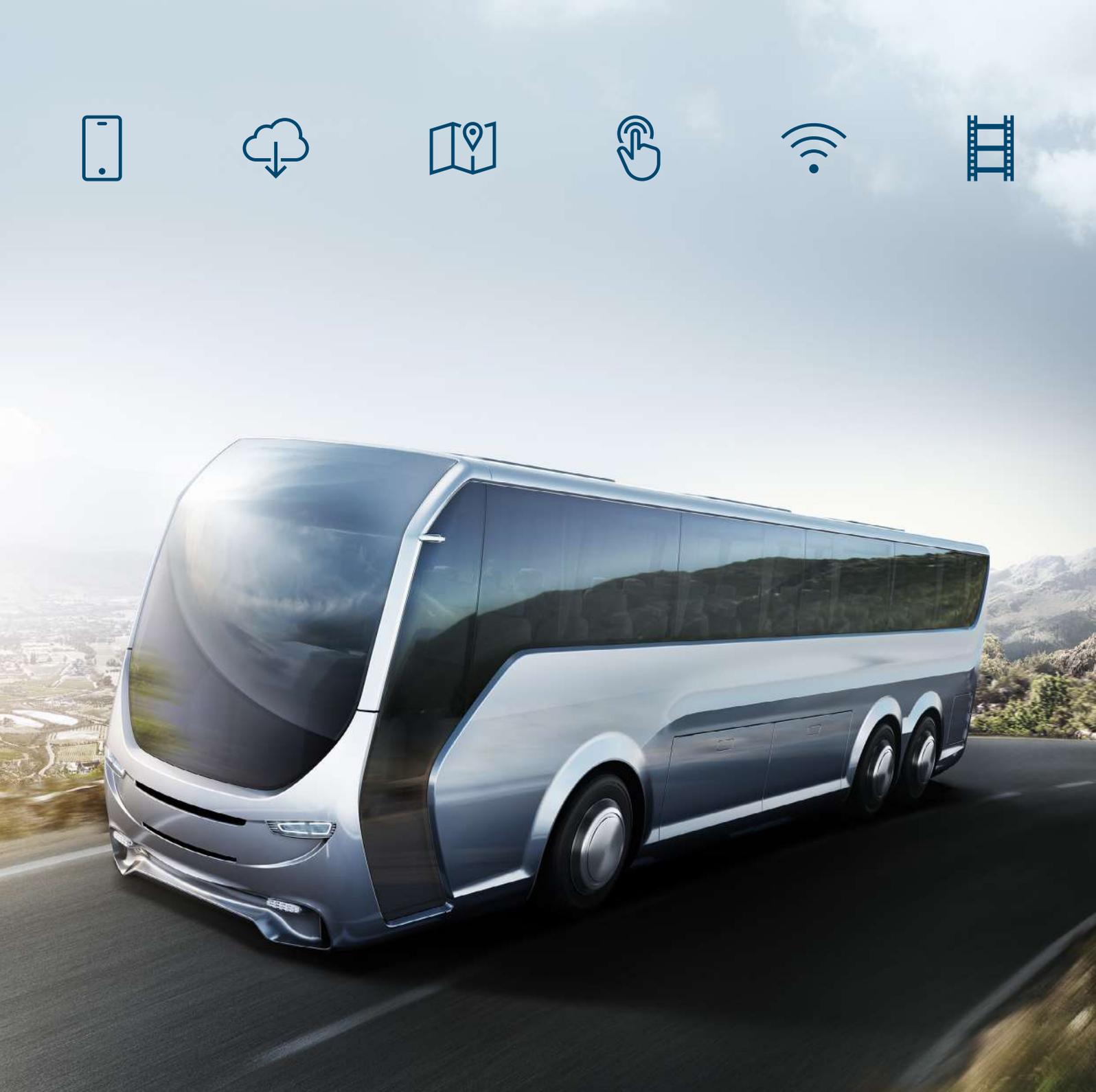


Invented for life

Coach Multimedia Solutions



BOSCH



02-429-6466



vrsecutech



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www.secutech.co.th

On tour with innovative technology from the market leader – Coach Multimedia Solutions

Bosch sets new standards in mobile communication, future-proof products, and professional system solutions for coaches, intercity buses, city buses, and mini-buses. With our comprehensive portfolio of multimedia and infotainment solutions, we support commercial vehicle manufacturers in shaping modern mobility.

