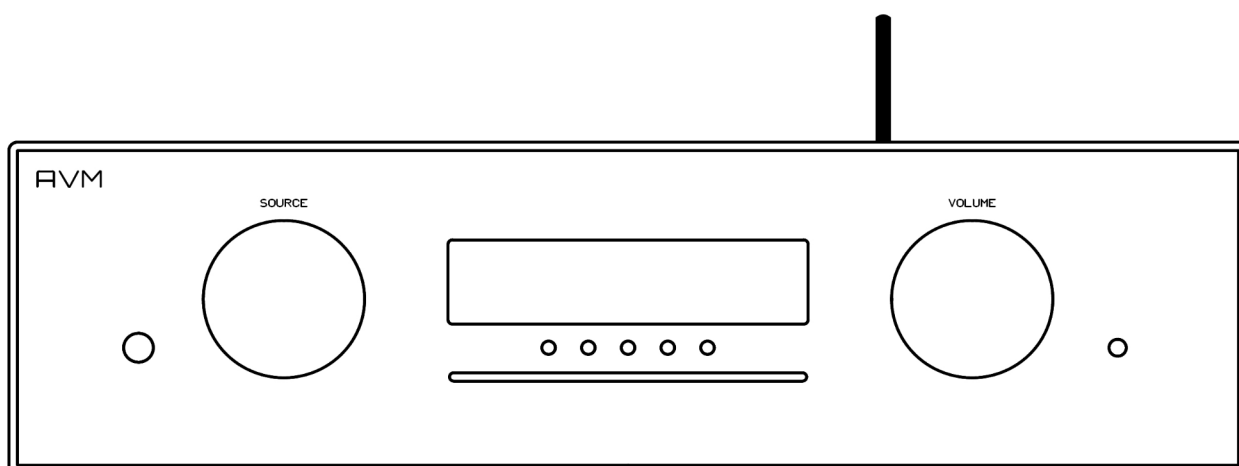


Operating instructions

OVATION CS 6.3

OVATION CS 8.3



AVM
AUDIOPHILE MASTERPIECES

Caution

This unit contains a class 1 laser diode. Do not open. Invisible laser radiation can damage your eyes.

Laserdiode Typ: Ga-Al-As
Wavelength: 755 - 815 nm (25 °C)
Output power: max. 0,7 mW max.



Declaration of conformity (for EC only)

We herewith confirm, that the unit to which this manual belongs fulfills the EC rules necessary to obtain the sign



the necessary measurements were taken with positive results.

AVM Audio Video Manufaktur GmbH
Daimlerstraße 8
D-76316 Malsch
Germany

www.avm.audio
info@avm.audio

A warm welcome!

We are pleased you have chosen an audiophile masterpiece from AVM and thank you for your trust. With the OVATION CS 6.3 / 8.3 you own a high-end component with outstanding sound quality and a wide range of functions. In the following, we would like to explain the use of your OVATION All-In-One System in a comprehensive way and therefore ask you to take a little time to study this manual in detail.

Please note: Since the range of functions of your OVATION CS 6.3 / 8.3 may be expanded by future software updates, it is in the nature of things that these instructions must also be supplemented. The latest version of this manual is therefore always available for free download from our website at www.avm.audio.

If you have any questions that we have not been able to answer with these instructions, please contact your trusted dealer who will be able to configure the device according to your wishes and personal needs and also provide you with instructions for daily use.

A handwritten signature in black ink, appearing to read 'Udo Besser', with a stylized, flowing script.

Udo Besser – AVM Owner & General Manager

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1 Getting started

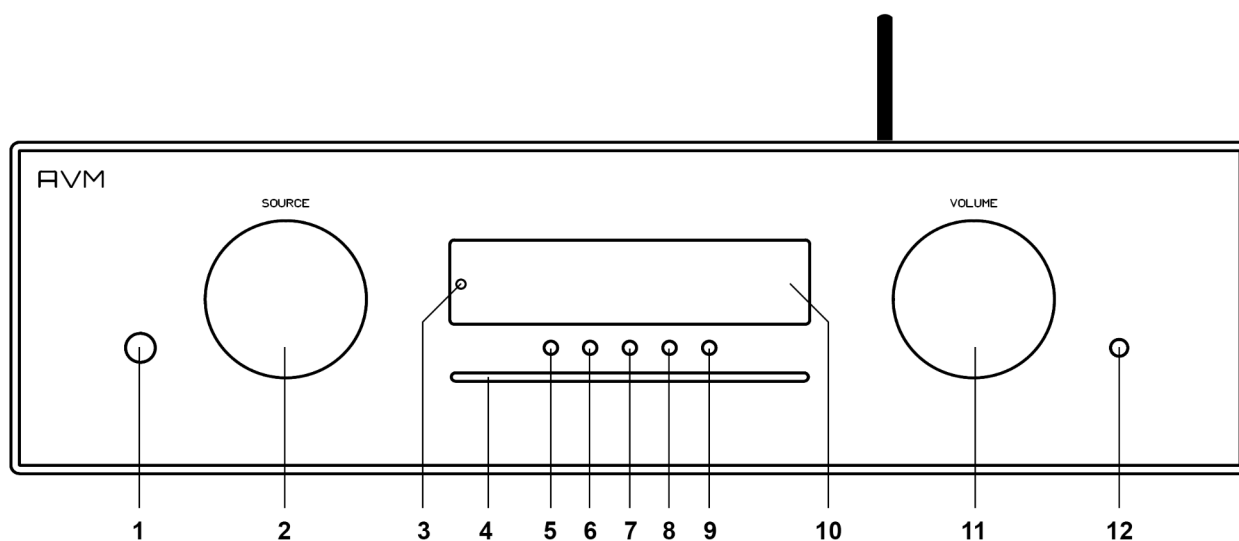
1.1 What's in the box?

- **OVATION CS 6.3 / 8.3 Compact Streaming CD-Receiver**
- **2x WiFi antenna**
- **Power cord (in some countries)**
- **Optional accessory: RC 9 remote control with docking station, power supply unit, USB charging cable**

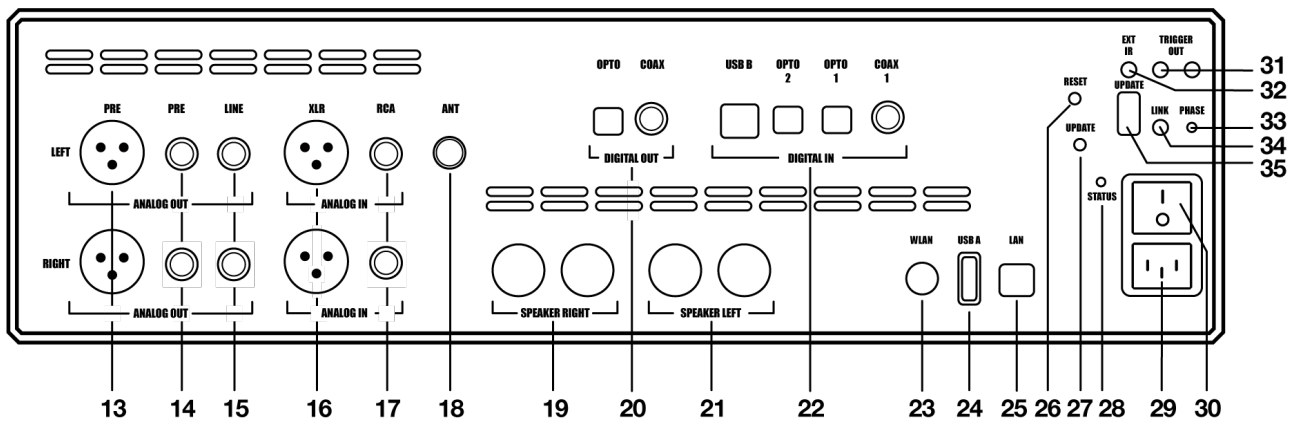
CAUTION: After unpacking, please check the scope of delivery to ensure that all parts have been supplied and are undamaged. In case the original packing has already been opened, please contact your local dealer. Often, your dealer prepares your new device prior to delivery to adapt and change the configuration to your personal needs.

1.2 Control and operating elements

The numbers in the drawings below mark the control elements. They refer to the numbers in the text, where the operation of the unit is described.



