**Operating instructions** 

# **EVOLUTION CS 5.2**





# Caution

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

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

CLASS 1 LASER PRODUCT LASER KLASSE 1

# 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

# CE

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 hifi component. Before enjoying music, please read this manual carefully. After that you will know how to use your new CS 5.2 in the optimal way.

Please note that 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 you can always download the most current version from our website at **www.avm.audio**.

Sincerely yours,

The AVM Team

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# **1** Getting started

- **1.1 What's in the box?** 
  - EVOLUTION CS 5.2 Compact Streaming CD-Receiver
  - WLAN antenna
  - Power cable
  - 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)
- 2 Source selector
- 3 Control LED
- 4 CD slot
- 5 Multifunctional button (soft key)
- 6 Multifunctional button (soft key)

- 7 Multifunctional button (soft key)
- 8 Multifunctional button (soft key)
- 9 Multifunctional button (soft key)
- 10 Display
- 11 Volume knob
- 12 Headphone output



- 13 Network port (LAN)
- 14 Status LED
- 15 Update button (Streaming module)
- 16 Reset button (Streaming module)
- 17 WiFi antenna socket
- 18 USB input
- 19 Antenna socket
- 20 Ground socket for turntable chassis
- 21 Speaker terminal B
- 22 Phono input
- 23 High-level analogue input IN 1
- 24 High-level analogue input IN 1

- 25 High-level analogue input IN 3
- 26 Output for recorder (fixed level)
- 27 Preamplifier output
- 28 Configuration port
- 29 Digital input coaxial
- 30 Digital input optical
- 31 Digital output coaxial
- 32 Digital output optical
- 33 Speaker terminal B
- 34 Mains switch
- 35 Mains connector

# 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.

# 1.4 Connection to mains

Connect the unit to the mains outlet 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 until all audio connections are made.

# 1.5 Connecting analogue signal sources

#### **High-level sources**

Connect the outputs of your signal sources to the inputs (23-25). The upper row is for left channel, the lower row is for right channel.

#### Turntable

Connect the output of your turntable with phono inputs (22) and connect the chassis ground wire to the ground connector (20). The CS 5.2 phono input is suitable for MM cartridges as well as for high and medium level MC cartridges. Sensitivity can be adjusted (see 2.4.1).

# **1.6 Connecting digital signal sources**

#### Inputs SPDIF/ (RCA Cinch, optical)

Connect the outputs of your digital sources to the corresponding inputs of the CS 5.2 (29, 30).

#### **Digital out**

The input of a digital recorder must be connected to the digital outputs (31, 32). The signal on the digital outputs depends the selected source (built-in CD, dig in).

# **1.7** Connecting a recorder

Connect the recorder's output to one of the inputs (23-25). The inputs of the recorder must be connected to the fixed level output (25).

# **1.8 Connecting subwoofers**

If you use an active subwoofer (with built in power amplifier), simply connect it's inputs to the unit's pre out (26) and adjust the bass level at the subwoofer.

# 1.9 Connecting loudspeakers

Connect the speakers to the speaker terminals (21,33). 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.

# 1.10 Tuner antenna

Connect the antenna cable to the antenna socket (19).

# 1.11 RC 9 remote control

The optionally available RC 9 remote control allows for easy and comprehensive control of the CS 5.2. Before you can use the RC 9 together with your CS 5.2, 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 4.7.5. For a detailed description of functions and features of the optionally available RC 9 remote control, please refer to chapter 4.

# 1.12 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 networkenabled AVM device. The RC S App is available free of charge and can be downloaded from the <u>Apple App Store</u> and the <u>Google Play Store</u>. For detailed instructions on how to set-up your AVM device with the RC S App, please refer to the RC S User Guide which can be downloaded from our website at <u>www.avm.audio</u>.

# 1.13 Network installation (LAN, WiFi)

In order to use the integrated streaming functions (e.g. **TIDAL**, **Airable**, **Webradio**, **Musik-Server** etc.) your CS 5.2 needs to be connected to the internet via a router in your home network. You can choose from a wired ethernet connection (LAN) (13) or a wireless WiFi connection.

In order to use the WiFi connection of the CS 5.2, the included WiFi antenna needs to be installed (17). Please follow the instructions below to connect your CS 5.2 to your local home network.

#### **1.13.1** Network installation: Wired ethernet connection (LAN)

- $\checkmark$  Please switch off the CS 5.2 on the rear side of the unit (34).
- $\checkmark$  Plug an ethernet cable from your local router into the network port of the CS 5.2 (13).

