

KATHREIN

Digital Systems GmbH

DAB+ 200 ultimate

DAB+ / FM-RDS / Internet radio / CD / USB / SD / AUX
/ Bluetooth / Premium all-in-one music system



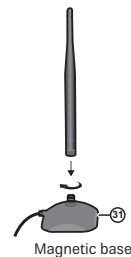
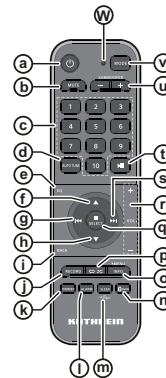
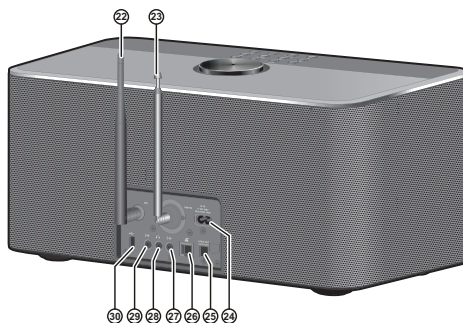
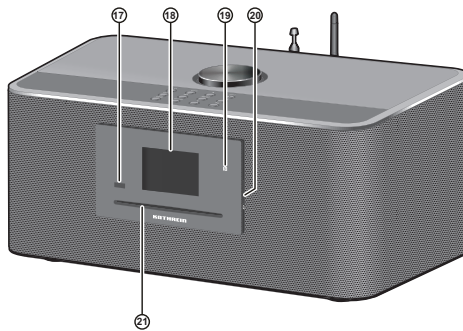
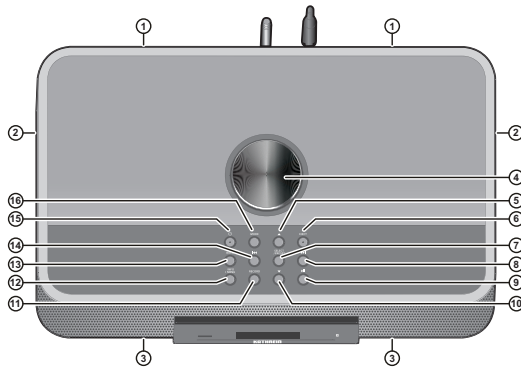
User manual



You can download this user manual from our website www.kathrein-ds.com.

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1. About this manual

This document is part of the product.

- Before using the DAB+ 200 ultimate music system for the first time, you must read this user manual.
- Always carry out the procedures described in this manual in the order specified.
- Keep this manual in a safe place for future reference and pass it on with the unit to the next user.

The latest version of this manual is available at: www.kathrein-ds.com

2. Simplified EU declaration of conformity

KATHREIN Digital Systems GmbH hereby declares that the DAB+ 200 ultimate, order no. 280500003, complies with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at: www.kathrein-ds.com

3. Important safety instructions

1. Read this manual carefully.
2. Keep this manual throughout the service life of the unit. Pass it on to subsequent owners and users.
3. Observe the warnings and instructions in this manual.
4. Do not use this unit near water or place objects filled with liquid on it.
5. Clean the unit only with a dry cloth.
6. Risk of overheating! Ensure that air can circulate freely to cool the unit and that no ventilation openings are blocked.
7. Do not place the unit near heat sources such as radiators, cookers or other heat-producing devices, including amplifiers.
8. Protect the mains cable from pressure and crushing, particularly at the plug, wall sockets and the connection to the unit.
9. Use only accessories specified by the manufacturer.
10. During thunderstorms or prolonged periods of non-use, disconnect the unit from the mains by unplugging it from the wall socket.
11. Refer servicing only to qualified service personnel or our service centre. The unit must be serviced or repaired if damaged in any way, for example if the mains cable is damaged, liquid has been spilled on it, objects have entered it, it has been dropped, it does not operate normally or it has been exposed to moisture.
12. To prevent fire and electric shock, do not expose the unit to rain or moisture.
13. Avoid listening at high volumes for long periods to prevent hearing damage. Excessive sound pressure from headphones can also damage your hearing.
14. The mains plug should always be as close to the radio as possible. Ensure that it remains easily accessible and usable at all times.
15. The rating plate, electric shock hazard symbol and graphical warning symbol are on the underside of the unit.



CAUTION

There is a risk of explosion if a battery is replaced with one of an incorrect type.



This symbol indicates a Class II device.



This symbol indicates AC voltage.



This symbol indicates DC voltage.



This symbol warns of uninsulated "dangerous voltage" inside the housing.



This symbol indicates important operating, maintenance and servicing instructions in the supplied documentation.



WARNING

These servicing instructions are for qualified personnel only. To reduce the risk of electric shock, unqualified persons must carry out only the maintenance procedures described in the user manual.

4. Introduction

Thank you for purchasing our DAB+ 200 ultimate radio. We hope that you will be satisfied with your new radio and enjoy using it. This manual guides you through setup step by step and explains the operation and benefits of your new radio.

The DAB+ 200 ultimate is a versatile music system that lets you:

- Listen to FM, DAB and Internet radio stations.
- Play Amazon Music, Spotify and Deezer streaming services.
- Play audio files from CDs, USB devices, SD cards, Bluetooth devices and other devices with an audio output.
- Program alarm times and use the radio as an alarm clock.
- Fall asleep to your chosen music using the sleep timer.

