JBL SYNTHESIS

OWNER'S MANUAL

SDR-40

Download the JBL Synthesis Control App

LS_JBL_Synthesis_SDR-40_OM_EN_v1_20260817

JBL SYNTHESIS®

Important Safety Guidelines

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Object or liquid entry: WARNING – Take care that objects do not fall and liquids are not spilled into the enclosure through any openings. The equipment shall not be exposed to dripping or splashing. Liquid-filled objects such as vases should not be placed on the equipment.
16. Climate: The equipment has been designed for use in moderate climates and in domestic situations.
17. Cleaning: Unplug the unit from the mains supply before cleaning. The case should normally only require a wipe with a soft, lint-free cloth. Do not use chemical solvents for cleaning. We do not advise the use of furniture cleaning sprays or polishes as they can cause permanent white marks.
18. Power sources: Only connect the equipment to a power supply of the type described in the operating instructions or as marked on the equipment. The primary method of isolating the equipment from the mains supply is to remove the mains plug. The equipment must be installed in a manner that makes disconnection possible.
19. Abnormal smell: If an abnormal smell or smoke is detected from the equipment, turn the power off immediately and unplug the equipment from the wall outlet. Contact your dealer and do not reconnect the equipment.
20. Damage requiring service: The equipment should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged, or
    B. Objects have fallen, or liquid has spilled into the equipment, or
    C. The equipment has been exposed to rain, or
    D. The equipment does not appear to operate normally or exhibits a marked change in performance, or
    E. The equipment has been dropped or the enclosure damaged.

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CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

The lightning bolt with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: In Canada and the USA, to prevent electric shock, match the wide blade of the plug to the wide slot in the socket and insert the plug fully into the socket.

Class II product

This equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth ("ground" in the U.S.)

Warning

Mains plug/appliance coupler is used to disconnect device and it shall remain readily operable.

Safety Compliance

This equipment has been designed to meet the IEC/EN 62368-1 international electrical safety standard.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

The building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.

Caution on installation

For proper heat dispersal, do not install this unit in a confined space, such as a bookcase or similar enclosure.

1. More than 0.3m (12in) is recommended.
2. Do not place any other equipment on this unit.

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Immersive Home Audio, Perfectly Tailored for Your Room

Thank you for purchasing the **JBL Synthesis SDR-40 Immersive AV Receiver**. Designed for high-performance home cinema and music reproduction, the **SDR-40** combines advanced audio and video processing technologies with nine channels of **Class G** amplification and 16-channel processing capability.

The **SDR-40** has been engineered to provide exceptional performance, flexibility, and long-term reliability.

This manual will guide you through the installation, configuration, and operation of your **SDR-40**. Please read it carefully to ensure you achieve the best possible performance from your system.

Should you require technical assistance, or in the unlikely event that your product develops a fault, please contact our support team:

luxurysupport@harman.com
+44 1707 668012
+1 888 691 4171

For further information about **JBL Synthesis** products, please contact your local authorized dealer or visit the **JBL Synthesis** website at www.jblsynthesis.com.

Placing The Unit

- Place the amplifier on a level, firm surface, avoiding direct sunlight and sources of heat or damp.
- Do not place the **SDR-40** on top of a power amplifier or other source of heat.
- The **SDR-40** is designed to run warm during normal operation. Do not place the amplifier in an enclosed space such as a bookcase or closed cabinet unless there is good provision for ventilation.
- Do not place any other component or item on top of the amplifier as this may obstruct airflow around the heat-sink, causing the amplifier to run hot (the unit placed on top of the amplifier would become hot too).

The **SDR-40** is designed to run warm during normal use, however, extended use at high volume levels can result in the chassis becoming hot to the touch.

When there is no audio input and no user operation, within 20 minutes, the unit will enter standby mode. This product offers the option to deactivate power management functions. Note that doing this will increase the energy consumption of the product.

Power Management

- This product offers the option to deactivate power management functions by disabling the **Auto Standby Timer** in the **General Setup Menu**. Note that doing this can increase energy consumption of the product.
- By default, this product will enter standby within 20 minutes with no user interaction or playback.
- By default, network connections of this product will remain active in standby. To reduce standby power consumption, all network connections, including Wi-Fi, can be disabled by setting **Standby Operation** to **Eco Standby**.

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Package Contents

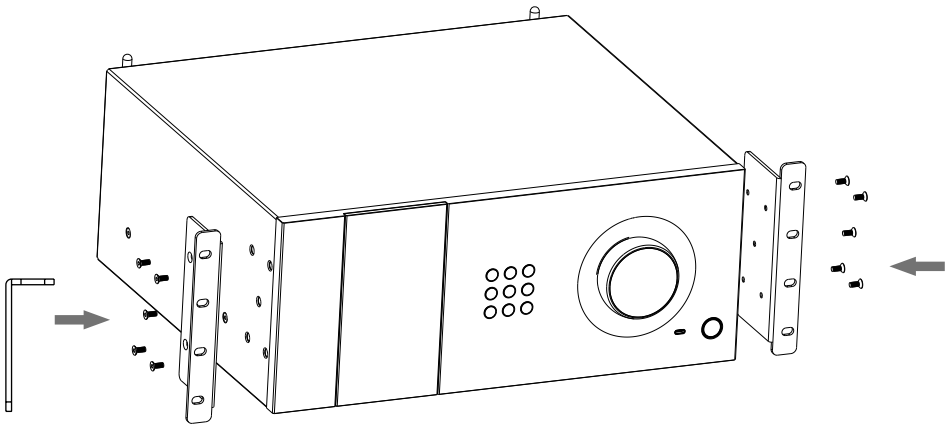
- JBL Synthesis SDR-40
- AVRM-01 Bluetooth remote
- 2x WiFi Antennas
- 2x AAA Batteries for the remote control
- Measurement microphone for use with Dirac Live
- 5 m USB-C cable for use with the microphone
- Region specific power cord(s)
- Equipment Rack Brackets
- Safety and Compliance document
- Quick Start Guide

Find out more about your JBL Synthesis Product

Rack Installation

The included rack-mount brackets allow the product to be installed in a standard 19-inch equipment rack.

- Attach the brackets to each side of the unit using the supplied screws
- Secure the assembly to the rack rails using appropriate rack-mount hardware (not included)
- Ensure that the unit is properly supported and that adequate ventilation is maintained around all sides of the product.



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Front Panel

1 Display

6.5-inch high-resolution display. Shows Now Playing status, Input Selection, Internet Radio Presets, and Audio and General Settings Menu. Navigate using Front Panel Buttons (5).

2 USB-C for Microphone

USB-C connection of calibration microphone for Dirac Live room measurement and acoustic optimization. Only connected during Dirac Live measurements. Refer to the Dirac Live section for more information on calibration. For best results, use a calibrated microphone such as the UMIK-1 with your PC.

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3 Encoder

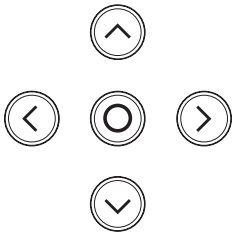
Rotate: Volume Control.

Push: to Mute or Unmute, or to Wake the device when it's in Standby Mode.

Push and Hold: to enter Standby Mode.

4 Front Panel Buttons

Responsible for menu navigation and display brightness settings.

	**Left/Right:** Input List
	Up/down: Surround mode
	Press the **middle button** to select Menu Navigation
	Toggle « Now Playing » Display
	Back
	Display: Bright /Dim /Off
	Home Menu

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Rear Panel

1 Ethernet Input

Provides wired network connectivity for control, streaming, and firmware updates.

2 USB-A Port

Supports audio file playback, firmware updates, and service operations via a connected USB storage device.

3 Digital Inputs

2x Coaxial, 2x Optical
Accepts digital audio signals via coaxial and optical S/PDIF connections.

4 HDMI Inputs (8K Compatible)

7x HDMI Inputs
Supports high bandwidth 8K video sources with advanced HDMI connectivity.

5 HDMI Outputs (8K Compatible)

3x HDMI Outputs: 2x Zone 1, 1x Zone 2.
Support high bandwidth 8K video sources with advanced HDMI connectivity.
Note: Use HDMI Output 1 (eARC) to allow your TV to pass audio to your device.

6 RS-232 Control Port

Enables external control and integration with automation and custom installation systems.

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7 Trigger Outputs / IR Inputs

Trigger Out Zone 1, Trigger Out Zone 2
Provides zone-specific trigger input and output for synchronized system power control.

IR In Zone 1, IR In Zone 2
Accepts external IR receivers to enable reliable operation of a 3rd-party IR remote control in Zone 1 or Zone 2 when direct line-of-sight to the product is unavailable.

8 Stereo RCA Analog Inputs

3x Pair RCA Inputs
Accepts line-level analog audio signals via multiple stereo RCA input connections.

9 Analog Pre-Outputs

16x RCA
Provides assignable, line-level analog audio output for connection to external amplification systems.
Note: Subs can only be assigned to outputs 4 and 11-16.

10 Zone 2 Pre-Outputs

2x RCA
Provides line-level analog audio output for connection to external Zone 2 amplification.

11 Mains Power Switch

Connects/cuts mains power to the AV device.

12 Mains Power Connector

Accepts region specific mains power input via detachable IEC connection.

13 Speaker Output Connectors

9x Pairs Binding Posts: 6 Pairs Assignable
Delivers audio output to speakers via robust binding post connectors.

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Remote Control

	Toggle Standby Operation
	Left/Right: Input List Up/Down: Surround Mode Press the middle button to select Menu Navigation
	Volume Control
	Mute On or Off
	Display: Bright /Dim /Off
	Transport Keys (Play/Pause, Skip back/forward)
	Settings Menu
	On-screen display menu
	Back
	Toggle « Now Playing » Display
	Input selection
	Lip-sync/delay adjustment
	Surround mode
	Dirac Live filter selection

Replacing the Batteries

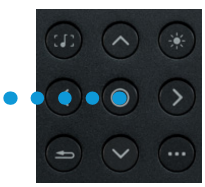
Remove the battery cover and spent batteries. Replace the old batteries with new AAA batteries, following the orientation marked on the inside of the remote. Note: Incorrect use of batteries can have hazardous results. Do not mix old and new batteries together. Do not use non-identical batteries together. Although they may look similar, different batteries may have different voltages. Ensure the batteries are inserted in the correct direction. Remove batteries from equipment that is not going to be used for a month or more. When disposing of used batteries, please comply with governmental or local regulations that apply in your country or area.

Pairing

Press and hold the center button on the remote and the center button on the front panel at the same time. The remote control LED will start flashing and the display will show “Searching.” The pairing will occur automatically.

Remote Center Button

Front Panel Center Button



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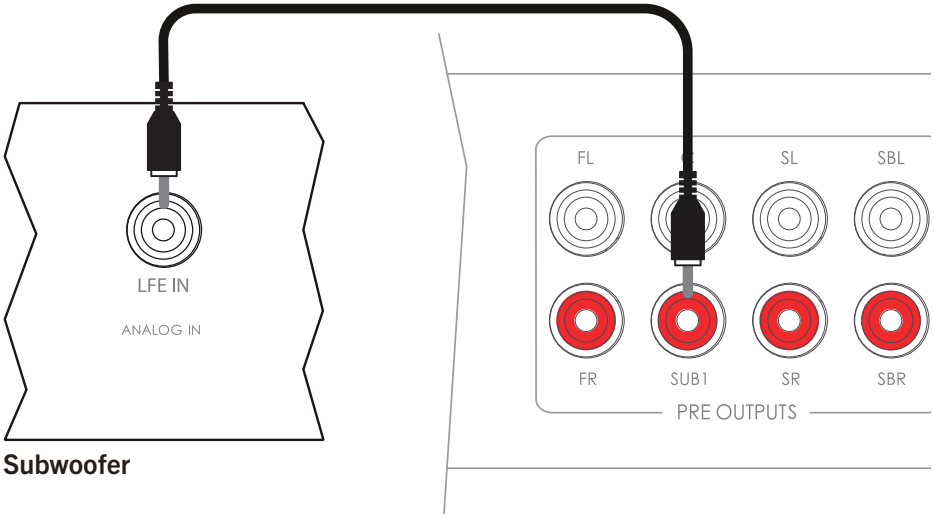
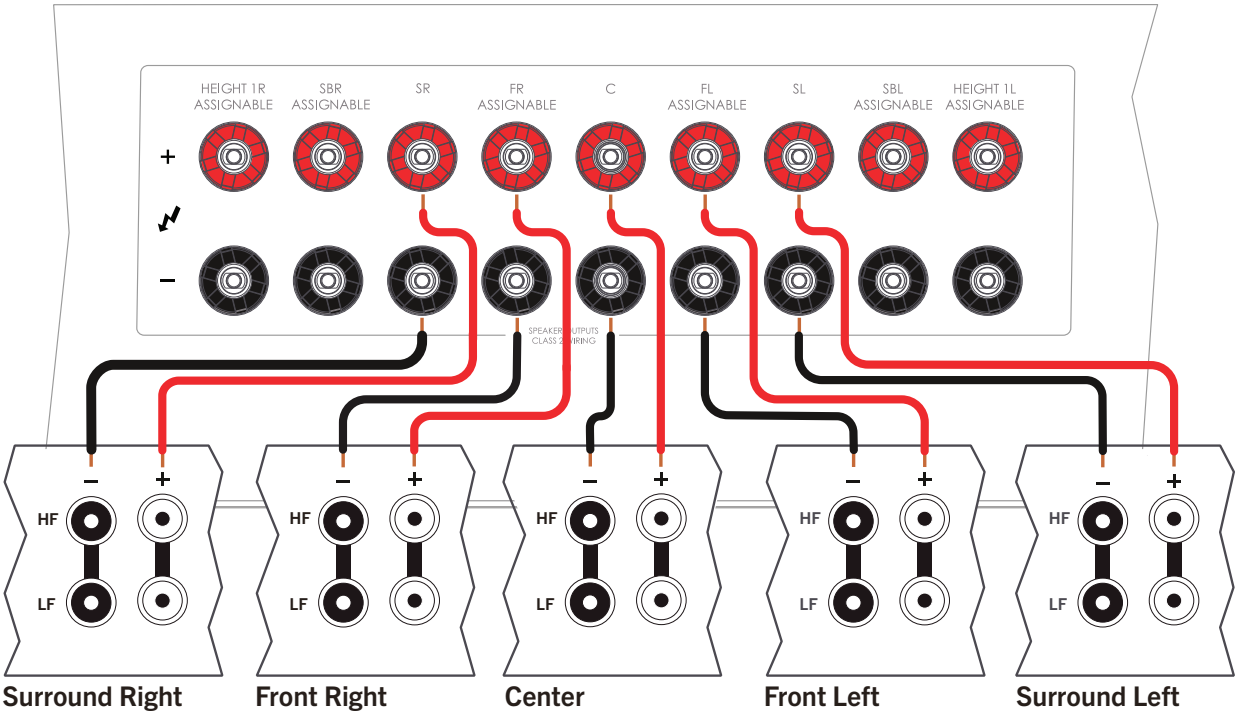
Connections

Subwoofer



Standard Loudspeaker Connections



Caution: Individual, separated 4mm banana connectors should not be used in certain regions due to safety concerns. **JBL Synthesis** recommends using bare wire terminations. If you are unsure as to how your system should be connected, please contact your **JBL Synthesis dealer** who will be happy to help you.

