



SCHEMA: LIGHT

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1. Disclaimer

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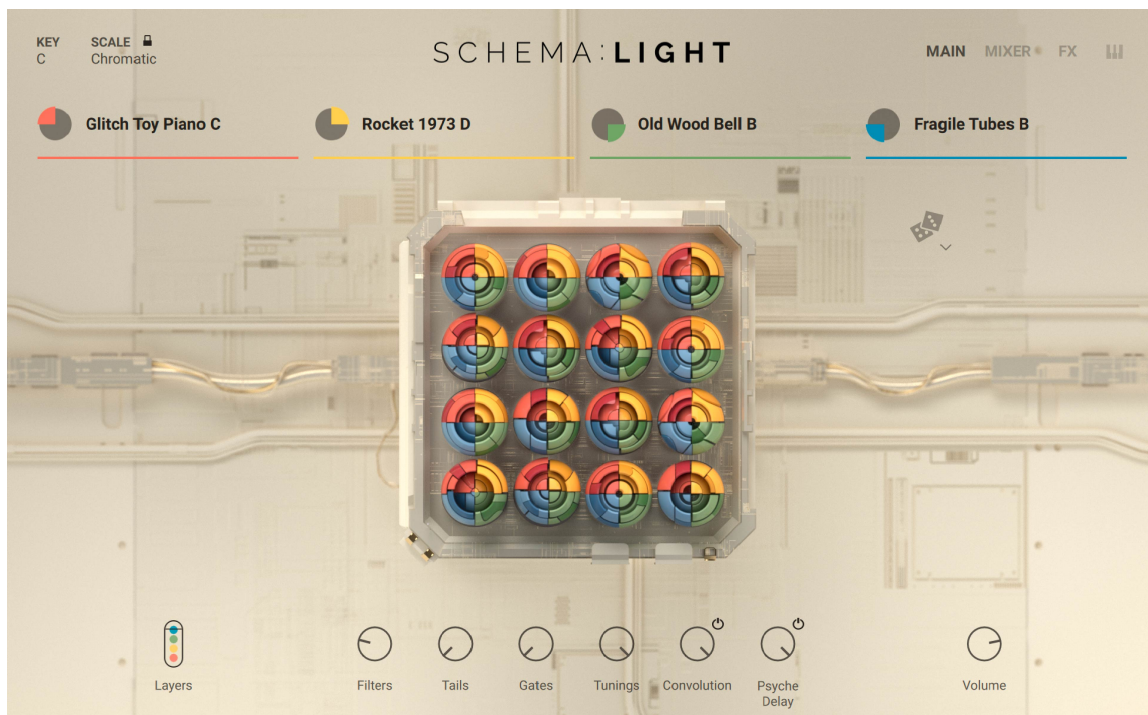
Software version: 1.0 (02/2024)

2. Welcome to Schema: Light

Building upon the acclaimed Schema Engine, Schema: Light packs an expansive library of bright, shining, melodic patterns. The intuitive sequencer enables quickly creating evolving layers of upper-range sounds, ideal for atmospheric film scores, electronic soundscapes, and hypnotic hip hop beats. From creatively-processed bells and keys to plucked strings and xylophones, Schema: Light's unique loops are united only by soft, lush tonality and your project's tempo.

This manual shows you how to [install and setup](#) Schema: Light, introduces key concepts and controls, and describes all features in detail, starting with the [overview](#).

Thanks for choosing Schema: Light, we hope you enjoy it!



Document Conventions

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

<i>Italics</i>	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 the computer keyboard.
▶	Denotes a single step instruction.
→	Denotes the expected result when following instructions.

The following three icons denote special types of information:



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



The **information** icon highlights essential information in a given context.



The **warning** icon alerts you of potential risks and serious issues.

3. Installation and setup

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

Installing Schema: Light using Native Access

Native Access is where you will install the software for Schema: Light. 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 **Available** tab.
5. Click **Install** for the following products:
 - Schema: Light
 - Kontakt or Kontakt Player

→ The software is installed automatically.

