



Coach smartRadio Gen 2 w/o BT

7 620 210 054

Coach smartRadio Gen 2

7 620 210 052

Coach smartPanel

7 620 210 051



BOSCH

en Operating instructions

Contents

Important information	3	Radio mode	17
Validity of the document	3	Available frequency ranges and memory banks	17
Target group of the document	3	Functions on the smartRadio	18
Explanation of symbols	3	Functions in the FM/MW/AM menu	19
Safety information	3	Functions in the DAB menu of the smartRadio	19
Intended use	3		
Product overview	4	Media playback from external sources	20
smartRadio without Bluetooth® functions	4	Selecting a media source on the smartRadio	20
smartRadio with Bluetooth® functions	5	Selecting a media source on the smartPanel	21
smartPanel	6	Playback from USB	22
Operating modes	7		
Operation	8	Functions on the smartRadio with Bluetooth® (BT)	24
Controlling the volume	8	Setting up a Bluetooth® connection	24
Opening menus	9	Bluetooth® telephone functions	25
Navigating in menus	9		
Activating/deactivating traffic announcements (TA)	9	Updating the device software	29
Playback from external media sources (USB, mobile phones, AUX, BT audio)	10	Disposing of old devices	29
Basic menus	11	Technical data	30
Time	11	Technical data of the smartRadio	30
Setting the start volume	11	Technical data of the smartPanel	33
Video format	11		
General audio and sound settings	12		
Radio	13		
External media sources	14		
Microphone settings	16		

Important information

Before using the devices, read these instructions carefully and familiarise yourself with the devices. Keep these instructions in your vehicle for later reference.

Validity of the document

The contents of these operating instructions apply to the following devices:

- ▶ Coach smartRadio Gen 2 w/o BT
- ▶ Coach smartRadio Gen 2
- ▶ Coach smartPanel

Target group of the document



This document is intended for persons who operate the radio during their journey.

Explanation of symbols

Warnings

In warnings, signal words are used to indicate the nature and severity of consequences if the measures for averting the specific danger are not followed.

The following symbols are defined and are used in this document:

	This symbol warns of the risk of serious to potentially life-threatening personal injury.
	This symbol indicates important information that does not pose a risk to people or property.

Safety information



Road safety

Road safety has absolute priority.

- ▶ Only operate the device if the driving and traffic situation allow you to do so.
- ▶ Familiarise yourself with the device before setting off on your journey.

You must always be able to hear police, fire service and ambulance sirens in good time from inside your vehicle.

- ▶ You must therefore listen to the sound system at an appropriate volume level during your journey.

Intended use

The smartRadio is designed for controlling and playing back audio sources in the cockpit of a vehicle. It can be used as a hands-free system for Bluetooth® mobile phones.

The **smartPanel** is designed for controlling and playing back media sources in the cabin. Image and video files can also be viewed via optional monitors.

Product overview

smartRadio without Bluetooth® functions



- | | |
|-------------------------|---------------------------|
| (1) TA button | (11) 4/⏩ button |
| (2) RADIO button | (12) ⏩ button |
| (3) SRC button | (13) On/off button |
| (4) Display | (14) ⏮ button |
| (5) OK button | (15) 3/▶ ■ button |
| (6) ▲ button | (16) 2/⏪ button |
| (7) USB socket | (17) 1/⏮ button |
| (8) MENU button | |
| (9) 6 button | |
| (10) 5/▼ button | |

smartRadio with Bluetooth® functions



- | | |
|-------------------------|--------------------------|
| (2) RADIO button | (13) On/off button |
| (3) SRC button | (14) << button |
| (4) Display | (15) 3/▶ ■ button |
| (5) OK button | (16) 2/↻ button |
| (6) ▲ button | (17) 1/↻ button |
| (7) USB socket | (18) PHONE button |
| (8) MENU button | (19) 6/↻ button |
| (10) 5/▼ button | |
| (11) 4/↶ button | |
| (12) >> button | |

smartPanel



(20) **USB** button

(21) **AUX** button

(22) **SRC** button

(23) Display

(24) **OK** button

(25) **▲** button

(26) USB socket

(27) **MENU** button

(28) **MON** button

(29) **▼** button

(30) **↶** button

(31) **↷** button

(32) On/off button

(33) **↶↶** button

(34) **▶||■** button

(35) **↻** button

(36) **↷** button

Operating modes

Solo mode

The smartRadio and the smartPanel can each operate independently.

