

Apple CarPlay® Interface Retrofit

Revision: This bulletin replaces bulletin Group 9, #36/16, dated June 15, 2017.
Work procedures were revised.

Model Year: **As of 2017**

Concern: **Retrofitting**



Figure 1

Notes: The installation of the Apple CarPlay® interface provides the required interface in the vehicle for using iPhone® apps even in the vehicle via the Porsche Communication Management (PCM) system.

The following requirements must be met in order to use this function:

- At least iPhone 5 or a newer device with iOS 7.1 or later software
- Availability of Apple CarPlay®

You will find information about the available regions at <https://support.apple.com>.

Different work must be carried out and/or additional parts must be ordered, depending on vehicle equipment.

Parts Info: **95B.044.900.07** ⇒ License key for Apple CarPlay®

Order the following parts in accordance with vehicle equipment:

Vehicles **WITHOUT** navigation (I-no. 7Q0):

7PP.035.504.A	1 x	GPS antenna
95B.035.550.DD	1 x	GPS antenna line
999.513.076.40	10 x	Tie-wrap
955.606.838.00	5 x	Tie-wrap with clip

Vehicles **WITHOUT** Voice control (I-no. QH0):

N.910.207.01	1 x	Multiple-tooth screw, M18 x 1.5 x 26
95B.953.50x.x	1 x	Steering-column switch (see table)

Installed steering-column switch	Required steering-column switch
Part No.	Part No.
95B.953.502.A	95B.953.502.C
95B.953.502.D	95B.953.502.F
95B.953.502.N	95B.953.502.B
95B.953.502.E	95B.953.502.H
95B.953.502.J	95B.953.502.L
95B.953.502.K	95B.953.502.M
95B.953.502.P	95B.953.502.S
95B.953.502.R	95B.953.502.T

Alternatively, the following instructions will help you to identify the required steering-column switch.

1. Look for the standard steering-column switch in the Porsche Electronic Parts Catalog (PET). To do this, activate the VIN filter in the PET¹.
2. Take note of the I-nos.
3. Replace I-no. QH0 (**Without voice control**) with I-no. QH1 (**Voice control**).

¹ If the VIN filter in PET does not work, the standard steering-column switch must be identified based on the I-no. in the vehicle information (PIWIS information system).

Tools: **9900 - PIWIS Tester 3**

Nr.32 - Multiple-tooth socket-wrench insert

3438 - Hook

Work Procedure: 1 Connect battery charger (⇒ *Workshop Manual '2X00IN Battery trickle charging*).

2 **ONLY** for vehicles **WITHOUT** navigation (I-no. 7Q0):
Install GPS antenna and GPS antenna line

2.1 Remove PCM display and operator control unit (⇒ *Workshop Manual '911019 Removing and installing PCM display and operator control unit*).

2.2 Remove glove compartment (⇒ *Workshop Manual '681519 Removing and installing glove compartment*).

2.3 Remove air guide (air duct) at the right (⇒ *Figure 2-1*).

- 1 – Air guide (air duct)
- 2 – Internal Torx screw
- 3 – Hexagon-head bolt

2.3.1 Unscrew hexagon-head bolt.

2.3.2 Release connector (⇒ *Figure 2-a*) and disconnect it.

2.3.3 Unscrew internal Torx screw and remove air guide.

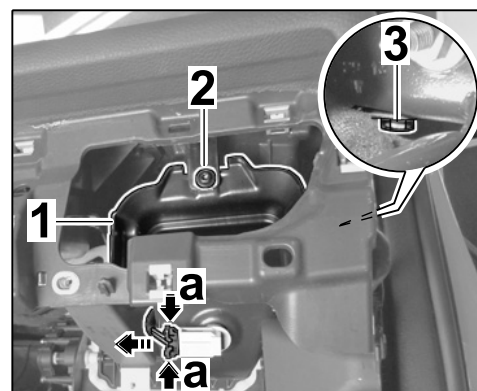


Figure 2

2.4 Expose A/B-pillar area (at the right)

2.4.1 Remove (right) A-pillar trim panel (⇒ *Workshop Manual '705719 Removing and installing A-pillar trim panel*).

2.4.2 Remove front (right) grab handle (⇒ *Workshop Manual '683519 Removing and installing front grab handle*).

2.4.3 Remove rear (right) grab handle (⇒ *Workshop Manual '683719 Removing and installing rear grab handle*).

- 2.4.4 Detach upper part of B-pillar trim panel (at the right) (⇒ *Figure 3*, ⇒ *Workshop Manual '706719 Removing and installing upper part of B-pillar trim panel'*).