- ✓ Switch on the CS 5.2 on the rear side of the unit (34). 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 CS 5.2 automatically connects to your local home network and is ready to be operated via <u>RC S App for iOS and Android.</u>

#### 1.13.2 Network installation: Wireless connection (WiFi)

In order to set up the CS 5.2 with a wireless connection, you need to download and install the free <u>RC S App for iOS and Android</u> or the optionally available RC 9 remote control.

**CAUTION:** Before using the wireless functionality of the CS 5.2 an initial set-up of a wired ethernet connection (LAN) according to the steps described in section 1.13.1 is required.

- $\checkmark$  Please switch off the CS 5.2 on the rear side of the unit (34).
- $\checkmark$  Plug an ethernet cable from your local router into the network port of the CS 5.2 (13).
- ✓ Switch on the CS 5.2 on the rear side of the unit (34). 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 CS 5.2 automatically connects to your local home network and is ready to be operated via the <u>RC S App for iOS and Android.</u>
- ✓ 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 adress (e.g. "192.168.xxx.x" or "10.0.1.4").
- ✓ Choose one of the availbale devices and wait until a connection is established between your RC S App and the CS 5.2.



 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 CS 5.2 should obtain an IP adress automatically (if yes, please make sure the DHCP option is activated). Now, confirm your choice with Apply at the upper right-hand corner.

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

- ✓ Now, choose **Restart** at the upper right-hand corner in order to restart the integrated CS 5.2 streaming module. Please make sure to not switch off the device while the device is restarting (which is happening under to hood without any indication on the integrated display). To activate the Restart process, please press **Back** at the upper right-hand corner of the RC S App.
- ✓ Remove the ehternet cable and wait until the indication Please wait. Reconnecting on the display of your smartphone or tablet running the RC S App has disappeared.
- $\checkmark~$  The CS 5.2 is now connected with your wirelress WiFi network.

**CAUTION**: When switching from a wired ethernet connection (LAN) to a wireless WiFi connection or vice versa, a restart of the integrated streaming module of your CS 5.2 is always required. Please follow the above instructions to restart the device via the RC S App.



# 1.14 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 AVM device up-to-date. You can download the latest version of the RC S App in the <u>Apple App Store</u> or the <u>Google Play Store</u>. To make sure your AVM device runs the latest version of the streaming software, please make sure the device is connected to the internet 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 CS 5.2 was not connected to mains a self test will be performed when it is switched on by the mains switch (34) 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.

**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 that you switch the amplifier off by using the mains switch (34) or pull the mains plug (35).

# 2.3 Selecting the signal source

A local signal source (analog inputs, digital inouts, phono input) can be selected by pressing the source selector (2) until the desired source appears on the display. Other sources such as **Webradio**, **Podcasts**, **TIDAL**, **Music Server**, or **USB** can only be selected via the optional RC 9 remote control or the free <u>RC S App for iOS and Android</u>.

**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** or **NO USB PLUGGED** is shown on the display (10).

# 2.4 Volume setting

Use the rotary encoder (11) to set the desired volume. Depending on rotating speed the volume increases / decreases in 0.5 dB steps (slow) or 2 dB steps (fast). The actual 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 Setting of input sensitivity

The level of signal sources differs often by several dBs. You recognize a step in volume, when switching between two different inputs. With the sensitivity setting menu you can avoid this. The sensitivity of each input can be adjusted between -9.5 dB and +10.0 dB.

Select any input (except Tuner or CD) and chose a convenient volume level. Now press the soft key 7 under the display for more than 2 seconds. The button is now marked **EXIT LVL**. Now you can switch between the sources (also Tuner and CD) and adjust the levels by using the volume knob (2). Pressing this soft key 7 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.

# 2.5 FM Tuner

All basic functions of the FM Tuner can be accessed by the soft keys right under the display (5-9). More sophisticated functions (RDS display, mono/stereo, search mode etc.) are available via the **Advanced Settings** menu (see section 3).

**NOTE**: All **Webradio** features can be accessed via the optionally available RC 9 remote control or the free <u>RC S App for iOS and Android.</u>

#### 2.5.1 Tuning

Depending on the selected mode (manual / auto, see section 3.2.2) the far right soft keys (8, 9) under the display (10) are named < AUT > oder < MAN >. In AUT mode, a tip on one of the soft keys 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 soft key is pressed. In this case the tuning indicator shown in the display (10) helps you to tune correctly to the desired station. If tuning is correct it will show **locked**.

# 2.5.2 Station and memory

#### Storing a new radio station

If you want to store a certain station in the memory, press the soft key **MENU** (7) under the display (10) for more than 2 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 soft keys **MOVE** you can change the position. Now press **STORE** (9) 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 (7) under the display (10) for more than 2 seconds. Using the buttons **MOVE** (5, 6) allows you to change the position of the selected station before storing with **STORE** (9). **DELETE** (8) 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.