Overview of the unit

- 1: 2 × bass speakers
- 2: 2 × passive bass radiators
- 3: 2 × midrange / tweeter speakers
- 4: Volume control
- 5: Folder+
- 6: CD eject button
- 7: Select / Stop / Preset button
- 8: Tuning+ / Next track / Fast forward
- 9: Pause / Play
- 10: Folder-
- 11: Record button
- 12: Info / Menu button
- 13: Back / Bluetooth pairing
- 14: Tuning- / Previous track / Rewind
- 15: Power button / Sleep timer
- 16: Mode button
- 17: Infrared sensor
- 18: LCD display
- 19: NFC detection area
- 20: SD card slot
- 21: CD compartment
- 22: Wi-Fi antenna (removable; see "Removing the antenna" on page 19)
- 23: Telescopic DAB and FM antenna (antenna cable connection at the rear)
- 24: Mains connection
- 25: Optical output (Toslink)
- 26: Ethernet port (RJ-45)
- 27: Line-Out output
- 28: Headphone socket
- 29: AUX input
- 30: USB port
- 31: Wi-Fi antenna base (allows the antenna to be positioned for better Wi-Fi reception)

Overview of the remote control

- a: Power button
 - Switches the music system on or off.
- b: Mute button
 - Switches the sound on or off.
- c: Number buttons / Preset buttons
 - Select a track number or preset.
 - Hold to save the station currently playing.
- d: Auto scan
 - Performs a full station scan in DAB mode.
 - Searches for the next available station in FM mode.

- e: EQ button
 - Opens the equaliser settings menu.
- f: Folder+
 - Navigates through menus.
 - Goes to the next folder in USB, SD or CD mode.
 - Recalls the next preset station in FM mode.
 - Opens the station list in DAB mode.
- g: Tuning- / Previous track / Rewind
 - Decreases the frequency in FM mode.
 - Returns to the start of the current track or to the previous track in USB, SD, CD, Bluetooth or Spotify mode.
 - Navigates through menus.
 - Hold to search for the next station at a lower frequency in FM mode.
 - Hold to rewind in USB, SD, CD or Bluetooth mode.
- h: Folder-
 - Navigates through menus.
 - Goes to the previous folder in USB, SD or CD mode.
 - Recalls the previous preset station in FM mode.
 - Opens the station list in DAB mode.
- i: Back button
 - Goes back one step in radio mode.
 - If a slideshow image is transmitted during a DAB broadcast, hold to display it full-screen.
- j: Record button
 - In radio mode, records content to a USB device or SD card.
- k: Dimmer button
 - Press repeatedly to adjust the backlight brightness.
- l: Alarm button
 - With the radio on, opens the alarm settings menu.
 - In standby, press repeatedly to enable / disable the radio alarms.
- m: Sleep timer / Set time
 - Press repeatedly to set the sleep timer.
 - Hold to open the date and time settings.
- n: Bluetooth pairing
 - Activates Bluetooth pairing mode.
- o: Info / Menu button
 - Displays different playback information.
 - Hold to open the menu for the current mode.

p: Repeat / Shuffle playback

- In CD, USB or SD mode, press repeatedly to select repeat playback (repeat one track, repeat all, repeat folder, intro scan) or shuffle playback. The corresponding icon appears at the bottom of the display.

q: Select / Stop / Preset button

- Stops playback in USB, SD or CD mode.
- Opens or selects an option in the radio menu.
- During DAB / FM, Internet radio or podcast playback, press to open the preset recall menu.
- During DAB / FM, Internet radio or podcast playback, hold to open the preset save menu.

r: Volume up / down

- Increases or decreases the volume.

s: Tuning+ / Next track / Fast forward

- Increases the frequency in FM mode.
- Goes to the next track in USB, SD, CD, Bluetooth or Spotify mode.
- Navigates through menus.
- Hold to search for the next station at a higher frequency in FM mode.
- Hold to fast-forward in USB, SD, CD or Bluetooth mode.

t: Play / Pause

- Pauses or resumes playback.

u: Subwoofer + / -

- Increases or decreases the subwoofer level.

v: Mode button

- Press repeatedly to select the desired mode.

w: Infrared LED

- Lights up when the remote control sends a signal to the radio.

5. Getting started

This chapter explains how to set up and start using your DAB+ 200 ultimate.

Choosing a suitable location

After unpacking the music system, consider the following when choosing its location:

- Place the radio on a flat, level surface, such as a table.
- Do not place it near heat sources.
- Leave enough space around the radio for adequate ventilation.
- To connect the radio to Wi-Fi, place it where Wi-Fi reception is good.
- Do not place it near devices such as microwave ovens, which may interfere with Wi-Fi reception.

Preparing the remote control

The remote control requires two AAA batteries (included). Insert them as follows:

1. Open the battery compartment on the back of the remote control.
2. Insert two AAA batteries, observing the polarity markings inside the compartment.
3. Close the battery compartment.

Connecting the radio to the mains

The DAB+ 200 ultimate operates using the supplied AC mains cable. Before connecting it, check that the wall socket voltage is within the range specified on the rating plate on the rear of the radio (100–240 V~ 50/60 Hz). If it is, first connect the cable to the radio, then plug it into the wall socket.



NOTE

This manual explains all functions using the buttons on the radio. Use the corresponding remote control buttons for the same functions. Some functions, such as mute and repeat / shuffle playback, can only be controlled with the remote control.

Initial radio setup

When first connected to the mains, the DAB+ 200 ultimate switches on automatically, loads the software and starts the setup wizard.

The wizard provides a link to our privacy policy and guides you through the time format and network settings.

1. At startup, the wizard displays a link to the privacy policy for using this radio. Read it carefully before using the radio and use its online functions only if

you accept this policy. Press SELECT to accept the privacy policy.

