

Replacement Display Unit for Rear Seat Entertainment: Observing Procedure when Replacing Component (45/24)

Model Line: **Panamera (971)**

Model Year: **As of 2017 up to 2020**

Equipment: **Mirrorlink with Smart Rear Seat Entertainment (M-No. 9WY)**

Concerns: **Replacement display unit for Rear Seat Entertainment**

Cause: **The previous display unit for the Rear Seat Entertainment in the driver's and passenger's seat is no longer available for the first-generation Porsche Panamera (Model Year 2017 - 2020). For this reason, the display unit for the second-generation Porsche Panamera (Model Year 2021 - 2024) must be used if it requires replacement.**



Information

Mixed installation of the different display units is not permitted.

Action: **If the previous Rear Seat Entertainment display unit in the driver or passenger seat of the Porsche Panamera Model Year 2017 - 2020 needs to be replaced, replace both display units with the new component status of the Porsche Panamera Model Year 2021 - 2024.**

In order to enable the new display unit to function in a Porsche Panamera Model Year 2017 - 2020, the wire harness in the driver and passenger seat backrest must be adapted and the central computer must be recoded.

Procedure:

- Order retrofit kit for the rear seat entertainment of the Porsche Panamera Model Year 2021 - 2024
- Rework the seat backrest wire harness on both front seats
- Install new display units
- Re-coding the central computer
- Configuring display units
- **If necessary:** Teaching headphones



Information

The minimum requirement for coding is the PIWIS Tester software release: 42.600.020

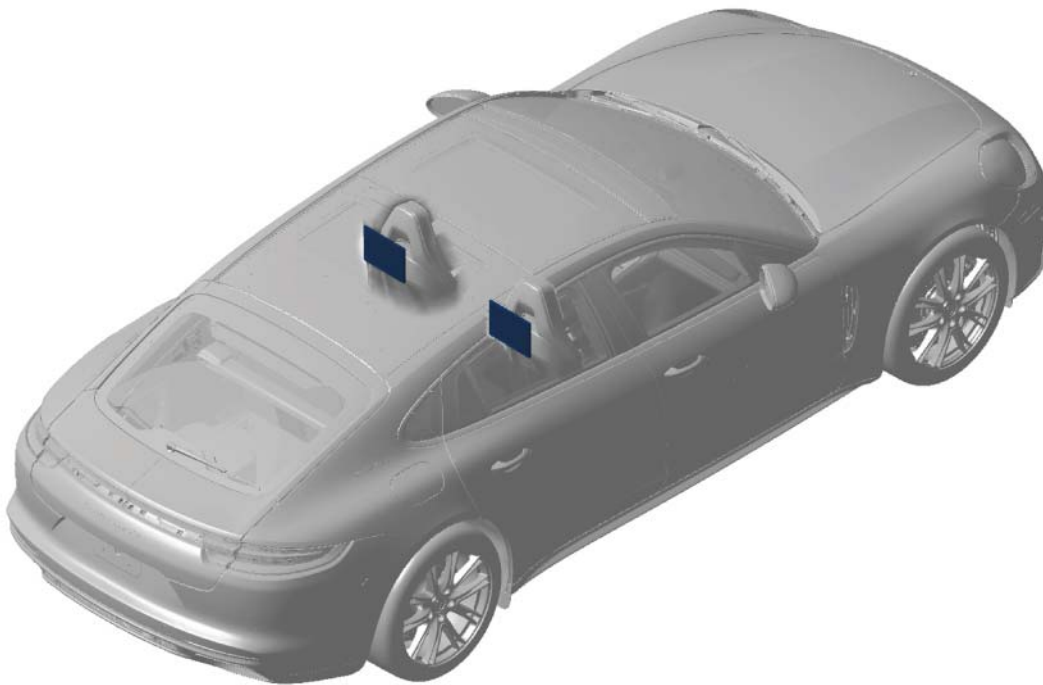
**Information**

Inform the customer that vehicle-related data can no longer be displayed on the screens after the conversion as the new screens do not have a vehicle interface.