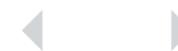
Our innovative systems not only enhance comfort and safety but also enrich the onboard entertainment experience. Thanks to innovative Bosch technology, every journey becomes an experience, and the passenger area transforms into a 3rd living space that brings the benefits of modern travel to life.

These solutions not only improve passengers' quality of life but also meet the high expectations today's customers have for a comfortable and connected travel experience.



- Coach Infotainment series**
- 6 Coach Infotainment series >
- Coach smartInfotainment series**
- 16 Coach smartInfotainment series >
- Coach video**
- 18 Monitors >
- 19 Video sources >

- Coach audio**
- 20 Coach audio >
- Coach accessories**
- 24 Microphones >
- Product overview**
- 28 Product overview >





Coach Infotainment series



The Coach Infotainment series provides top-class infotainment of the latest generation. Its perfectly matched components certified according to all the relevant OEM standards and the high-performance signal transmission afforded by Ethernet AVB turn the coach cabin into a full-featured digital network on wheels. High-resolution monitors and streaming services

round off the package. The ability to keep the Coach Infotainment series updated at all times guarantees the long-term viability of the system. Furthermore, it can be used throughout the world.



Coach Infotainment series



Center CM-C 19

The state-of-the-art head unit from Bosch paves the way to the fully connected driver workplace. Thanks to smartphone integration, a wide variety of features, like media streaming and connected services, can be made available on the head unit from the user's mobile device. The digital system architecture and technically mature user interface (HMI) turn cockpit infotainment into a whole new experience.

- NDS-based embedded navigation
- Video-out (MAP), digital
- HD traffic
- Map updates (7+ years)
- AM/MW/FM/DAB+ (EU)/SXM, WB (NAFTA)
- Audio via USB
- Bluetooth 4.1 (BT streaming/phoning)
- Video-in (CVBS), analog
- MIC-in (announcements/phoning)
- Private mode (with CDM09 GSM)
- 7" touchscreen with full touch control
- Integrated HMI for the cockpit and cabin
- Apple certified (made for iPod/iPhone)
- Software updates via USB
- CAN connectivity



ControlPanel CM-X 19

With its clearly arranged set of hard keys, the ControlPanel perfectly complements the Coach Center CM-C 19 and provides quick and easy access to the most important system functions. All media sources and settings for the various playback zones (cockpit and cabin) can be controlled very conveniently by selecting the corresponding mode.

- Two separate volume controls for the cockpit and cabin
- Quick access to the most important user menus
- Visual indication of the selected mode (LED)
- Automatic switch-over to cockpit mode
- CAN connection to the Coach Center CM-C 19

Coach Infotainment series



Amplifier CM-A 19

The new coach amplifier from Bosch features top sound performance with an optimized design that delivers crystal-clear treble and powerful bass. The new amplifier furthermore provides important coach-specific features, like microphone inputs and a private mode.

- Class-D power amplifier (6 x 40 W, adaptable to 6 x 20 W)
- 2 x MIC-in (announcements)
- Microphone priority control
- 5 x 100Base-T1 with integrated switch
- Power supply for Coach Infotainment series components
- Updates via the Coach Infotainment series system
- Interface for intercom



USB CM-Hub

The USB CM-Hub is part of the Coach Infotainment series. It can be used to establish a high-quality USB connection between the Center CM-C 19 and the driver's smart devices and provides high charging currents for all connected USB devices.