- | | |
|--------------------------|--------------------------|
| 1 Power button (on/off) | 7 Menu button (soft key) |
| 2 Source selector | 8 Menu button (soft key) |
| 3 Standby LED | 9 Menu button (soft key) |
| 4 CD slot | 10 Display |
| 5 Menu button (soft key) | 11 Volume knob |
| 6 Menu button (soft key) | 12 Headphone Output |



- | | |
|--|---------------------------------------|
| 13 Analogue outputs (XLR) | 25 LAN port (Ethernet) |
| 14 Analogue outputs (RCA/CINCH VAR) | 26 Reset button (Streaming module) |
| 15 Analogue outputs (RCA/CINCH FIX) | 27 Update button (Streaming module) |
| 16 Analogue input (XLR) | 28 Status LED |
| 17 Analogue input (RCA/CINCH) | 29 Mains connector |
| 18 Antenna socket (FM Tuner)* | 30 Mains switch |
| 19 Speaker terminal right | 31 Trigger outputs |
| 20 Digital output (OPT, COAX) | 32 Connector for external IR receiver |
| 21 Speaker terminal left | 33 Phase LED |
| 22 Digital inputs (USB-B, OPT 1-2, COAX) | 34 Link |
| 23 WiFi antenna socket (WLAN) | 35 Configuration port (Firmware) |
| 24 USB-A port for storage media | |

1.3 Installation and cooling

The unit can become hot depending on demanded output power or environmental temperature. Therefore, it is important, that the cooling air can flow unhindered into the air inlet in the bottom and flow out through the holes in the rear panel. Direct exposure to sunlight is not recommended because this will heat up the unit and may cause unwanted malfunctions.

1.4 Connection to mains

Connect the unit to the mains outlet (29) by using the power cord which is (in some countries) delivered together with the unit. Make sure that mains voltage is according to the value printed on the rear panel of the amp (near mains connector).

CAUTION: Keep the unit switched off (30) until all audio connections are made.

* **FM Tuner** functionality requires an optionally available **FM Tuner Module**.

1.4.1 Phase LED

Especially with high end audio components, which are by nature very sensitive to mains hum, it is important to connect the mains phase correctly. The device is equipped with a Phase LED (33) on the rear panel for this purpose.

To check the phase, switch on the unit with the power button (1) and have a look at the Phase LED (33). This LED only lights up if the mains plug is connected with the correct polarity and remains dark if the polarity is correct. The display has been deliberately designed in this way, as the control electronics of the Phase LED (33) produces slight interference when the LED is lit. This is not the case with correct mains polarity (and a dark LED).

1.5 Connections of analog sources

Connect the outputs of your analog sources to the corresponding inputs (16, 17). The left channel goes to the upper row, the right channel to the bottom row.

1.6 Connection of digital sources

Connect the output of your digital sources with the corresponding input (22): USB-B input (USB), optical inputs (OPTO 1, OPTO 2), coaxial input (COAX).

1.7 Connection of analog recording devices

Connect the inputs of your analog recording device with the analog outputs **CINCH FIX** (15). The analog outputs of the recording device can be connected with the high-level inputs (16, 17).

1.8 Connection of digital recording devices

Connect the inputs of your digital recording device with the optical or coaxial outputs (20). The signal on the digital outputs depends on the selected source (e.g. **CD Player**, **DIG COAX**, **DIG OPT**).

PLEASE NOTE: Incoming signals via the USB-B input (22) are not looped through the digital outputs (20).

1.9 Connecting a subwoofer

If you use an active subwoofer (with a built-in power amplifier), simply connect the inputs to the **CINCH VAR** outputs (14) and adjust the bass level at the subwoofer.

1.10 Connecting loudspeakers

Connect the speakers to the speaker terminals (19, 21). Use only good speaker cables with sufficient diameter. Make sure, that the red terminals are connected to the red or "+“ terminals of the speakers and the black terminals to the black or “-“ terminals of the speakers.

1.11 Tuner antenna*

Connect the FM antenna cable to the antenna socket **ANT** (18).

1.12 RC 9 remote control

The optionally available **RC 9** remote control allows for easy and comprehensive control of your devices. Before you can use the **RC 9** together with your device, both components need to be connected. This process is also referred to as **Pairing**. In order to start the pairing process, please follow the instructions as described in section 1.12.1. A detailed description of the entire functionality of the optionally available **RC 9** remote control can be found in a separate manual on the AVM website at www.avm.audio.

1.12.1 Pairing

In order to control your device with a **RC 9** remote control, both components need to be linked first. This process is also referred to as **Pairing**. To start the pairing process, please switch off your device by using the mains switch (30) on the rear side of the unit. Now please navigate to the **Systems Settings** menu on your **RC 9** remote control by pressing the Settings key and navigate to the menu item **Start Pairing** *without* selecting it with the **Enter** key yet. Switch on your device by using the mains switch (30) on the rear side of the unit and immediately press the **Enter** key of your **RC 9** remote control to now start the **Pairing** process. The name of a successfully detected device will instantaneously be shown on the display of your **RC 9** remote control and can be adjusted by using the alphanumeric input keys of the **RC 9** remote control. After confirming the name of the paired device with the **Enter** key, you can also choose one of four available **Hotkeys**. Details on how to use the **Hotkey** function of your **RC 9** remote control can be found in a separate **RC 9** manual on the AVM website at www.avm.audio. By pressing the **Enter** key on your **RC 9** remote control again, the pairing process is completed.

1.13 RC X App for iOS and Android

The **RC X App** for iOS and Android will turn your smartphone or tablet into an easy-to-use remote control and provides a variety of intuitive features to get the most out of your network-enabled AVM device with integrated AVM X-STREAM Engine®. The **RC X App** is available free of charge and can be downloaded from the [Apple App Store](https://www.apple.com/app-store) and the [Google Play Store](https://www.google.com/play-store).

* **FM Tuner** functionality requires an optionally available **FM Tuner Module**.

1.14 Network installation (LAN, WiFi)

To use the extensive streaming and networking features such as **Spotify Connect®**, **Apple AirPlay**, **TIDAL**, **QOBUZ**, **HIGHRESAUDIO**, **web radio**, **podcasts** or **music servers**, your device must be connected to your home network or the internet via a router. You can choose from a wired LAN connection (25) or a wireless WiFi connection. When screwing the supplied WLAN antenna onto the corresponding WLAN antenna connector (23), please make sure that the antenna is aligned straight. Only then angle the antenna into the desired position.

LAN vs. WiFi

If you have the choice between a wired LAN or wireless WLAN connection, we generally recommend that you use a wired LAN connection, which usually provides higher bandwidth and is also less susceptible to interference and less dependent on the data traffic of your entire network.

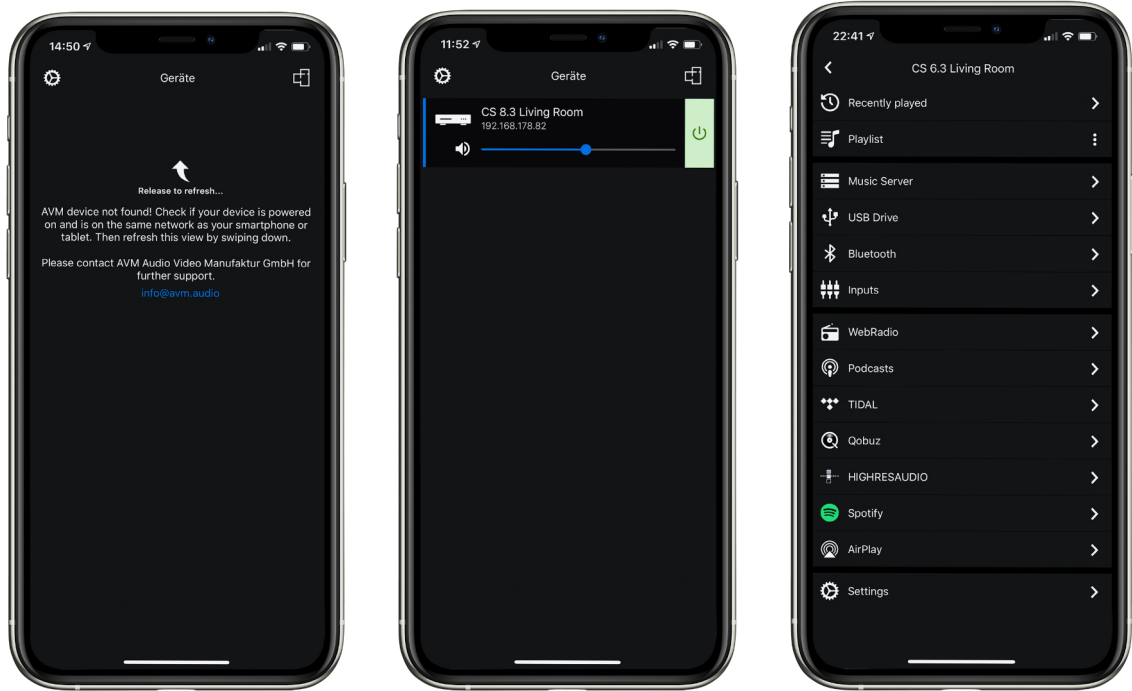
NOTE: All AVM devices with integrated AVM X-STREAM Engine® generally prefer a wired network connection and will automatically access it once a LAN/network cable is installed on the device (25). To still ensure smooth continuous operation via WLAN/WiFi, please remove any LAN/network cables from the LAN/network connection (25). Otherwise the device will re-establish a wired network connection via LAN even during operation.

