

Chameleon Surround User Manual



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Introduction

Chameleon Surround is a powerful reverb plugin that learns and replicates the room reverb characteristics of any audio recording. It goes beyond basic reverb matching of the standard Chameleon version by offering immersive surround sound capabilities, suitable for both simple and complex audio setups.

Within seconds, Chameleon Surround analyzes the audio and creates a detailed reverb profile that accurately reflects the original room conditions. This profile can then be applied to dry recordings, whether in mono, stereo, or multi-channel formats, ensuring a natural and authentic reverb effect.

The surround version of Chameleon enhances reverb matching by enabling the creation of virtual rooms, allowing for 3D reverb effects in multi-channel setups. Profiles from the standard Chameleon version are fully compatible and can be seamlessly integrated into Chameleon Surround, offering even greater flexibility.

The plugin uses intelligent 3D room estimation and artificial neural networks to analyze mono signals and ensure that the reverb fits perfectly into the surround environment. Trained on over 30,000 reverb conditions, Chameleon Surround handles a wide range of recording scenarios with precision.

Chameleon Surround also estimates the Dry/Wet ratio automatically to match the reverb level in the target recording. A comprehensive set of customization options allows users to fine-tune the reverb, whether working in stereo or advanced surround configurations.

This advanced reverb matching technology is perfect for ADR, foley matching, instrument recordings, creative sound design, and creating immersive surround soundscapes.

Specifications and System Requirements

Supported sample rates:

- 44.1kHz
- 48kHz
- 88.2kHz
- 96kHz
- 192kHz

Supported channel layout:

- Mono
- Stereo
- LCR
- Quadrophonic
- 5.0, 5.1, 5.0.2, 5.1.2, 5.0.4, 5.1.4
- 7.0, 7.1, 7.0.2, 7.1.2, 7.0.4, 7.1.4
- 9.0.4, 9.1.4, 9.0.6, 9.1.6

Plugin formats:

- AAX
- VST3
- AU

The plugin should work with most plugin host software. It has been tested and is officially compatible with: Reaper, ProTools 11 or higher, Nuendo, Cubase, Ableton Live.

Minimum System Requirements:

- Windows 10 (64-bit), 4 GB RAM, Dual-Core CPU 2GHz
- Mac OS X 10.14, 4 GB RAM, Dual-Core CPU 2GHz

Installation and Activation

3.1 Installation

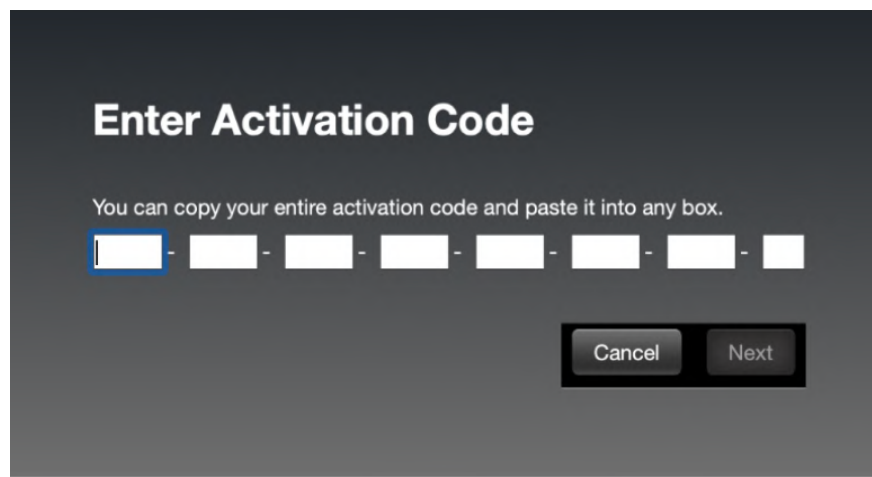
The Chameleon Surround plugin is distributed with an easy-to-use installer. During the installation process, the default audio plugin paths are automatically set. If you do not use any custom paths for your plugins, you can simply proceed with the default settings and let the installer complete the setup. After the installation is complete, Chameleon Surround should appear in the list of available plugins within your Digital Audio Workstation (DAW).