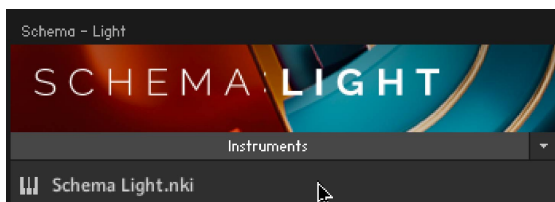


If the software is already installed, click the **Updates** tab and install available updates before proceeding.

Loading Schema: Light in Kontakt

Once installed, you can start using Schema: Light in Kontakt. Schema: Light 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 Schema: Light in the Browser, on the left side of the user interface.
3. Click **Instruments** to open the product's content.
4. Double-click the **Schema Light.nki** file to load the instrument.

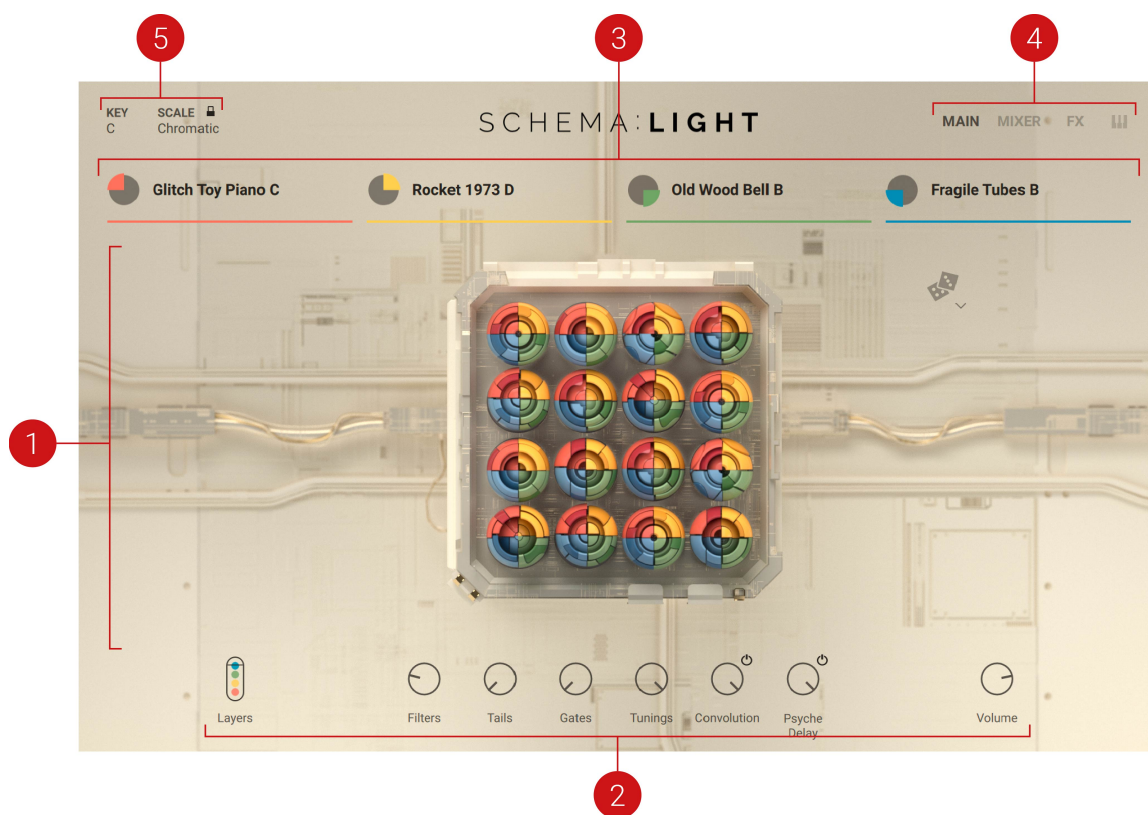


If you are new to Kontakt and want more information, visit [Kontakt Player](#) and [Kontakt](#).

4. Schema: Light Overview

Schema: Light is a multi-layer loop player. In each of the four independent tempo-synced layers, a different loop is chopped into 16 slices. These slices can be played back in any order according to the chosen pattern, with individual fine-tuning for each step in the pattern. All four layers are stacked and played together in loop.

Once you have completed the [installation](#) and [loaded Schema: Light in Kontakt](#), you can start playing the instrument. Schema: Light opens with the Main page, which shows an animated view of the instrument. The instrument also provides performance controls that enable you to quickly play and tweak presets in an intuitive way, along with dedicated access to additional pages for in-depth editing.