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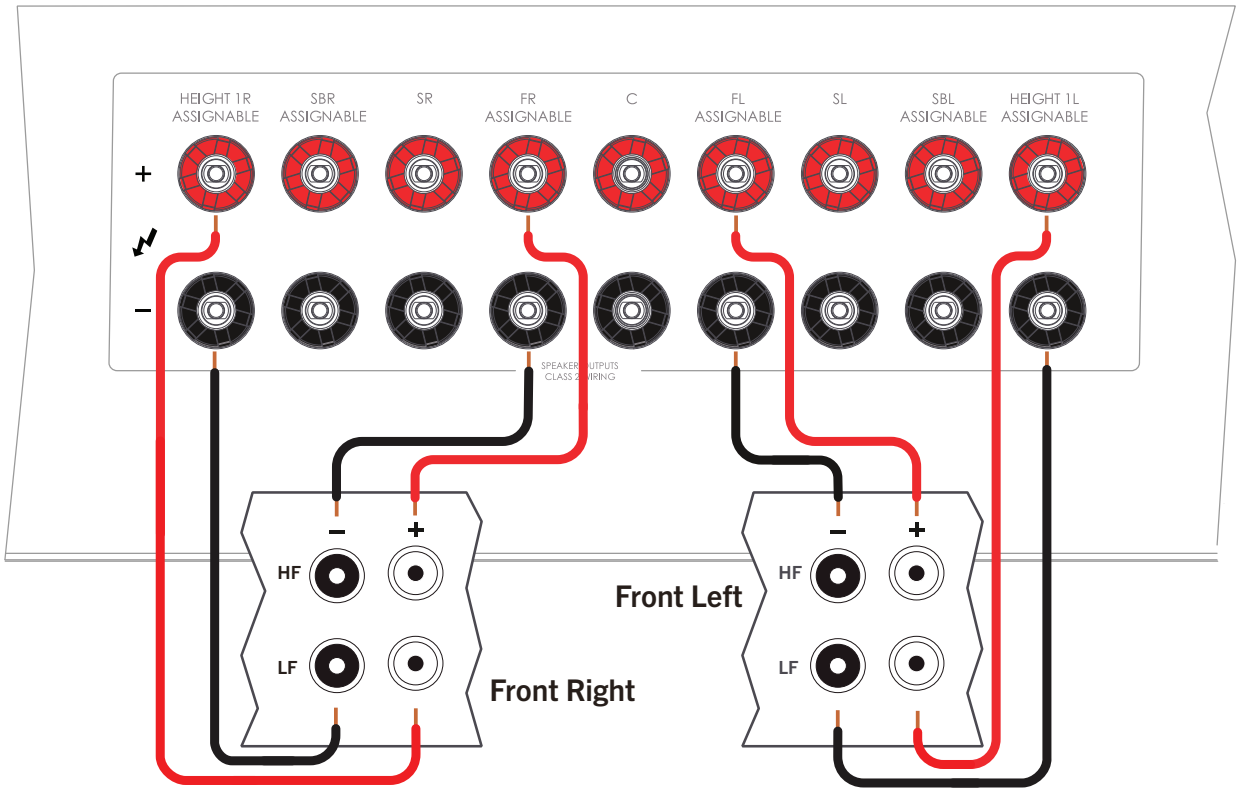
Bi-amplification

These products support a bi-amp setup for **Front Left** and **Front Right** speakers. To setup bi-amping, make the corresponding connections to the speakers/amplifiers and follow the instructions below. Note that this process will also affect the corresponding pre-out connections.

- Navigate to **Settings > Audio > Speaker Settings > Speaker Setup > Custom**.
- Assign the desired bi-amp channel to an **Output** (for example, ensure that **Front Left** is assigned to **Output 1**). The crossover for bass management is set in the first channel output that is assigned, so set the crossover here.
- Navigate to another **Output** and assign the same channel to that **Output** (i.e. **Front Left Bi-Amp** to **Output 9,** in this case).
- Repeat both steps for the **Front Right** channel on **Outputs 2** & **10** (or any other pair of **Outputs**).

Note: Your speakers must have 2 pairs of inputs to support bi-amping.

Note: Always make speaker connections with the power disconnected for safety of you, your amp and your speakers. **Speaker terminal links MUST be removed to avoid damage.** Having checked the connections (**including removing any speaker terminal links on the speakers**), you can reapply power to your device.



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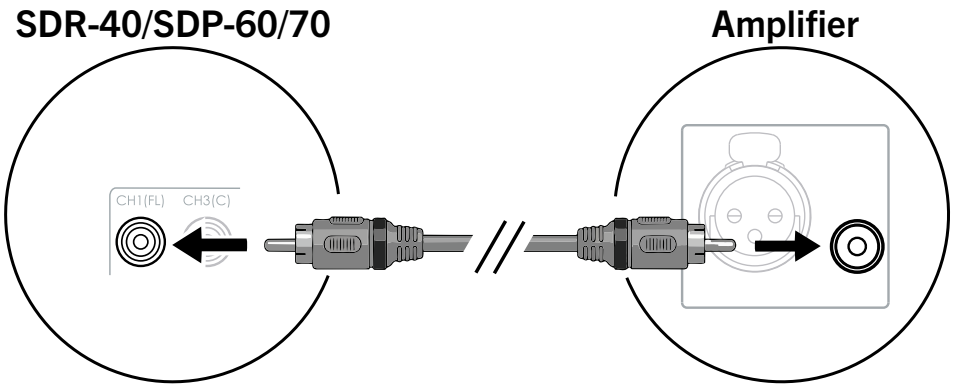
Connecting to External Amplification

The **SDR-40** provides high-quality **RCA** outputs for pristine, analog audio output between your **JBL Synthesis** device and your amplifier. Follow the instructions below to make the connections.

- Connect one side of each **RCA** cable to your **JBL Synthesis** device.
- Next, make the connection on the amplifier side, plugging in the cable to the amplifier channel that powers the speaker that's been assigned in your **JBL Synthesis** device (**Front Left, Center**, etc.).
- Repeat this process until all channels have been connected, including your subwoofers.



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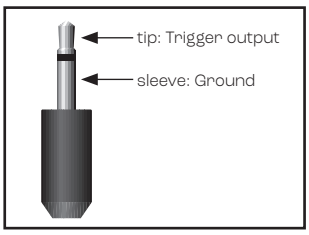
Trigger Outputs

The **Trigger Outputs** (**TRIG OUT Z1** and **TRIG OUT Z2**) are used to synchronize the power state of other equipment with this device. For example, the power state of any power amplifiers or active subwoofers that are being used as part of your configuration can be powered on and off at the same time. There are two **Trigger Out** sockets on the receiver, each capable of outputting **12V DC**.



TRIG Z1 = Trigger for Zone 1
Use for remotely turning on and off power amps or source equipment for Zone 1. On = 12V, Off = 0V.

TRIG Z2 = Trigger for Zone 2
Use for remotely turning on and off power amps or source equipment for Zone 2. On = 12V, Off = 0V.

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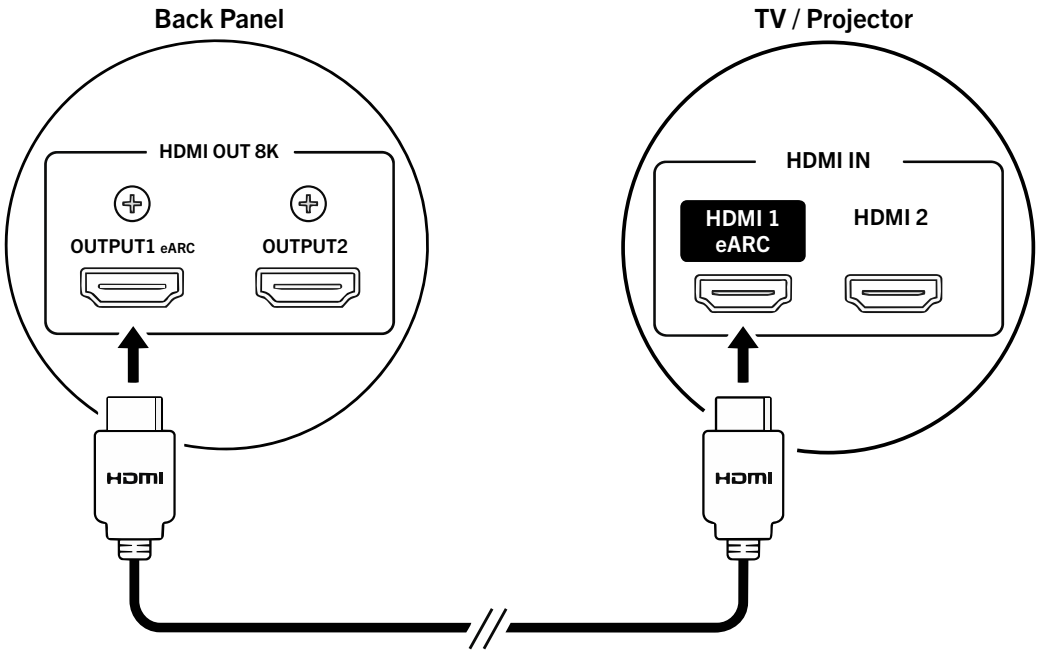
HDMI OUT Connections

Connect the **HDMI OUT (eARC)** connector to the **HDMI** input on your television labeled **eARC**. When connected to an **eARC**-compatible television, the receiver automatically enables the **eARC** function, allowing audio from the TV's internal tuner and streaming apps to be played through the receiver.



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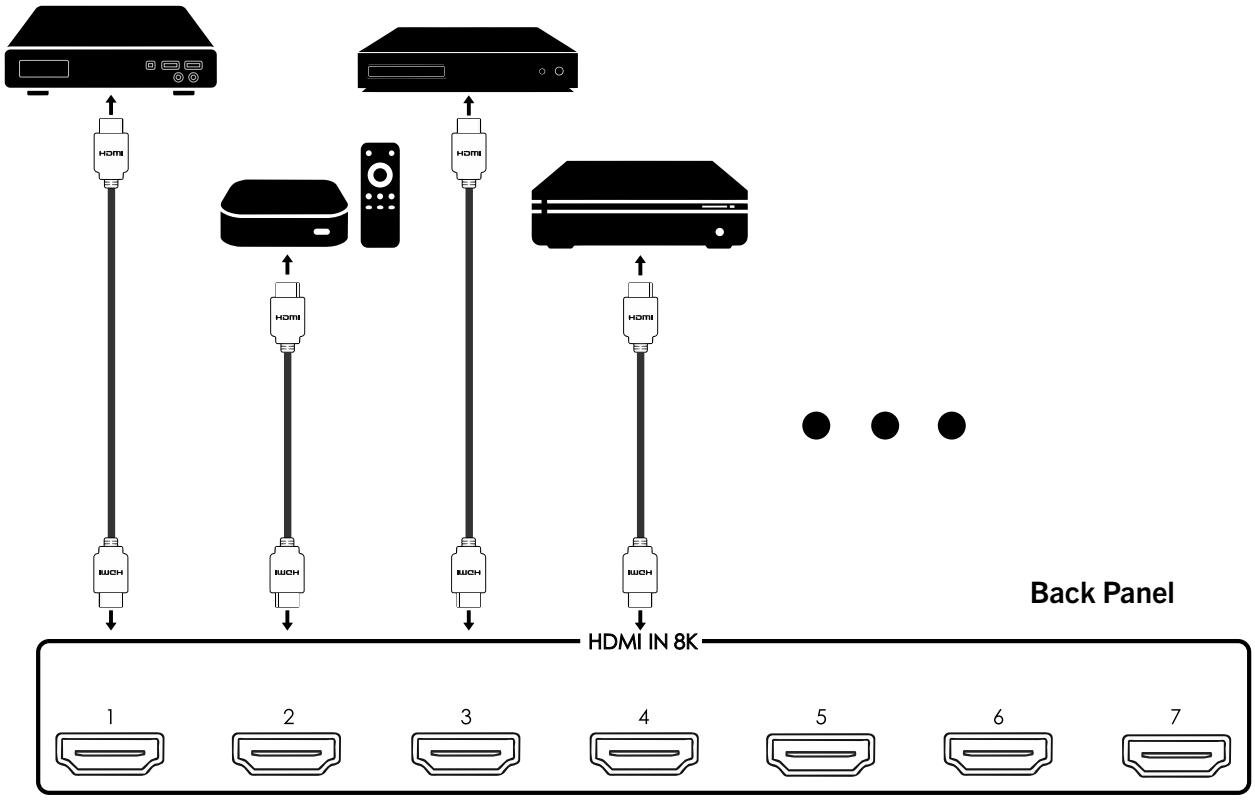
HDMI IN Connections

Connect your **HDMI** source devices to the corresponding **HDMI** inputs on the receiver. The **HDMI** inputs support a wide range of compatible audio and video source devices, including **Blu-ray™** players, media streamers, set-top boxes, game consoles, UHD media players, and other **HDMI**-enabled components.

All **HDMI** inputs are functionally equivalent and may be assigned to any compatible source device as required. Each input can be renamed to match its specific source device using the **JBL Synthesis Control App**.



