



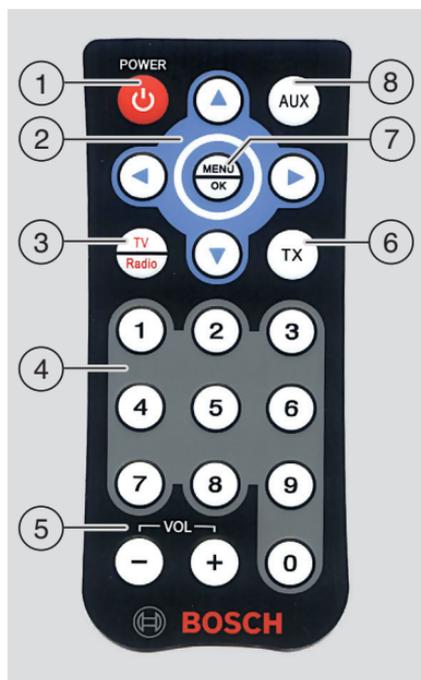
DVB-T-Tuner

7 620 320 025



BOSCH

en Operating instructions



- ① **Stand-by button**
Switch between normal mode and stand-by mode
Note: This button is deactivated during operation through a Professional Line 3 system.
- ② **Multi-function rocker switch**
- ③ **TV / radio button**
Change between TV and radio operation
- ④ **Keys 0 – 9**
Short press: Access a stored station
Long press: Store the current station
- ⑤ **VOL ± button**
Change volume
Note: This button is deactivated during operation through a Professional Line 3 system.
- ⑥ **TX button**
Switch the display of subtitles on/off
- ⑦ **MENU / OK**
Open the basic settings menu
Confirm settings
- ⑧ **AUX button**
Change between playing TV and up to 2 external A/V sources

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Important information

Before using the device, please read these instructions carefully and familiarize yourself with the device. Keep these instructions in your vehicle for later reference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Agreed product use

The device has been designed for operation in a commercial vehicle with a 12 V or 24 V electrical system.



Road safety

- ▶ Road safety has absolute priority. Only use the device when the vehicle is stationary. If it is necessary to use the device when traveling, find a safe stopping place, and stop the vehicle.
- ▶ You must always be able to hear police, fire service and ambulance sirens in good time from inside your vehicle. Therefore make sure that playback is at a suitable volume.
- ▶ Make sure that your ability to drive is not impaired and your vision is not blocked by the device, the antennas connected to it, or the wiring.

Installation notes

- ▶ The tuner must only be installed by experienced personnel.
- ▶ Before installation, disconnect the power supply by disconnecting the cable from the negative terminal of the battery.
- ▶ The tuner must be installed in such a way that the driver's actions are not impeded in any way.
- ▶ The installation location must be a rigid surface of sufficient stability. The vehicle manufacturer is responsible for compliance with the legal requirements.
- ▶ Check that the polarities of the connections are correct.
- ▶ Incorrect cabling can lead to problems in the vehicle as well as to damage, accidents and injury.
- ▶ Cables must be laid in such a way that they are not pinched and cannot be damaged by a sharp metal edge.
- ▶ Cables must be laid in such a way that the connections are not under tension.
- ▶ Only use very high quality antennas (e.g. Bosch DVB-T antennas) to ensure flawless and stable reception.

Disposal of end-of-life appliances

Please do not dispose of your old appliance in the household refuse.

To dispose of the old appliance, please use the available waste return and recycling systems.

Scope of delivery

- ▶ DVB-T tuner
- ▶ Quick guide
- ▶ Remote control
- ▶ IR receiver (for the remote control)

Accessories (optional)

- ▶ DVB-T antenna set (contains 4 active DVB-T antennas; part number 7 620 340 025)
- ▶ Set of cables for independent operation without Professional Line 3 system (part number 7 620 280 069)
- ▶ Set of cables for operation with the Professional Line 3 system (part numbers 7 620 280 062)

Operation with the device's own remote control

Switching on/off

Switching on/off using the vehicle ignition

The device is switched on or off together with the vehicle ignition.

Stand-by mode

- ▶ Press the Stand-by button  to change between stand-by mode and normal operation.

**Note:**

In stand-by mode, the audio/video reproduction is switched off, but the device continues to receive, and the TV station list is continuously updated.

