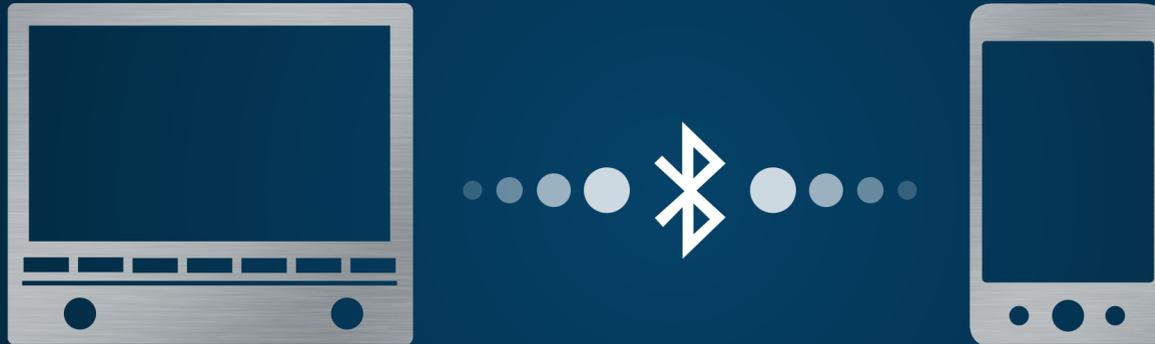




PORSCHE



Via Bluetooth®

Compatibility and connection

Valid for: 911 until 12/15, 718 Boxster/718 Cayman until 05/16

Macan until 02/16, Cayenne until 05/16, Panamera until 07/16

(Edition: 10/2016)

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Compatible mobile phones



Apple®
iPhone® 5



Apple®
iPhone® 5c



Apple®
iPhone® 5s



Apple®
iPhone® 6



Apple®
iPhone® 6 Plus



Apple®
iPhone® 6s



Apple®
iPhone® 6s Plus



Apple®
iPhone® 7



Apple®
iPhone® 7 Plus



Apple®
iPhone® SE

All of the mobile phones shown are compatible with both CDR/PCM with mobile telephone preparation and PCM with telephone module. In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

Compatible mobile phones



BlackBerry®
9981 Porsche Design



BlackBerry®
Classic



BlackBerry®
Passport



BlackBerry®
PRIV



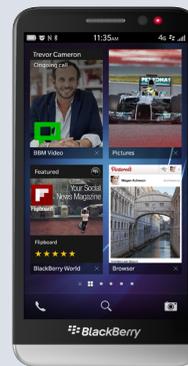
BlackBerry®
Q5



BlackBerry®
Q10



BlackBerry®
Z10



BlackBerry®
Z30



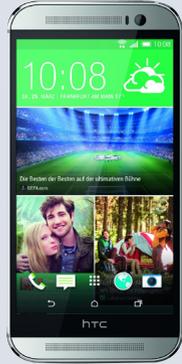
HTC®
10



HTC®
One A9

All of the mobile phones shown are compatible with both CDR/PCM with mobile telephone preparation and PCM with telephone module. In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

Compatible mobile phones



HTC®
One M8



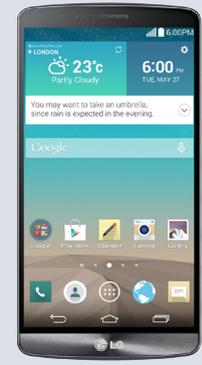
HTC®
One M9



Huawei®
Nexus 6P



Huawei®
P9



LG®
G3



LG®
G4



LG®
Nexus 5



Microsoft
Lumia 950



Motorola®
Moto X (2. Gen.)



Motorola®
Nexus 6

All of the mobile phones shown are compatible with both CDR/PCM with mobile telephone preparation and PCM with telephone module. In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

Compatible mobile phones



Motorola®
X Force



Nokia®
808 PureView



Nokia®
Lumia 920



Nokia®
Lumia 925



Nokia®
Lumia 1020



Nokia®
Lumia 1520



Samsung®
Galaxy A5



Samsung®
Galaxy Alpha



Samsung®
Galaxy Note 4



Samsung®
Galaxy Note 5

All of the mobile phones shown are compatible with both CDR/PCM with mobile telephone preparation and PCM with telephone module. In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

Compatible mobile phones



Samsung®
Galaxy Note Edge



Samsung®
Galaxy S5



Samsung®
Galaxy S6



Samsung®
Galaxy S6 edge



Samsung®
Galaxy S7



Samsung®
Galaxy S7 edge



Sony®
Xperia Z5



Sony®
Xperia Z5 Compact

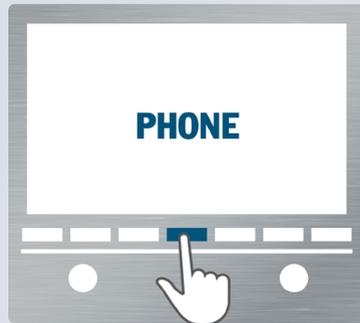


Sony®
Xperia Z5 Premium

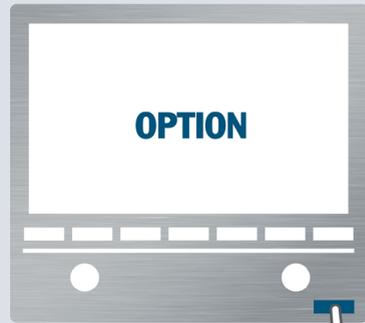
All of the mobile phones shown are compatible with both CDR/PCM with mobile telephone preparation and PCM with telephone module. In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

Pairing Android® devices

Connection with CDR



Press the 'PHONE' button.



Press the 'OPTION' button.



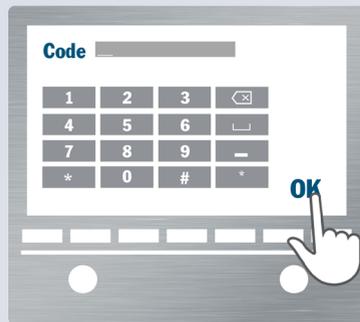
Select 'Device list' from the menu.
CDR is visible to external devices.



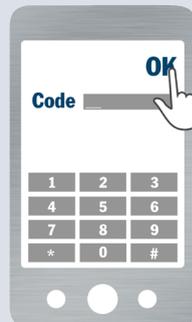
Select 'Settings/Bluetooth'
to search for devices.



Select 'CDR' from the
search list.



Enter any four-digit code.



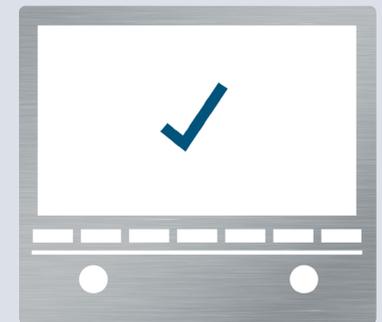
Enter the code again and
confirm with 'OK'.



Agree to the transfer of
contacts and call lists.

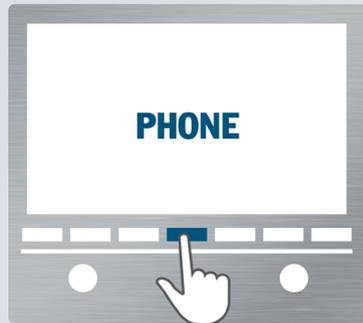


Android® device and CDR are now connected. A connection will be established
automatically whenever the vehicle is started.



Pairing Android® devices

Connection with PCM



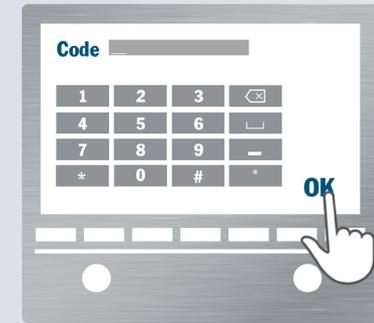
Press the 'PHONE' button.
PCM is visible to external devices.



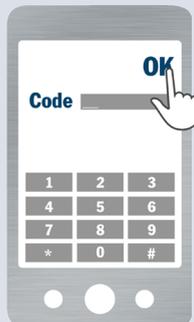
Select 'Settings/Bluetooth'
to search for devices.



Select 'PCM' from the search list.



Enter any four-digit code.*



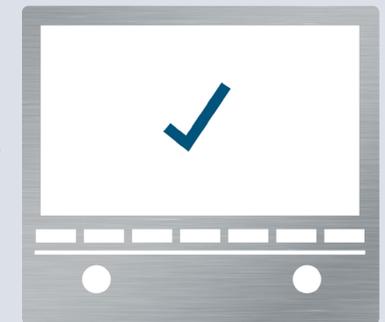
Enter the code again and
confirm with 'OK'.



Agree to the transfer of
contacts and call lists.



Android® device and PCM are now connected. A connection will be established automatically whenever the vehicle is started.



*In Porsche models after November 2012, thanks to Secure Simple Pairing, it is simply a matter of confirming whether the same six-digit code is displayed on both devices.

Pairing Android® devices

Connection with CDR

Step 1

Press the 'PHONE' button on CDR.

Step 2

Press the 'OPTION' button on CDR.

Step 3

Select 'Device list' from the menu on CDR. CDR is now visible to external devices.

Step 4

On the Android® device, select 'Settings/Bluetooth' from the menu and activate Bluetooth®. The Android® device now starts to search for visible Bluetooth® devices.

Step 5

Select 'CDR' from the search list on the Android® device.

Step 6

A number pad is displayed on CDR; enter any four-digit Bluetooth® code of your choice (e. g. '0000') and confirm with 'OK'.

Step 7

The same Bluetooth® code must now be entered on the Android® device and confirmed with 'OK'. Pairing is now complete.

Step 8

Accept the Android® device's request to transfer contacts and call lists to CDR. Make sure that 'Always allowed' is ticked.

Step 9

The Android® device is now connected to CDR via Bluetooth®. The connection will be established automatically whenever the vehicle is started.