- USB 2.0
- Active hub for 12 V/24 V environments
- Safe and reliable charging with up to 2.1 A
- Provides protection against power surges
- 1 x USB (HSD) to USB type A, 2.1 A, OTG
- 1 x USB (HSD) to USB type A, 2.1 A, host

Coach Infotainment series



CameraPort CM-P 19

Various analog cameras can be connected to the IP network using the CameraPort CM-P 19. The CameraPort CM-P 19 adapts the inputs to the video channels that have been assigned to it, automatically switches video signals, and merges sources for displaying in split-screen mode.

- Central unit for controlling cameras
- 4 x video-in for analog cameras
- ETH RJ45 for an IP camera
- HDMI-in for an external video source
- USB for an external audio/video source
- Cascaded mode (integrated 100Base-T1 switch)
- Switching between CAM pictures
- Image processing for door cameras, cabin monitoring



Glasses CM-G 15" Glasses CM-G 22" Glasses CM-G 27"

The new coach monitors from Bosch set a whole new standard for LCD monitors for the coach market. Thanks to HD resolution and high-quality signal transmission via automotive Ethernet (100Base-T1), passengers can enjoy an unprecedented movie experience. The monitors provide state-of-the-art display technology coupled with proven Bosch reliability for professional use.

- High-definition LED TFT display
- Resolution: 1,920 x 1,080 pixels
- 100Base-T1 signal transmission via AVB
- Cascaded mode (integrated 100Base-T1 switch)
- Operating temperature from 0 °C to +65 °C/active temperature management for protecting the hardware
- Professional look and feel (monitor has a brushed aluminum effect)
- Weight-optimized design
- Universal bracket design/ fixed or electronically controlled swivel mounting
 - FixedHolder CM-HR (for 22" and 27" monitor)
 - FixedHolder CM-HW (for 22" and 27" monitor)
 - SwivelHolder CM-HS (only 22" monitor)

Coach Infotainment series



Router CM-R 19



The coach router provides fast internet access and wireless access to media via LTE from any device in the coach. The streaming function enables access to local content. With its integration in the coach infotainment architecture, the router becomes a connected system gateway between the users' mobile devices and the vehicle's own local network.

- Wi-Fi hotspot/broadband internet access
- Media server function
- Media streaming for custom entertainment options on personal devices (media services provided by service partners)
- Connected services (tour and travel info)
- 2 x SIM slots with preference settings
- LTE/HSPA+
- Media streaming of content from the system to passengers' smart devices
- 2.4 GHz/5 GHz
- DRM content (digital rights management)



DVB-T2 Tuner Gen 2

Nowadays we expect mobile TV to be digital and offer interference-free reception and ultra-sharp picture quality. The DVB-T2 Tuner from Bosch is one of the first to provide HD quality in coaches. It has an integrated USB port that is not only useful for updating the software but also for importing audio and video files into the coach system. In addition, further audio and video sources can be connected to the DVB-T2 Tuner and controlled using a remote control. Even on tours that go through several countries, optimal reception of encrypted TV channels is assured thanks to the integrated CI slot. The DVB-T2 Tuner is compatible with the Coach smartInfotainment series as a standalone solution or can be connected to the CameraPort CM-P 19 as part of the Coach Infotainment series.

- OSD menu and IR remote control
- Mobile DVB-T2 TV reception
- Connection options for additional video or audio sources
- CVBS video output
- Operating voltage: 12/24 V
- CI slot
- USB-in for audio/video sources
- HDMI-in for audio/video sources
- Video format:
 - 1920 x 1080 x 30 p
- Resolution:
 - NTSC: 720 x 480 x 60i
 - PAL: 720 x 576 x 50i
- Audio formats:
 - MPEG-1/2 Layer 1 & 2, 16 – 48kHz,
 - Layer2: 32 – 384 kbps
 - Layer1: 32 – 448 kbps
 - MPEG-2/4 AAC-LC, 8 – 96 kHz, 8 – 576 kbps
 - Dolby Digital AC-3 (without 32-bit support)
 - Dolby Digital Plus (DD+, without 32-bit support)
- OSD menu languages: german, english, french, spanish, italian
- Operating voltage: 12/24 V



