# nuXinema AV Receiver



Many thanks for your confidence in our product. To obtain fast information briefly, please read the quick start guide first.

The following instruction guide elucidates all functions, operating and connections explicitly, so that you could enjoy your new Nubert product in its entirety. You will be able to set up your system without any problems if you read these operating instructions carefully.

We will explain the operation, connection and installation so that you can achieve the optimum sound quality and fully enjoy your new nuXinema AV-Receiver!

Nubert electronic GmbH hereby declares that this product complies with the currently EU directives, provided that it is installed and used in accordance with the manufacturer's instructions. The full text of the EU Declaration of Conformity is available at the following Internet address: https://www.nubert.de/konformitaetserklaerungen/716/

• Do not change the serial number on the speaker. It is part of the operating approval.

• If the loudspeaker is repaired or modified by workshops or other third parties not authorized by Nubert, it loses its operating license.

• Only accessories and devices may be connected which in turn comply with all legal requirements and are approved.

• This device may only be used for the applications specified in the "Intended Use" section.

## **Coldness, Sound and Dependability**

When loudspeakers and other electric devices are brought from a cold into a warm environment, it is possible that there will arise water condensation inside. In consequence of that, there exists danger of any defects or an electric shock. Furthermore, deep temperatures will have an impact on the flexibility of movable parts inside of the loudspeaker. Therefore, wait at least 4 hours before turning on the device until it has taken room temperature. Your new Nubert loudspeaker will thank you with the superior sound quality you're expecting from Nubert rightly.

## Intended Use

This electric device is designed exclusively for sound reproduction in dry rooms. Use the receiver only as described in this manual. Any other use (particularly safety-relevant or medical use, installation in open environment like IP-certified products) is considered improper and may result in property damage or even personal injury. Nubert electronic GmbH does not assume any liability for damages caused by improper use.

## Positioning and Antenna

The nuXinema must be placed on a flat and stable place. Be careful that there will be a sufficient air circulation for cooling the device during operation.

On the back side, the nuXinema has two threaded bushes for antennas. Install the antennas (included in the standard delivery) and align them towards the top.



## **Connections and Application Examples**

The nuXinema must be wired completely before switching on – please look at the separately installation guide for more details.

With the included remote control or our Nubert X-Remote Smartphone App you can choose between the sources you want to listen to (see the following section).

#### **Bluetooth input**

The Bluetooth input also belongs to connecting options for playing music wireless from another device like a laptop, smartphone, or something like this.



## **AUX** input

For sources with analogue line-out output, like

- CD player
- some network adapters
- Smartphones, PCs and MP3-Players with 3,5 mm male trs jack

#### **USB port**

The USB port provides an electricity supply with 5 V / 1,5 A for replacing the power supply unit of another additional device (for e.g., a remote receiver or smartphone). Simultaneously, it works as an additional audio input. Some devices which are designed exactly for those function – like the remote receiver Nubert nuConnect trXS – can broadcast audio signals by means of this port.

#### **HDMI eARC connection**

Hereby it can be connected a TV with ARC or eARC audio output.

Please note: In some cases, it can be necessary that you should activate the CEC and ARC plus PCM or Dolby Digital sound output functions manually in the menu of your TV.

## **SPDIF inputs**

1x coaxial for connecting sources with electric digital output;

1x optical for connecting sources with optical digital output, for e.g.,

- CD players
- network adapters
- satellite receivers

## **HDMI** inputs

3x HDMI connecting plugs for sources with an equivalent output, for e.g.,

- Blu-ray players
- Gaming consoles

### **Analog outputs**

8x analog cinch connecting plugs for coupling power amplifiers or active speakers. There can be connected the following channels:

- Front left and right
- Centre and Subwoofer
- Surround left and right
- Height left and right

## **Remote Control**

The remote control allows directly access to the functions needed permanently.



## on/off

With the on/off button, the nuXinema preAV can be turned on and off. Furthermore, it can be turned into the stand-by mode.

## ▲ Notice:

• If the nuXinema preAV will be turned into the stand-by mode by using the remote control, the automatically switch-on function will be deactivated.