#### 2.5.3 Selecting a station out of the memory

The buttons < **STAT** > (5, 6) select the stations stored in the memory. A short tip switches to the next / previous station. Holding the button down scans automatically up / down. The number of the actual station is shown in the display (**PGM** xx).

## 2.6 CD Player

The basic functions of the CD Player such as **Play**, **Pause**, **Stop** and **Eject** can be accessed by the buttons right under the display (5 - 9). For more sophisticated functions such as repeat, random etc. please refer to section 2.6.4, 2.6.5, and 2.6.6.

#### 2.6.1 Insert / eject

#### Insert a CD

The CS 5.2 has a slot-in CD drive. Insert the CD (cover side up) and push slightly. The drive will now automatically draw the disc inside. After that the player reads the TOC and shows it on the display. Furthest 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 playable disc** 

#### Eject CD

Press the button (8) under the display (10). An inserted CD will then be ejected.

#### Auto CD function

If CD is not selected as source the unit will automatically change to CD from any other input after you have inserted a CD.

## 2.6.2 PLAY, PAUSE, STOP

Pressing **PLAY** (9) starts the player. While playing, the same button changes its function to **PAUSE**. While the player is playing, the button (8) under the display shows the **STOP** symbol. When the player is stopped this button changes its function to the **EJECT** symbol.

#### 2.6.3 SEARCH / SKIP

While the player is stopped, the two buttons on the left (5, 6) can be used to select a title. A short tip switches to the next / previous title. Holding one of the buttons down scans automatically up / down. The number of the actual title is shown in the display (**TRACK**).

While the player is playing a short tap on the buttons 5 and 6 selects the previous / next title. Holding down the buttons starts the rewind / fast forward function. Rewind / fast forward stops automatically when the begin / end of the actual title is reached.

#### 2.6.4 Repeat

To choose from one of the available **REPEAT** modes press the **MENU** button (7). 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.

#### 2.6.5 Programing an individual playlist

If a disc is inside the player you can program your individual playing sequence as follows: Hold the button **MENU** (7) down for more than 2 seconds to enter the Playlist menu.

The display shows on the left side the actual title (**TRCK**), below the playing time of this title (**TIME**). Pressing the buttons 5 and 6 allows you to select a title.

Pressing **ADD** (7) adds the selected title to the playlist. The display shows on the right side the number of 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 2.4.1), 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 (7) 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 buttons < **SELECT** > (5, 6). The display now shows "TRCK 7/15" in the upper left corner.

- Now add this track to the playlist by pressing **ADD** (7).
- Select title 3 using the buttons < **SELECT** > (5, 6). The display now shows "TRCK 3/15" in the upper left corner.
- Now add this track to the playlist by pressing ADD (7).
- Select title 8 using the buttons < **SELECT** > (5, 6). The display now shows "TRCK 8/15" in the upper left corner.
- Now add this track to the playlist by pressing **ADD** (7).
- Now press **STORE** (8) to finish the programming and store the playlist

#### Deleting an existing playlist

Press **MENU** (7) for more than 2 seconds. Then press **DEL PGM** (9) and the playlist is deleted.

#### 2.6.6 Random

To activate the **RANDOM** mode press **MENU** (7) for more than 2 seconds. Then press **RANDOM** (8). Press **PLAY** (9) to start the **RANDOM** playlist.

# **3** Advanced Settings

Your CS 5.2 offers a wealth of custom specific settings in its advanced settings menu. To enter the menu just tap on the button **MENU** (7). The button now changes to **EXIT**. A second tip on this button leads you to the normal operating mode. When the menu system is active you can select the desired function using the buttons < **ITEM** > (5, 6). The setting is done using the buttons < **VALUE** > (8, 9).

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 of the CS 5.2 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 in the display (10), 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 3.3.2). The loudness option depends on speakers and properties of the listening room and is therefore always **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 -5 dB and +9 dB.

#### 3.1.3 Set treble

Set treble level between -7 dB and +7 dB.

#### 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 of the CS 5.2. This function will increase bass and treble levels when you decrease the volume. 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. Using the buttons < VALUE > (8, 9) choose a loudness curve ("OFF", 1-9) which provides the best sound impression and exit the menu with button 7 (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 selecteded 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 optimal stereo image.

#### 3.1.6 Set poweramp

**Set poweramp** enables you to activate or deactivate the loudspeaker outputs of your CS 5.2. Deactivating the loudspeaker outputs can, for instance, be useful if a separate power amplifier is connected.

# 3.2 FM-Tuner

## 3.2.1 Set RDS display

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

### 3.2.2 Set scan mode

Set tuning mode between **AUTO** or **MANUAL**. After pressing one of the buttons 8 and 9, **AUTO** searches for the nearest available radio station. **MANUAL** enables you to manually search for a radio station (see 2.5.1).