This concerns, for example:

- Display in instrument cluster
- Live driving data display
- Navigation display

Installation
Position:



Installation position of display units

Required parts and materials

Parts Info:	Part No.	Designation – Location	Number
	9Y0088812	⇒ Rear Seat Entertainment retrofit kit	1 piece

9A700748300	⇒ External hexalobular screw – Front seat rail screw	8 pieces
9A700791500	⇒ Hexagon-head bolt – Screw for front seat belt installing	2 pieces

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

Part No.	Designation	Quantity
...	⇒ Fleece adhesive tape, approx. 19 mm/ 0.75 in wide e.g. TESA 51616 ID	Quantity as required
...	⇒ Connecting sleeve (crimping sleeve) – commercially available	Quantity as required
...	⇒ Heat shrink-fit hose – commercially available	Quantity as required

Required tools

- Tools:
- **P90999 - PIWIS Tester 4**
 - Battery charger with a current rating of **at least 90 A**, e.g. **VAS 5908 - 90-A battery charger**. For further information about the battery chargers to be used, see the corresponding Workshop Manual.
⇒ *Workshop Manual '2X00IN Battery trickle charge'*
 - Torque wrench, 0.4-2 Nm (0.3-1.5 ftlb.), e.g. **VAS 6253A - torque wrench, 0.4-2 Nm (0.3-1.5 ftlb.)**
 - Torque wrench, 2-10 Nm (1.5-7.5 ftlb.), e.g. **V.A.G 1783 - torque wrench, 2-10 Nm (1.5-7.5 ftlb.)**
 - Torque wrench, 6-50 Nm (4.5-37 ftlb.), e.g. **V.A.G 1331A - torque spanner, 6-50 Nm (4.5-37 ftlb.)**
 - **VAS 1978/3 - Stripping pliers**
 - **VAS 1978/1A - Crimping pliers**
 - **VAS 1978/14A - Hot air gun**
 - Release tool, e.g. **VAS 1978/35-33 - release tool set**
 - Disassembly tool for radio (HAZET 4655-1)

Replace display unit of Rear Seat Entertainment

- Work Procedure: 1 Remove backrest cover on both front seats.
⇒ *Workshop Manual '722619 Removing and installing backrest cover'*
- 2 Rework seat backrest wire harness on both front seats.

**Information**

The procedure is shown on a front seat as an example and is identical for the remaining front seat.

2.1 Disconnect electric plug connection ⇒ *Seat backrest wire harness -1-* from control unit ⇒ *Seat backrest wire harness -2-*.

2.2 Expose electric lines of the seat backrest wire harness ⇒ *Seat backrest wire harness -3-* over a length of approx. 100 mm/ 3.94 in by removing the abrasion protector. Starting with the electric plug connection ⇒ *Seat backrest wire harness -1-*.

**Information**

Always exercise care during the individual work steps for stripping insulation from, crimping and shrinking/insulating the electric lines.

The procedures for stripping insulation from, crimping, and shrinking/insulating the electric lines must be complied with and observed.

The procedures are described in detail in the **Nr. 155-2 - Repair kit for wire harnesses**.

Crimping samples must be prepared before beginning work.

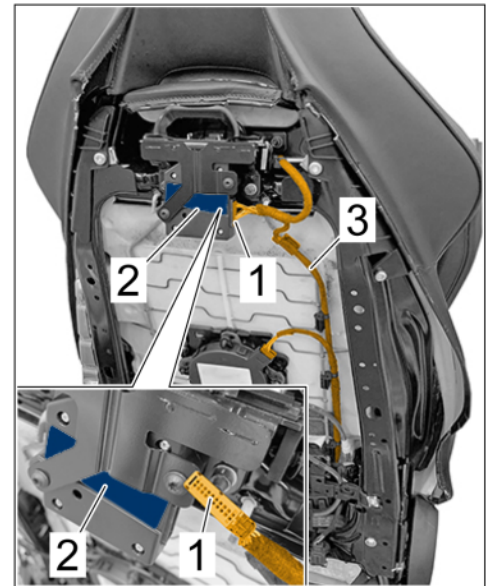
2.3 The electric lines pin 4 (yellow) and pin 5 (pink) of the wire harness are combined with the electric line pin 17 (black/yellow).

For this, use suitable tools to unpin the electric lines pin 4 (yellow) and pin 5 (pink) from the electric plug connection for the seat backrest wire harness and use side cutters to cut the pins from the wire harness. The pins are no longer needed.