Adjusting the volume

**Note:**

The factory setting for volume is maximum.

- ▶ Press the **VOL+** or **VOL-**  button to raise or lower the volume.

Select a video source

- ▶ Press the **AUX**  button to change between playing TV and playing audio/video sources 1 and 2.

Display station information

- ▶ Press the ◀ or ▶ button (2).

Skip to the next/previous station

- ▶ Press the ◀ or ▶ button (2).

Station information is displayed.

- ▶ Press the ◀ or ▶ (2) button again to change to the previous or next station.

Select a station from the station list



Note:

You will find all the currently receivable TV stations in the station list.

In Order to open the station menu,

- ▶ press the ▲ or ▼ button (2).

To open the station list,

- ▶ press the ◀ or ▶ button (2).

To select a station,

- ▶ press the ▲ or ▼ (2) button, more than once if necessary.

To play the station,

- ▶ press the MENU/OK (7) button.

Storing stations in the favorites list

- ▶ Select the station you want from the station list (see the "Select a station from the station list" section).
- ▶ Give the station button (4) a long press.

Select a stored station

- ▶ Give the corresponding station button (4) a short press to call up the first 10 storage locations.

Display subtitles

- ▶ Press the TX button (6).



Note:

Subtitles are only displayed if they are available.

Select a pay-TV or radio station

The device can also receive pay-TV stations and radio stations over DVB-T.

In Order to open the station menu,

- ▶ press the ▲ or ▼ button (2).

To open the list of pay-TV or radio stations,

- ▶ press the ◀ or ▶ button (2).

To select a station,

- ▶ press the ▲ or ▼ (2) button, more than once if necessary.

To play the station,

- ▶ press the MENU/OK (7) button.



Notes:

- ▶ Press the TV/Radio (3), button in order to change between TV and radio play.
- ▶ The device must be fitted with a suitable card in order to play pay-TV stations (see the "Receiving Pay-TV" section).

Settings

Open/close the settings menu and select menu item

To open or close the settings menu,

- ▶ press the MENU/OK (7) button.

To select a menu item and to open the submenu,

- ▶ press the ▲ or ▼ (2) button, more than once if necessary.
- ▶ Press the ► button (2).

To close the submenu again,

- ▶ press the ◀ button (2).

Select the menu language

- ▶ Open the *Languages* menu from the Settings menu.

To select a language,

- ▶ press the ▲ or ▼ (2) button, more than once if necessary.
- ▶ Press the **MENU/OK** (7) button to confirm the new setting.

Select the screen format

- ▶ Open the *Screen format* menu from the Settings menu.

To choose a format (4:3, 16:9),

- ▶ press the ▲ or ▼ button (2).
- ▶ Press the **MENU/OK** (7) button to confirm the new setting.

Select the color standard for video output

- ▶ Open the *Video Out* menu from the Settings menu.

To select a color standard (*PAL*, *NTSC*),

- ▶ press the ▲ or ▼ button (2).
- ▶ Press the **MENU/OK** (7) button to confirm the new setting.

Set the duration for which screen information is displayed

- ▶ Open the *Info time duration* menu from the Settings menu.

To set the display duration (1-5 seconds),

- ▶ Press the ▲ or ▼ (2) button, more than once if necessary.
- ▶ Press the **MENU/OK** (7) button to confirm the new setting.

Activate external video sources

- ▶ Open the *AV1* or *AV2* menu from the Settings menu.

To activate (*Yes*) or deactivate (*No*) the external video source,

- ▶ press the ▲ or ▼ button (2).
- ▶ Press the **MENU/OK** (7) button to confirm the new setting.

Display memory location usage

- ▶ Open the *Favorites list* menu from the Settings menu.

To display (*Yes*) or hide (*No*) the memory location usage of the first 10 memory locations on the screen,

- ▶ press the ▲ or ▼ button (2).
- ▶ Press the **MENU/OK** (7) button to confirm the new setting.



Note:

The current ability to receive the station is shown in color for each memory location:

- ▶ Green: the station is probably available.
- ▶ Red: the station is probably not available.

Select reception region

- ▶ Open the *Nation* menu from the Settings menu.

To select a reception region,

- ▶ press the ▲ or ▼ (2) button, more than once if necessary.
- ▶ Press the **MENU/OK** (7) button to confirm the new setting.