Please make sure to carefully follow all steps below to successfully set up a wired LAN connection or a wireless WiFi connection.

1.14.1 Setting up a wired LAN connection

All AVM devices with integrated AVM X-STREAM Engine® are hot-pluggable. This means that setting up a wired network connection does not require the AVM device to be restarted or turned off and on again. Instead, a network cable (LAN cable) can be connected while the device is running and a network connection is established immediately.

- ✓ Plug a LAN cable from your local router or network switch into the LAN port of the device (25).
- ✓ The device automatically connects to your home network via the connected LAN cable and is ready for use.
- ✓ Make sure your smartphone or tablet is connected to your local network and start the **RC X App**. After a short startup process, the **RC X App** automatically searches for available AVM devices in your local network and lists them with their device names and IP addresses. You can recognize an IP address by a sequence of numbers separated by several dots. Often an IP address starts with "192.168.xxx.x".
- ✓ Select an available device from the list by tapping it and wait a short moment until a connection between your smartphone or tablet and the device is established.



NOTE: If you do not see any available devices, check if the network cable is installed correctly and is on the same network as your smartphone or tablet. Then drag the view in the **RC X App** slightly down to search for available devices again. Please also note the **RC X App** is only compatible with AVM models with integrated AVM X-STREAM Engine®. You can find a current model overview at: www.avm.audio/rc-x-app.

- ✓ To check on the network status, start the **RC X App** and select the AVM device.
- ✓ Call up the menu item **Network info** in **Settings**. In the **Wireless** section, you can check on the **WLAN** configuration that has been established.



1.14.2 Setting up a wireless WiFi connection

To set up a wireless network connection (WLAN/WiFi) you have several options:

- ✓ **WPS**
- ✓ **AirPlay** configuration for iOS
- ✓ **RC X App** for Android via WiFi Access Point
- ✓ **RC 9** remote control

1.14.2.1 Setup via WPS

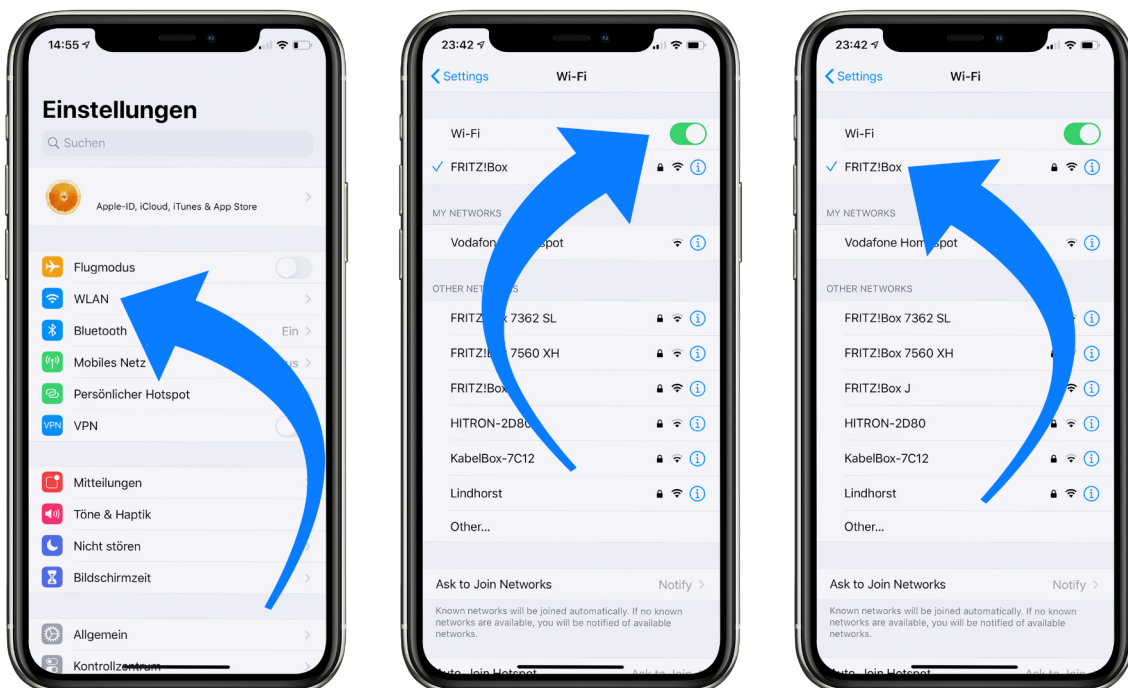
WPS (Wi-Fi Protected Setup) is a standard for easy and secure wireless network connection with encryption. All you need is a WiFi router with WPS function. Please refer to the relevant documentation to find out whether your router is equipped with WPS. The setup of a WPS connection is done via the **Personal Setup** Menu of your AVM device. For details on the complete range of functions of the **Personal Setup** menu, please refer to section **0 Personal Setup**.

- ✓ To call up the **Personal Setup** Menu, switch off the device completely using the mains switch on the rear panel (30).
- ✓ Now press and hold the menu button on the right below the display and switch on the device again with the mains switch (30). As soon as the display first shows **Entering setup** and then ***** personal setup *****, the menu button can be released. In the **Personal Setup** menu, individual menu items can be selected with the menu buttons **< ITEM>** and activated accordingly with the menu button **SELECT**.
- ✓ Now select the menu item **set WLAN via WPS** by pressing one of the menu buttons **< ITEM>**.
- ✓ Activate the WPS function by pressing the **SELECT** menu button. The display shows **WPS in progress**.
- ✓ Now activate the WPS function on your WiFi router within two minutes.
- ✓ As soon as your AVM device has successfully established a WLAN connection via WPS, the name of the connected WLAN is shown on the display, e.g.: **Joined WLAN: WLAN Name (SSID)**.
- ✓ To finish the process, press the **BACK** menu button and then exit the Personal Setup menu by pressing the **EXIT** menu button. After a short save procedure (the display shows **Exit & Save Settings**) the device restarts and switches to normal operating mode.
- ✓ Your AVM device is now connected to your local wireless network (WLAN/WiFi) and ready for operation.
- ✓ To check on the network status, start the **RC X App** and select the AVM device. Call up the menu item **Network info** in **Settings**. In the **Wireless** section, you can check on the WLAN configuration that has been established.

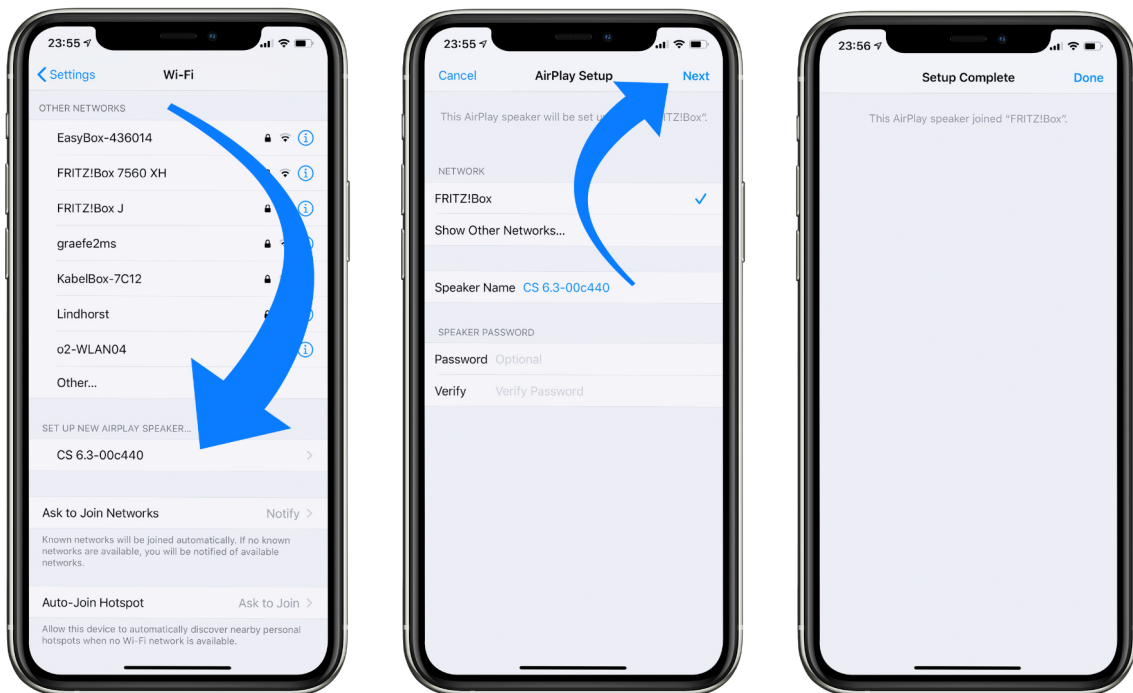


1.14.2.2 Setup via AirPlay configuration for iOS

- ✓ First switch off the AVM device completely using the mains switch on the rear panel (30) and wait a short moment until you switch it on again using the mains switch.
- ✓ As soon as your AVM device has completed the startup process and is in the general operating state, open the **WLAN** menu in the **Settings** of your iPhone or iPad. Make sure the WLAN function is enabled and your iPhone or iPad is connected to the desired WLAN.