Coach smartInfotainment series next Generation

As a market leader for connected media functions, Bosch offers OEMs systems that make traveling more pleasant: the next generation of smartInfotainment series offers a future-proof perspective for infotainment in cockpit and cabin. The system supports DAB+ and is Bluetooth-enabled for streaming and telephony. Media playback in the passenger cabin is taken

to the next level with a wide variety of audio and video sources, individually accessible content, and first-rate picture quality. In essence, smartInfotainment is a state-of-the-art gateway to a new entertainment experience on four wheels for the driver and passengers alike.



DAB+



Coach smartInfotainment series next generation



Coach smartRadio Gen2

The Coach smartRadio provides several inputs for various media. Bluetooth audio streaming and the ability to use a hands-free function safely and conveniently make the Coach smartRadio a popular multimedia companion. With its CAN connection and smartphone integration capabilities, it fits in perfectly in the vehicle environment.

- Display color: orange
- Single-line dot matrix display
- Integrated class-D amplifier with 2 x 20 watts of output power (can be optionally set to 2 x 40 watts)
- Radio: FM, AM/MW, SW, DAB+
- USB port (Type C)
- 1 x AUX-in connections (one on the rear panel)
- Bluetooth telephony and media streaming
- Private mode function and USB charging
- 2 microphone connections
- Connection of the Coach smartPanel via tandem output
- CAN connectivity
- Software updates via USB
- Tuner frequency ranges (depending on region):
 - FM: 87.5 to 108 MHz
 - AM/MW: 531 to 1,602 kHz
 - DAB (Band III) 174.928 to 329.200 MHz
 - SW: 3,900 to 4,000 kHz
 - 5,850 to 6,300 kHz
 - 7,095 to 7,500 kHz
 - 9,325 to 9,950 kHz
- Operating voltage: 24 V
- Operating temperature: -20 °C to +70 °C
- Standby current consumption: < 0.5 mA
- Format: 1-DIN
- Weight: 1,070 g



Coach smartPanel Gen2

The Coach smartPanel is easy and intuitive to use in the driver's cockpit, thus also making it safe to operate. The understated design blends in harmoniously with the cockpit interior. Through the tandem function, the Coach smartPanel together with the Coach smartRadio create a full-fledged coach system that leaves nothing to be desired.

- Display color: orange
- Single-line dot matrix display
- Integrated class-D amplifier with 4 x 20 watts of output power (can be optionally set to 4 x 40 watts)
- USB port for audio and video (Type C)
- 1 x AUX-in connections (one on the rear panel) for connecting an external audio/video source to each one
- 2 x microphone connections for announcements
- Control of the DVB-T2 Tuner via CAN
- Tandem mode with Coach smartRadio
- CAN connectivity
- Software updates via USB
- Operating voltage: 24 V
- Operating temperature: -20 °C to +70 °C
- Weight: 1,040 g

Coach video



19" flipdown monitor

This flipdown monitor with a VGA interface and capture logo function produces an ultra-sharp, high-contrast picture. The 16:9 format provides a true cinematic experience. The passenger-optimized viewing angle ensures a great view from any seat.

