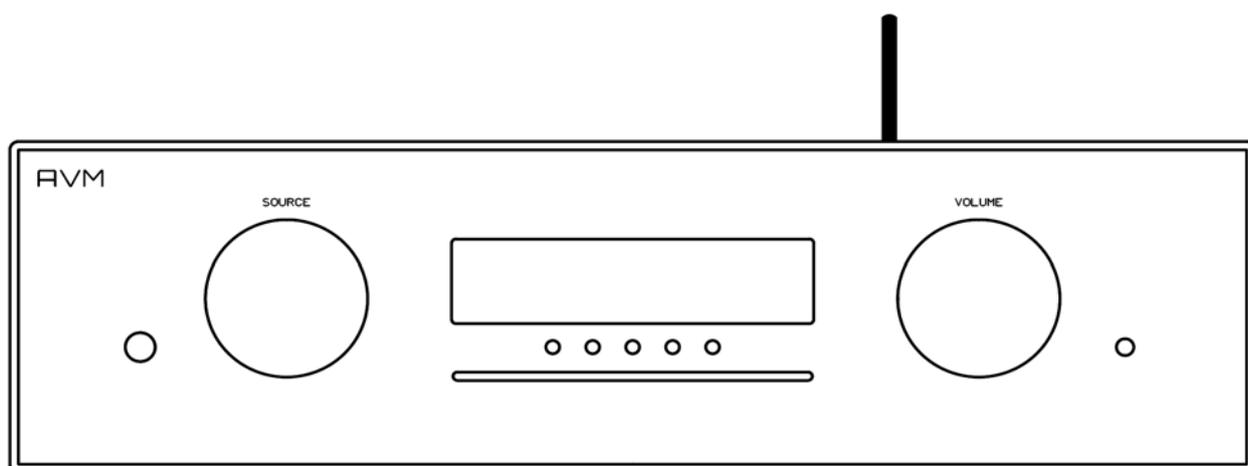


Operating instructions

OVATION CS 6.2

OVATION CS 8.2



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

Dear customer

Thank you for purchasing this AVM product. You now own a versatile, excellent sounding high-end component. Before enjoying your music, please read this manual carefully. After that you will know how to use your new CS 6.2 / 8.2 in the optimal way.

Please note: The range of functions of your AVM hifi component can be easily expanded by means of a software update at any time. Hence, the present operating instructions will require continued updates going forward. You can always download the most current version from our website at www.avm.audio.

Sincerely yours,

The AVM Team

Table of contents

1	Getting started	6
1.1	What's in the box?	6
1.2	Control and operating elements	6
1.3	Installation and cooling	7
1.4	Connection to mains	7
1.5	Connections of analog sources	8
1.6	Connection of digital sources	8
1.7	Connection of analog recording devices	8
1.8	Connection of digital recording devices	8
1.9	Connecting a subwoofer	8
1.10	Connecting loudspeakers	8
1.11	Tuner antenna	9
1.12	RC 9 remote control	9
1.13	RC S App for iOS and Android	9
1.14	Network installation (LAN, WiFi)	9
1.15	Software updates	14
2	Basic operation	15
2.1	First operation / self test	15
2.2	Switching on / stand by	15
2.3	Selecting the signal source	15
2.4	Volume settings	15
2.5	Digital inputs (COAX, OPTO, USB)	16
2.6	CD Player	17
2.7	Bluetooth	20
2.8	FM Tuner	20
3	Advanced Settings	22
3.1	Global settings	22
3.2	Line Einstellungen (XLR, RCA)	23
3.3	FM Tuner	24
3.4	Personal Setup	24
3.5	Reset	27
4	Appendix	28
4.1	Cleaning	28
4.2	Troubleshooting	28
4.3	Conditions of warranty (EC only)	29
5	Specifications	30
5.1	Preamplifier	30
5.2	Amplifier	30
5.3	Digital input	30
5.4	Bluetooth	30
5.5	FM Tuner	31
5.6	CD-Player	31
5.7	Streaming	31
5.8	Miscellaneous	31