3.2 Activation

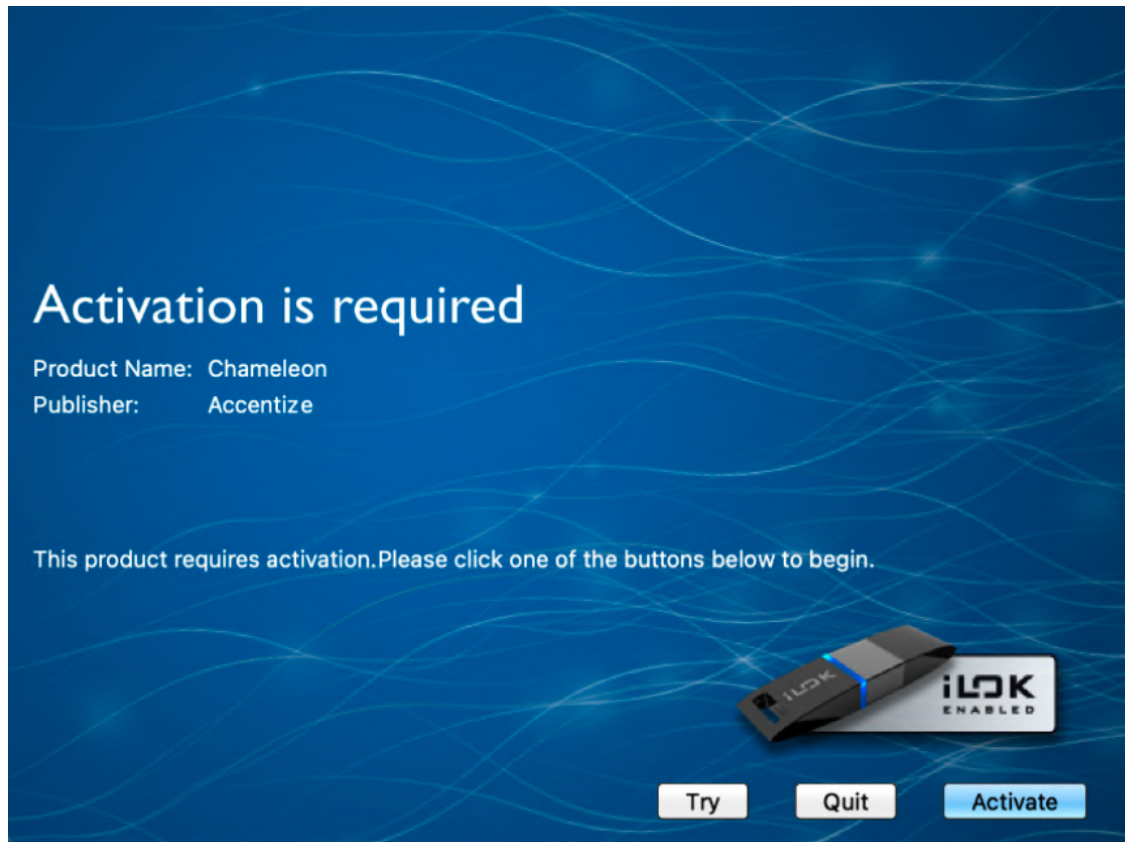
To activate and use Chameleon Surround, you will need to create a free iLok account and install the iLok License Manager.

Steps for activation:

1. Open the iLok License Manager application and log in to your iLok account.
2. Navigate to the Licenses tab and click on "Redeem Activation Code."
3. Enter the activation code provided when you purchased the Accentize plugin.



If you launch the plugin without activating it, you will be prompted to use a 7-day free trial version. To start the free trial please press the TRY button in this screen:



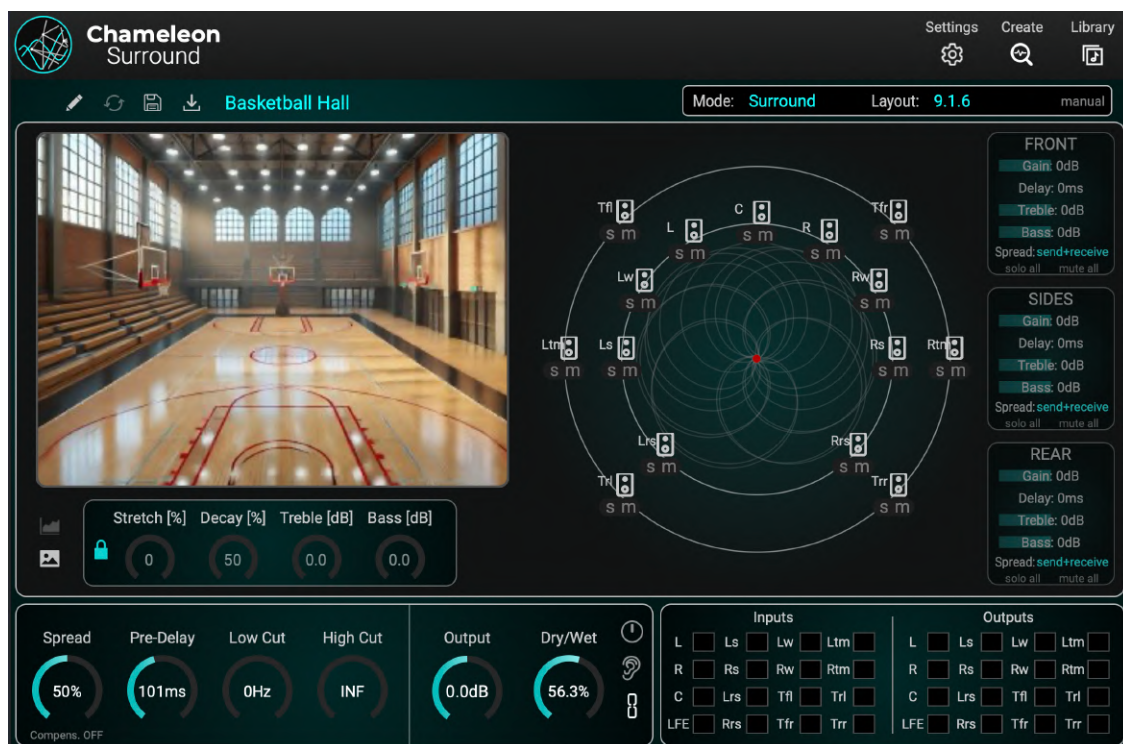
The plugin license can be stored on a physical iLok USB dongle (2nd generation or higher) or directly on your computer.

Reverb Profiles

A reverb profile contains all the information about a physical space that shapes its reverb. Chameleon Surround comes with 80 preset profiles, and you can easily create your own by having Chameleon analyze audio recordings. In the following sections you will learn how to apply a profile as reverb and also how to build your own profiles.

4.1 Applying a Profile

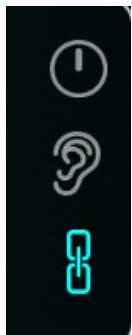
Once a profile is loaded, the Chameleon UI will appear as shown below:



Next to the profile name, you'll find controls for renaming the profile, reloading its original parameters, saving, and exporting it.

Reverb Visualization: This section displays either the profile image or the frequency-dependent decay of the reverb over time in 2D or 3D (can be selected in the settings window). Below the visualization, you'll find a toggle to show the image (if available) or the visualization and a set of customization controls:

- **Stretch:** Adjusts the length of the reverb tail. Negative values shorten (squeeze) the tail, while positive values lengthen (stretch) it. A value of 0% leaves it unchanged.
- **Decay:** Shortens the reverb by trimming the end of the tail. Unlike the Stretch control, Decay only cuts the tail rather than compressing it.
- **Treble:** Boosts or attenuates the high-frequency content of the reverb using a high shelf filter.
- **Bass:** Boosts or attenuates the low-frequency content of the reverb using a low shelf filter.
- **Spread:** Controls the amount of crosstalk between channels. At 0%, the reverb stays isolated within its original channel. Below the spread control, there's a toggle button to switch automatic gain compensation on or off. With higher spread values, the additional crosstalk usually increases the overall volume. If compensation is active, this adjustment prevents any volume increase.
- **Pre-Delay:** Sets the time delay (in milliseconds) before the reverb is mixed with the dry signal.
- **Low Cut:** Sets the frequency for the low cut filter, reducing low-frequency content in the reverb.
- **High Cut:** Sets the frequency for the high cut filter, reducing high-frequency content in the reverb.
- **Dry/Wet:** Adjusts the ratio of dry to wet signal. Click the Ear Icon to solo the wet signal.
- **Output:** Adjusts the output gain to compensate for any loudness changes.



