PORSCHE



Mobile Communication

Compatibility of Bluetooth® mobile phones with PCM/CDR-31 in the Panamera models

1. Compatibility list for Bluetooth® mobile phones

2. Detailed overview of functions

3. Pairing instructions for the CDR-31

4. Pairing instructions for the PCM

5. Frequently asked questions (FAQs)

6. Glossary

1. Compatibility list for Bluetooth® mobile phones

	Manufacturer	Model	Compatible with PCM with preparation for mobile phone/CDR-31 with preparation for mobile phone	Compatible with PCM with phone module
	Apple	iPhone® 3G	●	●
	Apple	iPhone® 3GS	●	●
	BlackBerry®	Curve™ 8900 smartphone	●	●
	BlackBerry®	Bold™ 9000 smartphone	●	●
	BlackBerry®	Storm™ 9500 smartphone	●	●
	BlackBerry®	Storm2™ 9520 smartphone	●	●
	BlackBerry®	Bold™ 9700 smartphone	●	●
	Nokia	5630 XpressMusic	●	●
	Nokia	6700 Classic	●	●

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• compatible

1. Compatibility list for Bluetooth® mobile phones

	Manufacturer	Model	Compatible with PCM with preparation for mobile phone/CDR-31 with preparation for mobile phone	Compatible with PCM with phone module
	Nokia	6710 Navigator	●	●
	Nokia	7230	●	●
	Nokia	E63	●	●
	Nokia	E71	●	●
	Nokia	E72	●	●
	Nokia	E75	●	●
	Nokia	N97 mini	●	●
	Nokia	X3	●	●
	Sony Ericsson	C510	●	●

Status 30.03.2010. Errors and omissions excepted.

• compatible

1. Compatibility list for Bluetooth® mobile phones

	Manufacturer	Model	Compatible with PCM with preparation for mobile phone/CDR-31 with preparation for mobile phone	Compatible with PCM with phone module
	Sony Ericsson	C902	●	●
	Sony Ericsson	C905	●	●
	Sony Ericsson	W595	●	●
	Sony Ericsson	W705	●	●
	Sony Ericsson	W890i	●	●
	Sony Ericsson	W910i	●	●
	Sony Ericsson	W995	●	●
	Sony Ericsson	Aino	●	●
	Sony Ericsson	Yari	●	●

Status 30.03.2010. Errors and omissions excepted.

• compatible

1. Compatibility list for Bluetooth® mobile phones

	Manufacturer	Model	Compatible with PCM with preparation for mobile phone/CDR-31 with preparation for mobile phone	Compatible with PCM with phone module
	Sony Ericsson	Elm	●	●
	Sony Ericsson	Satio	●	●

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• compatible

2. Detailed overview of functions

Manufacturer	Model	Firmware version	Compatible with PCM with preparation for mobile phone/CDR-31 with preparation for mobile phone	Compatible with PCM with PCM telephone	Connection			Status display			Phone functions					Phonebook			Remote SIM Access*				MP3 audio transmission via Buetooth® (AUX BT)*	Comments
					Pairing from vehicle	Pairing from device	Auto-connect	Register State	Signal strength	Network name	Basic phone functions	Additional call/call transfer*	Conference Call*	DTMF tones	Ringtone from mobile phone (in-band ringing)*	Contacts on SIM card*	Contacts on device	Call lists	Pairing from vehicle	Auto-connect	SIM phonebooks	SMS download		
Apple	iPhone 3G	3.1.3	•	•	-	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	- 8	8 - Connection using iPod® cable recommended
Apple	iPhone 3GS	3.1.3	•	•	-	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	- 8	8 - Connection using iPod® cable recommended
BlackBerry®	8900 Curve™	5.0.0411	•	•	•1	•	•	•7	•	•	•	•	•	•	-	-	•	•	•1	•	•	•	-	1 - Switch BlackBerry® to wait mode in Bluetooth® menu 2 - Rejection of second calls not supported
BlackBerry®	9000 Bold™	5.0.0411	•	•	•1	•	•	•	•	•	•	•	•	•	-	-	•	•	•1	•	•	•	-	1 - Switch BlackBerry® to wait mode in Bluetooth® menu
BlackBerry®	9500 Storm™	4.7.0.141	•	•	•1	•	•	•	•	•	•	•2	•	•	-	-	•	•	•1	•	•	•	-	1 - Switch BlackBerry® to wait mode in Bluetooth® menu 2 - Rejection of second calls not supported
BlackBerry®	9520 Storm2™	5.0.0.306	•	•	•1	•	•	•	•	•	•	•	•	•	-	-	•	•	•1	•	•	•	-	1 - Switch BlackBerry® to wait mode in Bluetooth® menu
BlackBerry®	9700 Bold™	5.0.0.321	•	•	•1	•	•	•	•	•	•	•	•	•	-	-	•	•	•1	•	•	•	-	1 - Switch BlackBerry® to wait mode in Bluetooth® menu
Nokia	5630 XpressMusic	11.020	•	•	•	•	•	•	•	•	•	•	•	•	-	•	•	•	•	•	•	•	•6	6 - Limited AUX BT function
Nokia	6700 classic	10.50	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•6	6 - Limited AUX BT function
Nokia	6710 Navigator	22.013	•	•	•	•	•	•	•	•	•	•	•	•	•	-	•	•3	•	•	•	•	•6	3 - Incorrect time in transfer of call lists (GMT) 6 - Limited AUX BT function
Nokia	7230	6.90	•	•	•	•	•	•	•	•	•	•	•	•	•	-	•	•3	•	•	•	•	•6	3 - Incorrect time in transfer of call lists (GMT) 6 - Limited AUX BT function
Nokia	E63	400.21.013	•	•	•	•	•	•	•	•	•	•	•	•	•	-	•*	•4	•	•	•	•	•6	4 - No call list in external SIM access and no time given in call lists 6 - Limited AUX BT function
Nokia	E71	300.21.012	•	•	•	•	•	•	•	•	•	•	•	•	•	-	•*	•4	•	•	•	•	•6	4 - No call list in external SIM access and no time given in call lists 6 - Limited AUX BT function
Nokia	E72	22.007	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•3	•	•	•	•	•6	3 - Incorrect time in transfer of call lists (GMT) 6 - Limited AUX BT function
Nokia	E75	110.48.125	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•3	•	•	•	•	•6	3 - Incorrect time in transfer of call lists (GMT) 6 - Limited AUX BT function
Nokia	N97 mini	11.0.045	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•3	•1	•	•	•	-	3 - Incorrect time in transfer of call lists (GMT)
Nokia	X3	4.11	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•6	6 - Limited AUX BT function
Sony Ericsson	C510	R1HA035	•	•	•	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	•6	6 - Limited AUX BT function
Sony Ericsson	C902	R3EG004	•	•	•	•	•	•	•	•	•	•	•	•	-	-	•	•3	-	-	-	-	•6	6 - Limited AUX BT function
Sony Ericsson	C905	R1FA035	•	•	•	•	•5	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	•	5 - Close telephone during connection
Sony Ericsson	W595	R3EG004	•	•	•	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	•6	6 - Limited AUX BT function
Sony Ericsson	W705	R1GA030	•	•	•	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	•	
Sony Ericsson	W890i	R1FA035	•	•	•	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	•6	6 - Limited AUX BT function
Sony Ericsson	W910i	R1FA035	•	•	•	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	•6	6 - Limited AUX BT function
Sony Ericsson	W995	R1HA036	•	•	•	•	•	•	•	•	•	•	•	•	-	-	•	•	-	-	-	-	•6	6 - Limited AUX BT function
Sony Ericsson	Aino	R7AA071	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Sony Ericsson	Yari	R1BA049	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Sony Ericsson	Elm	R7BA076	•	•	•	•	•	•9	•9	•9	•	•	•	•	•	-	•	•	-	-	-	-	•	9-Only one number for each telephone book entry 6 - Limited AUX BT function
Sony Ericsson	Satio	R2AK006	•	•	•	•	•	•9	•9	•9	•	•	•	•	-	-	•	•	-	-	-	-	•6	9-Only one number for each telephone book entry