1 Getting started

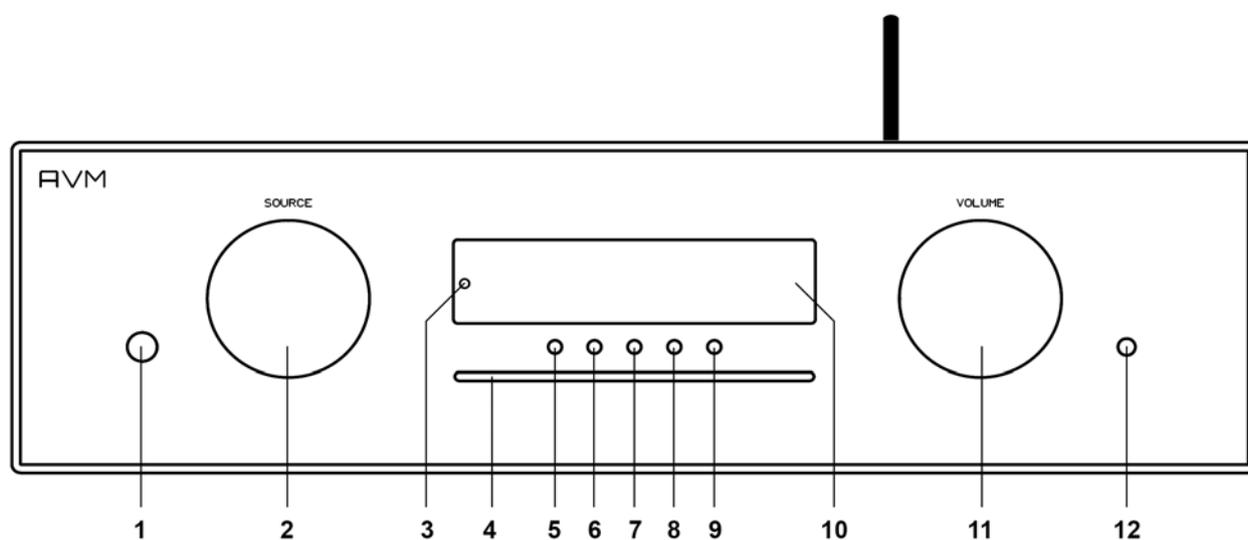
1.1 What's in the box?

- **OVATION CS 6.2 / 8.2 Compact Streaming CD-Receiver**
- **WiFi antenna**
- **Power cord (in some countries)**
- **Optional accessory: RC 9 remote control with docking station, power supply unit, USB charging cable**

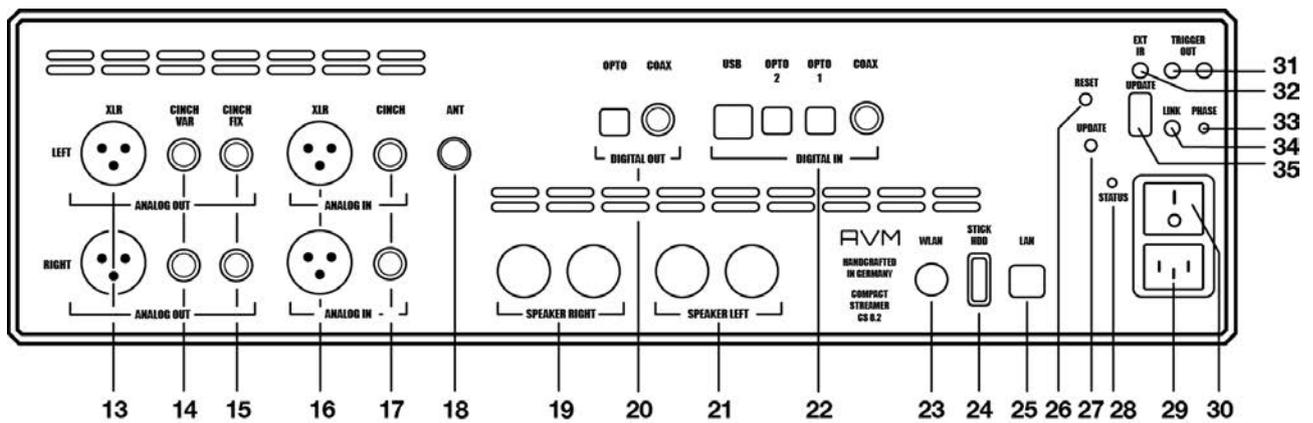
CAUTION: After unpacking, please check the scope of delivery to ensure that all parts have been supplied and are undamaged. In case the original packing has already been opened, please contact your local dealer. Often, your dealer prepares your new device prior to delivery to adapt and change the configuration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

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**.

1.5 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 edited 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 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 S App for iOS and Android

The RC S 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. The RC S 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).

1.14 Network installation (LAN, WiFi)

In order to use the variety of integrated streaming functions such as **Music Server** (local NAS drives etc.) or **Online Services** (**TIDAL**, **Qobuz**, **Webradio**, **Podcasts**) your device needs to be connected to the internet via a router in your local home network. You can choose from a wired

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

LAN connection (25) or a wireless WiFi connection. In order to use the wireless WiFi connection of your device, the included WiFi antenna needs to be installed first (23).