2. You will then be asked whether to start the setup wizard. Choose [Yes] or [No] with Tuning+ or Tuning- and press Select to confirm. Choose [Yes] to start the wizard or [No] to open the main menu without configuring the time format or network settings.
 3. If you chose [Yes], "12 / 24 hour format" appears. Select the desired time format with Tuning+ or Tuning- and confirm with Select.
 4. The auto update options appear next. Use Tuning+ or Tuning- and Select to choose one of the four options:
 - [Update from DAB]: Synchronise the radio date and time using DAB broadcasts.
 - [Update from FM]: Synchronise the radio date and time using FM broadcasts.
 - [Update from Network]: Synchronise the radio date and time using the network connection.
 - [No update]: Do not synchronise; set the date and time manually.
- Network auto update is the default setting. If you choose [No update], set the date and time manually later (see "Setting the date and time manually"). The default [Update from Network] setting is best for most users. First select the correct time zone and daylight saving setting; see steps 5 and 6.
5. Choose the desired time zone with Tuning+ or Tuning- and confirm with Select.
 6. Select the daylight saving setting for your location (also called summer / winter time or BST / GMT). Choose [On] with Tuning+ or Tuning- to enable daylight saving, or [Off] if it is not required, and confirm with Select.
 7. The radio asks whether to keep the network connected. Choose [Yes] with Tuning+ or Tuning- to enable this function or [No] to disable it, then press Select.

**NOTE**

If you chose [No] and select a mode that does not need a network, the network connection is automatically disconnected after a short time. It is not maintained when the radio is off.

8. The network wizard scans for available networks. The display lists detected Wi-Fi networks and other options. Select an option with Tuning+ or Tuning- (or Folder+ / -), then confirm with Select.
 - [Names of available Wi-Fi networks]: Select a network to open its password entry page.
 - [Rescan]: Search again for Wi-Fi networks.
 - [Wired]: Select this if the radio is connected to a LAN by an Ethernet cable (not included).
 - [Manual config]: Configure the Internet connection manually (wired / wireless, DHCP enabled / disabled, IP address / subnet mask, SSID, authentication and password).
9. Setup is complete and your DAB+ 200 ultimate is ready to use. The main menu appears once the wizard finishes.

**NOTE**

- Navigate through menus with Tuning+ or Tuning- (or Folder+ / -) and press Select to confirm or open a setting.
- Factory defaults or recommended settings in the setup wizard are marked with an asterisk.
- To use Internet functions or control the radio with UNDOK, connect the radio to a network with Internet access.

Switching the music system on and off

Press Power to switch the DAB+ 200 ultimate on or off. When switched on, the radio automatically selects the last source used.

Selecting the operating mode

You can select the operating mode in two ways:

- Press Mode, select the desired mode with Tuning+ or Tuning- (or Folder+ / -), then confirm with Select.
- Select the mode from the main menu (see “17. Main menu” on page 18).

6. Introduction to the UNDOK app

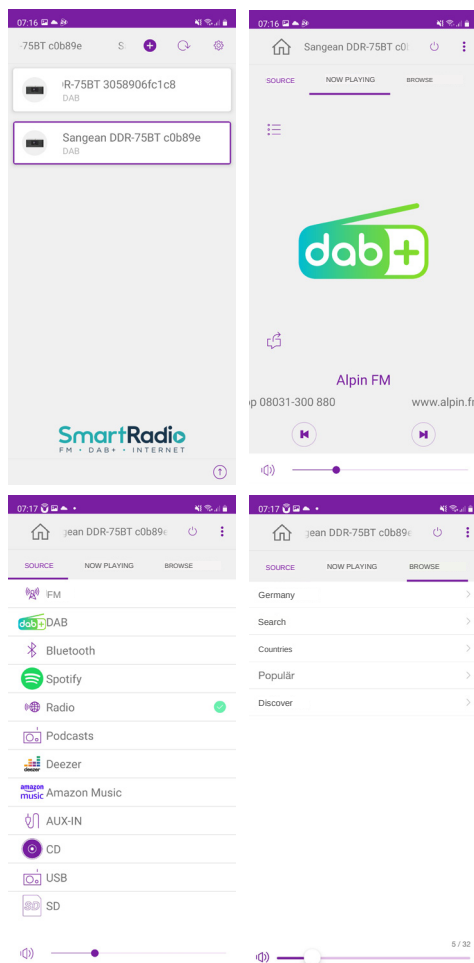
Control your DAB+ 200 ultimate with the unit or remote control buttons, or with a smartphone or tablet using UNDOK.



UNDOK offers an intuitive, easy-to-use interface for configuring many radio settings. It is available for Android and iOS.

Controlling the radio with UNDOK

Follow these steps to control your radio with the UNDOK app:



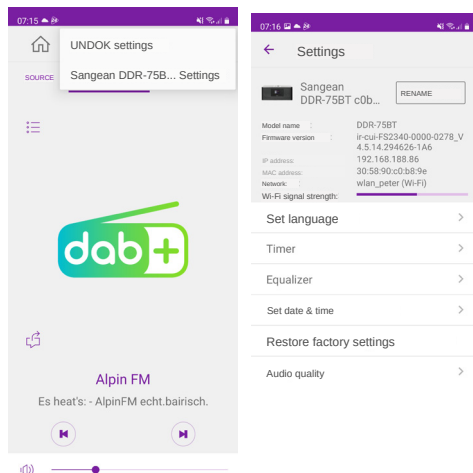
1. Install UNDOK on your device by searching for "UNDOK" in the Apple App Store or Google Play Store.
2. Make sure the radio and your smart device are connected to the same network. For details on connecting the radio, see "Initial radio setup" in chapter 5, "Getting started".
3. Open UNDOK on your smart device. Your DAB+ 200 ultimate should appear on the home screen as "DDR-75BT xxxxxx". The six-character code is the last six characters of the radio MAC address.
4. Tap the radio to connect to it.
5. Select "Source" at the top left to choose a playback source.
6. Select "Browse" at the top right to browse the information for that source.
7. Use the app to control playback, search for stations and adjust the volume.