#### volume and mute

These buttons allow regulation of the volume level. With the  $\mathbf{\Psi}^{\times}$  button you can mute the sound or activate it again.



## tone

With the remote control there also can be adjusted the sound characteristic.

The tone button will call the appropriate menu. Furthermore, this button allows changing between the submenu of bass, mid/high and loudness. By using the arrow keys there can be set some options in the submenu like rising or lowering down the bass level and mid/high tone up to  $\pm 10$  dB. Additionally, the loudness effect can be activated or deactivated. For more details, see page 12.



#### mode

When pressing the mode button twice, there can be chosen the sound/surround mode you desire. There are available some different modes like Stereo, Dolby Surround, Voice+ and Night. For more details about this, please turn to page 16.



## hdmi, coax, bluetooth, aux, opto, port

These six buttons allow to choose the source. These buttons are double used partially. By pressing these buttons for several times there can be switched between the sources.



#### p1, p2, p3

These buttons are for pre-sets so that you can recall three options which can be saved in the setup menu. Alternatively, there can be saved a pre-set by pressing and holding the respective button (see page 10).



#### menu, directional pad

Some buttons of the remote control are double used to allow controlling the display menu (OSD).

If you press the menu/hdmi button for 4 seconds, there will be shown the display menu (OSD) of the nuXinema on the TV or video projector which is installed at the HDMI eARC port. In this OSD menu you can navigate by these arrow keys and the central selection key.

## Nubert X-Remote App

The Nubert X-Remote App is another option to control the device. It's an alternative to the remote control. This app can be downloaded to your smart devices by the app stores (Google Play and Apple).

With the X-Remote App you can control all options and settings from your listening position very comfortable. The app includes all menu points which are also available

by the display at the front of the nuXinema. Additionally, there are some more functions available as follows:

## Setting password

If necessary, you may request to set a password when the app will be loaded firstly. By the factory setting, the password is set at the value 0000.

In the menu

>Settings >advanced >password

it is possible to set another password to protect your device from unauthorized access. If the device will be reset to factory defaults, the password will also reset to the value 0000.

## **X-Room Calibration**

Bad room acoustics can have a negative effect of the final sound, for e.g., such as droning noise or losses at low frequencies. Specifically targeting the sound means that unwanted room reflections can be avoided.

X-Room Calibration allows an optimization of lower frequencies so that the bass sound will have a punchy sound and better pulse accuracy. To benefit from these automatically room calibration, it is necessary to connect with every compatible loudspeaker separately and pass this calibration process from your listening position.

The loudspeaker will activate a test noise which will be recorded by your smartphone microphone. The app will use this data to calculate a correction curve which will be send back to the speaker, so that you could enjoy the best sound at your listening position. In addition, the nuXinema preAV can optimize the lower frequencies of the front speaker connected by cinch by means of its integrated signal processor.

## ▲ Notice:

• When using an Android mobile phone, there is necessary the separately USB measuring microphone "Nubert XRC Android Interface" to use the X-Room Calibration function.

## **Device Display**

The device display will show the following information during operation:

## (((++))) Symbol

This symbol will be displayed when the nuXinema preAV is in Wireless mode and a wireless connection by X-Connect Surround exists.

## I¶× Symbol

This symbol will be displayed when the nuXinema preAV is in Mute mode. All speakers will be muted.



## **Currently chosen input**

**Currently volume level** 

## Displaying of signal type and sound mode

As a temporarily display (if necessary, as a ticker) there will be shown the currently sound or surround mode (here: Voice+) and the input signal (here: PCM2.0) at the start of the sound reproduction.



## Selection of permanent operation display

The behaviour of the permanent display can be selected in the menu. In the submenu **>light** there can be selected automatic dimming, or the display can be deactivated. In the submenu **>content** there is an option to display the preAV logo permanently.



## Menu navigation and settings





Main menu and submenu

After turning on the nuXinema preAV there will be shown the **preAV** logo on the display screen. After 8 seconds it changes to the **volume level** menu automatically.

