playbox

NI NATIVE INSTRUMENTS

THE FUTURE OF SOUND

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2. Welcome to PLAYBOX

PLAYBOX offers a new way of making music by combining unique sound design with harmony and layering. Overflowing with samples, chord sets, effects, and presets, the instrument comes loaded with everything you need to get inspired.

Whether you use its extensive library of presets as the starting point, dive into the randomization features to generate new musical ideas, or import your own MIDI files and samples to create sounds from scratch, PLAYBOX will immediately give you interesting results.

This document shows you how to install and setup PLAYBOX, gets you started by introducing key concepts and controls, and describes all features in detail, starting with the basic overview.

Thank you for choosing PLAYBOX. We hope you enjoy it!
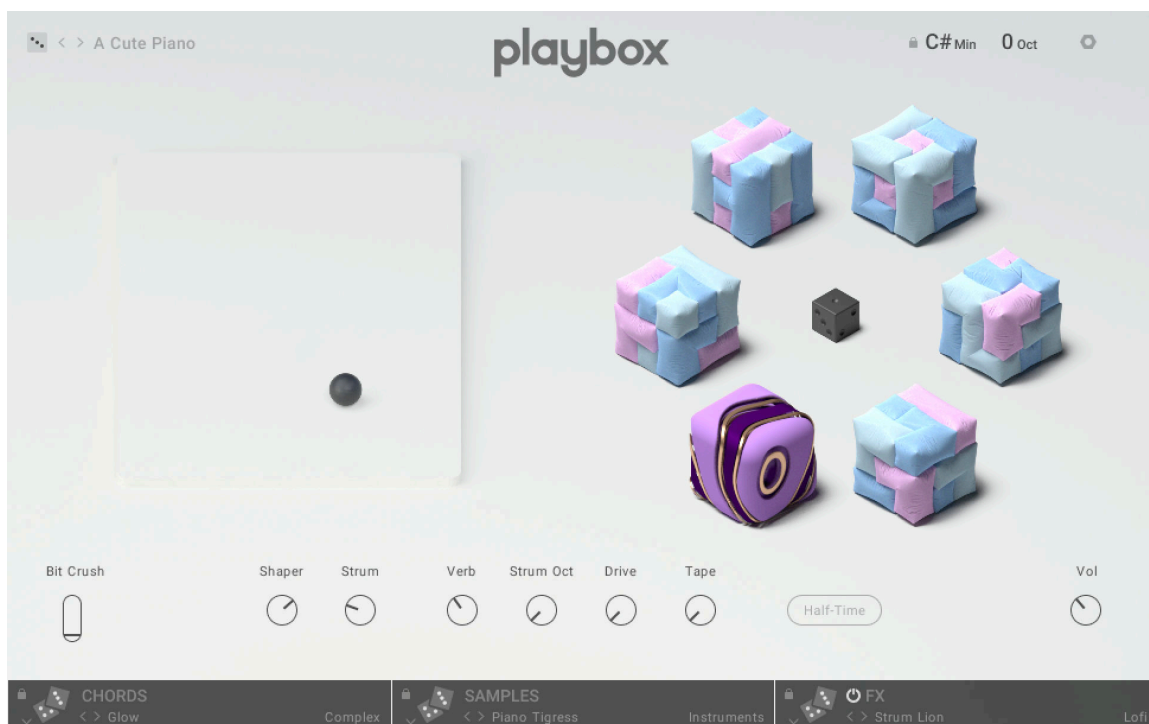
2.1. Document Conventions

In this document the following formatting is used to highlight useful information:

Italics	Indicates paths to locations on your hard disk or other storage devices
Bold	Highlights important names, concepts, and software interface elements.
[Brackets]	References keys on a computer's keyboard
►	Single item instructions are represented by a bullet icon.
→	Results in procedures are represented by an arrow icon.

The following three icons represent different types of information:

The **light bulb** icon indicates a useful tip, suggestion, or interesting fact.

The **information** icon highlights important information that is essential for the given context.

The **warning** icon alerts you of serious issues and potential risks that require your full attention.

3. Installation and Setup

Before making music with PLAYBOX, you must install and set up the necessary software. Follow these instructions to get started.

3.1. Installing via Native Access

Native Access is where you will install the software for PLAYBOX. If you are new to Native Instruments, you will first have to create your Native ID. To learn more about Native Access, visit our support page.

1. Download and install Native Access here.
2. Create a Native ID if you do not yet have one.
3. Login to Native Access using your Native ID.
4. Click the **Not installed** tab.
5. Click **INSTALL** for the following products:
   - PLAYBOX
   - KONTAKT or KONTAKT PLAYER

→ The software is installed automatically.

> (i) If the software is already installed, click the **Available updates** tab and check for new updates before proceeding.

3.2. Loading PLAYBOX in KONTAKT

Once installed, you can start using PLAYBOX in KONTAKT. PLAYBOX is not an independent plug-in, so you first need to open an instance of KONTAKT or KONTAKT PLAYER:

1. Open KONTAKT as a plug-in in your host software (DAW) or as a stand-alone application.
2. Locate PLAYBOX in the Browser, on the left side of the user interface.
3. Click **Instruments** to open the product's content.
4. Double-click the **Playbox.nki** file to load the instrument.
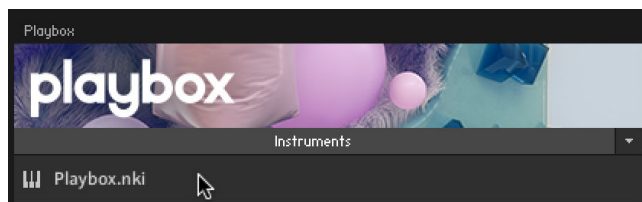
> 🔆 If you are new to KONTAKT and want more information, visit KONTAKT PLAYER and KONTAKT.

4. Getting Started

Once you have completed the installation and loaded PLAYBOX in KONTAKT, you can start playing the instrument. PLAYBOX opens with the Main page, which provides performance controls that enable you to play and tweak presets. With only a few controls and options you can quickly create an abundance of inspirational sounds.

PLAYBOX combines chord generation with sample layering and effects. Each of these ingredients has its own dedicated format:

- **Chord Set**: Contains eight chords with up to six notes each that can be played by pressing a single key on the keyboard. Chord sets can be edited in depth on the Chords page.

- **Sample Set**: Contains up to six samples per chord, with one sample being mapped to each note in the chord. Sample sets can be edited in depth on the Samples page.

- **FX Set**: Contains a set of effects, including parameter settings and modulation assignments. FX sets can be edited in depth on the FX page.

The eight chords are mapped to the white keys in the MIDI control octave from C3 to C4. Playing one of these notes on your MIDI keyboard or pad controller triggers a single chord with its corresponding samples. Of course, you can also use your DAW to sequence chords by recording or programming the respective notes in a MIDI track.

Here are some key features to get you started:
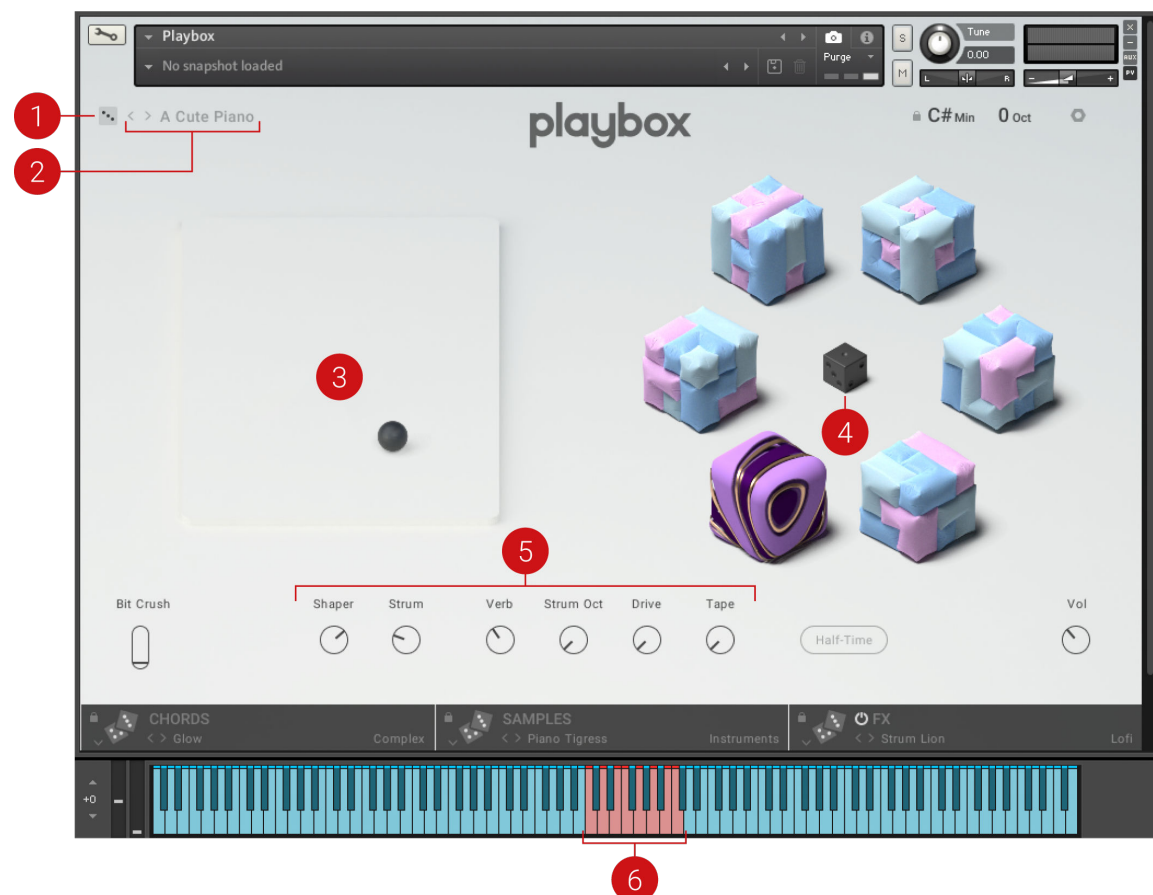
1. **Randomize Preset**: Loads a random Global preset from the library, which is a great way to explore the PLAYBOX library. For more information, refer to Header.

2. **Global Presets Selector**: Enables you to quickly load Global presets by clicking on the left and right arrow buttons. For more information, refer to Header.

3. **XY Pad**: Provides expressive control of effect parameters that change key aspects of the sound. For more information, refer to Main Page.

4. **Randomize Sets**: Selects Chord, Sample, and FX Sets at random, creating new sounds with a single click. For more information, refer to Main Page.

5. **Macros**: Each control adjusts key effect parameters for immediate tweaking of sounds. For more information, refer to Main Page.

6. **MIDI Control Octave**: The chords are mapped to the whole tones, or white keys, in the octave from from C3 to C4. For information about changing the mapping, refer to Options Menu.

5. PLAYBOX Overview

PLAYBOX can be accessed in multiple ways to facilitate different use cases and workflows. The Main page offers fast and immediate access to key parameters and performance controls. The Chords, Samples, and FX pages offer deep functionality for customization and creation of presets.

PLAYBOX contains the following key elements and controls:
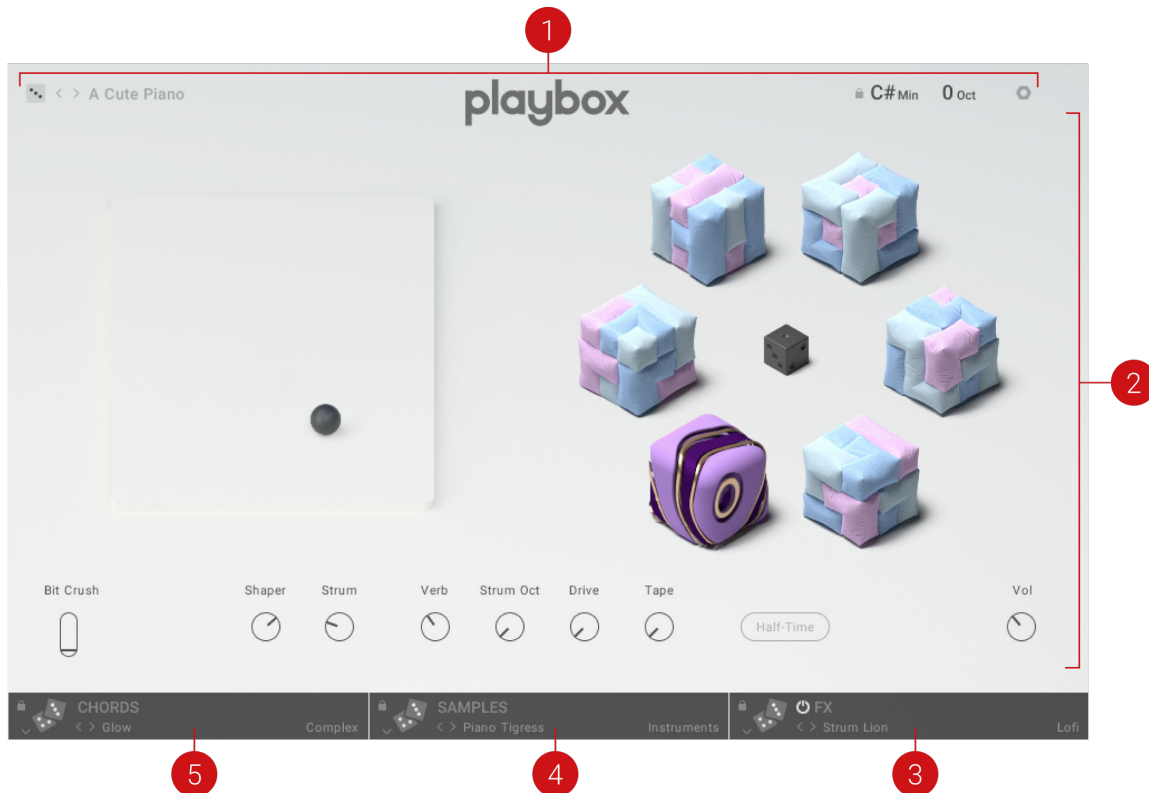
1. **Header**: The Header provides access to the Global Presets browser, the Global Chord settings, and the Options menu. For more information, refer to Header.

2. **Main Page**: The Main page provides performance controls that enable you to play and tweak presets in an intuitive way. For more information, refer to Main Page.

3. **FX Page**: The FX page provides in-depth editing of the Effects Chain with its Motion and Audio effects, enabling you to completely transform your sounds. For more information, refer to FX Page.

4. **Samples Page**: The Samples page provides in-depth editing of the samples used in the sound, enabling you to create complex layers and textures. For more information, refer to Samples Page.

5. **Chords Page**: The Chords page provides in-depth editing of the chords used in the sound, enabling you to explore the harmonic dimension of your sound. For more information, refer to Chords Page.

6. Header

The Header provides access to the Global Preset browser, the Global Chord settings, and the Options menu.

The Header contains the following controls and menus:

1. **Randomize Preset**: Loads a random preset from the selected category in the Global Presets browser. By default, the **All** category is selected, making all presets available for random selection.
2. **Global Presets Selector**: Enables you to quickly load Global presets. Each Global preset includes a Chord, Sample, and FX Set, as well as mapping of all performance controls for immediate playing. You can switch between presets using the left and right arrow buttons, or click on the selector to open the Global Presets browser. For more information, refer to Global Presets Browser.
3. **Global Chord Settings**: Enable you to globally set the musical key and transposition for the chords, and lock the settings when switching presets. For more information, refer to Global Chord Settings.
4. **Options Menu**: Provides options and settings related to MIDI control and sample playback. For more information, refer to Options Menu.

6.1. Global Chord Settings

The Global Chord settings enable you to globally set the musical key and transposition for the chords, and lock the settings when switching presets.

