

Update software for various control units — Labor time: **187 TU**

Includes:
- Connecting and disconnecting battery charger
- Connect and disconnect PIWIS Tester
- Update various control units to software release VR11 (Sequence 1)
- Update software for the central computer (PCM) (sequence 2)
- Installing Owner's Manual in PCM
- Perform rework in the vehicle
- Update the navigation database
- Reading out and deleting fault memories
- Replacing Owner's Manual
- Creating Vehicle Analysis Log (VALs) before and after campaign

Required materials:

WRV30000001	Owner's Manual*	1 piece
WRV30000002	Shipping costs**	1 piece

* The cost of one Owner's Manual will be covered **for each vehicle**. For warranty invoicing, enter Part No. **WRV30000001**, designation "**Owner's Manual**" as an **accessory**, in the amount of **$0.01**.

** **If** you incur **shipping costs** when ordering the Owner's Manual, please invoice these costs under Part No. **WRV30000002**, with the designation "**Shipping costs**" as an additional part. Maximum cost **$5.40**. Please document a copy of the invoice for this in the warranty claim.

⇒ **Damage number WRV3 066 000 1**

Scope 4: Not applicable for NAR

Overview of VR11 control units

Overview:

Overview of VR11 control units to be programmed	
Control unit	**Programming time, including coding of all control units** The number of control units to be programmed depends on the build status and may differ.

Sequence 1: Combined software update and automatic coding of various control units (Update via PIWIS Tester) **Includes:**	Up to 201 minutes
High-voltage charger (OBC)	up to 8 minutes
Battery control unit (BMCe)	up to 9 minutes
High-voltage converter	up to 3 minutes
Rear-end electronics, BCM2	up to 4 minutes
Front-end electronics, BCM1	up to 4 minutes
Chassis control (PASM)	up to 10 minutes
Active damper control / roll stabilization (PDCC), front	up to 11 minutes
Active damper control / roll stabilization (PDCC), rear	up to 11 minutes
Transverse lock	up to 1 minute
Rear spoiler	up to 1 minute
Front driver side door	up to 1 minute
Front passenger side door	up to 1 minute
High-voltage power electronics (PWR), rear axle	up to 2 minutes
High-voltage power electronics (PWR), front axle	up to 2 minutes
Tyre pressure monitoring	up to 2 minutes
Air-conditioning system	up to 2 minutes
Brake electronics (PSM)	up to 4 minutes
Head-up display	up to 5 minutes
Motor electronics (DME)	up to 2 minutes
Instrument cluster	up to 52 minutes
Over-the-air (OTA)	up to 21 minutes
Connect	up to 26 minutes
Gateway	up to 3 minutes
Automatic coding of all control units	up to 24 minutes
Sequence 2: PCM update (Update via PIWIS Tester and USB storage medium)	up to 32 minutes

Return to programming sequence for ⇒ *Technical Information '9X00IN software update (software integrated VR11)'*

Overview of new features of the software update

Overview:

Function	**Description** The increased robustness **depends on** the country and vehicle equipment	**Cluster**
High-voltage charger (OBC)	▪ Various increases in robustness, avoidance of possible fault displays on the instrument cluster	Bug fix
Battery control unit (BMCe)	▪ Improvement of the status description of the battery – usable battery energy (UBE) indicator ▪ Various increases in robustness	Optimization
High-voltage converter	▪ Various increases in robustness	Bug fix
Rear-end electronics, BCM2	▪ Various increases in robustness	Bug fix
Front-end electronics, BCM1	▪ Various increases in robustness	Bug fix
Chassis control (PASM)	▪ Avoidance of possible fault displays ▪ Adjustment of fault trigger thresholds ▪ Various increases in robustness	Bug fix
Active damper control / roll stabilization (PDCC), front	▪ Various increases in robustness	Bug fix
Active damper control / roll stabilization (PDCC), rear	▪ Various increases in robustness	Bug fix
Transverse lock	▪ Various increases in robustness	Bug fix
Rear spoiler	▪ Activation of warning messages in the instrument cluster for faults in the radiator shutters (KJS) and spoiler failure from 140 km/h ▪ Various increases in robustness	Bug fix
Front driver side door	▪ Avoidance of potential fault displays in the instrument cluster ▪ Various increases in robustness	Bug fix
Front passenger side door	▪ Avoidance of potential fault displays in the instrument cluster ▪ Various increases in robustness	Bug fix
High-voltage power electronics (PWR), rear axle	▪ Various increases in robustness	Bug fix