LAN vs. WiFi

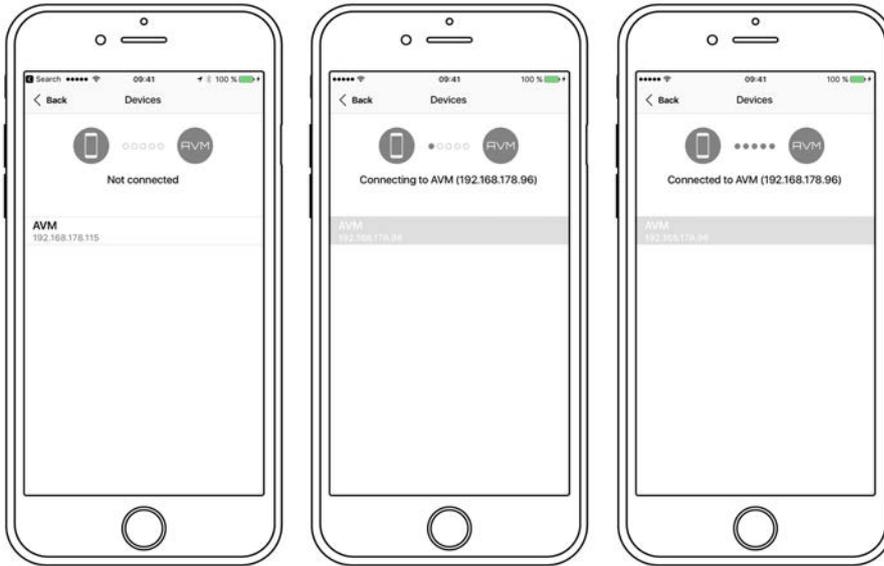
Before using the wireless WiFi functionality of your device, an initial set-up of a wired LAN connection is mandatory. This non-recurring step is required to set-up an initial WiFi connection between your device and the RC S App via your local home network.

NOTE: To ensure a smooth WiFi operation of your device, it is highly recommended to remove the LAN cable after the initial set-up process described in section 1.14.2 has successfully been completed. This is because a wired LAN connection is always prioritized by the device which automatically leads to a wired LAN connection as soon as a LAN cable is connected at a later time and the device has been restarted by switching it off and on again via the mains switch on the rear side of the unit (30).

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

- ✓ Please switch off the device on the rear side of the unit (30).
- ✓ Plug a LAN cable from your local router into the LAN port of the device (25).
- ✓ Switch on the device on the rear side of the unit (30). Wait until the device has started and went into stand by mode. Now, switch it on with the power button on the front side (1).
- ✓ After a brief starting process, your device automatically connects to your local home network and is ready to be operated via the [RC S App for iOS and Android](#).
- ✓ Launch the RC S App on your smartphone or tablet. The RC S App will now automatically search and list all available AVM devices in your local network with their respective device name and IP address (e.g. "192.168.xxx.x" etc.).



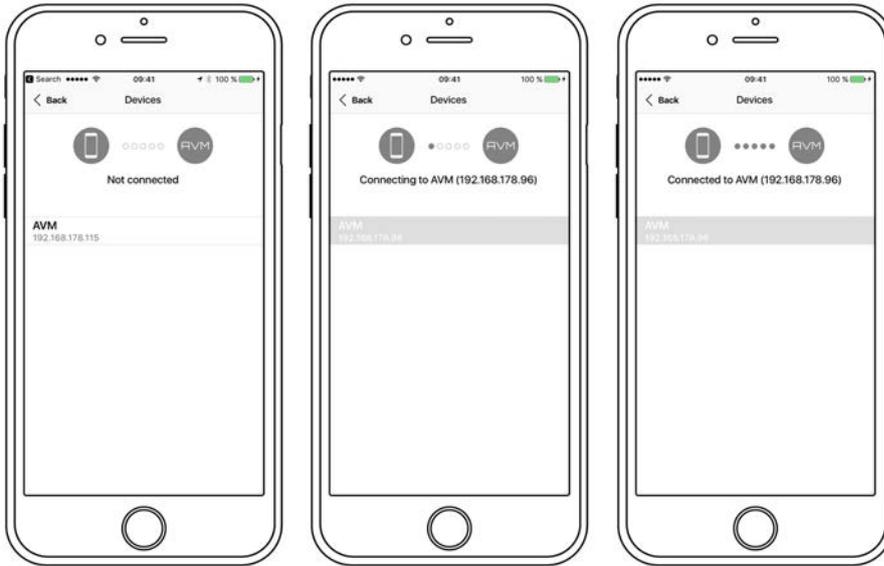
- ✓ Choose an available device and wait until a connection is established.