1 – Upper part of B-pillar trim panel

2.5 Expose front roof area

- 2.5.1 Remove roof console (⇒ *Workshop Manual '708319 Removing and installing front roof trim panel'*).

- 2.5.2 Remove cover over the interior rear-view mirror (⇒ *Workshop Manual '682719 Removing and installing interior rear-view mirror'*)

- 2.5.3 Remove sun visor at the right and center bearing (⇒ *Workshop Manual '682319 Removing and installing sun visor'*).

- 2.5.4 Remove center bearing for sun visor at the left.

- 2.5.5 Remove screw (2 x) in the roof console area (⇒ *Figure 4*).

1 – Screw on roof console



Figure 3

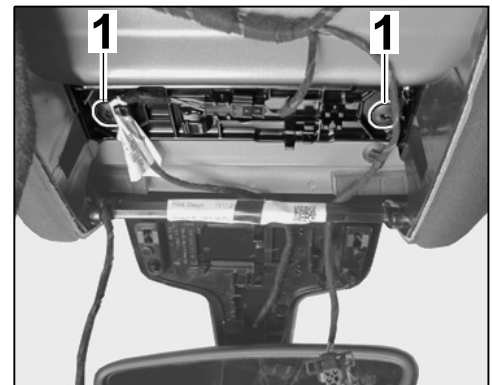


Figure 4



Information

Check that the fixing clips are not bent or broken.

Replace missing or damaged fixing clips with new ones.

Make sure that all fastening clips are engaged securely.

Check that they are seated correctly. Check gap and joint dimensions.

- 2.5.6 **ONLY** for vehicles with panoramic roof system:
Unclip roof trim panel at the front and side areas at the fixing clips (⇒ *Figure 5*).

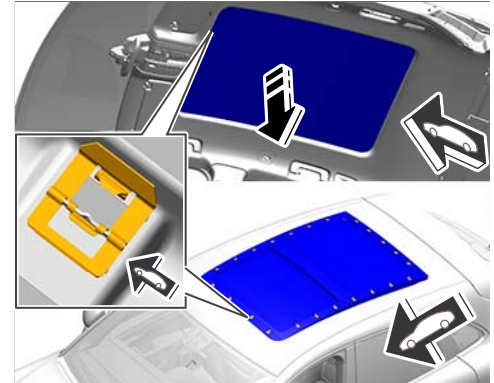


Figure 5



Information

Make sure that the roof cover does not buckle.

- 2.5.7 Carefully pull front roof trim panel down as far as required (⇒ *Figure 6* -**arrow a**-) until the clip is no longer fitted in position (roof) (⇒ *Figure 6* -**arrow b**-).

1 – Clip

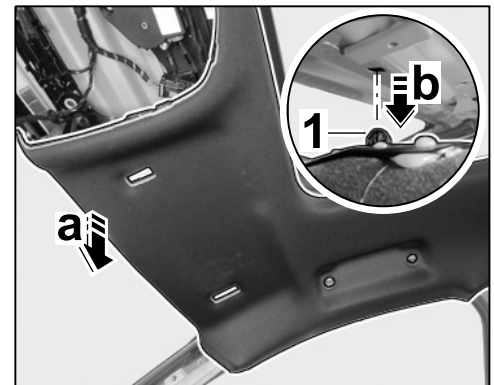


Figure 6

2.6 Insert GPS antenna into the holder (⇒ *Figure 7*).

- 1 – GPS antenna holder
- 2 – Clip

Press GPS antenna up (⇒ *Figure 7*-arrow a-) until the clips (2 x) lock securely (⇒ *Figure 7*).