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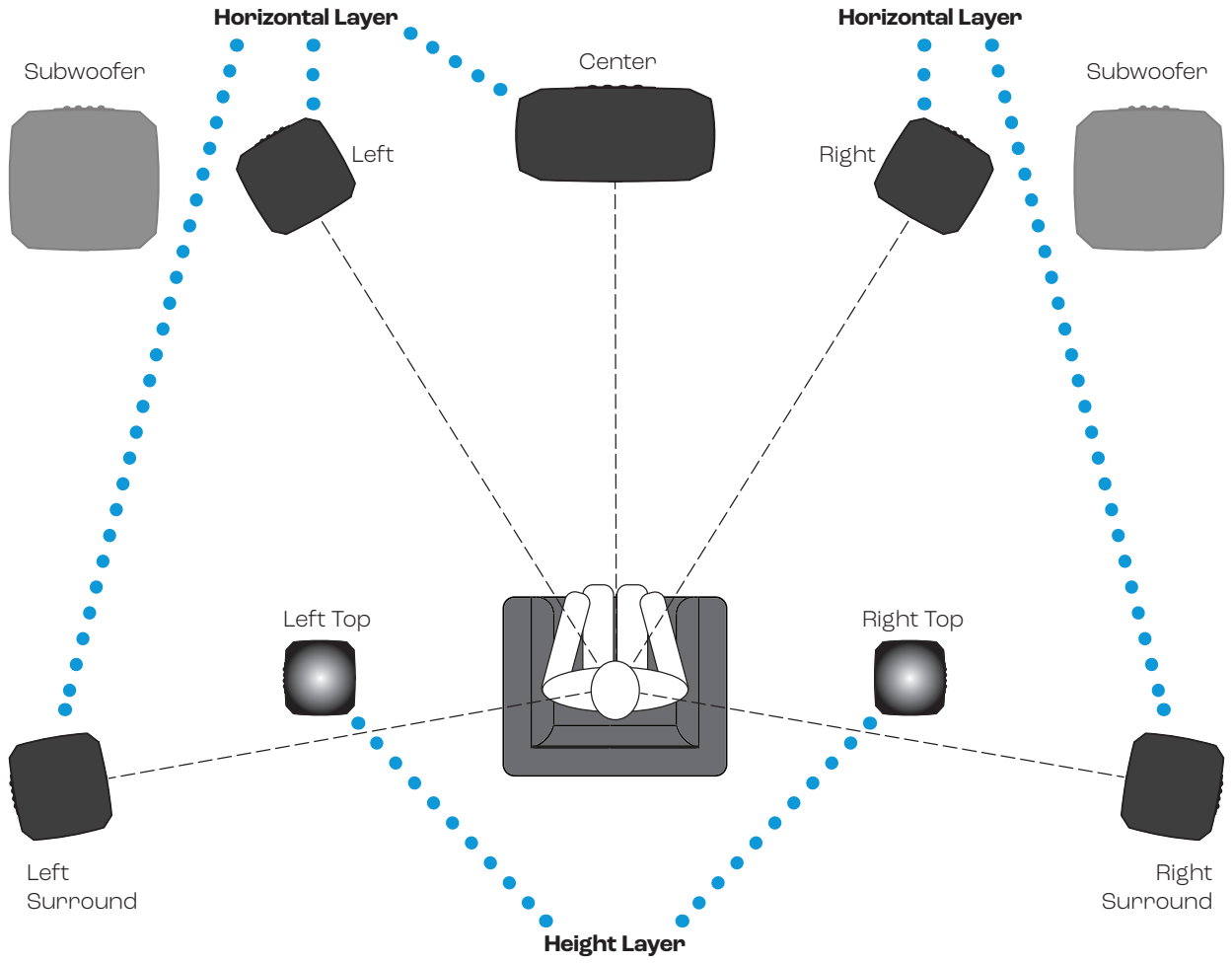
Speaker Layout and Speaker Layers

x.y.z Speaker Configuration

Speaker layouts are described using three characters: x.y.z. The first indicates the number of speakers in the horizontal layer (Main Speakers), the second indicates the number of subwoofers, and the third indicates the number of speakers in the height layer. This notation provides a simple way to describe the channel configuration of a home cinema system. For more info on speaker layouts, visit the Dolby website.

Example: 5.2.2 Speaker Configuration

A 5.2.2 speaker configuration uses five speakers in the horizontal layer, two subwoofers, and two speakers in the height layer. The horizontal layer provides front, center and surround sound around the listening position, while the height layer adds overhead effects for immersive audio formats such as **Dolby Atmos**, **DTS:X** and **Auro-3D**. Dual subwoofers reproduce low-frequency effects with greater consistency and impact, creating a more powerful and balanced home cinema experience.



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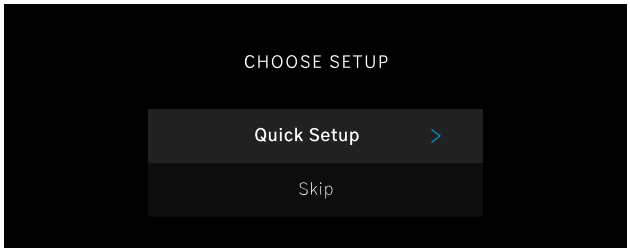
First Time Setup

- Before connecting power, connect your speakers and **Ethernet** connection (where available).
- Ensure that your speakers are connected safely and correctly (See the **Loudspeaker Connections** section**)**. If you are unsure as to how your system should be connected, please contact your **JBL Synthesis** dealer or our dedicated support team who will be happy to help you.
- Connect your display (TV or projector) to **HDMI Output 1**.

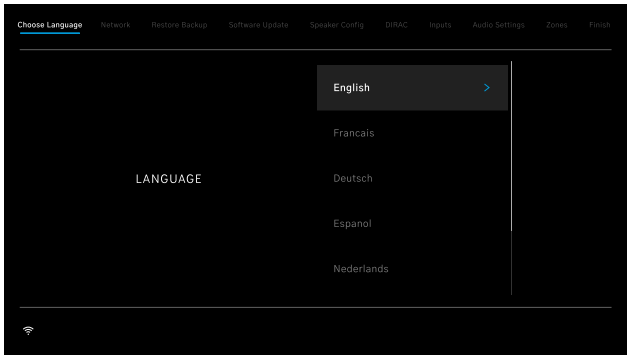
- Connect the power cable, and flip the power switch to the **On** position to power up your product.

- Turn on your TV or projector and select the input to which the device is connected.

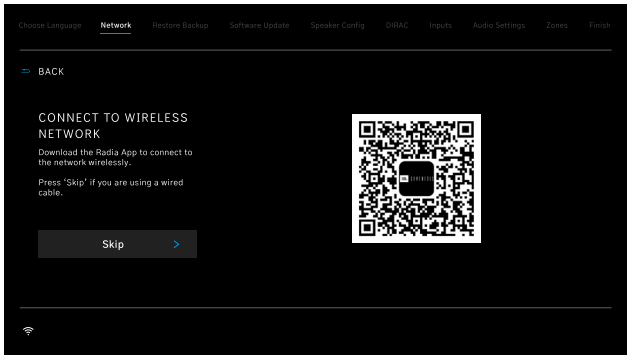
- Select **Quick Setup** to use the guided setup for first time use.
- Select **Skip** to go straight to the main menu for self-navigated setup.



- Choose your language.



- Use the provided QR code to download the app (also found on the front cover of this manual).
- Install the app and use it to set up your **JBL Synthesis** product on your wireless home network (if you are using a wired connection, select **Skip**).



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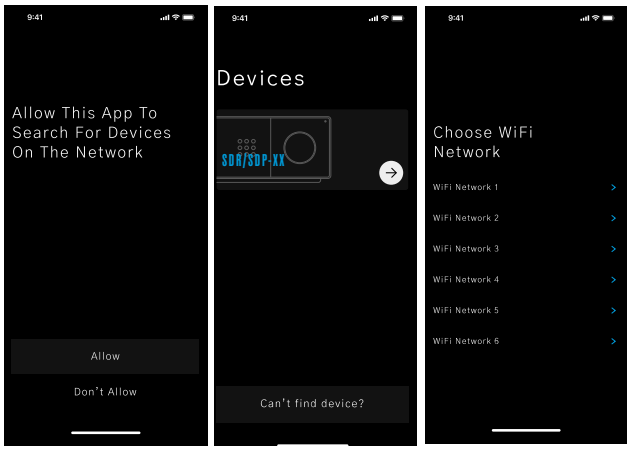
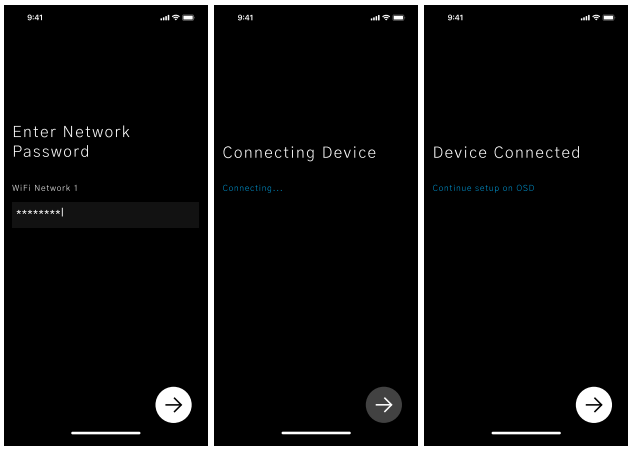
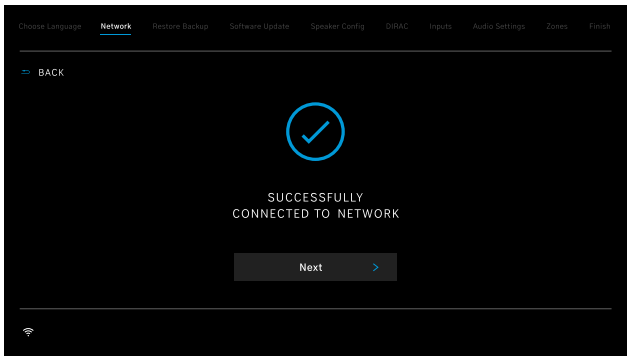
- Open the **JBL Synthesis App**, and select **Allow** to use the app to connect your device to your network.
- Select the **JBL Synthesis** device that you wish to set-up (it will match your model number).
- Select your Wi-Fi network.



- Enter the password for your Wi-Fi network.
- The **App** will arrange the connection between your device and your Wi-Fi network.



- Return back to the On-Screen-Display **(OSD)** on your TV or projector. It should confirm successful connection to the network.
- Select **Next**.



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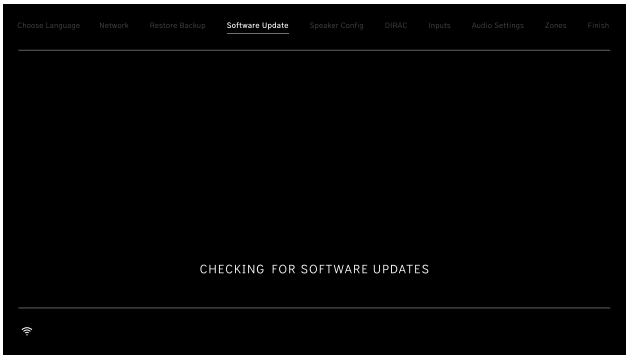
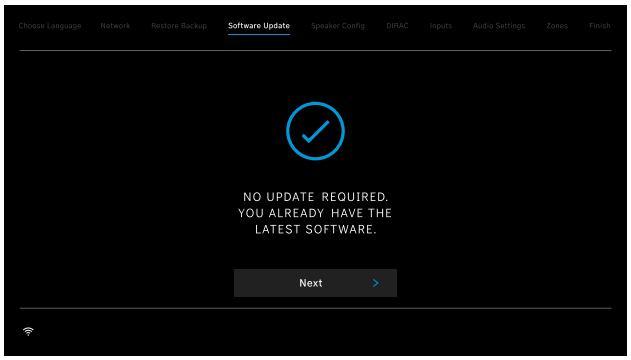
First Time Setup (continued)

- Your **JBL Synthesis** product will now check for software updates and perform updates if necessary, and either confirm that your device has the latest software or perform an update.

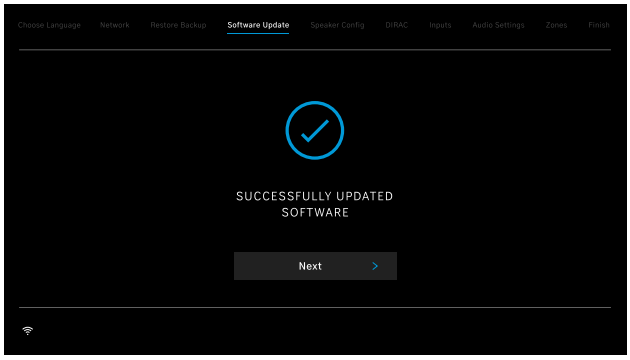


- Select **Next** to continue Setup.

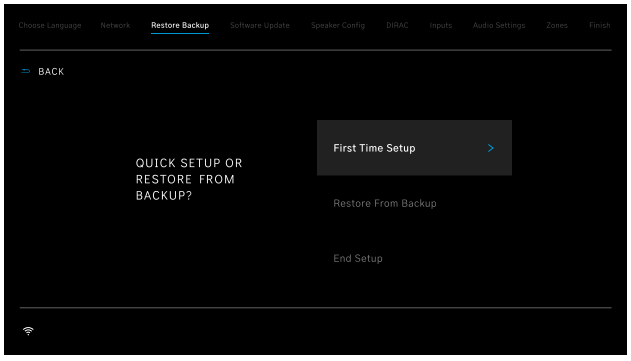
OR



- Select **Next** to continue Setup.



- Select **First Time Setup** (unless you have previously set-up your device and saved a backup of your devices settings. In this case, refer to the **Restore USB Backup** on **Page 43**).