Then cut the electric line pin 17 (black/yellow) at a distance of approx. 60 mm/ 2.36 in from the electric plug connection using side cutters.

2.4 Remove 10 mm/ 0.39 in insulation from all 4 electric line ends.

- Yellow electric line
- Pink electric line
- Electric line black/yellow from plug connection
- Electric line black/yellow from wire harness



Seat backrest wire harness

2.5 Crimp electrical lines with crimp sleeves (or a combination of crimp and heat-shrink tubing) into a splice connection using the crimping pliers. ⇒ *Crimped splice connection*

- A** – Lines from wire harness
- B** – Line from electric plug connection

2.6 The electric line pin 6 (grey) of the wire harness is combined with the electric line pin 20 (brown).

For this, use suitable tools to unpin the electric line pin 6 (grey) from the electric plug connection for the seat backrest wire harness and use side cutters to cut the pin from the wire harness. The pin is no longer required. Then cut the electric line pin 20 (brown) at a distance of approx. 60 mm/ 2.36 in to the electric plug connection using side cutters.

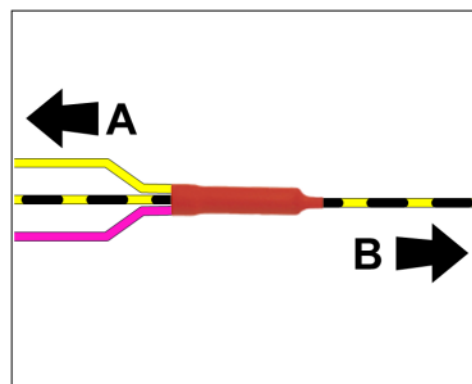
2.7 Remove 10 mm/ 0.39 in insulation from all 3 electric line ends.

- Grey electric line
- Brown electric line from plug connection
- Brown electric line from wire harness

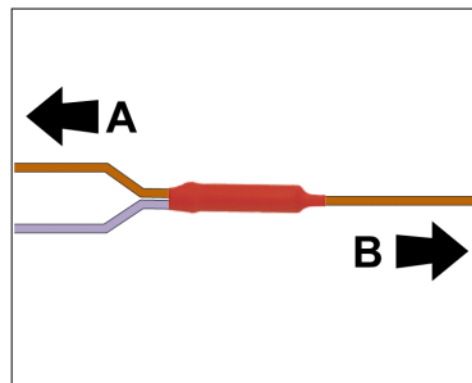
2.8 Crimp electrical lines with crimp sleeves (or a combination of crimp and heat-shrink tubing) into a splice connection using the crimping pliers. ⇒ *Crimped splice connection*

- A** – Lines from wire harness
- B** – Line from electric plug connection

2.9 Wrap the reworked part of the seat backrest wire harness ⇒ *Seat backrest wire harness -3-* up to the electric plug connection ⇒ *Seat backrest wire harness -1-* with fleece adhesive tape.



Crimped splice connection



Crimped splice connection

2.10 Connect electric plug connection ⇒ *Seat backrest wire harness -1-* on the control unit ⇒ *Seat backrest wire harness -2-* until it engages noticeably.

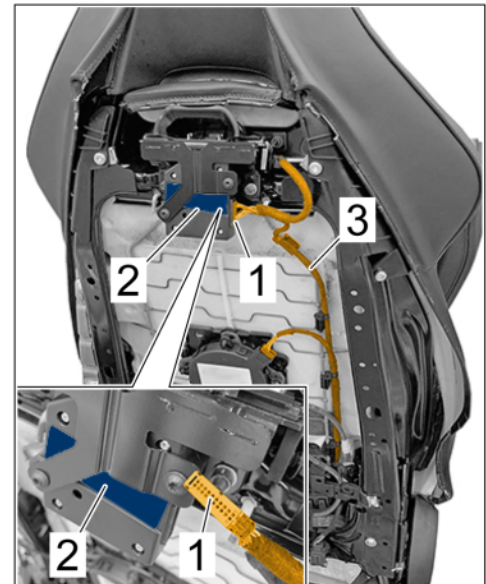
3 Install backrest cover on both front seats.
⇒ *Workshop Manual '722619 Removing and installing backrest cover'*



Information

Contrary to the description in the Workshop Manual, the new display units for the Porsche Panamera Model Year 2021 to 2024 must be installed differently.