1.14.2 Setting up a wireless WiFi connection

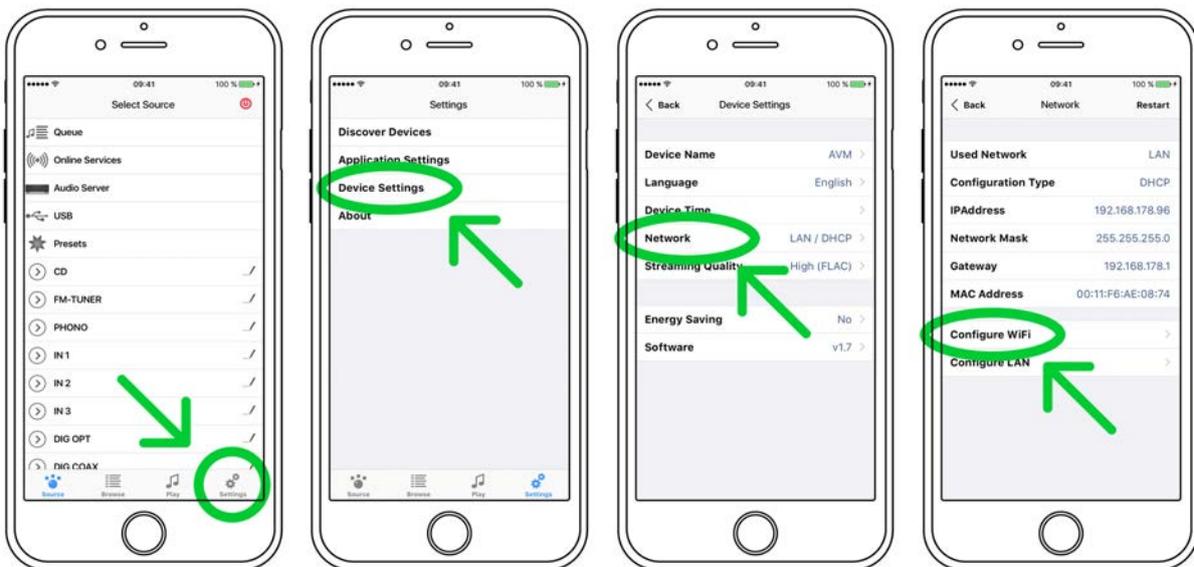
To set up your device with a wireless WiFi connection, you need to download and install the free [RC S App for iOS and Android](#) or use the optionally available RC 9 remote control. The following instructions refer to the installation process by use of the RC S App. For details on how to connect your device with the RC 9 remote control, please refer to section 1.12.1. A detailed description of the entire functionality of the RC 9 remote control can be found in a separate manual on the AVM website at www.avm.audio.

NOTE: Before using the wireless WiFi functionality of your device, an initial set-up of a wired LAN connection is mandatory. This non-recurring step is required to set-up an initial WiFi connection between your device and the RC S App via your local home network.

- ✓ Please switch off your device on the rear side of the unit (30).
- ✓ Plug a LAN cable from your local router into the LAN port of your device (25).
- ✓ Switch on the device on the rear side of the unit (30). Wait until the device has started and went into stand by mode. Now, switch it on with the power button on the front side (1).
- ✓ After a brief starting process your device automatically connects to your local home network and is ready to be operated via the [RC S App for iOS and Android](#).
- ✓ Launch the RC S App on your smartphone or tablet. The RC S App will now automatically search and list all available AVM devices in your local network with their respective device name and IP address (e.g. "192.168.xxx.x" etc.).



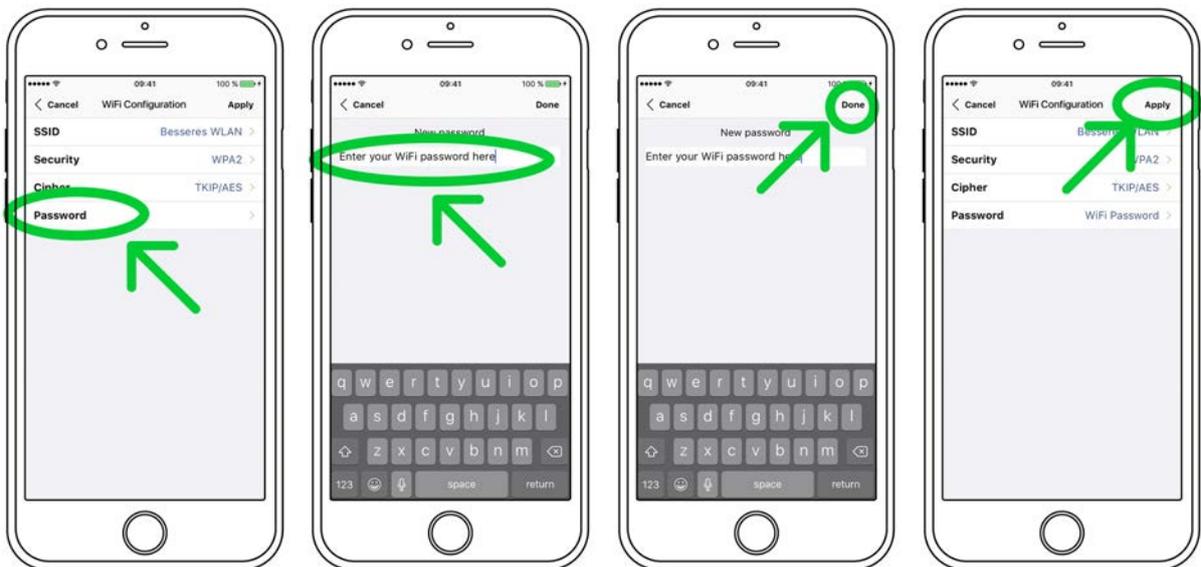
✓ Choose an available device and wait until a connection is established.



