WRX0 - Update to Software Network VR8 (Workshop Campaign)

Model Line: **Panamera (YAA / YAB)**

Model Year: **2024**

Concerns: **Software update (software network VR8)**

Cause: **Software optimizations are available for various control units for the Panamera.**
An overview of the new features that will be implemented with the software update can be found in the enclosure under ⇒ *Technical Information 'Overview of new features of the software update'*

Measures:
- Re-program the control units with the **latest** PIWIS Tester software release.
- Minimum requirement: Version **43.100.020**
- 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: Only vehicles assigned to the campaign (see also PCSS Vehicle Information)
- Scope 1: Change vehicle order in instrument cluster and update to software network VR8
- Scope 2: Update to software network VR8
- Scope 3: Not applicable for NAR

Required tools

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

Update to software network VR8

Information
As soon as an **interaction** is required during programming, this is indicated by activation of the **hazard warning lights** (except USA and Canada). The hazard warning lights must be deactivated manually following interaction.

Work Procedure: 1 The basic procedure for control unit programming is described in the Workshop Manual ⇒ *Workshop Manual '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 can be ignored for the time being.

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 **Only valid for vehicles with Scope 1:** Change vehicle order.

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

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 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!**

Information

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

Required PIWIS Tester software release:	**43.100.020** (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:	**G3C1P**
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):	▪ **215 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:	▪ ⇒ *Technical Information 'Overview of VR8 control units'*
Procedure if error messages appear 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:	**Continue campaign sequence to the end. Perform the integration test again after completion and start programming from the integration test.** Additional instructions for aborted programming ⇒ *Technical Information '9X00IN Additional instructions if programming is aborted'*

6 When programming is complete, backup documentation including the integration test is done again. The result must first be **ignored** because this sometimes displays control units that are displayed as faulty despite programming.

To check this, the integration test **must** be started again 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.

7 **Only valid for vehicles with Scope 1 or 2:** Re-program the central computer (PCM) **(sequence 2)**.

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

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

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

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

7.3 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 defect 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.

Required PIWIS Tester software release:	**43.100.020** (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:	**G3M1B**

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):	**27 minutes**
Control unit programmed in this campaign:	⇒ *Technical Information '9X00IN Overview of VR8 control units'*
Procedure if error messages appear 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. Additional instructions for aborted programming ⇒ *Technical Information '9X00IN Additional instructions if programming is aborted'*

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

Information

The display of the electronic Owner's Manual can take up to 15 minutes after updating the central computer. During the test drive, check whether the electronic Owner's Manual is displayed on the central computer.

8 Perform PSM position detection. To do this, press the brake and the P button.

Information

The rear spoiler can be retracted during the test drive.
The activity must be carried out during the test drive and does **not** need to be carried out by the technician.

9 Carry out bus idle on the vehicle.

9.1 End the vehicle's readiness for operation (ignition off).

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

9.3 Lock the vehicle.

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

9.5 Re-connect the PIWIS Tester (VCI).

9.6 Establish readiness for operation (ignition on).

10 Read out **fault memory**. If necessary, work through existing faults and delete them.

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.

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

12 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.

13 Exit the diagnostic application. Switch off the ignition.

14 Switch off and disconnect the battery charger.

15 **Only valid for vehicles with scopes 1 or 2:** Replace 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 Manual'*

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

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

17 Enter the campaign in the warranty and maintenance logbook.

Warranty processing

Scope 1: **Change vehicle order in instrument cluster and update to software network VR8**

Labor time:

Change vehicle order in instrument cluster and update to software network VR8 — Labor time: **184 TU**

Includes:
- Connect and disconnect battery charger
- Connect and disconnect PIWIS Tester
- Adapting vehicle order
- Update various control units to software release VR8 (Sequence 1)
- Update software for central computer (PCM) (sequence 2)
- Installing Owner's Manual in the PCM
- Carrying out rework
- Replace Owner's Manual
- Reading out and deleting fault memories
- Creating Vehicle Analysis Logs (VALs) before and after the campaign

Required materials:

WRX00000001	Owner's Manual*	1 piece
WRX00000002	Shipping costs**	1 piece

* The cost of one Owner's Manual will be covered **for each vehicle**. For warranty invoicing, enter Part No. **WRX00000001** with the designation "**Owner's Manual**" as **accessories**, amount **$0.01**.

** **If** you incur **shipping costs** when ordering the Owner's Manual, please invoice these costs under Part No. **WRX00000002** with the designation "**Shipping costs**" as an additional part, maximum amount**$5.40**. Please document a copy of the invoice for this in the warranty claim.