## 3.2.3 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**).

#### 3.2.4 Set deemphasis

By chossing 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 CS 5.2 in the USA, please make sure the option "EUR, AUS, JPN" is set.

# 3.3 Personal Setup

The personal setup offers you a range of settings to individualize the 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 (34). Keep the most right key under the display pressed (9) while you switch on the unit again (34). As soon as the display shows the **personal setup** menu you can release the soft key (9). When the personal setup is active you can select the desired function using the buttons < **ITEM** >. The 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.

#### 3.3.1 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.

#### 3.3.2 Bass & treble control

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

#### 3.3.3 skip unused inputs

Deactivate unused inputs (**SKIPPED**). The unit will then skip these inputs when the source selector (2) is applied or if you select a sound source via the optionally available RC 9 remote control or the free <u>RC S App for iOS and Android.</u>

#### 3.3.4 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 < **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 soft keys < **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 soft key **BACK** and the new input names are stored.

#### 3.3.5 gain fix / variable

If a surround system is connected to the CS 5.2, 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, the CS 5.2 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).

#### 3.3.6 FM auto store

This function is useful when storing a large quantity of stations from cable. Select the **FM auto store** with the soft key **SELECT** and press the soft key **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 2.5.2).

#### 3.3.7 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.

#### 3.3.8 Set IR control

In addition to control the CS 5.2 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**).

# 3.4 Reset (factory default settings)

The **Reset** menu cancels certain or all settings and makes the unit return to default settings.

To enter the **Reset** menu, please switch off your device on the rear of the unit at the mains switch (34). Keep the middle key under the display pressed (7) while you switch on the unit again (34). As soon as the display shows the reset menu you can release the soft key (7).

Select if you want to clear the station memory (**STAT**), the input names (**NAMES**) or reset the unit completely (**ALL**).

The soft key **CANCEL** will bring the unit back to normal operating mode without resetting any item.

# 4 RC 9 remote control (optionally available)

# 4.1 Overview



- 1 Power button (Standby mode)
- 2 Light sensor
- 3 Colour display
- 4 Hotkeys 1-4
- 5 Option keys (red, green, yellow, blue)
- 6 Home menu
- 7 Zone menu
- 8 Info menu
- 9 Settings
- 10 Enter key
- 11 Navigation keys (left, right, up, down)
- 12 Return key (quit, undo)
- 13 Favorites menu
- 14 Context menu

- 15 Favorites list
- 16 Volume
- 17 Increase/Decrease
- 18 Mute
- 19 Play
- 20 Skip (backward)
- 21 Skip (forward)
- 22 Record
- 23 Stop
- 24 Pause
- 25 Alphanumeric input keys
- 26 Shuffle
- 27 Repea

**NOTE**: Before you can use your RC 9 remote control to switch on your device, both components need to be paired (for more information on the **Pairing** process please refer to section 4.7.5).

# 4.2 Activation and stand by mode

To switch on a connected device (see **Pairing** 4.7.5), please pick up your RC 9 remote control which automatically switches on due to the integrated movement sensor. Then, please choose one of the connected devices from the list and press the Enter button (10). Notes on the optional quick start function can be found in section 4.9.

# 4.3 Battery charge

In order to charge the included lithium-ion battery of your RC 9 remote control, please connect the power supply unit with the USB cable. On the other end, please connect the USB charging cable optionally with the RC 9 remote control or with the supplied docking station. The charge starts automatically, as soon as the power supply unit is connected to the power supply system and if necessary, the RC 9 remote control is placed in the charging cradle of the docking station.

**NOTE**: Due to the included motion sensor of the RC 9 remote control, the device may be unintentioanally activated during transportation. For this reason, the RC 9 is delivered with a fully discharged battery. In view of a long lifecycle of the lithium-ion battery, we recommend fully charging the battery before using it for the first time. Please follow the above mentioned instructions and do not interrupt the charging procedure until the status bar in the upper right corner of the display indicates a fully charged battery.



Battery is fully charged, remote control is connected to the charger, charging completed

Battery is empty, remote control is not connected to the charger

Battery is almost fully charged, remote control is connected to the charger

# 4.4 Colour display

The colour display divided into three sections in any operating mode:

- 1 Header section: In the header section the current control area is shown (e.g. source, system, internet radio etc.). On the right-hand side is the charging status of the integrated lithium-ion battery (for an explanation of the charging status symbols please refer to the section above.
- 2 Content section: The content section is the central user interface of your RC 9 remote control where both menu points of the currently accessed control area and graphical user elements are being shown.
- 3 Footer section: In the upper part of the footer section you can both find the actual time and informatin on the current connection statuss. The lower part of the footer section is divided into four parts which can be assigned with so-called Hotkeys (please refer to sections 4.6 and 4.7.4 for detailed information on Hotkeys).