• = compatible/function supported – = not compatible/function not supported * = PCM only Status 30.03.2010 Errors and omissions excepted

3. Pairing instructions for Bluetooth® mobile phones with the CDR-31

Requirements for the CDR-31

– The CDR-31 includes the option preparation for mobile phone.
– The Bluetooth® function on the CDR-31 must be switched on.
– The CDR-31 is not connected with a mobile phone. Pressing the 'PHONE' button displays the message 'Find telephone'.

Requirements for the mobile phone

– The Bluetooth® function must be switched on.
– The mobile phone must be visible to other devices.

These two settings are normally found in the Bluetooth® settings on the mobile phone.

Note: Some mobile phones (e.g. Motorola) can only be made visible for a limited period of time (e.g. 1 minute). If pairing is not completed within this time, it may be necessary to repeat the process.
Note for iPhone® and BlackBerry®: iPhone® and BlackBerry® devices cannot be found and paired from the CDR-31. The pairing must therefore be started from the iPhone® or BlackBerry® itself (see pairing instructions for iPhone® and BlackBerry® devices with the CDR-31).

Pairing process

CDR-31

1. Press 'PHONE' button.
2. Select 'Find telephone'. A search is performed for available Bluetooth® phones. At the end of the search, the devices found are displayed in a list.

Note: Since the CDR-31 can include a maximum of three devices in its list, delete any devices that are no longer required from the list before starting the search for new devices.

3. Select the phone you want from the search list on the CDR-31. You are now prompted to enter a Bluetooth® code specified by the CDR-31 on the phone. Confirm the prompted code on the CDR-31 with 'OK'. Enter the correct code on the mobile phone to complete the pairing process.

Note: The user has 30 seconds to enter the code. If pairing is not completed within this time, it may be necessary to repeat the process.

Mobile phone

4. After pairing, the CDR-31 attempts to connect with the phone. On some phones, it is necessary to confirm the connection by pressing a button on the handset.
5. On some phones, when connection is established transfer of the phonebook must also be confirmed on the phone.

Note: In most cases, a paired phone will be automatically found and connected whenever the car is started. In some cases (e.g. Nokia N and E series), however, it is necessary to authorise the CDR-31 in the device list on the mobile phone.

3. Pairing instructions for BlackBerry® devices with the CDR-31

Requirements for the CDR-31

– The CDR-31 includes the option preparation for mobile phone.
– The Bluetooth® function on the CDR-31 must be switched on.
– The CDR-31 must be visible. For this, it must be included in the list of devices shown under 'PHONE/OPTION/Device List'.
– The CDR-31 is not connected with a mobile phone. Pressing the 'PHONE' button displays the message 'Find telephone'.

Requirements for the BlackBerry®

– The Bluetooth® function must be switched on. You can switch on the Bluetooth® function on the BlackBerry® via 'Applications/Options/Bluetooth®/Enable Bluetooth®'. An icon in the status area indicates that the Bluetooth® function is switched on.

Note: The BlackBerry® does not appear in the search list on the CDR-31 because it has a higher security level. In this case, therefore, you must start the search from the mobile phone itself.

Pairing process

CDR-31

1. Press 'PHONE' button.
2. Press 'OPTION' button.
3. Select the menu item 'Device list'. The CDR-31 is now visible to external devices.

Note: To speed up the CDR-31's location of the BlackBerry®, delete any devices that are no longer required from the list before starting the search for new devices.

BlackBerry®

4. Select the menu item 'Applications/Options/Bluetooth®'.
5. Press the trackball and select 'Full menu/Add device/Search'. The BlackBerry® now starts to search for visible Bluetooth® devices.
6. Select 'CDR-31' from the search list on the BlackBerry®. A connection request now appears on the CDR-31; you must confirm this request.

CDR-31

7. A number pad is displayed on the CDR-31; enter a 4-digit Bluetooth® code and confirm with 'OK'.

BlackBerry®

8. Enter the same Bluetooth® code on the BlackBerry® and confirm with 'OK (↵)'. Pairing is now complete.

Note: The user has 30 seconds to enter the code. If pairing is not completed within this time, it may be necessary to repeat the process. To do this, select 'CDR-31' from the search list again.

9. A window now appears on the BlackBerry® asking whether the connection with the CDR-31 should be accepted. Answer this question with 'Yes' and confirm the item 'Do not ask this question again' by setting a check. The CDR-31 is now authorised on the BlackBerry®. The BlackBerry® will be automatically found and connected whenever the car is started.

3. Pairing instructions for an iPhone® with the CDR-31

Requirements for the CDR-31

– The CDR-31 includes the option preparation for mobile phone.
– The Bluetooth® function on the CDR-31 must be switched on.
– The CDR-31 must be visible. For this, it must be included in the list of devices shown under 'PHONE/OPTION/Device List'.
– The CDR-31 is not connected with a mobile phone. Pressing the 'PHONE' button displays the message 'Find telephone'.