Connection with PCM

Step 1

Press the 'PHONE' button on PCM. PCM is now visible to external devices.

Step 2

On the Android® device, select 'Settings/Bluetooth' from the menu and activate Bluetooth®. The Android® device now starts to search for visible Bluetooth® devices.

Step 3

Select 'PCM' from the search list on the Android® device.

Step 4

A number pad is displayed on PCM; enter any four-digit Bluetooth® code of your choice (e. g. '0000') and confirm with 'OK'. In Porsche models from November 2012, PCM supports Secure Simple Pairing. With this, there is no need for the user to enter the Bluetooth® code. Instead, it is simply a case of confirming whether the six-digit codes displayed on both devices match each other. In that case, Step 5 can be skipped.

Step 5

A number pad now appears on the Android® device; enter the same Bluetooth® code and confirm with 'OK'. Pairing is now complete.

Step 6

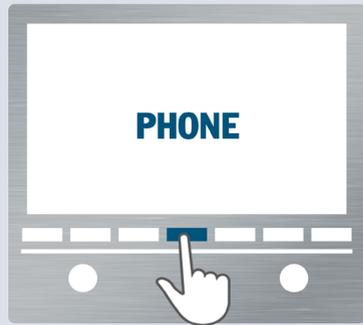
Accept the Android® device's request to transfer contacts and call lists to PCM. Make sure that 'Always allowed' is ticked.

Step 7

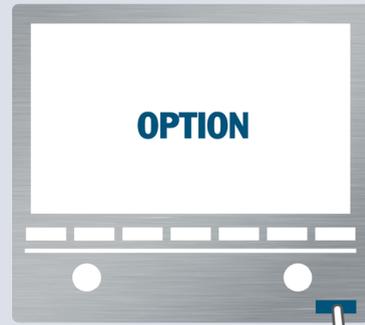
The Android® device is now connected to PCM via Bluetooth®. The connection will be established automatically whenever the vehicle is started.

Pairing BlackBerry® devices

Connection with CDR



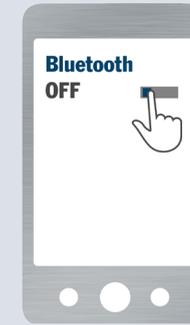
Press the 'PHONE' button.



Press the 'OPTION' button.



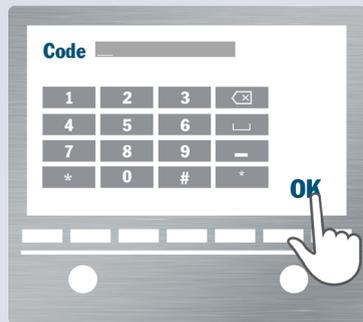
Select 'Device list' from the menu.
CDR is visible to external devices.



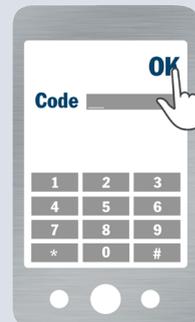
Select 'Settings/Networks and
Connections/Bluetooth Connections'
to search for devices.



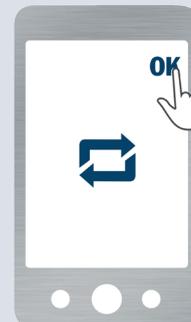
Select 'CDR' from the
search list.



Enter any four-digit code.



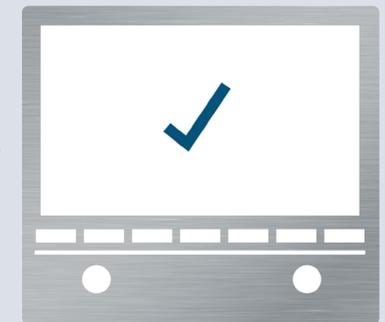
Enter the code again and
confirm with 'OK (↵)'.



Confirm CDR's connection
request.



BlackBerry® and CDR are now connected. The connection will be established
automatically whenever the vehicle is started.



Pairing BlackBerry® devices

Connection with PCM



Activate Bluetooth® via 'Settings/ Networks and Connections/Bluetooth Connections'.



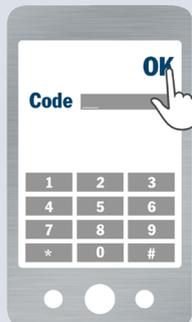
Press the 'PHONE' button.



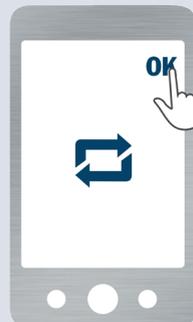
Select 'Find telephone' from the menu. Available devices will be searched for.



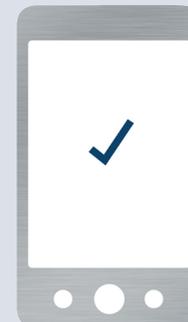
Select 'BlackBerry' from the search list.



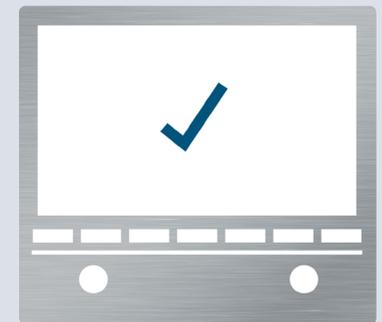
Enter the code specified by PCM on the BlackBerry®.*



Confirm PCM's connection request.



BlackBerry® and PCM are now connected. The connection will be established automatically whenever the vehicle is started.



*In Porsche models after November 2012, thanks to Secure Simple Pairing, it is simply a case of confirming whether the same six-digit code is displayed on both devices.

Pairing BlackBerry® devices

Connection with CDR

Step 1

Press the 'PHONE' button on CDR.

Step 2

Press the 'OPTION' button on CDR.

Step 3

Select 'Device list' from the menu on CDR. CDR is now visible to external devices.

Step 4

On the BlackBerry®, select 'Settings/ Networks and Connections/Bluetooth Connections' from the menu and activate Bluetooth®. Select 'Add/search for new device'. The BlackBerry® now starts to search for visible Bluetooth® devices.

Step 5

Select 'CDR' from the search list on the BlackBerry®.

Step 6

A number pad is displayed on CDR; enter any four-digit Bluetooth® code of your choice (e. g. '0000') and confirm with 'OK'.

Step 7

The same Bluetooth® code must now be entered on the BlackBerry® and confirmed with 'OK (↔)'. Pairing is now complete.

Step 8

Accept CDR's connection request on the BlackBerry®. Make sure that you tick 'Do not ask this question again'.

Step 9

The BlackBerry® is now connected to CDR via Bluetooth®. The connection will be established automatically whenever the vehicle is started.

Connection with PCM

Step 1

Select 'Settings/Networks and Connections/ Bluetooth Connections' from the menu on the BlackBerry® and activate Bluetooth®.

Step 2

Press the 'PHONE' button on PCM. To speed up the search by PCM and allow external SIM access, BlackBerry® devices have the option of a standby mode.

Step 3

Select 'Find telephone' from the menu on PCM and, where applicable, on the next screen select the menu item 'New mobile phone'. A search is performed for previously unknown Bluetooth® phones. At the end of the search, the available devices are displayed in a list.

Step 4

Select the BlackBerry® from the search list on PCM.

Step 5

Enter the Bluetooth® code specified by PCM on the BlackBerry®. Entering this code completes the pairing process. In Porsche models from November 2012, PCM supports Secure Simple Pairing. With this, there is no need for the user to enter the Bluetooth® code. Instead, it is simply a case of confirming whether the six-digit codes displayed on both devices match each other.

Step 6

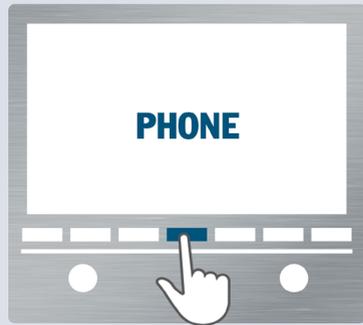
Accept PCM's connection request on the BlackBerry®. Make sure that you tick 'Do not ask this question again'.

Step 7

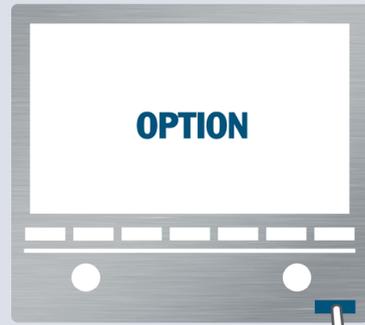
The BlackBerry® is now connected to PCM via Bluetooth®. The connection will be established automatically whenever the vehicle is started.

Pairing iOS® devices

Connection with CDR



Press the 'PHONE' button.



Press the 'OPTION' button.



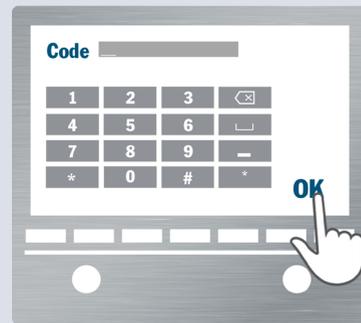
Select 'Device list' from the menu.
CDR is now visible to external devices.



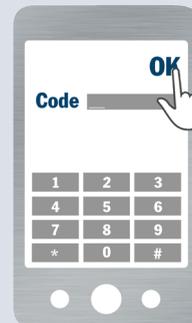
Select 'Settings/Bluetooth'
to search for devices.



Select 'CDR' from the
search list.



Enter any four-digit code.



Enter the code again and
confirm with 'OK'.



iOS® device and CDR are now connected. A connection will be established
automatically whenever the vehicle is started.



Pairing iOS® devices

Connection with PCM



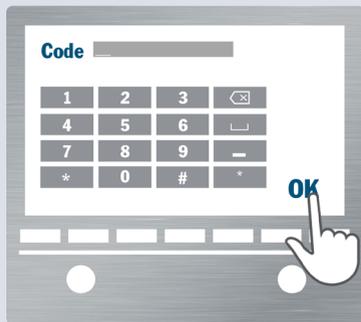
Press the 'PHONE' button.
PCM is visible to external devices.



