

PCCM+ 9x1.I

NOTICE

Voltage peaks

- Damage to electrical load or to control unit
- ⇒ Remove the ignition key and switch off load before disconnecting or removing load.

NOTICE

Software version

- Fault-free functioning
- ⇒ Before converting to the new device, it must be ensured that the old sound system is functional and that the current software is installed on it.



Information

The amplifiers cannot be updated to the latest software version with the new PCCM+.



Information

The PCCM+ is only available in black OK1. A leather-covered or differently colored version is not available.



Information

These instructions are not for vehicles with the M-number: 675 "Without radio preparation (Japan Navigation System)".

Vehicle Type: **991.I & 981.I**

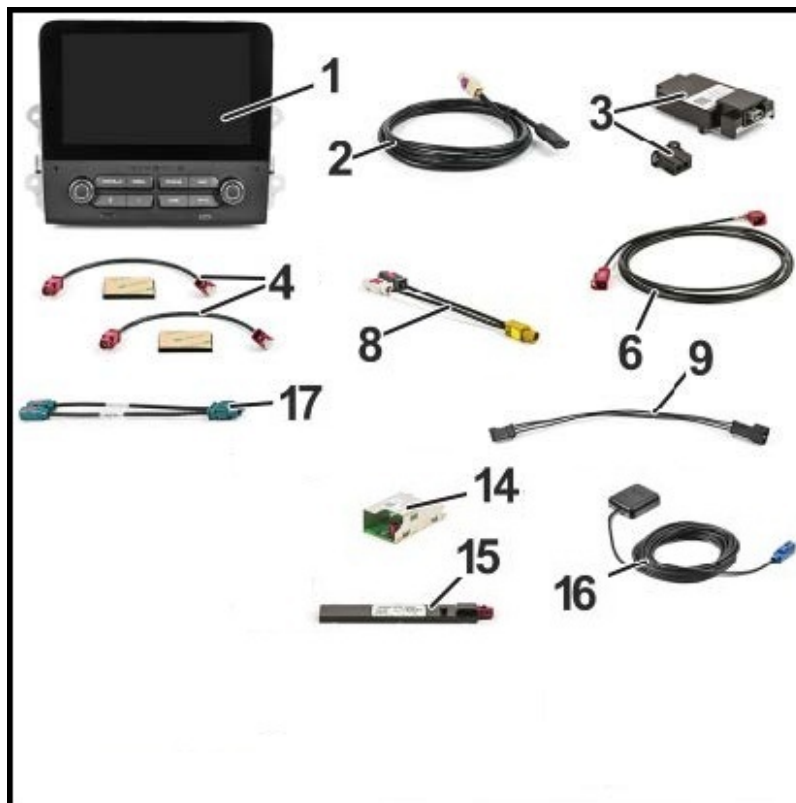
Model Year: **As of 2012 up to 2016**

Restriction: 991.I (MY 2012 - 2016)
981.I (MY 2012 - 2016)

If vehicle equipment (M-numbers) 631 has been installed at the factory and a PCCM+ is installed, camera-based sign recognition will no longer be available and must be coded out; see Section 9. The user can now use map-based sign recognition.

*PCCM+*

PCCM+ Parts
List:



PCCM+ Parts List

Part No.	Number	Designation	Note
991.642.601.00	1 x	PCCM+ 9x1.1 - North America (USA, Canada and Mexico) ⇒ PCCM+ Parts List -1-	
PCG.073.900.A	1 x	USB connecting line ⇒ PCCM+ Parts List -2-	Is required if the customer would like an additional USB-C charging cable in the glove compartment or in the center console.
PCG.642.580.A	1 x	Optical waveguide control unit ⇒ PCCM+ Parts List -3-	Is required for BOSE or Burmester Sound Systems.
PCG.642.610.A	2 x	4G conversion kit ⇒ PCCM+ Parts List -4-	Is required for 9x1.1 vehicles that originally had a 3G antenna (PR 666 2009- PCM 3 telephone (GSM)) installed. General: Is always required when PCG.073.900.A is installed. --> Is then required in total 2x. (1x under windshield and 1x on the device).