Requirements for the iPhone®

– The Bluetooth® function must be switched on. The Bluetooth® function on the iPhone® is switched on in the Bluetooth® settings menu. You can access this menu via 'Settings/General/Bluetooth®'.
– An icon in the status area indicates that the Bluetooth® function is switched on.

Note: The Bluetooth® function on the iPhone® is configured in such a way that a device search is normally started by the iPhone® itself.

Pairing process

CDR-31

1. Press 'PHONE' button.
2. Press 'OPTION' button.
3. Select the menu item 'Device list'. The CDR-31 is now visible to external devices.

Note: To speed up the CDR-31's location of the iPhone®, delete any devices that are no longer required from the list before starting the search for new devices.

iPhone®

4. Select the menu item 'Settings/General/Bluetooth®'. The iPhone® now starts to search for visible Bluetooth® devices.
5. Select 'CDR-31' from the search list on the iPhone®. A connection request now appears on the CDR-31; you must confirm this request.

CDR-31

6. A number pad is displayed on the CDR-31; enter a 4-digit Bluetooth® code and confirm with 'OK'.

iPhone®

7. A numerical field is displayed on the iPhone®; enter the same Bluetooth® code in this field and confirm with 'Connect'. Pairing is now complete.

Note: The user has 30 seconds to enter the code. If pairing is not completed within this time, it may be necessary to repeat the process. To do this, select 'CDR-31' from the search list again.

8. The iPhone® now automatically establishes a Bluetooth® connection with the CDR-31.
9. Your iPhone® is now connected with the CDR-31. The next time the car is started, it will be automatically connected with the CDR-31.

4. Pairing instructions for Bluetooth® mobile phones with the PCM

Requirements for the PCM

– The PCM includes the option preparation for mobile phone or telephone module with wireless active handset.
– The Bluetooth® function of the PCM is switched on and the PCM is not connected with a mobile phone. Pressing the 'PHONE' button displays the message 'Find telephone'.

Requirements for the mobile phone

– The Bluetooth® function must be switched on.
– The mobile phone must be visible to other devices.
– Only PCM with telephone module: The external SIM Access Profile may need to be activated on the mobile phone to enable the telephone module to be used via Bluetooth®.

These two settings are normally found in the Bluetooth® settings on the mobile phone.

Note: Some mobile phones can only be made visible for a limited period of time (e.g. 1 minute). If pairing is not completed within this time, it may be necessary to repeat the process.
Note for iPhone®: The iPhone® is only visible when you are in the Bluetooth® settings menu. You can access this menu on the iPhone® via 'Settings/General/Bluetooth®' (see instructions for registering iPhone® on the PCM).

Pairing process

PCM

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

Note for BlackBerry®: During the search by the PCM, a prompt to enter a 'Passkey for PCM' appears on the BlackBerry®. You can ignore this prompt or cancel it using the mobile phone's Back button (see instructions for registering iPhone® on the PCM).

3. Select the phone you want from the search list on the PCM. You are now prompted to enter a Bluetooth® code specified by the PCM on the phone. Enter the correct code on the mobile phone to complete the pairing process.

Note: The user has 30 seconds to enter the code. If pairing is not completed within this time, it may be necessary to repeat the process.

Mobile phone

4. After pairing, the PCM attempts to connect with the phone. On some phones, it is necessary to confirm the connection by pressing a button on the handset.
5. On many phones, when connection is established transfer of the phonebook must also be confirmed on the phone. We recommend always allowing the PCM access if this option is available on the phone.

Note: In most cases, a paired phone will be automatically found and connected whenever the car is started. In some cases (e.g. Nokia N and E series), however, it is necessary to authorise the PCM in the device list on the mobile phone.

4. Pairing instructions for BlackBerry® devices with the PCM

Requirements for the PCM

– The PCM includes the option preparation for mobile phone or telephone module with wireless active handset.
– The Bluetooth® function of the PCM is switched on and the PCM is not connected with a mobile phone. Pressing the 'PHONE' button displays the message 'Find telephone'.

Requirements for the BlackBerry®

– The Bluetooth® function must be switched on. You can switch on the Bluetooth® function on the BlackBerry® via 'Applications/Options/Bluetooth®/Enable Bluetooth®'. An icon in the status area indicates that the Bluetooth® function is switched on.
– The BlackBerry® must be ‚Discoverable' for other devices. You can find this setting on the BlackBerry® under 'Applications/Options/Bluetooth®/Connected devices/Full menu/Options'. The 'Discoverable' setting must be set to 'Yes'.
– Automatic transfer of the phonebook from the BlackBerry® to the PCM can be configured by setting 'Address book transfer' to 'All entries'. You can find this setting on the BlackBerry® under 'Applications/Options/Bluetooth®/Connected devices/Full menu/Options'.
– Only PCM with telephone module: The external SIM Access Profile may need to be activated on the BlackBerry® to enable the telephone module to be used via Bluetooth®. You can find this setting under 'Applications/Options/Bluetooth®/Connected devices/Full menu/Options'.
– To speed up the search by the PCM and allow external SIM access, newer BlackBerry® devices have the option of a standby mode. You can find this setting under 'Applications/Options/Bluetooth®/Connected devices/Full menu/Add device/Wait for device'.

Pairing process

PCM

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

Note: During the search by the PCM, a prompt to enter a 'Passkey for PCM' appears on the BlackBerry®. You can ignore this prompt or cancel it using the mobile phone's Back button.

3. Select the phone you want from the search list on the PCM. You are now prompted to enter a Bluetooth® code specified by the PCM on the phone. Enter the correct code and confirm with 'OK (↵)' on the BlackBerry® to complete the pairing process.

Note: The user has 30 seconds to enter the code. If pairing is not completed within this time, it may be necessary to repeat the process.

4. A window now appears on the BlackBerry® asking whether the connection with the PCM should be accepted. Answer this question with 'Yes' and confirm the item 'Do not ask this question again' by setting a check. The PCM is now authorised on the BlackBerry®. The BlackBerry® will be automatically found and connected whenever the car is started.