The following settings are available:
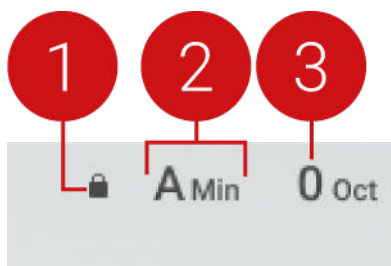
1. **Key Lock**: Locks the settings made for Key and Octave when switching presets.
2. **Key**: Sets the musical key for all chords included the preset. You can set the pitch by clicking the note name and selecting a value from the drop-down menu, and set either major or minor scales by clicking on the scale name.
3. **Octave**: Sets the transposition in octaves for all chords included in the preset. You can set the octave by clicking the octave number and selecting a value from the drop-down menu.

6.2. Options Menu

The Options menu provides options and settings related to MIDI control and sample playback. You can switch between monophonic and polyphonic modes, set the Play mode that determines the position of samples within each chord, and select a mapping for the MIDI play octave that suits your MIDI keyboard or pad controller.

The following options and settings are available:
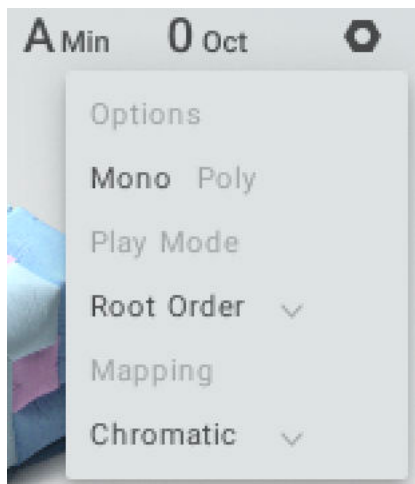
1. **Mono/Poly**: Switches between **Mono** (monophonic) and **Poly** (polyphonic) mode. In **Mono** mode, the instrument plays a single chord at any given time, even if multiple keys are pressed. In **Poly** mode, chords are played for all keys that are pressed.

2. **Play Mode**: Moves the position of samples within each chord based on their root note. Three modes are available, **Root Order** (default setting), **Random**, and **Original**.

   • **Root Order**: Samples with the lowest root note are assigned to the note with the lowest pitch in the chord. This preserves the voicing and harmonic structure. For example, it prevents a Glockenspiel from playing the lowest note in your chord.

   • **Random**: Samples are randomly assigned to the notes of the chord each time you play the corresponding key.

   • **Original**: Samples are assigned as originally programmed without taking the root note into account. When randomizing samples, the chords will sound less musical in the traditional sense.

3. **Mapping**: Switches between different mappings for the MIDI control octave that plays the chords.

   • **Chromatic**: Maps the eight chords to whole tones from C3 - C4. Suitable for MIDI keyboards. The **+1** and **-1** modes shift the MIDI control octave up or down one octave, respectively.

   • **Pad**: Maps the eight chords to whole and semi tones from C3 - G3. Suitable for MIDI pad controllers. The **+1** and **-1** modes shift the MIDI control octave up or down one octave, respectively.

7. Main Page

The Main page provides performance controls that enable you to play and tweak presets. It encourages you to explore the range of the vast PLAYBOX library in an intuitive and playful way.

The Main page contains the following elements and controls:
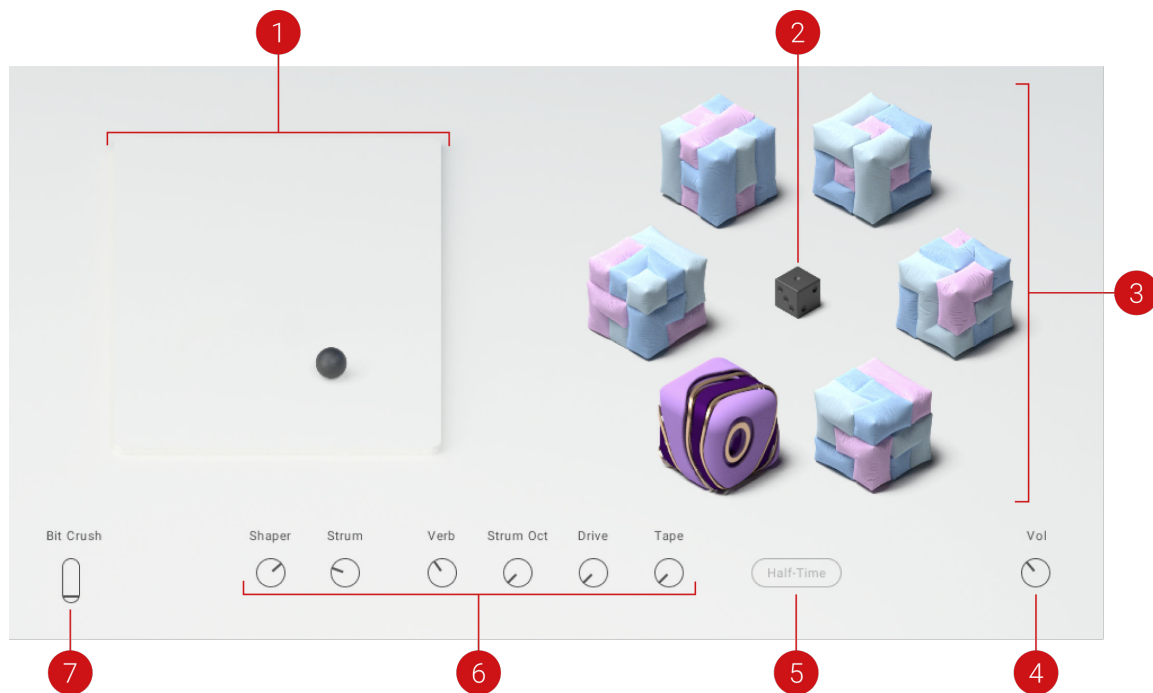
1. **XY Pad**: Provides expressive control of effect parameters in two dimensions by moving the ball across the XY plane. Each preset includes assignments that enable you to explore the sound of its effects. For more information, refer to Macros and Performance Controls.
2. **Randomize Sets**: Selects Chord, Sample, and FX Sets at random, creating new sounds by recombining sets from the PLAYBOX library. You can exclude any of the three Sets from randomization by clicking the lock icon next to the respective Set selector at the bottom of the user interface.

3. **Chord Display**: Shows the cubes representing the samples in the last played chord. For more information, refer to Sample Categories and Visualization.
4. **Vol**: Adjusts the main output volume of the instrument.
5. **Half-Time**: Activates a half-time effect that momentarily reduces the playback speed of all samples by 50%.
6. **Macros**: Each control adjusts key effect parameters for immediate tweaking of sounds. For more information, refer to Macros and Performance Controls.
7. **Modulation Wheel**: Shows the parameter assignment of the modulation wheel, which can be played on a MIDI keyboard. You can also adjust the modulation wheel directly in the user interface. For more information, refer to Macros and Performance Controls.

💡 The XY pad, Macros, and modulation wheel can be freely assigned to parameters on the FX page. For more information, refer to Modulation Assignments.

8. Chords Page

The Chords page provides in-depth editing options for the chords used in the sound, enabling you to explore the harmonic dimension of your sound.

The Chords page contains the following elements and controls:
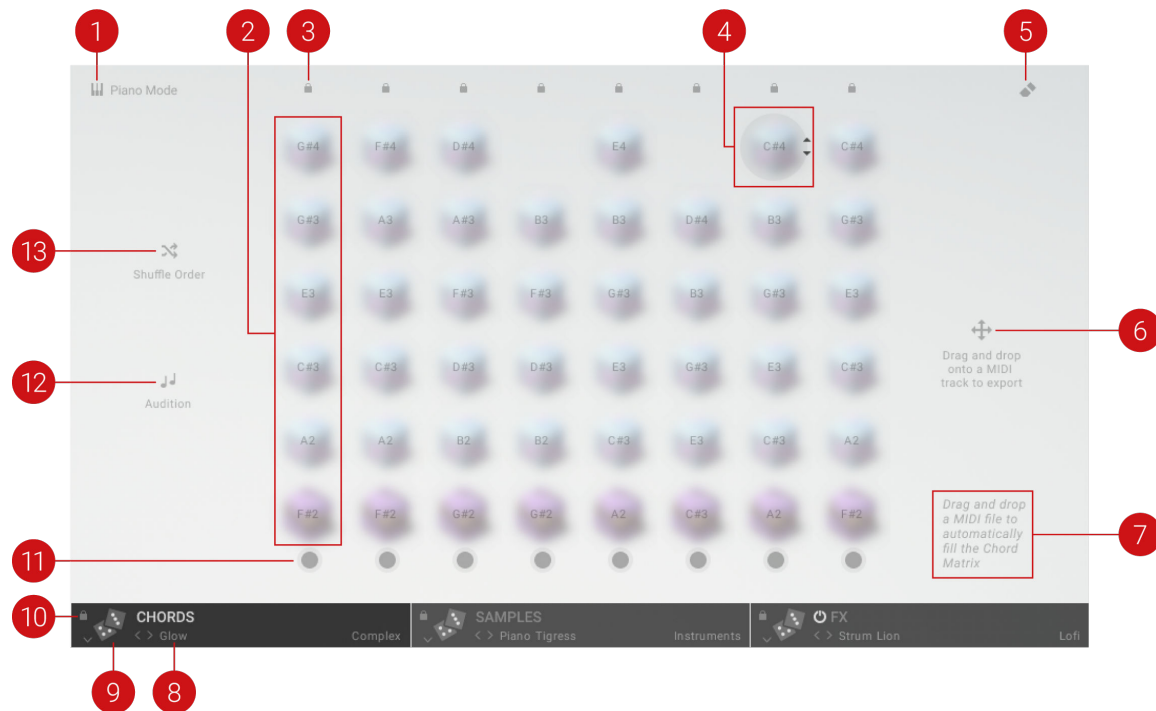
1. **Piano Mode**: Switches the sound engine to a basic piano sound instead of the samples, enabling you to play and hear the chords more clearly.

2. **Chord**: Each column in the Chord Matrix represents a chord that consists of up to six notes. Chords correspond to single keys in the MIDI control octave.

3. **Lock Chord**: Locks the chord and excludes it from the **Shuffle Order** and **Clear All** functions. When shuffling the chords in the Chord Set, locked chords will remain at their current position.

4. **Edit Note**: Clicking a note in the Chord Matrix enables it for editing. You can change the note value by clicking on the up and down arrow buttons.

5. **Clear All**: Clears all chords except ones that are locked. You can create new chords using the Record function at the bottom of each column.

6. **MIDI Export**: Exports the chords as a MIDI file for use in your DAW. You can export the chords simply by dragging and dropping the arrow icon from PLAYBOX into a MIDI track in your DAW.

7. **MIDI Import**: You can import a MIDI file and populate the Chord Matrix with chords found in the file by dragging and dropping the MIDI file from the file system or a MIDI track in your DAW to the Chord Matrix.

8. **Chord Set Selector**: Enables you to quickly load Chord Sets. You can switch between Sets using the left and right arrow buttons, or click on the selector to open the Chord Sets browser.

9. **Randomize Chord Set**: Loads a random Set from the selected category in the Chord Sets browser. By default, the **All** category is selected, making all Sets available for randomization.

10. **Lock Chord Set**: Locks the Chord Set and excludes it from the Randomize Sets function on the Main page. Therefore it will be preserved when randomizing Sets.

11 **Record Chord**: Activates MIDI recording for the corresponding chord. When activated, you can
. play notes on your MIDI keyboard to create a new chord. The notes will be added to the chord starting with the lowest note and ending with the highest note. While recording, the MIDI notes are played back using a basic piano sound.

12 **Audition**: Switches MIDI playback to a basic piano sound that can be played across the entire
. keyboard. You can use this mode to play and preview chords prior to recording.

13 **Shuffle Order**: Randomizes the position of the chords in the MIDI control octave, effectively
. reassigning them to new keys. Locked chords are excluded from the randomization and will remain at their current position.

9. Samples Page

The Samples page provides in-depth editing options for the samples used in the sound, enabling you to create complex layers and textures.

The Samples page contains the following elements and controls:
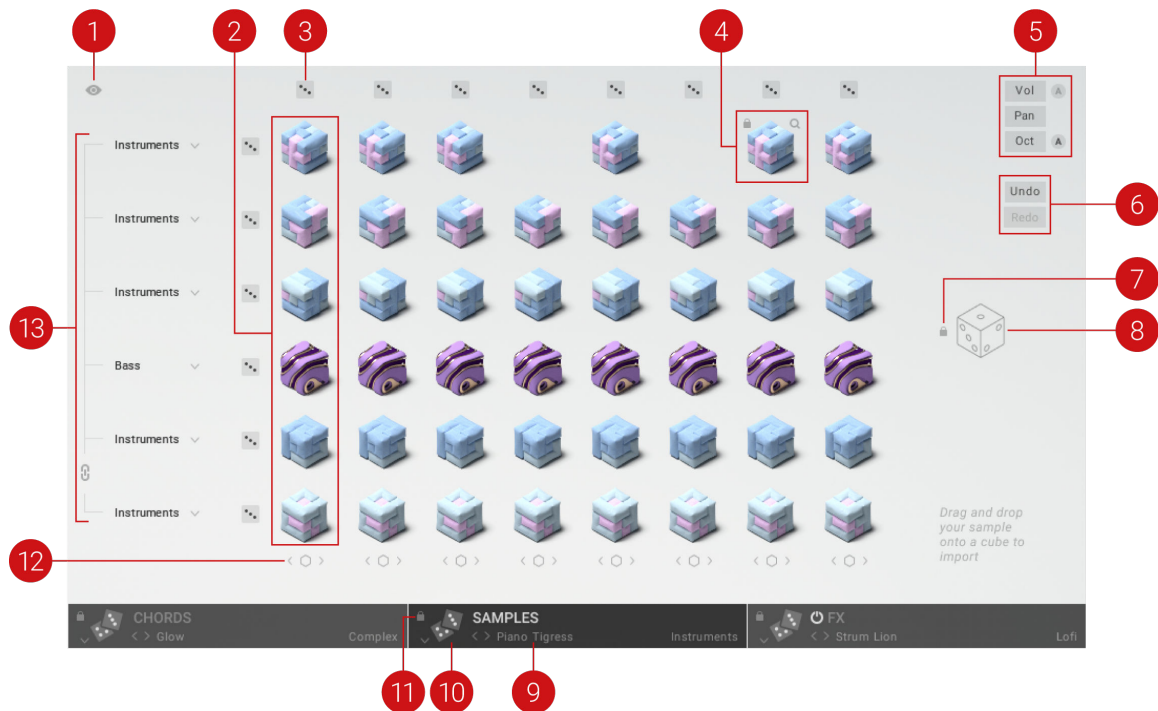
1. **Note Display**: Shows or hides the corresponding MIDI note values next to each sample. You can change the notes in each chord on the Chords page. For more information, refer to Chords Page.

2. **Chord**: Each column in the Sample Matrix represents a chord that consists of up to six samples, represented by cubes. Chords correspond to single keys in the MIDI play octave (C3 - C4, whole notes only). The cubes visualize their contents by using a different shape for each sample category. For more information, refer to Sample Categories and Visualization.

3. **Randomize Samples**: Loads random samples for each cube in the respective column or row of the Sample Matrix. The samples are loaded from the categories selected using the Category selector on the left side of the Sample page. Cubes can be excluded from randomization by using the Lock function.

4. **Lock and Browse**: Playing the cursor over a cube shows the Lock and Browse functions.

   • **Lock**: Clicking on the lock icon locks the cube and excludes it from the Randomize Samples and Randomize All Samples functions. Pressing [shift] while clicking locks all cubes in the same column. Pressing [alt] while clicking locks all cubes in the same row.

   • **Browse**: Clicking on the magnifying glass icon opens the Samples browser. For more information, refer to Samples Browser.

5. **Mixer Settings**: Enable you to adjust the level, stereo position, and the octave for each cube. For more information, refer to Mixer Settings.

6. **Undo / Redo**: Enables you to undo or redo changes made by using the Randomize Samples and Randomize All Samples functions, as well as the Category selector.

7. **Lock All Cubes**: Locks all cubes and excludes them from the Randomize Samples function. You can use this function to then unlock individual cubes for randomization.

8. **Randomize All Samples**: Loads random samples for all cubes in the Sample Matrix. The samples are loaded from the categories selected using the Category selector on the left side of the Samples page. Cubes can be excluded from randomization by using the Lock function.