PCG.642.630.A	1 x	4G connecting cable ⇒ <i>PCCM+ Parts List -6-</i>	Required 1x if a 3G antenna (PR 666 -2008 PCM 2, 2009-PCM 3 telephone (GSM) is present/GPS antenna was delivered) installed at the factory. If this is not the case, it is required 2x.
PCG.642.650.A	1 x	Connector bridge Y-piece ⇒ <i>PCCM+ Parts List -8-</i>	For all vehicles in which PR 440 (Diversity) was installed.
PCG.642.660.A	1 x	Adapter cable for windshield antenna connector ⇒ <i>PCCM+ Parts List -9-</i>	This is required if the windshield has only windshield antennas installed on the right-hand side.
992.035.510	1 x	4G antenna ⇒ <i>PCCM+ Parts List -14-</i>	Required 1x if a 3G antenna (PR 666 2009- PCM 3 telephone (GSM) is installed ex works.
9A7.035.504.00 (4M0.035.504)	See Note	4G antenna ⇒ <i>PCCM+ Parts List -15-</i>	Required 1x if a 3G antenna (PR 666 2009- PCM 3 telephone (GSM) is installed ex works. If this is not the case, the component is required 2x.
911.645.505.00	1 x	GPS antenna ⇒ <i>PCCM+ Parts List -16-</i>	Is not required if PR 672 (2009-PCM 3 navigation off-road) is present/GPS antenna was supplied.
PCG.642.680.A	1 x	Connecting line Y-piece ⇒ <i>PCCM+ Parts List -17-</i>	Required if the windshield has only windshield antennas installed on the right-hand side/a CDR was installed ex works.

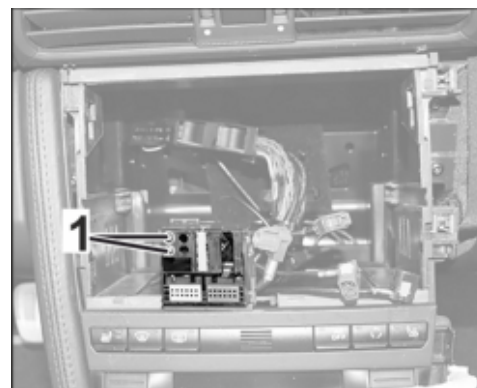
Preliminary
Work:

Ignition off, switch off PCM.

Removing and installing PCM display and operator control unit. ⇒ *Workshop Manual 'Removing and installing PCM display and operator control unit'*

Installing:

- 1 **Only with Bose & Burmester Sound System (except Bose Japan):** Disconnect the optical waveguide line control unit ⇒ *Optical waveguide line control unit -1-* from the large square connector. Then insert it into the supplied retrofit connector (from optical waveguide control unit PCG.642.580.A).



Optical waveguide line control unit

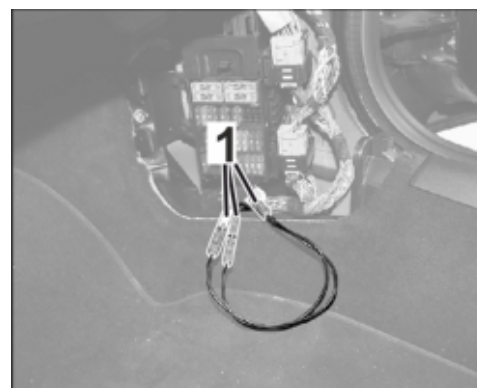
- 1.1 Remove cover ⇒ *Optical waveguide control unit -1-* from PCCM+.
- 1.2 Remove protective sleeve from the optical waveguide control unit (PCG.642.580.A).
- 1.3 Fit optical waveguide control unit (PCG.642.580.A) to the PCCM+.