2.7 Route GPS antenna line as follows:
GPS antenna → roof console → roof → A-pillar → behind glove compartment → PCM installation slot

2.7.1 Connect GPS antenna line connector to the GPS antenna and move locking mechanism.



Information

Make sure that the roof cover does not buckle.

2.7.2 Route GPS antenna line along the standard wire harness for the roof and secure with a tie-wrap (⇒ *Figure 8*).

- 1 – GPS antenna line

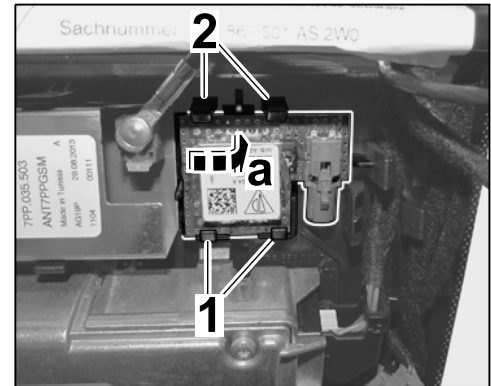


Figure 7

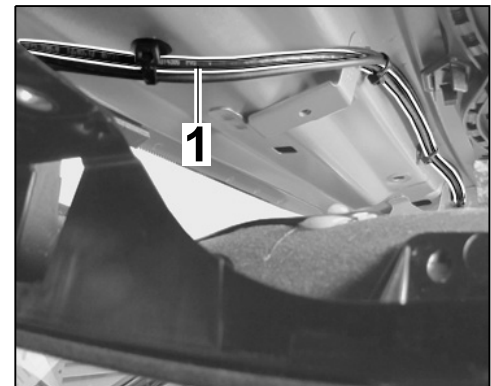


Figure 8

If there is no standard wire harness, secure the GPS antenna line to the roof using a tie-wrap and clip (⇒ *Figure 9*).