- ✓ Select the AVM device you want to connect to your WLAN in the **WLAN** menu under the menu item **SET UP NEW AIRPLAY SPEAKER**. In the example below, the AVM device is listed as **CS 6.3-00c440**. Wait a moment if the device is not immediately displayed. Your iPhone or iPad will continuously search for new devices and update the view of available WLAN networks at short intervals. If the AVM device does not appear even after a short wait, repeat the AVM device power-up procedure as described above.
- ✓ In the following **Airplay Setup** menu, check that the desired WLAN is selected under **NETWORK** and, if necessary, change the device name for your AVM device under **Speaker Name**. Optionally set a password. Then start the connection process via **Next**. The WLAN access data including the password is now automatically transferred from your iPhone or iPad to your AVM device. As soon as the configuration is finished, you will receive a corresponding feedback, which you confirm with **Done**. Your AVM device is now integrated into your WLAN and ready for operation.

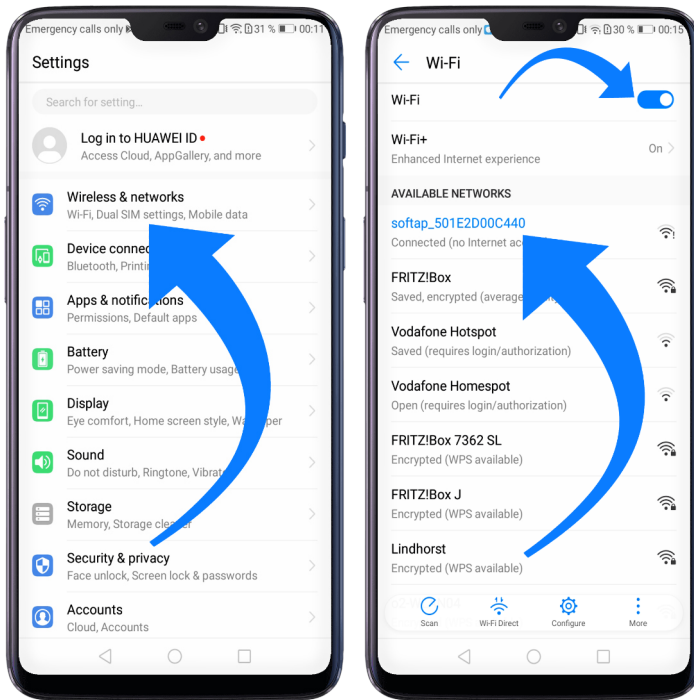


- ✓ To check on the network status, download the **RC X App** for iOS from the [Apple App Store](#) and install it on your iPhone or iPad. Then start the **RC X App** and select the AVM device from the start menu.
- ✓ Call up the menu item **Network Info** in the **Settings**. In the **Wireless** section, you can view details of the WLAN configuration that has been carried out.

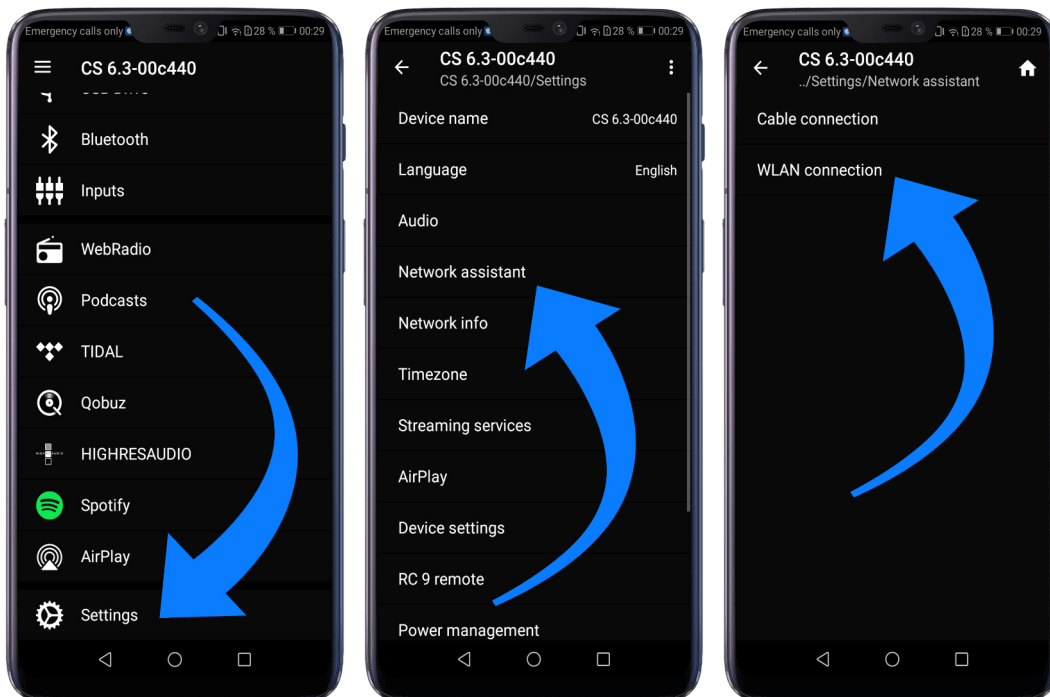


1.14.2.3 Setup via RC X App for Android & iOS via WiFi Access Point

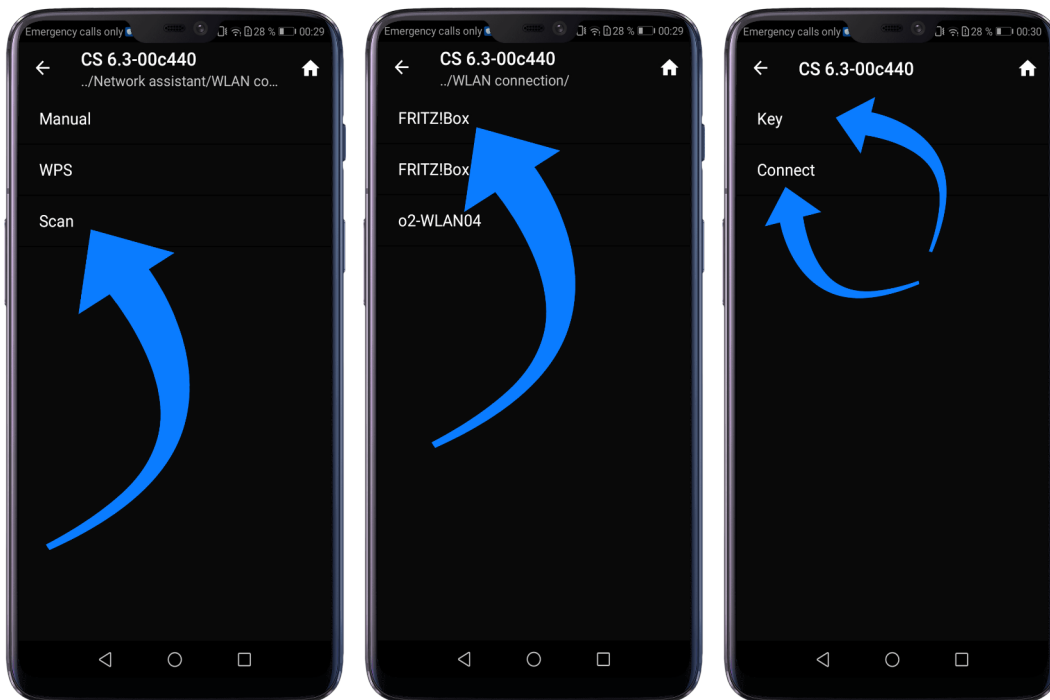
- ✓ Download the **RC X App** from the [Google Play Store](#) or [Apple App Store](#) and install it on your smartphone or tablet.
- ✓ Switch off the AVM device completely using the mains switch on the rear panel (30) and wait a short moment until you switch it on again using the mains switch.
- ✓ Once your AVM device has completed the startup process and is in general operating mode, go to the **Wireless & Networks** menu in the **Settings** of your Android smartphone or tablet and navigate to the WLAN menu item. Make sure that the WLAN function is turned on and select the open WLAN network, which consists of the name **softap** and an attached sequence of numbers and digits. In the example below **softap_501E2D00C440**.
- ✓ If necessary, ignore the note that the selected WLAN network cannot access the Internet. By selecting the WLAN network **softap** ... you create a temporary ad-hoc network, i.e., a direct wireless connection between your Android device and the AVM device.