# 4.5 Entry of letters, numbers, and characters

To enter letters, numbers, or characters, please use the alphanumeric input keys (25) which have multiple letters, numbers, or characters assigned. By pressing one of the keys several times, switches through the row of available letters, numbers, or characters.

The left navigation key (11) is used to delete entered characters and numbers. The right navigation key (11) is used to instert a blank character. The blue option key (5) is used to toggle between upper and lower case characters. For special characters please press the "1"key of the Alphanumeric input keys (25) repeatedly.

# 4.6 Hotkeys

The four hotkeys (4) offer direct access to a total of four devices of a currently active zone. All four devices can be directly accessed from the lower part of the footer section. For details and an explanation of the term "zone" please refer to section 4.7.2.

# 4.7 System settings

To access the System Settings menu please press the Settings key (9). The following menu points can be selected via the four Navigation keys (11) and the Enter key (10): **Device Selection**, **Change Zone**, **System Information**, **User Settings**, **Start Pairing**.

#### 4.7.1 Device selection

Under the menu **Device Selection** you can find all available and recently paired devices with their respective names. Wih the navigation keys (11) please choose one of the devices from the list and confirm with the Enter key (10). The menu point **Device Selection** is also shown when the RC 9 remote control is waking up from stand by mode and hasn't already been connected with a device.

**NOTE**: Please note that only one device can be controlled by the RC 9 remote control at a time. If you happen to choose another device, the connection to the formerly linked device will be interrupted.

#### 4.7.2 Change zone

If you have multiple devices which can be controlled with the RC 9 remote control, you can group those devices into several zones such as different rooms or appliance combinations. The "Change Zone" option allows you to switch between different zones and is also available via the Zone menu (7). Each zone is provided with four assignable Hotkeys (4) for a direct access to its four associated devices (see 4.7.4 and 4.6).

### 4.7.3 System Information

The menu item **System Information** contains information on technical details of your RC 9 remote control such as the current firmware version, serial number and more. Furthermore, the firmware of the RC 9 remote control can be easily updated by pressing the red Option key (5). Please note that the RC 9 remote control needs a direct USB connection with a personal computer in order to conduct the update process.

#### 4.7.4 User Settings

The menu item **Settings** offers a series of useful functions which can be accessed by pressing the Navigation keys (11), the Enter key (10) or the alphanumeric input keys (25).

**NOTE**: The left Navigation key (11) is used to delete entered characters and numbers. The blue Option key (5) is used to toggle between upper and lower case characters.

#### Name

This option allows you to customize the name of your RC 9 remote control.

#### Time

The option "Time" enables you to to adjust the time settings of your RC 9 remote control. Hours and minutes are displayed in individual rows.

#### Stand by

The option **Stand by** allows you define the amount of time until your RC 9 remote control switches to stand-by mode. The preset value of 60 seconds can either be reduced to a mininum of 10 seconds or increased to a maximum of 300 seconds (= 5 minutes).

#### Time in cradle

If the option **Time in cradle** is enabled, the RC 9 remote control will display the current time on its colour display when placed in the cradle (included docking station). Please note that the **Time in cradle** option is not available when the RC 9 remote control is being charged via the USB cable.

#### **Brightness**

Choose between three different brightness levels of the colour display. All changes are applied immediately after selection.

#### **HKEY Configuration**

**HKEY Configuration** allows you to assign four different devices to the four available Hotkeys (4) of your RC remote control. This way, you can comfortably select up to four devices of a currently active zone with the touch a single button.

Please note that only one device can be controlled by the RC 9 remote control at a time. If you happen to choose another device from the Hotkeys menu, the connection to the formerly linked device will be interrupted.

#### Change language

Choose one of the currently available languages of your RC 9 remote control: English, German, French, Italian, Spanish, Dutch. The RC 9 remote control will automatically change its language once selected.

#### **Rename device**

The menu item **Rename Device** provides the option to rename a paired device by using the alphanumeric input and navigation keys (25) (11). Please note that the renaming applies only locally on the RC 9 remote control. If you happen to use the RC S App to control your AVM components as well, the respective name of the device may be changed again.

#### **Delete Device**

The menu item **Delete Device** contains a list of all formerly paired devices. When chosen a device, this is deleted along with all known information. In order to add a deleted device again, please refer to section 4.7.5.

#### Add Zone

The menu item **Add Zone** provides you with an option to create a new zone with an individual name. In order to assign a device to a certain zone, please return to System-Settings/User-Settings and chose the menu item **HKEY Configuration** (see above).