⇒ **Damage number WRX0 066 000 1**

Scope 2: **Update to software network VR8**

Labor time:

Update to software network VR8 — Labor time: **174 TU**

Includes:
- Connect and disconnect battery charger
- Connect and disconnect PIWIS Tester
- Update various control units to software release VR8 (Sequence 1)
- Update software for central computer (PCM) (sequence 2)
- Installing Owner's Manual in the PCM
- Carrying out rework
- Replace Owner's Manual
- Reading out and deleting fault memories
- Creating Vehicle Analysis Logs (VALs) before and after the campaign

Required materials:

WRX00000001	Owner's Manual*	1 piece
WRX00000002	Shipping costs**	1 piece

* The cost of one Owner's Manual will be covered **for each vehicle**. For warranty invoicing, enter Part No. **WRX00000001** with the designation "**Owner's Manual**" as **accessories**, amount **$0.01**.

** **If** you incur **shipping costs** when ordering the Owner's Manual, please invoice these costs under Part No. **WRX00000002** with the designation "**Shipping costs**" as an additional part, maximum amount**$5.40**. Please document a copy of the invoice for this in the warranty claim.

⇒ **Damage number WRX0 066 000 1**

Scope 3: **Not applicable for NAR**

Overview of VR8 control units

Overview:

Overview of VR8 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 of various control units (Update via PIWIS Tester) **Includes:**	Up to 215 minutes
Instrument cluster	up to 25 minutes
Head-up display	up to 29 minutes
Motor electronics (DME) and transmission electronics (Tiptronic)	Up to 10 minutes
Gateway	up to 7 minutes
Connect	up to 27 minutes
Central headlights	up to 21 minutes
Front active damper control (PDCC)	up to 11 minutes
Rear active damper control (PDCC)	up to 11 minutes
Brake electronics (PSM incl. parking brake)	up to 11 minutes
Chassis control (PASM)	up to 11 minutes
High-voltage battery (BECM) and high-voltage E-box (BJB)	up to 9 minutes
Interior acoustics (iSound)	up to 13 minutes
Rear axle steering	up to 3 minutes
High-voltage charger (OBC)	up to 4 minutes
Remote-controlled parking	up to 3 minutes
Automatic coding of all control units	up to 20 minutes
Selector lever	Up to 21 seconds
Sequence 2: PCM update (Update via PIWIS Tester and USB storage medium)	up to 27 minutes

Overview of the new features of the software update

Overview:

Function	**Description** The increased robustness **depends on** the country and vehicle equipment	**Cluster**

Instrument cluster	▪ Change of presentation to avoid potential unauthorized representation of other vehicles ▪ Avoidance of an incorrect display of the PID (Porsche Innodrive) as a selection option in MIB ▪ Avoidance of incorrect diagnosis and all-wheel drive warning message ▪ Color change of the cursor to blue ▪ Enhanced performance	Bug fix
Head-up display	▪ Visual enhancements to Apple CarPlay and Android Auto in the navigation - When using the primary manufacturer app (Apple: Apple Maps | Android Auto: GoogleMaps), manoeuvre actions for navigation are displayed in the Head-Up Display (HUD) ▪ Implementation of LastMode storage	Reworking
Motor electronics (DME) and transmission electronics (Tiptronic)	▪ Various robustness increases and comfort improvements	Bug fix
Gateway	▪ Avoidance of unauthorized gateway resets and associated transmission warning messages ▪ Prevention of component protection and night vision support malfunctions	Bug fix
Connect	▪ Avoidance of connection errors when utilizing Apple Car Play ▪ Robustness measure for 5G WiFi malfunction due to 5G mobile phone frequencies ▪ Robustness measure for Bluetooth and WiFi connections ▪ Addition of new countries to Connect-capable markets. These include: Serbia, Puerto Rico, Montenegro and South Africa	Bug fix
Central headlights	▪ Deactivation of cornering lights when reversing ▪ Optimization of light anti-glare and lane lighting ▪ Country extension (Uzbekistan)	Optimization
Rear end electronics	▪ Change of door release control logic	Optimization
High-voltage power electronics (PWR)	▪ Increased robustness when driving off on a gradient ▪ Avoidance of possible communication loss of the control unit	Bug fix
Brake electronics (PSM incl. parking brake)	▪ Various comfort improvements	Bug fix
Chassis control (PASM)	▪ Various increases in robustness	Bug fix