9. **Sample Set Selector**: Enables you to quickly load Sample Sets. You can switch between Sets using the left and right arrow buttons, or click on the selector to open the Sample Sets browser.

10. **Randomize Sample Set**: Loads a random Set from the selected category in the Sample Sets browser. By default, the **All** category is selected, making all Sets available for randomization.

11. **Lock Sample Set**: Locks the Sample Set and excludes it from the Randomize Sets function on the Main page. Therefore it will be preserved when randomizing Sets.

12. **Spread**: Enables you to apply the samples contained in a single chord to all chords in the Sample Set. For more information, refer to Spread Mode.

13. **Category Selector**: Selects the categories used for randomization of samples in the Sample Matrix. For more information, refer to Category Selector.

> (i) Additional editing functions for the Sample Matrix can be accessed using keyboard shortcuts. For more information, refer to Editing the Sample Matrix using Keyboard Shortcuts.

9.1. Sample Categories and Visualization

The cubes in the Sample Matrix visualize their contents by using a different shape for each sample category from the Samples browser.

The following categories are available:

1. **Synths**: Samples recorded using analog and digital synthesizers, with varying degrees of articulation and processing included in the sample.

2. **Instruments**: Samples recorded using instruments from all over the world, including treated samples that were processed to add depth and movement.

3. **Bass**: Samples recorded using acoustic and electronic basses, as well as synthesizers.

4. **Voices**: Samples based on vocal recordings, from vowels to spoken word and singing. In most cases, the recordings are heavily processed using effects.

5. **Noises**: Samples using foley and field recordings, drum hits, and additional processing that cover a wide range of ambient noises and textures.

6. **User**: Samples from the User Slots in the Samples Browser. For more information, refer to Importing and Managing Samples.

9.2. Mixer Settings

The Mixer settings enable you to adjust the level (**Vol**), stereo position (**Pan**), and octave (**Oct**) for each cube. You can also activate automatic settings for **Vol** and **Oct**, which help you find the most balanced sound for a given set of samples.

The Mixer settings contain the following options and controls:
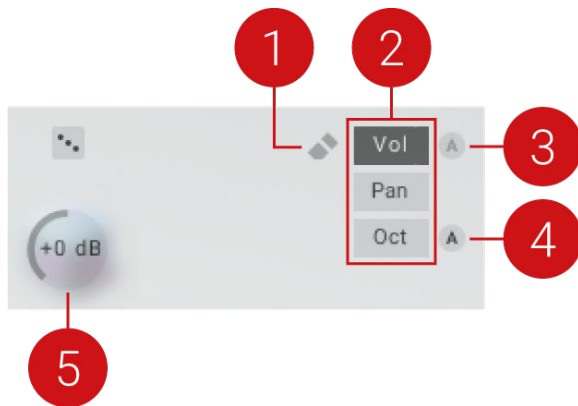
1. **Reset Setting**: Sets the selected setting to its default value for all cubes.
2. **Setting Selector**: Selects one of three available settings (**Vol**, **Pan**, **Oct**) that can be adjusted individually for each cube in the Sample Matrix.
   - **Vol**: Adjusts the level of the sample in the range of -inf to +24 dB (default value 0 dB).
   - **Pan**: Adjusts the stereo position of the sample in the range of -100% to 100% (default value 0 %).
   - **Oct**: Adjusts the transposition of the sample in the range of -6 to +6 octaves (default value 0 oct).
3. **Auto Vol**: Sets the levels for all cubes automatically. The automatic settings are optimized based on an analysis of the samples.
4. **Auto Oct**: Sets the octaves for all cubes automatically. The automatic settings are optimized based on an analysis of the samples.
5. **Cube Control**: Adjusts the selected setting for the respective cube. You can change the value by clicking on the control and dragging up and down. The value is shown at the center of the cube while adjusting, or when clicking on the cube.

9.3. Spread Mode

Spread mode enables you to apply the samples contained in a single chord to all chords in the Sample Set.

▶ To activate Spread mode for a chord, click on the Spread Mode button underneath the respective column in the Samples Matrix.
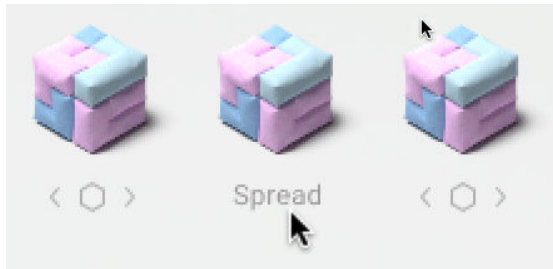
→ The chosen chord is highlighted and its samples are used for all chords in the Sample Set.

When deactivating Spread mode, each chord will use its original samples again. If you wish to replace the samples in all chords according to Spread mode, you can also apply the changes permanently.

▶ To apply Spread mode permanently, click **Apply**.

→ Spread mode is deactivated and the samples contained in the chosen chord are applied to all chords.

9.4. Category Selector

The Category selector selects the categories used for randomization of samples in the Sample Matrix. The samples are loaded from the selected categories when using the Randomize Sample and Randomize All Samples functions. For information about these functions, refer to Samples Page.

> 💡 You can use the Category selector to select User Slots and randomize the contents of the Sample Matrix based on your own samples. For more information, refer to Importing and Managing Samples.

The Category selector contains the following menus and controls:
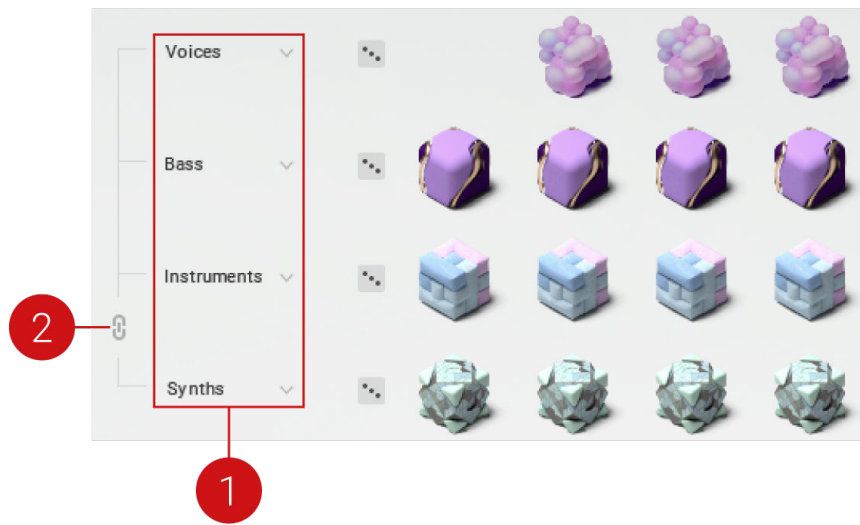
1. **Category Menu**: Selects the sample category used for randomization. Clicking on the category name opens a drop-down menu for category selection. The sample category can be set globally, or individually per row, depending no the state of the Chain Menus button.

2. **Chain Menus**: Determines whether a single category is used for all samples in the Sample Matrix, or individual categories can be selected per row. When activated, only the bottom menu is visible and can be used select a category for all samples in the Sample Matrix.

9.5. Editing the Sample Matrix using Keyboard Shortcuts

Additional editing commands for the Sample Matrix can be accessed using keyboard shortcuts.

The following commands are available:

▶ To randomize the sample in a single cube, press [command] + click on the respective cube in the Sample Matrix.

▶ To copy and paste a sample from one cube to another, click a cube to select it, then press [shift] + click on another cube.

▶ Two swap samples between two cubes, click a cube to select it, then press [alt] + click on another cube.

10. FX Page

The FX page provides in-depth editing of the Effects Chain with its Motion and audio effects, enabling you to completely transform your sounds. Extensive modulation, Macros, and performance controls create movement in your sound.

The FX page contains the following elements and controls:
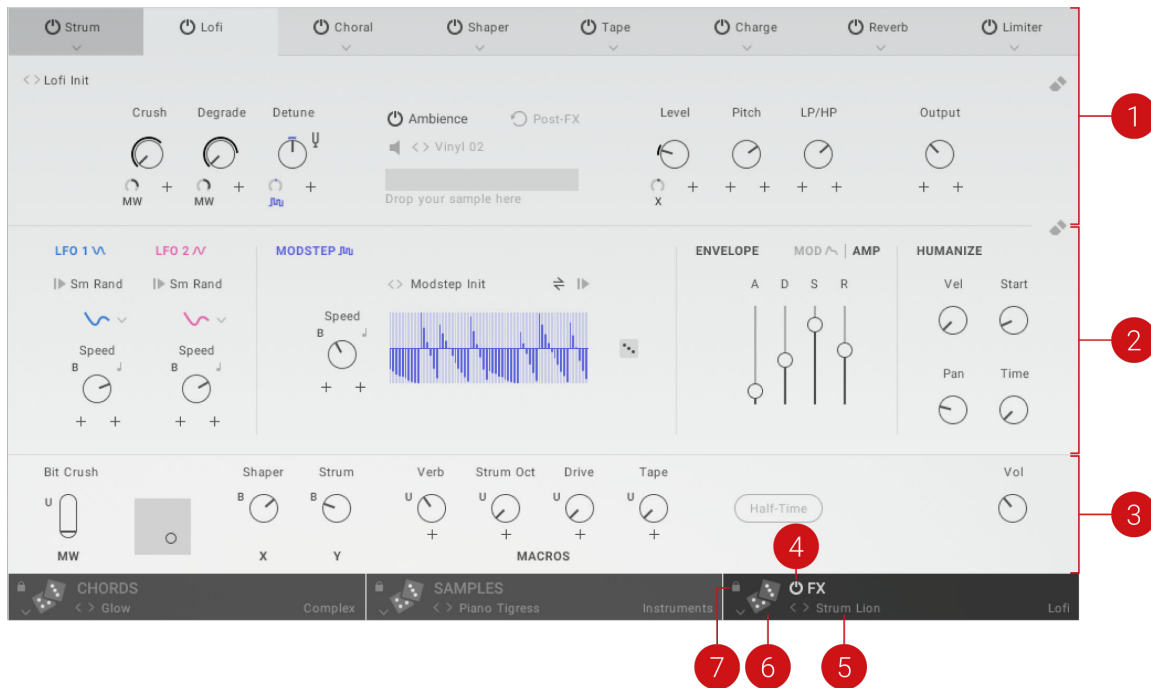
1. **Effects Chain**: The Effects Chain consists of the Motion and audio effects, which are organized in eight effect slots and can be applied in various combinations. For more information, refer to Effects Chain.

2. **Modulators**: Consists of a variety of different modulation sources that can be applied to effect parameters, and the Humanize function that brings life to key aspects of the sound. For more information, refer to Modulators.

3. **Macros and Performance Controls**: Consists of the Macros as well as performance controls like the modulation wheel and the XY pad. For more information, refer to Macros and Performance Controls.

4. **FX On/Off**: Switches all effects on the FX page on or off. When switched off, the effects are bypassed and do not affect the sound.

5. **FX Set Selector**: Enables you to quickly load FX Sets. You can switch between Sets using the left and right arrow buttons, or click on the selector to open the FX Sets browser.

6. **Randomize FX Set**: Loads a random Set from the selected category in the FX Sets browser. By default, the **All** category is selected, making all Sets available for randomization.

7. **Lock FX Set**: Locks the FX Set and excludes it from the Randomize Sets function on the Main page. Therefore it will be preserved when randomizing Sets.

10.1. Effects Chain

The Effects Chain consists of the Motion and audio effects, which are organized in eight effect slots and can be applied in various combinations. Each of the effect slots offers in-depth editing of effect parameters.

▶ To select an effect slot for editing, click on the corresponding tab in the Effect Chain's header.

The Effects Chain contains the following key elements and controls:
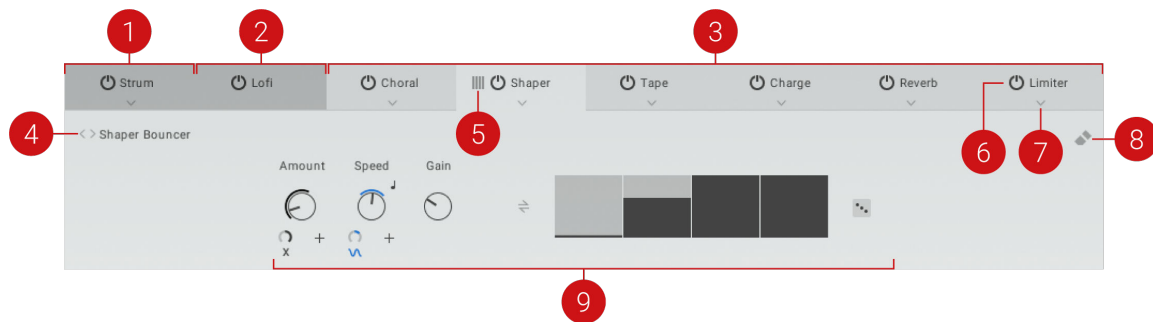
1. **Motion Effects**: The three Motion effects, Arp, Strum, and Grain, add rhythm and articulation to your sound. Their position in the Effects Chain is fixed at the first effect slot. For more information, refer to Motion Effects.

2. **Lofi Audio Effect**: This special audio effect adds grit, texture, and ambience to your sound. Its position in the Effects Chain is fixed at the second effect slot. For more information, refer to Lofi.

3. **Audio Effects**: A selection of 15 different audio effects can be loaded in six effect slots. Their position in the Effects Chain can be changed freely. For more information, refer to Audio Effects.

4. **Effect Preset Selector**: Enables you to quickly load settings for the effect loaded in the selected effect slot. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu.

5. **Change Order**: Changes the position of the respective effect slot in the Effects Chain when clicked and dragged left or right.

6. **Effect On/Off**: Switches the respective effect slot on or off. When switched off, the effect is bypassed and does not affect the sound.

7. **Effect Selector**: Opens a drop-down menu that enables you to select the audio effect for the respective effect slot. For more information about the available effects, refer to Audio Effects.

8. **Clear FX Mod**: Removes all modulation assignments from the selected effect slot. For more information, refer to Modulation Assignments.

9. **Effect Editor**: Enables you to change the parameters and settings of the effect loaded in the selected effect slot.

10.2. Motion Effects

The three Motion effects, Arp, Strum, and Grain, add rhythm and articulation to your sound. As MIDI effects, they alter the notes you play in real time to add expression and excitement.

10.2.1. Arp

Arp is a classic arpeggiator that is applied to the notes contained in the Chord Set. When you press a single key to play a chord, Arp will play a sequence of the respective notes and their corresponding samples. The sequence will be played back in a loop for as long as you press the key.
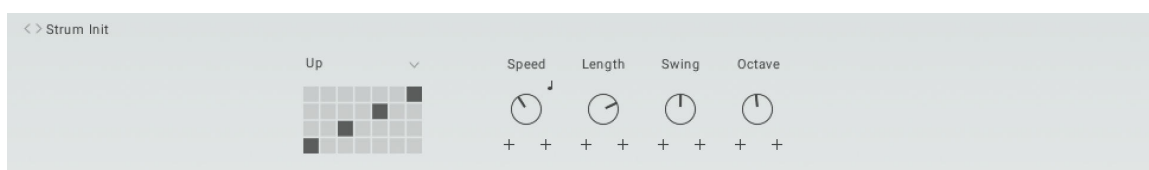
Arp contains the following parameters:
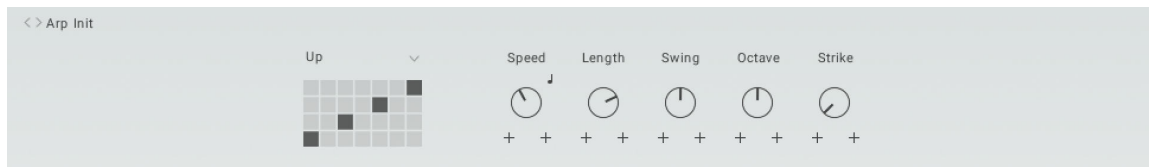
- **Pattern Selector**: Selects the type of sequence. Each pattern contains a different rhythm and succession of pitches.
- **Speed**: Adjusts the rate at which the sequence is played back. When Sync is activated, **Speed** is set in musical intervals relative to the tempo of the DAW.
- **Sync**: Synchronizes **Speed** to the tempo of the DAW.
- **Length**: Adjusts the lengths of the individual notes in the sequence.
- **Swing**: Adjusts the amount of swing, or shuffle, applied to the rhythm of the sequence.
- **Octave**: Adjusts the range of the distribution of notes in octaves.
- **Strike**: Adjusts the number of consecutive repetitions of each note in the sequence.