4 Install new display units.



Seat backrest wire harness

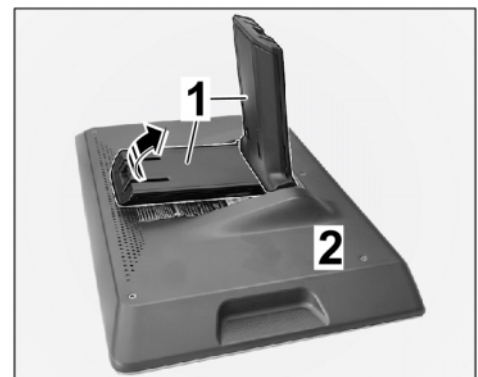
NOTICE

Display unit installed/removed/operated incorrectly

- Risk of damage to the surface/leather on front seat or display unit
 - Risk of damage to the display unit screen
- ⇒ Do not use sharp-edged tools for installing/removing the display unit.
- ⇒ During assembly / disassembly: Do not press the display.

4.1 Fold out the mounting arm ⇒ *Display unit mounting arm -1-* on the back of the screen.
⇒ *Display unit mounting arm -Arrow-*

- 1 – Mounting arm
- 2 – Screen

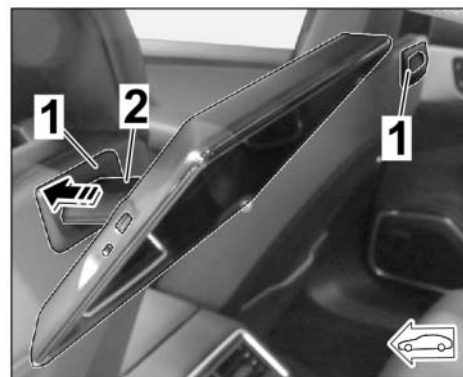


Display unit mounting arm

4.2 Align the mounting arm ⇒ *Install screen -2-* with the screen to the socket (back of front seat backrest) and carefully insert it ⇒ *Install screen -1-* into the socket.

- 1 – Socket (back of front-seat backrest)
- 2 – Screen mounting arm

4.3 Grasp the screen on both sides of the frame and carefully push it forward until slight resistance is felt. ⇒ *Install screen -Arrow-*



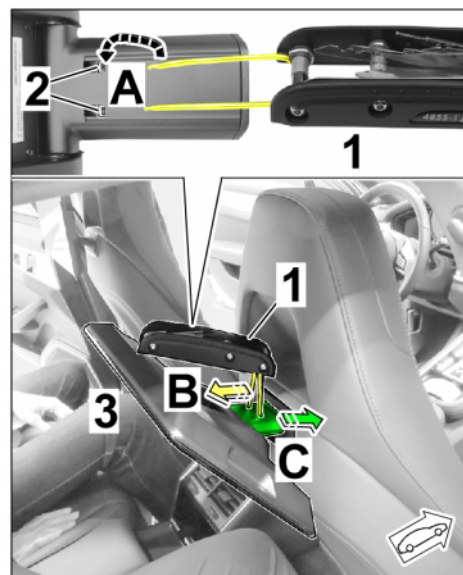
Install screen

4.4 Insert clamps (disassembly tool Radio HAZET 4655-1) into retaining lugs of fastening arm screen. ⇒ *Install screen -A-*

- 1 – Disassembly tool Radio HAZET 4655-1
- 2 – Mounting arm clips
- 3 – Screen

4.5 Pull the retaining tabs of the fastening arm with clamps (disassembly tool Radio HAZET 4655-1) backwards towards the screen. ⇒ *Install screen -Arrow B-*

Simultaneously press the screen with the fastening arm carefully forwards (front seat backrest) until you hear it click into place. ⇒ *Install screen -Arrow C-*



Install screen

4.6 Check that the screen is firmly attached to the backrest of the front seat by carefully pulling and pushing.

5 Re-code central computer.

⇒ *Workshop Manual '9X00IN Basic instructions and procedure for control unit programming using the PIWIS Tester'*

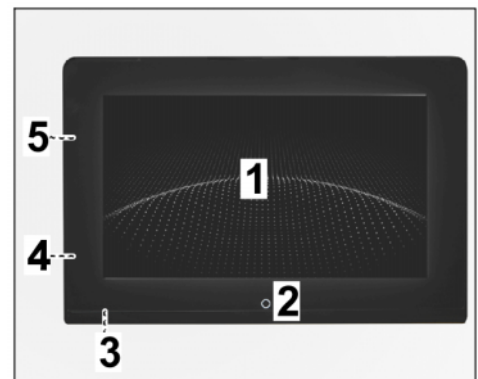
- 5.1 Connect and switch on the battery charger.
⇒ *Workshop Manual '2X00IN Battery trickle charge'*
- 5.2 Switch on the ignition and connect PIWIS Tester to the vehicle.
- 5.3 Adapt coding.