Tandem mode

In Tandem mode, both devices are interconnected and provide enhanced functions:

- ▶ Both devices can be switched on and off together.
- ▶ Audio sources of the smartRadio can be played in the cabin via the smartPanel.

In Tandem mode, the currently selected radio programme (FM, AM or DAB) or media playback on the smartRadio is available on the smartPanel as "Tandem Radio" or "Tandem Media".

Operation

Switching devices on/off

If both devices are operated in Tandem mode, switching on and off the smartRadio automatically switches on and off the smartPanel.

When the vehicle ignition is off, the system switches off automatically after one hour to conserve the vehicle battery.

If the system was switched off with the vehicle ignition, it also switches back on again with the vehicle ignition.

When switched on with the microphone connected, the device is automatically in microphone mode.

Function	Action
Switch on/off	▶ Briefly press the on/off button to switch the device on.
	▶ Long-press the on/off button to switch the device off.
	▶ Switch the vehicle ignition on/off.

Access to further functions and settings is provided in menus.

- ▶ Important and frequently used functions can be selected directly by pressing a button.
In order to select certain functions, it is necessary to press and hold the corresponding button (for approximately two seconds).
- ▶ Menu entries that contain a submenu are indicated by ">" (e.g. ">AUDIO").

Controlling the volume

- ▶ Turn the on/off button to adjust the volume.

Muting:

- ▶ Briefly press the on/off button.

Another brief press of the on/off button resumes audio playback.

Opening menus

Function	Action
Open the main menu	► Long-press the MENU button.
Open the menu of the current media source	► Briefly press the MENU button.

- An opened menu closes automatically after approximately ten seconds if no further buttons are pressed.

Navigating in menus

Function	Action
Select a menu item on the current menu level	► Press the ▲ button or the ▼ button.
Confirm a menu item or open a submenu	► Press the OK button.
Return to the next higher menu level	► Press the ↶ button.
Leave a menu	► Long-press the ↶ button.

Activating/deactivating traffic announcements (TA)

On smartRadios without Bluetooth® (BT)

- Briefly press the **TA** button.

On smartRadios with Bluetooth® (BT)

1st menu level	2nd menu level	3rd menu level	Function/action
:			
>SYSTEM	:		
	>TA	>MODE ON/OFF	Select and confirm to switch traffic announcements on/off.

Playback from external media sources (USB, mobile phones, AUX, BT audio)



Notes:

- ▶ Bosch cannot guarantee the proper functioning of all USB storage devices available on the market.
- ▶ BT audio playback is only available on some smartRadios. If the smartPanel is operated in Tandem mode, you can select the Tandem Media source for the cabin in order to play the BT audio source in the cabin (see „Selecting a media source on the smartPanel“ Page 21).
- ▶ For information about the specifications and compatibility of playable media, please see the „Technical data“ Page 30 chapter.

Function	Action	Note
Switch to the previous track	▶ Briefly press the ⏮ button.	Not in AUX mode.
Switch to the next track	▶ Briefly press the ⏭ button.	
Pause playback	▶ Briefly press the ▶ ■ button.	
Resume playback	▶ Briefly press the ▶ ■ button.	
Stop playback	▶ Long-press the ▶ ■ button.	Not in AUX and BT audio mode or during playback from an iPhone.
Fast-reverse mode	▶ Press and hold the ⏮ button.	Not in AUX mode.
Fast-forward mode	▶ Press and hold the ⏭ button.	
Switch random playback on/off	▶ Briefly press the 🔀 button.	
Switch track repeat on/off	▶ Briefly press the ↺ button.	–
Show additional information*	▶ Briefly press the ▲ button or ▼ button, multiple times if necessary.	

* **USB:** displays the current file name, folder name, track name, album name, artist and time.

BT audio: displays the current track name, album name, artist and time.

AUX: displays the time.

Basic menus

Time

In the main menu of the devices:

1st menu level	2nd menu level	3rd menu level	Function/action
:			
>SYSTEM	:		
	>CLOCK	>CLOCK FORMAT	Select and confirm to set the clock format: ▶ 12HOUR: 12-hour mode ▶ 24HOUR: 24-hour mode
		>AUTO UPDATE	Select and confirm to switch the automatic update of the clock on/off.
		>CLOCK ADJUST	Select and confirm to set the clock time.