10.2.2. Strum

Strum is a special arpeggiator that is applied to the notes contained in the Chord Set. When you press a single key to play a chord, Strum will play a sequence of the respective notes and their corresponding samples. Contrary to an arpeggiator, the sequence will only play once after pressing a key, emulating the sound of strumming a string instrument.

Strum contains the following parameters:

- **Pattern Selector**: Selects the type of sequence. Each pattern contains a different rhythm and succession of pitches.
- **Speed**: Adjusts the rate at which the sequence is played back. When Sync is activated, **Speed** is set in musical intervals relative to the tempo of the DAW.
- **Sync**: Synchronizes **Speed** to the tempo of the DAW.
- **Length**: Adjusts the lengths of the individual notes in the sequence.
- **Swing**: Adjusts the amount of swing, or shuffle, applied to the rhythm of the sequence.
- **Octave**: Adjusts the range of the distribution of notes in octaves.

10.2.3. Grain

Grain is a special MIDI effect that fundamentally changes how the chords are played. Inspired by granular synthesis, it generates a huge number of MIDI events that trigger the notes and samples in exciting new ways. The MIDI events effectively turn the sound into small pieces of sound, also called grains. The playback of the grains can be altered in terms of speed, size, and various other parameters, enabling you to create a wide range of rhythmic and textural effects.

> 💡 You can record the MIDI events generated by Grain in your DAW by selecting KONTAKT's plug-in MIDI output as the input in a new MIDI track.

Grain contains the following parameters:
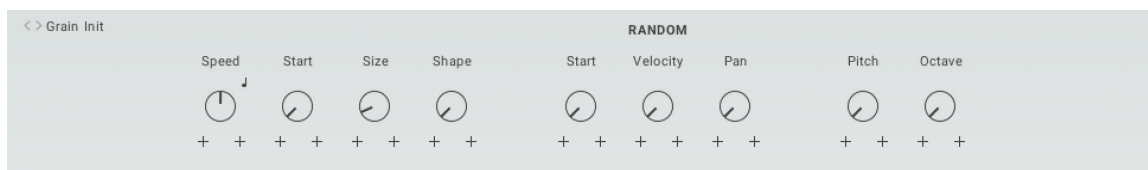
- **Speed**: Adjusts the rate at which the grains are generated. When Sync is activated, **Speed** is set in musical intervals relative to the tempo of the DAW.
- **Sync**: Synchronizes **Speed** to the tempo of the DAW.
- **Start**: Adjusts the sample start point of the grains.
- **Size**: Adjusts the duration of the grains.
- **Shape**: Adjusts the contour of the crossfade applied between grains. Turning the control from left to right changes the sound from percussive and textured to sustained and smooth.
- **Random Start**: Adjusts the amount of randomization applied to the sample start position of each grain.
- **Random Velocity**: Adjusts the amount of randomization applied to the note velocity, or level, of each grain.
- **Random Pan**: Adjusts the amount of randomization applied to the stereo position of each grain.
- **Pitch**: Adjusts the probability for grains to be played back at different pitches. Turning the control to the right increases the amount of pitch variation.
- **Octave**: Adjusts the probability for grains to be played back in different octaves. Turning the control to the right increases the amount of octave variation.
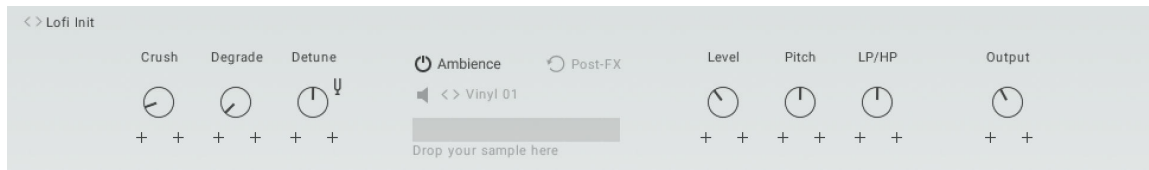
10.3. Audio Effects

The audio effects consist of 15 different effects can be loaded in six effect slots. The additional Lofi effect adds grit, texture, and pitch-shifting artifacts your sound.

10.3.1. Lofi

Lofi is a special audio effect that you can use to add grit, texture, and ambience your sound.

The Lofi effect contains the following parameters:

- **Crush**: Adjusts the amount of bit reduction, or bit crushing, applied to the sound.
- **Degrade**: Adjusts the amount of sample rate reduction applied to the sound.
- **Detune**: Detunes the sound by means of pitch-shifting in the range of -12 to +12 semitones or -1000 to +1000 cents, depending on the setting of the Range button.
- **Range (tuning fork symbol)**: Switches the range of the **Detune** control from -12 to +12 semitones to -1000 to +1000 cents.
- **Ambience**: Layers a sample containing textures and ambient noises onto the sound.
  - **Ambience On/Off**: Switches the effect on or off.
  - **Post-FX**: Changes the audio routing, effectively moving the Ambience effect to the end of the Effects Chain.
  - **Restart**: Restarts the sample at the start of each note. When deactivated, the sample playback continues at the last position.
  - **Ambience Selector**: Selects the type of texture or ambient noise.
  - **Sample Import**: Imports your own sample. You can drag and drop a sample onto the gray area to import it.
  - **Level**: Adjusts the volume level of the sample.
  - **Pitch**: Adjusts the pitch of the sample.
  - **LP/HP**: Adjusts the timbre of the sample from dark to bright. Turning the control to the left adds low-pass filtering to the sound. Turning the control to the right adds high-pass filtering to the sound.
- **Output**: Adjusts the output level of the Lofi effect.

10.3.2. Delay

The Delay effect is based on the Replika XT delay plug-in. It provides presets for five different modes (Modern, Analog, Tape, Vintage and Diffusion) that add distinct colour to your sound. It offers controls for Amount, Time, Feedback, Low Cut and High Cut filters, and Ping Pong.

The Delay effect contains the following parameters:
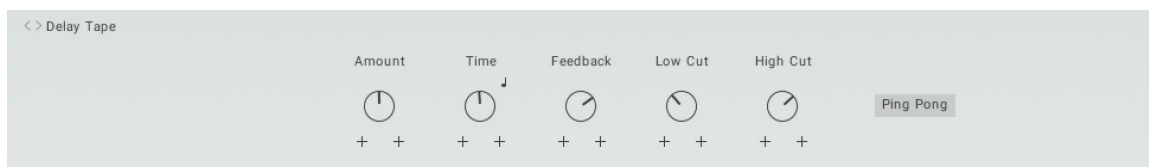
- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.
- **Amount**: Adjusts the amount of modulation applied to the delay time.
- **Time**: Adjusts the delay time in milliseconds.
- **Sync (crotchet symbol)**: Synchronizes **Time** to your host tempo. Click the crotchet symbol to sync the delay time, and turn the knob to select a note length value.

- **Feedback**: Adjusts the level of the signal that is fed back to the delay's input. Increasing Feedback adds delay repeats. Levels above 100% create swelling echo repeats up to self-oscillation.
- **Low Cut**: Cuts low-frequency content in the feedback path of the delay with a non-resonant filter. Turned fully counter-clockwise, the filter is off.
- **High Cut**: Cuts high-frequency content in the feedback path of the delay with a non-resonant filter. Turned fully clockwise, the filter is off.
- **Ping Pong**: Switches the Ping Pong effect on and off. When on, the delay repeats are panned hard left and right in an alternating pattern.

10.3.3. Reverb

This algorithmic Reverb effect offers Room and Hall presets. Room sounds generate a natural reverb with strong initial reflections and a quick decay. You can use this to simulate the natural sound of a small acoustic space. With a faster reverberation time, it is particularly suited to drums and guitars.

Hall presets emulate the immensity of a large hall space, with a warm and rich sounding reverb. This can be used to replicate a vast, natural space. The large reverberation and long decay time make it a great tool to experiment with on a variety of sounds.

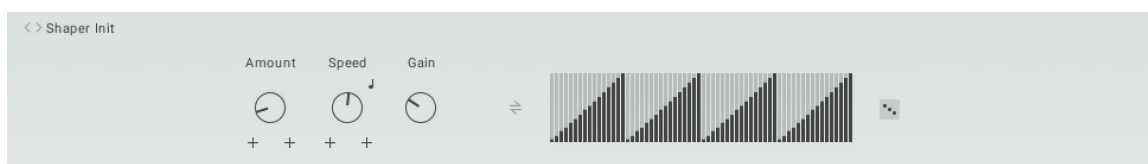The Reverb effect contains the following parameters:
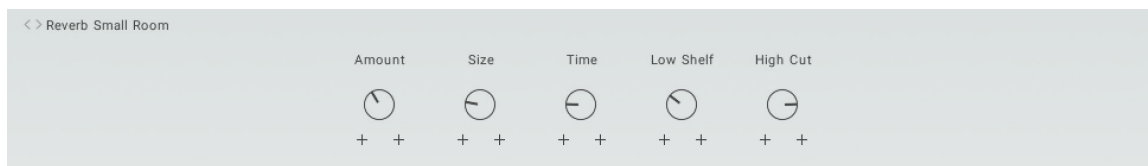
- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.
- **Amount**: Adjusts the amount of reverb applied to the signal.
- **Size:** Adjusts the size of the room simulated by the reverb effect. Higher values replicate larger rooms.
- **Time:** Adjusts the duration of the reverb effect.
- **Low Shelf:** Attenuates or amplifies the low-frequency content of the reverb signal.
- **High Cut::** Cuts the high-frequency content of the reverb signal.

10.3.4. Shaper

The Shaper is a modulation effect that enables you to draw shapes to produce custom modulation signals. The Shaper contains Amount, Speed, and Gain controls, as well as Pendulum and Randomize buttons for added versatility.

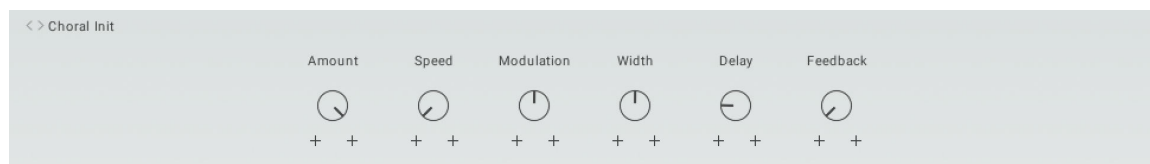The Shaper contains the following parameters:

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

- **Amount**: Adjusts the amount of Shaper effect applied to the signal. Turning the knob right increases the amount of the effect, in a range from 0% to 100%.

- **Speed**: Adjusts the frequency of the modulation. When Sync is activated, **Speed** is set in musical intervals relative to the tempo of the DAW.

- **Sync** (crotchet button): Synchronizes **Speed** to your host tempo. Click the crotchet button to sync the modulation speed, and turn the knob to select a note length value.

- **Gain**: Adjusts the amplification or attenuation value applied to the signal in dB.

- **Pendulum**: Activates Pendulum mode for the Shaper playback. When activated, the Shaper runs forward and backward in an alternating pattern.

- **Shaper Editor**: Shows and edits the contents of the Shaper. You can adjust the steps by right-clicking in the Shaper editor and dragging up and down. By dragging left and right, you can adjust multiple steps at the same time.

- **Randomize**: Loads randomized Shaper settings into the Shaper editor.

10.3.5. Choral

Choral is inspired by synthesizers and studio rack processors from the seventies and early eighties, with enhanced parameter controls that allow you to customize the effect with minimal effort. Chorus effects are used to enrich sounds by adding spatial movement and giving them an ensemble-like quality. They can add space and body to the sound as if it was played from multiple sources at the same time. The results range from subtle shifts in timbre to extremely lively textures with a wide stereo image.

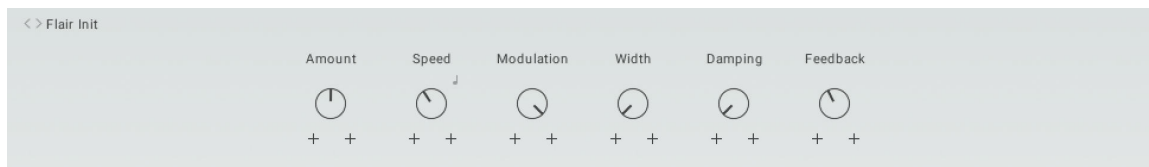The Choral effect contains the following parameters:

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

- **Amount**: Blends between the input signal and the effect signal by means of an equal-power crossfade.

- **Speed**: Adjusts the speed of modulation, from slow pitch changes to fast vibratos. This becomes more pronounced as the **Amount** is increased.

- **Modulation**: Adjusts the amount of modulation applied to the **Delay**, altering the delay times of the chorus voices. Due to the configuration of the delays, this also changes the pitch of the chorus voices, creating the typical chorusing effect.

- **Width**: Pans the chorus voices in opposite directions, widening the stereo image. When **Width** is set to 0, the stereo image of the input is preserved.

- **Delay**: Adjusts the delay times of the chorus voices, allowing you to change the spatial depth of the sound. This parameter strongly interacts with **Feedback**.

- **Feedback**: Adjusts the level of the feedback signals from the outputs of the chorus voices to their inputs, creating a more sustained and spacious sound.

10.3.6. Flair

Flair is a new take on the flanger effect, with additional features that allow for more sophisticated and extreme sounds than possible with common flangers. Flangers are used to enrich sounds by adding distinct harmonic effects that can completely transform a sound. They are based on comb filters, with built-in modulation of the comb filter frequency. A comb filter consists of an extremely short delay with feedback that produces harmonically related peaks and notches in the frequency spectrum. This way a flanger adds dramatic filtering effects and resonances to the sound. The results range from metallic textures to the warped sound of a starting jet engine.
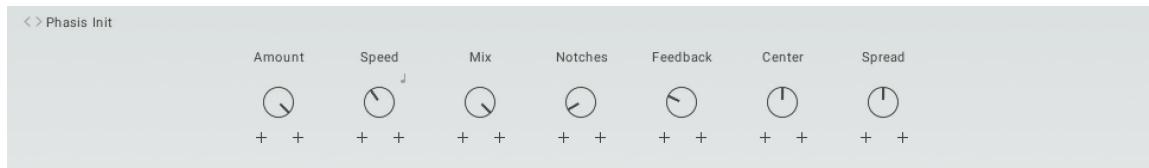
The Phasis effect contains the following controls:

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

- **Amount**: Blends between the input signal and the effect signal. When the knob is turned fully left, only the dry input signal is heard.

- **Speed**: Adjusts the frequency of the modulation applied to the effect. The modulation becomes more pronounced as the **Amount** is increased. When **Speed Sync** is activated, modulation is synchronized to the host and the **Speed** knob.

- **Sync** (crotchet button): Synchronizes **Speed** to your host tempo. Click the crotchet button to sync the modulation speed, and turn the knob to select a note length value.

- **Modulation**: Adjusts the amount of modulation applied. Turning the knob right increases the amount of modulation and movement in the flanging effect.

- **Width**: Duplicates the flanger voices internally and pans them in opposite directions. A wide and lively stereo image is created by adding a phase offset to the modulation applied between the left and right stereo channels. Additionally, a special type of cross-feedback is introduced, further animating the stereo image as **Feedback** is increased.

- **Damping**: Attenuates the high frequency content of the feedback signals from the outputs of the flanger voices to their inputs, allowing for soft sounds even at high **Feedback** settings.

- **Feedback**: Adjusts the level of the feedback signals from the outputs of the flanger voices to their inputs, creating a more resonant and metallic sound.