4. Pairing instructions for iPhone® with the PCM

Requirements for the PCM

– The PCM includes the option preparation for mobile phone or telephone module with wireless active handset.
– The PCM must be visible to other devices. For this, the appropriate setting must be entered under 'PHONE/OPTION/SET PHONE/Bluetooth® Settings'.
– The Bluetooth® function of the PCM is switched on and the PCM is not connected with a mobile phone. Pressing the 'PHONE' button displays the message 'Find telephone'. This should not be pressed here.

Requirements for the iPhone®

– The Bluetooth® function must be switched on. The Bluetooth® function on the iPhone® is switched on in the Bluetooth® settings menu. You can access this menu via 'Settings/General/Bluetooth®'.
– An icon in the status area indicates that the Bluetooth® function is switched on.

Note: The Bluetooth® function on the iPhone® is configured in such a way that a device search is normally started by the iPhone® itself.

Pairing process

PCM

1. Press 'PHONE' button. The PCM is now visible to external devices.

iPhone®

2. Select the menu item 'Settings/General/Bluetooth®'. The iPhone® now starts to search for visible Bluetooth® devices.
3. Select 'PCM' from the search list on the iPhone®. A connection request now appears on the PCM; you must confirm this request.

PCM

4. A number pad is displayed on the PCM; enter a 4-digit Bluetooth® code and confirm with 'OK'.

iPhone®

5. A numerical field is displayed on the iPhone®; enter the same Bluetooth® code in this field and confirm with 'Connect'. Pairing is now complete.

Note: The user has 30 seconds to enter the code. If pairing is not completed within this time, it may be necessary to repeat the process. To do this, again select the 'PCM' from the device list on the iPhone®.

6. The iPhone® now automatically establishes a Bluetooth® connection with the PCM.
7. Your iPhone® is now connected with the PCM. The next time the car is started, it will be automatically connected with the PCM.

5. Frequently asked questions (FAQs)

List of Contents

[1] Frequently asked questions about Bluetooth®
[2] Frequently asked questions about preparation for mobile phone (general)
[3] Frequently asked questions about using the CDR-31 with preparation for mobile phone
[4] Frequently asked questions about using the PCM with preparation for mobile phone
[5] Frequently asked questions about using the PCM with telephone module and wireless active handset
[6] Frequently asked questions about transferring of phonebook contacts and call lists – Bluetooth® Phone Book Access Profile (PBAP)
[7] Frequently asked questions about audio transmission with Bluetooth® (PCM only)

[1] Frequently asked questions about Bluetooth®

What is Bluetooth®?
Bluetooth® is an industrial standard for the wireless networking of electronic devices over a short range (up to 10 metres). It allows mobile electronic devices such as mobile phones and PDAs as well as computers and peripherals, e.g. keyboards, to communicate wirelessly with each other, with Bluetooth® as the interface.

When will Bluetooth® technology be available in my favourite model?
Bluetooth® technology is supplied in all Panamera models. To connect your mobile phone to the Bluetooth® system, you need to order the optional preparation for mobile phone (optional in combination with CDR-31 radio or the PCM) or optional telephone module (optional only in combination with the PCM).

Which Bluetooth® functions are available in the Panamera?
In the Panamera, the PCM with telephone module has the functionality of the Bluetooth® preparation for mobile phone. Panamera customers who order the optional telephone module thus benefit from a system that offers the maximum scope of functions and convenience while also supporting a wide variety of different mobile phone types.

In addition, the Panamera system offers the option of using Bluetooth® to transfer audio data from a mobile player (Bluetooth® player or mobile phone) to the PCM and play the audio files over the audio system installed in the vehicle. In addition, all the Panamera's telephone options support call list loading from your mobile phone. However, this function is primarily dependent on the range of functions implemented in the phone.

The CDR-31 (unlike the CDR-30) now supports phone book access via the phone book access profile. However, this function is not supported by all phone types.

What profile does my phone use if it supports both the SIM Access Profile and the Handsfree Profile?
In normal cases, the PCM recognises the connection options offered by the mobile phone while it is searching. If the phone supports the SIM Access Profile, the PCM tries to connect via it. If the connection fails or the profile is not supported, the connection is made via the Handsfree Profile as the default.

After system startup, while a connection is being established, situations may occur in which a connection cannot be made via the SIM Access Profile, such as an active conversation in progress, or deactivated external SIM access on the phone. In these cases, connection is likewise established using the Handsfree Profile (HFP mode). The scope of functions supported in this case is the same as those for preparation for mobile phone (no text messaging, no Bluetooth® headset). The wireless active handset is not supported.

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

You can find information on the profiles supported by your phone in its operating manual. The PCM also lists the profiles reported by your mobile phone in its list of devices under 'Device Details'. A further indication of whether your phone supports the SIM Access Profile is the length of the Bluetooth® pairing code. A 16-digit pairing code shows that the SIM Access Profile is supported. However, many devices require SIM access to be enabled before you can proceed. The settings for this can be found either under the Bluetooth® settings given for your mobile phone or in a separate application under 'Programs' (or similar).

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

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.

There are other visible differences, e.g. in the menu on the PHONE page. Here the menu item 'Messages' can only be seen if the connection has been made using the SIM Access Profile.

Can the active handset be used when the mobile phone is connected via the Handsfree Profile?

In the telephone module, the wireless active handset can only be used when the phone is connected via the SIM Access Profile. In other cases, the message: 'Please use the PCM or your mobile phone' is displayed.

Why does my mobile phone connect via the Handsfree Profile although it also supports the SIM Access Profile?

There are several possible causes:

1. The system was started by an active call. Connection via the SIM Access Profiles is not possible for technical reasons. After ending the call the user can activate SIM access to his mobile phone manually by selecting 'PHONE/OPTION/SET PHONE/Bluetooth® Settings/Devices list'.
2. External SIM access on the mobile phone was deactivated.
3. External SIM access for the telephone was deliberately deactivated at the PCM. In this case, the next time the device will also connect using the Handsfree Profile.
4. Some telephone types do not allow connection of the SIM Access Profile if an A2DP connection (AUX BT) is already active This may be solved by switching the PCM's Bluetooth® function off and on again.
5. If pairing was started by the telephone, the connection cannot be created via the SIM Access Profile. In this case, the connection is always made via the Handsfree Profile.

[2] Frequently asked questions about preparation for mobile phone (general)

Can I also use the preparation for mobile phone without a Bluetooth® compatible mobile phone?
No, this is not possible.

Can I use the preparation for mobile phone with any Bluetooth® mobile phone?
A basic requirement for compatibility of your mobile phone with the phone preparation is the support of the Bluetooth® Handsfree Profile (HFP).