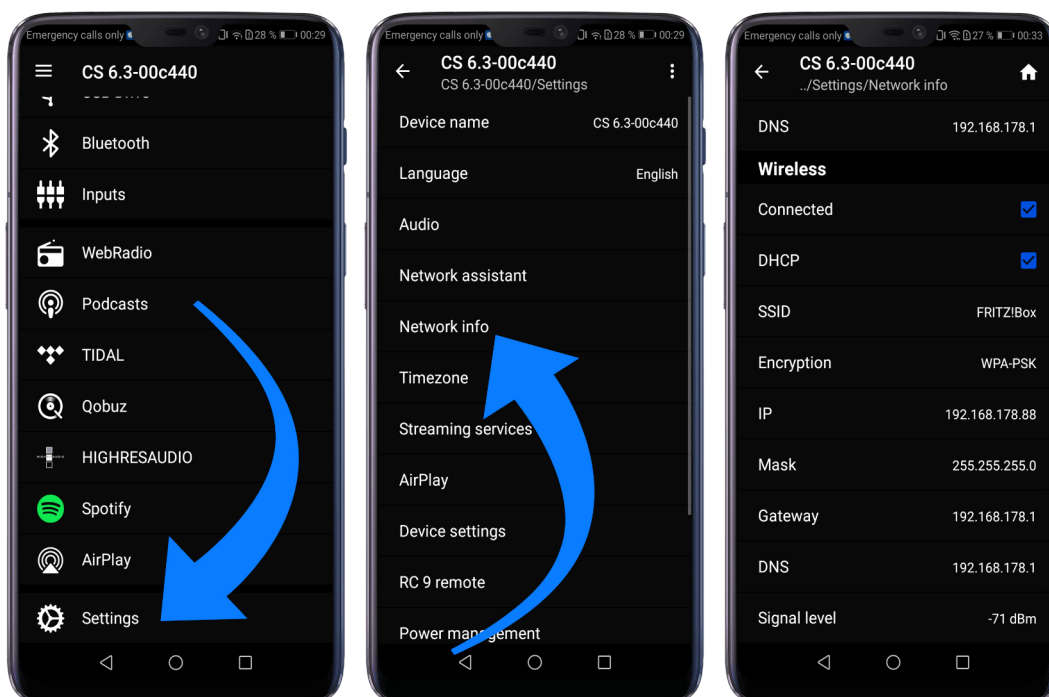
- ✓ Start the **RC X App** and select the AVM device from the start menu.
- ✓ Call up the menu item **Network assistant** in the **Settings** and select **WLAN connection**.



- ✓ Use **Scan** to search for available wireless networks and select the wireless network you want to use as soon as it appears in the search results. In the example below, the WLAN network is named **FRITZ!Box**. A WLAN network name is also called **SSID**.
- ✓ Enter the password for the WLAN network and complete the setup via **Connect**.



- ✓ Call up the menu item **Network Info** in the **Settings**. In the **Wireless** section, you can view details of the WLAN configuration that has been carried out.



1.14.2.4 Setup via optional RC 9 remote control

Before you can set up a wireless WLAN connection via the **RC 9**, both components must first be connected to each other. This one-time procedure is called **Pairing** and is described in section 1.12.1 A detailed description of the entire functionality of the **RC 9** remote control can be found in a separate operating manual at www.avm.audio.

- ✓ First, perform the **Pairing** procedure as described in section 1.12.1 and select the newly set up AVM device on the **RC 9** using the **Device Selection** menu item. You can reach this menu item via the **System Settings** menu that you call up by pressing the **Settings** button (tool symbol) of the **RC 9**.
- ✓ On the **RC 9**, select the menu item **Settings** (Einstellungen) in the main menu by pressing the upper or lower navigation button several times.
- ✓ By pressing the **Enter** button, select the menu item **Network assistant** and **WLAN connection**.
- ✓ By selecting the **Scan** menu item afterwards, your AVM device searches for available WLAN networks and lists them in an overview.
- ✓ Select the desired WLAN network and enter the network key (WLAN password) via the input keys of the **RC 9** after pressing **Key**.
- ✓ Confirm the entered network key (WLAN password) by pressing the **Enter** button and select **Connect**.
- ✓ In the following overview **Network Info**, the **Wireless** section displays details of the WLAN configuration.

1.15 Software & Firmware Updates

For maximum ease of use and to get the most out of your device, it is necessary to keep both the firmware of the integrated AVM X-STREAM Engine® and the **RC X App** up to date. The latest version of the **RC X App** can be downloaded from the [Apple App Store](#) or the [Google Play Store](#). To check on the installed AVM X-STREAM Engine® firmware version, use the **RC X App** or the optionally available **RC 9** remote control. Also, make sure your device has an active internet connection before you perform either of the following two steps (see section 1.14).

1.15.1 AVM X-STREAM Engine® Update via the RC X App

- ✓ Call up the menu item **Firmware Update** in the **Settings** and select **Check for Online Update**.
- ✓ If a new version is available under **SW Update** or **Host Update**, install it by clicking **Install Update**.
- ✓ The device restarts to install the update. Do not switch off the device under any circumstances and wait until the update is completely installed. The update status may be shown on the display of the device.
- ✓ Once the update process is complete, the device will reboot and be ready for use again.
- ✓ Call up the **Settings** of the **RC X App**. In the **Version** section, you can view details about the currently installed firmware version.

To install a software update via a USB stick, please consult your dealer who will be happy to assist you with the update.

1.15.2 AVM X-STREAM Engine® Update via the RC 9 remote control

- ✓ Select the desired AVM device on the **RC 9** using the menu item **Device Selection**. You can reach this menu item via the **System** menu, which you call up by pressing the **Settings** button (tool symbol) on the **RC 9**.
- ✓ On the **RC 9**, select the menu item **Settings** in the main menu by pressing the upper or lower navigation button several times.
- ✓ Call up the menu item **Firmware Update** and select **Check for Online Update**.
- ✓ If a new version is available under **SW Update** or **Host Update**, install it by clicking **Install Update**.
- ✓ The device restarts to install the update. Do not switch off the device under any circumstances and wait until the update is completely installed. The update status may be shown on the display of the device.
- ✓ Once the update process is complete, the device will reboot and be ready for use again.
- ✓ Select the menu item **Settings** in the main menu by pressing the upper or lower navigation key several times. In the **Version** section you can view details about the currently installed firmware version.

To install a software update via a USB stick, please consult your dealer who will be happy to assist you with the update.

2 Basic operation

2.1 First operation / self test

When switching on for the first time, a so-called self-test is performed if the device has been completely disconnected from the power supply or switched off via the mains switch (30). The device checks the configuration and functionality of the installed components. This process is indicated by a flashing Standby LED (3) and may take a few seconds.

2.2 Switching on / stand by

With the power button (1) you can toggle between operation and standby mode. In standby mode the display is dark and the standby LED (3) is on. As soon as the machine is in operating mode, the standby LED (3) goes out and the display (10) is activated.

Tube warmup (CS 8.3)

Due to the warm-up phase of the integrated tube stage, the switch-on process of the CS 8.3 takes about 30 additional seconds. Please wait until the entire display waiting for tube warmup changes completely from lower case to upper case. The device is now ready for operation.

CAUTION: When switched to stand by the unit is still connected to the mains. In case of a thunderstorm or if you leave the house for a longer time, we recommend you switch the amplifier off by using the mains switch (30) or pull the mains plug (29).

2.3 Selecting a source

A local source is selected by turning the source selector (2). Available are the **CD Drive**, two **analog high level inputs** (16, 17), one **coaxial digital input** (22), two **optical digital inputs** (22), one **USB B input** (22) and an optional **FM-Tuner**[†]. The selected source is shown on the left side of the display in capital letters and is marked with **SOURCE**.