NOTE

- If the DAB+ 200 ultimate is not connected to the network before UNDOK starts, you can connect it using the app. Follow the on-screen instructions.
- The descriptions and illustrations are based on the Android smartphone version of UNDOK. On other devices, the layout and / or icons may differ.
- If you experience connection problems with UNDOK, visit <https://www.frontier-nuvola.net/index> for further help.

Configuring radio settings with UNDOK

Follow these steps to configure the radio settings with UNDOK:



1. Start UNDOK on your smart device and connect to the radio as described above.
2. Tap the three dots at the top right and select "Sangean DDR-75BT... Settings".
3. The settings available in UNDOK appear on the smart device. To change one, tap the setting and select the desired value.

NOTE

The descriptions and illustrations are based on the Android smartphone version of UNDOK. On other devices, the layout and / or icons may differ.

7. Listening to Internet radio

When connected to the Internet via Wi-Fi or Ethernet, the DAB+ 200 ultimate can receive tens of thousands of Internet radio stations worldwide.

To listen to Internet radio:

1. Switch on the radio with Power.
2. Select Internet radio using Mode, the Tuning buttons and Select, or via the main menu.
3. On first use, the selection menu appears. Choose one of these options to find a station:
 - [My country]: Select stations from your country (e.g. "Germany"). You can search for local or popular stations, or by genre or city.
 - [Search stations]: Search for stations by name. Enter search terms using Tuning+, Tuning- and Select.
 - [Location]: Search for stations by location. You can choose stations from around the world.
 - [Popular stations]: Find stations that are popular worldwide.
 - [Discover]: Filter stations by country of origin, genre or language.
4. After you select a station using one of these methods, the radio tunes to it and starts playback.
5. Press Play / Pause during playback to pause or resume.

configure the radio (see chapter 16, "System settings").

- [Main menu]: Return to the main menu to select a radio mode, set alarms or the sleep timer, or open the system settings (see "17. Main menu" on page 18).

Saving Internet radio presets

The DAB+ 200 ultimate can store up to 10 Internet radio stations or podcasts. You can recall them quickly without scrolling through all the menus.

To save an Internet radio station:

1. Switch on the radio, select Internet radio mode and tune to a station as described above.
2. Hold Select / Preset.
3. The preset save menu opens. Use Tuning+ or Tuning- to select the preset where you want to save the station. Press Select to save it. Any station or podcast already stored there is overwritten.
4. Press SELECT to confirm. "Preset stored" appears to indicate that the station has been saved to the selected preset.
5. Alternatively, hold a preset button (1–10) on the remote control until "Preset stored" appears. The station is saved to that button. Repeat to save other stations.

Recalling Internet radio presets

With Internet radio or Podcast mode selected and no menu open:

1. Press Select / Preset.
2. Select a preset with Tuning+ or Tuning- and confirm with Select.
3. The radio plays the selected preset station.
4. Alternatively, briefly press the corresponding preset button (1–10) on the remote control. The saved station plays and the preset number appears at the bottom of the display.

Displaying Internet radio station information

During Internet radio playback, press Info / Menu repeatedly to display

Internet radio menu

In Internet radio mode, hold Info / Menu to open the menu. The following options are available:

- [Last listened]: View recently played stations and podcasts.
- [Station list]: Open the station selection menu described above.
- [System settings]: Open the system settings menu to

the following information in turn:

- Artist & track name
- Slogan & station name
- Language & location
- Bit rate & codec & sample rate
- Playback buffer
- Current date

8. Listening to podcasts

The DAB+ 200 ultimate lets you listen to many different podcasts from around the world.

To listen to podcasts:

1. Switch on the radio with Power.
2. Select Podcast mode using Mode, the Tuning buttons and Select, or via the main menu.
3. On first use, the selection menu appears. Choose one of these options:
 - [My country]: Play podcasts from your country (e.g. "China" in the illustration). You can search for local or popular podcasts, or by genre.
 - [Popular]: Find podcasts about current topics (e.g. "COVID-19" in the illustration). The topic changes from time to time according to what is prominent in the media in your time zone / region.
 - [Search]: Find podcasts by name. Enter search terms with Tuning+, Tuning- and Select.
 - [Location]: Find podcasts by location. The submenu offers locations from around the world.
 - [Discover]: Filter podcasts by country of origin, genre and language.
4. After you select a podcast using one of these methods, playback starts automatically.
5. Press Play / Pause during playback to pause or resume.

podcast selection menu.

Saving and recalling podcasts

Internet radio stations and podcasts are saved and recalled in the same way (see "Saving Internet radio presets" and "Recalling Internet radio presets" on page 10).

Displaying podcast information

During podcast playback, press Info / Menu to display the following information in turn:

- Track name
- Track description
- Artist
- Album
- Bit rate & codec & sample rate
- Playback buffer
- Current date

9. Playing streaming services

The DAB+ 200 ultimate can play streaming services such as Spotify, Amazon Music and Deezer. If you have a Premium account for one of these services, follow the steps below to connect the radio to it.