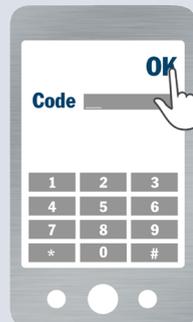
Select 'Settings/Bluetooth'
to search for devices.



Select 'PCM' from the search list.



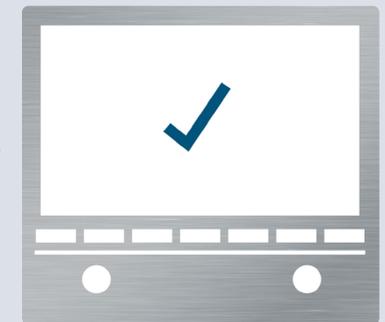
Enter any four-digit code.*



Enter the code again and
confirm with 'OK'.



iOS® device and PCM are now connected. A connection will be established
automatically whenever the vehicle is started.



*In Porsche models after November 2012, thanks to Secure Simple Pairing, it is simply a matter of confirming whether the same six-digit code is displayed on both devices.

Connection with CDR

Step 1

Press the 'PHONE' button on CDR.

Step 2

Press the 'OPTION' button on CDR.

Step 3

Select 'Device list' from the menu on CDR. CDR is now visible to external devices.

Step 4

Select 'Settings/Bluetooth' from the menu on the iOS® device. The iOS® device now starts to search for visible Bluetooth® devices.

Step 5

Select 'CDR' from the search list on the iOS® device. A connection request now appears on CDR; you must confirm this request.

Step 6

A number pad is displayed on CDR; enter any four-digit Bluetooth® code of your choice (e. g. '0000') and confirm with 'OK'.

Step 7

The same Bluetooth® code must now be entered on the iOS® device and confirmed with 'OK'. Pairing is now complete.

Step 8

The iOS® device is now connected with CDR via Bluetooth®. The connection will be established automatically whenever the vehicle is started.

Connection with PCM

Step 1

Press the 'PHONE' button on PCM. PCM is now visible to external devices.

Step 2

Select 'Settings/Bluetooth' from the menu on the iOS® device. The iOS® device now starts to search for visible Bluetooth® devices.

Step 3

Select 'PCM' from the search list on the iOS® device.

Step 4

A number pad is displayed on PCM; enter any four-digit Bluetooth® code of your choice (e. g. '0000') and confirm with 'OK'. In Porsche models from November 2012, PCM supports Secure Simple Pairing. With this, there is no need for the user to enter the Bluetooth® code. Instead, it is simply a case of confirming whether the six-digit codes displayed on both devices match each other. In that case, Step 5 can be skipped.

Step 5

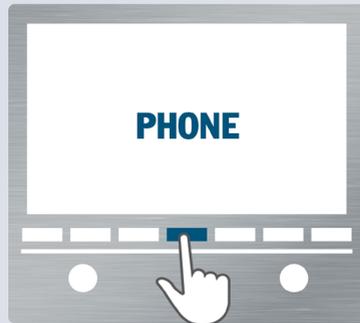
The same Bluetooth® code must now be entered on the iOS® device and confirmed with 'OK'. Pairing is now complete.

Step 6

The iOS® device is now connected to PCM via Bluetooth®. The connection will be established automatically whenever the vehicle is started.

Pairing WinPhone® devices

Connection with PCM



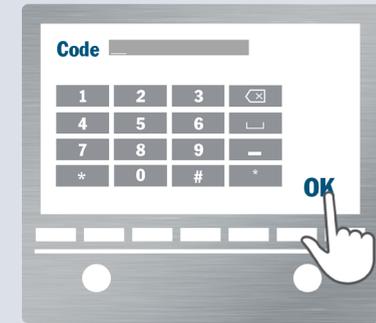
Press the 'PHONE' button.
PCM is visible to external devices.



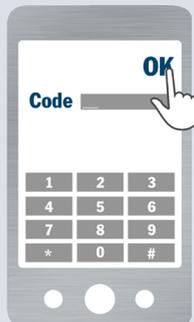
Select 'Settings/Bluetooth'
to search for devices.



Select 'PCM' from the search list.



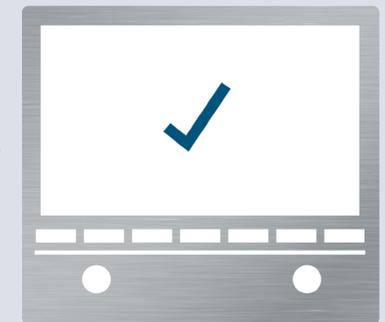
Enter any four-digit code.*



Enter the code again and
confirm with 'OK'.



Agree to the transfer of contacts.



WinPhone® device and PCM are connected. A connection will be established
automatically whenever the vehicle is started.

*In Porsche models after November 2012, thanks to Secure Simple Pairing, it is simply a matter of confirming whether the same six-digit code is displayed on both devices.

Step 1

Press the 'PHONE' button on PCM.
PCM is now visible to external devices.

Step 2

Select 'Settings/Bluetooth' from the menu on the WinPhone® device. The WinPhone® device now starts to search for visible Bluetooth® devices.

Step 3

Select 'PCM' from the search list on the WinPhone® device.

Step 4

A number pad is displayed on PCM; enter any four-digit Bluetooth® code of your choice (e. g. '0000') and confirm with 'OK'. In Porsche models from November 2012, PCM supports Secure Simple Pairing. With this, there is no need for the user to enter the Bluetooth® code. Instead, it is simply a case of confirming whether the six-digit codes displayed on both devices match each other. In that case, Step 5 can be skipped.

Step 5

The same Bluetooth® code must now be entered on the WinPhone® device and confirmed with 'OK'. Pairing is now complete.

Step 6

Accept the WinPhone® device's request to transfer contacts to PCM.

Step 7

The WinPhone® device is now connected to PCM via Bluetooth®. The connection will be established automatically whenever the vehicle is started.

Useful information on pairing

Possible reasons for unsuccessful pairing

Regarding CDR/PCM:

- It can happen that a mobile phone does not appear in CDR/PCM's search list due to unfavourable external conditions. In this case, you can also start the pairing process from the mobile phone.
- Bluetooth® connection problems associated with AUX BT may be caused by the simultaneous running of the telephone and audio profiles or by the sequence in which they are connected. In this case, it may be preferable to deactivate the AUX BT function by going to 'DISC/OPTION/SET DISC/AUX' to ensure all phone functions are stable and reliable.
- CDR/PCM must not be connected with any other mobile telephone.

- In very rare cases, it can happen that CDR/PCM forgets the pairing information. As a result, no connection can be established between the devices. In this case, delete the entry left in the car and repeat the pairing process.
- Deleting the device list on CDR/PCM enables CDR/PCM to find the mobile phone more quickly.

Regarding the mobile phone:

- For the pairing of mobile phones, we recommend starting the device search from the mobile phone itself.
- The user has 30 seconds to enter the Bluetooth® code. Otherwise the pairing process has to be repeated. To do this, select CDR/PCM from the search list on the mobile phone again.

- There are situations where the mobile phone will not allow a connection because of an irregular condition. Restarting the mobile phone usually returns the mobile phone to normal operating condition again.
- Some phone models allow the user to select the Bluetooth® profiles supported. Here, too, profile selections can become forgotten and the connection can no longer be established. In most cases this problem can be solved by recreating the Bluetooth® profiles.
- Some phone models respond to a pairing request by CDR/PCM only when their screen is active and visible.

- In very rare cases, it can happen that the mobile phone forgets the pairing information. As a result, no connection can be established between the devices. In this case, delete the entry left on the phone and repeat the pairing process.
- On some phone models, each connection request by the car must be confirmed by the press of a button. If this confirmation is not provided, the connection will not be established.

Regarding Android® devices:

- Some Android® devices may display the request for authorisation to transfer the phone book and call lists simply in the form of an icon in the header on the phone screen.

Regarding BlackBerry® devices:

- The BlackBerry® does not appear in the search list on CDR because it has a higher security level. Therefore, in this case, you must start the search from the mobile phone itself.
- On older devices, a prompt to enter a 'Passkey for PCM' may appear on the BlackBerry® during the search by PCM. You can ignore this prompt or cancel it using the 'Back' button on the BlackBerry®.

Regarding iOS® devices:

- The Bluetooth® function on the iOS® device is configured in such a way that a device search normally has to be started from the iOS® device itself.
- If an iOS® device was paired with PCM and the pairing was deleted on PCM, a bug in the iOS® software prevents a connection with PCM being initiated from the iOS® device. In this case it is necessary to delete the corresponding entry on the iOS® device and start the pairing process from scratch.



What is Bluetooth®?

Bluetooth® is an industry standard for the wireless networking of electronic devices over short distances of up to 10 metres. It allows mobile and stationary electronic devices to communicate wirelessly with each other, with Bluetooth® as the interface.

When will Bluetooth® technology be available in my favourite model?

Bluetooth® technology is already available in all Porsche models. You just need to order the mobile phone preparation option or the telephone module* (for PCM only).

What are the Bluetooth® functions in Porsche cars from November 2012?

In Porsche cars since November 2012 it is possible to transfer SMS and e-mail messages from the mobile phone to PCM. This function enables the customer to read messages stored in the phone directly on the PCM screen. To use this feature, the mobile phone must support the Bluetooth® Message Access Profile (MAP).

Other new functions that work with Bluetooth® are web radio streaming, online weather updates and online searches for points of interest in conjunction with the online services option. To be able to use any of these functions, you will need a recent Android® phone with the

necessary app (Aha Radio). iOS® devices can also use this function. However they must be connected to the car via a cable.

The pairing process has also been simplified. Secure Simple Pairing can be used with compatible mobile phones.

Which profile does my mobile phone use if it supports both the SIM Access Profile (SAP) and the Handsfree Profile (HFP)?

If a mobile phone supports the SIM Access Profile (SAP), PCM will try to connect to this profile. If the connection attempt fails or if this profile is not supported, a connection will be established via the Handsfree Profile (HFP).