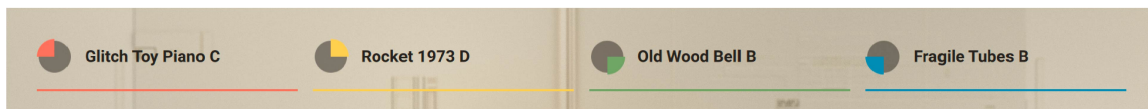


- 1. Main page:** The Main page is the default page displayed when other pages are closed. It shows a visual representation of the instrument:
 - In the 4x4 grid, each circle represents one of the 16 steps of the sequencer.
 - Within each circle, the colored quarters represent slices played on that step in the various layers. Each color represents one layer. If a layer doesn't play any slice on that step, its quarter is off.
 - The colored quarters light up when played. Since the four layers can play different patterns with different lengths and at different rates, this gives you a quick overview of the play position in each layer, and how the various layers combine.
- 2. Macros and performance controls:** The Macros and performance controls are always visible at the bottom of the instrument. These controls adjust key loop or effect parameters for immediate tweaking of sounds. For more information, refer to [Macros and Performance Controls](#).

3. **Layer tabs:** The four colored layer tabs are always visible. They let you to tweak each individual layer. For more information, refer to [Layer Tabs](#).
4. **MAIN, MIXER, FX, and Keyboard buttons:** These buttons are always visible in the top right corner of the instrument:
 - The **MAIN** button returns to the Main page.
 - The **MIXER** button opens the Mixer page, which lets you adjust the mix between the four layers. For more information, refer to [Mixer Page](#).
 - The **FX** button opens the FX page, where you can configure two send effects for your layers. For more information, refer to [FX Page](#).
 - The Keyboard button opens the Key Mapping page, which shows you how to control Schema: Light from your MIDI keyboard. For more information, refer to [Key Mapping Page](#).
5. **Scale engine:** The Scale engine is always visible at the top left corner of the instrument. It automatically transpose notes of the current sequence when playing it across different keys of the keyboard to fit in the selected scale. For more information, refer to [Scale Engine](#).

Layer Tabs

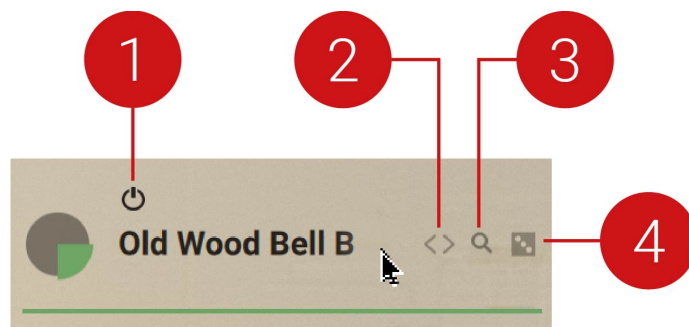
The four colored layer tabs are always visible. They detail settings for each individual layer.



By default, each layer tab contains the following elements:

- On the left, the layer icon (little quarter) indicates the color and position of the layer. Clicking the layer icon opens the Layer Edit page, which lets you precisely adjust all parameters for that layer. For more information, refer to [Layer Edit Pages](#).
- On the right, the tab displays the name of the loop loaded in that layer. Clicking the loop name opens the Browser, which allows you to load other loops and settings into this layer. For more information, refer to [Browser](#).

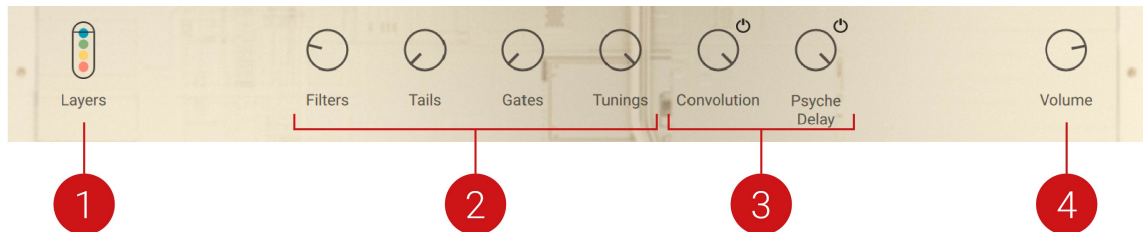
Furthermore, when you hover a layer tab with your mouse, additional controls appear for that layer:



1. **Layer On/Off:** Activates or deactivates the layer. When you deactivate a layer, its audio turns off and all its controls are grayed out and inactive. This button is equivalent to the Channel On/Off button available on the [Mixer page](#).
2. **Previous/Next Loop:** Loads the previous or next loop from the Schema: Light library into this layer.
3. **Browse:** Opens the Browser for that layer. This is equivalent to clicking the loop name.
4. **Random Loop:** Loads a random loop from the Schema: Light library into this layer.

Macros and Performance Controls

The Macros and performance controls enable you to play and tweak key parameters in an intuitive way. No matter which page is displayed in Schema: Light, the Macros and performance controls are always visible at the bottom of the instrument. The following Macros and performance controls are available:

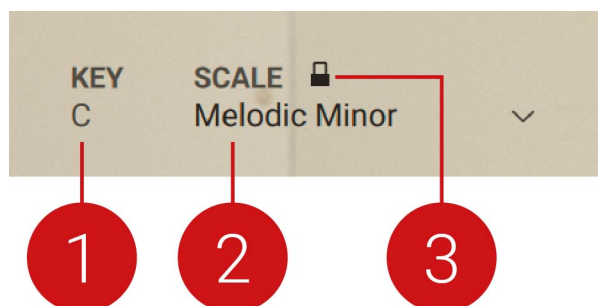


1. **Layers:** Adjusts the stacking of the active layers. You can control this parameter from the modulation wheel on your MIDI keyboard or using your mouse in the user interface. With the control fully down, only the first active layer can be heard. As you move the control upwards, the other active layers are progressively blended in, one after another. With the wheel fully up, all active layers are fully audible. The control element shows little colored dots that represent the active layers and in which order they are stacked up.
2. **Macros:** Each Macro affects a key parameter in the four layers and provides global control over a specific sonic aspect of your sound. You can finely adjust the influence of the Macros over each layer, and even over each single step of the pattern playing in that layer. For more information about adjusting Macros, refer to [Adjusting Macros](#).
3. **Effect Return controls:** Adjust the intensity of both send effects in the overall sound. Each control displays the name of the effect selected in the corresponding effect unit of the FX page. A click on the little on/off button next to a control turns that effect on or off. When an effect is off, it cannot be heard and its control is grayed out and inactive. For more information about how to select and configure send effects in Schema: Light, refer to [FX Page](#).
4. **Volume:** Adjusts the main output level of the instrument.

Scale Engine

In the top left corner of Schema: Light you can find the Scale engine. It enables playing melodic sequences across the keyboard, keeping the harmonic relationship between notes intact. It also allows you to quickly adapt presets to fit to the key of an existing project.

The Scale engine includes the following controls:



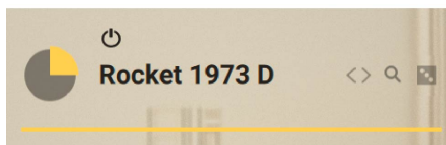
1. **KEY:** The root key of the current scale. Clicking it opens a drop down menu to select a root key.
2. **SCALE:** The current scale. Clicking the name of the scale opens a drop down menu to select one of 35 scales.

- 3. Lock icon:** Locks the scale to stay selected when switching presets. Unlocking it results in the scale to default to Chromatic when a new preset is loaded.