Spotify

Spotify software is subject to the following third-party licences:
<https://www.spotify.com/connect/third-party-licenses>



Use a phone, tablet or computer as a remote control for Spotify. For details, visit <https://www.spotify.com/de/connect>.

Amazon Music

To play Amazon Music on the radio:

1. Switch on the radio with Power.
2. Select Amazon Music using Mode, the Tuning buttons and Select, or via the main menu.
3. Use UNDOK (see chapter 6, "Controlling the radio with UNDOK") to connect to Amazon Music and sign in.
4. Control playback with the app or the radio buttons.



For more information about Amazon Music, visit <https://music.amazon.com>.

Podcast menu

The Podcast menu is identical to the Internet radio menu described on page 10. However, [Station list] is replaced by [Podcast list], which returns you to the

Deezer

To play music via Deezer:

1. Switch on the radio with Power.
2. Select Deezer using Mode, the Tuning buttons and Select, or via the main menu.
3. Sign in to Deezer by entering your username and password with Tuning+, Tuning- and Select.
4. Control playback using the radio menus and buttons.



For more information about Deezer, visit <https://www.deezer.com>.

10. Listening to DAB radio

Tuning to DAB stations

To tune to DAB stations:

1. Switch on the radio with Power.
2. Select DAB mode using Mode, the Tuning buttons and Select, or via the main menu.
3. On first use, the radio automatically performs a full scan for available DAB stations. As new stations are found, the counter increases and the stations are added to the station list. The progress bar shows the scan progress.
4. When scanning is complete, all stations found are listed. Scroll through the list with Tuning+ or Tuning- and press Select to choose and play a station.



NOTE

Before selecting DAB mode or scanning for stations, fully extend the DAB / FM antenna on the rear of the radio and ensure good reception.

DAB radio menu

Hold Info / Menu in DAB mode to open the DAB menu. The following options are available:

- [Station list]: List all DAB stations found and select one. If no stations were found previously, the radio scans again.
- [Full scan]: Perform a full scan and save all DAB stations found in the station list.
- [Manual tune]: Tune manually to a DAB station / frequency.
- [Prune invalid]: Remove stations that are no longer available from the list.
- [DRC]: Dynamic range control makes quiet sounds louder in noisy environments by reducing the dynamic range of the audio signal. Select this option, then choose the desired DRC setting with Tuning+ or Tuning-:

[DRC high]: Same level as transmitted by the broadcaster.

[DRC low]: Half the level transmitted by the broadcaster.

[DRC off]: DRC is disabled and the transmitted setting is ignored. This is the factory setting.

Press Select to confirm.

- [Station order]: Choose [Alphanumeric] to sort stations alphanumerically, or [Ensemble] to sort them by DAB multiplex.
- [System settings]: Open the system settings and configure the radio (see "16. System settings" on page 17).
- [Main menu]: Return to the main menu to select a mode, set alarms or the sleep timer, or open system settings (see "17. Main menu" on page 18).

Displaying DAB information

During DAB playback, press Info / Menu repeatedly to display:

- Text
- Programme type
- Multiplex name & frequency
- Signal error & strength
- Bit rate & codec & audio type
- Current date

When receiving a stereo broadcast, the stereo icon appears at the bottom of the display. If the station is saved as a preset, the preset number also appears. If a slideshow image is transmitted during a DAB broadcast, hold Back to display it full-screen. Hold Back again to exit full-screen mode.

The FM menu contains these options:

- [Scan setting]: Choose whether automatic scanning (hold Tuning+ or Tuning-) should find only strong signals or all signals.
- [Audio setting]: Choose whether FM stations should be played in mono only. This can help reduce background noise during FM reception.
- [System settings]: Open the system settings and configure the radio (see "16. System settings" on page 17).
- [Main menu]: Return to the main menu to select a mode, set alarms or the sleep timer, or open system settings (see "17. Main menu" on page 18).

11. Listening to FM radio

Tuning to FM stations

To tune to FM stations:

1. Switch on the radio with Power.
2. Select FM mode using Mode, the Tuning buttons and Select, or via the main menu.
3. Hold Tuning+ or Tuning- to scan automatically for a station at a higher or lower frequency. Scanning stops when a sufficiently strong signal is found. The frequency appears on the display, with a signal strength icon at the bottom. If RDS data is available, the RDS icon appears, followed by the station name after a few seconds.
4. Press Tuning+ or Tuning- to adjust the frequency in 0.05 MHz steps.
5. Repeat steps 3 and 4 to search for other stations.



NOTE

Before selecting FM mode or scanning for stations, fully extend the DAB / FM antenna on the rear of the radio and ensure good reception.

Displaying FM station information

When listening to FM stations transmitting RDS data (RDS icon displayed), press Info / Menu repeatedly to show:

- Text message
- Programme type
- Frequency
- Current date

If no RDS data is transmitted, text messages and programme type are not displayed. A stereo icon at the bottom of the display indicates a stereo broadcast.

Saving DAB and FM presets

You can store up to 10 DAB and 10 FM stations. The procedure is identical.

1. Switch on the radio, select DAB or FM mode and tune to a station.
2. Hold Select / Preset. The "Save to Preset" menu opens.
3. Choose a preset with Tuning+ or Tuning- and press Select to save the station. "Preset stored" confirms it has been saved. Any station already stored there is overwritten.
4. Alternatively, hold the desired preset button (1–10) on the remote control until "Preset stored" appears. The station is saved to the selected

FM radio menu

Hold Info / Menu in FM mode to open the FM menu.

preset. Repeat this procedure to save other stations.