5.3.1 Select "central computer" control unit. Press •F12" to continue.

- 5.3.2 Switch to the "Coding adaptation" menu. Press •F12" to continue.
Select "Automatic coding". Press •F12" to continue.
- 5.3.3 Wait until the following message appears: "Coding was completed successfully".
Press •F12" to continue.
Press •F12" to return to the Overview menu.
- 5.4 Perform component protection start-up.
- 5.4.1 Select Additional menu by pressing •F7" .
- 5.4.2 Select the "Component protection start-up" function. Press •F12" to continue.
- 5.4.3 **Enter the PPN user name and password.** Press •F12" to continue.
- 5.4.4 Check the chassis number.
Enter the order number. Press •F12" to continue.
- 5.4.5 Wait until the control unit overview screen appears.
Select "Gateway" control unit. Press •F12" to continue.
Wait until the following information appears: "Component protection start-up was successful".
Press •F12" to continue.
- 5.5 Exit the diagnostic application and disconnect the PIWIS Tester from the vehicle.
- 6 Configure new display units.

– Connections and On/Off button display unit
⇒ *Connections and On/Off button display unit*

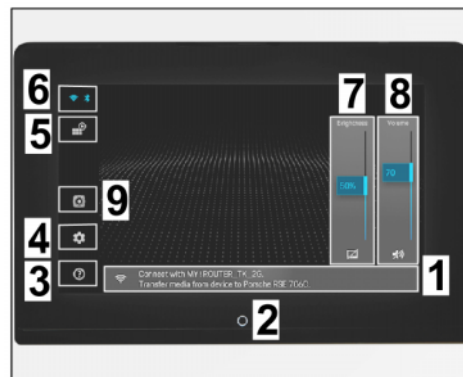
- 1 – Touchscreen
- 2 – On/Off button / Quick menu
- 3 – Headphone connection
- 4 – USB connection
- 5 – HDMI port



Connections and On/Off button display unit

– Display unit menu items and settings ⇒ *Display unit menu items and settings*

- 1 – Status line/Connection wizard
- 2 – On/Off button / Quick menu
- 3 – Help
- 4 – Settings
- 5 – Source selection
- 6 – WiFi/Bluetooth – status/adjustment
- 7 – Brightness/display off
- 8 – Volume/mute
- 9 – Sound



Display unit menu items and settings

6.1 Switch on the new screen.

6.1.1 Press the On/Off button at ⇒ *Display unit menu items and settings-2-* the bottom of the screen for approx. 2 seconds and wait until the system has started.



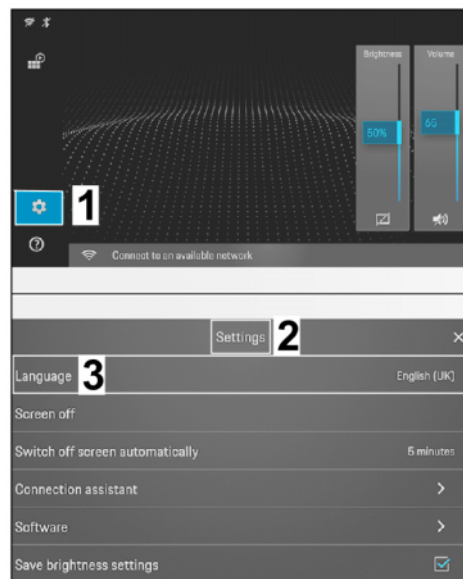
Information

When the screen is switched on for the first time, “English” is set as the default language.