Setting the start volume

In the main menu of the devices:

1st menu level	2nd menu level	Function/action
:		
>SYSTEM	:	
	>START VOLUME	Value range: "0" – "15"

Video format

In the main menu of the smartPanel

1st menu level	2nd menu level	Function/action
:		
>SYSTEM	:	
	>VIDEO OUTPUT	Select between PAL or NTSC video format.

General audio and sound settings

- ▶ Long-press the **MENU** button.
- ▶ Select and confirm the ">AUDIO" menu item on the first level of the main menu.
- ▶ On the second and subsequent menu levels, select the desired function:

2nd menu level	3rd menu level	4th menu level	Function/action
:			
>EQ	>FLAT		Select the desired Equalizer preset. Note: Selecting "FLAT", for example, sets the bass and treble levels to "0".
	>POP		
	>ROCK		
	>JAZZ		
	>FOLK		
	>DANCE		
	>USER	>50 HZ	Select the individual equalizer settings. Select the desired menu item to adjust the corresponding frequency from -12 dB to +12 dB.
		>200 HZ	
		>800 HZ	
		>3.2 KHZ	
		>10 KHZ	
>BASS	BASS -12 ... +12		Adjust the bass level.
>MIDDLE	MIDDLE -12 ... +12		Adjust the mid-range level.
>TREBLE	TREBLE -12 ... +12		Adjust the treble level.
>LOUDNESS	LOUDNESS ON/OFF		Switch loudness on/off.
>BALANCE	BALANCE L12 ... R12		Adjust the right/left volume distribution.
>FADER	FADER R12 ... F12		Adjust the front/rear volume distribution.
			Note: This setting is only available on the smartPanel.

Radio

In the main menu of the smartRadio:

- ▶ Long-press the **MENU** button.
- ▶ Select the ">SYSTEM" menu item on the first level of the main menu and confirm with the **OK** button.

1st menu level	2nd menu level	3rd menu level	Function/action
:			
>SYSTEM	>RDS	>RDS ON/OFF	Select the menu items to switch the corresponding option on/off: <ul style="list-style-type: none"> ▶ RDS ▶ AF (automatic switching to alternative frequencies) ▶ REG (regional function) Note: The AF and REG settings are only available if RDS is switched on.
		>AF ON/OFF	
		>REG ON/OFF	
	>DAB	>SERVICE LINK	Confirm the menu item to switch on/off DAB Service Link. A service may be receivable via DAB and FM simultaneously. If DAB Service Link is enabled and the current DAB service becomes unavailable, the smartRadio automatically switches to FM reception until DAB reception is available again.
	>LOCAL/DX	>LOCAL	Used to set the receiver sensitivity (nearby signal station vs. distant signal station).
		>DX	

External media sources

Basic settings

1st menu level	2nd menu level	3rd menu level	Function/action
:			
>SYSTEM	:		
	>ID3 SCROLL	ON/OFF	Switch the scrolling of ID3 track information on/off. Note: This setting is only available on the smartPanel.
	>PTIMEMODE	ELAPSE/REMAIN	Switch between displaying the elapsed and remaining playing time.
	>BEEP ON/OFF	ON/OFF	Switch confirmation/button tone on/off.

Mobile phone playback

The devices are connected via USB.

Once a device has been connected, the authentication process is initiated. The device is only connected if the authentication process is completed successfully.

1st menu level	2nd menu level	3rd menu level	Function/action
>PLAYLIST	>PLAYLIST 1	>TRACK NAME 1	Select and confirm playlist/ track. Note: The playlist and track names are displayed.
		:	
		>TRACK NAME N	
	>PLAYLIST 2	...	
	:		
	>PLAYLIST N	...	
>NOW PLAYING	>TRACK NAME		Display the current track name and, if desired, select another track. Note: Only available for iPhone IAP2 devices.
	:		
	>TRACK NAME N		
>ARTISTS	...		Select artists/tracks.
>ALBUMS	...		Select albums/tracks.

Monitor settings

The smartPanel features and external input for external video devices. The AUX video input is located on the rear of the smartPanel.