This can also occur during an active call or when the external SIM access on the mobile phone is deactivated.

A special case arises when the mobile phone additionally supports the transfer of messages via the Message Access Profile (MAP) or has the Aha Radio app installed. In these cases, preference is given to a connection by Handsfree Profile (HFP) because, for technical reasons, this is the only mode in which messages can be transferred and the new Aha Radio functions can be used on PCM.

*In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



How can I tell whether my mobile phone supports the SIM Access Profile (SAP)?

You can find information on the profiles supported by your phone in its operating manual. PCM also lists the profiles reported by your mobile phone in its list of devices under 'Device details'.

How can I tell whether my mobile phone is connected via the SIM Access Profile (SAP) or Handsfree Profile (HFP)?

The profile is displayed in the Bluetooth® device list ('PHONE/OPTION/SET PHONE/Bluetooth settings/Device list') on the page showing the connected device, under the device name.

Why does my mobile phone connect via the Handsfree Profile (HFP) even though it also supports the SIM Access Profile (SAP)?

There are several possible causes:

- In cases where the mobile offers the ability to transfer messages via the Message Access Profile (MAP) or Aha Radio, preference is given to a connection by Handsfree Profile (HFP).
- The system was started while a call was in progress.
- External SIM access on the mobile phone was deactivated.
- External SIM access for the mobile phone was deliberately deactivated on PCM.

- Some mobile phones do not allow a connection via the SIM Access Profile (SAP) if an A2DP connection (AUX BT) is already active. This may be solved by switching PCM's Bluetooth® function off and on again.
- If pairing was performed via the mobile phone, the connection cannot be established via the SIM Access Profile (SAP). In this case, the connection is always made via the Handsfree Profile (HFP).

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



Can I still use the car's mobile phone preparation without a Bluetooth®-enabled mobile phone?

No, unfortunately this is not possible.

Can I use the mobile phone preparation with any Bluetooth®-enabled mobile phone?

Your mobile phone must support the Bluetooth® Handsfree Profile (HFP).

Why do mobile phones differ in terms of their operation or functions?

The implementation of the Bluetooth® standard tends to vary among manufacturers and models, and even in different firmware versions for the same phone. As a result, your mobile phone's behaviour when used in the car may differ from that of other mobile phones and you may not be able to use all the options provided by your CDR/PCM with mobile phone preparation.

Why is a mobile phone's firmware such an important factor?

Often, new mobile phone firmware versions not only offer new functions, but also fix bugs present in previous firmware versions. You should therefore make sure that the firmware on your phone is as up-to-date as possible.

Can I disable my mobile phone's visibility after the pairing process?

Yes. Visibility is only required for pairing, which needs to be carried out only once before the first connection. Visibility can be enabled and disabled under 'PHONE/OPTION/SET PHONE/Bluetooth settings'.

Can I pair a second phone with the car?

Yes. Before pairing a second Bluetooth® phone, however, you should terminate the connection with your current device.

Do I need a cradle to use my phone with the car's mobile phone preparation?

To use your Bluetooth® mobile phone with the car's mobile phone preparation, no mobile phone cradle is strictly required. Nevertheless, the use of a mobile phone cradle is recommended because phone signal reception will be improved by the connection to the car's external aerial, and the car will keep the mobile phone's battery charged.

What happens when there are several mobile phones in the car at the same time?

The car's mobile phone preparation can only be connected to one phone at a time. You can, however, pair up to five devices in the car and then actively switch between these devices. When the system starts up, it automatically searches for the most recently connected mobile phone. If it does not find this device within 15 seconds, the system then searches for the other paired phones.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.

**Can I send text messages using the mobile phone preparation?**

No. While it has been possible in new cars since November 2012 to receive text messages via the Message Access Profile (MAP), there is still no support for the sending of text messages.

Where can I find more information about the pairing process and operation of the car's mobile phone preparation?

You can find more details about the operation of the mobile phone preparation in the operating instructions for CDR/PCM.

Who can I contact when having problems with Bluetooth® phones?

If you have any questions about your mobile phone, please contact the retailer or mobile phone provider from which you purchased the device. The conditions of the respective phone manufacturer apply exclusively.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



Questions about CDR with mobile phone preparation

Which functions are supported in CDR with a connection established by mobile phone preparation?

The range of supported functions varies greatly between different mobile phones. The mobile phone preparation in CDR supports the following functions in principle:

- pairing of a mobile phone with search initiated from the car or phone
- automatic connection of a paired device at system start-up
- basic phone functions (making, receiving and ending calls)
- hands-free capability via the in-car audio system
- status displays such as network name and signal quality
- transfer of phone book entries from the mobile phone
- sending of DTMF tones

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.

Questions about PCM with mobile phone preparation

Which functions are supported in PCM with a connection established by mobile phone preparation?

The range of supported functions varies greatly between different mobile phones. The mobile phone preparation in PCM supports the following functions in principle:

- pairing of a mobile phone with search initiated from the car or phone
- automatic connection of a paired device at system start-up
- basic phone functions (making, receiving and ending calls)
- hands-free capability via the in-car audio system
- status displays such as network name and signal quality
- transfer of phone book entries and call logs from the mobile phone
- transfer of SMS and e-mail messages
- sending of DTMF tones
- starting and ending a second call, call toggling and conference call
- with the online services option and the Aha Radio app on an Android® device or iOS® device, further services are available (web radio, online weather and online search)

Why can't I set the ringtone in PCM?

This setting is disabled for all phone models that can transfer their ringtone to PCM via Bluetooth®. PCM then rings with the mobile phone's ringtone. The ringtone setting cannot be changed on PCM in this case; it has to be set on the phone.

Why doesn't my PCM ring when a call comes in?

This can happen if you are using a phone that transfers its ringtone to PCM via Bluetooth®. If your phone is set to 'Silent' or 'Meeting' for example, neither your phone nor PCM will ring.



What are the differences between PCM with telephone module* and PCM with mobile phone preparation?

PCM with telephone module is a permanently installed car phone that requires a SIM card in order to make and receive calls. This SIM card can either be a card inserted directly into PCM or it can be a card inside a mobile phone, in which case it is accessed using the Bluetooth® SIM Access Profile (SAP).

Which mobile phones can I use to operate PCM with telephone module*?

In principle with all mobile phones with at least the Handsfree Profile (HFP).

Can I use two SIM cards at the same time?

No, you cannot.

Which functions does PCM with telephone module* support?

- pairing of a Bluetooth® mobile phone with search initiated from the car or phone
 - automatic connection of a paired device at system start-up
 - basic phone functions (making, receiving and ending calls)
 - hands-free capability via the in-car audio system
 - status displays such as network name and signal quality
 - transfer of phone book entries from the mobile phone (contacts on the SIM card and address book contacts from the device) or from the inserted SIM card
 - transfer of call lists from the mobile phone
 - compiling of call lists
 - transfer of e-mails and SMS messages from the mobile phone via the Bluetooth® Message Access Profile (MAP, only in HFP mode)
- sending and receiving of SMS messages (not in HFP mode)
 - sending of DTMF tones
 - starting and ending a second call, call toggling and conference call
 - use of the Bluetooth® handset to hold conversations in privacy mode (not in HFP mode)
 - use of Bluetooth® headsets (optional, not in HFP mode)

Can I remove the ignition key during a telephone call?

Yes. You can park the vehicle and remove the ignition key during a call. PCM remains on until you or the person on the other end actively terminate(s) the call. If your mobile phone is connected to PCM via the Handsfree Profile (HFP), you can transfer your call to your phone after parking and continue the call outside the car.

Can I use the Bluetooth® handset to make calls outside the car, too?

The Bluetooth® handset of PCM with telephone module* is designed for use inside the car. It can be used outside the car, although only within a very small radius.

Can the handset be used when a mobile phone is connected via the Handsfree Profile (HFP)?

With the telephone module*, the Bluetooth® handset can be used only when the mobile phone is connected via the SIM Access Profile (SAP).

*In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



Can I transfer the phone book to PCM with telephone module*?

Yes. The phone book entries on a SIM card inserted into PCM or those on a mobile phone connected via the Bluetooth® SIM Access Profile (SAP) are transferred to PCM with each system start-up.

Why is my phone number being shown to others even though the function for withholding my number is enabled on my mobile phone?

The setting for withholding your phone number depends on the device involved. If your mobile phone is connected to PCM via the SIM Access Profile (SAP), only the SIM card of your mobile phone is being used; the call itself takes place via PCM. However, you do have the option to enable the withhold number function in PCM as well ('PHONE/OPTION/SET PHONE/Call settings').

Can I send and receive text messages with PCM with telephone module*?

Yes. SMS can be sent and received with PCM with telephone module*.

Why can't I see all of the text messages from the mobile phone in the car?

The Bluetooth® SIM Access Profile (SAP), used to implement the text message function, permits access to the SIM card of the connected mobile phone. Consequently, only text messages stored on the SIM card are visible in the car.

After the SIM Access connection has been disestablished, why doesn't my mobile phone show the text messages I received in the car?

Mobile phones often show only the text messages stored in the memory of the phone itself. In this type of phone, a text message received in the car is not shown in the message list of your mobile phone because the message was stored on the SIM card of your phone and not in the memory of the phone itself.

If I delete a text message in the car, is it automatically deleted on the mobile phone as well?

Yes. A text message deleted on PCM is physically deleted from the mobile phone's SIM card.

Can I also receive multimedia messages with PCM with telephone module*?

No. PCM with telephone module does not support multimedia messaging.

Is it possible to use the telephone functions of the iOS® device via the USB cable without a Bluetooth® link?

No. Regardless of whether other functions can be used via the USB cable, the telephone functions of the iOS® device cannot be used unless a Bluetooth® connection has been established with PCM.

*In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



Can I access the phone book contacts and call lists stored on my mobile phone from CDR/PCM?