10.3.7. Phasis

Phasers are used to enrich sounds by adding spectral animation and complex filtering. They are based on a series of all-pass filters, with built-in modulation of the filter's frequencies. The all-pass filters produce peaks and notches in the frequency spectrum that can be altered over time, transforming and animating the harmonic structure of the sound.

Phasis is a new take on the concept with additional features that have been carefully chosen to allow for more sophisticated and extreme sounds than possible with common phasers, while staying true to the ease of use associated with these devices.

The Phasis effect contains the following parameters:

Amount   Speed   Mix   Notches   Feedback   Center   Spread

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.
- **Amount**: Adjusts the amount of modulation applied to **Center** and **Spread**, adding movement to the phasing effect.
- **Speed**: Adjusts the frequency of the modulation applied to the effect. The modulation becomes more pronounced as the **Amount** is increased. When **Speed Sync** is activated, modulation is synchronized to the host and the **Speed** knob.
- **Sync** (crotchet button): Synchronizes **Speed** to your host tempo. Click the crotchet button to sync the modulation speed, and turn the knob to select a note length value.
- **Mix**: Blends between the input signal and the effect signal. When the knob is turned fully left, only the dry input signal is heard.
- **Notches**: Sets the number of peaks and notches in the frequency spectrum.
- **Feedback**: Adjusts the amount of feedback, or resonance, applied to the all-pass filters that create the phasing effect. Turning the knob right will increase the **Feedback**, making the peaks and notches in the frequency spectrum more pronounced.
- **Center**: Shifts the peaks and notches in the frequency spectrum by changing the frequencies of the all-pass filters that create the phasing effect (relative to the Center frequency).
- **Spread**: Adjusts the density of the peaks and notches in the frequency spectrum. Turning the knob left moves the peaks and notches closer to each other. Turning the knob right moves the peaks and notches further apart from each other.

10.3.8. Filter I

A filter is a signal processor that changes the frequency content of a signal that passes through it. The Filter I effect contains Low Pass, High Pass, Band Pass, Formant and Vowel presets.

Filter I contains the following parameters:

Cutoff   Reso

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.
- **Cutoff**: Adjusts the cutoff frequency of the filter.
- **Reso** (Resonance): Boosts a small frequency range around the cutoff frequency when a value greater than 0 is selected.

10.3.9. Filter II

A filter is a signal processor that changes the frequency content of a signal that passes through it. The Filter I effect contains Low Pass, High Pass, Band Pass, Formant and Vowel presets.

Filter II contains the following parameters:

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.
- **Cutoff**: Adjusts the cutoff frequency of the filter.
- **Reso** (Resonance): Boosts a small frequency range around the cutoff frequency when a value greater than 0 is set

10.3.10. EQ

The EQ effect is a fully parametric peak equalizer allowing for a wide range of tonal alterations and corrections. Using up to three EQ bands per module, you can boost or cut any frequency range throughout the entire spectrum by up to 18 dB, with an adjustable Width parameter allowing you to choose between soft fades for gentle corrections or steep slopes for surgical edits.

The EQ contains the following parameters:
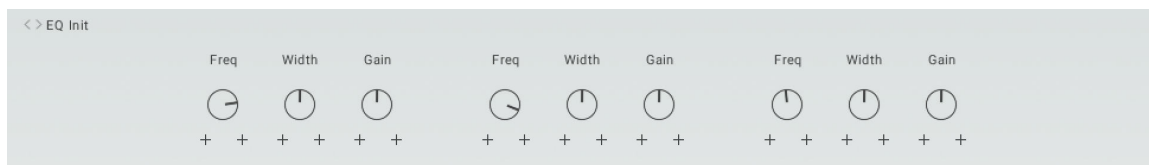
- **Preset Selector**: Click the name to open the preset menu or click the arrows to load the previous/next available preset.
- **Freq** (Frequency): Adjusts the center frequency at which the boost or cut will occur.
- **Width** (Bandwidth): Adjusts the width of the frequency range that will be affected in octaves.
- **Gain**: Adjusts the amount of boost (positive values) or cut (negative values) at the center frequency.

10.3.11. Punch

Punch is an easy to use compressor designed to control the attack and sustain of a sound. Instead of following the amplitude of the sound like a traditional compressor, it follows the general envelope and is thus not as susceptible to changes in input gain. The Punch effect is designed primarily for sounds with fast attacks, like drums, percussion, pianos or guitars.

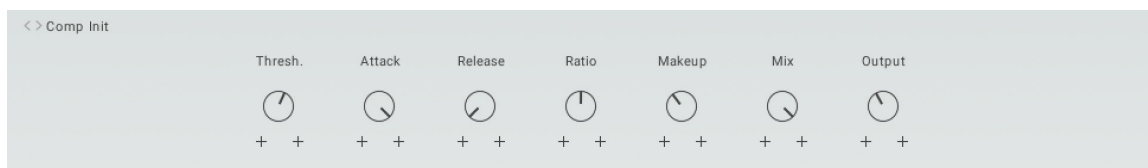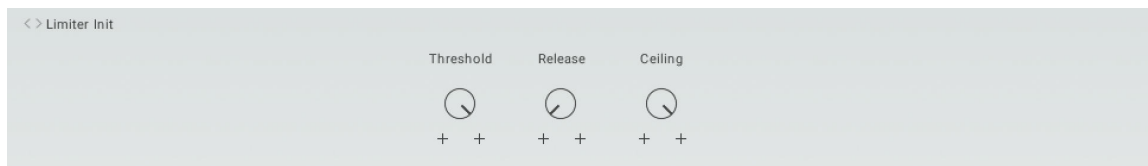The Punch effect contains the following parameters:
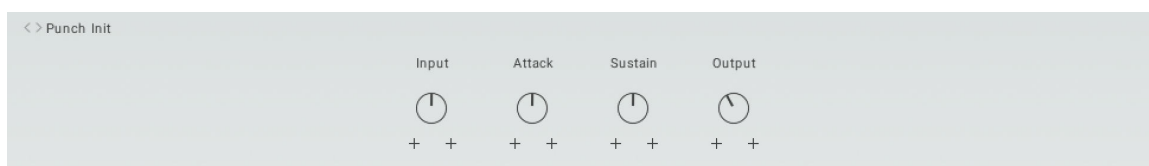
- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

- **Input**: Controls the input gain to the effect.
- **Attack**: Adjusts the scaling of the attack portion of the input signal's volume envelope. Turning the knob right (0% to 100%) will add more punch, and turning the knob left (0% to -100%) will reduce sharp attacks.
- **Sustain**: Controls the scaling of the sustain portion of the input signal's volume envelope. Increasing this parameter will add more body to the sound and decreasing it will reduce the sound's tail.
- **Output**: Sets the output level of the effect in dB. For dynamic effects like compressors, this is very important.

10.3.12. Comp

The Compressor is a dynamic tool which reduces the level of loud passages in a signal, thereby affecting the signal's dynamic range. It is invaluable for many common tasks, allowing you to reduce level peaks, thereby increasing the average volume of a signal. By careful adjustment of the attack and release times, the compressor can also modify signal transients, adding punch to weak-sounding drums or taming exaggerated clicking in percussion sounds. Too much compression can result in a rather strained and weak sound.

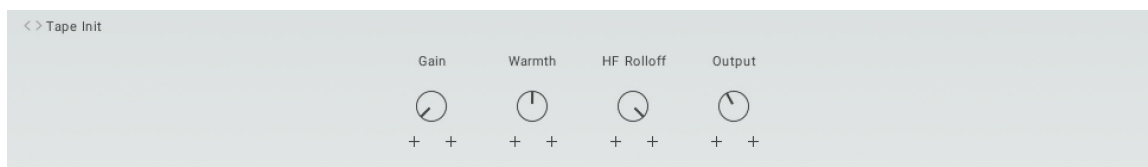The Compressor effect contains the following parameters:

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.
- **Thresh**: Sets a level threshold above which the Compressor starts working. Only levels that rise above this threshold will be reduced by the compression; signals that stay below it will be left unprocessed.
- **Attack**: Adjusts the time the Compressor will take to reach the full Ratio value after an input signal exceeds the Threshold level. If you're using compression mainly for transparent dynamic reduction, values between 5 and 10 ms are a good starting point. Longer attack times can be useful for emphasizing transients and adding "punch" to a signal.
- **Release**: Adjusts the time the compressor will take to fall back to non-compression after the input signal falls below the threshold. Typical values range from 50 to 250 ms.
- **Ratio**: Controls the amount of compression, expressed as a ratio of input level change against output level change. A Ratio of 1:1 results in no compression. A Ratio of 2:1 means that a level increase of 2 dB at the input will raise the output level by only 1 dB. A 4:1 Ratio results in more aggressive compression, with a 4 dB level increase at the input causing a 1 dB increase at the output.
- **Makeup**: Compensates for the gain reduction of the effect. Use the make-up gain control to bring the output signal up to the same peak level as the input signal after compression. Once you have found a compression setting, adjust the input and output signals so they have comparable levels.
- **Mix**: Controls the dry/wet mix of the compressor. This can be used to create a parallel compression style routing, which increases the quieter signals rather than reducing the louder ones. At a setting of 100% you will only hear the compressed signal; at a setting of 0% you will only hear the unprocessed input signal.

• **Output**: Controls the output level of the effect.

10.3.13. Limiter

The Limiter can be used to tame signal peaks that would otherwise overload the output, without requiring you to turn the overall signal volume down. You can think of a limiter as a special form of compressor, with a ratio of one to infinity, a threshold just below the maximum level, and a very short attack time. While compressors have a range of artistic applications, limiters are typically used for technical reasons.

The Limiter contains the following parameters:

• **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

• **Threshold**: Sets the threshold at which the limiter begins to affect the input signal. To prevent the signal from clipping, leave the **Threshold** at 0 dB. To make the signal louder, reduce the **Threshold** value by turning the control to the left. The **Threshold** can be set in the range from -40.0 dB to 0.0 dB.

• **Release**: Adjusts the length of the release phase, which determines how long it takes for the limiter to stop after the input signal falls below the **Threshold** level. The **Release** can be set in the range from 1.0 ms to 500.0 ms.

• **Ceiling**: Sets the maximum output level of the limiter in dB. The **Ceiling** can be set in the range from -40.0 dB to -0.3 dB.

10.3.14. Tape

Tape saturation emulates the soft compression and distortion of recording to tape. The Tape effect can be used to add subtle warmth and coloring to a sound, or heavy, aggressive distortion.
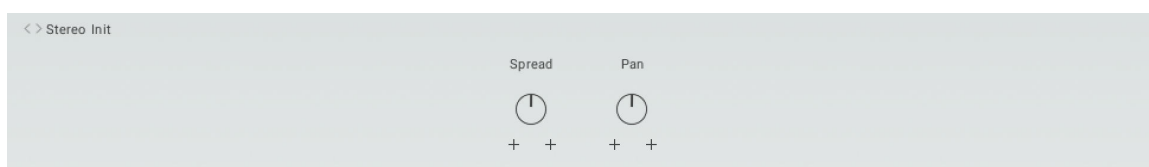
The Tape effect contains the following parameters:

• **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

• **Gain**: Controls the input gain of the effect. This will increase the amount of tape distortion and compression.

• **Warmth**: Controls the low frequency boost/cut of the effect.

• **HF Rolloff**: Controls the high frequency rolloff starting frequency. Frequencies above this point will be attenuated.

• **Output**: Controls the output level of the effect.

10.3.15. Charge

The Charge effect offers high-end tube compression emulation, inspired by boutique hardware. It is a particularly musical compressor that allows you to apply subtle harmonic and spatial enhancement as well as heavy and aggressive tube drive.

Compressor tools affect both the dynamic range and color of a signal. They can be used to tame level peaks, but can also add coloration, character and warmth to a signal, which is especially inherent with tube-style compressors.

The Charge effect contains the following parameters:

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

- **Input**: Adjusts the input gain to the compressor in dB. The ideal setting of the **Input** is indicated by the **Input Level Meter**.

- **Saturation**: Applies saturation to the signal. Turn the control right to apply more saturation.

- **Compress**: Determines the amount of compression applied to the input signal. The higher the value, the more compression is applied to the input signal.

- **Character**: Changes the sound characteristic of the compression effect by applying equalization to the signal.

- **Mix**: Controls the dry/wet mix of the compressor. This can be used to create a parallel compression style routing, which increases the quieter signals rather than reducing the louder ones. When the **Mix** control is set to 0%, only the uncompressed (dry) signal will be heard, and at 100%, only the compressed signal will be heard. Settings between the 0% and 100% are a mix of both signals.

- **Output**: Controls the output level of the effect.

10.3.16. Stereo

The Stereo modeller effect allows you to control the width of your signal's stereo base, change the panning, and create a pseudo-stereo signal from mono sources.

Stereo contains the following parameters:

- **Preset Selector**: Enables you to quickly browse and load presets. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu. The name of the currently loaded preset is displayed.

- **Spread**: Reduces or expands the signal's stereo base. Turning the knob far left, will sum the stereo signals to mono. Turning the knob right to produce positive values will result in an artificial widening of stereo sources.

- **Pan**: This control allows you to place your signal within the stereo field. It works exactly like the Pan control of the Amplifier module.

10.4. Modulators

The Modulators consist of a variety of modulation sources that can be applied to effect parameters. Modulation adds movement to your sound by changing parameters over time. Each modulator offers a different type of modulation, from periodic changes (**LFO**), to complex sequences (**MODSTEP**) and contours that follow note events (**AMP** and **MOD** envelopes). Additionally, **HUMANIZE** brings life to key aspects of each musical note.

The following Modulators and controls are available:

1. **LFO 1 and LFO 2**: Low-frequency oscillators that enable you to add movement to sounds. For more information, refer to LFO 1 and LFO 2.
2. **Modstep**: Modulation sequencer that enables you to create intricate modulation signals, from stepped sequences to complex shapes. For more information, refer to Modstep.
3. **Amp Envelope**: Basic ADSR (Attack, Decay, Sustain, Release) envelope that enables you to adjust the volume contour of the sound. For more information, refer to Amp Envelope.
4. **Mod Envelope**: Enhanced ADSR (Attack, Decay, Sustain, Release) envelope that enables you to add a contour to effect parameters. For more information, refer to Mod Envelope.
5. **Humanize**: Brings life to key aspects of each musical note by introducing unpredictable changes.. For more information, refer to Humanize.
6. **Clear Mod Assignments**: Removes modulation assignments of all or specific Modulators. For more information, refer to Modulation Assignments.

10.4.1. LFO 1 and LFO 2

LFO 1 and LFO 2 are low-frequency oscillators (LFO) that enable you to add movement to sounds. LFOs produce periodic modulation that changes the value of parameters over time.

ⓘ You can assign this Modulator to any effect parameter, and to parameters of other Modulators. For more information, refer to Modulation Assignments.

Both LFO 1 and LFO 2 contain the following parameters:
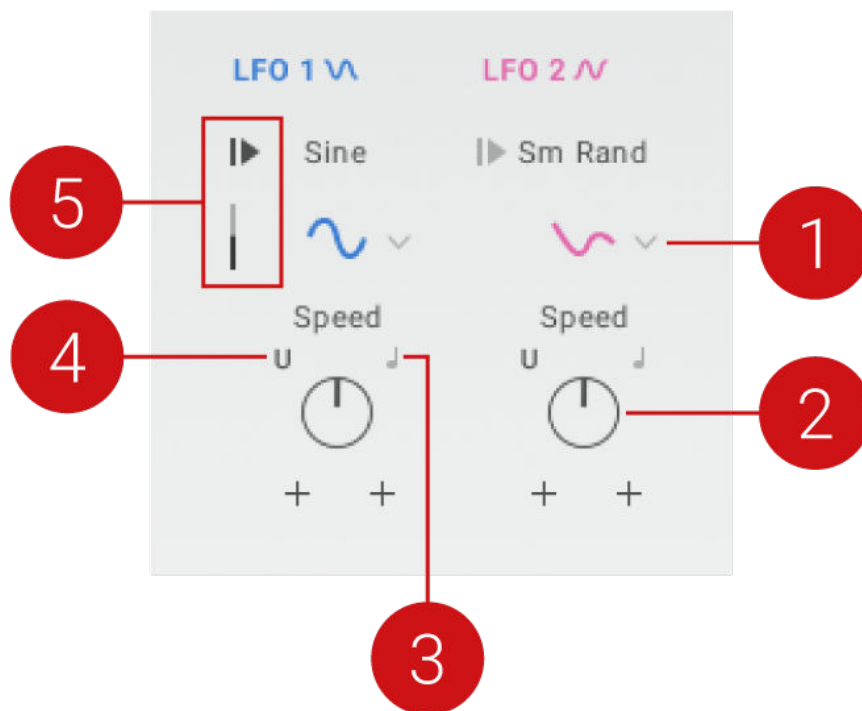
1. **Waveform Type**: Selects one of eight waveform types (**Sine**, **Triangle**, **Square**, **Sawtooth**, **Random**, **Smooth Random**) that define the shape of the modulation.