Selecting additional sources such as **Spotify Connect**[®], **Apple AirPlay**, **TIDAL**, **QOBUZ**, **HIGHRESAUDIO**, **Webradio**, **Podcasts**, **Music Server** or **USB A** (24) is only possible using the optionally available **RC 9** remote control or the free [RC X App for iOS and Android](#).

Spotify Connect[®].


Use your smartphone, tablet, or computer as a remote control for Spotify. Visit spotify.com/connect to learn more. Also, after playing tracks once via the Spotify app, the source selector (11) can be used to restart Spotify locally on the device.

[†] **FM Tuner** functionality requires an optionally available **FM Tuner Module**.

AirPlay

AirPlay is a technology from Apple that allows you to control home audio systems and speakers in any room - with a tap of your finger or by simply asking Siri - directly from your iPhone, iPad, HomePod or Apple TV.

To use AirPlay on your CS 6.3/8.3:

- Make sure your device is connected to the network.
- Open the app from which you want to use AirPlay on your iPhone or iPad
- Tap 
- Select your CS 6.3/8.3 as an AirPlay device.

NOTE: If a digital input is selected that has no valid signal, the display will show **NO DIG SIGNAL** or **NO USB PLUGGED** instead of the volume indicator. In this state, the volume setting is not adjustable due to the selected digital input.

2.4 Volume settings

Use the rotary encoder on the right-hand side (11) to set the desired volume. Depending on the rotating speed the volume increases / decreases in steps of 0.5 dB (slow) or in steps of 2 dB (fast). The current volume setting is shown on the display (10).

NOTE: Please note that if the volume is changed using the optionally available **RC 9** remote control, the level always increases / decreases in 1 dB steps.

2.5 CD Player

The included CD player can play back all compact discs which are recorded according to the red book standard (means the standards for audio CDs established by Philips and Sony). Furthermore, all CDRs and CDR/Ws with good reflection recorded according to this standard are playable. Most copy protected discs are also playable. But we cannot take responsibility that all future copy protection systems are playable.

2.5.1 Insert / eject

Insert a CD

The device is provided with a slot-in CD drive (4). Insert the CD (coverside up) and push slightly. The drive will now automatically draw the disc inside. After that the player reads the TOC (table of contents) and shows it on the display. Most left is the number of the actual track followed by the total number of tracks on the CD (for example "1/17"). The middle of the display shows the total playing time of the CD.

NOTE: If there is still a CD inside or the unit is in stand by, the slot will be blocked. If the inserted disc is not readable (DVD, data-CD) the display will show **NO DISC**.

Eject CD

Press the menu button **EJECT**. The disc will be ejected. If no CD is inserted, the display shows **NO DISC**.

AUTO PLAY

If CD is not selected as source the unit will automatically change to CD from any other input as soon as a CD is inserted. If **AUTO PLAY** is activated (see 3.4.7), the CD player will start playing automatically every time a CD is inserted. If **AUTO PLAY** is deactivated, the CD player will read the TOC (table of contents) of the inserted disc and then go to **STOP** mode.

2.5.2 PLAY, PAUSE, STOP

If a disc is inserted, playing is started by pressing the menu button **PLAY**. If you press **PAUSE** (11) the unit will go into the pause mode until **PLAY** or **STOP** is pressed.

The actual state (**PLAY, PAUSE, STOP**) is shown on the display (10). Furthermore, the display shows the actual playing time, the actual title number and the total number of titles.

2.5.3 SKIP / SEARCH (selecting a title, search mode)

Using the menu buttons [**<<** or **>>**] (**SKIP**) you can easily access any title on the disc. When you press one of the **SKIP** buttons for longer than a second while the unit is playing, the CD Player will start to play in fast forward or reverse mode as long as the current track is playing.

2.5.4 Repeat

To choose from one of the available **REPEAT** modes, press the **MENU** button under the display. Now, select one of the following **REPEAT** modes: **ONE** repeats only the currently selected title. **ALL** repeats the entire CD or an individually programmed playlist (see next section 0).

2.5.5 Programing an individual playlist

To program your individual playlist, insert a CD into the slot-in drive (4) and proceed as follows:

Press the **MENU** button under the display for more than two seconds to enter the Playlist menu (a currently playing CD will be stopped). On the upper left side of the display, the currently selected title of the CD is shown (**TRCK**). Below, the playing time of the title (**TIME**). Pressing the menu < **SELECT** > allows you to select a title.

Pressing the menu button **ADD** adds the selected title to the playlist. The display shows on the upper right side the number of the programmed titles (**PGM-QTY**). Below, the playing time of the programmed list (**P-TIME**) is shown.

NOTE: The program function is only available while the player is stopped. The maximum number of programmed tracks is 99, the maximum program duration is 99 minutes. In case the level setting is active (see section 0), you need to exit first.

Example: An inserted CD contains 15 titles. You want to play only the titles 7, 3 and 8 in that order.

- Press the **MENU** button for more than two seconds. The display now shows "TRCK 1/15" in the upper left corner and "PGM-QTY 0" indicating that none of the 15 available titles have been added to the playlist yet.
- Select title 7 using the menu buttons < **SELECT** >. The display now shows "TRCK 7/15" in the upper left corner.
- Now add this track to the playlist by pressing the menu button **ADD**.
- Select title 3 using the menu buttons < **SELECT** >. The display now shows "TRCK 3/15" in the upper left corner.
- Now add this track to the playlist by pressing the menu button **ADD**.
- Select title 8 using the menu buttons < **SELECT** >. The display now shows "TRCK 8/15" in the upper left corner.
- Now add this track to the playlist by pressing the menu button **ADD**.
- Now press the menu button **STORE** to finish the programming and store the playlist.

Deleting an existing playlist

Press **MENU** for more than 2 seconds. Then press **DEL PGM** and the playlist is deleted.

2.5.6 Random

To activate the **RANDOM** mode press **MENU** for more than 2 seconds. Then press the menu button **RANDOM**. Press **PLAY** to start the **RANDOM** playlist.

3 Advanced Settings (MENU)

Your device offers a wealth of custom specific settings in its **Advanced Settings** menu. To enter the menu just tap on the button **MENU**. The button now changes to **EXIT**. A second tap on this menu button leads you to the normal operating mode. When the menu system is active, you can select the desired function using the menu buttons **< ITEM >**. The setting is done using the menu buttons **< VALUE >**.

NOTE: Please note that in the **Advanced Settings** menu the available parameters depend on the currently selected input.

Please also note that when the **Advanced Settings** menu is activated, it is not possible to switch a sound source using the source selector (2), change the volume using the volume control (11) or switch off the unit. To do this, first exit the **Advanced Settings** menu by pressing the menu button marked **EXIT**.

3.1 Global settings

3.1.1 Set poweramp

Set poweramp enables you to activate or deactivate the loudspeaker outputs. Deactivating the loudspeaker outputs can, for instance, be useful if a separate power amplifier is connected.

3.1.2 Input Lvl (Input Sensitivity)

The level of signal sources often differs by several dBs. Sometimes you recognize an unpleasant step in volume, when switching between two different inputs. With the sensitivity setting menu you can avoid this.

Select a local digital or analog input (16, 17, 22) with the source selector (2) and adjust the monitoring volume to a comfortable level with the volume control (11). Check by switching to other inputs whether all levels are nearly identical. If you find a difference, press the **MENU** button. Select the **INPUT LVL** menu with the **ITEM** menu buttons. Then use the **VALUE** menu buttons to adjust the level of the selected sound source within a range of -9.5 and +9.5 dB. Press the **EXIT** menu button to exit the menu. The adjusted input level is now saved and the unit switches to normal operating mode.

By switching back and forth between the individual sources with the source selector switch (2), you can compare the set levels and adjust the sensitivity of all analog and digital inputs - including FM tuner, CD and USB - accordingly.

NOTE: Please note that all remote controls are inoperative during level adjustment. While you are making menu settings on the main unit, the optionally available **RC 9** remote control cannot be used to avoid potential operation conflicts.

3.1.3 Set balance

Set the balance between right and left channel for an optimal stereo image (+/- 9,5 dB).

3.1.4 Set tone control

Set tone control activates or deactivates the integrated sound settings menu which enables you to individually adjust the bass or treble level of a certain sound source or lets you choose from a range of available loudness curves.