Access to the phone book contacts and call lists of a mobile phone is dependent on the range of functions offered by the phone. With some devices, for example, it is not possible to access phone book contacts stored on the phone itself. Others may transfer this information but provide only one phone number per name. Another possibility is that the user must confirm PCM's request by pressing a button on the phone. If this confirmation is not provided, neither the phone book nor call lists will be transferred.

Are there differences between CDR and PCM with respect to transferring phone book contacts and call lists?

Yes. CDR transfers only phone book contacts and call lists from the memory of the mobile phone itself, while PCM transfers data from both the phone's memory and its SIM card. However, the transfer of phone data is always dependent on the type of phone.

Why is my phone book not displayed correctly in my car?

Transfer and display of your phone book contacts by PCM depends on your individual mobile phone. Please note the following points:

- PCM only shows entries containing at least one telephone number.

- The maximum number of phone numbers shown in cars with PCM is limited to 2,500. In CDR, the maximum number of phone book entries depends on the Bluetooth® profiles supported by the phone.
- Some mobile phones sort the phone book contacts as 'first name, last name', and some as 'last name, first name'. As a result, the phone book listing in your PCM may differ from that in your mobile phone.
- Some phone models transfer only one number per name. In this case, information about the type of number is often also missing.
- Some mobile phones also have problems in transferring data when special characters are used.
- Some entries may be duplicated if they are stored on both the SIM card and the phone itself.

- The phone book in PCM may be empty if your mobile phone has confirmed a data transfer without sending any data.
- Linked contacts are displayed as a single instance on the phone but multiple instances are sent to PCM. As PCM does not support linked contacts, it displays each instance separately.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



What is the maximum number of phone book entries that I can transfer to CDR?

CDR can automatically transfer phone book contacts from a mobile phone that supports the Phone Book Access Profile. In this case, a maximum of 600 entries each with three numbers can be stored in the phone book memory of CDR. If the mobile phone does not support the Phone Book Access Profile, the user has the option of manually transferring a maximum of 100 entries each with three numbers into CDR's phone book.

What is the maximum number of phone book entries that I can transfer to PCM?

PCM's phone book memory can store up to a maximum of 2,500 telephone numbers. If an entry contains several numbers, the total number

of phone book entries that can be stored is reduced accordingly. If the phone book of the mobile phone holds more than 2,500 numbers, PCM will display only the first 2,500.

Can I edit or add to the entries in my device's phone book using my car's equipment?

No. You must edit the entries on the phone itself. Once this has been done, however, you can send the updated phone book to the car using the function 'Transfer phone book' for immediate use.

Can I prevent the automatic transfer of my phone book data to PCM?

Yes. The phone book and call lists are transferred only when the 'Auto update' box is checked in the menu 'PHONE/OPTION/SET PHONE/Phone book settings'.

How many entries from my mobile phone call lists can be transferred to CDR?

CDR can accept a maximum of 10 last numbers dialled and 20 calls received. Here, too, calls from or to the same telephone number are always treated as a single entry.

How many entries from my mobile phone call lists can be transferred to PCM?

PCM can accept a maximum of 60 entries per call list. Calls from or to the same telephone number are always treated as a single entry.

Why do some call list entries show the time of calling and some do not?

Transfer of call times is not supported by all mobile phones. If this information is missing, the call is transferred from the mobile phone's

call list and shown in PCM's list without a time stamp. The sequence of calls is determined by the order in which they are transferred from the mobile phone. If a call comes in while you are driving, it is stamped with the current PCM time and shown at the top of PCM's call list.

If a mobile phone is connected via the SIM Access Profile (SAP), any calls made during access to the external SIM will not be seen by the mobile phone itself and will not be stored on the device either.



What must I do to be able to use Bluetooth® audio connectivity (AUX BT)?

Audio streaming via Bluetooth® has to be enabled first by means of a setting (AUX Bluetooth) under 'DISC/OPTION/SET DISC/AUX'. Mobile phones that support the relevant profiles (A2DP/AVRCP) will now be connected to these profiles automatically at every start. You can tell whether there is an existing connection by the additional presence of the AUX BT source under 'DISC'.

Which functions are supported with Bluetooth® audio connectivity (AUX BT)?

Functions supported are determined by the scope of functions implemented in the mobile device. Where a device does not have AVRCP, playback functions have to be controlled from the device itself. Minimum scope of functions with AVRCP (Version 1.0) comprises 'Start Player', 'Pause', 'Next Track' and 'Previous Track'. Some devices additionally support rewind and fast forward (controlled by arrow buttons on PCM). Newer devices incorporating Version 1.3 already support transfer of track names and, in some cases, further metadata such as artist and album of the track currently being played, but also the launching of the audio player when the corresponding AUX BT source is selected on PCM.

Why are there different menus for AUX BT?

The different menus are aligned to the aforementioned scopes of functions supported by the various AVRCP versions. Devices with AVRCP1.0 support are controlled exclusively by the arrow buttons. If the device reports AVRCP1.3 support, PCM displays an advanced menu in which the metadata transferred (name, artist and album of the track currently playing) are shown, provided this is also supported by the device (Bluetooth® player or mobile phone).

Why are no metadata (track, artist, album) displayed in the advanced version of the AUX BT menu?

Some devices transfer no metadata even though they report AVRCP1.3 support. In these cases, the corresponding fields in PCM remain blank.

Why is the AUX BT source not activated after a system start?

To start with, the AUX BT source always needs a Bluetooth® connection with a corresponding mobile phone or Bluetooth® player. This connection is not available in the period immediately following PCM start-up because connection priority is given to the phone profiles (SIM Access Profile (SAP) or Handsfree) first and then to the audio profiles (A2DP, AVRCP). If your Bluetooth® player does not have a telephone function, this will always have to be connected manually after a system start.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



Why is there no audio playback even though the AUX BT source is enabled?

- Many devices do not allow the audio player to be launched remotely. In this case, the player will have to be launched manually from the mobile phone first. It will then be possible to control the audio player using PCM.
- There is no memory card in the mobile phone, or the music is not in the expected directory of the memory card. Consequently, the data cannot be found by the mobile phone.
- With some mobile phones or Bluetooth® players, the volume of the music being played by PCM depends on the volume setting on the mobile device.

- In simple implementations, the same command is used to operate the functions 'Play' and 'Pause'. In this case, no feedback on the current status of the player is given. This may result in the player being paused instead of playing.

Why is audio streaming via AUX BT sometimes impaired?

In some situations, the quality of audio streaming via AUX BT may be impaired by the limited bandwidth available with Bluetooth®. This is most likely to happen during the search for new devices or during the connection or reconnection of devices. It might be possible to improve this situation by deleting obsolete mobile phones from the device list in PCM.

Which functions are supported with the new e-mail and SMS function?

The new e-mail and SMS function supports the reading of messages (e-mail and text messages) stored on the smartphone. These are downloaded to PCM via the Bluetooth® Message Access Profile (MAP). It is only possible to read messages. Only the inbox of the supported e-mail accounts is displayed.

All e-mails are sorted by date when listed on PCM. Once e-mails are read, they are then marked as read on the smartphone. Message text-to-speech is also supported by PCM. Only the text content of e-mails can be displayed. Attachments and message parts encoded in HTML are not supported by PCM and will not be displayed.

What do I need to be able to transfer e-mails and SMS via the Message Access Profile (MAP)?

To use this function, you will need a Porsche car produced in the model year beginning November 2012 or later and a phone that supports the Message Access Profile (MAP). While many of the latest smartphones do support this profile, it is often only on the SMS side. In this case, e-mails cannot be transferred to PCM.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.

**What is the difference between text messages being transferred via the SIM Access Profile (SAP) and the transfer of e-mails and text messages via the Message Access Profile (MAP)?**

There are fundamental differences between these two approaches. The ability to transfer text messages via the SIM Access Profile (SAP) concerns text messages that are stored on the mobile phone's SIM card. These messages can not only be received and read but also replied to and deleted. It is also possible to compose a new message.

However, there is no access to the messages stored in the memory of the mobile phone itself. As modern mobile phones usually store messages in their device memory, the availability of SIM messages that can be downloaded is considerably limited where this is the case.

The Message Access Profile (MAP) is designed to reflect these recent developments by enabling messages to be transferred from the phone itself. Unlike the SIM Access Profile (SAP), the Message Access Profile (MAP) supports both text messages and e-mails. At present, however, PCM offers only read-only access.

It is not possible to answer or delete messages here. Please note: for technical reasons, the SIM Access Profile (SAP) and Message Access Profile (MAP) cannot currently be used simultaneously. The user must actively decide on the profile to be used.

What is the maximum number of text messages and e-mails that can be transferred from my phone to PCM?

A maximum of 50 text messages and 100 e-mails can be downloaded by PCM.

Why are no e-mails being downloaded from my smartphone?

There are devices that support the Message Access Profile (MAP) in principle but, in fact, they support only the SMS or SMS/MMS side of it. In this case, no e-mails are transferred to PCM and the corresponding list remains blank.

Why don't I see e-mails and/or text messages from my BlackBerry®?

Corporate-owned devices often have data encryption enabled in the interests of security. If you connect a device with protection like this to PCM and it also happens to be in a locked state, no messages will be sent by Bluetooth® to PCM as this would contradict the security philosophy of the BlackBerry®. In this case, the BlackBerry® needs to be unlocked first and the message download restarted. Depending on the software version of the BlackBerry®, it may be necessary to disestablish the Bluetooth® connection completely before the new download is attempted. This can be carried out by pressing and holding the volume control (device switches off) and then pressing the volume control again (device comes back on).

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.

**Why are no messages (SMS and e-mails) being downloaded from my iOS® device?**

In the iOS® device, the ability to transfer messages via the Message Access Profile (MAP) is implemented in a different way from that of other smartphones. While a connection is being established with PCM, the iOS® device does not allow any downloading of the stored messages, but transfers only those text messages received by the iOS® device in locked state while the car is being driven. In addition, the transfer of messages to PCM must be authorised on the iOS® device.

Why aren't my e-mails being displayed in full?