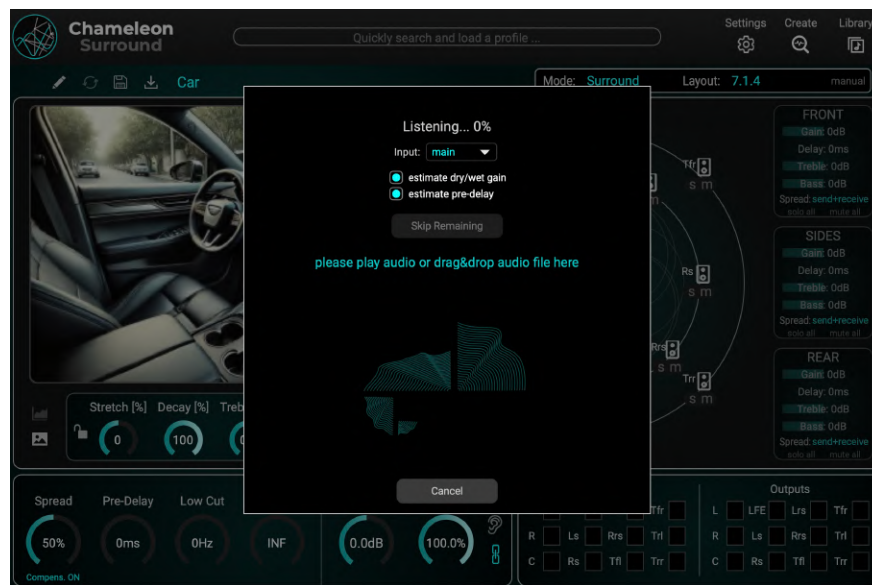
Next to the Dry/Wet knob, you will see the following three icons:

- **BYPASS:** This acts as a global bypass. When activated, the signal passes through unchanged.
- **REVERB ONLY:** When the ear icon is activated, only the reverb portion of the signal will be audible. The mixed-in dry signal will be muted.
- **LINK:** The link button is active by default. When active, the DRY/WET control is modified according to the stored value in a profile. Loading a new profile will potentially change the DRY/WET ratio. If deactivated, the current value will be retained, and the stored DRY/WET value in the loaded profile will be ignored.

4.2 Creating a Profile

Creating a New Profile

If you choose to create a new reverb profile, the following interface will appear:



At this stage, Chameleon Surround is ready to analyze the incoming audio and extract reverb information. You can either:

- Play back the audio from your DAW, or
- Drag and drop an audio file directly onto the Chameleon logo in the center of the screen.

Additionally, you can choose whether to listen to the audio from the track where Chameleon is inserted or from a side-chain signal.

There are two additional options available during profile creation:

- **Estimate Dry/Wet Gain:** When enabled, Chameleon will estimate the amount of reverb present in the source recording and automatically adjust the dry/wet mix to match. If you prefer the new profile to be fully wet by default, deactivate this checkbox.
- **Estimate Pre-Delay:** This option works similarly to the dry/wet estimation. If disabled, the pre-delay will default to 0ms.

After the audio signal has been analyzed, you will be presented with the following screen:

Here, you have the option to either:

- **Save the Profile** to your library for future use, or
- **Apply the Profile** directly in the current plugin instance.

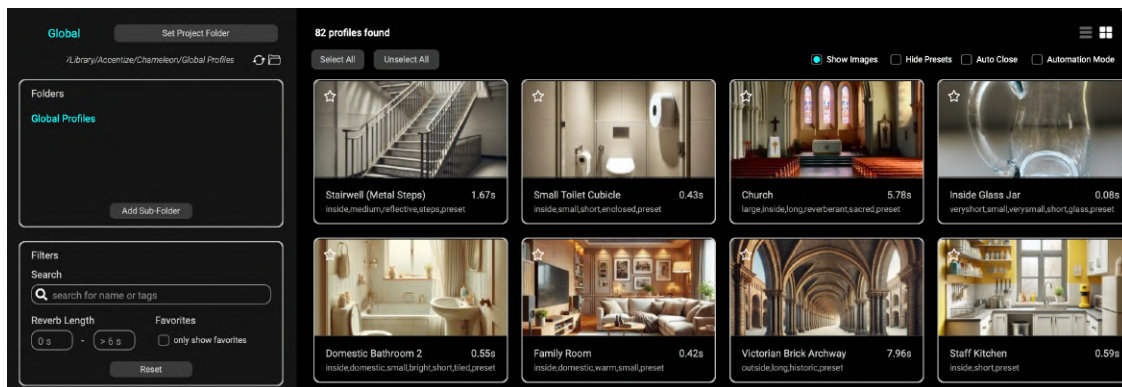
If you choose to apply the profile now, you will still have the option to save it later. When saving to the library, you will need to assign a name to the profile and can optionally add tags to facilitate better organization and navigation within your library. The profile will then be saved to your currently active library location.