- Screen aspect ratio: 16:10
- Viewing angle (H/V): $\pm 80^\circ/\pm 80^\circ$
- Resolution: 1,440 x 900 pixels
- LCD brightness: $\geq 250 \text{ cd/m}^2$
- System: PAL, SECAM, NTSC
- Settings: start-up logo, brightness, contrast, color saturation, color tone, activation of terminating resistor, four aspect ratio settings
- Operating voltage: 12/24 V
- Operating temperature: 0 °C to +50 °C (incl. temperature management function)
- Dimensions (W x H x D): 440.5 x 282 x 40.9 mm
- Weight: 4,700 g



19" LCD coach design

Thanks to its patented safety clutch, the 19" LCD coach design monitor is the ideal legal solution for installation in the aisle (ECE R107). The mechanism allows the monitor to be easily swiveled forwards or backwards in the event of an emergency. This monitor is likewise equipped with a VGA interface and has a passenger-optimized viewing angle. The customer's own logo can, if desired, be imported into the monitor and used as the start-up screen.

- VGA interface
- Screen size: 475 mm
- Screen aspect ratio: 16:10
- Viewing angle (H/V): $\pm 80^\circ/\pm 80^\circ$
- Resolution: 1,440 x 900 pixels
- LCD brightness: $\geq 250 \text{ cd/m}^2$
- System: PAL, SECAM, NTSC
- Settings: start-up logo, brightness, contrast, color saturation, color tone, activation of terminating resistor, four aspect ratio settings
- Operating voltage: 12/24 V
- Operating temperature: 0 °C to +50 °C (incl. temperature management function)
- Dimensions (W x H x D): 489 x 347 x 47 mm
- Weight: 7,000 g



VGA splitter

The VGA splitter can be used to connect several monitors equipped with a VGA interface to a single computer.

- Operating voltage: 12/24 V
- Operating temperature: -20 °C to +70 °C
- Dimensions (W x H x D): 139 x 29 x 67 mm
- Weight: 225 g



Video amplifier

This amplifier ensures a consistently excellent picture quality even when operating multiple monitors.

- Operating voltage: 24 V
- Operating temperature: -20 °C to +70 °C
- Dimensions (W x H x D): 140.5 x 29.3 x 82.5 mm
- Weight: 250 g