To reduce mobile data usage, the mobile phone usually downloads only a small part of the e-mail from the e-mail server at first. The user can then choose to download the rest of the e-mail as needed. Due to the restricted amount of memory space in PCM, all e-mails are also limited to a maximum size of 5 kilobytes. All content beyond 5 kilobytes will be truncated.

Why do I only see e-mails from one account even though I have several accounts on my mobile phone?

Many smartphones do not support the transfer of e-mails from multiple accounts to PCM. Often, only the e-mails handled by the stock app will be transferred.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



Questions about Aha Radio (PCM only)

What do I need to be able to use Aha Radio?

At present, Aha Radio is available on the iOS® and Android® platforms. You need a compatible smartphone (iOS® device with iOS® 5 or later, Android® device with Android® 4.0 or later) and the Aha Radio app from the respective market (App Store from Apple® or Google Play® Store). After the app has been installed on your smartphone, you will need to set up a free personal account so that your settings, including your customised list of presets, can be saved.

Why do I need to register for an account on the Aha Radio server to use online services?

The use of online services is a personalised experience where customers can listen to the music that suits their own taste. User-specific settings are stored on the Aha Radio server and the user data are updated in the app when a connection to the server is established and

services are accessed from PCM. No data are disclosed to third parties.

How do I download the Aha Radio app to my Android® phone? How do I keep the app up-to-date?

Like any other app, the Aha Radio app can be downloaded from the Google Play® Store. After you have answered the security questions and created an account, you will be able to use Aha Radio straight away. App update notifications are also displayed automatically by the Android® system as with all other Android® apps.

With Android® devices, are there any restrictions on the use of Aha Radio via Bluetooth® connection?

Yes. To stream Aha Radio, Android® devices need to be connected via the Handsfree Profile (HFP). Where a connection is established via

the SIM Access Profile (SAP), the phone gives up its network access rights to PCM and no longer has the Internet connection of its own that Aha Radio requires.

What do I need to know about how the Aha Radio app starts on an Android® device?

The Aha Radio app starts automatically when an A2DP connection is established ('AUX BT connected') and then appears as a new source under TUNER. Please note that it may be necessary to start the app manually on the mobile phone the first time it is used. At subsequent system start-ups, the app will then connect to PCM automatically. It should also be noted that the AUX BT function on PCM may have been deactivated. In this case, no connection will be established successfully between PCM and the Aha Radio app. Please activate AUX BT on PCM under 'MEDIA/OPTION/SET MEDIA/AUX'.

How do I download the Aha Radio app to my iOS® device? How do I keep the app up-to-date?

Like any other app, the Aha Radio app can be downloaded from the App Store. After you have answered the security questions and created an account, you will be able to use Aha Radio straight away. With iOS®, app update notifications are also displayed automatically via the App Store.

With iOS® devices, are there any restrictions on the use of Aha Radio via Bluetooth® connection?

Yes. Restrictions in the Apple operating system unfortunately mean that the AUX BT function needs to be deactivated where iOS® devices are connected by cable. In this case, music from the iPod® or Aha Radio is streamed exclusively over cable.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.



Questions about Aha Radio (PCM only)

What do I need to know about how the Aha Radio app starts on an iOS® device?

With the iOS® device connected to the USB connection in the car, the Aha Radio app on the iOS® device starts automatically and appears as a new source under 'TUNER'. It should be noted that this requires the iOS® device to be in an unlocked state and showing its main screen (home screen).

Which content can I use with Aha Radio?

In a Porsche, Aha Radio gives access to the following functions:

- Internet radio
 - Aha Radio shows up as an additional audio source under 'TUNER'. As soon as the connections between the smartphone and

vehicle and with the Aha Radio server have been established, you can select the source 'Aha' and then choose from the list of programs stored as presets. These programs are web radio stations, personalised radio (Slacker, USA only), podcasts or location-based services such as hotel, restaurant or café searches (USA only in some cases). You can delete presets from the list of presets or add new ones of your own from an extensive selection of programs. You can also link your Facebook or Twitter account to your Aha Radio account and have your feeds read aloud. This link has to be set up on the smartphone itself. Note: it is not possible to post to Facebook or Twitter from the app.

- Online weather
 - When your car is connected to Aha Radio, you can obtain weather information for your current location, your destination or any location that you find with a free text search. Please note, however, that only those locations stored in the navigation database of PCM can be selected. A three-day weather forecast is also available. Information is accessible from 'INFO/Online weather'.
- Online search
 - When your car is connected to Aha Radio, you have access to an advanced points of interest search under 'NAVI'. After you have entered a name and the relevant search region, you will be given a list of POIs from which you can select the desired destination and then find with route guidance. If PCM is connected to a Bluetooth® phone, you will also be able to dial directly any phone numbers that may be listed for the POIs concerned.

Why is my Aha Radio reception lost in some places?

Aha Radio receives audio data over the Internet connection of the mobile phone. In areas where Internet access is impossible or too slow due to poor network connectivity, the connection to Aha Radio might be lost.



Questions about Aha Radio (PCM only)

Why is my Aha Radio reception lost even though I have a strong signal?

The reception signal strength displayed on the mobile phone and on PCM is no indication of the quality of the data connection. In areas with 2G reception there is often insufficient bandwidth available to use Aha Radio without connection dropouts even though reception strength may appear to be very good. The same can be true even in areas of 3G coverage because, with packet-based transfers, the channel may need to be shared among several other users.

With intensive use of Aha Radio, the inclusive data allowance of your mobile phone contract could become depleted. In this case, 3G will often continue to be displayed even though the bandwidth allocated to you has been reduced to below the limit required for glitch-free Aha Radio usage.

Why does the online search sometimes return no results?

Online queries are sent to the Aha Radio server and Google Places® interface. There is therefore a series of steps in which errors could occur during the online search, any one of which could lead to a blank search list being returned.

- The basic prerequisite to a successful online search is an adequate data connection. If no response is received in the car after 20 seconds, the query is terminated and the search list will appear blank.
- The Google Places® interface is not tolerant of spelling mistakes. Terms will not be found in the Google® database if entered incorrectly.
- The search radius in the online search is limited. In some cases, therefore, no results may be found for the selected location. Please specify your choice of location as accurately as possible.
- On some networks, it is not possible to conduct a telephone call and use data traffic at the same time.

- On rare occasions, the connection to either the Aha server or the Google® server may be lost temporarily.

Why are programs in Aha sometimes unavailable?

Programs from the list of presets or newly added programs from Aha Radio may be temporarily unavailable. The reason is that behind each program is a content server and this might be down for the time being, e. g. for maintenance purposes. Some programs may require their own log-in. This cannot be done on PCM, but only ever on the mobile phone.

How do I change the language setting for Aha Radio?

Aha Radio as well as the online search and weather functions are controlled on PCM in the language set for PCM.

Which languages are supported?

At present, Aha Radio supports English, German, French, Spanish and Italian. Support for other languages is being planned.

There is a detailed functional overview of mobile phone models that have been compatibility-tested by Porsche, starting on page 42. An explanation of the terms used here can be found in the glossary starting on page 37.

Aha Radio

With the Aha Radio smartphone app (iOS® device or current Android® device), the customer can access additional data services such as web radio, online weather updates or online searches directly from PCM inside the car. To use these services, the iOS® device needs to be connected to PCM by cable, whereas an Android® device connects via Bluetooth®.

Audio player

An audio player is a software application on a portable device (e. g. mobile phone) for playing audio files stored on the device.

Auto-connect

If two devices have been registered or 'paired' with each other, i. e. authorised to exchange data, either device can be configured to automatically transmit a connection request that is automatically answered by the other device. It is therefore possible for a Bluetooth® mobile phone to be

connected automatically every time the car is started. In order for the mobile phone to accept a request from the in-car system, the system must be authorised in the device list on the mobile phone.

Authorisation

In order for a Bluetooth® connection to be established automatically, the device requesting the connection must be authorised on the other device. This authorisation is performed automatically on some phones, while on others it must be performed explicitly by the user in the Bluetooth® device list.

AUX BT

AUX BT is an external audio source in PCM (similar to an iPod® or USB source) by means of which audio data stored on a mobile device can be streamed by Bluetooth® and played on PCM's sound system. Bluetooth® profiles required are A2DP and AVRCP.

Bluetooth®

Bluetooth® is an industry standard for the wireless networking of electronic devices over short distances of up to 10 metres. It allows mobile electronic devices such as mobile phones and PDAs (Personal Digital Assistants) as well as PCs and peripherals, e. g. keyboards, to communicate wirelessly with each other, with Bluetooth® as the interface.

Bluetooth® Advanced Audio Distribution Profile (A2DP)

Bluetooth® Advanced Audio Distribution Profile (A2DP) enables digital audio data (e. g. MP3s) to be streamed wirelessly from a data source (portable MP3 player or mobile phone) to a receiver (headphones or vehicle sound system). It is used by PCM for the AUX BT source.

Bluetooth® Audio/Video Remote Control Profile (AVRCP)

The Bluetooth® Audio/Video Remote Control Profile (AVRCP) enables remote control of an audio player installed on a mobile device (e. g. portable MP3 player or mobile phone). Supported functions depend heavily on the actual software implementation on the mobile phone or Bluetooth® player in question. Minimum functions are 'Start Player', 'Pause', 'Next Track' and 'Previous Track'. Newer devices already support the transfer of some metadata (name, artist and album of the track currently playing) and even the launching of the audio player when the relevant AUX BT source is selected on PCM, or advanced player functions such as 'Shuffle' or 'Repeat'.

Bluetooth® Handsfree Profile (HFP)

The Bluetooth® Handsfree Profile (HFP) enables an in-car audio system to be used as a hands-free facility for a Bluetooth®-enabled mobile phone.

It also gives the user access to phone functions from the controls in the vehicle. The Bluetooth® Handsfree Profile (HFP) is supported in all phone variants in PCM and even in CDR. Typical functions include making, receiving and ending calls, as well as setting up and terminating the hands-free audio connection. The Bluetooth® Handsfree Profile (HFP) defines how the phone should be controlled and how the necessary audio data are transferred.