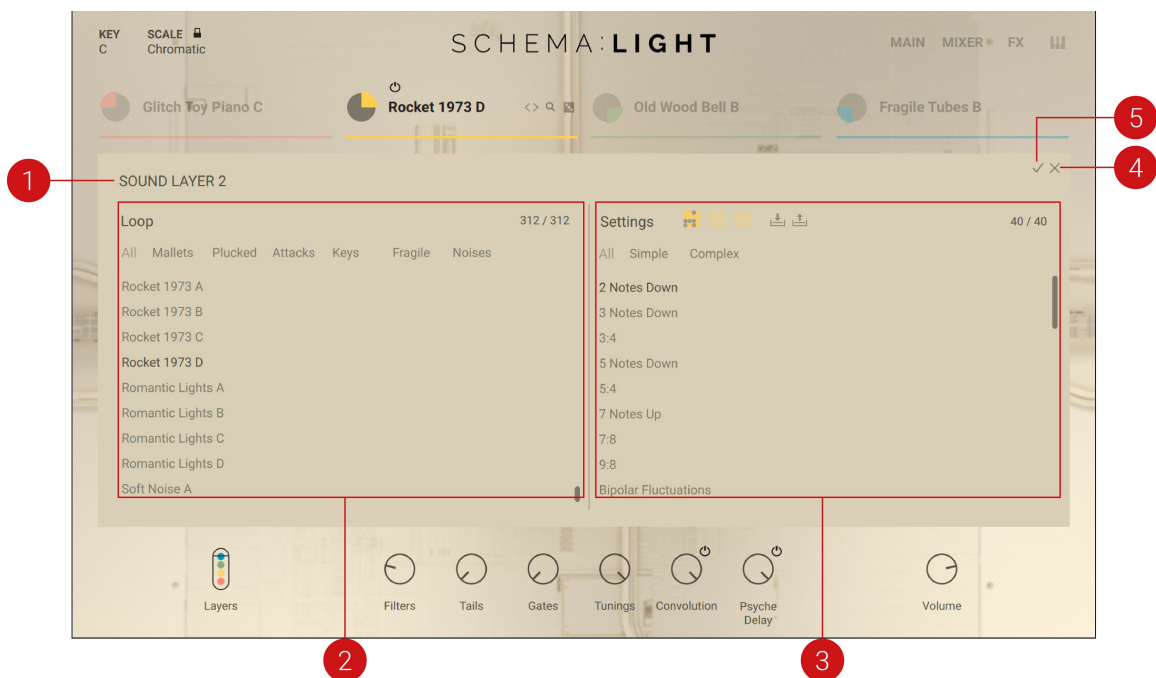
5. Browser

Schema: Light's Browser lets you to load loops and settings from the Schema: Light library into the desired layers. Furthermore, it allows you to save and recall your own settings for patterns and layers. The Browser is available in all four layers. It is split in two parts:

- the Loop Browser on the left
 - the Settings Browser on the right
- To open the Browser for a particular layer, click the loop name or the magnifying glass in the layer tab.



The Browser contains the following global elements:



- 1. Layer name:** Displays the name of the selected layer. The selected layer is also indicated by the highlighted tab above. All your actions in the Browser will affect that particular layer.
- 2. Loop Browser:** Selects a loop from the Schema: Light library. The selected loop is directly loaded into the layer so that you can quickly hear it in context. You can cancel your changes by closing the Browser using the Close button (x icon). For more information, refer to [Loop Browser](#).
- 3. Settings Browser:** Selects pattern settings from the Schema: Light library. You can also save and recall your own setting files. The selected settings are directly loaded into the layer so that you can quickly hear them in context. You can cancel your changes by closing the Browser using the Close button (x icon). For more information, refer to [Settings Browser](#).
- 4. Close (x icon):** Closes the Browser, canceling any loop and settings selection you made. The layer returns to its previous state.