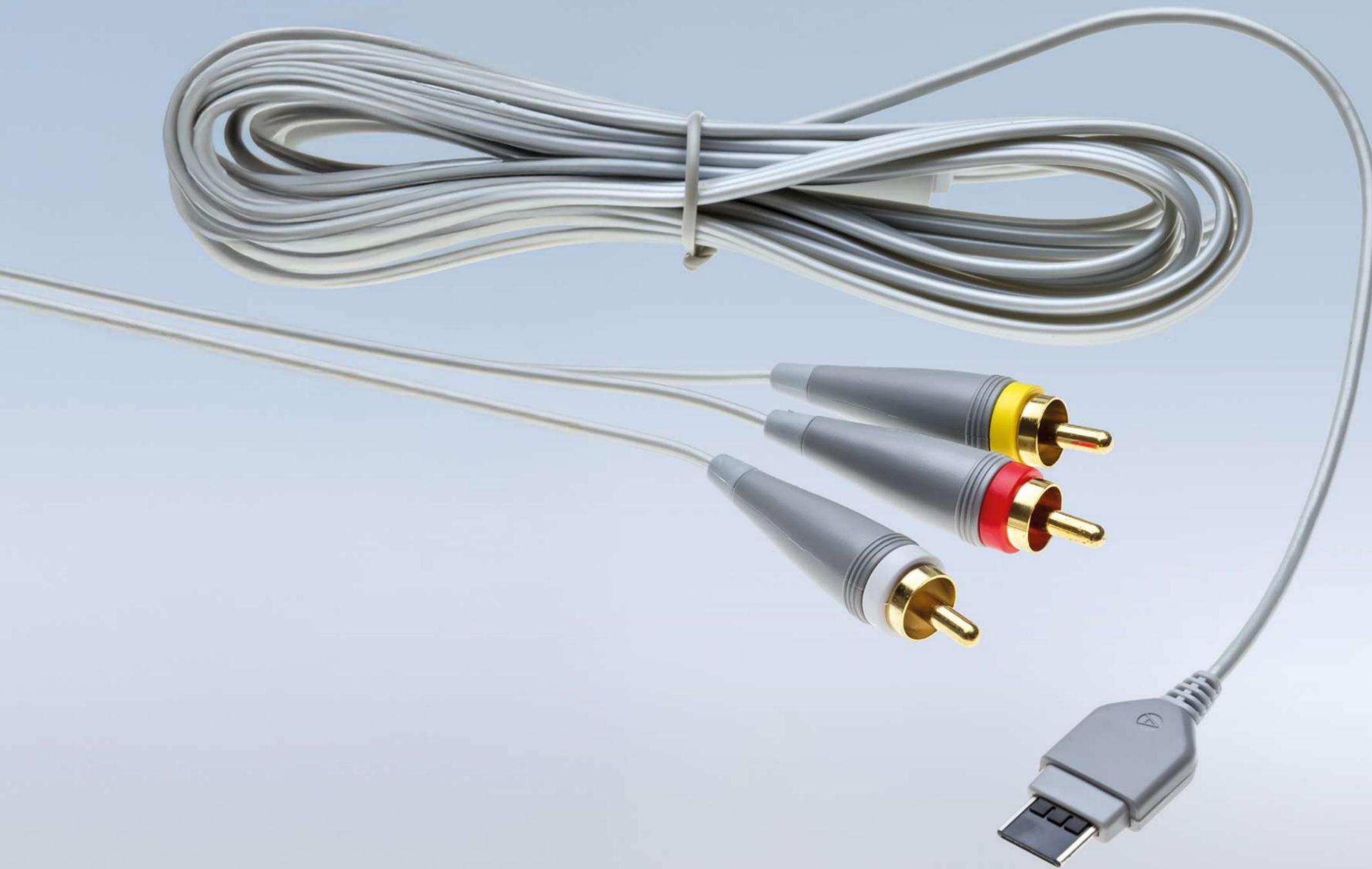
Coach audio



Coach AudioAmplifier 12.24

The Coach AudioAmplifier 12.24 microphone amp is suitable for all buses and coaches with a 12 V or 24 V electrical system. It is equipped with two inputs and produces a rich and powerful sound for microphone announcements. To adjust the output quality further, both of the connected microphones can be matched by adjusting the levels. The integrated priority circuit makes it possible to prioritize announcements.

- 2 x 20 watts of output power
- Any installation position
- Operating voltage: 12 V/24 V
- Operating temperature: -20 °C to +70 °C
- Dimensions (W x H x D): 167 x 55 x 97.5 mm
- Weight: 670 g



Enhance as required – with coach accessories

As a system supplier with many years of experience, Bosch always provides an excellent range of suitable accessories. Whether you are looking for a microphone, loudspeaker, or a specific type of cable, you will find exactly what your system needs.



Coach accessories

All microphones from Bosch are fully tailored to the needs of the driver and tour guide. Ergonomic, user-centric design is coupled with a comprehensive range of functions and excellent audio quality.



Coach dynamic microphone CDM 09/ CDM 09 GSM

Making announcements during the journey is made easy thanks to the CDM 09 and CDM 09 GSM microphones. The flexible design allows the microphone to be adapted to the ergonomic needs of the driver. The innovative microphone head prevents feedback and interference. The CDM 09 GSM additionally allows phone calls to be made in private mode. The conversation is heard only by the driver and caller and is not output over the cockpit loudspeakers.

- Dynamic microphone
- Safe and convenient due to reinforced microphone base and flexible microphone neck
- Mounting to the left or right of the driver's seat (with optional accessories)

Optional for the CDM 09 GSM

- Telephone hands-free operation with conventional GSM hands-free device
- Operating temperature: -20 °C to +70 °C
- Frequency response: 100 to 12,000 Hz
- Gooseneck diameter: 6 mm
- Total length: 500 mm



Bosch handheld microphone BHM 09 S

The BHM 09 S has been specially designed for professional use in a Bosch coach multimedia system. The BHM 09 S enables the tour guide to easily make announcements at any time. The extensive range of accessories ensures the microphone can be stored safely in the cockpit and provides the speaker with ample freedom of movement.