When video output is activated, the external monitor swings down. When the video signal stops, the monitor swings back up after a five-second delay.

Function on the smartPanel:

Function	Action	Note
Activate/deactivate cabin monitors	► Briefly press the MON button.	–

- Use the **USB** and **AUX** buttons to select the desired video input.

Microphone settings

Microphones only work when the vehicle ignition is switched on.

The smartRadio features two microphone connections.

- ▶ MIC1: driver microphone with priority over the media playback in the cockpit and for conducting phone calls via Bluetooth® (BT).
- ▶ MIC2: microphone of the tour escort with priority over the media playback in the cabin.

The smartPanel also features two microphone connections.

In Tandem mode, the system supports operation of up to three microphones:

- ▶ One driver microphone with priority on the smartRadio
- ▶ Two microphones for tour escorts on the smartPanel

Microphone announcements are played via the system's loudspeakers as soon as the microphone is switched on. After switching off the microphone, the system resumes the current media playback.

In the main menu of the smartRadio:

1st menu level	2nd menu level	3rd menu level	Function/action
:			
>SYSTEM	:		
	>MIC1 TYPE	HANDLE/ HEADSET	Set the type of the driver microphone: <ul style="list-style-type: none"> ▶ Handle: hand microphone. The audio of a phone call is played via the system's loudspeakers. ▶ Headset: microphone with internal loudspeaker. The audio of a phone call is played via the microphone's internal loudspeaker.

Radio mode



Note:

Radio mode is only available on the smartRadio. Only when the smartPanel is used in Tandem mode can you select the Tandem Radio source for the cabin (see „Selecting a media source on the smartPanel“ Page 21).

Available frequency ranges and memory banks

European frequency band

FM			MW/AM			DAB+	
FM1	FM2	FMS	MW	MWAS	SW	DAB1+	DAB2+

NAFTA frequency band

FM			MW/AM			WB
FM1	FM2	FMS	AM	AMAS	SW	WB

MENA frequency band

FM			MW			DAB+	
FM1	FM2	FMS	MW	MWAS	SW	DAB1+	DAB2+

The FM1, FM2, FMS, MW/AM, MWAS/AMAS, DAB1+ and DAB2+ memory banks each offer six storage locations for radio frequencies.

- ▶ The six stations with the strongest signals can be automatically stored in the FMS and MWAS/AMAS memory banks (see „Functions on the smartRadio“ Page 18).
- ▶ Six stations can be stored in each of the FM1, FM2, MW/AM, DAB1+ and DAB2+ memory banks (see „Functions in the FM/MW/AM menu“ Page 19).

Functions on the smartRadio

Function	Action	Note
Start a search downwards to the next available station	► Briefly press the ◀◀ button.	In the FM/AM frequency ranges you can press and hold the ◀◀ or ▶▶ button to skip a section of the waveband.
Start a search upwards to the next available station	► Briefly press the ▶▶ button.	
Access a stored station	► Briefly press button 1 – 6 .	Only in the current memory bank.
Save the current station	► Long-press button 1 – 6 .	
Switch to the next memory bank	► Briefly press the RADIO button, multiple times if necessary.	Switches between the FM, AM und DAB+ memory banks.
Show additional broadcast information*	► Briefly press the ▲ button, multiple times if necessary.	–
Switch between analogue and digital tuner	► Long-press the RADIO button. ► Select and confirm with OK .	–

* **FM:** displays the current frequency, PTY type, RDS text and time.

DAB+: displays the current DAB+ PTY type, DAB+ ensemble, frequency, DLS text and time.

Functions in the FM/MW/AM menu

1st menu level	Function/action
>AUTO STORE	<p>Starts the Auto Store function: The current waveband (FM or AM) is searched for the six strongest stations. The discovered stations are stored in the FMAS or MWAS memory bank.</p> <p>Note: After the search is finished, the station stored in storage location 1 is played automatically.</p>
>FREQ SCAN	<p>Starts the frequency scan: The current waveband is searched for available stations. Each station is played for approximately five seconds.</p> <p>Note: The scan can be cancelled by pressing any button. The current station is played.</p>
>PRESET SCAN	<p>Starts the preset scan. Each stored station of the current memory bank is played for approximately five seconds.</p> <p>Note: After the scan is finished, the last station played before starting the scan is played again.</p>

Functions in the DAB menu of the smartRadio

1st menu level	2nd menu level	Function/action
>CHANNEL LIST	>CHANNEL 1	Select the channel to be played. Confirm with OK .
	:	
	>CHANNEL N	
>AUTO SCAN		Starts the automatic scan of all frequencies and displays the number of found stations.
>MANU SEEK	>FREQUENCY 1	Select the frequency to be set. Confirm with OK .
	:	
	>FREQUENCY ...	