2. **Speed**: Adjusts the frequency of the modulation. When Sync is activated, **Speed** is set in musical intervals relative to the tempo of the DAW.

3. **Sync**: Synchronizes **Speed** to the tempo of the DAW.

4. **U/B**: Switches between unipolar (**U**) and bipolar (**B**) modulation. Unipolar modulation produces positive parameter changes (relative to the base value), bipolar modulation produces positive and negative parameter changes.

5. **Reset and Phase**: Resets the LFO at the start of each note. The reset point in the waveform can be adjusted using the Phase slider below the Reset button.

10.4.2. Modstep

Modstep is a modulation sequencer that enables you to create intricate modulation signals, from stepped sequences to complex shapes.

> ⓘ You can assign this Modulator to any effect parameter, and to parameters of other Modulators. For more information, refer to Modulation Assignments.

Modstep contains the following parameters:
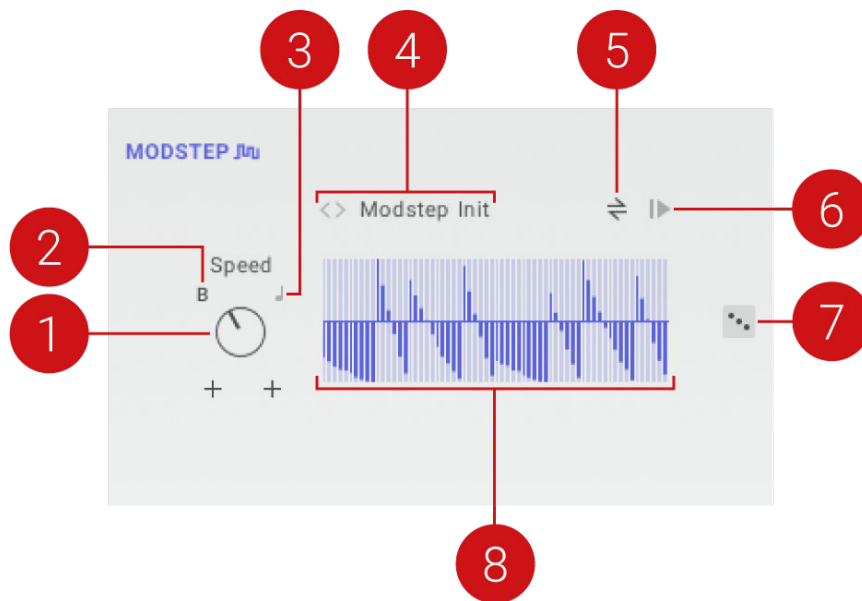
1. **Speed**: Adjusts the frequency of the modulation. When Sync is activated, **Speed** is set in musical intervals relative to the tempo of the DAW.

2. **U/B**: Switches between unipolar (**U**) and bipolar (**B**) modulation. Unipolar modulation produces positive parameter changes (relative to the base value), bipolar modulation produces positive and negative parameter changes.

3. **Sync**: Synchronizes **Speed** to the tempo of the DAW.

4. **Sequence Preset Selector**: Enables you to quickly load sequences with various patterns and shapes. The loaded preset determines the number of steps in the sequence. You can switch between presets using the left and right arrow buttons, or click on the selector to open a drop-down menu.

5. **Pendulum**: Activates Pendulum mode for the sequence playback. When activated, the sequence runs forward and backward in an alternating pattern.

6. **Reset**: Resets the sequence to the beginning at the start of each note.

7. **Randomize Sequence**: Randomizes the steps in the sequence. The number of steps in the sequence is not randomized. You can change it by selecting a different preset from the Sequence preset selector.

8. **Sequence Editor**: Shows and edits the contents of the sequence. You can adjust the steps by right-clicking in the Sequence editor and dragging up and down. By dragging left and right, you can adjust multiple steps at the same time.

10.4.3. Amp Envelope

The Amp envelope is a basic ADSR (Attack, Decay, Sustain, Release) envelope that enables you to adjust the volume contour of the sound. Each of the four basic envelope stages can be adjusted independently.

The Amp envelope contains the following parameters:
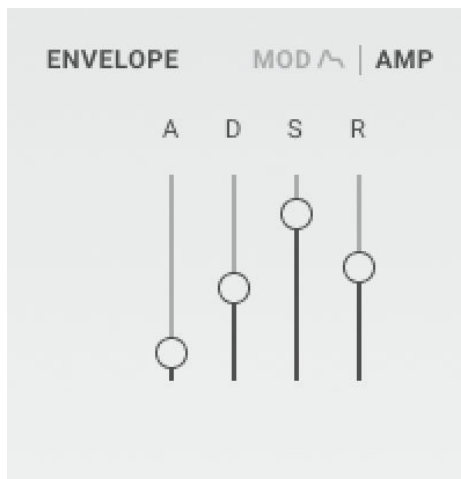
- **Attack (A)**: Adjusts the duration of the envelope's attack stage, which is the time the envelope takes to rise from zero to peak level.
- **Decay (D)**: Adjusts the duration of the envelope's decay stage, which is the time the envelope takes to fall from peak to sustain level.
- **Sustain (S)**: Adjusts the level of the envelope's sustain stage, at which the envelope stays as long as a note is held.
- **Release (R)**: Adjusts the duration of the envelope's release stage, which is the time the envelope takes to fall from the sustain level to zero.

10.4.4. Mod Envelope

The Mod envelope is an enhanced ADSR (Attack, Decay, Sustain, Release) envelope that enables you to add a contour to effect parameters. In addition to the four basic envelope stages, it features synchronization to to the tempo of the DAW, an adjustable attack curve, and either unipolar or bipolar operation.

ⓘ You can assign this Modulator to any effect parameter, and to parameters of other Modulators. For more information, refer to Modulation Assignments.

The Mod envelope contains the following parameters:
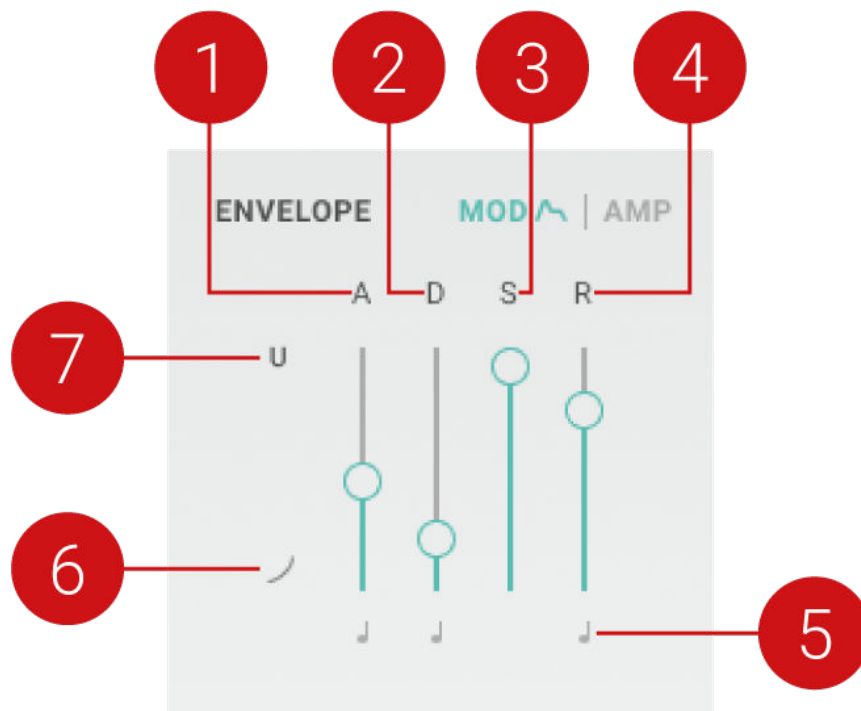
1. **Attack (A)**: Adjusts the duration of the envelope's attack stage, which is the time the envelope takes to rise from zero to peak level.

2. **Decay (D)**: Adjusts the duration of the envelope's decay stage, which is the time the envelope takes to fall from peak to sustain level.

3. **Sustain (S)**: Adjusts the level of the envelope's sustain stage, at which the envelope stays as long as a note is held.

4. **Release (R)**: Adjusts the duration of the envelope's release stage, which is the time the envelope takes to fall from the sustain level to zero.

5. **Sync**: Synchronizes the respective envelope stage to the tempo of the DAW. When Sync is activated, the duration of the envelope stage is set in musical intervals relative to the tempo of the DAW.

6. **Attack Curve**: Adjusts the shape of the envelope's attack stage from an exponential response with a slow onset (-100%) to a logarithmic response with a fast onset (100%). At center position (0%), the response is linear, making the attack stage rise evenly for its entire duration.

7. **U/B**: Switches between unipolar (**U**) and bipolar (**B**) modulation. Unipolar modulation produces positive parameter changes (relative to the base value), bipolar modulation produces positive and negative parameter changes.

10.4.5. Humanize

Humanize brings life to key aspects of each musical note by introducing unpredictable changes. It adds random variation to the note velocity (**Vel**), sample start point (**Start**), stereo position (**Pan**), and rhythmic timing (**Time**). The amount of variation can be set independently for each of these parameters.

> (i)   When using the Grain Motion effect, Humanize does not affect the sound. For more information about Grain, refer to Grain.

Humanize contains the following parameters:
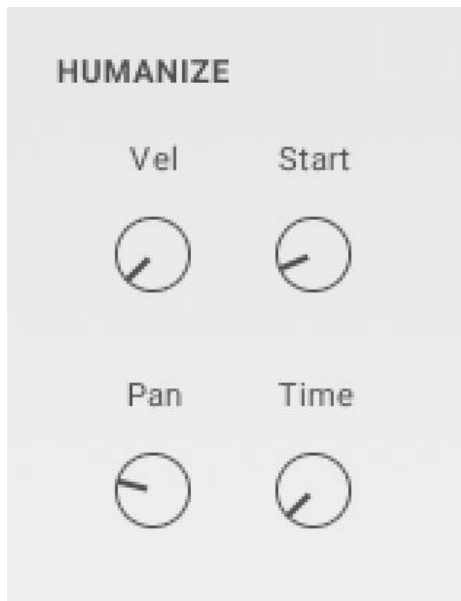
- **Vel**: Adjusts the amount of random variation applied to the velocity of each note.
- **Start**: Adjusts the amount of random variation applied to the sample start point of each note.
- **Pan**: Adjusts the amount of random variation applied to the stereo position of each note.
- **Time**: Adjusts the amount of random variation applied to the rhythmic timing of each note.

10.5. Macros and Performance Controls

The Macros and performance controls enable you to play and tweak key parameters in an intuitive way. You can freely assign the modulation wheel, XY pad, and Macros to parameters on the FX page. Additionally, you can rename controls and change their operation between unipolar and bipolar.

> (i)   For information about assigning Macros and performance controls to parameters, refer to Modulation Assignments.

The following Macros and performance controls are available:
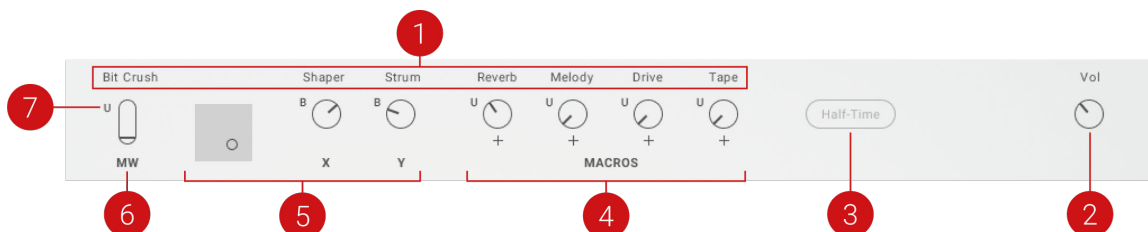
1. **Control Labels**: Show the name of the Macro or performance control. You can change the name by clicking on it and entering a new name.
2. **Vol**: Adjusts the main output volume of the instrument.
3. **Half-Time**: Activates a half-time effect that momentarily reduces the playback speed of all samples by 50%.

4. **Macros**: Each control adjusts key effect parameters for immediate tweaking of sounds.

5. **XY Pad**: Provides expressive control of effect parameters in two dimensions by moving the ball across the XY plane. You can also control each dimension independently using the dedicated **X** and **Y** controls.

6. **Modulation Wheel**: Shows the parameter assignment of the modulation wheel, which can be played on a MIDI keyboard. You can also adjust the modulation wheel directly in the user interface.

7. **U/B**: Switches between unipolar (**U**) and bipolar (**B**) modulation. Unipolar modulation produces positive parameter changes (relative to the base value), bipolar modulation produces positive and negative parameter changes.

10.6. Modulation Assignments

Modulation assignments determine which parameters respond to modulation sources, including both Modulators and Macros. Both Modulators and Macros can be assigned to any effect parameter. Additionally, you can assign Modulators and Macros to parameters of other Modulators, and assign Modulators to Macros. Options to remove modulation assignments include single assignments, all assignments created in an effect slot, or all assignments of a specific modulation source.

10.6.1. Modulation Slots

Modulation slots are used to create modulation assignments. Each modulation slot can host a single connection from a Modulator or Macro. Modulation slots are located beneath the respective parameter or Macro. Effect parameters feature two modulation slots, while Macros feature one modulation slot:
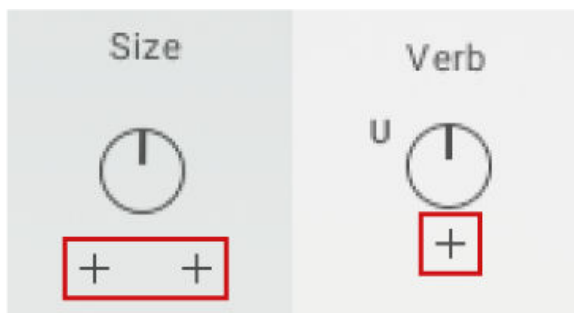
10.6.2. Creating a Modulation Assignment

To create a modulation assignment:

1. Click on a free modulation slot beneath the parameter or Macro you want to create the assignment for.

2. Select a modulation source from the drop-down menu. The available modulation sources differ depending on whether you are assigning modulation to an effect, Modulator, or Macro.
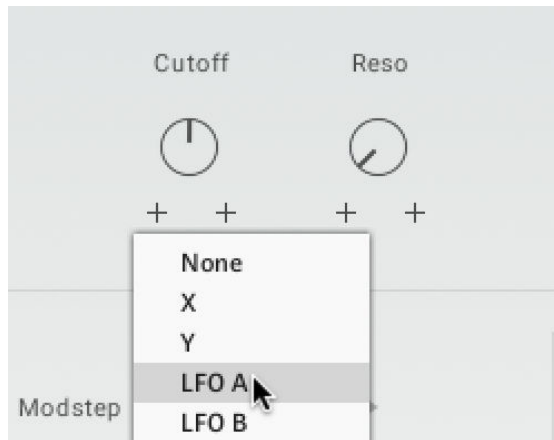
3. Click the modulation amount control and drag it up and down to adjust the depth of modulation.