Recalling DAB and FM presets

1. Switch on the radio and select DAB or FM using Mode, the Tuning buttons and Select, or via the main menu.
2. Press Select to open "Recall from Preset".
3. Choose a preset with Tuning+ or Tuning- and press Select to confirm. The selected station plays and its preset number appears at the bottom of the display.
4. Alternatively, press the desired preset button (1-10) on the remote control. The saved station plays.

12. Bluetooth playback

To play music via Bluetooth, first pair your Bluetooth device with the DAB+ 200 ultimate. Pairing creates a link so the two devices can recognise each other.

Pairing your Bluetooth device for the first time

1. Switch on the radio with Power.
2. Select Bluetooth using Mode, the Tuning buttons and Select, or via the main menu. "No connect" appears.
3. Enable Bluetooth on your device (see its user manual).
4. Open the Bluetooth device list and select "DDR-75BT". If you renamed the radio in the system settings, look for that new name instead.



NOTE

Some devices with Bluetooth version 2.1 or earlier may require a passcode. If so, enter "0000".

5. After pairing and connecting, the radio sounds a confirmation tone and displays the connected device name and playback status. You can now stream music from your Bluetooth device to the radio.



NOTES

- If your Bluetooth device supports NFC, pair the devices by bringing their NFC areas together.
- If two Bluetooth devices attempt first-time pairing simultaneously, both must search for the radio and both can see it as available. Once one connects, the radio no longer appears in the other device list.
- If the Bluetooth device moves out of range, the connection is temporarily interrupted. The radio reconnects automatically when the device returns within range. No other Bluetooth device can be paired or connected to the radio during this interruption.
- If the DAB+ 200 ultimate appears in the device list but cannot connect, remove it from the list, then pair it again as described above.
- The effective range is approximately 10 metres (30 feet). Obstacles between the devices may reduce this range.
- Bluetooth connection performance varies by device. Check the device information before connecting it. Some functions may not be supported.
- On some phones, incoming / outgoing calls, messages, emails or other activity may mute or temporarily interrupt audio streaming. This depends on the Bluetooth device and is not a fault of the DAB+ 200 ultimate.

Audio playback in Bluetooth mode

After connecting a Bluetooth device, you can play music and control playback with the radio buttons or the connected device.

1. When playback starts, the display updates to "Playing".

2. Adjust the volume with VOLUME+ and VOLUME- on the radio or the volume controls on your Bluetooth device.
3. Use the radio or Bluetooth device buttons to control playback. Press Play / Pause to start, pause or resume. Press Previous track or Next track to skip tracks. Hold either button to rewind or fast-forward the current track.

**NOTE**

Not all apps or devices respond to all these controls.

Playback from a previously paired Bluetooth device

The DAB+ 200 ultimate remembers up to eight paired Bluetooth devices. Once this limit is reached, the oldest device previously connected to the radio is overwritten. If your device has been paired before, the radio remembers it. The radio always tries to reconnect to the last connected device. If that device is unavailable, it tries the second most recently connected device.

Bluetooth menu

Hold Info / Menu in Bluetooth mode to open the menu. It contains:

- [Connect device]: Disconnect the current device and reactivate Bluetooth pairing mode.
- [Forget devices]: Delete all previously paired devices.
- [System settings]: Open system settings (see "16. System settings" on page 17).
- [Main menu]: Return to the main menu to select another mode, set alarms or the sleep timer, or open system settings (see "17. Main menu" on page 18).

Disconnecting a Bluetooth device

To disconnect your device, disable Bluetooth on it, hold Back / Bluetooth pairing on the radio, or open the Bluetooth menu and select [Connect device] to reactivate

Bluetooth pairing mode. Alternatively, select a mode other than Bluetooth using Mode, the Tuning buttons and Select, or via the main menu.

If you disconnect the device while the radio remains in Bluetooth mode, "No connect" appears and the radio is available for pairing again.

Displaying Bluetooth information

During Bluetooth playback, press Info / Menu repeatedly to display:

- Album
- Artist
- Track

13. CD playback

The DAB+ 200 ultimate plays CDs, CD-Rs and CD-RWs, including standard audio CDs and discs with MP3 or WMA files. WMA lossless, WMA Voice, WMA 10 professional and DRM-protected files are not supported.

Audio playback in CD mode

1. Switch on the radio with Power.
2. Select CD mode using Mode, the Tuning buttons and Select, or via the main menu. "No disc" appears.
3. Insert a CD with the printed side facing up. "Reading" appears with a progress bar as the disc is read.
4. After the disc has been read, press Play / Pause to pause or resume playback.
5. Press Tuning- to return to the start of the current track or, if already at the start, to the previous track. If the first track of an MP3 / WMA folder is playing, the radio skips to the last track of the previous folder. Hold Tuning- to rewind.
6. Press Tuning+ to skip to the next track. If the last track of an MP3 / WMA folder is playing, the radio skips to the first track of the next folder. Hold Tuning+ to fast-forward.
7. Press Select / Stop to stop playback. The total number of folders and tracks on the CD appears.
8. Press Folder+ or Folder- to select another folder. The first track of the next or previous folder plays.
9. Press Eject to remove the CD.

Displaying CD information

When playing a CD with MP3 and / or WMA files, press Info / Menu repeatedly to display:

- Status
- File name
- Album
- Artist
- Track

14. Playing files from USB devices / SD cards and recording audio to USB devices / SD cards

The DAB+ 200 ultimate plays MP3 and WMA files from USB devices and SD cards. WMA lossless, WMA Voice, WMA 10 professional and DRM-protected files are not supported.