6.2 Set the system language.

6.2.1 Select Settings ⇒ “Language” menu item. ⇒ *“Language” settings*

- 1 – Settings
- 2 – “Settings” menu
- 3 – Language



“Language” settings

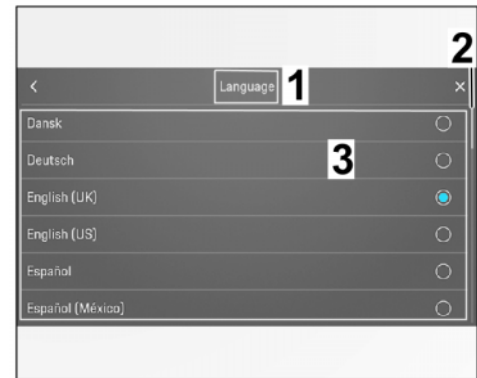
- 6.2.2 Select the desired system language from the list of available languages.
⇒ *"Language" settings*
The display automatically switches to the menu item "Settings".

- 1 – "Language" menu
- 2 – Scroll bar
- 3 – Language offering visible area



Information

Have the required access data for the network ready.



"Language" settings

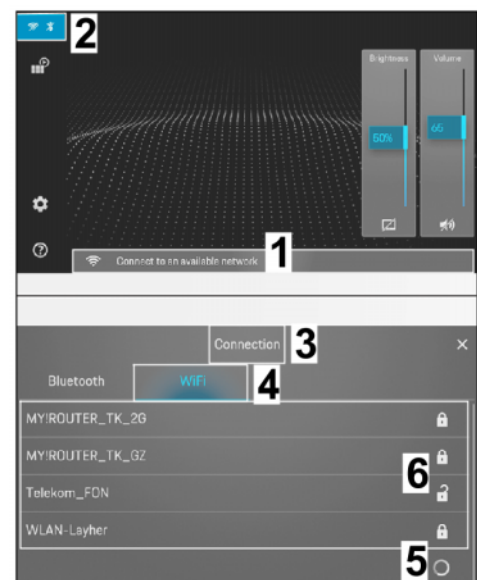
- 6.3 Configure WiFi network.

- 6.3.1 Select WiFi/Bluetooth connection
⇒ *"WiFi" settings -2-*.

- 1 – Status line
- 2 – WiFi/Bluetooth connection
- 3 – "Connection" menu
- 4 – "WiFi" menu item
- 5 – Search for available networks
- 6 – Available networks

- 6.3.2 Select the "WiFi" menu item in the "Connection" menu ⇒ *"WiFi" settings -4-*.

- 6.3.3 Starting the search for available networks. ⇒ *"WiFi" settings -bottom-*



"WiFi" settings

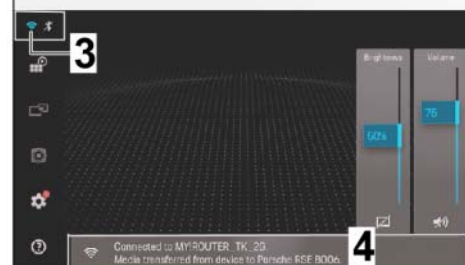
6.3.4 Select the desired network, enter your password and confirm with "OK". ⇒ "WiFi" settings -top-

- 1 - Name of selected network
- 2 - Input mask
- 3 - WiFi symbol – "Connected" status
- 4 - Status line



6.3.5 Display of a successful connection to a WiFi network:

- WiFi symbol on the left side of the screen ⇒ "WiFi" settings -3- is highlighted in color
- Network name is ⇒ "WiFi" settings -4- displayed in the status line



"WiFi" settings

7 Check the software status of the display units and update if necessary

7.1 Displaying software/device information

7.1.1 Select Settings ⇒ "Software" menu item ⇒ "Software" menu item.

- 1 - Settings
- 2 - "Settings" menu
- 3 - Software

Any new software is indicated by a "red circle" next to the "Software" menu item.