Optical waveguide control unit

- 2 **Only if PR number 440/ PCM was originally installed:** Remove antenna control unit. ⇒ *Workshop Manual 'Removing and installing antenna control unit'*

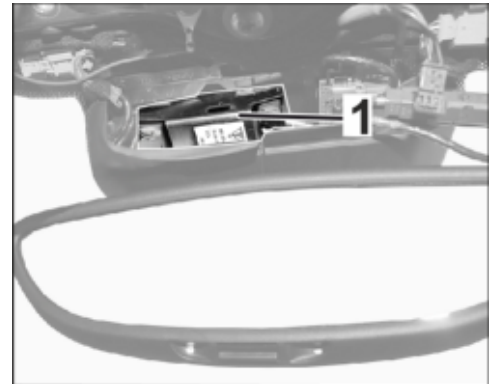
- 2.1 Connect antenna cable with connector bridge (PCG.642.650.A) ⇒ *Antenna diversity -1-*. The connector bridge (PCG.642.650.A) can be plugged into the previously disconnected FAKRA plugs (white, grey and curry) as desired.
- 2.2 Install antenna control unit. ⇒ *Workshop Manual 'Removing and installing antenna control unit'*



Antenna diversity

- 3 Install 4G and GPS antenna (When connecting to the PCCM+, it must be ensured that Port 8 (Main) is occupied by the 4G antenna. Port 10 is for support only.)⇒ 5.1

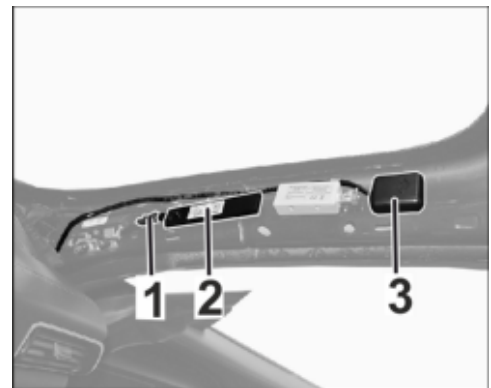
- 3.1 If a 3G antenna $\Rightarrow$ 3G antenna -1- was originally installed in the interior mirror, it must be replaced by the 4G antenna (992.035.510) and connected using the 4G conversion kit (PCG.642.610.A). In addition, another 4G antenna (9A7.035.504.00) must be affixed to the right A-pillar using the adhesive pad set (PCG.642.670.A). Then plug the 4G connection cable (PCG.642.630.A) into the 4G antenna and route it along the A-pillars through the right-hand footwell to the PCCM+.



3G antenna

- 3.2 If no 3G antenna was originally installed, the 4G antenna ($\Rightarrow$ A-pillar, right -2-) must be affixed to the A-pillars using the adhesive pad set (PCG.642.670.A). Plug the 4G antenna cable ($\Rightarrow$ A-pillar, right -1-) into the 4G antenna and route it along the A-pillars through the right-hand footwell to the PCCM+.

- 1 – 4G connection cable (PCG.642.630.A)
- 2 – 4G antenna (9A7.035.504.00)
- 3 – GPS antenna (911.645.505.00)



A-pillar, right

- 4 When retrofitting, only the USB slot is supported on the media interface. The slots for iPod and AUX are then not functional.

When retrofitting the USB connection line (PCG.073.900.A), this must be routed to the glove compartment, front center console or rear center console, for example, as requested by the customer.

- 5 Complete vehicle in reverse order.

- 5.1 Connect and install PCCM+ as per the connection diagram. $\Rightarrow$ Workshop Manual 'Removing and installing PCM display and operator control unit'

If a curly FAKRA plug is installed in the vehicle, it must **not** be connected to the new PCCM+.