Reset to the factory settings

- ▶ Select the *Reset* menu item from the Settings menu.
- ▶ Press the ► button (2).

Check antenna reception power

- ▶ Press the **MENU/OK** (7) - 1 - 2 - 3 (4) buttons in sequence.

Four bars indicating the current reception status of the installed antennas will be displayed on the connected monitor.

Operation through the Professional Line 3

If the device is connected to a Professional Line 3 system, the device functions can be controlled through the CCS Professional.



Notes:

- ▶ The device is connected to the system as *Video 1*, and is recognized and configured automatically.
- ▶ You can also control the device using its remote control (see previous section).
The Stand-by button (1) and the **VOL±** (5) button are deactivated when operating via a Professional Line 3.

Select the DVB-T tuner as the source

- ▶ Press the **Video** button at the CCS Professional, more than once if necessary, for the cabin or cockpit area.



Note:

By pressing the **Video** button again, you choose video sources (AV1, AV2) that may be connected to the DVB-T tuner.

Display station information

- ▶ Press the << or >> button.

Skip to the next/previous station

- ▶ Press the << or >> button.
Station information is displayed.

- ▶ Press the << or >> button again to change to the previous or next station.

Select a station from the station list

**Note:**

You will find all the currently receivable TV stations in the station list.

- ▶ Press the << or >> button. Station information is displayed.

To open the station list,

- ▶ press the ▲ or ▼ button.

To select a station,

- ▶ press the ▲ or ▼ button, more than once if necessary.

To play the station,

- ▶ press the **ENTER** button.

Display subtitles

- ▶ Press the control knob for the cabin or cockpit area.
- ▶ Turn the control knob to choose the *TX* menu item.
- ▶ Press the control knob.

**Note:**

Subtitles are only displayed if they are available.

Select radio station

- ▶ Press the control knob for the cabin or cockpit area.
- ▶ Turn the control knob to choose the *DAS* menu item.
- ▶ Press the control knob.
- ▶ Turn the control knob to select the *Radio list* menu item.
- ▶ Press the control knob.
- ▶ Turn the control knob to choose a radio station.
- ▶ Press the control knob to play the radio station.

Settings

Open/close the settings menu and select menu item

To open or close the settings menu,

- ▶ press the **MENU** button.

To select a menu item and to open the submenu,

- ▶ turn the control knob to choose the menu item.
- ▶ Press the control knob.

To close the submenu again,

- ▶ press the ↩ button.

Select the menu language

- ▶ Open the *Languages* menu from the Settings menu.

To select a language,

- ▶ turn the control knob
- ▶ Press the control knob to confirm the new setting.

Select the screen format

- ▶ Open the *Screen format* menu from the Settings menu.

To choose a format (4:3, 16:9),

- ▶ turn the control knob
- ▶ Press the control knob to confirm the new setting.

Select the color standard for video output

- ▶ Open the *Video Out* menu from the Settings menu.

To select a color standard (*PAL*, *NTSC*),

- ▶ turn the control knob
- ▶ Press the control knob to confirm the new setting.

Set the duration for which screen information is displayed

- ▶ Open the *Info time duration* menu from the Settings menu.

To set the display duration (1-5 seconds),

- ▶ Turn the control knob
- ▶ Press the control knob to confirm the new setting.

Activate external video sources

- ▶ Open the *AV1* or *AV2* menu from the Settings menu.

To activate (*Yes*) or deactivate (*No*) the external video source,

- ▶ turn the control knob
- ▶ Press the control knob to confirm the new setting.

Display memory location usage

- ▶ Open the *TV channel bar* menu from the Settings menu.

To display (*Yes*) or hide (*No*) the memory location usage of the first 10 memory locations on the screen,

- ▶ turn the control knob
- ▶ Press the control knob to confirm the new setting.

Select reception region

- ▶ Open the *Nation* menu from the Settings menu.

To select a reception region,

- ▶ turn the control knob
- ▶ Press the control knob to confirm the new setting.

Reset to the factory settings

- ▶ Select the *Reset* menu item from the Settings menu.
- ▶ Press the control knob.