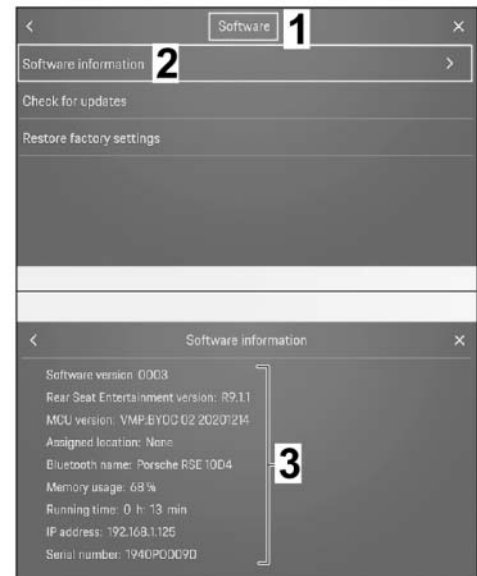
"Software" menu item

7.1.2 Select "Software Information" ⇒ "Software Information" menu item -2- menu item.

- 1 – "Software" menu
- 2 – Software information
- 3 – Software/device information

7.1.3 The following software/device information ⇒ "Software Information" menu item -3- is displayed:

- Software release
- Rear Seat Entertainment release
- MCU release ⇒ Micro Controller Unit version
- Assigned location ⇒ Installation position in the vehicle (left or right seat) ⇒ for "Sound output via vehicle loudspeaker" function
- Bluetooth name
- Memory used ⇒ currently: 100% maximum
- Runtime ⇒ Starts as soon as the Rear Seat Entertainment system is supplied with voltage (e.g. unlocking the vehicle); reset: Voltage for Rear Seat Entertainment at "zero" (observe run-on time for vehicle systems!)
- IP address
- Serial number of device



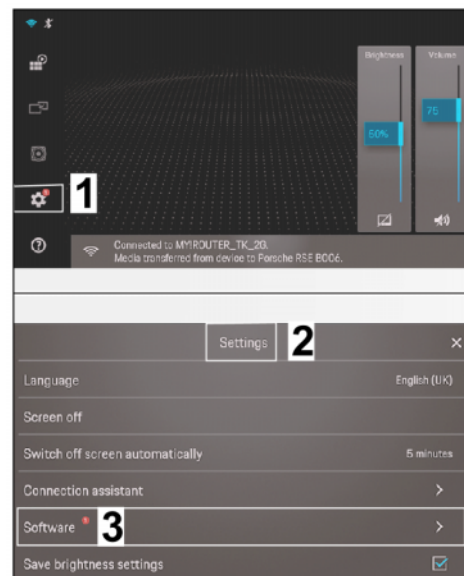
"Software Information" menu item

7.2 Check to see if a new software release is available on the server.

7.2.1 Select Settings ⇒ “Software” menu item ⇒ “Software” menu item.

- 1 - Settings
- 2 - “Settings” menu
- 3 - Software

Any new software is indicated by a “red circle” next to the “Software” ⇒ “Software” menu item -3- menu item.



“Software” menu item

7.2.2 Select “Check for updates” ⇒ “Check for updates” menu item menu item.

- 1 - “Software” menu
- 2 - Check for updates
- 3 - No updates available

- No update available ⇒ “Check for updates” menu item -3- : Continue with Step ⇒ 8.
- Update available. Continue with Step ⇒ 7.37.3.



“Check for updates” menu item

7.3 Update software online



Information

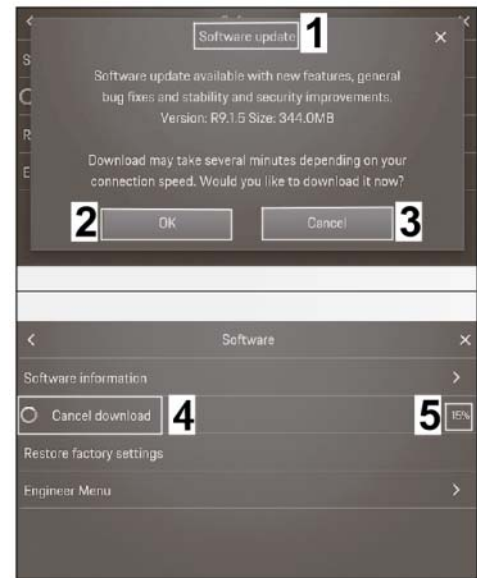
Downloading can take several minutes, depending on the speed of the WiFi connection!

7.3.1 Download software update

Software update ⇒ Question "Do you want to download the file now?"
⇒ Confirm (OK)/Reject (undo). ⇒
Software update -top-

- 1 – "Software Update" menu
- 2 – Confirm (OK)
- 3 – Reject (undo)
- 4 – Abort download
- 5 – Specification of download progress as a percentage

- OK: Download starts automatically in the new window. ⇒
Software update -bottom-
- Reject (undo): Switch to the previous menu. Perform software update download later.