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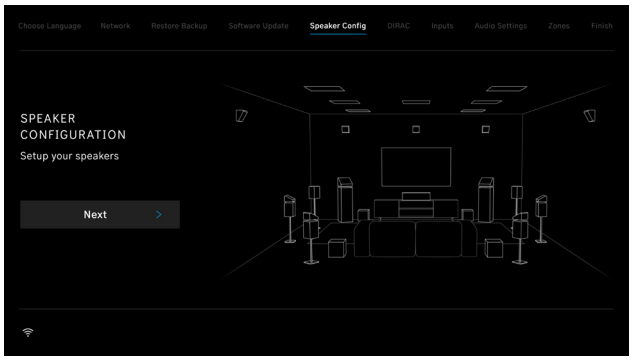
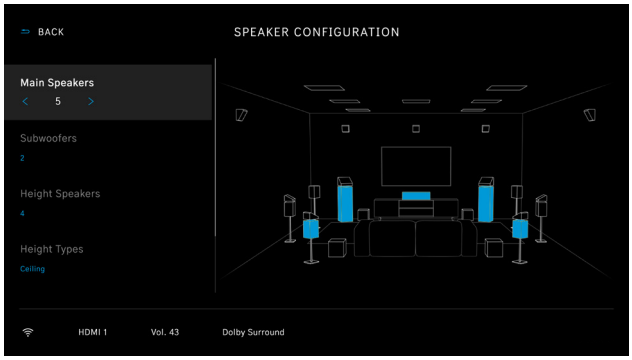
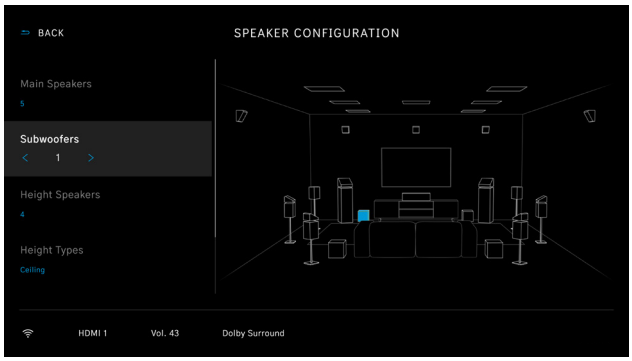
- Select **Next** to begin **Speaker Configuration**.
- For detailed information on ideal speaker placement, consider visiting the Dolby website.



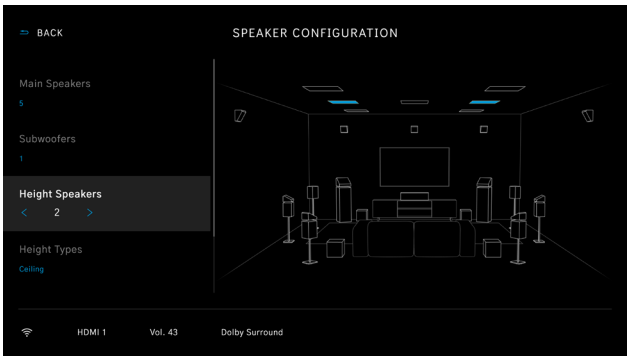
- Specify how many **Main Speakers** are in your home cinema system. These are the front and surround speakers (bed layer).



- Specify how many **Subwoofers** are in your home cinema system. **Subwoofers** can also be set up later in the **Custom** menu towards the bottom of this menu.



- Specify how many **Height Speakers** are in your home cinema system under **Height Speakers**
- Also configure whether they are **Height/ Top** speakers in the **Height Types** section
  - **Top Speakers** are identified as being in the ceiling pointing down.
  - **Height Speakers** are identified as being at the top of a wall pointing towards the listening area.



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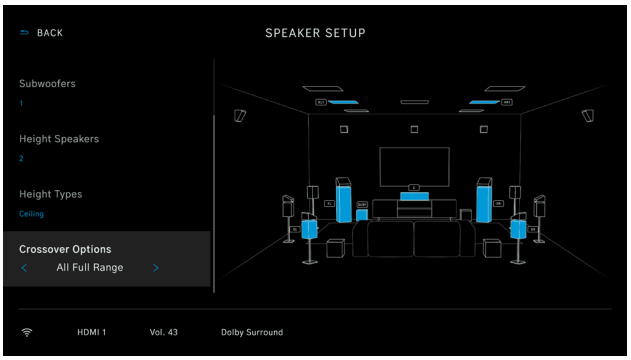
First Time Setup (continued)

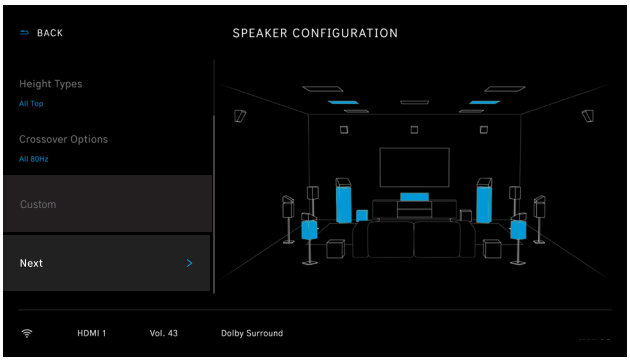
- Finally, set the **Crossover Frequency** for the system. Normally, **80Hz** is recommended.
  - Note: The **Crossover Frequency** defines the frequency below which low-frequency sounds are redirected from speakers to subwoofer(s), improving bass management and overall system performance.
- For standard systems, select **Next** and then **Skip** the next step (**Custom**).



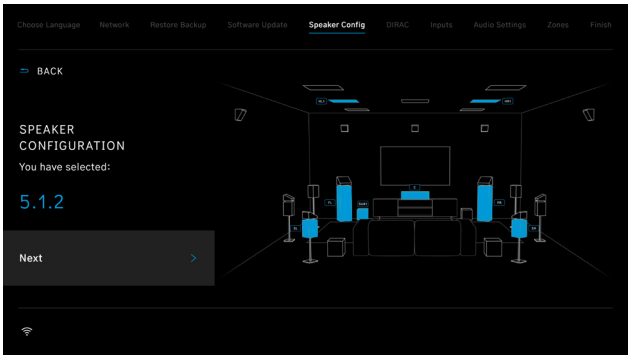
If your system requires a more specific configuration or you would like to explore additional setup options, enter the **Custom** menu. For more details about the **Custom** menu options, see **Page 31**. There you will find the following parameters:

- **Crossover Frequency** per loudspeaker (pair)
- **Height Type** configuration per pair
- **Amplifier Outputs** reassignment
- **Crossover Filter Slope**

- Select **Next** to move to the subsequent step.



- Select **Next** to confirm your speaker configuration.



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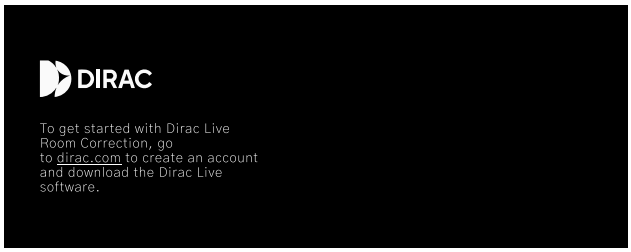
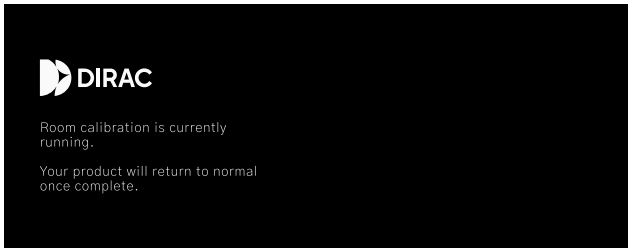
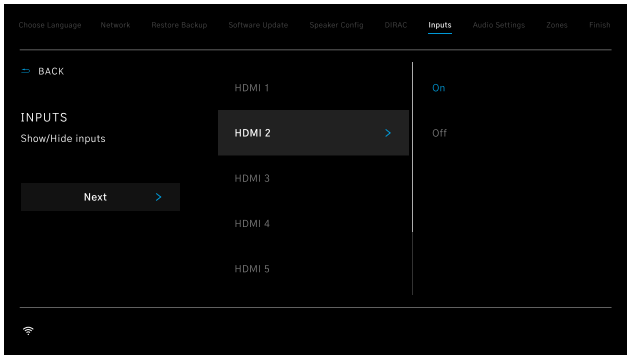
- To get started with **Dirac Live Room Correction**, go to dirac.com to create an account and download the **Dirac Live** software.
- For more information on completing **Dirac Live** calibration, see **Page 35**.
- Otherwise, select **Skip** to leave this step for later.



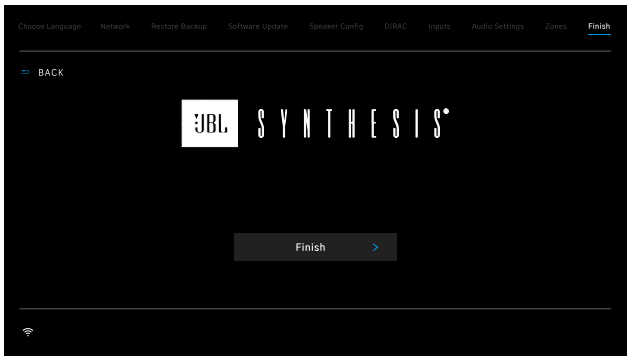
- While running room correction, you will see the following display.
- When **Dirac Live Room Correction** is finished, choose a profile to which this measurement will be saved. There are three profiles to choose from.
- Select **Next** to advance to the Inputs menu.



- The **Inputs** menu allows for unused inputs to be hidden, providing a smoother user experience when switching between actively used input sources.
- Select **Off** to hide an input. Selecting **On** will unhide the input.
- Select **Next** when the Input hiding process is complete.



- For the **Audio Settings** screen, select Next, as these settings can be configured later in the main menu.
- Select the **Finish** button to complete **First Time Setup** (your model will be shown).



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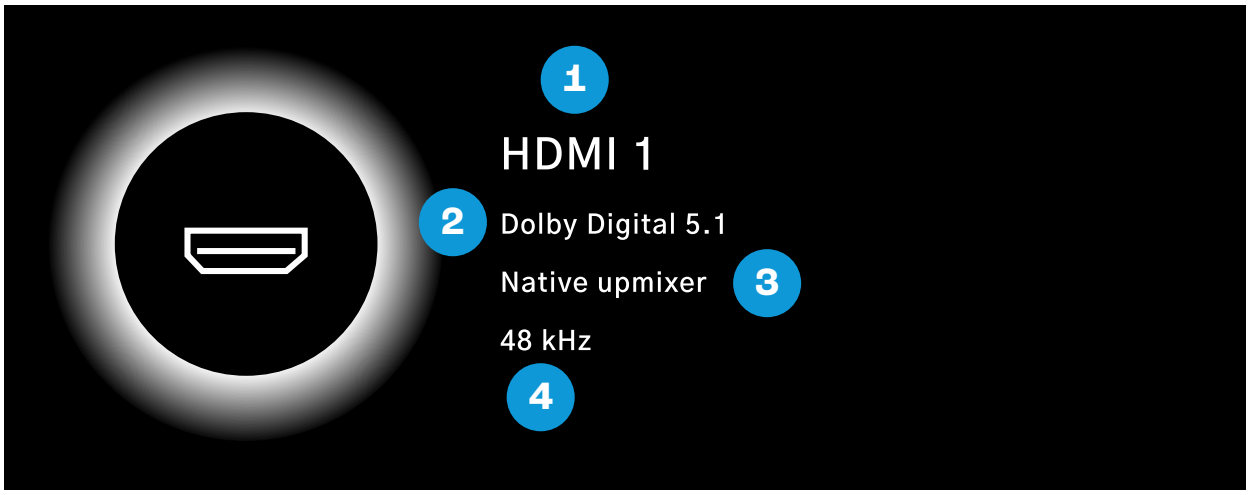
Home Screen Navigation

- **Method 1:** Use the remote control
- **Method 2:** Use the front panel buttons



The **Home Screen**, or **Now Playing Screen**, shows the following information:

1 Input

Shows the currently selected **Input.**

2 Audio Format

Displays the currently playing audio format.

3 Upmixer

Describes the current audio upmixer selected for the currently selected **Input**.

4 Sample Rate

Displays the sample rate of the incoming audio signal.

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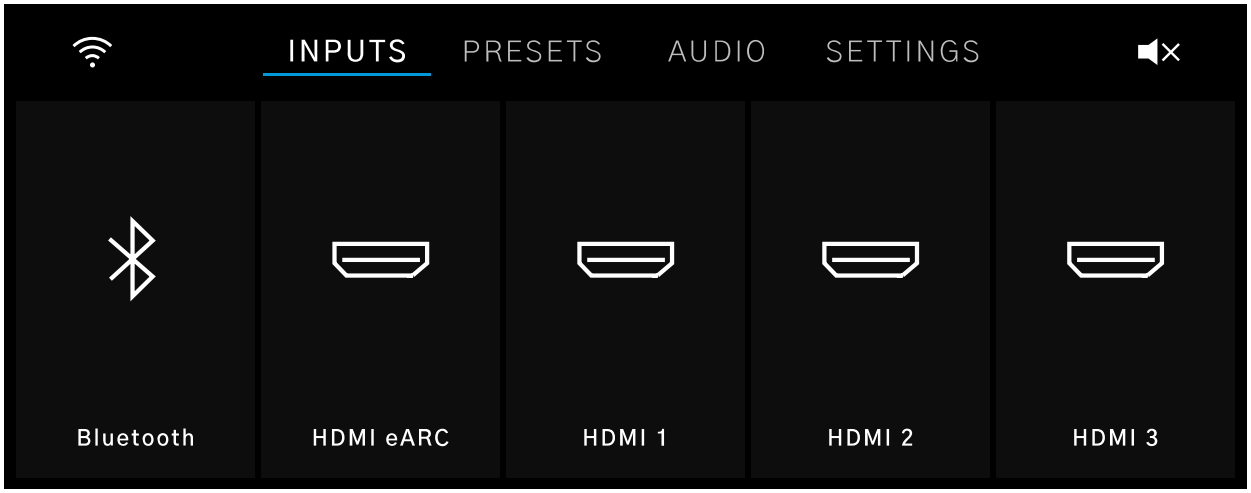
Selecting an Input

- **Method 1:** Use the remote control **Inputs** button (see remote control section).
- **Method 2**: Use the L/R controls on the remote control or front panel.
- **Method 3:** Use the **Settings** > **Inputs** menu via the **Settings** button.



- Press the **Center (OK)** button on the remote control or front panel to open the **Input List**.
- Use the **Left/Right** arrows to scroll through available sources:

  TV (eARC)
  HDMI (1–7)
  Digital (2 Coaxial / 2 Optical)
  Analog (1-3)
  Streaming

- Press the **Center (OK)** button to select the highlighted **Input**.
- The selected **Input** is shown on the front panel display.