The implementation of the Bluetooth® Handsfree Profile (HFP) tends to vary among manufacturers, from one phone model to the next, and even in different firmware versions for the same phone. As a result, one mobile phone may behave

differently from another even though all phones are said to support the Bluetooth® Handsfree Profile (HFP).

Bluetooth® Message Access Profile (MAP)

The Bluetooth® Message Access Profile (MAP) allows e-mails and text messages to be transferred between the mobile phone and PCM. Messages that are already stored on the mobile phone or are received while the car is being driven can then be displayed on PCM or read aloud. The current implementation in PCM gives read-only access to messages. It is not possible to compose or reply to messages at present. However, it is possible to extract phone numbers from messages and use this information easily to call the sender back. Although this profile is not so widely supported as yet, take-up is increasing, particularly in the high end of the smartphone market.

Bluetooth® Phone Book Access Profile (PBAP)

Bluetooth® Phone Book Access Profile (PBAP) is designed to allow the transfer of phone book content and phone lists from a mobile phone. This download takes place after a Bluetooth® connection has been established between CDR/PCM and the mobile phone. However, the transfer of phone content is always dependent on the device involved. This is why some parts of the phone book (e.g. SIM card entries) may be omitted from the transfer because they are not shared by the phone. The Phone Book Access Profile (PBAP) is only supported by newer phone models.

Bluetooth® search – inquiry

The one-off process of pairing between two devices requires a search (inquiry) to be initiated by one of the devices, the purpose of which is primarily to identify potential Bluetooth® partners. After devices have been paired, the connection will be established in response to a direct connection request rather than a search.

Bluetooth® SIM Access Profile (SAP)

The Bluetooth® SIM Access Profile (SAP) enables both the network-specific information used to authenticate the subscriber as well as certain data on the SIM card to be transferred from one device to another. A typical application of the Bluetooth® SIM Access Profile (SAP) is in the car, where it allows the user to operate a permanently installed car phone using the SIM card residing in a mobile phone. For users of PCM with built-in telephone module*, the Bluetooth® SIM Access Profile (SAP) makes it possible to use the car's external aerial without having to insert a SIM card into PCM. Users can also access the phone book contacts and text messages on their SIM card and, depending on the mobile phone's range of functions, the contacts in the device memory. At present, the Bluetooth® SIM Access Profile (SAP) is supported only by a limited number of phone models.

DTMF

DTMF (Dual Tone Multiple Frequency) is a method of telephone signalling, which can be used, for example, to transmit tones whenever the keypad is operated during a call, e.g. to operate a voice mailbox or telephone menu system.

In-band ringing

Some mobile phones are able to transfer their ringtone to the vehicle via Bluetooth®. When a call comes in, PCM then rings with the tone set on the phone rather than with its own tone. In this case, the ringtone settings in PCM are not active. The ringtone can only be set via the mobile phone. This function is not supported by CDR.

Mobile phone preparation

Mobile phone preparation (in conjunction with CDR or PCM) is a typical Bluetooth® hands-free system based on the Bluetooth® Handsfree Profile (HFP). The Bluetooth® mobile phone preparation supports the following functions in principle:

- pairing of a mobile phone with search initiated from the car or phone
- automatic connection of a paired device at system start-up
- basic phone functions (making, receiving and ending calls)
- hands-free capability via the in-car audio system
- status displays such as network name and signal quality
- transfer of phone book entries and call lists from the mobile phone
- sending of DTMF tones

Since the range of supported functions varies greatly between different mobile phones, please refer to the detailed information relevant to your vehicle equipment and mobile phone, starting on page 42.

Online search

The online search feature in PCM from November 2012 onwards uses the Google Places® interface. The user is able to look for points of interest in various search localities (near car, near destination or free location input) by entering a search term. The query is sent by the Aha Radio app to a Google® server and this returns a response. The results are presented in a list on PCM.

Online services

Online services is how we refer to those functions that download their information to the car through a mobile Internet connection. Since November 2012, PCM working in conjunction with the Aha Radio app installed on a smartphone has been able to access online services that include web radio, online weather updates and online searching. The data are transferred to PCM via cable (iOS® device) or Bluetooth® (Android® device) where they can be displayed or output through the in-car audio system.

*In the Panamera models, the Bluetooth® handset is included with PCM with telephone module.

Online weather

When PCM is connected to the Aha Radio server by a smartphone with the Aha Radio app, it is possible to retrieve the latest weather information from the CustomWeather service. Possible locations for weather querying include the locality near the car or destination or any location that you choose to enter. Weather forecasts for the next three days are available.

Pairing

Before a connection can be established between two Bluetooth® devices, they have to undergo a one-off registration or 'pairing' process for their own security. To begin this process, a Bluetooth® search (inquiry) to find all devices within range is initiated on one of the devices. A list of visible devices is then displayed (device class permitting). Once the desired device has been selected, it will be necessary to enter the same numeric code or 'passkey' into both devices.

If both devices to be paired support Secure Simple Pairing (PCM as of November 2012), it will only be a case of confirming whether the six-digit codes displayed on both devices are identical. This reduced effort for the user is intended to simplify the pairing process. If pairing was successful, the devices will now be authorised to exchange data (either system or user data, e. g. voice, audio or video) unless the pairing is deleted on either device.

PCM with telephone module*

PCM with telephone module is a permanently installed car phone that not only supports operation with a SIM card (inserted in PCM or accessed via Bluetooth® SIM Access Profile, SAP) but also offers hands-free use with the ability to control various functions supported by the Bluetooth® Handsfree Profile (HFP). Pairing of a mobile phone that can use either profile for connecting to the car takes place preferably

by means of a 16-digit Bluetooth® code for the more sophisticated SIM Access Profile (SAP, PCM from November 2012 onwards supports Secure Simple Pairing, where the user is no longer required to enter a Bluetooth® code manually). If the connection via the SIM Access Profile (SAP) fails, an alternative connection is always established via the less sophisticated Handsfree Profile (HFP mode). In this case, the range of supported functions is reduced to the scope of functions offered by mobile phone preparation (no text messaging, no Bluetooth® headset). PCM with telephone module supports the following functions in principle:

- pairing of a Bluetooth® mobile phone with search initiated from the car
- automatic connection of a paired device at system start-up
- basic phone functions (making, receiving and ending calls)
- hands-free capability via the in-car audio system
- status displays such as network name and signal quality
- transfer of phone book entries from the mobile phone (contacts on the SIM card and address book contacts from the device) or from the inserted SIM card
- transfer of call lists from the mobile phone
- compiling of call lists
- transfer of e-mails and text messages from mobile phone via Bluetooth® Message Access Profile (MAP, only in HFP mode)
- sending and receiving of text messages (not in HFP mode)
- sending of DTMF tones
- starting and ending a second call, call toggling and conference call
- use of the Bluetooth® handset to hold conversations in privacy mode (not in HFP mode)
- use of Bluetooth® headsets (optional, not in HFP mode)

*In the Panamera models, the Bluetooth® headset is included with PCM with telephone module.

Registration status

Registration status refers to the current status of the connection to a mobile phone network. If the phone is currently connected to a mobile network, the network name will be displayed (provided the phone transfers this information). Other possible states include 'network search' or 'registration failed'.

Secure Simple Pairing (SSP)

Secure Simple Pairing is a new method for the authorisation (pairing) of Bluetooth® devices whereby the user is no longer required to enter a Bluetooth® code. A six-digit code is generated and displayed on both devices to be paired. The user simply has to confirm that the codes match each other. This makes the pairing process significantly more user-friendly. In PCM, this method has been supported since November 2012.

Signal strength

Signal strength is an indicator of the general reception quality that the mobile phone is experiencing in a given location. It cannot, however, be used to evaluate the quality of a particular call because the quality of individual voice channels in a mobile network cell can vary considerably. The signal strength is displayed on CDR/PCM whenever the phone is connected to a network cell, provided the mobile phone shares this information.

SIM card

A SIM card (SIM – Subscriber Identity Module) is a mandatory requirement to gain access to a GSM network. In addition to network-specific information used to authenticate the subscriber, a SIM card can be used to carry user data, e.g. phone book contacts and SMS text messages. The card can be PIN-protected to prevent unauthorised access to these data.

Toggling/conferencing

During an active call, the user has the option of accepting a further incoming call and then switching between the two calls (toggling). The user can also merge the two calls into a three-way conference call. These functions are supported by many mobile phones. Whether or not these functions can be controlled by PCM depends on the mobile phone's range of Bluetooth® functions. These functions are not supported by CDR.

Web radio

Web radio (or Internet radio) is an audio service distributed by radio stations online. In PCM, web radio is accessible via the Aha Radio app installed on a compatible smartphone (iOS® device or Android® device), a feature that has been supported since November 2012.

Detailed overview of functions

	Connection			Status display			Phone functions					Phone book, call lists, SMS and e-mail				Remote SIM access				MP3 audio streaming via Bluetooth® (AUX BT)	Online services (Aha Radio)	Firmware version				
	Pairing from vehicle	Pairing from mobile phone	Auto-connect	Registration status	Signal strength	Network name	Basic phone functions	Additional call/call toggle	Conference call	DTMF tones	Ringtone from mobile phone (in-band ringing)	Contacts on SIM card	Contacts on device	Call lists	SMS	E-mail	Pairing from vehicle	Auto-connect	SIM phone book				SMS downloading from SIM			
Apple® models																										
iPhone® 5	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 5c	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 5s	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 6	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 6 Plus	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 6s	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 6s Plus	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 7	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® 7 Plus	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			
iPhone® SE	-	•	•	•	•	•	•	•	•	•	•	-	•	•	- ¹⁾	-	-	-	-	-	• ²⁾	• ³⁾	iOS® 10.0.2			

• compatible/function supported - incompatible/function not supported

¹⁾ No SMS downloading, only newly received SMS, authorisation on mobile phone required.

³⁾ Possible only with iPod® cable connection.

²⁾ Connection by iPod® cable recommended.