Software update

7.3.2 Install software update

Install software ⇒ Update ⇒
Question "Would you like to install now" ⇒ Confirm (OK)/Cancel (Later)

- 1 – "Software" menu
- 2 – Install update
- 3 – OK (confirm)
- 4 – Later (cancel)

Check that the battery charger is connected.



Information

The system is not functional during the update!

- **YES:** Confirm installation with "OK".
- **NO:** Connect a battery charger. ⇒ *Workshop Manual '2X00IN Battery trickle charge'*.



Software update

7.3.3 The following information is displayed when the update is performed:

- "The system starts when installation is complete!"

- After update: "System start, Please wait..."
- Information after update: "Installation successful. Software updated." and confirm the content of the update with "OK".

8 **If necessary:** Teach Porsche Bluetooth headphones.

Connect headphones to display unit (for more information, see ⇒ Quick Reference Guide for Porsche Bluetooth headphones)

8.1 Activate "Bluetooth" connection mode on the Porsche Bluetooth headphones.

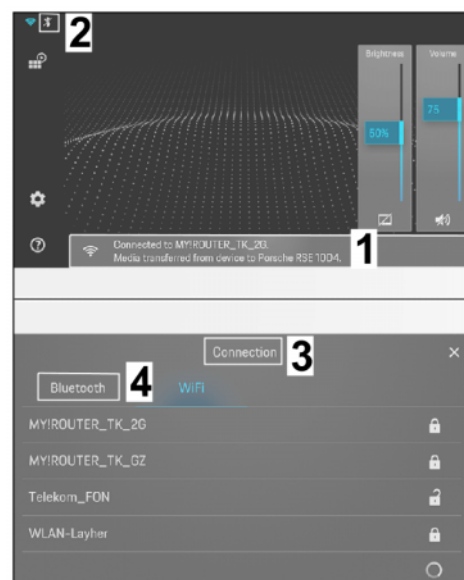
8.2 Activate Bluetooth on the respective display unit.

8.2.1 Select "WiFi/Bluetooth" connection ⇒ *"Bluetooth" settings-2-*.

- 1 - Status line
- 2 - "WiFi/Bluetooth" settings
- 3 - "Connection" menu
- 4 - "Bluetooth" menu item

8.2.2 Select "Bluetooth" menu item ⇒ *"Bluetooth" settings-4-*.

8.3 Connect Porsche Bluetooth headphones to display unit.



"Bluetooth" settings

8.3.1 Confirm the question/information with "OK". Switch off the display again beforehand if necessary by ticking a box. ⇒ *"Bluetooth" settings-top-*

- 1 – "Pairing mode" information
- 2 – Deselection of display information
- 3 – Device search



"Bluetooth" settings

8.3.2 Select the relevant headphones ⇒ *Headphone selection -2-* from the list of available headphones.

- 1 – "Connection" menu
- 2 – List of available headphones
- 3 – Headphones – status: connected

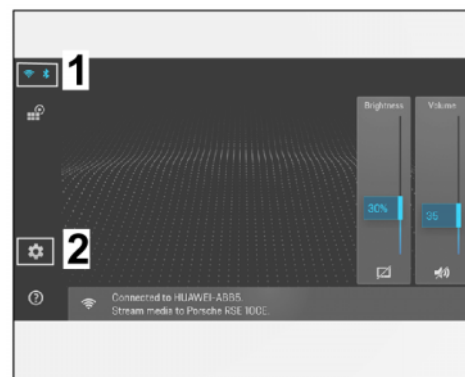


Headphone selection

8.3.3 If connection successful: Change the font color to "blue". => *Headphone selection -bottom-*

- 1 - WiFi/Bluetooth connection
- status: active
- 2 - Settings

The "Bluetooth" symbol is also displayed in "blue" on the start screen. => *Headphone selection*



Headphone selection

- 9 Switch off the ignition.
- 10 Switch off and disconnect the battery charger.

Labor position and PCSS encryption

Labor position:

APOS	Labor operation	I No.
919455549	Replacing the display unit	

PCSS encryption:

Location (FES5)	91940	Display unit
Damage type (SA4)	1611	does not work

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