Set tone control can be bypassed (**BYPASS**) or activated (**ACTIVE**). In case the **set tone control** option is activated, **TONE ON** is shown on the display (4), otherwise **LINEAR**. When switched to **ACTIVE** the sound settings menu is ready to operate but will only be enabled if one of the associated parameters such as **set bass**, **set treble** or **set loudness** is being altered. In case all three parameters are in a neutral position (**BASS = 0**, **TREBLE= 0**, **COUNTOUR = OFF**) the **set tone control** option remains ready for operation without processing the signal. You can choose if you want to change bass and treble settings simultaneously for all inputs (**GLOBAL**) or exclusively for the currently selected input (**INDIVIDUAL**). If you wish to set individual settings, a prior parameterization of the respective sound sources is required first (see 3.4.3). The loudness option depends on speakers and properties of the listening room and is therefore always set to **GLOBAL**.

NOTE: In case tone control is set to **BYPASS** the menu will skip the **set bass**, **set treble** and **set loudness** settings.

3.1.4.1 Set loudness

If you listen to music at low levels, you often recognize that bass and treble reproduction are weak. This is because the human ear is not sensitive to bass and treble at low sound levels. To compensate this, you can use the parametric loudness function which will increase bass and treble levels as soon as the volume is decreased. When the volume is increased the frequency response will be more and more flat and remain linear at high volume levels. In order to obtain best results, we recommend you proceed in the following way: Set the amplifier to a moderate volume level. Go to the menu **set loudness** and use the menu buttons **< VALUE >** to choose from one of the available 9 loudness curves ("OFF", 1-9) which provides the best sound impression and exit the menu with the button **EXIT**.

NOTE: The loudness function selects automatically the correct loudness curve depending on the actual volume setting. That is why a different curve than the previously selected one may be shown in the loudness menu as soon as you alter the volume. This is not a malfunction.

3.1.4.2 Set treble

Set treble level between - 7 dB and + 7 dB. A global treble setting (see section above) is indicated on the display with **GLOBAL**, otherwise **INDIVIDUAL**

3.1.4.3 Set bass

Set the bass level between – 7 dB and + 7 dB. A global bass setting (see section above) is indicated on the display with **GLOBAL**, otherwise **INDIVIDUAL**.

3.2 Line Settings (XLR, RCA)

3.2.1 Set input attenuation

Set input attenuation allows for an attenuation of 6 dB of the selected line input (16, 17) which corresponds to an electrical halving of the incoming level. Activating this function might be useful when CD players with particularly high output levels are used which otherwise cause unwanted distortion. Take particular care when using CD players of Japanese oder American manufacturers which are known for producing exceptionally high output levels which cannot be compensated by a simple adjustment of the input sensitivity (see 3.1.2). In this case, a dedicated relais is switched as soon as **set input attenuation** is activated to allow the use of respective components with output levels.

3.3 Digital inputs (COAX, OPTO, USB)

3.3.1 Samplerate and filter setting

After selecting a digital input, the currently selected filter setting and sample rate will be shown in the upper left area of the display.

3.3.2 Set samplerate

By pressing a **VALUE** menu button once or several times, you can choose between available sample rates for the selected digital input.

If the **BYPASS** option is selected, the display shows **NAT** and the corresponding sample rate in the upper left corner while in general operating mode to indicate that the signal is processed natively and without additional upsampling or downsampling.

CNV, on the other hand, stands for **Conversion** and indicates an active up- or downsampling to the selected and displayed sample rate.

NOTE: For **USB**, only the two settings **NATIVE STEEP** and **NATIVE SMOOTH** are possible (see also following section).

3.3.3 Set filter

By pressing the two menu buttons **VALUE** one or more times you can choose between available filter settings for the selected digital input.

The digital filter settings **SMOOTH** and **STEEP** can be set according to your personal preference. Technically speaking, the setting **STEEP** indicates a steep filter characteristic at the upper end of the frequency band, leading both to a flat amplitude frequency response and a rather strong phase rotation. **SMOOTH** however leads to a less steep filter characteristic by showing a slightly earlier attenuation of the amplitude frequency response with almost no phase rotation.

Please note that a chosen filter setting is only true for a selected input and is being recalled every time you select the respective input again, even after the device has completely been switched off.

3.3.4 Set resolution (USB B input)

With **USB B** digital input selected and a digital source connected (such as your PC or Mac), you have the option to switch between **LOW RES** and **HIGH RES** modes using the **VALUE** menu buttons.

LO RES can be used to play back a digital input signal with a sample rate of up to 96kHz without the need for an additional audio driver on your Windows PC or Mac.

HI RES can be used to play back a digital input signal with a sample rate of up to 384kHz/24Bit (PCM) without the need to install an audio driver on your Mac. If you are using a Windows PC you will need to install an additional driver which is available for download on the respective product page at www.avm.audio.

Please note that you need to select the **HI RES** mode in order to play back DSD64 or DSD128 files.

3.4 Personal Setup

The **Personal Setup** offers you a number of additional setting options to adapt the device to your personal needs. To call up the **Personal Setup**, switch off the device completely using the power switch on the rear panel (30). Now hold down the menu button on the right below the display and switch the device on again with the power switch (30). As soon as the display first shows **Entering setup** and then ***** personal setup *****, the menu button can be released.

Use the menu buttons **ITEM** to select a desired menu item and press the menu button **SELECT** to enter the corresponding submenu. With the menu buttons **< VALUE >** you can now change the setting of the selected function. Pressing the menu button **BACK** returns you to the main menu to select further menu items of the **Personal Setup** via the menu buttons **ITEM**. Press the **EXIT** menu button to exit the **Personal Setup**. The settings made are now saved (**Exit & Save Settings** appears in the display). Afterwards the device performs a reboot and is ready for operation again.

3.4.1 Set volume limit

With this menu item you can limit the maximum output volume up to 50%. This feature can be useful to avoid rapid volume jumps caused e.g., by accidental misuse of the volume control in the **RC X App** for iOS and Android. The default setting is 70% and is intended as a protection mechanism to protect other components in your system (e.g., speakers) and last but not least your ears from drastic volume jumps which can be triggered e.g., by accidentally operating the volume control of the **RC X App** for iOS and Android.

3.4.2 set display brightness

Sets display brightness 25% to 100%.

NOTE: The setting 100% can lead to "burn in" effects on the display if the unit is operated in this setting for a very long time. In order to avoid such "burn in effects" please switch the unit to stand by, if not in use.

3.4.3 Bass & treble control

Choose if you want to change bass and treble settings (see section 3.1.1) globally for all inputs (**GLOBAL**) or only for the actual input (**INDIVIDUAL**).

3.4.4 skip unused inputs

Deactivate unused inputs (**SKIPPED**). The unit will then skip these inputs when the source selector (2) is turned or if you select a sound source via the optionally available **RC 9** remote control or the free [RC X App for iOS and Android](#).

3.4.5 define input names

You can individually set the names (max. 8 characters) of the different sources shown in the display (10). Proceed as follows:

Press **SELECT**. With the menu buttons **< ITEM >** you can now select an individual input in order to alter its name. The display now shows on the left side the old name, on the right side the new name. The character to change is marked by an underscore. The menu buttons **< POS >** select the position of the character to change. The marked character can be set using the volume knob (11). When you are ready, simply press the menu button **BACK** and the new input names are stored.

3.4.6 gain fix / variable

If a surround system is connected to the device, specific settings such as channel balance, tone settings and bass management are controlled by a separate decoder. These settings may not be altered by other components in order to maintain the balance of all channels. For this application, your device offers the **gain fix** function by both passing through the signal with a fixed gain setting and bypassing all sound control settings (see 3.1.1). The gain fix function is available for both the analog XLR and RCA inputs (16, 17) and the digital inputs (22). In addition, all tone control settings (e.g. **BASS**, **TREBLE**, see 3.1.4) are disabled - regardless of whether you change the volume of the other inputs or their sound setting or balance setting.

The gain fix function is also available for the digital inputs **COAX**, **OPTO1** and **OPTO2**. In contrast to the analog inputs, however, the sound settings (e.g. **BASS**, **TREBLE**) and the balance setting are active here. This function is useful, if a sound source with its own volume control is connected to a corresponding digital input (e.g. Sonos).

3.4.7 Set autoplay

When **set autoplay** is activated, the CD player will start playing automatically every time a CD is inserted. If **set autoplay** is deactivated, the player will read the TOC of the inserted disc and then go to **STOP** mode.

3.4.8 Set IR control

In addition to control the device via the optionally available **RC 9** remote control or the free [RC X App for iOS and Android](#), a range of essential functions can also be controlled via the classic RC 3 or RC 8 infrared remote controls. In order to receive a respective infrared signal of the RC 3 or RC 8, please make sure to activate the **set ir control** function (**ON**).

3.4.9 Set auto standby

To save energy, the unit is equipped with a circuit that automatically puts the unit into standby mode if there is no music signal on the currently active input for more than 20 minutes. This

function is activated (**ACTIVE**) by default and can be deactivated permanently with this menu item (**NOT ACTIVE**).