Media playback from external sources



Note:

In Tandem mode, the radio/media sources of the smartPanel are played in the cabin.

Selecting a media source on the smartRadio

Function	Action	Note
Select the radio	► Press the RADIO button.	–
Select USB / Bluetooth® (BT) Audio / Rear AUX	► Press the SRC button, multiple times if necessary.	You can only select USB if a corresponding storage device is connected.
Select USB / Bluetooth® (BT) Audio / Rear AUX in the source select list	► Long-press the SRC button to open the source select list. ► Press the ▲ button or ▼ button, multiple times if necessary, to select the media source.	You can only select Bluetooth® (BT) Audio if an active Bluetooth® connection exists (see „Setting up a Bluetooth® connection“ Page 24).

The following Apple® devices can be connected via USB:

iPhone 15 Pro Max	iPhone 13 Pro	iPhone 11
iPhone 15 Pro	iPhone 13	iPhone XS Max
iPhone 15 Plus	iPhone 13 mini	iPhone XS
iPhone 15	iPhone 12 Pro Max	iPhone XR
iPhone 14 Pro Max	iPhone 12 Pro	
iPhone 14 Pro	iPhone 12	
iPhone 14 Plus	Phone 12 mini	
iPhone 14	iPhone SE (2nd generation)	
iPhone SE (3rd generation)	iPhone 11 Pro Max	
iPhone 13 Pro Max	iPhone 11 Pro	

Connecting Android® mobile phones via USB is not possible.

Selecting a media source on the smartPanel

Function	Action	Note
Select USB	► Press the USB button.	You can only select USB if a corresponding storage device is connected.
Select AUX	► Press the AUX button.	
Switch between the available radio/media sources (including Tandem Media and Tandem Radio)	► Press the SRC button, multiple times if necessary.	<p>On the smartPanel, Tandem Media and Tandem Radio are only available if both devices are operated in Tandem mode.</p> <p>In Tandem mode:</p> <ul style="list-style-type: none"> ► Tandem Media is not available on the smartPanel if the smartRadio is currently in radio mode. ► The smartPanel will remain in Tandem Media mode if the smartRadio switches to an incoming traffic announcement (if traffic announcement priority is switched on). ► The smartPanel will remain in Tandem Radio mode if the smartRadio switches from radio mode to media playback. ► If a phone call is received while the smartPanel is in Tandem Media mode and the smartRadio is playing Bluetooth® audio, the audio playback in the cabin is interrupted for the duration of the call.

Playback from USB



Note:

Not for iPhone playback.

- ▶ The folder and track names from the USB storage device are displayed.
- ▶ In the menu, each subfolder level of the USB storage device is represented by an additional menu level.

USB menu of the smartRadio

1st menu level	2nd menu level	...	nth menu level	Function/action
>FILE LIST	>FOLDER 1	...	>FILE NAME 1	Select and confirm folder/track. Notes: <ul style="list-style-type: none"> ▶ The folder and track names are displayed. ▶ In the menu, each subfolder level of the connected storage device is represented by an additional menu level.
			:	
			>FILE NAME N	
	>FOLDER 2	
	:			
	>FOLDER N	
>PTIME SET				Set the playback start point (see „Manually setting the playback start point“ Page 23).

USB menu of the smartPanel

1st menu level	2nd menu level	3rd menu level	Function/action
>FILE LIST	>VIDEO LIST	>FOLDER 1	Select and confirm the desired list and folder to access subfolders and play files.
		>FOLDER 2	
		:	
		>FOLDER N	
	>PHOTO LIST	...	
	>MUSIC LIST	...	
>PTIME SET			Select the playback start point (see „Manually setting the playback start point“ Page 23).

Manually setting the playback start point

You can manually set the starting point for playback by specifying the play time at which playback should start.