- 1 - Tie-wrap with clip (955.606.838.00)
- 2 - GPS antenna line

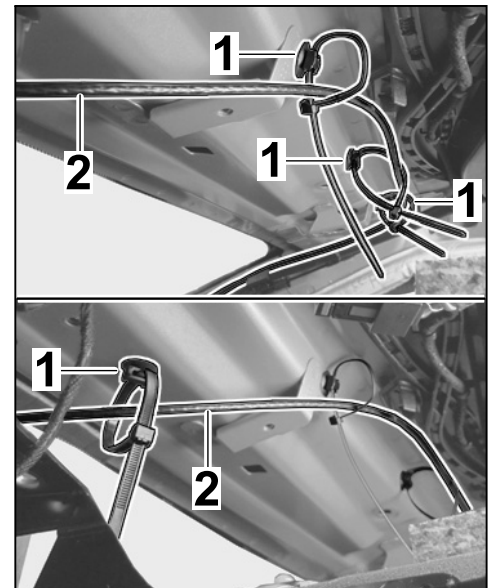


Figure 9

2.7.3 Secure GPS antenna line to the standard wire harness in the A-pillar with a tie-wrap (⇒ *Figure 10*).

- 1 - GPS antenna line

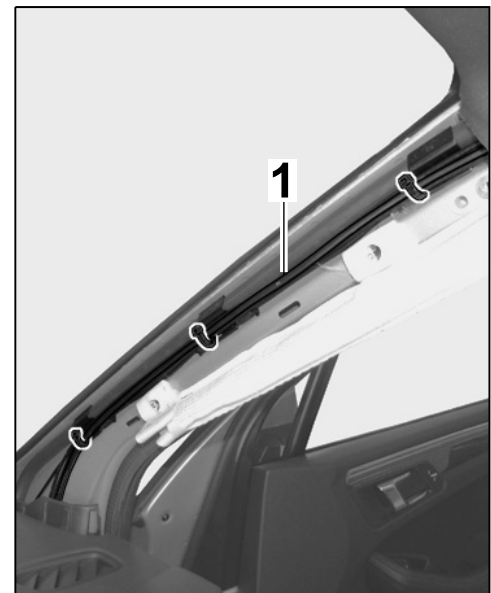


Figure 10

2.7.4 Route GPS antenna line from the A-pillar to the dashboard bracket (⇒ *Figure 11*).

- 1 - GPS antenna line
- 2 - A-pillar
- 3 - Dashboard bracket

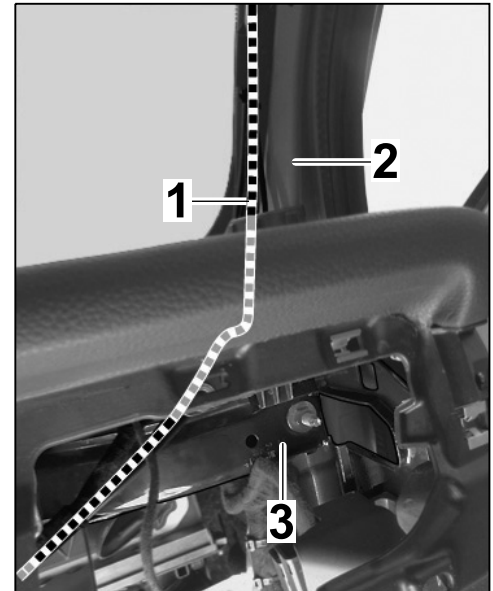


Figure 11

2.7.5 **ONLY:** Vehicles with PCM: Route GPS antenna line along the dashboard bracket to the PCM installation slot (⇒ *Figure 12*).

- 1 - GPS antenna line
- 2 - PCM installation slot
- 3 - Dashboard bracket

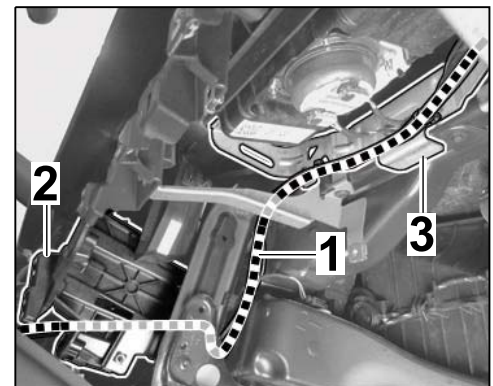


Figure 12

2.7.6 **ONLY** for vehicles with radio:
Route GPS antenna line along the dashboard bracket to the radio antenna line (same length).

- 1 – GPS antenna line
- 2 – Radio antenna line

2.7.7 Secure GPS antenna line using tie-wraps.

2.8 Fit trim panels in the passenger compartment in reverse order.

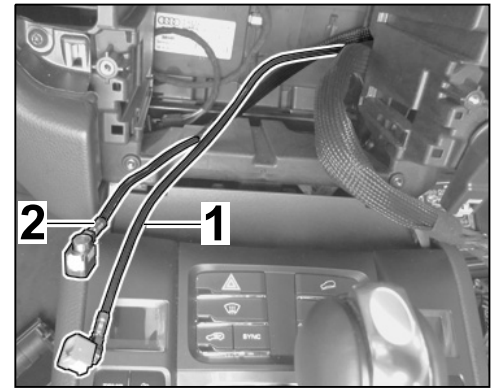


Figure 13

3 **ONLY** for vehicles **WITHOUT** Voice control (I-no. QH0):
Replace steering-column switch.

3.1 Remove steering wheel (⇒ *Workshop Manual '481019 Removing and installing steering wheel'*).

3.2 Remove trim panel (steering-column switch) (⇒ *Workshop Manual '481319 Removing and installing steering column casing'*).

3.3 Convert steering-column switch.

3.3.1 Remove steering-column switch (⇒ *Workshop Manual '945019 Removing and installing steering-column switch'*).

3.3.2 Remove steering wheel electronics control unit from the steering-column switch and fit control unit for steering wheel electronics on the new steering-column switch (⇒ *Workshop Manual '916219 Removing and installing control unit for steering wheel electronics'*).