	Connection			Status display			Phone functions						Phone book, call lists, SMS and e-mail					Remote SIM access				MP3 audio streaming via Bluetooth® (AUX BT)	Online services (Aha Radio)	Firmware version
	Pairing from vehicle	Pairing from mobile phone	Auto-connect	Registration status	Signal strength	Network name	Basic phone functions	Additional call/call toggle	Conference call	DTMF tones	Ringtone from mobile phone (in-band ringing)	Contacts on SIM card	Contacts on device	Call lists	SMS	E-mail	Pairing from vehicle	Auto-connect	SIM phone book	SMS downloading from SIM				
BlackBerry® models																								
9981 Porsche Design	•	•	•	•	•	•	•	•	•	•	–	–	•	•	• ⁴⁾	• ⁴⁾	•	•	•	•	•	•	–	7.1.0.2162
Classic	•	•	•	•	•	•	•	•	•	•	–	•	•	•	• ⁵⁾	•	–	–	–	– ⁶⁾	•	–	10.3.1.1565	
Passport	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	•	•	•	•	•	–	10.3.1.1565	
PRIV	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	•	•	•	•	• ⁷⁾	–	Android® 6.0.1	
Q5	•	•	•	•	•	•	•	•	•	•	–	•	•	•	– ⁸⁾	•	•	•	•	•	•	–	10.2.1.2977	
Q10	•	•	•	•	•	•	•	•	•	•	–	•	•	•	– ⁸⁾	•	•	•	•	•	•	–	10.2.1.2977	
Z10	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	•	•	•	•	•	–	10.2.1.2977	
Z30	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	•	•	•	•	•	–	10.3.1.1565	

• compatible/function supported

– incompatible/function not supported

⁴⁾ Unlock before connecting to vehicle.⁶⁾ Stability problems when receiving SMS in SAP mode.⁸⁾ SMS sometimes not synchronised.⁵⁾ Sender's name sometimes sent incorrectly.⁷⁾ Stability problems when rewinding and fast forwarding.

Detailed overview of functions

	Connection			Status display			Phone functions						Phone book, call lists, SMS and e-mail				Remote SIM access				MP3 audio streaming via Bluetooth® (AUX BT)	Online services (Aha Radio)	Firmware version		
	Pairing from vehicle	Pairing from mobile phone	Auto-connect	Registration status	Signal strength	Network name	Basic phone functions	Additional call/call toggle	Conference call	DTMF tones	Ringtone from mobile phone (in-band ringing)	Contacts on SIM card	Contacts on device	Call lists	SMS	E-mail	Pairing from vehicle	Auto-connect	SIM phone book	SMS downloading from SIM					
HTC® models																									
10	•	•	•	•	•	•	•	•	•	•	–	–	•	•	•	–	•	•	•	•	•	•	•	•	Android® 6.0.1
One A9	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	•	•	•	•	•	•	•	•	Android® 6.0.1
One M8	•	•	•	•	•	•	•	•	•	•	–	•	•	•	–	–	–	–	–	–	•	•	•	•	Android® 5.0.1
One M9	•	•	•	•	•	•	•	•	•	•	–	•	•	•	–	–	•	•	•	•	•	•	•	•	Android® 5.0
Huawei® models																									
Nexus 6P	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	–	–	–	–	• ⁷⁾	•	•	•	Android® 6.0.1
P9	•	•	•	•	•	•	•	•	•	•	–	–	•	• ⁹⁾	•	–	–	–	–	–	•	• ¹⁰⁾	•	•	Android® 6.0.1
LG® models																									
G3	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	•	•	•	•	•	•	•	•	Android® 5.0
G4	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	•	•	•	•	•	•	•	•	Android® 5.1
Nexus 5	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	–	–	–	–	•	–	•	•	Android® 5.1

• compatible/function supported

– incompatible/function not supported

⁷⁾ Stability problems when rewinding and fast forwarding.

¹⁰⁾ Problems when displaying special characters.

⁹⁾ Incorrect timestamp.

Detailed overview of functions

	Connection			Status display			Phone functions					Phone book, call lists, SMS and e-mail					Remote SIM access				MP3 audio streaming via Bluetooth® (AUX BT)	Online services (Aha Radio)	Firmware version
	Pairing from vehicle	Pairing from mobile phone	Auto-connect	Registration status	Signal strength	Network name	Basic phone functions	Additional call/call toggle	Conference call	DTMF tones	Ringtone from mobile phone (in-band ringing)	Contacts on SIM card	Contacts on device	Call lists	SMS	E-mail	Pairing from vehicle	Auto-connect	SIM phone book	SMS downloading from SIM	MP3 audio streaming via Bluetooth® (AUX BT)	Online services (Aha Radio)	Firmware version
Microsoft																							
Lumia 950	– ⁹⁾	•	•	•	•	•	•	•	•	•	–	–	•	•	•	–	–	–	–	–	•	–	Windows 10
Motorola® models																							
Moto X (2. Gen.)	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	–	–	–	–	•	•	Android® 5.0
Nexus 6	•	•	•	•	•	•	•	•	•	•	–	•	•	•	• ⁵⁾	–	–	–	–	–	•	•	Android® 5.0.1
X Force	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	–	–	–	–	• ⁷⁾	•	Android® 6.0.1
Nokia® models																							
808 PureView	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	–	–	113.010.1507
Lumia 920	– ¹⁰⁾	•	•	•	•	•	•	•	•	•	–	–	•	•	–	–	–	–	–	–	•	–	WP8.0
Lumia 925	– ¹⁰⁾	•	•	•	•	•	•	•	•	•	–	–	•	•	–	–	–	–	–	–	•	–	WP8.0

• compatible/function supported – incompatible/function not supported

⁵⁾ Sender's name sometimes sent incorrectly.

¹⁰⁾ Always start pairing from mobile.

⁷⁾ Stability problems when rewinding and fast forwarding.

	Connection			Status display			Phone functions						Phone book, call lists, SMS and e-mail					Remote SIM access				MP3 audio streaming via Bluetooth® (AUX BT)	Online services (Aha Radio)	Firmware version
	Pairing from vehicle	Pairing from mobile phone	Auto-connect	Registration status	Signal strength	Network name	Basic phone functions	Additional call/call toggle	Conference call	DTMF tones	Ringtone from mobile phone (in-band ringing)	Contacts on SIM card	Contacts on device	Call lists	SMS	E-mail	Pairing from vehicle	Auto-connect	SIM phone book	SMS downloading from SIM				
Nokia® models																								
Lumia 1020	– ⁹⁾	•	•	•	•	•	•	•	•	•	–	–	•	•	–	–	–	–	–	–	–	•	–	WP8.0
Lumia 1520	– ⁹⁾	•	•	•	•	•	•	•	•	•	–	–	•	•	–	–	–	–	–	–	–	•	–	WP8.1
Samsung® models																								
Galaxy A5	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	•	• ¹¹⁾	•	•	•	•	•	Android® 5.1.1
Galaxy Alpha	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	–	•	• ¹¹⁾	•	•	•	•	•	Android® 5.0.2
Galaxy Note 4	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	•	• ¹¹⁾	•	•	•	•	•	Android® 5.0.1
Galaxy Note 5	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	–	–	–	–	•	•	•	Android® 5.1.1
Galaxy Note Edge	•	•	•	•	•	•	•	•	•	•	–	•	•	•	–	–	•	• ¹¹⁾	•	•	•	•	•	Android® 5.1.1

• compatible/function supported – incompatible/function not supported

¹⁰⁾ Always start pairing from mobile.

¹¹⁾ Problems reconnecting after going out of Bluetooth® range.

Detailed overview of functions

	Connection			Status display			Phone functions						Phone book, call lists, SMS and e-mail				Remote SIM access				MP3 audio streaming via Bluetooth® (AUX BT)	Online services (Aha Radio)	Firmware version	
	Pairing from vehicle	Pairing from mobile phone	Auto-connect	Registration status	Signal strength	Network name	Basic phone functions	Additional call/call toggle	Conference call	DTMF tones	Ringtone from mobile phone (in-band ringing)	Contacts on SIM card	Contacts on device	Call lists	SMS	E-mail	Pairing from vehicle	Auto-connect	SIM phone book	SMS downloading from SIM				
Samsung® models																								
Galaxy S5	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	•	• ¹¹⁾	•	•	•	•	•	Android® 5.0
Galaxy S6	•	•	• ¹²⁾	•	•	•	•	•	•	•	–	•	•	•	–	–	•	•	•	•	•	•	•	Android® 5.1.1
Galaxy S6 edge	•	•	• ¹²⁾	•	•	•	•	•	•	•	–	•	•	•	•	•	•	•	•	•	•	•	•	Android® 5.1.1
Galaxy S7	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	•	•	•	•	•	•	•	Android® 6.0.1
Galaxy S7 edge	•	•	•	•	•	•	•	•	•	•	–	•	•	•	•	•	•	•	•	•	•	•	•	Android® 6.0.1
Sony® models																								
Xperia Z5	•	•	•	•	•	•	•	•	•	•	–	•	•	•	– ¹³⁾	–	–	–	–	–	•	–	•	Android® 5.1.1
Xperia Z5 Compact	•	•	•	•	•	•	•	•	•	•	–	–	•	•	– ¹³⁾	–	–	–	–	–	•	•	•	Android® 6.0.1
Xperia Z5 Premium	•	•	•	•	•	•	•	•	•	•	–	–	•	•	– ¹³⁾	–	–	–	–	–	•	•	•	Android® 6.0.1

• compatible/function supported

– incompatible/function not supported

¹¹⁾ Problems reconnecting after going out of Bluetooth® range.

¹²⁾ In some cases, Bluetooth® connectivity is lost.

We recommend disabling the transfer of messages on your mobile phone.

¹³⁾ Instability when loading messages.



This is not an exhaustive compatibility list. If your device is not listed here, please consult your Porsche Centre. BlackBerry®, SureType® and associated trademarks, names and logos are the property of Research In Motion Limited and are registered and/or used under licence in the USA and other countries. Edition 10/2016. Errors and omissions excepted.

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