The mobile phone compatibility list at www.porsche.com gives an overview of phone models that Porsche has tested for compatibility with the preparation for mobile phone. Even if you cannot find your mobile phone in the list, it may still offer limited compatibility with the preparation for mobile phone.

Why do mobile phones differ in terms of their operation or functions?
The implementation of the Bluetooth® standard tends to vary among manufacturers, on individual phone models, and even in the 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-31/PCM with preparation for mobile phone. You can find information on the range of functions available on the devices recommended by Porsche in the mobile phone compatibility list at www.porsche.com.

Why is a mobile phone's firmware so important?
New mobile phone firmware versions frequently not only offer new functions, but also rectify bugs from old firmware versions. You should therefore make sure that the firmware on your phone is as up-to-date as possible. It is, however, possible that individual functions may behave differently with a new firmware version than before.

What do I need to do to connect my phone with the car?
Before the phone can be connected with the car, it requires a one-off registration or 'pairing' process that protects the security of the device. You will find information on this pairing process in the pairing instructions or at www.porsche.com. If there is a Bluetooth® mobile phone paired with the car, the phone will be automatically searched for and connected each time the ignition is switched on. It is important for both pairing and operation that the Bluetooth® function is enabled on the phone and also in the car. Bluetooth® visibility must additionally be enabled on the phone for the pairing process. If pairing is initiated by the mobile phone, CDR-31/PCM visibility must be enabled. For this, the corresponding setting in Bluetooth® Settings under 'PHONE-OPTION-SET PHONE' must be activated (PCM only) and the CDR-31/PCM must be shown in the Bluetooth® devices list.

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

Yes. Visibility is only required for pairing, which only needs to be done once before the first connection. Once you have paired your mobile phone with the car, subsequent connections will be established even if visibility is disabled. Visibility can be enabled and disabled under 'PHONE/OPTION/SET PHONE/Bluetooth® Settings'.

What can I do if I can't pair or connect my mobile phone despite the Bluetooth® function and visibility being enabled?

There are several possible causes:

1. On some telephone models, each connection request by the car must be confirmed by pressing a button. If this confirmation is not provided, the connection will not be established. This confirmation request each time the ignition is switched on can be avoided by authorising the CDR-31/PCM in the mobile phone's device list. This device list is found under the Bluetooth® settings on most phones.
2. There are situations where the mobile phone will not allow a connection because of an erratic condition. Often the only way to correct this condition is to switch the phone off and on again or to briefly remove the battery.
3. It can happen that a mobile phone does not appear in the PCM's search list due to unfavourable external conditions. In this case, you can also start the pairing process from the mobile phone. Make sure that the Bluetooth® function is enabled on the phone and on the PCM/CDR-31. Make also sure that the PCM/CDR-31 is in the Bluetooth® device list, since the mobile phone will be able to 'see' it there. In addition, the corresponding menu item in the PCM must be activated, in Bluetooth® Settings under 'PHONE/OPTION/SET PHONE'.
4. It can happen in very rare cases that the pairing information is lost on one or the other side, which means the devices cannot establish a connection. In this case, delete the entry left on the phone or in the car and repeat the pairing process.
5. Some phone models allow the user to mark the Bluetooth® profiles supported. Here too, any loss of profile markings may prevent a connection from being established.

Can I pair a second phone with the car?

Yes. Before pairing a second Bluetooth® phone, however, you should terminate the connection with your first device. One way of doing this is to disable the Bluetooth® function on the first device for the time of pairing the second one.

What happens if there is more than one Bluetooth® phone in the car at the same time?

The preparation for mobile phone can only be connected with one phone. You can, however, pair up to five devices in the car and then actively switch between these devices. When the system is switched on, it automatically searches for the last connected mobile phone. If it does not find this device within 15 seconds, the system then searches for the other paired phones.

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

No. The preparation for mobile phone does not support text messaging.

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

You can find more details about the operation of the preparation for mobile phone in the operating instructions for the PCM/CDR-31. You can also find more information about the pairing process at www.porsche.com.

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

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

[3] Frequently asked questions about using the CDR-31 with preparation for mobile phone

Which functions are supported when connecting via the preparation for mobile phone with the CDR-31?
Since the range of functions varies greatly between different mobile phones, please refer to the applicable details for your vehicle equipment and mobile phone in the mobile phone compatibility list at www.porsche.com.

The preparation for mobile phone in the CDR-31 supports the following functions in principle:

– Pairing a mobile phone with search from the car or phone.
– Automatically connecting a paired device after system startup.
– Basic phone functions (making, receiving and ending calls).
– Handsfree capability via the in-car audio system.
– Status displays such as network name and signal quality.
– Manual transfer of phonebook contacts from the mobile phone.
– Transferring call lists from the mobile phone.
– Sending DTMF tones.

You will find explanations of these terms in the glossary.

[4] Frequently asked questions about using the PCM with preparation for mobile phone

Which functions are supported when connecting via the preparation for mobile phone with the PCM?
Since the range of functions supported with Bluetooth® varies greatly between different mobile phones, please refer to the applicable details for your vehicle equipment and mobile phone in the mobile phone compatibility list at www.porsche.com.

The preparation for mobile phone in the PCM supports the following functions in principle:

– Pairing a mobile phone with search from the car or phone.
– Automatically connecting a paired device after system startup.
– Basic phone functions (making, receiving and ending calls).
– Handsfree capability via the in-car audio system.
– Status displays such as network name and signal quality.
– Manual transfer of phonebook contacts from the mobile phone.
– Transferring call lists from the mobile phone.
– Sending DTMF tones.
– Starting and ending a second call, call transfer and conference call.

You will find explanations of these terms in the glossary.

Why can't I set the ringtone in the PCM?
This setting is disabled for all phone models that can transfer their ringtone to the PCM via Bluetooth®. The PCM then rings with the mobile phone's ringtone. The ringtone cannot be set on the PCM in this case; it must 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 the PCM via Bluetooth®. If your phone is set to 'Silent' or for example 'Meeting', neither your phone nor the PCM will ring.

[5] Frequently asked questions about using the PCM with telephone module and wireless active handset

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

The PCM with telephone module is an integrated carphone that requires a SIM card in order to make and receive calls. This SIM card can either be inserted directly into the PCM or accessed on a compatible mobile phone using the Bluetooth® SIM Access Profile. In addition, the Panamera features all the functions of preparation for mobile phone integrated into the PCM with telephone module. Panamera customers who order the telephone module thus benefit from a system that offers the maximum scope of functions and convenience while retaining complete flexibility in the choice of mobile phone. The Telephone Module option in the Panamera also offers a wireless active handset with display and its own keyboard, enabling calls to be made with absolute discretion. This handset can also be operated from the back seat. The wireless active handset and SMS functions are not available in HFP mode (depending on the model of your mobile phone).