- In the USB menu, select and confirm the ">PTIME SET" menu item.

The current play time (mm:ss) of the track is displayed.

- Press and hold the ▲ button or ▼ button to set the minutes.
- Press the **OK** button.
- Press and hold the ▲ button or ▼ button to set the seconds.
- Press the **OK** button to start playback.

Functions on the smartRadio with Bluetooth® (BT)

The Bluetooth® function allows the user to establish a wireless connection between the smartRadio and a Bluetooth®-enabled mobile phone and thus exchange data over a short range.

The availability of the Bluetooth® function depends on the smartRadio installed.



Notes:

- ▶ Please bear in mind that the Bluetooth® connection can suffer interference if, for instance, there are any metal objects located between the radio and the mobile phone or if you are carrying the mobile phone in your back pocket.
- ▶ If a mobile phone is already connected to the smartRadio via Bluetooth®, it cannot also be connected via USB. A parallel connection can lead to unreliable operation.

The Bluetooth® functions provide the following options:

- ▶ Manual activation and deactivation of the BT function.
- ▶ Pairing of a BT-enabled mobile phone.
- ▶ Automatic connection to a previously paired BT device. Max. three devices are supported.
- ▶ Download and usage of contacts from a connected mobile phone.
- ▶ Making and receiving calls.
- ▶ Audio streaming from a connected mobile phone.

Setting up a Bluetooth® connection

- ▶ Select "PAIR DEVICE" in the **PHONE** menu of the smartRadio.
- ▶ Select the "smartRadio" ID of the smartRadio on the mobile phone.
- ▶ Confirm the pairing request on the smartRadio by pressing the **OK** button. The required PIN is shown on the display.

The connection is reestablished automatically every time the radio is switched back on.

Bluetooth® telephone functions




Note:



With the vehicle ignition switched on: If a mobile phone is connected to the smartRadio via Bluetooth®, the system switches on automatically in the event of an incoming call.



Notes:

- ▶ Bluetooth® telephone functions are only available on the smartRadio.
- ▶ When a Bluetooth® connection is active, the driver can accept calls by pressing the  button and conduct the call via microphone 1.
- ▶ To be able to use the headset, the "HEADSET" option must be selected in the menu (see „Microphone settings“ Page 16).
- ▶ If the driver activates the announcement signal (foot switch or button in the cockpit) while conducting a call via the microphone, this will interrupt the active call. The conversation is muted for the duration of the announcement and can be continued when the announcement is complete.

Telephone functions on the smartRadio

Function	Action	Note
Answer or end a call.	▶ Briefly press the  button.	–
Reject a call.	▶ Briefly press the  button.	–
Adjust the volume when the ring signal sounds and during a call.	▶ Turn the on/off button.	–
Transfer an active call to the mobile phone or back to the smartRadio.	▶ Briefly press the PHONE button.	As long as the call is transferred to the mobile phone, "PRIVATE" is shown on the display.

Bluetooth® settings in the main menu of the smartRadio


1st menu level	2nd menu level	3rd menu level	Function/action
:			
>SYSTEM	:		
	>BLUETOOTH	>BT ON/OFF	Select and confirm to switch Bluetooth® on/off.
		>AUTO CONNECT	Select and confirm to switch Bluetooth® Auto Connect on/off. If Auto Connect is switched on, a previously paired Bluetooth® device will be connected automatically when it comes into range. This requires Bluetooth® to be switched on and no other device to be connected.
		>OBEX AUTHORI	Select and confirm to switch OBEX data transfer for phone book access on/off. Accessing the phone book of a connected Android smartphone via OBEX requires you to enter the OBEX passcode ("0000") on the smartphone.

Functions in the **PHONE** menu of the smartRadio



Notes:

- ▶ To open the **PHONE** menu, briefly press the **PHONE** button.
- ▶ To use these functions, Bluetooth® must be switched on (see „Setting up a Bluetooth® connection“ Page 24).