High-voltage power electronics (PWR), front axle	▪ Various increases in robustness	Bug fix
Tyre pressure monitoring	▪ Various increases in robustness	Bug fix
Air-conditioning system	▪ Faster availability of assistance functions at sub-zero temperatures ▪ Improvement in temperature consistency ▪ Various increases in robustness and improvements in comfort	Optimization
Brake electronics (PSM)	▪ Improved brake pedal feel ▪ Optimization of speed threshold ▪ Various increases in robustness and improvements in comfort	Optimization
Head-up display	▪ Improvement of the direction and lane change display	Optimization
Motor electronics (DME)	▪ Various increases in robustness	Bug fix
Instrument cluster	▪ Improved navigation display ▪ More harmonious warning tone when speed limit is exceeded ▪ Enhanced performance	Optimization
Over-the-air (OTA)	▪ OTA capability for various components ▪ Additional increases in robustness	Optimization
Connect	▪ Optimization of charging station display due to increased level of detail (charging performance display, type of charging pedestal) ▪ Improvement in Voice Pilot quality ▪ Enhancements in Bluetooth connectivity for in-car video, pairing of passenger headphones ▪ Improvement in audio quality and dropouts	Optimization
Gateway	▪ Adjustment of the communication between the vehicle and all surrounding interacting road users and systems (V2X communication) ▪ Improved functionality	Optimization

Navigation	▪ Enhancement in the functional scope to include settings such as “Avoid” and “Preferred” charging pedestals ▪ Improvement in SOC / range forecast when roadworks are on the route ▪ Optimization of charging station display due to increased level of detail (charging performance display, type of charging pedestal)	Optimization
PCM	▪ Expansion of the ambient lighting colors ▪ Continuous display of current Air Quality indicator ▪ Visual enhancements to Apple CarPlay and Android Auto in navigation system ▪ Connectivity improvement to Apple CarPlay ▪ Improvement in availability of Connect services (weather, news, Spotify) ▪ Avoiding resets when entering specific individual addresses	Optimization
Recuperation	The software optimisations ensure that the recuperation actively set to "OFF" during driving remains in the previously set mode for longer than 5 minutes at the next restart even after a bus idle. The following fault type is corrected: If the driver actively sets the recuperation mode to "OFF" and then switches the vehicle off for a longer period (bus idle longer than 5 min), this setting is not retained when the vehicle is restarted, but automatically reset to the basic recuperation "ON" setting. If the driver then wishes to reset the recuperation back to "OFF" directly in the central computer (PCM), this is not possible. Instead, the setting "Recuperation ON" must first be selected and then set again to "Recuperation OFF".	Bug fix

Return to introduction ⇒ *Technical Information '9X00IN Introduction'*

Overview of PCM update

Information

The central computer (PCM) software update is performed using a USB storage medium. The software version that is specific to each region must be **downloaded** using the software tool **PiUS** (Porsche integrated Update Service) and must be **installed** on a blank USB storage medium.

Pay particular **attention** to the following:

- For this PCM software update, the USB storage medium USB Type A+C 32 GB with the part number V04014999WW000 must be used.
- To use the software tool, **one** blank or re-writable USB storage medium is required for **each** individual software.
- The software available in PiUS must **only** be used in accordance with the instructions provided in a Technical Information published for this purpose.

The software mentioned here must **only** be used on the **vehicles assigned to the campaign**. Damage to the central computer cannot be ruled out if the software is used on other vehicles.

You will find further information on how to install and use the PiUS software tool in the PPN portal under *__PiUS (Porsche integrated Update Service) goes live__*.

Overview:

Part No.	**Designation – Region**	**Vehicle allocation**
976909000C	USB storage medium for PCM update – North America – Mexico	I-No. ER3 / ER4

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Overview of order numbers for Owner's Manual

Information

Effective immediately, **only** use the Owner's Manuals with order number WKD Y1A 03 y xx **25** for the **vehicles assigned to the campaign**. These reflect the technical status of the vehicles following the software update.

The order numbers for the various language versions of the updated Owner's Manual are provided in the following table. You can order the Owner's Manual in the quantity you need using the standard ordering process.

All markets except Germany were automatically supplied with the new Owner's Manual in advance.

Information

A blank or re-writable USB storage medium is additionally required for installation of the onboard Driver's Manual.

Parts Info:

Order No.	Designation - Language	Ordering via		On-board Owner's Manual
		PROS (Arvato)	Importer	
WKDY1A03B2125	Owner's Manual - **English - US**		■	■
WKDY1A03B3125	Owner's Manual - **French (Canada)**		■	■

Overview of navigation software for USB stick

Information
The USB sticks with the navigation database are available as special tools at the Porsche dealer.

Overview:

Part No.	Designation – Region
9J1909000AG	USB storage medium for Navigation update – NAR

Return to programming sequence for ⇒ *Technical Information '9X00IN software update (software integrated VR11)'*

Additional instructions if programming is aborted

Information
If individual programming or rework steps could not be carried out correctly, see Workshop Manual for the basic procedure for control unit programming using the PIWIS Tester ⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester - section on "Fault finding"*'. :

In the event of a fault, logging must **always** be created during programming using Ctrl and L using the PIWIS Tester.