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Selecting a Preset

- Use the **Settings** > **Presets** menu via the **Settings** button

- Press **Left/Right** on the remote control or front panel to highlight the **Presets** menu.
- Press the **Center** (**OK**) button on the remote control or front panel to access the **Presets** List.
- Use the **Left/Right** arrows to scroll through available **Presets**.
- Press the **Center** (**OK**) button to select the highlighted **Preset**.
- The selected **Preset** is shown on the front panel display.

Changing the order of your Internet Radio presets using the JBL Synthesis Control App

- Start playback of the Internet Radio station you wish to assign to a different preset position.
- On the playback screen, select the ★ (Favorite) icon.
- The app will display your current preset locations.
- Select the preset position that you want to replace.
- The currently playing station will be saved to the selected preset location, replacing the existing preset.

Note: Replacing a preset removes the previously saved station from that preset position.

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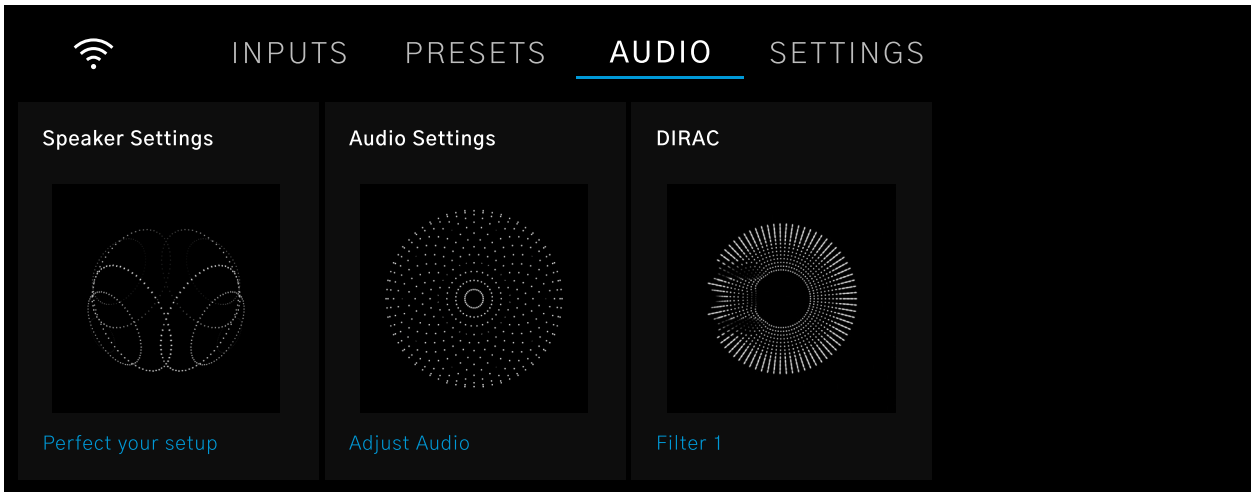
Choosing Your Audio Settings

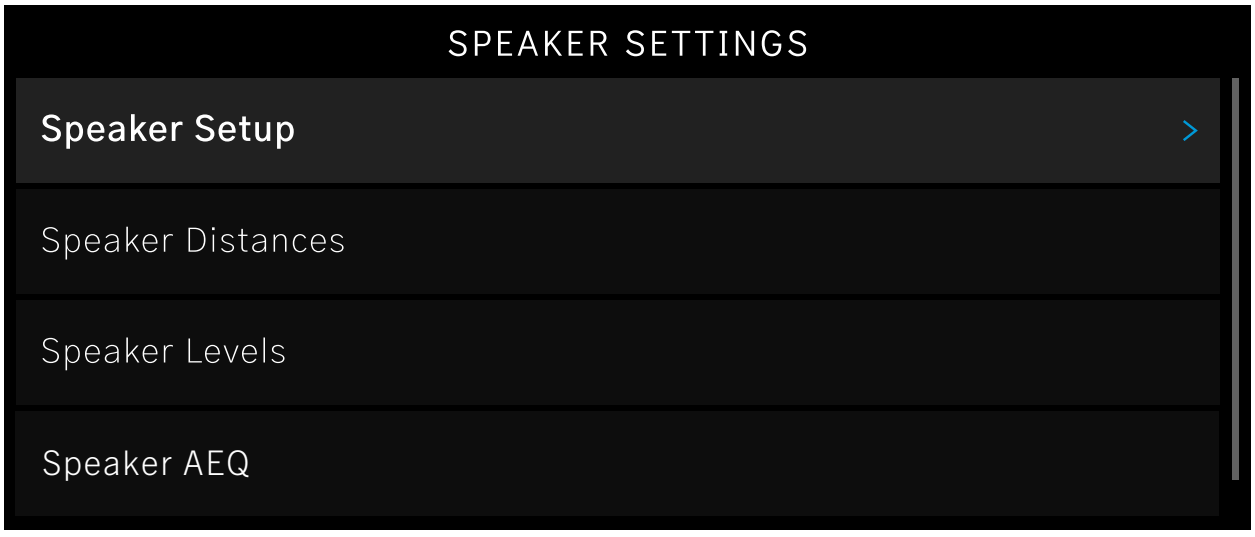
Settings ▶ Audio (access the menu via the **Settings button**)



- Press **Left/Right** on the remote control or front panel to highlight the **Audio Menu**.
- Press the **Center (OK)** button on the remote control or front panel to enter the **Audio Menu List** (Speaker Settings, Audio Settings, DIRAC).
- Use the **Up/Down** Arrows to scroll through available choices.
- Press the **Center (OK)** button to select the highlighted menu item.

Speaker Settings

Settings ▶ Audio ▶ Speaker Settings



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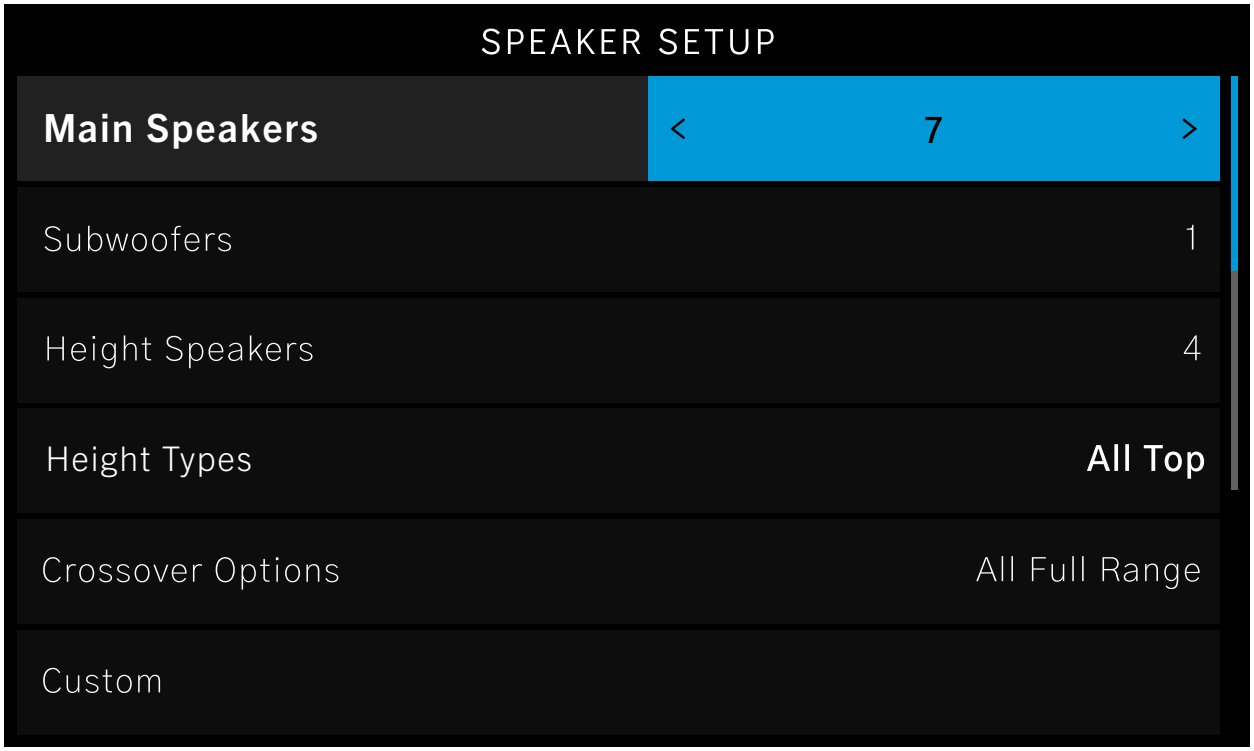
Speaker Setup

Settings > Audio > Speaker Settings > Speaker Setup



- Adjust the number of **Main Speakers** (bed layer speakers), **Subwoofers**, and **Height Speakers** to match your system, if necessary. The defaults are **7, 1, and 2**, respectively.
- Then, specify the **Height Types** that you have: **All Top** (ceiling-mounted) vs. **All Height** (Wall-mounted). If you combine both types in the **Custom** menu, this will show **Mixed** (**Custom**). The default is **All Top**.
- Next, specify the **Crossover Frequency** for each pair of speakers (Full range - 200Hz). If you customize the crossover settings in the **Custom** menu, this parameter will display **Mixed** (**Custom**). **80Hz** is the default setting.
- Finally, if you have a more complex system and wish to customize the **Crossover Frequencies** and **Slope**, as well as **Channel Output Assignments**, select **Custom**.

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Custom Menu

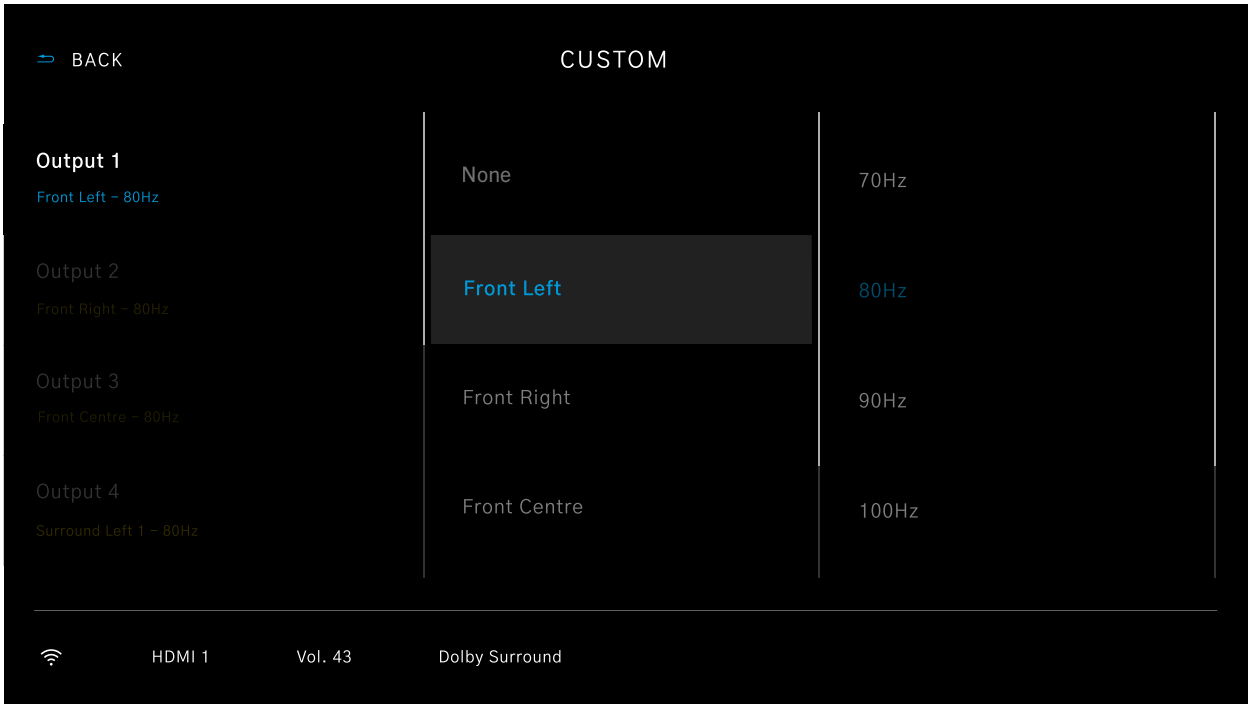
Settings ▶ Audio ▶ Speaker Settings ▶ Speaker Setup ▶ Custom

In the **Custom Menu**, the following operations can be performed:

Leftmost Column (1): Shows which channel is assigned to each numbered **Output** and the chosen crossover frequency.

Middle Column (2): Selecting the highlighted option in Column 1 moves the cursor to Column 2 where the assigned channel can be changed or set to **None**.

Rightmost Column (3): Selecting a channel in Column 2 moves the cursor to the rightmost column, allowing the crossover to be adjusted for that channel/output.



- **Crossover Filter Slope** (12 - 24dB/Octave): This changes the filter slope for all crossover filters at the same time. The filter slope determines how quickly frequencies are attenuated beyond the crossover point, with higher values providing a steeper transition between speakers. The default value is **24dB**.
- **Output Zone 2 from amplified outputs 9 & 10** (No, Yes): This setting allows for amplifier channels 9 and 10 to power Zone 2 speakers in a second room. The default is **No**.

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Speaker Distances

Settings ▶ Audio ▶ Speaker Settings ▶ Speaker Setup ▶ Speaker Distances

- Under the **Speaker Distances Menu**, the following adjustments are available to allow for time alignment across all of the speakers in the system:
  - **Distance/Delay Units** (Metric, Imperial, Time): Switches the measurement system used to determine the distance/delay applied to the outputs. The default is **Metric**. If **Dirac Live** has been run, it will automatically switch to **Time**.
  - **Distance/Delay** (0 - 14m in steps of 0.1m, 0 - 46ft in steps of 4in, or 0 - 41.25ms in steps of 0.25ms): the distance or delay for each output of your product. The default is **0**.

Speaker Levels

Settings ▶ Audio ▶ Speaker Settings ▶ Speaker Setup ▶ Speaker Levels

Under the **Speaker Levels** menu, your product provides a test tone to facilitate speaker level calibration.

- To begin calibration, select **Play Test Tone** and enable it by selecting **On**.
- Next, navigate to **Front Left**. The test tone will play through the corresponding speaker output, allowing for the adjustment of the channel output in increments of 0.5 dB, up to +/- 10 dB, in order to reach the desired output level. The default is **0 dB**.
- Repeat this process for each speaker output until you've finished calibrating all speaker output levels and all subwoofer output levels.