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

Since the PCM with telephone module now offers extended functions and supports both the Bluetooth® SIM Access Profile and the Handsfree Profile, this variant can be used with all mobile phones which offer the Handsfree Profile. The full range of functions as detailed below, however, can only be used with phones which are connected to the PCM via the SIM Access Profile.

Can I use two SIM cards at the same time?

No. The PCM with telephone module either uses the SIM card inserted into the PCM or – if there is no SIM card inserted into the PCM – the SIM card of a mobile phone connected via the Bluetooth® SIM Access Profile.

What functions does the PCM with telephone module support?

The PCM with telephone module supports the following functions in principle:

- 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.
- Sending DTMF tones.
- Starting and ending a second call, call transfer and conference call.
- Pairing a Bluetooth® SIM Access Profile-enabled mobile phone with search from the car.
- Automatically connecting a paired device after system startup.
- Transferring phonebook contacts from the mobile phone (contacts on the SIM card and address book contacts from the device) or from the inserted SIM card.
- Transferring call lists from the mobile phone.
- Using a wireless active handset to conduct conversations in private mode (not HFP mode).
- Using Bluetooth® headsets (not HFP mode).
- Sending and receiving text messages (not HFP mode).

You will find explanations of these terms in the glossary.

Can I remove the ignition key during a telephone call?

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

Can I use the wireless active handset to make calls outside the car also?
The wireless active handset of the 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 as the Bluetooth® connection with the vehicle must be maintained.

Can I transfer the phonebook to the PCM with telephone module?
Yes. The phonebook contacts on a SIM card inserted into the PCM or on a mobile phone connected via the Bluetooth® SIM Access Profile are transferred to the PCM each time after system startup. The transfer of the contacts stored on the device is, however, dependent on the mobile phone's range of functions and on the Bluetooth® profile currently activated on the phone.

Please note here too that on some device models, the request by the PCM must be confirmed by pressing a button on the phone. If this confirmation is not provided, the phonebook will not be transferred. This confirmation must be repeated each time the ignition is switched on. You can avoid it, however, by authorising the PCM in the mobile phone's device list. This device list is found under the Bluetooth® settings on most phones.

Why is my call number transferred although the call number transfer function on my mobile phone is switched off?
The call number transfer setting depends on the device involved. If your mobile phone is connected to the PCM via the SIM Access Profile, only the SIM card of your mobile phone is used; the call itself takes place via the PCM. However, you have the option of deactivating the call number transfer setting in the PCM as well ('PHONE/OPTION/SET PHONE/Call Settings').

Can I send and receive text messages with the PCM with telephone module?
Yes. Text messages can be sent and received using the PCM with telephone module if the mobile phone allows this when connected via the SIM Access Profile (SAP). To simplify the creation of text messages, you can call up templates that also contain information from the navigation system (e.g. time of arrival or current position), if the PCM features a navigation function. You can transfer position information of this type received by text messages to the navigation system and use it for route guidance.

Why can't I see all of the text messages from the mobile phone in the car?
The Bluetooth® SIM Access Profile, 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.

Why doesn't my mobile phone show text messages I have received in the car after the SIM Access connection is deactivated?
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 is stored on the SIM card of your phone and not the phone itself.

If I delete a text message in the car, is it automatically deleted on the mobile phone also?
Yes. A text message deleted on the PCM is physically deleted from the mobile phone's SIM card.

Can I also receive multimedia messages with the PCM with telephone module?
No. The PCM with telephone module does not support multimedia messaging.

What can I do if I can't pair or connect my mobile phone despite the Bluetooth® function and visibility being enabled?

There are several possible causes:

1. On some telephone models, each connection request by the car must be confirmed by pressing a button. If this confirmation is not provided, the connection will not be established. This confirmation request each time the ignition is switched on can be avoided by authorising the PCM in the mobile phone's device list. This device list is found under the Bluetooth® settings on most phones.
2. It can happen in very rare cases that the pairing information is lost on one or the other side, which means the devices cannot establish a connection. In this case, delete the entry left on the phone or in the car and repeat the pairing process.
3. Bluetooth® connection problems linked to AUX BT may be caused by parallel operation or the connection sequence of the telephone and audio profiles. In this case it may be useful to deactivate the AUX BT function by going to DISC/OPTION/SET DISC/AUX to ensure all phone functions are stable and reliable.

[6] Frequently asked questions about transferring of phone book entries and call lists – Bluetooth® Phone Book Access Profile (PBAP)

Can I access the phonebook contacts and call lists stored on my mobile phone from the CDR-31/PCM?
Access to the phonebook contacts and call lists of a mobile phone is dependent on the range of functions offered by the phone. Some models, for example, do not transfer phonebook contacts stored on the SIM card to the PCM, and in some cases no access is possible to phonebook contacts stored on the phone itself. Other phones may transfer this information but provide only one phone number per name.

Another possibility is that the user must confirm the PCM's request by pressing a key on the telephone. If this confirmation is not provided, neither phonebook contacts nor call lists are transferred. This confirmation must be repeated each time the ignition is switched on. You can avoid it, however, by authorising the CDR-31/PCM in the mobile phone's device list. This device list is found under the Bluetooth® settings on most phones.

Are there differences between the CDR-31 and PCM with respect to transferring phonebook contacts and call lists?
Yes. The CDR-31 transfers only phonebook contacts and call lists from the memory of the mobile phone itself, while the PCM transfers data from both the phone's memory and its SIM card. However, transmission of phone data is always dependent on the type of phone.