→ The chosen modulation source is assigned to the parameter, indicated by the respective symbol. A ring around the parameter control shows the depth of modulation, and the dot represents the current parameter value.
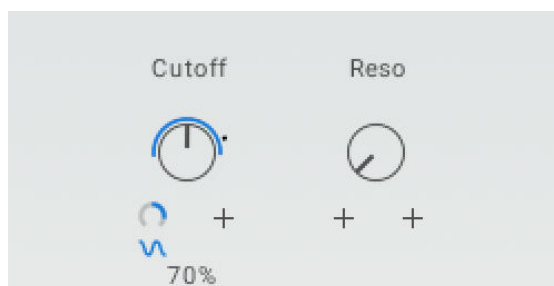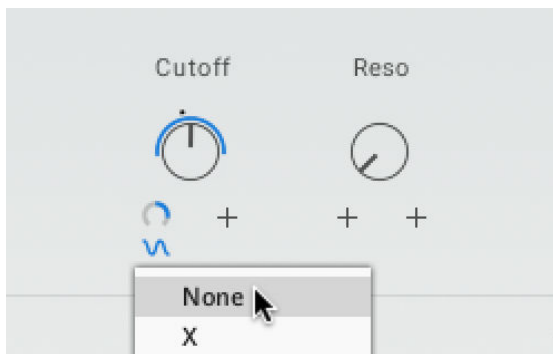

10.6.3. Removing a Modulation Assignment

To remove a modulation assignment:

1. Click on the symbol of the modulation source beneath the parameter or Macro you want to remove the assignment from.
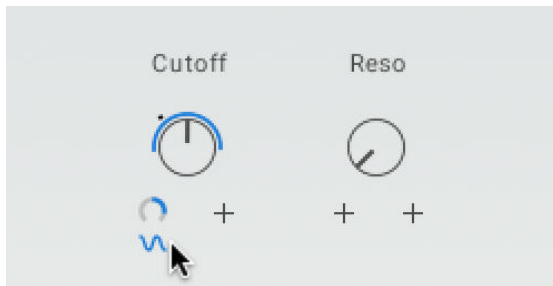
2. Select **None** from the drop-down menu.

→ The modulation assignment is removed and the modulation slot is empty.

10.6.4. Removing All Modulation Assignments from an Effect Slot

To remove all modulation assignments from an effect slot:

1. Select the effect slot by clicking on the respective tab in the Effects Chain.
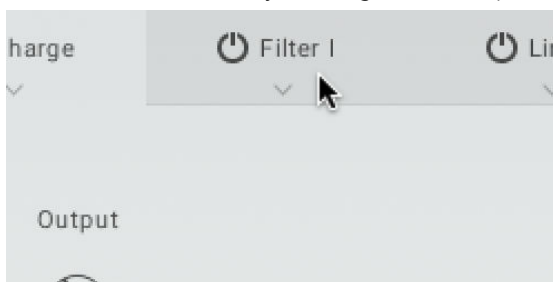
2. Click the eraser icon in the top-right corner of the Effect editor.
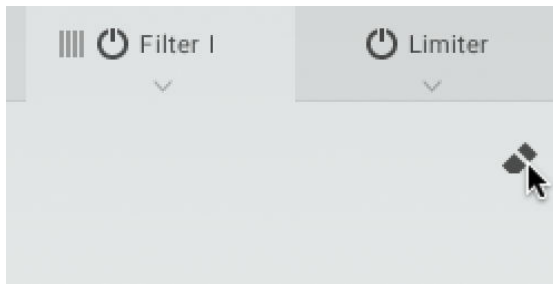
3. Select **Clear FX Mod** from the drop-down menu.
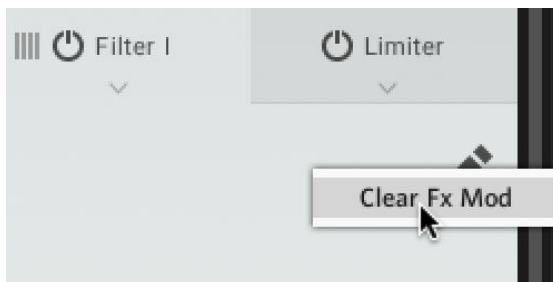
→ All modulation assignments are removed from the selected effect slot.

10.6.5. Removing Modulation Assignments for All or specific Modulation Sources

To remove all modulation assignments for all or specific modulation sources:

1. Click the eraser icon in the top-right corner of the Modulators.
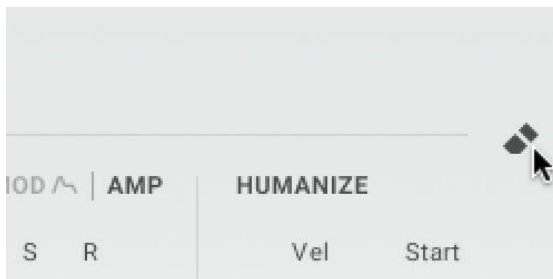
2. Select the modulation source you want to remove all modulation assignments for. If you want to remove all modulation assignment for any modulation source, select **ALL**.
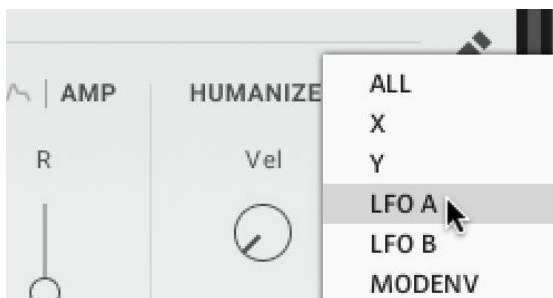
→ The modulation assignments of the chosen modulation source, or all modulation sources, are removed.

11. Browsers

PLAYBOX enables you to browse its extensive library and organize user content in five browsers, each dedicated to a specific content type:

- **Global Presets Browser**: Provides access to Global presets, which contain a combination of Sample, Chord, and FX Sets, as well as settings made in the Header. For more information, refer to Global Presets Browser.

- **Chord Sets Browser**: Provides access to Chord Sets, which contain the Chord Matrix and all settings made on the Chords page. For more information, refer to Chord Sets Browser.

- **Sample Sets Browser**: Provides access to Sample Sets, which contain the Sample Matrix and all settings made on the Samples page. For more information, refer to Sample Sets Browser.

- **Samples Browser**: Provides access to samples, which you can use to populate the Sample Matrix on the Samples page. For more information, refer to Samples Browser.

- **FX Sets Browser**: Provides access to FX Sets, which contain the Effects Chain, Modulators, Macros, and all parameter settings on the FX page. For more information, refer to FX Sets Browser.

11.1. Global Presets Browser

The Global Presets browser provides access to Global presets, which contain a combination of Sample, Chord, and FX Sets, as well as settings made in the Header.
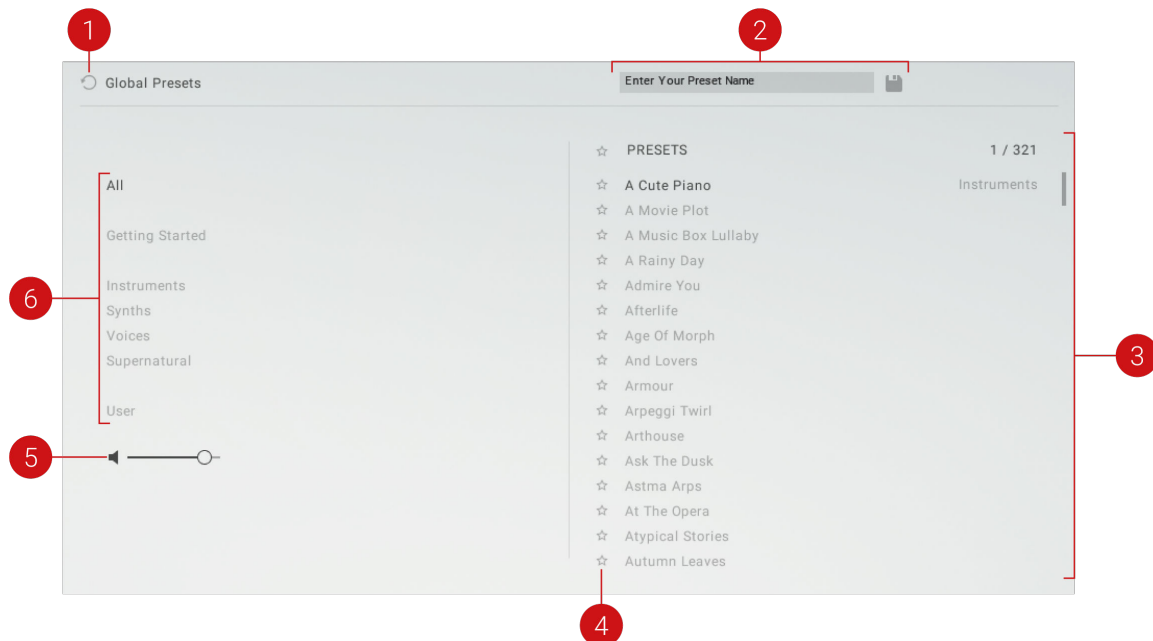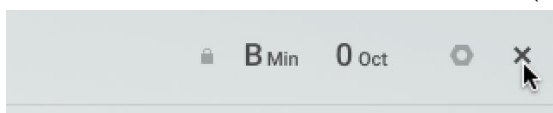
▶ To open the Global Presets browser, click on the preset name in the Global Preset selector at the top-left of the user interface.
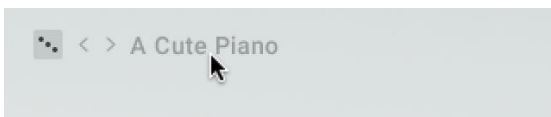
▶ To close the browser, click on the Exit button (X icon) at the top-right of the user interface.

The Global Presets browser contains the following elements and controls:

1. **Refresh Browser**: Reloads the browser content to include entries that have been created using other running instances of the instrument.
2. **Save User Preset**: Enables you to save your own User preset by entering a name and clicking on the Save button (disk icon).
3. **Preset List**: Shows all Global presets contained in the selected category.
    - **Scroll Bar**: Moves through the entire Preset list.
    - **Preview**: Clicking on an entry in the list plays back the preset.
    - **Load**: Double-clicking on an entry in the list loads the preset.
4. **Favorites**: Adds the respective Global preset to your Favorites. You can view Favorites by clicking on the Favorite button (star icon) in the header of the Preset list.
5. **Preview**: Switches the preview function on or off. You can use the fader to adjust the preview volume.
6. **Category Selector**: Selects a category of Global presets to be shown in the Preset list. You can view your User presets by selecting **User** in the Category selector.

11.2. Chord Sets Browser

The Chord Sets browser provides access to Chord Sets, which contain the Chord Matrix and all settings made on the Chords page.
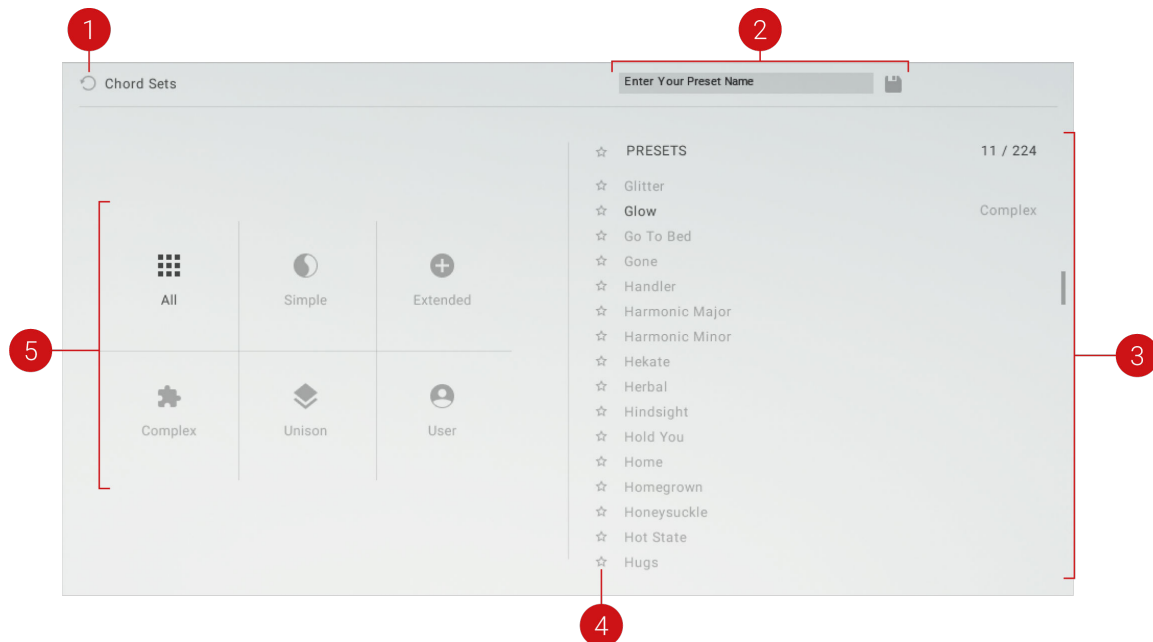
▶ To open the Chord Sets browser, click on the preset name in the Chord Set selector at the bottom of the user interface.

▶ To close the browser, click on the Exit button (X icon) at the top-right of the user interface.

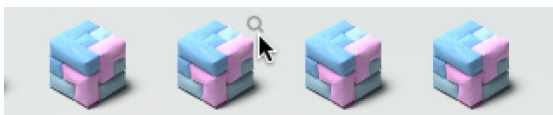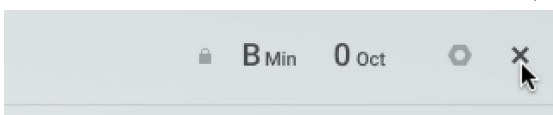The Chord Sets browser contains the following elements and controls:

1. **Refresh Browser**: Reloads the browser content to include entries that have been created using other running instances of the instrument.

2. **Save User Set**: Enables you to save your own User Set by entering a name and clicking on the Save button (disk icon).

3. **Set List**: Shows all Sets contained in the selected category.
   - **Scroll Bar**: Moves through the entire Set list.
   - **Load**: Clicking on an entry in the list loads the Set.

4. **Favorites**: Adds the respective Set to your Favorites. You can view Favorites by clicking on the Favorite button (star icon) in the header of the Set list.

5. **Category Selector**: Selects a category of Sets to be shown in the Set list. You can view your User Sets by selecting **User**.

11.3. Samples Browser

The Samples browser provides access to samples, which you can use to populate the Sample Matrix on the Samples page.
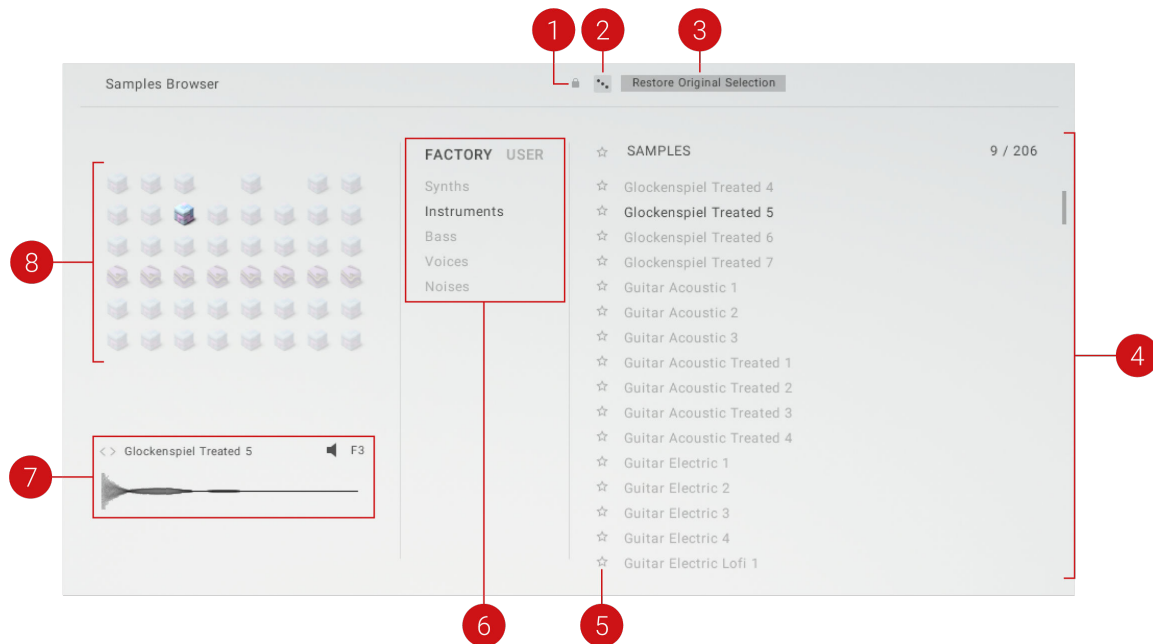
▶ To open the Samples browser, click on the magnifying glass icon that appears when moving the cursor over a cube in the Sample Matrix on the Sample page.