Speaker AEQ

Settings ▶ Audio ▶ Speaker Settings ▶ Speaker Setup ▶ Speaker AEQ

Anechoic EQ (AEQ) applies **JBL Synthesis** loudspeaker-specific correction filters derived from anechoic measurements to improve accuracy, tonal balance, and overall system performance. **When available, select the AEQ profile matching the connected loudspeaker model before running Dirac Live calibration.**

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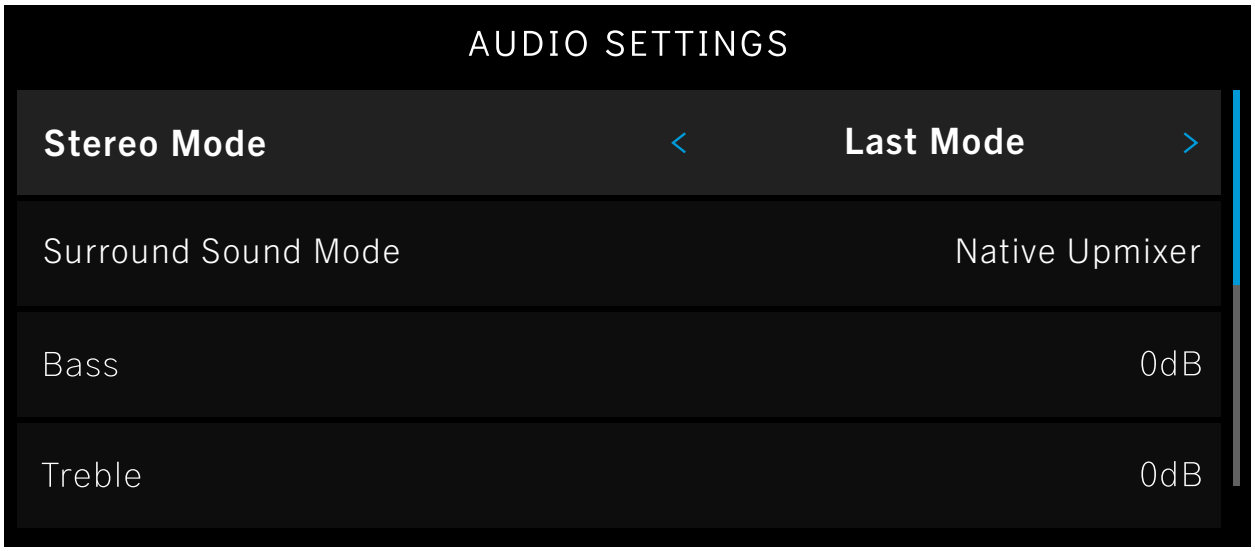
Audio Settings

Settings ▶ Audio ▶ Audio Settings

Changing these settings affects only the input that is currently in use (i.e. the corresponding settings for all other inputs remain unaltered).



Stereo Mode (Last Mode, Stereo, Dolby Surround, DTS Neural:X, MCH Stereo): This item controls what the product does when it receives a 2-channel (stereo) signal. The default is **Stereo**.

- **Last Mode**: The product will automatically select whichever mode was last used.
- **Stereo**: This setting essentially performs a pass-thru function, sending the L/R channels to the L/R loudspeakers with no modification to the channel content or imaging.
- **Dolby Surround**: Leverages **Dolby Surround** to perform an upmix from 2 channels to the chosen speaker layout.
- **DTS Neural:X**: Leverages **DTS Neural:X** to perform an upmix from 2 channels to the chosen speaker layout.
- **DTS Virtual:X**: Leverages **DTS Virtual:X** to deliver a virtual, immersive audio experience.
- **Auro-3D**: Uses Auro-3D to perform an upmix from 2 channels to the chosen immersive speaker layout.
- **Auro-2D**: Uses Auro-3D to perform an upmix from 2 channels to the chosen bed-layer speaker layout (no height upmix).
- **MCH Stereo**: Duplicates the L/R channels to all speaker pairs in the chosen speaker layout, creating a “multi-channel stereo” experience.

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Surround Mode (Last Mode, Native, Native Upmixer, Dolby Surround, DTS Neural:X, Stereo Downmix): This item controls what the product does when it receives a surround signal (anything with more than 2 channels, but normally 5.1 or 7.1). The default is **Native**.

- **Last Mode**: The product will automatically select whichever mode was last used.
- **Native**: This setting essentially performs a pass-thru function, sending the original channels to the respective loudspeakers with no modification to the channel content or imaging.
- **Native Upmixer**: Automatically chooses the upmixing technology associated with the content format. A **Dolby** signal will exercise **Dolby Surround**, whereas a **DTS** signal will instantiate **DTS Neural:X**. In either case, an upmix to the chosen speaker layout will occur.
- **Dolby Surround**: Leverages **Dolby Surround** to perform an upmix from the incoming surround format to the chosen speaker layout.
- **DTS Neural:X**: Leverages **DTS Neural:X** to perform an upmix from the incoming surround format to the chosen speaker layout.
- **DTS Virtual:X**: Leverages **DTS Virtual:X** to deliver a virtual, immersive audio experience.
- **Auro-3D**: Uses Auro-3D to perform an upmix from the incoming surround format to the chosen immersive speaker layout.
- **Auro-2D**: Uses Auro-2D to perform an upmix from the incoming surround format to the chosen bed-layer speaker layout (no height upmix).
- **Stereo Downmix**: Performs a downmix of the incoming signal to an output of 2-channels (L/R).

Bass (+/- 12dB): Increase or decrease the amount of bass in the system. The default is **0 dB**.

Treble (+/- 12dB): Increase or decrease the amount of treble in the system. The default is **0 dB**.

Input Trim (+/- 6dB): Increase or decrease the gain of individual channels/pairs/groups. The default is **0 dB**. Channels are grouped as follows:

- **Front L+R**
- **Center**
- **All Surrounds**
- **All Heights**
- **LFE**

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Getting Started with Dirac Live

Settings > Audio > Dirac

The **SDR-40** includes **Dirac Live Room Correction** and **Bass Control. Active Room Treatment** is available through a separate licence purchased through **Dirac**. The filters available to you depend on which licencIPes you own.

- **Room Correction (RC)**: The core technology. Uses patented algorithms to analyse your room's impact on sound and digitally correct it, delivering a wider sweet spot, clearer soundstage, and tighter bass.
- **Bass Control (BC)**: An add-on technology. Builds on RC by automating subwoofer setup and integration, providing consistent bass across the entire listening area. Particularly beneficial in multi-subwoofer systems.
- **Active Room Treatment (ART)**: An add-on technology. Calibrates your speakers as a unified system and uses each speaker to actively reduce room decay, minimizing lingering bass for maximum clarity.

Note: If you have **JBL Synthesis Loudspeakers**, enabling **AEQ** prior to **Dirac** calibration is recommended for even better overall performance. When available, select the **AEQ** profile matching the connected loudspeaker model before running **Dirac Live** calibration.

Preparing to measure your room

Calibration with Dirac Live can be performed using either:

- The **Dirac Live** app on **Android** or **iOS** devices for a quick calibration of your system.
- The **Dirac Live** software installed on a **PC** or **Mac** for a detailed calibration of your system.
- Install the **Dirac Live** software on the device of your choice and sign in with your **Dirac** account.

Allow the software to detect your product.

- Your **JBL Synthesis** AV product and your device must be on the same network. Rescan or enter the IP address (**Settings > Settings > Status**) manually if required.

Connect a measurement microphone:

- When using an **Android** or **iOS** device, connect the supplied microphone to the **USB-C** socket on the front of the **SDR-40**.
- When using **Dirac Live** on a **PC/Mac**, for best results, use a calibrated microphone such as the UMIK-1 with your PC. Otherwise, connect the supplied microphone to a **USB** port on the computer and select it in the software.

Volume calibration defines the volume of the measurement sounds that are made in your room.

- Place the microphone on a stand at your main listening position at seated ear height, pointing upwards.
- The supplied microphone can be mounted to an adjustable tripod for more stable and accurate measurements.
- Press the Play icon to produce a noise from your speakers.
- Adjust the **Master Volume** level so the speaker measures approximately -15 dB to -30 dB when playing the calibration noise.

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- If the measurements are too quiet, the accuracy of the optimization will be poor because of background noise.
- If the measurements are too loud, the measurements can be distorted which will trigger an error.
- If either issue occurs during measurements, adjust the **Master Volume** again.
- For fine tuning using the **PC/Mac** version, each channel can be adjusted down so that each output is more consistent. Set the volume of the quietest speaker with the **Master Volume**, then adjust the volume of louder speakers with the individual channel sliders.

Select your Sweet Spot.

- Select a **Sweet Spot** arrangement that is closest to your listening area
- Use **Focused** for an accurate calibration for a single listening position
- Use **Wide** for a calibration of more than a single listening position
- Use **Expanded** for a calibration of a larger listening area

Measuring your room with Dirac Live

For best results:

- The supplied microphone can be mounted to an adjustable tripod for more stable and accurate measurements. For best results, use a calibrated microphone such as the UMIK-1 with your PC.
- Measure all suggested positions. More positions will improve accuracy.
- Do not stand between the speakers and the microphone.
- Keep the room as quiet as possible during measurement.
- You can use the measurement timer to allow for you to leave the room during measurements.
- For **Dirac Live ART**, 9 measurements are required.
- Don't forget to save your project!

Once measurement is complete, navigate to Filter Design and choose your filter type according to your license.

- **Room Correction:** Adjust the target curve per speaker or group. Crossovers are not calculated and must be set manually on your product.
- **Bass Management:** The same as **Room Correction** but adds crossover settings.
- **Bass Control:** Set crossover points automatically or manually and optionally exclude speakers from bass management, then select **Calculate**. The software computes optimal distances, levels, and crossovers automatically.
- **ART:** The software automatically assigns parameters for each speaker, so no manual adjustment is required before selecting **Calculate**. Advanced users can manually determine how much one speaker supports another.

Note: For both **BC** and **ART**, the calculated distances, levels, and crossover settings cannot be adjusted on your product after the filter has been uploaded.

In filter design, advanced features on the **PC/Mac** version allow for fully custom target setting. **Harman Target Curves** can be downloaded from **SDR-40** product page and loaded into **Dirac Live** for proven performance by optimization in your room.

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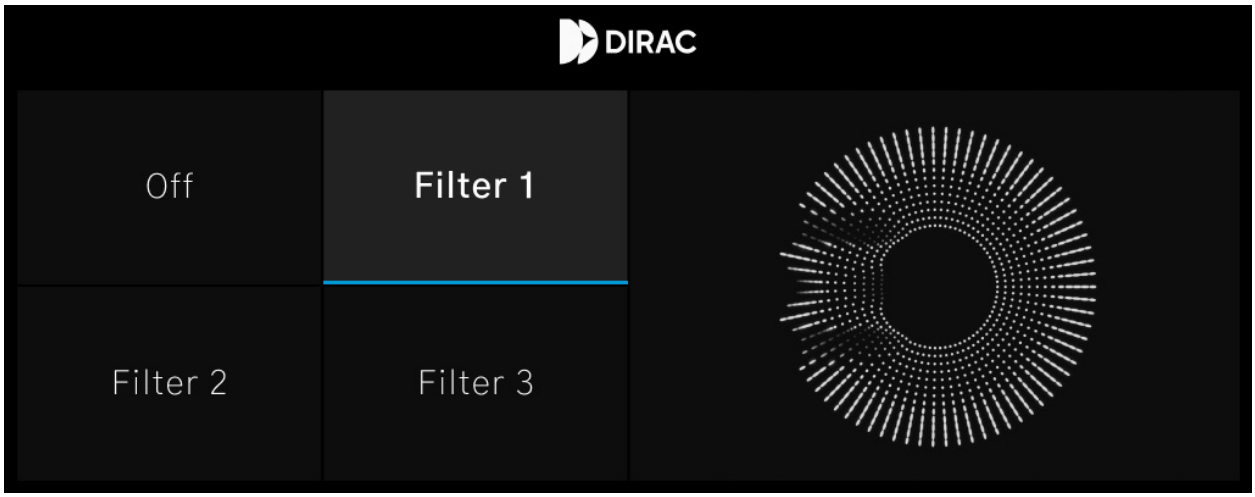
Exporting and using filters

After designing a filter, export it to one of your **JBL Synthesis** product's filter slots and assign it a name. Multiple filters can be stored for convenient switching. The default is **Off**.



On the device:

- Select your active filter within the device settings or using the **Dirac** button on the remote control.
- Each filter stores its acoustic correction along with per-speaker levels and distances.
- You may wish to create different filters for film viewing, social listening, or focused music sessions, each tailored for a specific sound profile.

Notes:

- Save your project file within the software so it can be reloaded later to create new filters without repeating the measurement process.
- Certain manual speaker and bass settings are locked when a **BC** or **ART** filter is active.
- Calibration filters can only be used with the speaker configuration with which they were measured. If the speaker configuration changes, the filters for the previous configuration will no longer be applicable.

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Dante

Your JBL Synthesis processor includes Dante™ audio networking technology, allowing audio signals to be transmitted over a standard Ethernet network rather than traditional audio cabling. Dante automatically discovers compatible devices on the network and enables flexible routing of audio between supported products.

Dante is widely used in professional audio installations because it supports high channel counts, low latency, and precise clock synchronization. Dante-enabled devices can automatically identify one another, simplifying system expansion and configuration.

Dante Controller

Audio routing and configuration are performed using Dante Controller, a free software application available for Windows and macOS. Dante Controller allows you to:

- Discover Dante-enabled devices on the network
- View available transmit (Tx) and receive (Rx) audio channels
- Create and manage audio routes between devices
- Monitor network and clock status
- Configure device and channel names
- Save and recall system configurations

Basic Operation

In a Dante network, audio is routed by creating a subscription between a transmitting (Tx) channel and a receiving (Rx) channel. Dante devices automatically configure their network settings and advertise themselves to other Dante devices on the network. In most installations, no manual IP configuration is required.

All Dante devices automatically synchronize their clocks using Precision Time Protocol (PTP), ensuring accurate timing and reliable audio performance throughout the network.

Network Recommendations

For best performance:

- Use wired Gigabit Ethernet connections.
- Use quality network switches and cabling.
- Do not transport Dante audio over Wi-Fi.
- Follow Audinate's recommendations for network design and configuration.