Connection diagram:

Plug connection number	Plug connection designation	NAR	NAR
1	Third-party RFK	RFK (white)	RFK (white)
2	Not assigned	/	/

3	Instrument cluster	Color Poka-Yoke black/black	/
4	FM	FM antenna (FAKRA black)	FM antenna (waterblue) via PCG.642.680.A
5	Slave FM	FM antenna (FAKRA black) if available	FM antenna (waterblue) via PCG.642.680.A
6	Universal interface	Color-Poka-Yoke curry/curry	/
7	USB extension cables	Color-Poka-Yoke white/white	Color-Poka-Yoke white/white
8	4G Master	Adapter line PCG.073.900.A required if the vehicle is equipped with 3G antenna ex works. Otherwise, Color-Poka-Yoke Bordeaux red/Bordeaux red via PCG.642.630A	Color-Poka-Yoke Bordeaux red/Bordeaux red via PCG.642.630A
9	GPS	According to the blue-to-blue color Poka-Yoke	According to the blue-to-blue color Poka-Yoke
10	4G Slave	Color-Poka-Yoke Bordeaux red/Bordeaux red via PCG.642.630A	Color-Poka-Yoke Bordeaux red/Bordeaux red via PCG.642.630A
Other:		FAKRA curry (HD RADIO/XM) must not be plugged in.	FAKRA curry (HD RADIO/XM) must not be plugged in.

Coding:



Information

Only necessary if CDR/ CDR Plus was previously installed.

6 Maintain PCCM+ in vehicle data

6.1 Preparatory work - Coding

NOTICE

Control unit programming will be aborted if the Wi-Fi connection is unstable.

- **An unstable Wi-Fi connection can interrupt communication between PIWIS Tester and the vehicle communication module (VCI). As a result, control unit programming may be aborted.**

⇒ **For control unit programming, always connect the PIWIS Tester to the vehicle communication module (VCI) via the USB cable.**

6.1.1 Connect **P90999 - P90999 - PIWIS Tester 4** to the vehicle and switch it on.

6.1.2 Switch on ignition **AND** hazard warning lights on the vehicle.



Information

The **PIWIS Tester** instructions take precedence; the description may be different for later Tester releases.

The procedure described here has been laid out in general terms. Different text or additional information may appear on the **PIWIS Tester**.

6.1.3 Select the "Diagnostics" menu item on the PIWIS Tester.

6.1.4 If **P90999 - P90999 - PIWIS Tester 4** is connected correctly, a connection to the vehicle will be established: "Model line 991/model line 981" is detected.

6.1.5 Create a vehicle analysis log (VAL) in the "Overview" menu item.



Information

The function is **ONLY** available when the Tester is online!

6.2 Enter the new vehicle equipment in the vehicle data using "PIWIS Online".

6.2.1 Select the function "Control unit selection" in the menu item "Diagnosis".

Select instrument cluster and press **F12** to continue.

6.2.2 In the "Control unit overview" column, select the "Instrument cluster" control unit.

Select column 7 "Coding/ programming" and open the function "Manual coding".



Information

Only necessary if CDR/ CDR Plus was previously installed.

6.2.3

Search for the "NAVIGATION PCM" option in the "Family" column.

From column "Value", the option "672-PCM 3-ERW. Select "NAVIGATION (OFFROAD)".

Look for the "RADIOS" option in the "Family" column.

From column "Value", select option "665-PCM 3-BASIC MODULE (INCL. RADIO)".

Look for the "TELEPHONY" option in the "Family" column.

Select the option "666-PCM 3-TELEPHONE (GSM)" from the "Value" column. Press **F12** to continue

6.2.4

If PR number 631 is installed ex works, then coding: Set instrument cluster//menu configuration 2 == Byte 0 Traffic sign display to "not active". In addition, set the PCM speed limit to "active". (PR number 631 == VZA)

Analogous to 10.1, ⇒ *Remove map display from instrument cluster* the sub-item "Speed limit" must be activated in the "Menu Scope" sub-menu.