▶ To close the browser, click on the Exit button (X icon) at the top-right of the user interface.

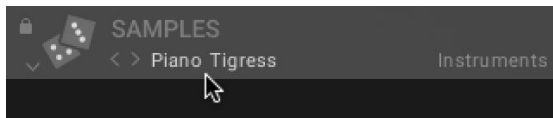The Samples browser contains the following elements and controls:

1. **Lock**: Clicking on the lock icon locks the selected cube and excludes it from the Randomize Samples and Randomize All Samples functions.
2. **Randomize Sample**: Loads a random sample in the selected cube. The sample is loaded from the category selected using the Category selector.
3. **Restore Original Selection**: Loads the sample that was originally selected when opening the browser.
4. **Sample List**: Shows all samples contained in the selected category.
    *   **Scroll Bar**: Moves through the entire Sample list.
    *   **Load**: Clicking on an entry in the list plays the sample and loads it in the selected cube.
5. **Favorites**: Adds the respective sample to your Favorites. You can view Favorites by clicking on the Favorite button (star icon) in the header of the Sample list.
6. **Category Selector**: Selects a category of samples to be shown in the Sample list. You can view, import, and manage your User samples by selecting **USER**. For more information, refer to Importing and Managing Samples.
7. **Sample Selector**: Enables you to quickly load samples and shows additional information. You can switch between samples using the left and right arrow buttons.
    *   **Waveform Display**: Shows the waveform of the selected sample. Clicking on the waveform plays the sample from the beginning.
    *   **Root Key**: Shows the root key of the selected sample.
    *   **Preview (loudspeaker symbol)**: Plays or stops the preview of the selected sample.
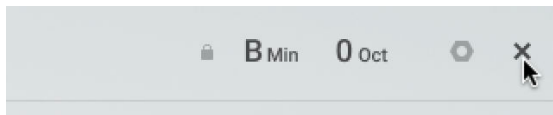8. **Cube Selector**: Selects a cube in the Sample Matrix for sample selection.

11.4. Sample Sets Browser

The Sample Sets browser provides access to Sample Sets, which contain the Sample Matrix and all settings made on the Samples page.
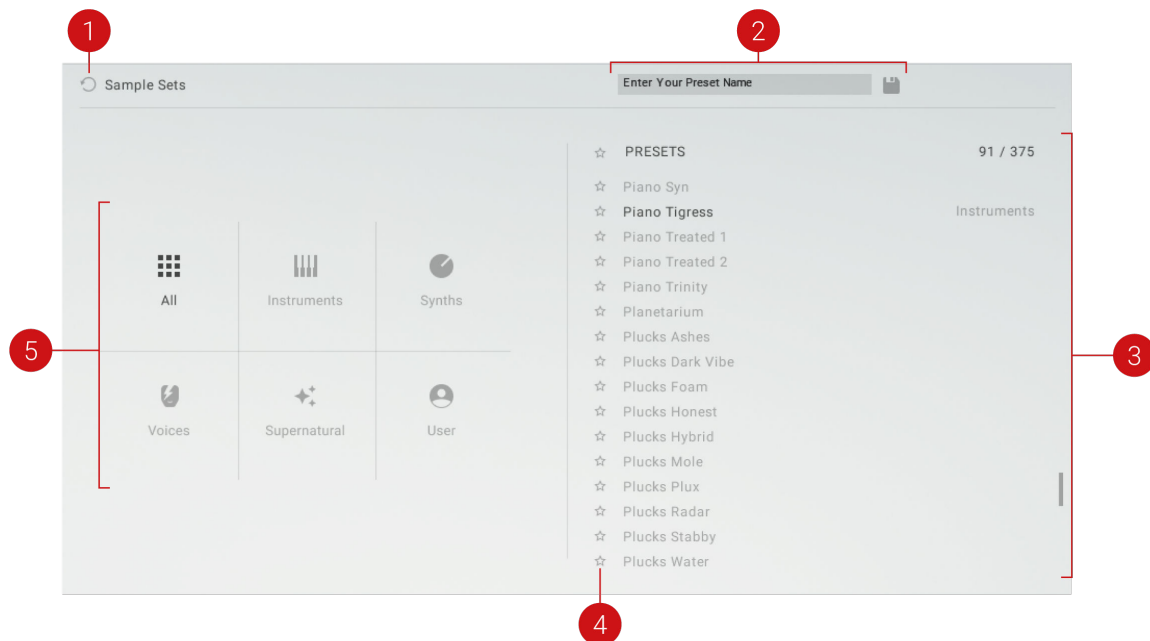
▶ To open the Sample Sets browser, click on the preset name in the Sample Set selector at the bottom of the user interface.

▶ To close the browser, click on the Exit button (X icon) at the top-right of the user interface.

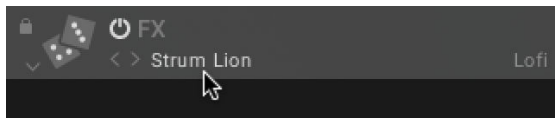The Sample Sets browser contains the following elements and controls:

1. **Refresh Browser**: Reloads the browser content to include entries that have been created using other running instances of the instrument.
2. **Save User Set**: Enables you to save your own User Set by entering a name and clicking on the Save button (disk icon).
3. **Set List**: Shows all Sets contained in the selected category.
    - **Scroll Bar**: Moves through the entire Set list.
    - **Load**: Clicking on an entry in the list loads the Set.
4. **Favorites**: Adds the respective Set to your Favorites. You can view Favorites by clicking on the Favorite button (star icon) in the header of the Set list.
5. **Category Selector**: Selects a category of Sets to be shown in the Set list. You can view your User Sets by selecting **User**.

11.5. FX Sets Browser

The FX Sets browser provides access to FX Sets, which contain the Effects Chain, Modulators, Macros, and all parameter settings on the FX page.
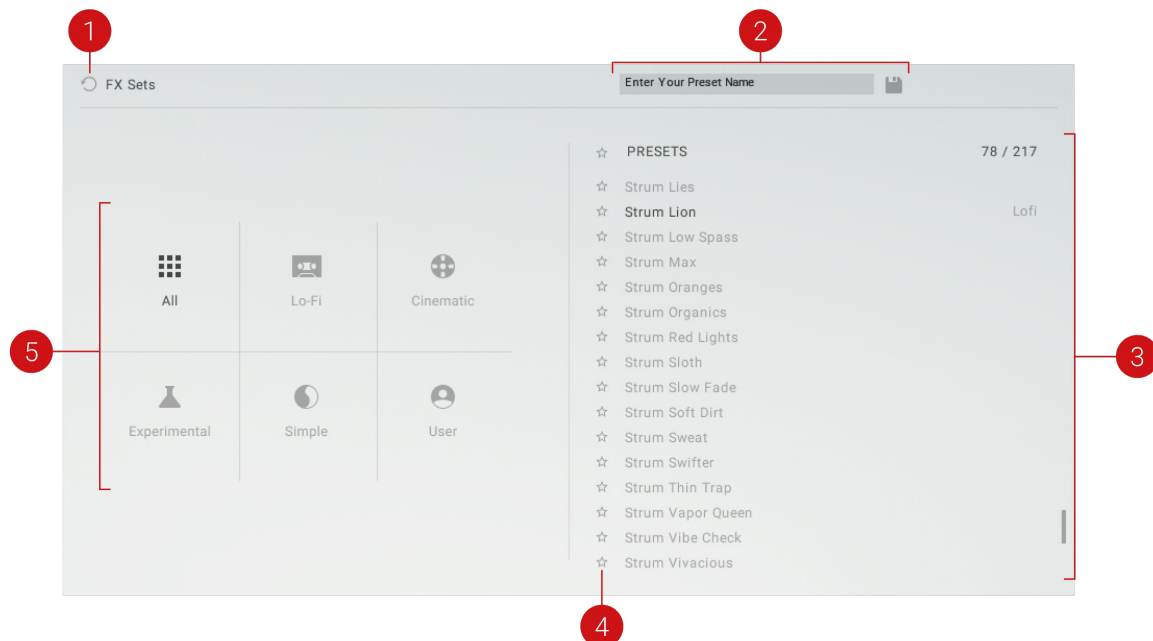
▶ To open the FX Sets browser, click on the preset name in the FX Set selector at the bottom of the user interface.

▶ To close the browser, click on the Exit button (X icon) at the top-right of the user interface.

The FX Sets browser contains the following elements and controls:

1. **Refresh Browser**: Reloads the browser content to include entries that have been created using other running instances of the instrument.
2. **Save User Set**: Enables you to save your own User Set by entering a name and clicking on the Save button (disk icon).
3. **Set List**: Shows all Sets contained in the selected category.
   - **Scroll Bar**: Moves through the entire Set list.
   - **Load**: Clicking on an entry in the list loads the Set.
4. **Favorites**: Adds the respective Set to your Favorites. You can view Favorites by clicking on the Favorite button (star icon) in the header of the Set list.
5. **Category Selector**: Selects a category of Sets to be shown in the Set list. You can view your User Sets by selecting **User**.

12. Importing and Managing Samples

PLAYBOX enables you to import and manage your own samples that you can use to populate the Sample Matrix. The Sample browser offers five User Slots for organizing your samples:


- **User 1 - 4**: Used to import and organize your own samples. Each User Slot can hold up to 90 samples.
- **Archive**: Collects imported samples that are used in the Sample Matrix and saved as part of User presets and Sample Sets. Samples show up in this User Slot when loading the respective User preset or Sample Set after closing and opening PLAYGROUND. The **Archive** User Slot can hold up to 90 samples.

The User Slots are available in the Category selector on the Samples page, so you can randomize the Sample Matrix based on your own samples. The contents of the User Slots can be saved as part of your DAW project. Alternatively, you can use KONTAKT Snapshots or NKI files to save and recall the contents of the User Slots.

12.1. Importing Samples

To import your own samples into PLAYBOX:

1. Open the Samples browser by clicking on the magnifying glass icon that appears when moving the cursor over a cube in the Sample Matrix on the Sample page.
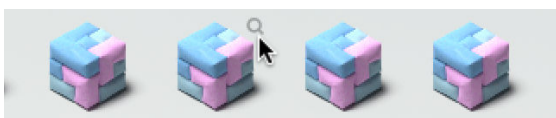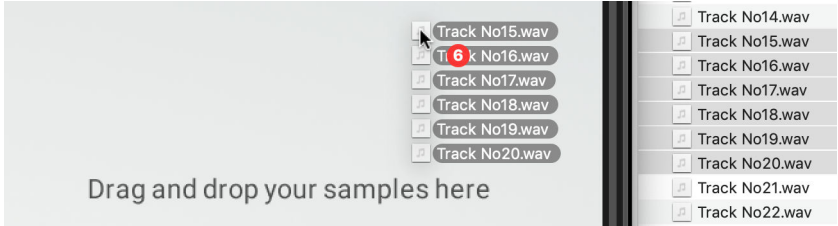

2. Click **USER** in the Category selector.

3. Click the User Slot you want to import your samples to.

4. Drag your samples from the file system to the Sample list in the Sample browser.

5. Wait until PLAYBOX has finished analyzing your samples.

→ Your samples are imported to the selected User Slot. You can now use them to populate the Sample Matrix.


⚠ The contents of User Slots are not automatically recalled when closing and opening PLAYBOX. You have to either save them as part of the DAW project, or use KONTAKT Snapshots or NKI files for save and recall.

12.2. Editing Samples

The Sample selector in the Sample Browser provides additional options when selecting an imported sample.

The following additional options are available:
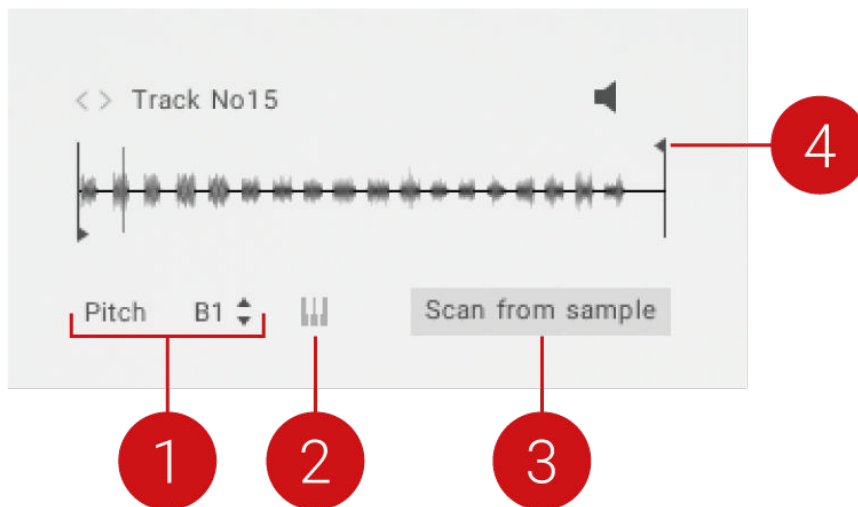
1. **Pitch**: Sets the root key of the selected sample. You can change the key by clicking and dragging up and down, and change the octave by clicking on the up and down arrow buttons.

2. **Audition**: Switches MIDI playback to a basic piano sound that can be played across the entire keyboard. You can use this mode to play different pitches and compare them with the sample.

3. **Scan from sample**: Sets the root key of the selected sample according to the analysis performed by PLAYBOX.

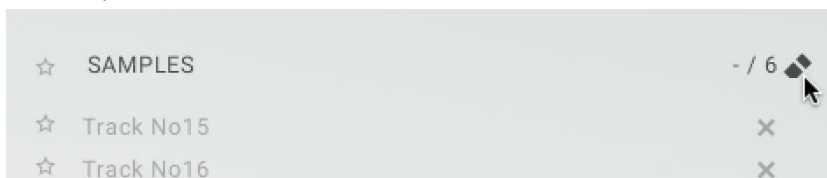4. **Truncate**: Adjusts the start and end points of the sample.

12.3. Deleting Samples

You can delete individual samples, or all samples contained in a User Slot.

▶ To delete an individual sample, click the X icon next to the corresponding entry in the Sample list.
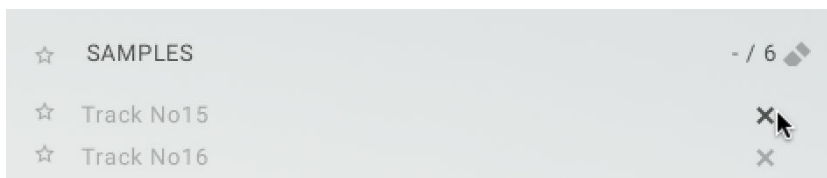
▶ To delete all samples contained in the selected User Slot, click the eraser icon in the header of the Sample list.

13. Credits

Concept: Nadine Raihani

Product Design: Nadine Raihani, Mickael Le Goff, Antonio de Spirt, Francesco Sabatini

KONTAKT Development: Mickael Le Goff

User Interface Design: Efflam Le Bivic, Irene Dahlmann, Mickael Le Goff

Product Management: Konstantin Hess

QA & Finalization: Elad Twito

Sound Design: Nadine Raihani, Antonio de Spirt

Documentation: Jan Ola Korte, Hannah Lockwood

Marketing: Maxime Donnet, Maik Siemer, Ohad Ben Moshe, Geoff Wright, Lucy Crouch, Alastair Oloo, Barbara Cooper-Clarke, Jan Dietrich