Additional Information

This section is intended as a brief overview of Dante operation. For detailed information regarding Dante Controller software, audio routing, network configuration, clocking, troubleshooting, AES67 interoperability, and advanced Dante features, refer to the official Audinate Dante Controller User Guide.

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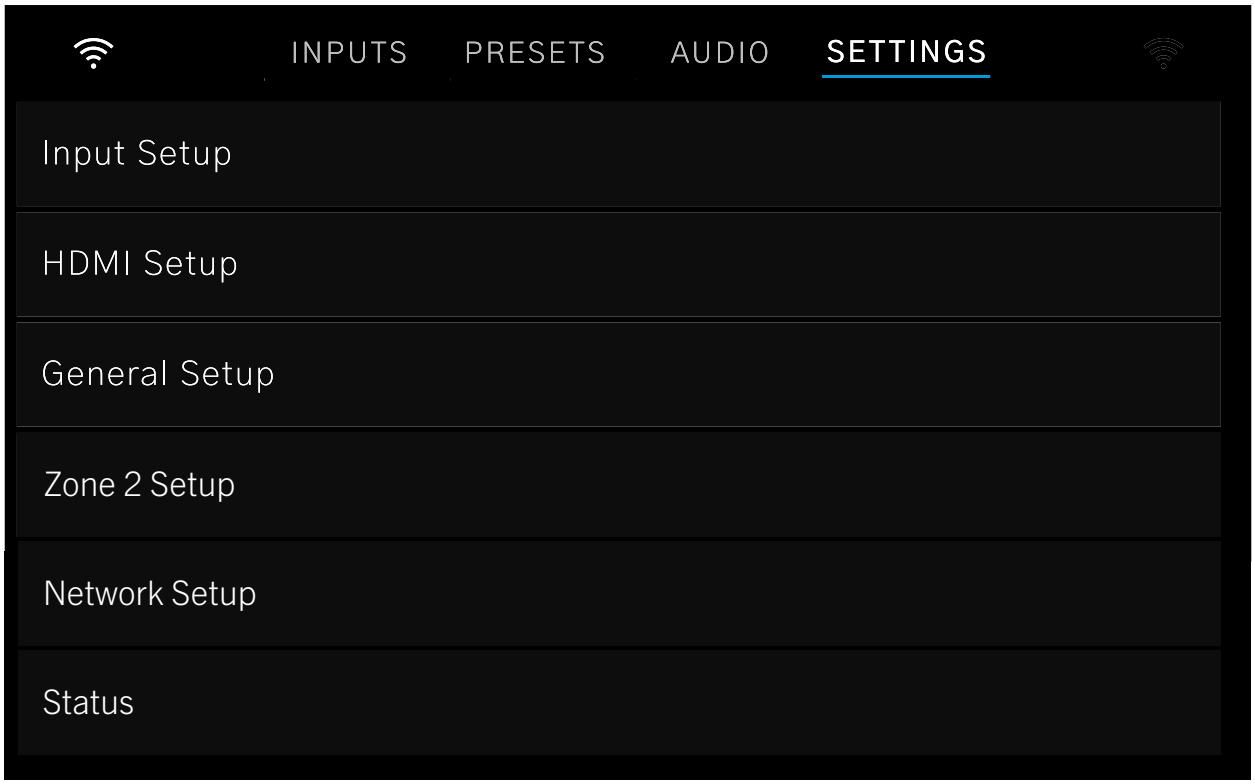
Settings

Settings ▶ Settings



- Press **Left/Right** on the remote control or front panel to highlight the **Settings Menu**.
- Press the **Center (OK) button** on the remote control or front panel to enter the **Settings List (Input Setup, HDMI Setup, General Setup, Status)**.
- Use the **Up/Down Arrows** to scroll through available choices:
- Press the **Center (OK) button** to select the highlighted **Menu Item**.

Input Setup

Settings ▶ Settings ▶ Input Setup

Input Settings (Global, Stream, Analog 1 - Analog 3, Digital 1 -Digital 4, HDMI 1 - HDMI 7, TV):

- For most users, starting with the **Global** option is recommended, as it will allow the configuration of most of the **Input Settings** for all **Inputs** at the same time.

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- To configure one particular **Input**, select that **Input** here and then adjust the settings as desired.
- The following pages will explain the various ways that **Inputs** can be configured.

Global Settings

Global Settings apply to multiple **Inputs** and are globally configurable. When **Global** is selected for **Input Settings**, adjusting the below settings will set the same result for all **Inputs**.

Maximum Volume (0 - 100):
- Sets the maximum volume level for all **Inputs**, preventing volume exceeding a defined maximum setting. The default is **100**.

Dolby Surround Mode (Off, Music, Movie, Night):
- Selects a preferred **Dolby Surround** processing mode for an input, optimizing playback per content type. The default is **Off**.

Audio Compression (Off, Medium, High):
- Applies dynamic range compression to reduce volume differences between quiet and loud audio passages. The default is **Off**.

DTS Dialogue Control (0dB - 6dB):
- Adjusts dialogue level within **DTS** content, improving speech clarity without altering overall volume significantly. The default is **0 dB**.

Auro-matic 3D Options (Small, Medium, Large, Movie, Speech):
- Adjusts the **Auro-Matic 3D upmixer** for different room sizes and content types, optimizing spatial effect, immersion, and dialogue clarity. The default is **Medium**.

Auro-matic Strength (0 - 16):
- Adjusts the level of **Auro-Matic 3D** processing by blending the original (unprocessed) and upmixed (processed) signal, allowing you to control the intensity of the immersive effect. The default is **8**.

Stereo Configuration (As Speaker Setup, Full Front Left + Right Only, Full Front Left + Right + Subs, Xover Front Left + Right with Subs):
- Defines how stereo audio is routed to speakers and subwoofers, based on system configuration. The default is **As Speaker Setup**.

Stereo Configuration Sub Trim (-12dB - 0dB):

Adjusts subwoofer output level for stereo playback without affecting overall system calibration. The default is **0 dB**.

All Inputs (Individually)

What follows is a set of parameters that can be adjusted individually for each **Input** (i.e. not globally). In order to adjust a specific **Input**, select that particular **Input** for the **Input Settings** parameter.

Input Name (Use the **JBL Synthesis Control App** to customize):
- Allows the input to be renamed using the control application for easier identification.

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The default matches the name of the physical input.

Show/Hide Input (Show, Hide):

- Controls visibility of the input in menus and selection lists. The default is **Show**.

TV & HDMI Inputs

The following is a set of parameters that can be adjusted only for the **eARC (TV) and HDMI Inputs**.

Auto Switch (No, Yes):

- Automatically switches to this input when an active signal is detected from the connected source. The default is **Yes**.

Lip Sync (Auto, 5ms - 250ms in increments of 5ms):

- Adjusts audio delay to maintain synchronization with video, either automatically or manually. The default is **Auto**.

HDMI Inputs

This parameter can be adjusted only for the **HDMI Inputs**.

IMAX Enhanced (Auto, Off, On):

- Controls whether **IMAX Enhanced** processing is applied automatically based on the detection of **IMAX Enhanced** content or manually enabled or disabled. The default is **Auto**. **Note**: Does NOT apply to the **eARC (TV) Input**.

Streaming

The **Streaming Input** has one unique parameter:

Streaming Maximum Volume (0 - 100):

- This setting creates a unique maximum volume ceiling for the **Streaming** input. In order for it be used, it must be lower than the **Global Maximum Volume** setting. The default is **50**.

Analog, Digital, Streaming

These parameters can be adjusted only for the **Analog, Digital, Streaming, Inputs**.

Delay (0ms - 250ms in increments of 5ms):

- Applies manual audio delay to align sound timing with associated video or other sources. The default is **0 ms**)

Video Source (None, HDMI 1 - HDMI 7):

- Assigns a specific **HDMI** video input to be associated with this audio or streaming input. The default is **None**.

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HDMI Setup

Settings ▶ Settings ▶ HDMI Setup

Zone 1 OSD (On, Off):

- Enables or disables on-screen display information for **Zone 1** on the connected display device. The default is **On**.

Zone 1 Out (1 & 2, 1 Only, 2 Only):

- Selects which **HDMI** output(s) carry the **Zone 1** video signal to connected displays. The default is **1 & 2**.

HDMI Audio to TV (On, Off):

- Determines whether audio is output to the connected television via **HDMI** connection. The default is **Off**.

CEC (On, Off):

- Enables **HDMI Control (CEC)**, allowing compatible devices to communicate and operate together automatically. The default is **On**.

Volume Control by HDMI (On, Off):

- Allows volume adjustments to be controlled by a connected **HDMI** device, such as a television remote. The default is **On**.

Power Control by HDMI (On, Off):

- Enables connected **HDMI** devices to power the unit on or off automatically. The default is **On**.

Standby HDMI Pass-thru (Off, Last, HDMI 1 - HDMI 7):

- Allows selected **HDMI** input to pass video and audio to the television while the unit is in standby. The default is **Off**.

General Setup

Settings ▶ Settings ▶ General Setup

Halo Brightness (100, 75, 50, 25, Off):

- Adjusts the illumination level of front panel halo lighting, or disables it completely. The default is **100**.

Maximum On Volume (0 - 100):

- Limits maximum volume level applied automatically when the unit is powered on. The default is **40**.

ECO Timer (20 Minutes, Off):

- Automatically places the unit into standby after a period of inactivity to reduce power

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consumption. The default is **20 Minutes**.

Display Timer (5s, 10s, 30s, 1 Minute, Off):

- Sets duration front panel display remains illuminated before dimming or switching off. Only applicable when **Display Brightness** is set to **Off**. The default is **5s**.

Standby Operation (Network Standby, Eco Standby):

- Selects standby mode, balancing reduced power consumption against retained network connectivity. The default is **Network Standby**.

Power On State (On, Last State, Standby):

- Determines unit behavior after power-up, including restoring previous state or entering standby. The default is **On**.

Language (English, Français, Deutsch, Español, Polski):

- Selects the language used for on-screen menus and system interface text. The default is **English**.

Dante Volume Table (Off, On):

- Enables level-matching between Dante sources, providing individual channel gain adjustment for consistent playback levels. The default is **Off**.

Auto Software Update (Notify Only, Update in Standby, Update Immediately):

- Controls how software updates are handled, including notification, automatic standby updates, or immediate installation. The default is **Notify Only**.

USB Update (Cancel, Confirm):

- Initiates the manual software update process using a connected **USB** storage device. Select Confirm to begin the update.

Reset Factory Defaults (Cancel, Confirm):

- Restores all system settings to original factory configuration, removing all customized adjustments.

Reset Network Defaults (Cancel, Confirm):

- Clears all stored network settings, including Wi-Fi configuration and network connections.

Restore USB Backup (Cancel, Confirm):

- Loads previously saved system configuration from **USB** storage, replacing current settings.

Store USB Backup (Cancel, Confirm):

- Saves your system configuration to **USB** storage for future use.

Zone 2 Setup

Settings > Settings > Zone 2 Setup

- **Active** (Off, On): Use this setting to enable/disable **Zone 2** output via **HDMI/RCA**. The default is **Off**.

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- **Zone 2 Input** (Follow Z1, Streaming, Analog 1 - Analog 3, Digital 1 -Digital 4, HDMI 1 - HDMI 7): Choose which input will be sent to **Zone 2** connectors. The default is **Follow Z1**, which sends the same source material to **Zone 2** as is being played in **Zone 1**.
- **Zone 2 Fixed Volume** (Off, On): Enable or disable a fixed volume setting for **Zone 2** . The default is **Off**.
- **Zone 2 Volume** (0 - 100): set the volume for **Zone 2**. The default is **30**.
- **Zone 2 Max Volume** (0 - 100): set the maximum volume for **Zone 2** . The default is **50**.
- **Zone 2 Max On Volume** (0 - 100): set the maximum startup volume for **Zone 2** . The default is **50**.

Network Setup

Settings > Settings > Network Setup

- **Name**: This field can only be changed in the **JBL Synthesis Control App**.
- **Network Connection**: Displays the established connection type.
- **Dynamic IP Address** (Yes, No): Select **Yes** to automatically obtain network settings from a DHCP server. Select **No** to manually configure IP address, subnet mask, gateway, and DNS settings.
- **IPV4 Address, Subnet Mask, Gateway, and Primary DNS** (XXX.XXX.XXX.XXX): This field is informative only when the **Dynamic IP Address** option is set to **Yes**. Users must select **No** in that field to enable manual configuration of this parameter. The default value is automatically assigned via **DHCP**.
- **Connect**: Saves the manually configured settings above and restarts the network connection with those settings applied.

Status

Settings > Settings > Status

Parameters listed under the Status menu are informational only. In other words, they do not require configuration, and they simply describe information about the product, its network status, and the incoming signal.

Incoming Signal

Input:

- The selected source connector currently providing audio/video signal to receiver.

Incoming Audio Format:

- Audio encoding format received from source (e.g. **PCM**, **Dolby**, **DTS**).

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Incoming Sample Rate:

- Digital audio sampling frequency of incoming signal, typically 44.1–192kHz.

Incoming Video Format:

- Resolution and refresh format of incoming video signal from source.

Network Status

Name:

- Assigned network device name for identification on local network.

Network Connection:

- Type of network link in use (Ethernet or Wi-Fi).

Internet Connection:

- Indicates whether device successfully reaches external internet services.

IPv4 Address:

- Current local network address using standard IPv4 addressing format.

IPv6 Address:

- Current network address using newer IPv6 addressing standard format.

MAC Address (Ethernet):

- Unique hardware identifier assigned to wired network interface.

MAC Address (Wi-Fi):

- Unique hardware identifier assigned to Wi-Fi network interface.

Software Versions

HOST:

- Main system firmware version controlling overall device operation.

NET:

- Network module firmware version handling streaming and connectivity functions.

DSP:

- Digital signal processor firmware version responsible for audio processing.

BT:

- Bluetooth module firmware version supporting wireless remote connection.

HDMI:

- HDMI board firmware version managing audio/video switching and compatibility.

LCD:

- Display firmware version controlling front panel screen behavior and updates.

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Last Exception:

- Most recent system error or fault recorded for diagnostic purposes.

Serial Number:

- Unique product identifier used for service, support, and registration.