✓ Navigate to the **Settings** tab on the RC S App and choose **Device Settings / Network / Configure WiFi**.



- ✓ After you have selected the **SSID** menu option, you will be provided with a list of all available WiFi networks. Choose a WiFi network and select a respective **Security** and **Cipher** setting.



- ✓ Choose the menu option **Password** and enter your WiFi password. Confirm with **Done** at the upper right-hand corner. Now, confirm your WiFi settings with **Apply** at the upper right-hand corner.
- ✓ Under **DHCP**, you will be asked if your device should obtain an IP address automatically (if yes, please make sure the **DHCP** option is activated). Now, confirm your choice with

Apply at the upper right-hand corner and **remove the LAN cable from the LAN port (25) right afterwards.**

CAUTION: Unless your local home network has been configured with static IP addresses, we highly recommend to activate the **DHCP** option.

- ✓ The integrated streaming module of your device will now restart. This process can take up to 30 seconds. Please make sure to not switch off the device while it is restarting (which is happening under the hood without any indication on the display of the device).
- ✓ The device is now connected with your wireless WiFi network.

PLEASE NOTE: When switching from a wired LAN connection to a wireless WiFi connection or vice versa, a restart of the integrated streaming module is always required. To restart the streaming module via the RC S App, please go to the **Settings** tab, choose **Device Settings, Network**, and press the **Restart** button on the upper right-hand corner. Switching off the device on the rear-side with the mains switch (30) also causes a restart of the integrated streaming module.

1.15 Software updates

To get the most out of your AVM HiFi streaming system, please make sure you always keep the RC S App and the streaming software of your device up-to-date. You can download the latest version of the RC S App in the [Apple App Store](#) or the [Google Play Store](#). To check whether your device runs the latest version of the streaming software, please make sure the device is connected to the internet (see section 1.14) and follow the instructions below.

- ✓ **Streaming software update via the RC S App:** Navigate to the Settings tab and choose *Device Settings / Software / Check for Updates*.
- ✓ **Streaming software update via the RC 9 remote control:** Navigate to the *Receiver Settings* menu and choose *Software / Update*.

2 Basic operation

2.1 First operation / self test

In case the device was not connected to mains a self test will be performed when it is switched on by the mains switch (30) for the first time. The unit will check its configuration and that all the installed components work properly. The procedure is shown in the display. Afterwards the unit will switch to stand by.

2.2 Switching on / stand by

Using the button power (1) you can switch between on (operate) and stand by. When switched on, the display (10) lights up and the LED (3) is off. In stand by mode the display is off and the LED is on to indicate that the unit is still connected to mains.

Tube warmup (CS 8.2)

Due to the warm-up phase of the integrated tube line stage, the power-on time of the CS 8.2 is extended by approx. 30 seconds.

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 the signal source

A local signal source (e.g. analog inputs, digital inputs, CD) can be selected by turning the source selector (2) until the desired source appears on the display. Other sources such as **Online Services (TIDAL, Qobuz, Webradio, Podcasts), Music Server** or **USB (STICK HDD)** (24) can only be accessed via the optional RC 9 remote control or the free [RC S App for iOS and Android](#).

CAUTION: If you switch to another source while playing a CD, the drive will stop first. This may take a few seconds. If you activate a digital input that has no valid signal, **NO DIG SIGNAL** is shown on the display (10).

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 2 dB steps.

2.4.1 Input sensitivity (Level Setting)

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.

Use the source selector (2) to choose an input (16, 17, 22) and set the volume to a convenient level. If you now notice an unpleasant increase or decrease in volume, after switching to another local input by turning the source selector (2), press the menu button **MENU** under the display for more than 2 seconds. The button is now marked **EXIT LVL**. Now you can switch between different sources and adjust the levels by using the volume knob (11). The sensitivity of each input can be adjusted between – 9.5 dB and + 10.0 dB. Pressing the menu button **EXIT LVL** under the display again will exit the level setting mode and bring the unit back to normal operating mode.

NOTE: While the level setting mode is active the unit will not respond to any RC 9 remote control command.