1st menu level	2nd menu level	3rd menu level	Function/action
>REDIAL			Redial the last number called.
>CALL LIST	>MISSED CALL	>NUMBER 1	Select and confirm one of the last numbers of a missed incoming call.
		:	
		>NUMBER 20	
	>DIALED CALL	...	Select and confirm one of the last numbers dialed.
	>RECEIVED CALL	...	Select and confirm one of the last numbers of an answered call.
>PHONE BOOK	A-Z:A	A NAME 1	Note: Access to the phone book of an Android smartphone requires OBEX data transfer to be switched on (see „Bluetooth® telephone functions“ Page 25).
		:	
		A NAME N	
	A-Z:B		Select one of the phone book entries* with the chosen first letter. Press the  button to make the call. To first display the contact's number, confirm by pressing the OK button. To make the call, press the OK button again.
	:		
	A-Z:Z		

1st menu level	2nd menu level	3rd menu level	Function/action
>PAIR DEVICE			Make the system visible for mobile phones so you can establish a connection to the smartRadio on the mobile phone (the required PIN is shown on the display).
>SEL DEVICE	>PHONE NAME 1		Select and confirm a previously paired mobile phone to be connected.
	:		
	>PHONE NAME 3		
>DEL DEVICE	>PHONE NAME 1		Select and confirm a paired mobile phone to be deleted (unpaired).
	:		
	>PHONE NAME 3		
>DOWNLOAD PHONEBOOK			The phone book is downloaded.

* Phone book: max. 1,000 entries

Updating the device software

The device software can be updated via the USB interface.

- ▶ Download the latest device software from <http://bosch-professional-systems.com/> onto a compatible USB storage device. Make sure that there is only one version and one .bin file on the USB storage device.
- ▶ Connect the USB storage device to the USB socket.
- ▶ Select the option "JA" (YES) in the menu that appears.

Disposing of old devices

Do not dispose of your old devices in household waste!

Instead, use the available waste return and recycling systems to dispose of old devices.

Technical data

Technical data of the smartRadio

smartRadio			
Power supply	24 V		
Current consumption	In operation 0.5 A, FM 1 kHz	Max. current < 10 A	Standby current < 0.25 mA
Frequency ranges	EU	NAFTA	MENA
FM	87.5 – 108 MHz	87.7 – 107.9 MHz	87.5 – 108 MHz
AM/MW	522 – 1,629 kHz	530 – 1,710 kHz	531 – 1,602 kHz
DAB+	174.9 – 239.2 MHz	–	–
SW	3,900 – 4,000 kHz	3,900 – 4,000 kHz	9,400 – 9,900 kHz
	5,850 – 6,300 kHz	5,850 – 6,300 kHz	11,600 – 12,100 kHz
	7,095 – 7,500 kHz	7,095 – 7,500 kHz	13,570 – 13,870 kHz
	9,325 – 9,950 kHz	9,325 – 9,950 kHz	15,100 – 15,800 kHz
WB	–	162.4 – 162.55 MHz	–
Bluetooth®	Hands-free phone calls, phone book, music playback		
Inputs			
2 x MIC	1 mV for dyn. microphones microphone priority management, private mode		
USB	USB 2.0, type C		
AUX rear	Audio		
Compatible audio files	MP3, WMA, AAC, FLAC, HE-ACC, WAV		
Output power	2 x 20 W / 2 x 40 W adjustable		
Tandem function	Line out for Coach smartPanel		
Display	Dot matrix orange		
Operating temperature	-20°C to +70°C		
Storage temperature	-40°C to +85°C		
Weight	Approx. 1,070 g		
Certification	CE, UKCA, ECE R10, ECE R118, FCC, NOM, FMVSS 302		

smartRadio media specifications and compatibility**USB capacity**

Media	USB storage device
File system	FAT/exFAT
Maximum number of folders	1,000
Maximum number of subfolders	8
Maximum number of files	65,535
Maximum file size	32 GB (FAT32); 128 GB (exFAT)

MP3 compatibility

Media	USB storage device
File extension	.mp3
Bit rate	32 kbps – 320 kbps (CBR), VBR
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
Tag support	ID3 v1.0/v1.1/v2.2/v2.3/v2.4

WMA compatibility

Media	USB storage device
File extension	.wma
Bit rate	48 kbps – 192 kbps (CBR), 64 kbps – 161 kbps (VBR)
Sampling frequency	8 kHz – 48 kHz