3.3.3 Install steering-column switch. ⇒ *Workshop Manual '945019 Removing and installing steering-column switch'*

3.4 Install trim panel (steering-column switch) (⇒ *Workshop Manual '481319 Removing and installing steering column casing'*).

3.5 Install steering wheel (⇒ *Workshop Manual '481019 Removing and installing the steering wheel'*).

NOTICE

Voltage drop

- Risk of irreparable damage to control unit
- Risk of damage to control unit
- Fault entries in the control unit
- Coding in the control unit is aborted

- Malfunctions in control unit, even during programming
- ⇒ Switch off the ignition and remove the ignition key before disconnecting the control unit.
- ⇒ Ensure that the power supply is not interrupted during programming.
- ⇒ Connect a battery charger with a current rating of at least Nominal value 90 A to the vehicle battery.



Information

The **9900 - PIWIS Tester III** instructions take precedence since the description may be different with later Tester releases.

The procedure described here has been structured in general terms; different text or additions may appear on the **9900 - PIWIS Tester III**.

4 Code Apple CarPlay®.

- 4.1 **9900 - PIWIS Tester 3** must be connected and ignition switched on.
- 4.2 Select "Diagnostics". **9900 - PIWIS Tester 3** detects the model line.
When you press "Next", PIWIS Tester III diagnostics starts.
- 4.3 Select Additional menu by pressing •F7" . Press •F11" to confirm the question "Create vehicle analysis log (VAL)?".
- 4.4 Enable Apple CarPlay®.
 - 4.4.1 Select the "Function enable" function. Press •F12" to continue.



Information

PIWIS Tester must be connected to the Porsche Partner Network (PPN) via WLAN or data cable!

- 4.4.2 Enter PPN user name. Tap the password input field and enter the password. Select "Login".
- 4.4.3 Select the "Enable" function. Press •F12" to continue.
- 4.4.4 Touch the license number input field and enter the license number.
Press •F12" to continue.
- 4.4.5 Confirm the "Apple CarPlay®" function by pressing •F12" .
Wait until the message "Functions have been enabled successfully." appears.
- 4.4.6 Press •F12" to go to the "Overview" menu.
Select the "Display enabled functions" function. Press •F12" to continue.
Wait until a table containing the enabled functions appears, e.g.:

Control unit	Function	Status
PCM4 (001)	Apple CarPlay®	✓
	Voice control	✓
	Sport Chrono	✓
	Bluetooth	✓
	Navigation	✓
	UAS (universal audio interface)	✓

4.4.7 Press •F12" to continue.

Press •F11" to return to the "Overview" menu.

4.5 Adapt coding.

4.5.1 Press •F11" to return to the list of control units.

Select all control units by pressing •Ctrl A" . Press •F12" to continue.

4.5.2 Switch to the "Codings/adaptations" menu. Press •F12" to continue.

Select "Automatic coding" mode. Press •F12" to continue.

4.5.3 Wait until the message "Coding has been completed successfully" appears. Press •F12" to continue.

Switch to the "Overview" menu.

4.6 Read out the fault memory of all systems, work through any existing faults, and erase the fault memory (⇒ *Workshop Manual '033500 Fault memory for on-board diagnosis*).

4.7 Switch off the ignition and disconnect **9900 - PIWIS Tester 3**.

4.8 Disconnect the battery charger. ⇒ *Workshop Manual '2X00IN Battery trickle charging'*

91 93 23 40: –Enabling Apple CarPlay® interface– Labor time: **77 TU**
 Without: Replacing steering-column switch, installing GPS antenna and GPS antenna line

91 93 23 41: –Enabling Apple CarPlay® interface– Labor time: **261 TU**
 Includes: Installing GPS antenna and GPS antenna line
 Without: Replacing steering-column switch

94 50 19 00: Steering-column switch removed and installed Labor time: **58 TU**

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.

© 2019 Porsche Cars North America, Inc.