Playing files from USB devices and SD cards

To play audio files from a USB device or SD card:

1. Switch on the radio with Power.
2. Connect a USB device to the USB port or insert an SD card into the SD card slot.
3. Select USB or SD using Mode, the Tuning buttons and Select, or via the main menu. "Reading" appears with a progress bar.
4. After the device or card has been read, the first track in the first folder plays automatically. The display shows "F01 T001 00:00", indicating the folder number, track number and playback time.
5. Press Play / Pause to start or pause playback.
6. Press Tuning- to return to the start of the current track or, if already at the start, to the previous track. If the first track of an MP3 / WMA folder is playing, the radio skips to the last track of the previous folder. Hold Tuning- to rewind.
7. Press Tuning+ to skip to the next track. If the last track of an MP3 / WMA folder is playing, the radio skips to the first track of the next folder. Hold Tuning+ to fast-forward.
8. Press Select / Stop to stop playback. The total number of folders and tracks on the USB device or SD card appears.

9. Press Folder+ or Folder- to select another folder. The first track of the next or previous folder plays.

Recording audio to USB devices or SD cards

To record the audio currently playing:

1. Switch on the radio with Power.
2. Connect a USB device to the USB port or insert an SD card.
3. Select the desired mode and start playing the audio to be recorded.
4. Press Record. The radio starts recording to the USB device or SD card.



NOTE

If both USB and SD are present, recording uses the storage device selected under [Rec. default dest.] in the system settings (see "16. System settings" on page 17). The recording destination appears at the top right of the display.

5. Press Record again to stop recording.
6. Recordings are saved as MP3 files named "RECXXX" in a folder called "REC" on the storage device. XXX is the recording number: "REC001" for the first recording, "REC002" for the second, etc.

Displaying track information

During USB or SD audio playback, press Info / Menu repeatedly to display:

- File name
- Album
- Artist
- Track

15. Audio playback via the AUX input

You can play external devices, such as an iPod or MP3 player, through the DAB+ 200 ultimate speakers:

1. Connect the external device to the AUX input using a 3.5 mm audio cable (not included).
2. Make sure both the radio and the external device are switched on.
3. Select AUX using Mode, the Tuning buttons and Select, or via the main menu.
4. The external device audio plays through the DAB+ 200 ultimate. Control playback on the external device. Adjust the volume on either the radio or the external device.

16. System settings

System settings let you configure the DAB+ 200 ultimate. To open them:

1. Switch on the radio with Power.
2. Hold Info / Menu to open the menu for the current mode.
3. Choose [System settings] with Tuning+ or Tuning- and press Select. These options are available:
 - [Backlight]: Adjust the backlight brightness. [Normal] sets the brightness during operation and [Standby] sets it in standby.
 - [Equaliser]: Select the equaliser mode. [My EQ profile setup] lets you manually adjust bass, midrange, treble and bandwidth for [My EQ].
 - [Subwoofer]: Adjust the subwoofer level.
 - [Audio stream quality]: Configure the streaming audio quality.
 - [Network]: Set up the network connection, view and select available profiles, perform PBC setup or view network settings.
 - [Time/Date]: Set the date and time manually, select the automatic update source and set the time format.

- [Inactive Standby]: Set how long the radio waits before automatically switching off when inactive. The factory setting is eight hours, but you can change it. Select [Off] to disable this function.
- [Language]: Select the menu display language.
- [Rec. default dest.]: Select the destination for recorded files. If both USB and SD are present, recordings are saved to the device selected here.
- [Factory reset]: Restore factory settings. After confirmation, all user settings and preset stations are deleted.
- [Software update]: Choose whether the radio checks regularly for updates, or check now.
- [Setup wizard]: Run setup again, immediately or the next time the unit is switched on. For instructions, see chapter 5, "Getting started".
- [Info]: Display the Spotify version, radio ID and friendly name.
- [Privacy policy]: Display the link to the radio privacy policy.

Setting the date and time manually

Setting the date and time differs slightly from other radio options. If updating via DAB, FM or the network is not possible, set them manually:

1. Open system settings using the three steps above.
2. Select [Time/Date]. The menu contains:
 - [Set Time/Date]: Set the date and time manually.
 - [Auto update]: Select the source for automatic updates. If [Update from Network] is selected, [Set timezone] and [Daylight savings] appear in the date / time menu.

- [Set format]: Select the 12- or 24-hour format.
 - [Set timezone]: Set the time zone for your location.
 - [Daylight savings]: Choose whether daylight saving time applies at your location.
3. Select [Set Time/Date] and press Select to set the date and time manually.
 4. The date and time appear; the day flashes.
 5. Select the current day with Tuning+ or Tuning- and confirm with Select.
 6. The month flashes.
 7. Select the current month with Tuning+ or Tuning- and confirm with Select.
 8. The year flashes.
 9. Select the current year with Tuning+ or Tuning- and confirm with Select.
 10. The hour flashes.
 11. Set the current hour with Tuning+ or Tuning- and confirm with Select.
 12. The minutes flash.
 13. Set the minutes with Tuning+ or Tuning- and confirm with Select. If you selected the 12-hour format, choose AM or PM with Tuning+ or Tuning- and press Select to confirm.
 14. Manual time setting is complete and the radio returns to the date and time submenu.