The volume menu shows the currently selected input (here: coax) and the volume level. This can be adjusted by the select rotary knob.

Maximum volume: 0 dB | Minimum volume: -100 dB

Choose with the select rotary control your source between **HDMI eARC**, **HDMI**, **aux** (analogue input), **Bluetooth**, **coax** (digital electric input), **optical** (digital optical input) or **port** (digital input).

By the select rotary knob there can be achieved an increase or lowering of the mid/high frequency range of the front speakers (maximally 10 dB, see page 13).

By the select rotary knob there can be achieved an increase or lowering of the bass frequency range of the front speakers (maximally 10 dB).



You can choose between  $\mathbf{on}$  and  $\mathbf{off}$  with the rotary control knob.

There can be chosen between various tone and surround modes with the rotary control.

The select knob can be used to set an additional delay of the sound output, so that you can achieve a synchronous playback of sound and picture (step size 10 ms, max. 400 ms).

Under this menu point there can be set the loudspeaker configuration. Furthermore, there will be defined the operation mode. If there is set none or pre-output at all channels, so the preAV works in standard mode (default condition, stand-by power under 1 W). If there is connected a speaker wireless, the preAV works in Wireless mode (stand-by power under 2 W).

With the select rotary control the channel to be configured can be selected.

Afterwards, there will be skipped to the right display side by pressing the knob.

- **none** channel is not in use
- pre output channel will be given out at the analogue cinch output
- new pairing Starts a pairing process to connect any wireless speaker or receiver

If a speaker or receiver is assigned to this channel, its name and ID code will appear here. If you will made an alternative assignment, there can be chosen another speaker. Every speaker is registered here. Confirm your selection by pressing the knob.



**Please note:** After settings have been made, the display automatically changes to the permanent operating display after 10 seconds and will show the volume or the preAV logo then. During this change, the storage of all settings made takes place. However, if the power connection is disconnected before the automatic saving takes place, it will load the last saved settings when restarting.

## Display menu / OSD menu and status information

If there is connected a TV or projector to the HDMI eARC output of the preAV, some status information or an OSD menu will be shown on the connected device.

#### **Status information**

During operation, the volume, selected source, played signal and selected sound processing mode are displayed. In the case of audio-only sources, the display is permanent; in the case of sources with picture and sound the display is hidden again 5 seconds after an operating procedure.

#### **On Screen Display**

The OSD menu will be shown when you press the **menu / hdmi** button on the remote control for at least 4 seconds. Use the arrow keys and the central selection key to navigate.



#### Main Menu

Audio Source Sound Processing Channel Configuration Output Adjustment Advanced System Setup Crossover Setup Distance Setup The main menu contains the following menu points:

- Audio Source
- Sound processing
- Channel Configuration
- Output Adjustment
- Advanced System Setup
- Crossover Setup
- Distance Setup

#### Audio Source

Analog Gain Lip Sync Bluetooth Setup In the sub menu audio source, there can be set the following adjustments:

#### Analog Gain

Allows to select the sensitivity of the analogue AUX input between 0 dB and +6 dB.

#### Lip Sync

An additional delay of the sound output can be set here to achieve synchronous playback of sound and synchronous playback of sound and picture. (Step size 10 ms, maximum 400 ms)

#### **Bluetooth Setup**

Allows the configuration of the Bluetooth input. Selecting the pair entry starts the pairing process and pairing with a corresponding smartphone, tablet or computer can be performed for one minute. Selecting reset will clear the memory of the paired devices.

#### Sound Processing

Mid-Hi
Bass
Loudness
Room Calibration Enable
Sound Mode
Preset
Save as Preset

#### Channel Configuration

Front Left Front Right Center Subwoofer Surround Left Surround Right Rear Surround Left Rear Surround Right Height Left Height Right Height Left 2 Height Right 2

#### Output Adjustment

Front Left Front Right Center Subwoofer Surround Left Surround Right Rear Surround Left Rear Surround Right Height Left Height Left 2 Height Right 2 In the sub menu **Sound Processing** there can be set the following sound adjustments:

• **Mid-Hi** allows rising or lowering the mid/high range of the front speakers by up to 10 dB. See also page 13, section tone balance.