Check antenna reception power

- ▶ Press the control knob for the cabin or cockpit area.
- ▶ Turn the control knob to choose the *ANT TEST* menu item.
- ▶ Press the control knob.

Four bars indicating the current reception status of the installed antennas will be displayed on the connected monitor.

Receiving Pay-TV

To play pay-TV stations with the device, you need a smartcard from your pay-TV supplier, as well as a suitable CAM (conditional access module).

CAM socket:



To enable pay-TV reception,

- ▶ first switch the device off, if necessary.
- ▶ Remove the cover of the CAN socket (use a suitable tool if needed).
- ▶ Connect the CAM, with your pay-TV supplier's smartcard, to the CAM socket.
- ▶ Switch the device back on.

You can now play stations from your pay-TV supplier.

List of compatible CAMs:

- ▶ Alphacrypt (V1.0, V1.1, V2.0, V3.x, TC, Light) AstonCrypt Professional
- ▶ Astoncrypt Seca/Mediaguard 1+2 (V1.05, V2.0 V2.17 and higher)
- ▶ Conax Canaldigital
- ▶ Conax Pocket (MPEG4) only in Conax Mode
- ▶ Conax SCM
- ▶ Conax Telenor
- ▶ Cryptoworks SCM
- ▶ DualCA V2.23B
- ▶ Easy.TV
- ▶ Fransat Pro
- ▶ Irdeto allcam
- ▶ Irdeto SCM

- ▶ Mediaguard Canaldigital
- ▶ NDS Videoguard
- ▶ OmegaCAM Modul
- ▶ PowerCAM.Pro
- ▶ Premiere CI Modul
- ▶ Samsung CAM (Nagra)
- ▶ Setanta Modul
- ▶ Smart CAM
- ▶ Sky CAM N4 chip (NDS)
- ▶ Technicrypt CW
- ▶ Technicrypt CX
- ▶ Unicom/Unicrypt
- ▶ Viaaccess (Appl.1.02, Appl.1.05.001, V1.20. UK)
- ▶ Zeta CAM Blue



Note:

No guarantee can be offered for the function of other CAMs.

Software update

You will find software updates for this device on the internet at:

www.bosch-Professional-systems.com/

You need a USB stick formatted to the FAT32 file system for a software update.

- ▶ Save the software update at the highest level (root directory) of a USB stick.
- ▶ First switch the device off, if necessary.
- ▶ Insert the USB stick into the USB port of the device.
- ▶ Switch the device back on.

The software update will be detected automatically, and the device looks for confirmation for performing the update.



Important note:

Do not switch the device off or remove the USB stick until the software update has been completed. Interrupting the update will cause data loss, and make the device unusable.

- ▶ Press the **MENU/OK** (7) button.

Once the update is complete,

- ▶ Remove the USB stick.

The device starts up automatically.

List of compatible USB sticks:

- ▶ SANDISK USB FLASH DRIVE 8G 3.0
- ▶ LEXAR Jumpdriver superspeed USB 3.0 S33 16G
- ▶ MICROVALUT CLICK super speed usb 8G
- ▶ TREKSTOR USB stick 8G



Note:

No guarantee can be offered for the function of other USB sticks.

Technical data

Operating voltage

12 V / 24 V (9 – 36 V)

Current consumption

During operation:

12 V: 0.7 A

24 V: 0.4 A

Antenna power supply

max. 30 mA (5 V)

RF reception

Wavebands

VHF: 170 – 230 MHz

UHF: 470 – 860 MHz

Bandwidth

VHF: 7 MHz

UHF: 8 MHz

Video

Transmission mode Standard DVB-T

Formats: 352x240x30p,
352x288x25p –
1920x1088x60i,
1280x720x60p/50p

Codecs: H.264/AVC, MPEG2

Resolution

NTSC: 720x576x60i

PAL: 720x576x50i

Audio

Formats: MPEG-1/2 layers 1 & 2,
16 – 48kHz,
Layer 2: 32 – 384 kbps
Layer 1: 32 – 448 kbps
MPEG-2/4 AAC-LC,
8 – 96 kHz,
8 – 576 kbps

Codecs: MPEG-1/2 layers 1 & 2,
MPEG-2/4 /AAC-LC

Dimensions

195 x 131 x 27 mm

Weight

approx. 0.8 kg

Standards

CE, E mark

Subject to changes!

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