6.2.5 Data is then written/saved. The following information appears one after the other:

- Vehicle data is being transferred to PIWIS Online.
- Vehicle data is being written and transferred to the vehicle.
- Vehicle order written successfully.
- A check was performed in order to check whether control units have to be coded or programmed as a result of the changes made.

6.2.6 Press **F10** to open the log. Check that the selected vehicle equipment has been entered and close the log.

6.3 Read out the fault memory of all systems, correct any existing faults, and erase the fault memory. ⇒ *Workshop Manual 'Fault memory for on-board diagnosis'*

6.4 Switch off ignition and disconnect **P90999 - P90999 - PIWIS Tester 4**.

6.5 Disconnect the battery charger. ⇒ *Workshop Manual '2X00IN Battery trickle charge'*

7 Allocation list set-up list/PR numbers

Set-up assistant	991.I	981.I
Reversing camera	638	638
Park Assistant	634/635/636/638	635/636/638
Automatic air conditioning	573	573
Halogen headlights	≠ 601/603/620/602/632/852	≠ 601/603/620/602/632/853
Bi-Xenon headlights	601	601
Bi-Xenon headlights incl. Porsche Dynamic Light System (PDLS)	603, 620	603, 620
LED headlights incl. Porsche Dynamic Light System Plus (PDLS+)	602, 632, 852	632, 852
Light Design Package	630	630
Rear wiper	425	425
Microphone	618/619/666/668/669	618/619/666/668/669

Rain sensor	265/268	265/268
Sound Package	441	441
Sound Package Plus	490	490
BOSE® Surround Sound System	680	680
BOSE® Surround Sound System Japan	680 + 193	680 + 193
Burmester® High-End Surround Sound System	682	682
Electric folding outside mirrors	258/259/260/261	258/259/260/261
Lowering mirror	270/271/273	270/271/273
Multifunction steering wheel	431/451/452/453/844/845/847/XHF/X-HL/XPU/XPV	431/451/452/453/844/845/847/XHF/XHL/XPU/XPV
Individual Memory (only in combination with fully electric Sportseat or adaptive Sportseat Plus)	315/316/319/320/321/322/323/324/377/378	315/316/319/320/321/322/323/324/377/378

- 7.1 If a CDR was originally installed, the map display must be removed from the instrument cluster.
 ⇒ Remove map display from instrument cluster



Remove map display from instrument cluster

7.2 **Update PCCM+ to the current software version.** (A USB-C stick with a size of 8-32 GB & NTFS or ExFAT formatting must be used.)

7.2.1 Opening settings.

7.2.2 Select system.

7.2.3 Perform software update. (Software can be downloaded by scanning the QR code or via the following link: <https://www.porsche.com/international/accessoriesand-service/classic/producthighlights/pccm/manuals/>)

"Frequently Asked Questions" can also be found under the QR code.

7.3 Carry out map updates.

7.3.1 Connect a device via Wi-Fi

7.3.2 Open Navigation app.

7.3.3 load current map updates.