- Dynamic microphone
- Integrated wind protection
- Operating temperature: -20 °C to +70 °C
- Frequency response: 100 to 10,000 Hz
- Total length: 138 mm

Bosch gooseneck microphone BGM 09

With the sturdy BGM 09 gooseneck microphone, the driver can make announcements at any time, even when the multimedia system is switched off.

- Dynamic microphone
- Integrated wind protection

Optional for the switch variant (BGM 09 S)

- Supplied with foot switch for activating the microphone
- Operating temperature: -20 °C to +70 °C
- Frequency response: 100 to 10,000 Hz
- Gooseneck diameter: 6 mm
- Total length: 800 mm

Coach accessories

The Coach ChargingStation recharges your microphone quickly and automatically. The holder at the same time ensures the microphone is stored safely during the journey.



Coach WirelessMicrophone system

This wireless microphone is specially designed for professional use in coaches. The microphone provides the tour guide with plenty of freedom of movement and interference-free transmission.

The microphone is compatible with the following Bosch multimedia coach systems and radios:

- Coach Professional Line 3
- Coach Infotainment series
- Coach smartInfotainment series
- CMS
- CR 24
- MR 12
- CAD 12
- Coach AudioAmplifier 12.24
- Operating voltage: 9 V to 36 V
- Operating temperature: -30 °C to +70 °C
- Frequency range EU: 863 to 865 MHz
- Audio frequency range:
 - Receiver station 150 Hz to 6.5 kHz
 - Hand microphone 50 Hz to 12 kHz
- Receiver station dimensions:
 - approx. 188 x 82 x 126 mm
- Receiver station weight: 290 g
- Hand microphone weight:
 - Without batteries 240 g
 - With batteries 282 g



Coach ChargingStation W

The Coach ChargingStation W (wall) is an additional option for the Coach WirelessMicrophone. This charging station has been designed for wall-mounting in coaches that have a 12 V or 24 V electrical system.

Scope of supply

- Charging station (2-piece, pre-assembled)
- Baseplate
- 6 screws (for fastening the charging station to the baseplate)
- Connecting cable (incl. connection kit)

Product overview

Coach infotainment series

	Part number	Page
Center CM-C 19 EU	7 620 350 070	6
Center CM-C 19 NAFTA	7 620 350 071	6
Center CM-C 19 Mexico	7 620 350 076	6
ControlPanel CM-X 19	7 620 200 071	7
Amplifier CM-A 19	7 620 200 072	8
USB CM-Hub	7 620 200 073	9
CameraPort CM-P 19	7 620 500 075	10
Glasses CM-G 22"	7 620 310 073	11
Glasses CM-G 27"	7 620 310 074	11
Glasses CM-G 15"	7 620 310 072	11
FixedHolder CM-HR (Roof)	7 620 340 031	11
FixedHolder CM-HW (Wall)	7 620 340 033	11
SwivelHolder CM-HS	7 620 340 032	11
Router CM-R 19 EU	7 620 320 032	12
Router CM-R 19 NAFTA	7 620 320 034	12

Coach smartInfotainment series

Coach smartRadio	Part number	Page
Coach smartRadio Gen2 EU/Nafta	7 620 210 052	16
Coach smartRadio Gen2 EU w/o BT	7 620 210 054	16
Coach smartPanel Gen2	7 620 210 051	17

Coach video		
19" LCD coach design	7 620 310 077	18
19" flipdown monitor	7 620 310 087	18
Bracket for 19" LCD-LED premium flipdown monitor	7 620 340 001	
Magnet-Set 19" 20.0 mm	7 620 270 003	
DVB-T2 Tuner Gen 2	7 620 320 035	13
VGA splitter	7 620 330 005	19
Video amplifier	7 620 330 007	19