Level adjustment of digital inputs

Please note that in order to adjust the input sensitivity of a digital input (22), a digital signal must be connected to the respective input. If you activate a digital input that has no valid signal, **NO DIG SIGNAL** is shown on the display (10) and the sensitivity setting menu is deactivated.

To adjust the input sensitivity of the **CD Player** or **FM Tuner***, please choose an analog or digital input (e.g. **XLR** or **COAX**) and keep the menu button **MENU** under the display pressed for more than 2 seconds. Now switch to the **CD Player** or **FM Tuner** by turning the source selector (2) and adjust the volume level with the volume knob (11). The reason for the small 'detour' is that both the **CD Player** and the **FM Tuner** host dedicated menus when the menu button **MENU** under the display is pressed for more than 2 seconds:

- **CD Player:** Programming an individual playlist (see 0).
- **FM Tuner:** Station and memory (see 2.8.2).

NOTE: If you should recognize a (slightly) distorted sound while listening to a CD Player which is connected to one of the analog high-level inputs (16,17), please adjust the input sensitivity of the respective input as described above. If this won't help, please activate the function **set input attenuation** (see section 3.2.1).

2.5 Digital inputs (COAX, OPTO, USB)

2.5.1 Samplerate and filter setting

After selecting one of the digital inputs (22) the current filter setting and sample rate (44.1, 48, 88.2, 96, 176.4, 192, 352, 384 kHz) is shown in the upper left area of the display (10). By pressing the soft key **CONV** once or several times you can choose between available sample

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

rates and filter settings for the current source. **NATIVE** indicates that the incoming sample rate of the signal is being directly processed. **CONV (CONVERSION)** however indicates an ongoing upsampling or downsampling process of the incoming signal to a desired sample rate.

Please note that only the settings **NATIVE STEEP** and **NATIVE SMOOTH** are available if **USB** is selected.

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.

2.5.2 USB B input

If a digital signal from a computer (PC or Mac) is connected to the USB B digital input (22), you can choose between two different modes (**LO RES** or **HI RES**) by pressing the menu buttons 8 and 9.

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.

2.6 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.

2.6.1 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.

2.6.2 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.

2.6.3 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.

2.6.4 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).

2.6.5 Programming 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 2.4), 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.

2.6.6 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.

2.7 Bluetooth

The built-in Bluetooth (**BT**) feature allows wireless transmission of high-quality music signals from a Bluetooth player such as a smartphone, tablet or personal computer. To enable and use the built-in Bluetooth feature, a compatible Bluetooth player must be paired with your AVM device first.

2.7.1 Pairing

To activate the integrated Bluetooth (**BT**) input, use the source selector (2), the < INPUT > keys of the RC 3 / RC 8 or RC 9 remote control or the RC S App. As the Bluetooth (**BT**) input is selected, the display (10) shows **ON AIR** in the lower left area indicating a Bluetooth player may now be paired with the AVM device. Navigate to the Bluetooth menu on your player, make sure the Bluetooth feature is enabled, and start searching for available Bluetooth devices in your environment. For details on the operation of the Bluetooth functionality on your player, please refer to the corresponding documentation.

As soon as the AVM device is shown in the selection menu of available Bluetooth devices on your Bluetooth player (identifying as **AVM-x-xxxx**^{*}), select the AVM device as the audio playback device and wait a few seconds for the connection to be established. When the pairing process is completed, **CONNECTED** appears in the lower left area of the display (10) and you are ready to play music from your Bluetooth player to your AVM device.

NOTE: To prevent interference of the integrated Bluetooth antenna with other parts of your AVM device, the Bluetooth module is deactivated as soon as a different source is selected. As soon as you switch back to the Bluetooth input (**BT**), the AVM device automatically connects to the previously paired device if this is within reach.

2.7.2 Pairing of more Bluetooth players

Your AVM device can only be paired with one Bluetooth player at a time. To switch to another Bluetooth player, a currently connected player must be disconnected first. As soon as no player is connected, the display (10) shows **ON AIR** indicating the AVM device is ready to connect to another Bluetooth player.

2.8 FM Tuner^{**}

For models including an optionally available **FM Tuner**, all basic functions of the **FM Tuner** can be accessed by the menu buttons under the display (5-9). More sophisticated functions (RDS display, mono/stereo, search mode etc.) are available via the **Advanced Settings** menu (see section 0). **NOTE:** All **Webradio** features can be accessed via the optionally available RC 9 remote control or the free [RC S App for iOS and Android](#).

^{*} **x-xxx** = Serial number of your AVM device.

^{**} **FM Tuner** functionality requires an optionally available **FM Tuner Module**.