#### Rename Zone

The menu item **Rename Zone** lists all known zones and provides the possibility to rename them (living room, kitchen, etc.) by using the alphanumeric input and navigation keys (25) (11).

#### **Delete Zone**

The menu item **Delete Zone** provides a list of all existing zones and the possibility to delete these along with all known data.

#### **Transportation lock**

The transportation lock deactivates the motion sensor and secures the RC 9 remote control against unintentional power-up and thus saves battery while moving. In order to activate the transportation lock please navigate to the menu item **Transportation lock** and press the Enter key (10). In order to deactivate the transportation lock again, please press any key on your RC 9 remote control.

#### 4.7.5 Pairing

In order to control a CS 5.2 with your RC 9 remote control, both devices need to be linked first. This process is also referred to as **Pairing**. in order to start the pairing process, please switch off your CS 5.2 by using the mains switch (34) 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 (9) and navigate to the menu item **Start Pairing** <u>without</u> selecting it with the Enter key yet. Switch on your CS 5.2 by using the mains switch (34) on the rear side of the unit and immediately press the Enter key of your RC 9 remote control (10). The name of a succesfully detected device (such as your CS 5.2) will instantaneously be shown on the display of your RC 9 remote control and can be edited by using the alphanumeric input keys

(25). After confirming the name of the paired device, you can also choose one of four available Hotkeys (see 4.6). By pressing the Enter key (10) again, the pairing process is completed.

# 4.8 Source Menu

As soon as a connection between your RC 9 remote control and your CS 5.2 has been established (see section 4.7.5), the **Source Menu** offers a choice of available sound sources such as **Airable**, **Music Server**, **USB**, or a local source. The **Source Menu** can be accessed by pressing the Home menu key (9) on your RC 9 remote control. Additionally, the **Source Menu** also offers the **Receiver Settings** menu where system settings of the included streaming module can be edited (**Network**, **Software**, **Quick Start**, **Clock** etc.).

#### 4.8.1 Queue (Playlists)

The **Cueue Menu** offers a range of useful features to create, edit, save and recall individual playlists which are named as **Queues** and may contain content from the following sources:

- Airable / Podcasts
- Airable / TIDAL
- Music Server (e.g. NAS)
- My Files (e.g. local music files on your smartphone or tablet)

**NOTE:** Please note that content from other sources such as **Airable / Radios** cannot be added to the **Queue menu**. Please use the **Favorites** (see 4.8.3 and 4.8.4) or **Presets** menus instead. Details on how to use the **Preset Menu** can be found in section 4.8.8.

#### 4.8.2 Airable

Provided that your CS 5.2 has installed a current version of the streaming software (v1.2 or higher), **Airable** offers you a comprehensive set of first-class **webradio**, **podcasts**, and online music services. **Airable** also replaces the formerly installed webradio service **vTuner** and now includes optional access to **TIDAL** – a high-quality music streaming platform offering lossless CD sound quality. **TIDAL** offers a monthly subscription with a 30-day free trial. For more information on **TIDAL** and their lossless music streaming service, please visit <u>www.tidal.com</u>. In order to make use of the optional **TIDAL** high-quality music streaming sevice, navigate to **Airable**, choose **TIDAL** and enter your login data from **TIDAL**.

**NOTE**: Please note that no further registration is required to listen to the included free offer of **Webradio** stations and **Podcasts**. Due to the implementation of the **Airable** online music services in the latest version of the host firmware, all features and functions of the formerly included **vTuner** webradio service will no longer be supported. In case you currently use the **vTuners** 'Favorites' feature for example, you need to create a new 'Favorites' list by using the optionally available RC 9 remote control or <u>RC S App for iOS and Android</u>. Details on how to update the streaming software of your CS 5.2 to the latest version can be found in section 1.14

### 4.8.3 Radio (Webradio)

**Airable / Radio** offers you a broad variety of freely available webradio stations (internetradio). You can choose from a large number of subcategories such as **Local Stations** or **High Quality** which can be selected by using the Navigation keys (11) of the RC 9 remote control. As soon as you have chosen a desired radio station, just press the Enter key (10) to start the stream. To search for a certain radio station, use the integrated search and filter functions. For an even more direct acces to your favorite webradios or whole directories of webradio stations, use the **Favorites** menu which can be found at the top of the **Airable / Radios** menu.

**NOTE:** Please note that there are two separate **Favorites** menus available for **Radios** and **Podcasts** each (see section 4.8.4). Both directories may be added to the **Presets Menu** to make them even more accessible via the **Source Menu.** Details on how to set up the **Presets Menu** can be found in section 4.8.8.