7.4 To improve device performance, unnecessary map data can be removed.

7.4.1 Open the navigation app.

7.4.2 Open device settings.

7.4.3 Select maps.

7.4.4 Delete superfluous map data: Press and hold the map material to be removed ("Long Press").



QR code

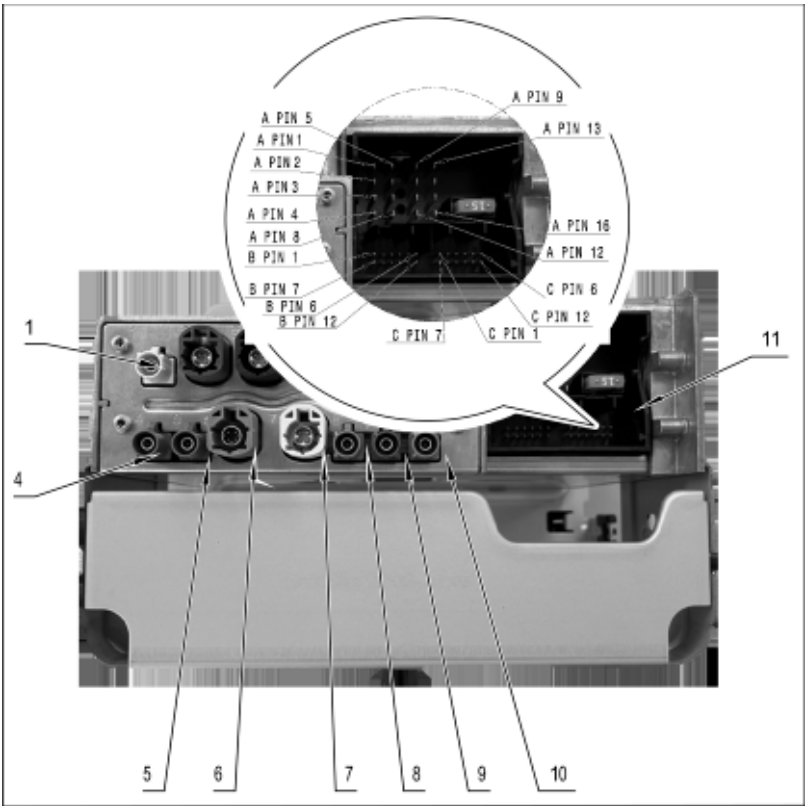


Information

A SIM card must be inserted for full functionality.

The SIM card is inserted into the device/ PCCM+ with the slanted short side of the card first and with the chip facing downwards.

8 Carry out functional check (connectivity, turn-by-turn, media and navigation).



Connection diagram PCCM+

Plug connection 1- CVBS_CAM_Conn (White)

Pin	Designation
1	CVBS VIDEO IN
2	SHIELD

Plug connection 3 LVDS1_Conn (Black)

1	LVDS +
3	LVDS –

Plug connection 4 FM/AM/DAB_ANT_Conn (Waterblue)

1	AM/FM1/DAB1 ANT IN
2	SHIELD

Plug connection 5 Fm1_ANT_Conn (Waterblue)

1	FM2 ANT IN
2	SHIELD

Plug connection 6 USB1_Conn (Curry)

1	DATA -
2	GND
3	DATA +
4	VBUS

Plug connection 7 USB2_Conn (White)

1	DATA +
2	VBUS
3	DATA -
4	GND

Plug connection 8 4G_MAIN_ANT (Bordeaux violet)

1	4G ANT IN
2	SHIELD

Plug connection 9 GPS_ANT_Conn (Blue)

1	GPS ANT IN
2	SHIELD

Plug connection 10 4G_DIV_ANT (Bordeaux violet)

1	4G ANT IN
2	SHIELD

Plug connection 11 MAIN_Conn (Black)

A1	RR+
A2	FR+

A3	FL+
A4	RL+
A5	RR-
A6	FR-
A7	FL-
A8	RL-
A9	Body_CAN LOW
A10	\
A11	Body_CAN High
A12	UBAT-
A13	\
A14	AUTAN
A15	UBAT+
A16	elec. wakeup/diagnosis
B1	Microphone 1 In+
B2	\
B3	Microphone shield
B4	External AMP ON
B5	Test ACC
B6	BACK-CAM
B7	\
B8	\
B9	Microphone 1 GND
B10	CVBS Signal
B11	CVBS Gnd
B12	\
C1	\
C2	\
C3	\
C4	\
C5	\
C6	\
C7	\

C8	\
C9	\
C10	\
C11	\
C12	\

91 10 23 42: Install front display-/operator control panel (PCCM+)

Labor time: **190 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.

© 2026 Porsche Cars North America, Inc.