2.8.1 Tuning

Depending on the selected mode (manual / auto, see section 3.3.2) the far-right menu buttons under the display (8,9) are named < **AUT** > oder < **MAN** >. In **AUT** mode, a tip on one of the buttons lets the tuner automatically seek the next upper or lower station. In **MAN** mode, the frequency changes in 50 kHz-steps as long as the button is pressed. In this case the tuning indicator shown in the display helps you to tune correctly to the desired station. If tuning is correct it will show **locked**.

2.8.2 Station and memory

Storing a new radio station

If you want to store a certain station in the memory, press the button **MENU** under the display for more than two seconds. The display will propose the next free memory position for storage (for example: if 5 stations are already stored, position 6 will be proposed). Using the menu buttons **MOVE** you can change the position. Now press the menu button **STORE** to store at the selected memory position. If a radio station is already stored at the selected position, the new station will be saved to the respective position while moving any other station one step further.

Modifying, moving or deleting an existing station

If the tuner is set to an already stored station you can change its settings (mono/stereo, bandwidth and more), move it to a different position or delete it. First off, adjust any advanced setting for a stored radio station and press the **MENU** button under the display for more than two seconds. Using the menu buttons **MOVE** allows you to change the position of the selected station before storing with the menu button **STORE**. **DELETE** will remove the station from the memory. **EXIT** will bring the unit back to normal operating mode without changing the memory.

NOTE: The station memory allows you to store up to 63 stations. It stores not only their frequency, but also a range of individual settings such as mono/stereo, bandwidth or other.

2.8.3 Selecting a station out of the memory

By pressing one of the menu buttons < **STAT** > the stations stored in the memory can be selected. A short tip switches to the next / previous station. Holding the menu button down scans automatically up or down. The number of the actual station is shown in the display (e.g. **STAT 1**).

3 Advanced Settings

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 >**.

Depending on the actual source, the advanced settings menu offers a range of selected settings described in the following.

3.1 Global settings

3.1.1 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 3.4.2). 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.

3.1.2 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**.

3.1.3 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 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.

3.1.5 Set balance

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

3.1.6 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.

3.2 Line Einstellungen (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 or American manufacturers which are known for producing exceptionally high output levels which cannot be compensated by a simple adjustment of the input sensitivity (see 2.4.1). In this case, a dedicated relay is switched as soon as **set input attenuation** is activated to allow the use of respective components with output levels.

3.3 FM Tuner*

3.3.1 Set RDS display

Choose if the name of the radio station (**NAME**), or the frequency (**FREQUENCY**) is shown on the display.

3.3.2 Set scan mode

Set tuning mode between **AUTO** or **MANUAL**. After pressing one of the right menu buttons (8, 9), **AUTO** searches for the nearest available radio station. **MANUAL** enables you to manually search for a radio station (see 2.8.1).

3.3.3 Set 2 channel mode

Set tuner to **MONO** or **STEREO** to obtain best sound.

NOTE: Depending on the actual setting the threshold for auto tuning will change (sensitive in **MONO**, less sensitive in **STEREO**).

3.3.4 Set deemphasis

By choosing an adequate deemphasis value enhances the overall sound quality of the FM tuner through an optimized signal-to-noise ratio. Unless you are using the device in the USA, please make sure the option "EUR, AUS, JPN" is set.

3.4 Personal Setup

The **personal setup** offers a range of settings to individualize your device according to your personal needs. To enter the **personal setup** menu, please switch off your device on the rear of the unit at the mains switch (30). Keep the far right menu button under the display pressed (9) while you switch on the unit again (30). As soon as the display shows the **personal setup** menu you can release the menu button under the display. When the personal setup is active, you can select the desired function using the buttons **< ITEM >**. The menu button **SELECT** activates the function. The setting is done using the buttons **< VALUE >**. **BACK** leads you back to other settings. **EXIT** exits the personal setup and stores the settings.

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

3.4.1 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.

3.4.2 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**).

3.4.3 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 S App for iOS and Android](#).

3.4.4 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.

3.4.5 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).

3.4.6 FM auto store*

This function is useful when the optionally available FM Tuner module is installed and you would like to store a large quantity of FM radio stations from cable. Select the **FM auto store** with the menu button **SELECT** and press the menu button button **START**. While the auto store function is in progress all stations are played audibly for half a second. When the function is terminated, the display shows for 2 seconds the number when a station was found. After that, the unit comes back to normal tuner operating mode. If desired you can now shift certain stations to different positions, change the settings and store back or delete unwanted stations (see 2.8.2).

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 S 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**).

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

3.5 Reset

3.5.1 Factory default settings

The **RESET** menu cancels certain or all hardware settings and makes the unit return to its factory default settings.

To enter the **RESET** menu, please switch off your device on the rear of the unit at the mains switch (30). Keep the middle menu button under the display pressed (7) while you switch on the unit again (30). As soon as the display shows the reset menu you may release the menu button (7). Select if you want to only clear the FM radio station memory (**STAT**), individual input names (**NAMES**) or reset the unit completely (**ALL**). **CANCEL** will bring the unit back to normal operating mode without resetting any item.