High-voltage battery (BECM) and high-voltage E-box (BJB)	▪ Optimization of starting behavior ▪ Avoidance of unauthorized fault memory entries ▪ Various increases in robustness	Bug fix
Interior acoustics (iSound)	▪ Various increases in robustness	Bug fix
High-voltage charger (OBC)	▪ Avoiding cyclical waking up of the control unit ▪ Optimization of charging behavior ▪ Various increases in robustness	Bug fix
Rear axle steering	▪ Acoustic optimization (noise minimization) of the HAL depending on speed ▪ Enhanced performance	Optimization
PCM	▪ Navigation Plus - On multi-lane roads, the road to be selected is displayed, e.g. when turning (Lane Level View), settings such as avoiding or preferring charging pedestals, charging a Point of Interest (POI) filter on the map or extending a charging stop are possible ▪ Display of manoeuvres for navigation with Apple Maps and Google Maps in the right tube of the instrument cluster during utilization of Apple CarPlay and Android Auto (Apple: Apple Maps | Android Auto: Google Maps) ▪ Extended overviews in the Porsche Performance app ▪ Performance increase in Porsche Communication Management (PCM) - e.g. better scrolling behavior ▪ Improving the availability of Connect services (weather forecast for upcoming days incl. detailed view) ▪ Bluetooth headset: A separate headset can be connected for in-car video. Audio sources can thus be disconnected from the driver and passenger. This means that the music, for example, can be played independently for the driver and video audio can be played through the headset for the passenger ▪ Traffic Light Information (US & Canada only): Indication of traffic light phases and speed recommendations for optimal utilization of green phases ▪ Expansion of interior lighting colors (ambient lighting) ▪ Optimization of the Air Quality Screen in the Car Menu ▪ Voice Pilot improvement: Additional commands (Music Spotify), zone detection of voice (driver/passenger)	Bug fix / optimization
Active damper control (PDCC)	▪ Optimization of starting behavior	Bug fix
Remote-controlled parking	▪ Increased robustness of connection between MyPorscheApp (smartphone) and vehicle	Optimization

Overview of PCM update

Information

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

Pay particular **attention** to the following:

- For this PCM software update, a USB storage medium USB Type A+C 32 GB 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 installation and use for 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

Overview of Order Numbers for Owner's Manual

Information

Owner's Manuals with order numbers that are still in place (y = market code A, B, C, D, E or F; xx = language code, e.g. 10, 20, 30, etc.) WKD 976 00 y xx **24** must neither be supplied with new vehicles nor used as replacement Owner's Manuals. Owner's Manuals with these order numbers still in stock must be disposed of.

Effective immediately, **for the vehicles assigned to the campaign**, **only** use Owner's Manuals with order number WKD 976 **01** y xx **25** . 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.

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

Parts Info:

Order No.	Designation - Language	Ordering via		On-board Owner's Manual
		PROS (Arvato)	Importer	
WKD97601B2125	Owner's Manual - **English - US**		■	■
WKD97601B3125	Owner's Manual - **French (Canada)**		■	■

Additional instructions if programming is aborted

Information
If individual programming steps or reworking 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 "Troubleshooting"'*

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

As a general rule, if programming is **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. Starting to use the integration test is faster.
You will also find further information and instructions specifically for the **VR8 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 reached using the PIWIS Tester. If not, a bus idle must 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 the integration test (F3 in the control unit overview)
Instrument cluster	Programming is cancelled at 3%, and no VIN is stored in the instrument cluster control unit	▪ Deactivate protection of the vehicle diagnostic and then deactivate the diagnostic access protection
Instrument cluster	Service is displayed, service interval cannot be reset	▪ Select settings in the PCM ▪ Select the step “System” in the settings ▪ Select the time and date ▪ De-select the checkmark for automatic date and time selection ▪ Setting current date ▪ Switch ignition off and on (service should no longer be displayed) ▪ Re-select the checkmark for automatic date and time selection
Instrument cluster	Programming cannot be carried out successfully	▪ If the instrument cluster is still accessible, carry out re-programming at least five more times or until successful programming
Ignition	Ignition can no longer be switched on	▪ Remove Connect control unit battery and wait for 30 minutes
Control units BMCe and BJB	The BMCe or BJB control units are displayed in the control unit overview but cannot be selected. The integration test shows a communication error.	▪ Perform bus idle for at least 5 minutes ▪ Disconnect the 12-volt battery for at least 5 minutes and open the service disconnect ▪ Carry out integration test if there is still no communication - -> Create PRMS ticket

Checklist

Checklist:

Work step: The checklist only refers to campaign **WRX0**. A different checklist or another campaign must **not** be used.	**Scope:**	**Completed:**
1. Settings made on the battery charger?	All	
2. Place original remote control in emergency start tray **(note the position)**?	All	
3. Internet connection for PIWIS Tester active?	All	
4. Vehicle Analysis Log (pre-VAL) created?	All	
5. PR number matched?	**1**	
6. Sequence 1 performed?	All	
7. Battery charger switched off and on before sequence 2?	**1, 2**	
8. Select Guest account from the central display (PCM) and activate Privacy mode?	**1, 2**	
9. Sequence 2 performed?	**1, 2**	
11. Rework carried out in the vehicle?	All	
12. Bus idle performed for 5 minutes?	All	
13. Fault memory deleted?	All	
14. Integration test performed?	All	
15. Result of the integration test fault-free?	All	
16. Vehicle analysis log (Post-VAL) created?	All	
18. Owner's Manual replaced?	**1, 2**	
19. Campaign entered in the Warranty and Maintenance logbook?	All	
VIN:		
Porsche Center number:		