Why is my phonebook not displayed correctly in my car?
Transfer and display of your phonebook contacts by the PCM depends on your individual mobile phone. Please note the following points:

1. The PCM only shows entries containing at least one telephone number.
2. The maximum number of phone numbers shown in your car is limited to 2,500 in cars with PCM. In the CDR-31, the maximum number of phone book entries depends on the Bluetooth® profiles supported by the phone. If the phone supports automatic download via the Phonebook Access Profile, a maximum of 600 entries can be loaded into the CDR-31 phone book. If this profile is not supported, the phone book entries must be transferred manually. A maximum of 100 entries can then be stored.
3. Some mobile phones sort the phonebook entries as 'first name, last name', and some as 'last name, first name'. As a result, the phonebook listing in your PSM may differ from that in your mobile phone. You can change this by going to 'PHONE/OPTION/SET PHONE/Phonebook Settings – Sort', which will often solve the problem.
4. Some types of phone only transfer one number per name. In these cases, information about the type of number is frequently also missing.
5. Some mobile phones also have problems in transferring data when special characters are used.
6. Some entries may be duplicated if they are stored on both the SIM card and the phone itself (the phonebooks of many mobile phones do not show SIM cards). In this case you can hide the SIM card entries by selecting 'PHONE/OPTION/SET PHONE/Phonebook Settings – Phonebook Memory'.
7. The phonebook in the PCM may be empty if your mobile phone has confirmed a data transfer without sending any data. To repeat the phonebook transfer process, select the function 'PHONE/OPTION/SET PHONE/Phonebook Settings – Transfer phonebook'.

What is the maximum number of phonebook entries that I can transfer to the PCM?
The PCM's phonebook memory can store up to a maximum of 2,500 telephone numbers. If an entry contains several numbers, the total number of phonebook entries which can be stored is lowered accordingly. If the phonebook of the mobile phone holds more than 2,500 numbers, the PCM displays only the first 2,500.

What is the maximum number of phonebook entries that I can transfer to the CDR-31?
The CDR-31 can automatically transfer phonebook contacts from a mobile phone that supports Phonebook Access Profile. In this case a maximum of 600 entries each with 3 numbers can be stored in the phonebook memory of the CDR-31. If the mobile phone does not support Phone-book Access Profile, the user has the option of manually transferring a maximum of 100 entries each with 3 numbers into the CDR-31's phonebook. Activate the download process in the CDR-31, select the desired entries on your phone and transfer them by Bluetooth®. However, this transfer option is not supported by all telephone models. If the number of entries transferred from the phone is greater than the maximum, the CDR-31 stores only the first 100.

Can I edit or add to the entries in my phonebook when I am in my car?
No. You must edit the entries in the telephone itself. However, after changing your phonebook you can select the function 'Transfer phonebook' to transfer the phonebook to your car for immediate use.

Can I stop the automatic transfer of my phonebook data to the PCM?
Yes. The phonebook and call lists are only transferred when the 'Auto Update' box is checked in the menu item 'PHONE/OPTION/SET PHONE/Phonebook Settings'. Use the function 'Delete phonebook' to remove stored phone-book data from the PCM.

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

How many entries from my mobile phone call lists can be transferred to the CDR-31?
The CDR-31 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.

Why do some call list entries show the time of calling and some 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 the PCM list without a time. 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 marked with the current PCM time and shown at the top of the PCM's call list.

If a mobile phone is connected via the SIM Access Profile, the calls generated during the external SIM access are not identified by the mobile phone and are not stored on it.

[7] Frequently asked questions about audio transmission with Bluetooth® (PCM only)

What must I do to be able to be able to use Bluetooth® audio connectivity (AUX BT)?
Bluetooth® audio transmission must first be activated by entering a setting (AUX Bluetooth®) under 'DISC/ OPTION/SET DISC/AUX'. Mobile phones which support the corresponding profiles (A2DP/AVRCP) will now automatically connect these profiles at every start. An existing connection can be identified by the display of an additional source AUX BT under DISC.

What functions does Bluetooth® audio connectivity (AUX BT) support?
Functions supported are preset by the scope of functions implemented in the mobile device. Devices without AVRCP must be operated directly on 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/skipping (operation using the arrow button on the 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 start of the audio player when the corresponding source AUX BT is selected on the PCM or advanced player functions such as 'Shuffle' or 'Repeat'. In all cases, devices can be connected, disconnected, deleted and renamed by selecting Devices List.

Why are there different menus for AUX BT?
The different menus are aligned to the ranges of functions described for various AVRCP versions. Devices supporting AVRCP1.0 are operated exclusively by using the arrow buttons. Here the PCM shows only the name of the device connected. If the device reports AVRCP1.3 support, the PCM displays an advanced menu in which the metadata transferred (name, artist and album of the track currently playing) are shown and further player functions ('Repeat', 'Shuffle', 'Sample') can be operated if they are supported by the device (Bluetooth® player or mobile phone).

Why are no metadata (name, artist and album) displayed in the advanced menu variation AUX BT?
Some devices do not transfer metadata even though they report AVRCP1.3 support. In these cases the sections reserved for metadata in the PCM remain empty.

Why is the source AUX BT not activated after a system start?
The source AUX BT always needs a Bluetooth® connection to a corresponding mobile phone or Bluetooth® player first of all. This connection is not established immediately after starting the PCM because first the telephone profiles (Handsfree or SIM Access Profile) and then the audio profiles (A2DP, AVRCP) are connected. In the case of a Bluetooth® player without telephone function, this must be connected manually after a system start.

Why does my audio not work although the source AUX BT is activated?

When the source AUX BT is activated, audio may not function even though the required Bluetooth® connection is operative. This may be due to several causes:

1. Some devices do not permit remote starting of the audio player. In this case the player must be started manually via the mobile phone; after this, the audio player can be operated using the PCM.
2. There is no memory card in the mobile phone, or the music is not in the expected directory of the memory card and cannot be located by the telephone.
3. With some mobile phones or Bluetooth® players, the volume of the music played via the PCM depends on the volume setting on the mobile device. In this case the volume on the mobile phone or Bluetooth® player may need to be increased.
4. In simple implementations, the same command is used to operate the functions 'Play' and 'Pause', without giving a status report on the current status of the player. This may result in the player being paused instead of playing. The problem can generally be solved by pressing the volume control twice or pressing the arrow buttons. Otherwise the audio player must be started on the mobile phone itself.

Why is audio transmission via AUX BT sometimes impaired on occasion?

In some situations, the quality of audio transmission via AUX BT may be impaired by the limited bandwidth at Bluetooth's® disposal. Critical situations primarily arise during a search for new devices or during the connection or reconnection of devices. In these cases music may suffer dropouts or break up repeatedly.

The situation may be improved by deleting mobile phones not in use from the PCM's device list.

6. Glossary

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.

Authorisation
For automatic establishment of a Bluetooth® connection to be possible, the device requesting the connection must be authorised on the opposite side. This authorisation is performed automatically on some phones, while on others it must be performed explicitly by the user in the Bluetooth® device list.