• **Bass** allows boosting or cutting the bass range of the front speakers by up to 10 dB.

• With the **Loudness** function, there can be (de-)activated the automatic aurally correct low frequency boost of the front speakers.

• **Room Calibration Enable** offers the possibility to (de-)activate the room calibration of the front speakers.

• **Sound Mode** allows choosing of different sound modes (see page 14).

• **Preset:** Choose one of the previously saved presets 1, 2 or 3 by pressing the selection key.

• Save as Preset: A preset is saved by selecting from the 3 memory locations and activating the save process with the selection button.

In the **Channel Configuration** sub menu, the output type can be selected for the channels to be output (max. 7.1.4). can be selected. The following entries are available for each channel:

- none
- pre output (if the output is available by Cinch jack)
- new pairing

Furthermore, it is possible to assign the speakers connected wirelessly via X-Connect Surround to the respective channels connected via X-Connect Surround. For this purpose, all connected speakers are also listed in each channel menu.

**Tip:** To find the speakers easily, we recommend naming them respectively to their position, for e.g.,

- SL Surround Left
- RSL Rear Surround Left
- HL1 Height Left 1, and so on.

In the sub menu **Output Adjustment** can be raised or lowered the output sound volume of each channel for 10 dB at maximum.

Please note: The active loudspeakers connected via X-Connect Surround are recognised and their volume levels automatically adjusted to each other in volume level. (Setting 0 dB)

#### Advanced System Setup

Display Content Display Light Auto Power Default

#### Crossover Setup

Front Left / Right Center Subwoofer Surround Left/Right Rear Sur Left/Right Height Left/Right Height Left/Right 2

#### Distance Setup

Front Left Front Right Center Subwoofer Surround Left Surround Right Rear Surround Left Rear Surround Right Height Left Height Right Height Left 2 Height Right 2 In the **Advanced System Setup** sub menu, the following settings can be made:

**Display Content** allows the selection of the permanent operation display. The volume setting enables the permanent display of the volume menu; alternatively, the preAV logo can be displayed.

Under **Display Light** the illumination level of the display is defined: **normal:** permanently full brightness

**auto dim:** dims brightness automatically after 10 seconds **auto off:** turns off the display automatically after 10 seconds.

In the **Crossover Setup** submenu, high-pass filters or, in the case of the subwoofer channel, a low-pass filter can be activated for each of the specified channels and the appropriate crossover frequency can be set.

Full BandHigh or low pass is not activated.50 Hz ... 140 HzHigh or low pass is activated by steps of 10 Hz

In the sub menu **Distance Setup**, there can be set the distance to your listening place for each channel. The preAV sets the signal propagation time of the channels appropriately according to this information.

## **Construction and technology**

#### Sound balance

The mid/high frequency adjustment of the nuXinema preAV has the characteristic of a commonly called "sound balance". While conventional treble controls "bend" the frequency response and thus create sonic overemphasis, the frequency response with this controller rises or falls continuously in a linear manner. Thus, the basic tonal character of the loudspeakers as well as the harmony of the sound image are perfectly preserved. The Mid/Hi tone control allows the frequency response to be increased or decreased with a maximum of 10 dB at 20 kHz.

## Analog gain

The input sensitivity for the analogue AUX input can be set in 2 steps (0 dB to +6 db).

#### Sound format

The nuXinema preAV handles various audio formats in de digital input like

- PCM (up to 192 kHz / 24bit)
- Dolby Audio
- Dolby Atmos
- DTS
- DTS X

If the nuXinema preAV is connected by HDMI eARC, the compatibility will be often identified automatically so that the TV outputs the appropriate signal (the CEC function in the TV must be activated). In some cases, it may be possible to adjust players such as TVs or game consoles to the right settings manually. For the highest possible compatibility, it can also be useful to specify PCM as the sound output format. Please also refer to the manual of your player.