Profile Library

The profile library allows you to organize and load all reverb profiles. You can view the library either docked to the main plugin window or as a separate window. You can switch between these view modes in the settings window or by clicking the triangle-shaped button in the top right corner of the library.

5.1 Separate Window

After pressing the library button, either from the initial plugin screen or at the top of the plugin interface, the Profile Library will open in a separate window, as shown below:



On the left-hand side of the window, you can select the location of your library folder. You have two options:

- **Default Global Location:** This can be changed in the plugin settings if needed.
- **Custom Project Folder:** If a custom project folder is set, it will be shared between all active Chameleon instances and only needs to be specified once.

For better organization, you can also create sub-folders within your library. When a sub-folder is selected, only the profiles contained within that folder will be visible. If the parent folder is selected, all profiles within that folder and its sub-folders will be displayed.

Filters Section:

The **Filters** section allows you to refine the displayed profiles based on specific criteria:

- Filter by name or tags.
- Set a lower and upper bound for the reverb length in seconds.

- Choose to display only your favorite profiles.

On the right-hand side of the Profile Library window, the profiles found based on your filter criteria are displayed. You can choose to view these profiles in either grid or list view, selectable via the two buttons in the upper-right corner of the window. In grid view you can furthermore show the profile images (if available) or the spectrogram visualization.

In both grid and list views, hovering over a profile reveals several controls:

- **Play Icon:** Load the profile.
- **Export Button:** Save the profile as a WAV file.
- **Edit Button:** Change the profile name or associated tags.
- **Favorite Star Icon:** Mark this profile as a favorite.
- **Delete Button:** Remove this profile from your library.

Above the displayed profiles, a header bar provides additional controls:

- **Select All / Unselect All:** Manage the selection of multiple profiles at once, allowing you to load or export more than one profile simultaneously.
- **Auto Close:** Automatically close the library window after loading a profile.
- **Automation Mode:** Load multiple profiles into one Chameleon instance and automate transitions between them.

5.2 Docked to Plugin Window

When the library is docked to the plugin window, it appears as follows: It can also be toggled



between list or grid view, with a search bar appearing at the top for easy navigation. Overall, the docked view allows for faster single-window workflows but provides fewer controls compared to the separate window view.

Automation

Chameleon Surround allows you to load up to 100 profiles into a single instance and automate transitions between them using the “Slot Index” parameter.

Loading Multiple Profiles:

- Select multiple profiles in the library and press “Load Selected Profiles.”
- Activate automation mode to load each profile individually into the automation slots.

Once multiple profiles are loaded, the main plugin UI will expand to display a list of all active profiles at the top. The currently active profile will be highlighted, and the ID column will show the Slot Index assigned to each profile. When the Slot Index parameter is set to a specific value, the corresponding profile will become active. You can also drag and drop profiles to different slots to change their assigned Slot Index.



When hovering over an item in the profile list, additional controls appear:

- **Play Icon:** Sets the current Slot Index to this profile, making it active.
- **Pencil Icon:** Allows you to rename the profile.
- **Duplicate Button:** Creates an exact copy of the profile. This is useful if you need a similar version with only a few parameter changes.

- **X-Button:** Deletes the profile from the list.

Important: Once a profile has been loaded from the library, any changes made (such as renaming or adjusting parameters) will not affect the original profile in the library. These changes are saved directly within the plugin instance. To update the original library profile, you must resave the modified profile back to the library.

The profiles are stored in a lossless compressed format within your session, ensuring easy portability when moving between systems, without the need to manually copy profile or impulse response files. After a profile is loaded, it is independent of the original library file, making it easy to transfer projects to a new machine without worrying about bringing along all the library files.