#### 4.8.4 Podcasts

**Airable / Podcasts** offers you a broad variety of freely available podcasts. You can choose from a large number of subcategories which can be selected by using the Navigation keys (11) of the RC 9 remote control. As soon as you have chosen a desired podcast program, just press the Enter key (10) to start the stream. To search for a certain podcast, use the integrated search and filter functions. For an even more direct acces to your favorite podcasts or whole podcast directories, use the **Favorites** menu which can be found at the top of the **Airable / Podcasts** menu.

**NOTE:** Please note that there are two separate **Favorites** menus available for **Podcasts** and **Radios** (see section 4.8.3). Both directories may be added to the **Presets Menu** to make them even more accessible via the **Source Menu**. Details on how to set up the **Presets Menu** can be found in section 4.8.8.

#### 4.8.5 TIDAL

**TIDAL** is an innovative music streaming platform offering high-fidelity CD sound quality, expertly curated content, and unique artists experiences for registered suscribers. **TIDAL** offers a monthly subscription with a 30-day free trial. For more information on **TIDAL** and their lossless music streaming service, please visit <u>www.tidal.com</u>.

In order to make use of the optional **TIDAL** high-quality music streaming sevice, navigate to **Airable**, choose **TIDAL** and enter your TIDAL login data from **TIDAL**.

In addition to explore the virtually inexhaustible **TIDAL** catalogue with hundreds of playlists and more, you can use the integrated search and filter functions and add your own playlists including your favorite **artists**, **albums** and **tracks** to the **My Music** menu. Furthermore, all features of the **Queue Menus** (see 4.8.1) and **Preset Menues** (see 4.8.8) are at your disposal.

#### **TIDAL Favorites**

TIDAL also provides you with an option to add its catalogue content to an individual Favorites Menu. However, please note that contrary to the Airable / Radios and Airable / Podcasts Menues (see sections 4.8.3 and 4.8.4), your TIDAL Favorites are stored directly within the Airable / TIDAL / My Music section. Individual titles are added to Airable / TIDAL / My Music / My Music / Tracks. Albums, artists, ore playlists are added to Airable / TIDAL / My Music / Albums, Artists, or Playlists.

#### 4.8.6 Music Server

**Music Server** gives you access to the audio content of all DLNA/UPnP home devices such as NAS drives (NAS = network attached storage) in your local home network. In case of doubt while setting up your DLNA/UpnP-enabled media or music server, please consult the documentation of your network devices (such as a router etc.) or ask your local dealer or network admin.

By using the **Favorites key** (13) of the RC 9 remote control you can assign your favorite titles to the **Favorites** list which can be accessed via the **Favorites List key** (15). By pressing the **Info key** (8) you get immediate access to the currently playing track which can be controlled with the keys 19-24 (**Play**, **Pause**, **Skip**, **Stop** etc.).

#### 4.8.7 USB

**USB** offers you the option to access the audio content of a connected USB storage device (hard drive, USB stick/jump drive) which can be plugged-in at the rear of the unit by using the **USB input** (18) marked as **STICK / HDD.** Please note that teh response time while browsing through the directories of a connected USB drive can vary depending on its storage capacity and type (mechanic HDD vs. flash-based SSD).

#### 4.8.8 Presets

The Preset Menu provides direct access to your favorite and frequently used contents of the following sources:

- Airable / Radios
- Airable / Podcasts
- Airable / TIDAL
- Music Server (e.g. NAS drive in your local home network)

In other words, the **Presets Menu** provides with a convenient "bookmark function" to individually choosen webradio stations, Podcasts, TIDAL content or local titles from your NAS drive, smartphone or tablet.

# 4.9 Receiver Settings

The menu item **Receiver Settings** offers a series of useful options to configure your CS 5.2 (**Network settings**, **Software Updates**, **Quick Start Function**, **Time** etc.).

#### 4.9.1 Network

By selecting the menu item **Network Status** you get access to a number of current information on an established network connection such as Connection Type, IP Adress, Subnet Mask, Gateway IP.

By selecting the menu item **Wlan Status** you get access to a number of current information on an established wireless connection such as Signal Quality, WiFi channel, and Encryption type.

By selecting the menu item **MAC-Adress**, the current MAC Adrress of your CS 5.2 is being displayed. This name is used as a reference for other computers located in the same network (UPnP).

The menu item **IP Settings** offers you the choice between an automatically assigned IP address (**Automatic (DHCP)**) or a manual IP address (**Manual input**). Unless you are an expert with a good understanding of local network protocols, we strongly recommend to choose the **Automatic (DHCP)** option. When in doubt, please consult your local dealer who can help you to set up your network configuration.