Product overview

Coach audio

	Part number	Page
Coach AudioAmplifier 12.24	7 620 220 012	20

Coach accessories

Microphones		
Coach dynamic microphone CDM 09 GSM	7 620 230 028	24
Coach dynamic microphone CDM 09	7 620 230 029	24
Bosch gooseneck microphone BGM 09 S	7 620 230 025	25
Bosch gooseneck microphone BGM 09	7 620 230 024	25
Bosch handheld microphone BHM 09 S	7 620 230 012	25
Coach WirelessMicrophone system	7 620 230 020	26
Coach ChargingStation W	7 620 270 012	27
Mounting bracket for BGM 09/BGM 09 S	7 607 022 001	
Foot switch for BGM 09/BGM 09 S	7 607 005 710	
Mounting clip for BHM 09 S	7 620 270 000	
Mounting sleeve for BHM 09 S	7 620 270 001	

Coach accessory cables

Coach Infotainment series	Part number
CM-C – CM-X CAN cable – 2 m	7 620 280 111
CM-C – USB device USB cable – 1.5 m	7 620 280 112
CM-C – CM-A audio power cable – 1.7 m	7 620 280 113
CM-C – CM-A audio power cable – 5 m	7 620 280 114
CM-C – CM-A audio power cable – 8 m	7 620 280 115
CM-C – CM-P video cable – 1.7 m	7 620 280 116
CM-C – CM-P video cable – 5 m	7 620 280 117
CM-C – CM-P video cable – 8 m	7 620 280 118
CM-C – CM-P video cable – 0.5 m	7 620 280 119
CM-C – CM-Hub cable – 1.5 m	7 620 280 127
CM-P – analog camera CAN cable – 0.25 m	7 620 280 120
CM-P – user device HDMI cable – 2 m	7 620 280 121
CM-P – user device HDMI cable – 3.5 m	7 620 280 122
CM-P – user device HDMI cable – 1.5 m	7 620 280 126
CM-P – user device HDMI cable – 2 m	7 620 280 128
DVB-T2 power supply cable – 0.3 m	7 620 280 129
DVB-T2 Tuner – CM-P HDMI cable	7 620 280 130
Molex-MCP adapter cable – 0.5 m	7 620 280 125
Mounting frame for Center CM-C 19	7 620 270 013
Distance bar	7 620 270 015

Coach smartInfotainment series

Connection video	7 620 280 109
Connection Media-CAN – 0.5 m	7 620 280 110
Connection Media-CAN – 1.8 m	7 620 280 124

Product overview

Microphones	Part number
Extension with switch for CDM 04 – 1.3 m	7 620 280 089
Adapter cable CM-C 19 – CDM 08	7 620 280 144
Extension for CDM 04 CCU driver's seat – 6 m	7 620 280 090
Extension for CDM 04 – 1.25 m	7 620 280 092
Extension for CCS – 6 m	7 620 280 091
Adapter cable CCS – BHM 09 S	7 620 280 093
Connection cable for foot switch – 0.2 m	7 607 181 001
Spiral cable for hand-held microphone, DIN plug – 6 m	7 620 230 113
Extension cable, DIN plug – 3 m	7 620 280 107
Spiral cable for hand-held microphone, XLR plug – 6 m	7 620 230 115

Video sources	Part number
Connection standalone DVB-T Tuner – 3.5 m	7 620 280 069

Monitors	Part number
Video cable monitor-monitor – 10 m	7 607 263 000

Color camera	Part number
Adapter cable camera/converter – 0.17 m	4 998 101 884



Need help with a problem? Our speedy local customer service

Bosch has a network of service centers in all European countries that are popular holiday destinations. The staff there will be delighted to assist you with their technical know-how. To get you on the road again quickly, solutions for technical problems are found on the spot. An up-to-date list of our service partners is available online at: www.bosch-professional-systems.com

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