- [Podcasts]: Switch to Podcast mode.
- [Amazon Music]: Switch to Amazon Music mode.
- [Deezer]: Switch to Deezer mode.
- [AUX in]: Switch to AUX mode.
- [CD]: Switch to CD mode.
- [USB]: Switch to USB mode.
- [SD]: Switch to SD mode.
- [Sleep]: Activate the sleep timer.
- [Alarms]: Activate alarms.
- [System settings]: Open system settings (see "16. System settings" on page 17).

Setting alarms

To set alarms, press Alarm on the remote control while the radio is on, or select [Alarms] in the main menu:

1. Switch on the radio with Power.
2. Press Alarm on the remote control, or open the main menu, choose [Alarms] and press Select.
3. The alarms and their settings appear. Select the alarm you want to set. The alarm settings submenu contains:
 - [Enable]: Choose the frequency: [Off], [Daily], [Once], [Weekends] or [Weekdays].
 - [Time]: Set the alarm time in the same way as the date and time in the previous chapter.
 - [Mode]: Select the alarm mode.
 - [Preset]: Choose a saved station or the last station listened to as the alarm source.
 - [Volume]: Set the alarm volume.
 - [Save]: Save the alarm settings.

17. Main menu

Use the main menu to select the radio mode, set alarms or the sleep timer. To open it:

1. Switch on the radio with Power.
2. Hold Info / Menu to open the menu for the current mode.
3. Select [Main menu] with Tuning+ or Tuning- and press Select. The following options are available:
 - [FM]: Switch to FM mode.
 - [DAB]: Switch to DAB mode.
 - [Bluetooth]: Switch to Bluetooth mode.
 - [Spotify]: Switch to Spotify mode.
 - [Internet radio]: Switch to Internet radio mode.

4. Set the first five options with Tuning+ or Tuning- and Select.
5. Choose [Save] and press Select to confirm.
6. To set the second alarm, select the other alarm at step 2 and repeat steps 3 to 5.

NOTE



- When the alarm sounds, press Power to stop it; the radio enters standby. If the selected station cannot be received, the buzzer sounds instead. Press another radio button repeatedly (except Power or the volume control) to snooze the alarm for the duration shown. During snooze, the time remaining appears beside the alarm icon. To cancel snooze, press Power; "Alarm OFF" appears briefly.
- The alarm stops automatically after 60 minutes.
- In standby, press Alarm repeatedly to enable or disable the alarms immediately.

and keep the radio on, reopen the sleep timer settings (steps 1 to 3 above) and choose "Sleep OFF" in step 3.

18. Other connections

Headphone socket

A 3.5 mm headphone output on the rear lets you listen through headphones. Connecting headphones automatically mutes the internal speakers. Headphone sensitivity can vary considerably. We recommend setting the volume low before connecting headphones. Also reduce the volume before disconnecting them.



CAUTION

Excessive sound pressure from headphones can damage your hearing.
To prevent hearing damage, do not listen at very high volumes for long periods.



Line-Out output

A 3.5 mm audio output on the rear lets you send audio to an external amplifier. Inserting an audio cable into this output does not mute the internal speakers. Set the radio volume to minimum if required.

Setting the sleep timer

The sleep timer sets the delay before the radio switches off automatically. Choose a duration between 15 and 120 minutes. Hold Power / Sleep and select the desired duration with Tuning+ or Tuning-. Alternatively, use [Sleep] in the main menu.

To set the timer via the main menu:

1. Open the main menu using the three steps described above.
2. Select [Sleep] and confirm with Select.
3. Choose the desired duration with Tuning+ or Tuning-.
4. When the timer expires, the radio enters standby automatically. While active, a small icon at the bottom of the display shows the time remaining.
5. To cancel the timer and switch off the radio before the time expires, press Power. To cancel the timer

Optical S/PDIF output

The rear digital S/PDIF output connects to an amplifier, MiniDisc unit or other device with an optical digital input.

Removing the antenna

The built-in telescopic antenna is suitable for most uses. It can be removed to connect an external antenna using a coaxial cable.

First remove the two small screws securing the antenna connector cover, using a small Phillips screwdriver. Then use a spanner to remove the telescopic antenna by turning it anticlockwise, as viewed from the rear of the unit.

This exposes an F connector for attaching an external antenna.



CAUTION

If using an external antenna or another external connection, make sure it carries no voltage. Otherwise, the antenna input may be destroyed.

19. Technical specifications

Type Order no.		DAB+ 200 ultimate 280500003
Power supply requirements		
Input voltage range	V~	100–240 (50/60 Hz)
Typical power consumption	W	66
Remote control batteries		2 × AAA
Frequency range		
FM	MHz	87.5–108
DAB	MHz	174.928–239.200
Wi-Fi		802.11 b, g, n, a with WEP and WPA / WPA2 encryption. Compatible with the 2.4 GHz and 5 GHz Wi-Fi bands. Frequency and maximum transmit power: 2412–2472 MHz: EIRP = 16 dBm 5180–5240 MHz & 5745–5825 MHz: EIRP = 15 dBm Use of the 5.15–5.35 GHz band is restricted to indoor use.
Bluetooth		
Bluetooth profiles		A2DP, AVRCP
Supported Bluetooth codecs		Qualcomm® aptX™, SBC and AAC
Frequency	MHz	2402–2480
Maximum transmit power	dBm	3
Speakers		
Size	Inches	2 × 3, 2 × 4
Output power	W	2 × 20 + 25 (peak) / 2 × 6 + 18 (continuous)
Permissible ambient temperature	°C	0 to +35

20. Disposal



Electronic equipment

Electronic equipment must not be disposed of with household waste. It must be disposed of correctly in accordance with Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment. At the end of its service life, take this unit to a designated public collection point.