The menu item **Wlan Settings** provides a list of all available wireless networks (SSIDs) which can be accessed with the navigation keys (11) and selected by pressing the Enter key (10). After entering the password and selecting an IP configuration mode (**Automatic (DHCP)** or **Manual input**) your CS 5.2 is connected to the selected WiFi network.

The selection of the menu item **Network restart** both resets all network options and restarts the streaming module of your CS 5.2 which can take up to approximately 30 seconds.

**NOTE**: When changing from **LAN** to **WLAN** or vice-versa an internal restart of the included streaming module is mandatory. Please make sure to keep the CS 5.2 switched-on and don't disconnect the unit from the mains during the restart.

**NOTE:** By activating the **Quick Start** function of the unit, the network processor of your CS 5.2 is permanently activated which leads to faster start up times of the streaming functionalities such as Airable or Music Server. Please note that an activation of the **Quick Start** function also leads to a slightly higher power consumption.

#### Software

By selecting the **Software** menu item both the current software version of the CS 5.2 network module and the release date of the software is displayed. By selecting the **Update** option, a softare update can be installed via Internet or from a connected **USB** drive.

To install an update from a USB drive, please consult your local dealer. In order to install the update online, please choose **Internet**.

#### Clock

The menu item **Clock** gives you access to the clock settings. In case of an existing internet connection both the CS 5.2 and the RC 9 remote control receive their time from a NTP server (Network Time Protocol for clock synchonization).

# 5 Appendix

# 5.1 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.

# 5.2 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).
- b) Inadvertent switching to stand by. 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.

#### 2. Amplifier switches off during normal operation

This can happen if the temperature inside the unit becomes too high. In this case the amplifier switches off and the display shows 'overheat'. Switch the unit off and let it cool down for five minutes.

#### 3. Hum

a) Hum while playing records: Make sure that the chassis of your record player is properly grounded.

#### 4. RC 9 remote control doesn't work

- a) Charge the included lithium-ion battery of the optionally available RC 9 remote control (see section 4.3).
- b) Point with the remote control transmitter directly to the unit.
- c) Reconnect the RC 9 remote control with your CS 5.2. This process is also referred to as **Pairing**. In order to start the pairing process, please follow the instructions as described in section 4.4.5.

#### 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. No RDS display

- a) The received signal is too weak, hence the data can't be decoded and aren't displayed.
- b) Certain radio stations do not support and broadcast RDS.

# 5.3 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.

# 6 Technical Data

#### 6.1.1 Amplifier

12,5 mV - 50 mV- 125 mV
(for 25 W / 4 Ω, adjustable)
40μV - 160μV - 400μV (for 25 W / 4 Ω, adjustable)
6,8 kΩ
47 kΩ / 100 pF
96 dB(A)
83 dB(A)
< 0,1 %
< 5 Hz - > 50 kHz
>200
> 2 x 220 W (8 Ω) / 2 x 330 W (4 Ω)

# 6.1.2 FM Tuner

Frequency range	87,5 MHz – 108,0 MHz
Tuning step	50 kHz
Input impedance antenna	50 Ω
Sensitivity (mono / stereo)	1,5 μV / 50 μV
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

#### 6.1.3 CD Player / Digital Inputs / Digital Outputs

Formats	CD Audio, CDR (according to red book standard)
Sampling Frequency	Upsampling to 192 kHz / 24 Bit
Frequency response CD	<20 Hz – 20 kHz
Frequency response USB	<20 Hz – 24 kHz
Frequency response SPDIF	<20 Hz – 90 kHz
Deemphasis	yes, automatically

Input Dig in opt Input Dig in coax USB input Output Dig out opt/coax	SPDIF, linear PCM 33 kHz - 96 kHz / 16 - 24 Bit SPDIF, linear PCM 33 kHz - 192 kHz / 16 - 24 Bit up to 48 kHz / 16 Bit SPDIF 44,1 kHz / 16 Bit (CD-Player) SPDIF, see Input (Dig in opt / coax/USB)	
Input impedance dig in coax	75 Ω	
Input level dig in coax	according to IEC 908 75 Ω according to IEC 908	
Output dig out coax		
Output dig out coax		
6.1.4 Streaming		
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	Airable, TIDAL	
6.1.5 Other		
Supply voltage	230 Volt / 50 Hz / 450 VA	

Supply voltage	230 VOIT / 50 HZ / 450 VA
	(Stand by mode <6 VA)
Dimensions (W $x$ H $x$ D)	430 mm x 130 mm x 370 mm
Weight	12 kg (depending on configuration)

#### NOTE: Energy consumption in stand by mode

In order to control your CS 5.2 with the optional RC S remote control or the free <u>RC S App for</u> <u>iOS and Android</u>, 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. 10.06.2016