Streaming

Your device can be connected to and play music from the following apps and services:

- Spotify Connect
- Tidal Connect
- Qobuz Connect
- Amazon Music
- Apple Airplay
- Google Cast
- airable
- Roon (requires setup in Roon software)

From the **JBL Synthesis Control App**, you can set up favorites and access other services including but not limited to:

- Internet Radio
- Podcasts
- Connected USB media
- Local network storage (UPnP)

Supported Audio Formats

File Type	Bit Depths	Sample Rates
AAC	16 or 24 bit	44.1, 48, 88.2 or 96 kHz
AIFF	16, 24 bit	44.1, 48, 88.2, 96, 176.4, 192 kHz
ALAC	16, 24 bit	44.1, 48, 88.2, 96, 176.4, 192 kHz
FLAC	16, 24 bit	44.1, 48, 88.2, 96, 176.4, 192 kHz
MP3	16 bit	44.1 or 48 kHz
OGG	16 bit	44.1 or 48 kHz
WAV	16, 24 bit	44.1, 48, 88.2, 96, 176.4, 192 kHz

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Specifications

Decoding/Encoding		SDR-40
Maximum Channel Count		16
Reassignable Channels		All channels (Subwoofers into CH4/11-16 only)
Dolby		Dolby Atmos, Dolby TrueHD, Dolby Atmos Height Virtualisation, Dolby Surround
DTS		DTS:X Pro, DTS HD Master, DTS Neural:X, DTS Virtual:X
IMAX Enhanced		Yes
Auro 3D		Yes
MPEG H		Yes
HDMI		
Inputs/Outputs		7/2 (Zone 1), 1 (Zone 2)
HDMI/HDCP Versions		2.1a/2.3
Resolution support resolution/framerate		Up to 8K/60Hz or 4K 120Hz
Supported Dynamic Range Profiles		HDR, HDR10, HDR10+, HDR10+ Gaming, Dolby Vision, HLG
Supported HDMI features		Variable Refresh Rate (VRR), Auto Low Latency Mode (ALLM), CEC, eARC/ARC (Zone 1, Output 1)
On Screen Display		Yes
Streaming		
Works with (apps)		JBL Synthesis , Spotify Connect, Tidal Connect, Qobuz Connect, Roon (Ready)
Works with (services)		Apple Airplay, Google Cast
JBL Synthesis supported services (Global)		Internet Radio, Podcasts, UPnP
Supported Hi-res media:		FLAC, WAV (LPCM), AAC, ALAC, AIFF, MP3, OGG
Supported Hi-res Bit depth:		16, 24
Supported samples rates (kHz):		Up to 192 kHz
Gapless Playback:		Yes
Frequency response:		20Hz—20kHz ± 0.05dB
Digital Inputs		
Number of inputs (Coaxial/Toslink)		2/2
Supported Sample Rates (kHz)	Coaxial (RCA)	192, 176.4, 96, 88.2, 48, 44.1
	Optical (Toslink)	96, 88.2, 48, 44.1
Bit depths (bit)	Coaxial & Optical (Toslink)	24, 16
Frequency response		20Hz—20kHz ± 0.2dB
Signal/noise ratio (A-wtd, ref. 50W, 0dBFS)		100dB
Analog Inputs		
Number of inputs		3x RCA pairs
Signal/noise ratio (A-wtd, ref. 50W, 1V input)		100dB
Frequency response		20Hz—20kHz ± 0.2dB
Preamplifier Outputs		
Number of Outputs XLR/RCA		0/16
Balanced (XLR) peak output level per channel		N/A
Single-ended (RCA) peak output level per channel		2V RMS
THD+N (20 Hz to 20 kHz)		–100dB
Amplification		
Amplifier Channels		9, Class G
Continuous power output (0.5% THD), per channel		
8Ω, 20Hz - 20kHz, 2 channels driven		145W
4Ω, 1kHz, 2 channels driven		200W
8Ω, 1kHz, 9 channels driven		95W
4Ω, 1kHz, 9 channels driven		110W
Harmonic distortion, 80% power, 8Ω at 1kHz		0.004%
General		
Mains voltage		100-120V/220-240V 50/60Hz
Power consumption (maximum)		900W
Dimensions W x D (including speaker terminals) x H (including feet)		432 x 466.6 x 186mm
Weight (net)		25.3 kg
Weight (packed)		30.1 kg

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Troubleshooting

Problem	Check the following
No Sound/No Picture	Is the unit correctly plugged in and switched on? Is the correct input selected? Is the device muted? Is the unit in protection mode (described below)? Is the connection between the source device and the unit correct? Is the connection between the source device and the TV/Projector correct? For example, Is the **HDMI** cable connected to eARC-enabled connectors on both ends? Is the **HDMI** cable working correctly? Trying another **HDMI** cable may fix the issue.
Sound cuts out unexpectedly	The unit may enter a protection mode if a fault is detected. Following any of the faults described below, the device will turn itself off. To continue using the unit, the fault must be resolved and the unit must be turned OFF then back ON. The white front panel LED will indicate the fault type, as follows: FAST FLASHING: The internal temperature of the unit reached an unsafe level. Allow the unit to cool down. 1 sec FLASHING: A fault condition occurred in the device. Inspect all the speaker cables to make sure none of them are shorted together. This fault is more likely when bare wires are being used to make speaker connections. 2 sec FLASHING: A power fault was detected. If a condition re-occurs immediately, consult your **JBL Synthesis** dealer or our support team.
The device does not respond to the remote control	Does the light at the top of the remote control flash when the button is pressed? If not, replace batteries in the remote control.
The front panel display is blank	Is the display dimmed to "Off"? Press ☼ on the remote control to change the display brightness. Is the unit correctly plugged in and switched on? Is the unit in standby?
No sound from speakers	Is the output muted? Are the speaker cables connected correctly at both ends? See the **Connecting Speakers** section of this owner's manual.
Cannot discover the device in an app	Is the device correctly plugged in and switched on? Does the device have a network connection, wired (Ethernet) or Wi-Fi? For Wi-Fi connections, has setup been completed using the **JBL Synthesis app**? Is your smartphone or tablet connected to the same local network? For Google Cast, ensure Google Terms are accepted in the **JBL Synthesis App**.
Hum on an analog input	Are all cables making a good connection? If necessary withdraw the input cable from the connector and plug it fully in again (turn the power off before doing this). If the Hum stops when the cable is removed, replace the cable with another. If the hum originates only when one particular source device is connected, check with the supplier or manufacturer of that device, it may have a fault.
Network Issues	Use the **JBL Synthesis Control App** to connect your **JBL Synthesis** device to a Wi-Fi network. Connect an Ethernet cable from your **JBL Synthesis AV** device to your home router. Try **Reset Network Defaults** in the **General Setup** menu.
Still having trouble?	Try a factory reset of the unit. Contact **JBL Synthesis** customer support.

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Use your phone, tablet or computer as a remote control for Spotify.
Go to spotify.com/connect to learn how.

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Regulatory Communication

FCC Information (for US customers)

PRODUCT

CONTAINS TRANSMITTER MODULE FCC ID:

2ADBM-LS10, API-QCC5181

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this product may not cause harmful interference, and (2) this product must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTICE: DO NOT MODIFY THIS PRODUCT

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modification not expressly approved by **JBL Synthesis** may void your authority, granted by the FCC, to use the product.

CAUTION (For Bluetooth/Wi-Fi)

- To comply with FCC RF exposure compliance requirement, separation distance of at least 20 cm must be maintained between this product and all persons.
- This product and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTE

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This product generates, uses and can te radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or television reception which can be determined by turning the product OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the local retailer authorised to distribute this type of product or an experienced radio / TV technician for help.

IC Information (For Canadian customers)

PRODUCT

CONTAINS TRANSMITTER MODULE IC:

20276-LS10, 6132A-QCC5181

This product complies with RSS-247 of Industry Canada. Operation is subject to the following two conditions: (1) this product may not cause harmful interference, and (2) this product must accept any interference received, including interference that may cause undesired operation. This Class B digital apparatus complies with Canadian ICES-003.

CAUTION

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically ted power (e.i.r.p.) is not more than that permitted for successful communication. (i) the device for operation in the band 5,150 – 5,250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems. (ii) high-power radars are allocated as primary users (i.e. priority users) of the bands 5,250 – 5,350 MHz and 5,650 – 5,850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Informations sur IC (pour les clients canadiens)

APPAREIL

CONTIENT MODULE ÉMETTEUR IC:

20276-LS10, 6132A-QCC5181;

Cet appareil est conforme à la norme CNR-247 du Canada. L'utilisation de ce dispositif est autoris ée seulement aux deux conditions suivantes : (1) il ne doit pas produire de brouillage, et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioél ectrique reçu, même si ce brou illage est susceptible de compromettre le fonctionnement du dispositif. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

For Canadian customers / Pour les clients canadiens: CAN ICES-3 (B) / NMB-3 (B) "for indoor use only"

ATTENTION

Afin de réduire le risque d'interférence aux autres utilisateurs, il faut choisir le type d'antenne et son gain de façon à ce que la puissance isotrope rayonn ée é quivalente (p.i.r.e.) ne soit pas supérieure au niveau requis pour l 'obtention d'une communication satisfaisante.

(i) les dispositifs fonctionnant dans la bande 5150–5250 MHz sont réservés uniquement pour une utilisation à l' intérieur afin de r é duire

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les risques de brouillage pré judiciable aux syst èmes de satellites mobiles utilisant les m ê mes canaux.

(ii) De plus, les utilisa teurs d evr aie nt aussi ê tre av isés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250 – 5350 MHz et 5650 – 5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

RF Exposure Information

This equipment complies with FCC / I C tion exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

Cet équipement est conforme aux normes d'exposition aux tions FCC / IC dé _nies pour un environnement non contrôlé et satisfait les directives d'exposition à la radiofréquence (RF) dans le supplément C des OET65 e t RSS-102 des règles d'exposition à la fréquence radio (RF) IC. Cet équipement a de très faibles niveaux d'énergie RF qui sont jugés conformes sans test de taux d' absorption spécifique (SAR).

Safety Information (for European customers)

Avoid high temperatures. Allow for sufficient heat dispersion when installed in a rack.

Handle the power cord carefully. Hold the plug when unplugging the cord.

Keep the unit free from moisture, water, and dust.

Unplug the power cord when not using the unit for long periods of time.

Do not obstruct the ventilation holes.

Do not let foreign objects into the unit.

Do not let insecticides, benzene, and thinner come in contact with the unit.

Never disassemble or modify the unit in any way.

Ventilation should not be impeded

Ventilation openings should not be obstructed by items, such as newspapers, tablecloths or curtains.

Naked flame sources such as lighted candles should not be placed on the unit.

Safety Information (for European customers)

Observe and follow local regulations regarding battery disposal.

Do not expose the unit to dripping or splashing fluids.

Do not place objects filled with liquids, such as vases, on the unit.

Do not handle the mains cord with wet hands. When the switch is in the OFF position, the equipment is not completely switched off from MAINS.

The equipment shall be installed near the power supply so that the power supply is easily accessible.

A note about recycling

This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with the local recycling regulations. When discarding the unit, comply with local rules or regulations.

Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning battery disposal.

This product and the supplied accessories, excluding the batteries, constitute the applicable product according to the WEEE directive

Correct disposal of this product

These markings indicate that this product should not be disposed with other household waste throughout the EU.

To prevent possible harm to the environment or human health from uncontrolled waste disposal and to material resources, this product must be disposed of responsibly.

To dispose of your product, please use your local return and collection systems or contact the installer where the product was purchased.

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SDR-40/SDP-60/SDP-70 Wireless Specification	
Bluetooth	Bluetooth operation in 2402MHz to 2480MHz with max power 20dBm e.i.r.p
Wi-Fi	802.11b/g/n operation in 2412MHz to 2472MHz with max power 20dBm e.i.r.p
	5GHz RLAN 802.11a/n/ac operation in 5150MHz to 5250MHz with max power 23dBm e.i.r.p (TPC is not supported)
	5GHz RLAN 802.11a/n/ac operation in 5250MHz to 5350MHz with max power 20dBm e.i.r.p (TPC is not supported)
	5GHz RLAN 802.11a/n/ac operation in 5470MHz to 5725MHz with max power 20dBm e.i.r.p (not used in China)
	5.8G RLAN operation in 5725MHz to 5850MHz with max power ≤14dBm e.i.r.p for EU, ≤33dBm e.i.r.p for China
AVRM-01 Wireless Specification	
Bluetooth	Bluetooth operation in 2402MHz to 2480MHz with max power 20dBm e.i.r.p
Power Consumption	
Power consumption (Network standby)	< 2.0W
Power consumption (Standby)	< 0.5W
Off Mode	< 0.3W

型号核准的代码在产品外观可见

Atenção: conforme lei brasileira nº 11.291, a exposição prolongada a ruídos superiores a 85dB pode causar danos ao sistema auditivo.

Incorpora produto homologado pela ANATEL sob número 24327-23-07120 and 01173-26-07120.
Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para mais informações, consulte o site da Anatel: https://www.gov.br/anatel/pt-br.

Restrictions in the 5 GHz band: According to Article 10 (10) of Directive 2014/53/EU, the packaging shows that this radio equipment will be subject to some restrictions when placed on the market in Belgium (BE), Bulgaria (BG), the Czech Republic (CZ),Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain(ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania(LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands(NL), Austria(AT), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK),Finland (FI), Sweden (SE), the Turkey (TR), Norway(NO), Switzerland (CH), Iceland (IS), Liechtenstein (LI), and the United Kingdom in respect of Northern Ireland (UK(NI)).
The 5150 to 5350 MHz frequency range is restricted to indoor use. This equipment should be installed and operated with a minimum distance of 20cm between the product and your body.

Use Restrictions: This device is restricted to indoor use when operating in the 5150 to 5350 MHz frequency range in the following countries:

	BE	EL	LT	PT
	BG	ES	LU	RO
	CZ	FR	HU	SI
	DK	HR	MT	SK
	DE	IT	NL	FI
	EE	CY	AT	SE
	IE	LV	PL	UK(NI)

UK

Belgium (BE), Greece (EL), Lithuania(LT), Portugal (PT), Bulgaria (BG), Spain(ES), Luxembourg (LU), Romania (RO), Czech Republic (CZ),France (FR), Hungary (HU), Slovenia (SI),
Denmark (DK), Croatia (HR), Malta (MT), Slovakia (SK), Germany (DE), Italy (IT), Netherlands(NL), Finland (FI), Estonia (EE), Cyprus (CY), Austria(AT), Sweden (SE), Ireland (IE), Latvia (LV), Poland (PL), Northern Ireland (UK(NI)).

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