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.

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

Bluetooth®
Bluetooth® is an industrial standard for the wireless networking of electronic devices over a short range (up to 10 metres). It allows mobile electronic devices such as mobile phones and PDAs as well as computers 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 transferred wirelessly from a data source (portable MP3 player or mobile phone) to a receiver (headphones or vehicle sound system). It is used by the 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 in a mobile device (e.g. portable MP3 player or mobile phone). The functions it supports are primarily dependent on the concrete implementation of the mobile phone or MP3 player in question. Minimum functions are 'Start Player', 'Pause', 'Next Track' and 'Previous Track'. Some newer devices already partly support transmission of metadata (track name, artist and album name for the track playing), but may also support the start of the audio player when the appropriate AUX Bluetooth® source is selected on the PCM, or advanced player functions such as 'Shuffle' or 'Repeat'.

Bluetooth® Handsfree Profile (HFP)
The Bluetooth® Hands-Free Profile (HFP) enables an existing in-car audio system to be used as a hands-free facility for a compatible mobile phone. It also enables the user to access phone functions via existing vehicle controls. The Bluetooth® Handsfree Profile (HFP) is supported in all phone variants in the Panamera. Typical functions include making, receiving and ending calls, as well as setting up and terminating the hands-free audio connection. The Bluetooth® Hands-Free Profile (HFP) defines how the phone is controlled and how audio data is transferred. The implementation of the Bluetooth® Hands-Free Profile (HFP) tends to vary among manufacturers, on individual phone models, and even in the different firmware versions for the same phone. As a result, two phones can have different levels of functionality even though both are nominally HFP-compatible.

Bluetooth® Phonebook Access Profile (PBAP)
Bluetooth® Phonebook Access Profile (PBAP) transfers phonebook content and phone lists from mobile phones after setting up a Bluetooth® connection between the PCM/CDR and the mobile phone. However, transmission of phone content is always dependent on the type of phone involved; in some cases parts of the phonebook (e.g. SIM card entries) are not transmitted because they are not recognised by the phone. Phonebook Access Profile (PBAP) is only supported by newer telephone models.

Bluetooth® Search – Inquiry
The one-off registration of two devices requires a search (inquiry) to be initiated by one side, the purpose of which is to identify potential Bluetooth® partners. Once the devices are registered, the connection is established via a direct connection request from then on 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 is in the car, where it allows the user to operate an integrated car-phone with the SIM card from his or her own mobile phone. The Bluetooth® SIM Access Profile (SAP) affords the user of a PCM with integrated telephone module the option of using the PCM with telephone module with the car's external antenna without having to insert a SIM card into the PCM. The user can also access the phonebook contacts and text messages on his or her SIM card and, depending on the mobile phone's range of functions, the contacts in the device memory.

Unfortunately only a few phone models support the Bluetooth® SIM Access Profile (SAP). It is expected, however, that the profile will become more and more established in the coming years.

Call transfer/conferencing
The user has the option, during an active call, of accepting a further incoming call and then swapping between the two calls (transfer). The user can also connect the 2 calls to a three way conference. These functions are supported by many mobile phones. Whether or not these functions can be controlled by the PCM depends on the mobile phone's range of Bluetooth® functions. The CDR-31 does not support these functions.

DTMF
DTMF (Dual Tone Multiple Frequency) is a method of telephone signalling in which the user can transmit tones from the keypad while making 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, the PCM then rings with the tone set on the phone rather than its own tone. In this case, the ringtone settings in the PCM are not active. The ringtone can only be set via the phone. The CDR-31 does not support this function.

Preparation for mobile phone
The preparation for mobile phone (in combination with CDR-31 or PCM) is a typical Bluetooth® hands-free system based on the Bluetooth® Hands-Free Profile (HFP). The Bluetooth® preparation for mobile phone supports the following functions in principle:

– Pairing a mobile phone with search from the car or phone.
– Automatically connecting a paired device after system startup.
– 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.

Since the range of functions varies greatly between different mobile phones, please refer to the applicable details for your vehicle equipment and mobile phone in the mobile phone compatibility list at www.porsche.com.

Register state
The register state refers to the current status of the connection with a mobile phone network. The network name is displayed if the phone is currently connected with a mobile network (if the phone transfers this information). Other possible states include 'network search' or 'registration failed'.

Registration – Pairing
Before Bluetooth®-enabled devices can be connected, they require a one-off registration or 'pairing' process that protects the security of each device. To begin this process, one of the devices is set to search for other visible Bluetooth® devices within range. A list of visible devices is then displayed (device class permitting). After the required device has been selected, it is necessary to enter the same numerical code or 'passkey' into both devices. If the pairing is 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.

Signal strength
Signal strength is an indicator of the general reception quality on the mobile phone at any given location. It does not correspond to the actual sound quality experienced on a call as the individual voice channels on a mobile network cell can vary considerably in quality. The signal strength is displayed on the PCM/CDR-31 whenever the phone is connected to a network cell, provided the telephone transmits 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. phonebook contacts and SMS text messages. The card is PIN-protected to prevent unauthorised access to this data.

Telephone module with wireless active handset
The telephone module with wireless active handset (only in combination with PCM) is a fixed car phone which supports not only operation with SIM card (inserted in the PCM or using Bluetooth® via the SIM Access Profile) but also handsfree operation including operating options via the Bluetooth® Handsfree Profile. Registration or 'pairing' of a mobile phone which can use both profiles to establish connection with the vehicle generally takes place using a 16-digit Bluetooth® code for the higher-ranking SIM Access Profile. If the connection via SIM Access Profile fails, the system switches to the Handsfree Profile as second choice (HFP mode). In this case, the range of functions supported is limited to the functions covered by preparation for mobile phone (no text messaging, no Bluetooth® headset).

The PCM with telephone module supports the following functions in principle:

– 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.
– Sending DTMF tones.
– Managing call lists.
– Starting and ending a second call, call transfer and conference call.
– Pairing a Bluetooth® SIM Access Profile-enabled mobile phone with search from the car.
– Automatically connecting a paired device after system startup.
– Transferring phonebook contacts from the mobile phone (contacts on the SIM card and address book contacts from the device) or from the inserted SIM card.
– Transferring call lists from the mobile phone.
– Using a wireless active handset to conduct conversations in private mode (not HFP mode).
– Using Bluetooth® headsets (not HFP mode).
– Sending and receiving text messages (not HFP mode).