WAV compatibility

Media	USB storage device
File extension	.wav
Bit rate	32 kbps – 320 kbps
Sampling frequency	22.05 kHz – 48 kHz

smartRadio media specifications and compatibility**AAC compatibility**

Media	USB storage device
File extension	.aac, .m4a
Bit rate	8 kbps – 320 kbps (CBR), VBR
Sampling frequency	8 kHz – 48 kHz

HE-AAC compatibility

Media	USB storage device
File extension	.aac
Bit rate	8 kbps – 320 kbps (CBR)
Sampling frequency	32 kHz, 48 kHz

FLAC compatibility

Media	USB storage device
File extension	.flac
Sampling frequency	8 kHz, 96 kHz
Number of channels	Stereo, Mono
Bit length	16-bit, 24-bit
Tag support	FLAC head

Subject to change.

Technical data of the smartPanel

smartPanel	
Power supply	24 V
Current consumption	
In operation	0.5 A, USB 1 kHz
Max. current	15 A
Standby current	< 0.25 mA
Inputs	
2 x MIC	1 mV for dyn. microphones microphone priority management
USB	USB 2.0, type C, MPEG-2, MPEG-4, MFi-IAP2
AUX rear	Audio, video
Video impedance	75 Ω
Compatible audio files	MP3, WMA, AAC, FLAC, HE-AAC, WAV
Compatible image files (on external monitor)	JPEG, PNG, BMP
Compatible video files (on external monitor)	MPEG-4, MPEG-2, H.263, H.264, Xvid
Output power	4 x 20 W / 4 x 40 W adjustable
Display	Dot matrix orange
Operating temperature	-20°C to +70°C
Storage temperature	-40°C to +85°C
Weight	Approx. 1,040 g
Certification	CE, UKCA, ECE R10, ECE R118, FCC, NOM, FMVSS 302

Subject to change.

Media specifications and compatibility**USB capacity**

Media	USB storage device
File system	FAT/exFAT
Maximum number of folders	300
Maximum number of subfolders	8
Maximum number of files	10,000
Maximum file size	32 GB (FAT32); 128 GB (exFAT)

MP3 compatibility

Media	USB storage device
File extension	.mp3
Bit rate	32 kbps – 320 kbps (CBR), VBR
Sampling frequency	32 kHz, 44.1 kHz, 48 kHz
Tag support	ID3 v1.0/v1.1/v2.2/v2.3/v2.4

WMA compatibility

Media	USB storage device
File extension	.wma
Bit rate	≤ 320 kbps
Sampling frequency	8 kHz – 48 kHz

WAV compatibility

Media	USB storage device
File extension	.wav
Bit rate	≤ 9,216 kbps
Sampling frequency	PCM: 6 kHz – 192 kHz Itu G.711 U_law: 8 kHz – 192 kHz IMA/DVI ADPCM: 8 kHz – 192 kHz

Media specifications and compatibility

AAC compatibility

Media	USB storage device
File extension	.aac, .m4a
Bit rate	≤ 288 kbps/channel / 48 kHz
Sampling frequency	8 kHz – 96 kHz

HE-AAC compatibility

Media	USB storage device
File extension	.aac
Bit rate	≤ 288 kbps/channel / 48 kHz
Sampling frequency	MPEG-2/4AAC-LC: 8 kHz – 96 kHz HE-AAC v1 (SBR): 8 kHz – 48 kHz HE-AAC v2 (SBR+PS): 8 kHz – 96 kHz

FLAC compatibility

Media	USB storage device
File extension	.flac
Sampling frequency	8 kHz – 192 kHz
Number of channels	Stereo, Mono
Bit length	9,216-bit
Tag support	ID3

Media specifications and compatibility**Video file formats**

File extension	.avi	.mp4 .mov .3gp .m4v	.mpg .mpeg .vob .dat	.flv
Format	MPEG-4	MPEG-4	MPEG-4	Flash Video
Compatible video codec	mp4v, xvid, 3ivx, mp43	mp4v, H.263	mpeg-2	H.263
Compatible audio codec	PCM, ADPCM, WMA, MP3	MP3, AAC-LC	PCM, MP3	MP3
Maximum resolution	720 pixels x 480/576 pixels			
Maximum frame rate	30 fps			
Video output format		USB storage device		
Output format		PAL/NTSC		
PAL resolution		720 pixels x 576 pixels		
NTSC resolution		720 pixels x 480 pixels		

Subject to change.

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