Porsche AG programmed approx. 100 vehicles before the campaign was published as part of an internal pilot project; **not one single** control unit had to be replaced in the vehicles.
As a general rule, if **aborted** during programming, programming must be continued. The entire sequence can be started again at any time using the campaign code. The control unit that has already been programmed is skipped or programming is started via the integration test.
You will also find further information and instructions specifically for the **VR19.0.1 update** in the table below:

Work Procedure:

Control unit:	**Situation:**	**Action:**
Cancelling individual control units:	One or more control units cannot be programmed or can no longer be accessed	▪ Check whether the control unit can be accessed using the PIWIS Tester or if bus idle does not have to be carried out ▪ Control unit still not accessible –> Remove fuse for control unit –> Ignition on –> Ignition off –> Re-insert fuse ▪ Control unit still not accessible –> Disconnect battery overnight ▪ Check whether the control unit is accessible ▪ Carry out programming individually using integration test F3 in the control unit overview
Error message DoIP switchover:	There is no DoIP switchover	▪ Switch off VCI and try again **(do not operate VCI via WiFi)** ▪ Use a different VCI ▪ Use another PIWIS Tester ▪ Check the PINs on OBD socket ▪ Checking fuses of OBD socket ▪ Check Ethernet lines between OBD socket and gateway (resistance measurement)
Chassis control	The control unit for chassis control aborts during programming but reports the correct software version Airbag cannot be locked	▪ Enter campaign code **EFP_J1_OW** in the Additional menu. This programs the control unit again

Head-up display	The head-up display control unit cannot be reached	▪ Pull out fuse for head-up display control unit –> Remove fuse for control unit –> Ignition on –> Ignition off –> Re-insert fuse ▪ Carry out programming individually using the integration test (F3 in the control unit overview
OTA control unit	Programming aborted	▪ Remove fuses from the OTA control unit. Use the PIWIS Tester to check whether the OTA control unit can be reached in order to check whether the correct fuse was removed (multiple fuses installed for the OTA control unit) ▪ Restart programming via integration test
OTA control unit	Error message “Checksum incorrect”	Reset the ORU warning, then restart programming via integration test
Rear end electronics	An error message appears on the PIWIS Tester when programming the rear end electronics	▪ There can only be **one** remote control in the vehicle; this must be at the position as described in the ⇒ *Workshop Manual '9X00IN Basic Instructions and Procedure for Control Unit Programming Using the PIWIS Tester'* in the Workshop Manual ▪ If the sequence still stops: Check whether the remote control battery has sufficient voltage
Central computer (PCM)	The central computer freezes while loading	▪ Restart sequence 2 ▪ Perform the PCM factory reset using the guided PIWIS Tester procedure

Central computer (PCM)	The central computer control unit cannot be accessed	▪ Pull out fuse for central computer control unit –> Remove fuse for control unit –> Ignition on –> Ignition off –> Re-insert fuse
Central computer (PCM)	No start of programming	▪ Programming is started via the additional menu and not in the central computer (PCM) control unit under **Service / Repairs** as described in the TI
Central computer (PCM)	Programming is not started or programming is interrupted	▪ For other topics that are not listed in the TI, a PRMS ticket must be created before replacing the PCM system
Log in to PPN	Electronic Owner's Manual cannot be installed due to a faulty Internet connection	▪ Always proceed as described in the work procedure! ▪ After the PCM update, the diagnostics must be completely closed before the electronic Owner's Manual can be installed using the PIWIS Tester
Parking brake (PSM)	Parking brake position lost after coding	Read the information on the instrument cluster and follow the instructions on the central display: ▪ Press footbrake completely ▪ Move selector lever to "N" and wait 5 seconds ▪ After waiting for 5 seconds, operate the parking brake If the "Brake" warning light on the instrument cluster still comes on, perform calibration again and wait for longer
High-voltage converter, BMCe	Programming aborted	If only individual control units are programmed, this can result in programming being aborted. In this case, the system must be disconnected from the power supply and the programming must be carried out again.

SoC display	SoC is not displayed	▪ Switch off ignition -> Remove fuse for the OBC -> Switch on ignition -> Switch off ignition -> Re-insert fuse -> Erase fault memory
Navigation databases	Error message **"Invalid USB sticks"**	Remove and plug the USB stick back in, and repeat the programming process.

Return to programming sequence for ⇒ *Technical Information '9X00IN software update (software integrated VR11)'*

Checklist

Checklist:

Work step: The checklist only refers to campaign **WRV3**. A different checklist or another campaign must **not** be used.	**Scope:**	**Completed:**
1. Battery charger set to charging mode?	All	
2. Original remote control in emergency start tray **(position noted)**?	All	
3. Internet connection for PIWIS Tester active?	All	
4. Vehicle Analysis Log created?	All	
5. Vehicle order changed?	**1**	
6. Sequence 1 performed?	All	
7. Battery charger switched off and on before programming?	All	
8. Select the Guest account from the central display (PCM) and activate Privacy mode?	All	
9. Sequence 2 performed?	All	
10. Rework performed in the vehicle?	All	
11. Bus idle performed for 5 minutes?	All	
12. Fault memory deleted?	All	
13. Integration test performed (at least 3 times in case of a deviation)?	All	
14. Result of the integration test fault-free?	All	
15. Vehicle Analysis Log created?	All	
16. Central computer navigation update programmed?	**3**	
17. Owner's Manual replaced?	All	
19. Campaign entered in the Warranty and Maintenance logbook?	All	

VIN:
Dealer number

Return to introduction ⇒ *Technical Information '9X00IN Introduction'*