The selected setting is permanently stored when leaving the **Personal Setup**, but can be changed at any time by calling up the **Personal Setup** again.

3.4.10 Set standby mode

To ensure your AVM device can be switched on at any time via the [RC X App for iOS and Android](#), the integrated AVM X-STREAM Engine® remains in constant operational readiness when the **net Standby** mode (network standby) is selected. Please note that this increases the power consumption of your device. If you want to save this power, select the **Standby** mode in this menu. To switch on the unit again when in Standby mode, press the power button (1), because the [RC X App for iOS and Android](#) cannot detect the unit in the selected mode.

3.4.11 Set WLAN via WPS

Set WLAN via WPS allows you to easily set up a wireless network connection (WLAN / WiFi). For step-by-step instructions, see section 1.14.2.1.

3.5 Reset (Factory Settings)

The **Reset** option offers you the possibility to reset the device to its original factory settings. To perform a reset, first switch the device to standby mode using the on/off button (1) and then switch it off completely using the mains switch (30). Now keep the **RESET** button (26) pressed while switching on the device with the mains switch (30). Keep pressing the **RESET** button (26) until the **Status LED** (28) starts blinking briefly after a few seconds. As soon as the **Status LED** (28) goes out and stops blinking, you can release the **RESET** button (26). The device will now perform a reset to its factory settings and restart to its general operating state.

Alternatively, a factory reset can also be performed using the [RC X App for iOS and Android](#) or the **RC 9** remote control. To do this, select the menu item **Reset device** in the **Settings** of the **RC X App** or the **RC 9** remote control and confirm the reset. The device will now perform a reset to its factory settings and restart to its general operating state.

4 Appendix

4.1 Cleaning

Use a soft cloth and normal glass cleansing fluid. **CAUTION:** Make sure that no fluid comes into the unit. Do not use scouring cleaners. They may damage the surface.

4.2 Troubleshooting

Some putative defects are often caused by mistakes in operation. Sometimes other units connected to the amplifier can cause problems. We therefore kindly ask you to read the following tips before consulting your dealer or us.

1. No playback

- a) Mute function is active, press button MUTE on your remote control or increase the volume using the rotary encoder (11).

2. Inadvertent switching to stand by

- a) Press power button (1). If the Standby LED (3) and display do not light up a fuse can be blown due to overvoltage (e.g. in case of a thunderstorm etc.). Please contact your dealer.

3. RC 9 remote control doesn't work

- a) Charge the included lithium-ion battery of the optionally available **RC 9** remote control.
- b) Point with the remote control transmitter directly to the unit.
- c) Reconnect the **RC 9** remote control with your device. This process is also referred to as **Pairing**. In order to start the pairing process, please follow the instructions as described in section 1.12.1.

4. Distorted sound after connecting a CD player

- a) Activate **set input attenuation** (see section 3.2.1)

5. The display shows „no disc“, although a CD is inserted

- a) Please make sure the CD is not a data disc, has not been damaged and is inserted with the correct side facing up
- b) Please clean your CD with a soft cleaning cloth.

6. CD forced ejection

If it should happen that a CD gets stuck in the unit, a forced ejection is provided:

- a) Switch off the unit via the mains switch (30).
- b) Keep device keys (5) and (9) pressed and switch on the device via the mains switch.
- c) Keep the device keys pressed until the CD is ejected.

4.3 Conditions of warranty (EC only)

If despite expectations a defect occurs that cannot be repaired by yourself or your dealer, we undertake the repair of your unit free of charge for up to three years from date of purchase. The warranty covers the costs of material and working time, transport costs are to be borne by the owner.

Provisions for this warranty are:

- The unit must have been purchased from an authorised dealer. Equipment from other sources will not be repaired, not even at charge.
- The warranty registration card, together with a copy of the bill of sale, must be received by us within four weeks of the date of purchase.
- The defect must not have been caused by improper handling or misuse.
- Return the unit to us only in its original packing. If this is not possible, we are entitled to refuse acceptance. We will not assume responsibility for transport damage under any circumstances.
- A short description of the defect is to be included with the returned unit.
- In cases of doubt we reserve the right to request a copy of the bill of sale.
- We also reserve the right to levy a handling charge for items returned without good or valid reason, or if the unit proves to be not defective.

NOTE: If you are returning the unit from a country other than Germany you should ensure that correct export documents are obtained. We cannot accept any charges for costs arising from improper or incomplete export documentation.

If you have purchased your unit from a dealer outside Germany, please refer to him or the relevant importing firm to process the warranty.

5 Specifications

5.1.1 Power amplifier

Amplification factor	30
THD	< 0.005%
Signal-to-noise ratio	> 95dB
Input sensitivity	1,2V
Output power	2x 500W (4W) / 2x 250W (8W)

5.1.2 Pre-amplifire (analogue)

Input impedance (RCA)	10k Ω
Input impedance (XLR)	20k Ω
Output impedance (RCA: PRE, LINE)	47 Ω
Output impedance (XLR)	94 Ω
Amplification factor	1
THD + N (6.3)	< 0,001%
THD + N (8.3)	< 0.02%
Signal-to-Noise ratio	> 98dB
Crosstalk (channels)	> 100dB
Crosstalk (inputs)	> 87dB
Input level (1% THD, max.)	4,3V
Output level PRE OUT (1%THD, max.)	5,4V
Output level LINE OUT (max.)	2,5V
Frequency response (6.3)	< 0Hz to > 70kHz
Frequency response (8.3)	< 5Hz to > 30kHz

5.1.3 Headphone Amplifier

Output resistance	15 Ω
Amplification factor	3,0
THD + N	< 0,002%
Signal-to-noise ratio	> 97dB
Output level (1% THD, max)	6,5V

5.1.4 CD player

Playable formats	CD Audio, CDR (according to Red Book standard)
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5.1.5 Network

LAN port (hot pluggable)	100 Mbit/s
Supported WLAN/ Wifi Standards	2,4/ 5GHz/ 802.11a/b/g/n/ac
Number of antennas	2
WPS	yes

5.1.6 Streaming

Max sampling rate	DSD128, 32 bit/384 kHz PCM
Streaming Services	AirPlay, Qobuz, Roon, Spotify, TIDAL, HighResAudio
Supported file formats	WAV, MP3, WM, AAC, FLAC, ALAC, DSD, Ogg, AIFF

5.1.7 Bluetooth

Bluetooth Standard 4	2
Supported Bluetooth profiles	AVRCP 1.5, AD2P

5.1.8 USB-A input

USB Standard	USB 2.0
Max. Current	500 mA
Supported formatting	FAT16, FAT32, NTFS

ATTENTION: The USB input is intended exclusively for hard disks and USB sticks!

5.1.9 Digital inputs (S/P-DIF / Coaxial)

Max Sample/Bit Rate (OPTO)	96 kHz / 24 Bit
Max Sample/Bit Rate (COAX)	192 kHz / 24 bit
Min. signal level [Vpp] at 192kHz (COAX)	> 150 mVpp
Input impedance (COAX)	75 Ω
Deemphasis (OPTO, COAX)	Yes, automatic

NOTE: When using the digital inputs, the cable length of the digital cables should not exceed three meters.

5.1.10 Digital outputs (S/P-DIF / Coaxial)

Max Sample/Bit Rate (OPTO)	96 kHz / 24 Bit
Max Sample/Bit Rate (COAX)	192 kHz / 24 bit
Output impedance (COAX)	75 Ω

NOTE: When using the digital outputs, the cable length of the digital cables should not exceed three meters.

5.1.11 Control

Trigger output (2x)	12V
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NOTE: Please use a standard 3.5mm mono jack cable for the trigger connections.

5.1.12 Power consumption

Power supply	100V-240V / 50Hz-60Hz
Standby power	< 1.0 watts
Network Standby power	< 4.0 watts
Power consumption at idle	< 35 watts
Power consumption, max	1000 watts
Fuse used (power amplifier)	T 6,3A
Fuse used (power supply)	3x T3,125A

5.1.13 General

Weight	13 kg
Dimensions (WxHxD)	430 x 122 x 350
Warranty	2 years + 2 years for online registration (Warranty periods may vary in other sales countries)

NOTE: Energy consumption in stand by mode

To power up your AVM device at any time via the [RC X App for iOS and Android](#), the integrated AVM X-STREAM Engine® remains in standby mode and is always ready for operation. Please note that the power consumption is not below 1 Watt as usual, but increases to about 4 Watt. If you want to save this energy, switch off the unit completely with the rear mains switch (34) after switching to stand-by mode.

Changes reserved without notice.
2023/02/07.