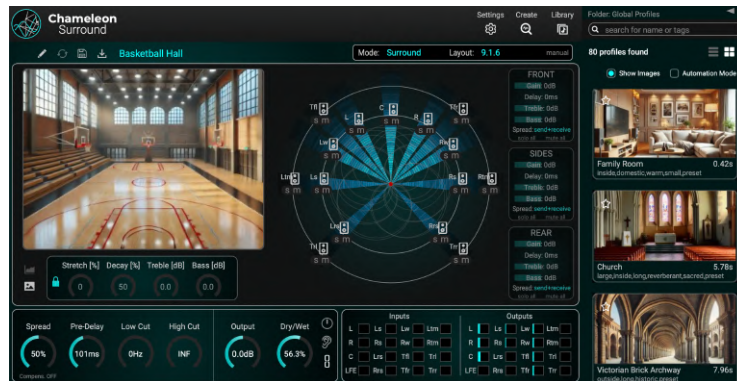
Settings Menu

After clicking on the settings icon at the top of the plugin UI, a settings window will appear. The following options are available:

- **Global Library Folder:** Defines the location of your default global library folder. You can also set a specific folder location for each project in the Profile Library.
- **Open Library:** Can be either manual which only makes the library open by clicking or also automatically when the plugin window opens.
- **Initial Preset:** Lets you select which preset should be loaded for new instances.
- **Dock Library to Plugin:** Toggles between docked library view and separate window view.
- **Auto Close Library:** When enabled, the library will automatically close after loading a profile.
- **Automation Mode:** When active, a new profile will be loaded into a new automation slot rather than overwriting the currently active profile.
- **Auto Apply:** When active, a newly created profile will automatically load after the estimation is finished.
- **UI Scaling:** scales the whole UI according to the selected percentage.
- **Profile Visuals:** Can be either 2D or 3D and defines how the spectrogram visualization is displayed
- **Surround Visuals:** Can be either "Speaker Output" to directly display the output of each speaker or "Perceived Source" which displays the perceived direction of incoming audio events. For example, in a stereo setup where both speakers are playing the same signal, "Speaker Output" will visualize the signal as coming from the center whereas with "Perceived Source" the visualization will show the signal coming from both the left and right speakers.
- **Plugin Latency:** This setting allows you to define the plugin latency. While latency does not affect the processing itself, it influences CPU load. Higher latency significantly reduces CPU consumption for very long reverb tails. The introduced latency is fully compensated by the DAW to keep tracks in sync.
- **Lazy Loading:** This setting is activated by default and ensures smoother operation during editing by loading profile changes in the background. This helps reduce CPU consumption while switching profiles or adjusting parameters. Note that the timing of profile changes may vary by a few milliseconds during session playback. However, for rendering, lazy loading is automatically disabled to ensure exact timing.

Surround Controls

On the right-hand side of the plugin interface, you'll find the Surround Controls:



Mode Switch: Located at the top of the Surround Controls, the Mode switch lets you toggle between **Surround** and **Multi-Mono** modes. In **Multi-Mono** mode, each channel is treated as a separate mono signal, with the same reverb applied to all channels. In **Surround** mode, you can select different speaker layouts for more flexibility. Most digital audio workstations (DAWs) will automatically configure the speaker layout based on the track's channel format. However, in the top-right corner, you can override this automatic detection and manually select the channel layout. This manual selection may be necessary depending on the DAW you are using.

Speaker Layout Visualization: The visualization adapts to the selected speaker layout, displaying all speakers and their respective placements. You can solo or mute each speaker individually. The speakers are categorized into three groups: **Front**, **Sides**, and **Rear**. On the right side of the interface, you'll find controls that manage the reverb signal for each of these groups. Depending on the chosen speaker layout, certain controls may be disabled (for instance, if no side speakers are present in the layout).

Front, Sides, Rear Controls: These three sections allow you to control only the reverb signal for each directional group, without affecting the dry signal. Each section offers the following controls:

- **Gain:** Adjusts the reverb level for the selected direction.
- **Delay:** Adds pre-delay to the reverb signal for the selected direction.
- **Treble** and **Bass:** Shape the tonal color of the directional reverb.
- **Spread:** This control adjusts how reverb is distributed across channels. It can be set to:
 - **Send+Receive** (default): Signals spread between channels bidirectionally.
 - **Send Only:** Signals spread from these channels to others but do not receive spread from other channels.

- **Receive Only:** Signals from other channels spread into these channels, but no signal is sent out.

Hint: As mentioned in the main controls section, the Spread control defines how much crosstalk occurs between speakers. For example, if Spread is set to zero, an input signal coming through the center speaker will not generate reverb on other channels. As the Spread is increased, the reverb will increasingly spread across other speakers based on how far apart they are from the source channel.

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