NOTE

Stored settings of the internal network & streaming module of your AVM device are not affected by a factory default reset as described above. To reset the network & streaming module of your AVM device, please follow the instructions in the following section.

3.5.2 Network & Streaming Module Reset

To perform a reset of the integrated network & streaming module, please switch off your device at the mains switch (30). Keep the **RESET** button (26) pressed while you switch on the unit with the mains switch (30). As soon as the **Status LED** (28) stops flashing, you may release the **RESET** button (26). As indicated on the display (10), the device now switches to stand-by mode which may take a little longer than usual. The reset is now complete. You may subsequently turn on the device with the power button on the front of the unit (1).

The following settings will be reset to the factory defaults:

1. Network settings (e.g. stored WiFi passwords etc.)
2. Language is set to English (App)
3. Stored **Presets** are deleted

The following settings will **NOT** be reset or deleted:

1. Streaming service accounts such as **TIDAL** and **QOBUZ**
2. **Webradio** history
3. Stored **Favorites**

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 LED indicator 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

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

6. AVM device is not detected or listed by the RC S App for iOS & Android after it has been switched to stand-by overnight or for a longer period of time

- a) Please make sure to **avoid WiFi Standard 2,4 GHz / 802.11n+g** in the administration panel of your local WiFi router and select one of the supported WiFi Standards instead (2,4 GHz / 802.11b+g or 2,4 GHz / 802.11n+g+b).

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 Preamplifier

Sensitivity (1V output voltage)	20 mV bis 360 mV (adjustable)
Input impedance	6,8 kOhm
Input sensitivity	3,6 V

5.2 Amplifier

Output power	> 2 x 500 Watt (4 Ω)
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5.3 Digital input

Samplerate	upsampling / downsampling (switchable up to 384 kHz/32Bit)
Frequency response	<20 Hz – 80 kHz (depending on input frequency)
Deemphasis	yes, automatically
Input format Dig in opt/coax	SPDIF, 44.1 kHz – 96 / 192 kHz /16-24Bit
USB B input	asynchron, galvanically isolated
PCM (without driver)	up to 96 kHz /24Bit
PCM (with driver)	up to 384 kHz /32Bit
DSD (with driver)	DSD64 (2,8 MHz) and DSD128 (5,6 MHz)
USB A	
Supported file systems	FAT, FAT32

5.4 Bluetooth

Standard	v4.2
Supported codecs	SBC, Faststream, MP3, AAC
Samplerate (adaptive)/ Resolution	Max 96 kHz/16Bit
Frequency response	20 Hz – 20 kHz
Signal-to-noise-ratio	96 dB

5.5 FM Tuner*

Frequency range	87,5 - 108,0 MHz
Tuning step	50 kHz
Input impedance antenna	50 Ω
Sensitivity (mono / stereo)	1,5 μ V / 50 μ V
S/N mono / stereo	73 dB(A) / 68 dB(A)
THD mono / stereo	0,1% / 0,3%
Frequency response	30 Hz - 16 kHz
Channel separation	55 dB

5.6 CD-Player

Formats	CD Audio, CDR (according to red book standard)
Sampling Frequency	Upsampling to 192 kHz /24Bit
Frequency response	<20 Hz – 20 kHz
Deemphasis	yes, automatically

5.7 Streaming

Supported WiFi Standards	2,4 GHz / 802.11b+g 2,4 GHz / 802.11n+g+b
Streaming Formats	MP3, WMA, AAC, OGG Vorbis, FLAC (192/24 via LAN), WAV (192/24 via LAN), AIFF (192/24 via LAN), ALAC (96/24 via LAN)
Supported Formats	UPnP, 1.1, UPnP-AV and DLNA compatible Server, Microsoft Windows Media, Connect Server (WMDRM 10), DLNA compatible Server: NAS
Streaming Services	QOBUZ, TIDAL (currently up to 16Bit/44.1kHz)
Radio Database	Airable

5.8 Miscellaneous

Supply voltage	230 V / 50 Hz / 450 VA (Stand-by mode <6 VA)
Dimensions (W x H x D)	430 mm x 130 mm x 355 mm
Weight	12 kg (depending on configuration)

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

NOTE: Energy consumption in stand by mode

In order to control your device with the optional RC S remote control or the free [RC S App for iOS and Android](#), the integrated streaming module of the device always remains ready for operation even in standby mode. Please note that this results in a higher energy consumption of about 5,5 VA (instead of 0,5 VA). In order to save this energy, the device needs to be switched off on the rear side of the unit (34) after going into standy mode.

Changes reserved without notice.
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