## **Operating mode: X-Connect activated**

For connecting some speakers or devices by wireless network X-Connect Surround, choose the option **> ch config** in the main menu. Navigate to your desired channel and choose the option **> new pairing.** The wireless network is activated automatically. The standby power consumption in this mode is <2.0 watts.

#### **Operating mode: X-Connect deactivated**

To deactivate the wireless network (X-Connect Surround), set all the entries in the menu section **> ch config** to **> none** or **> pre out**. The wireless network is deactivated automatically. The standby power consumption in this mode is <1.0 watt. This is also the factory default.

## Signal turnaround time

The nuXinema preAV's signal turnaround time is a minimum of 30.5 ms. The sound signal is always reproduced synchronously from all speakers connected via analogue output or speakers connected via X-Connect Surround. To adapt the sound reproduction to the picture reproduction of your TV set, the signal can be additionally delayed up to 400 ms. delay. Please refer to the lip sync section on page 11.

#### Automatic switch-off

The nuXinema preAV is equipped with an automatically switch-off function which can be deactivated in the menu. If there is selected one of the inputs AUX or Bluetooth, the loudspeaker will turn into stand-by mode automatically after 20 minutes without signal. For all digital inputs it also reacts directly to the absence of a digital data stream or a switch-off command at the HMDI ports. Thus, a faster switch-off is possible if the playback devices at the SPDIF inputs deactivate the data stream accordingly.

#### Automatic switch on

The nuXinema preAV also has an auto power on feature that can automatically wake it up from stand-by mode. This function is only active if the loudspeaker has been set to stand-by mode by the automatic switch-off. The signal must be applied to the input that was selected during the automatic switch-off process. (This function is not available for Bluetooth devices). If the standby mode was activated manually by pressing the on/off button on the remote control or the app, the automatic switch-on function is deactivated.

#### Loudness

With this function, a volume-dependent frequency response correction can be made, which is based on the character of the human auditory system. The human ear perceives bass at low volumes perceived less strongly at low volumes. To achieve a full sound image even at low volumes, low frequencies can be automatically boosted by up to 10 dB by activating the loudness function.



Frequency response correction of the loudness circuit

## Extension of a Surround Setup via X-Connect Surround

The nuXinema offers two options for connecting some loudspeakers:

In standard mode, 8 channels can be connected analog via RCA cable, so that a maximum of a 5.1.2 setup can be set up.

In wireless mode, additional 8 channels can be connected wirelessly via X-Connect Surround. A maximum 7.1.4 setup can be set up with a combination of wired and wireless speakers. The configuration of such a setup can be done via menu on the device, in the on-screen menu or via the app. Please refer to the corresponding sections in these operating instructions and also the commissioning instructions. Please note about the channels connected via X-Connect Surround:

The preAV reacts flexibly to the currently available speakers and automatically adjusts the corresponding output channels. If, for example, the speakers used for the rear channels are switched off (e.g., at the power switch on the back of the device or via an app), the preAV detects this and modifies the upmixing in such a way that the sound components to be output there are then redirected proportionally to other speakers that are still present.

### Sound and Surround modes

The nuXinema preAV features several different sound and surround modes. These can be selected via the mode button on the remote control. The incoming sound signal is processed by the internal signal processor – partly according to Dolby or DTS specifications, partly according to Nubert's own algorithms. The sound output is as follows:

#### stereo

The sound output only is via the two front channels. Stereo content is played back directly, multi-channel content is mixed to the two front channels. No sound processing takes place.

#### movie, music, voice+ and night

Any source material will always be played back through all available loudspeakers including height speakers. Native Dolby Atmos or DTS X material is reproduced true to its channel.

If upmixing takes place, it is automatically adjusted to the currently used speaker setup. Depending on the input signal algorithms from Dolby or DTS are used.

For full movie enjoyment through all available speakers
For full music enjoyment through all available speakers
Complements Nubert's own optimization voice+ for best speech intelli-
gibility
For full sound enjoyment at night
Automatic detection of the input signal and up mixing or direct playback on the appropriate existing channels.

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