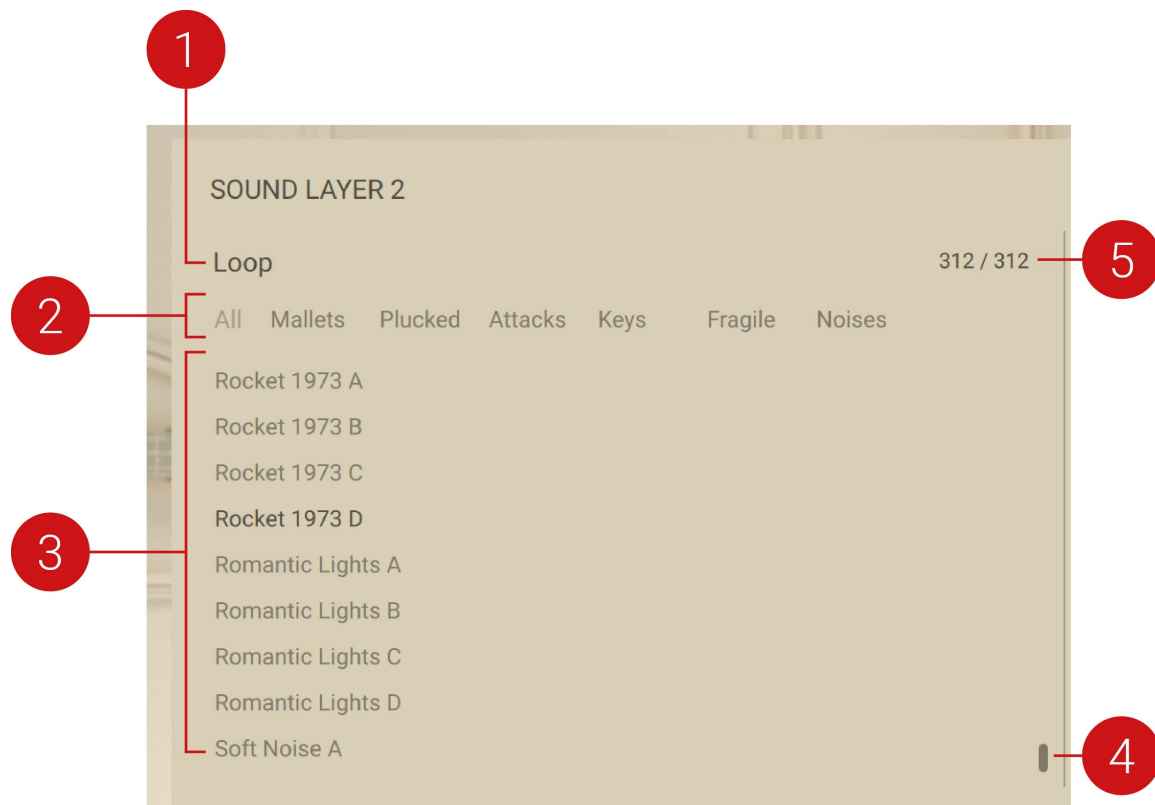
5. **OK** (checkmark icon): Loads the selected loop and settings permanently into the layer, and closes the Browser.

Loop Browser

The Loop Browser lets you load another loop from the Schema: Light library into the selected layer. The new loop is combined with the existing pattern and layer settings.

i Your selection in the Loop Browser does not change the pattern settings. If you would like to load different pattern settings, use the [Settings Browser](#) in the right part of the Browser.

The Loop Browser takes up the left half of the Browser. It contains the following elements:



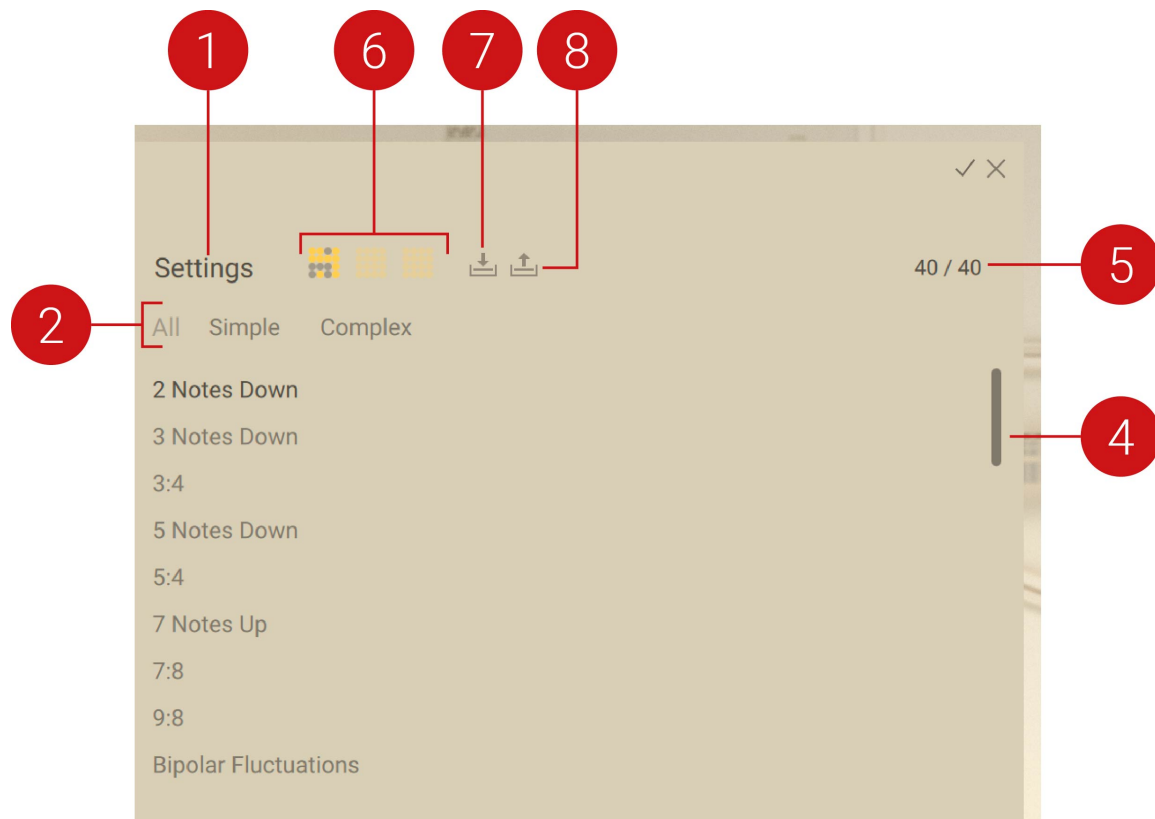
1. **Browser name:** Displays the name of the file type you are browsing. This can be either **Loop** (on the left side) or **Settings** (on the right side).
2. **Category Filter:** Filters the list of entries to the selected categories. You can click the categories to make your selection. The selected categories are highlighted. Clicking **All** resets the list and displays all entries again.
3. **Loop list:** Displays the list of loops available in the selected categories. Click the desired loop to load it into the layer and replace the existing loop.
4. **Scroll Bar:** Moves through the entire list by clicking and dragging the mouse vertically.
5. **Number of entries:** Displays the number of entries in the list for the selected categories, compared to the total number of entries available in all categories.

Settings Browser

The Settings Browser lets you load other pattern settings from the Schema: Light library into the selected layer. The new pattern settings are combined with the existing loop. The new settings replace all existing settings in the **Pattern Edit panels** except the **Filter Type** and **Resonance** settings (**Cutoff** panel) as well as the **Slur** settings (**Cutoff**, **Volume**, and **Pitch** panels).

i Your selection in the Settings Browser does not change the loop loaded in the layer. If you would like to load another loop, use the **Loop Browser** in the left part of the Browser.

The Settings Browser takes up the right half of the Browser. It contains the following elements:



- 1. Browser name:** Displays the name of the file type you are browsing. This can be either **Loop** (on the left side) or **Settings** (on the right side).
- 2. Category Filter:** Filters the list of entries to the selected categories. You can click the categories to make your selection. The selected categories are highlighted. Clicking **All** resets the list and displays all entries again.
- 3. Settings list:** Displays the list of pattern available in the selected categories. Click the desired entry to load it into the layer and replace the existing settings.
- 4. Scroll Bar:** Moves through the entire list by clicking and dragging the mouse vertically.
- 5. Number of entries:** Displays the number of entries in the list for the selected categories, compared to the total number of entries available in all categories.
- 6. Pattern slots:** Lets you select a pattern slot from the three available in the layer. The selected slot is highlighted and contains the active pattern. The settings that you select from the list underneath will be loaded onto the active pattern.

7. **Load Settings from File:** Opens a dialog in which you can navigate your file system to select and load a .nka file containing pattern settings. These settings will be imported as if you would select an entry from the list. Coupled with the Save Settings to File button next to it, this can come in handy to reuse interesting settings in various projects or to share settings with other users.
8. **Save Settings to File:** Opens a dialog in which you can navigate in your file system to the desired location, choose a file name, and save your pattern settings to a file on your hard drive. This button is used in conjunction with the Load Settings from File button next to it.

6. Snapshots

Snapshots are Kontakt's underlying file format for instruments presets. They offer a quick and convenient way of browsing for new sounds and saving custom presets. When a User Snapshot is saved, all parameter adjustments and instrument settings are stored within the preset. Using Snapshots, you can create your own preset sounds, save them in the .nksn file format and use them in other projects, across computers or even share them with other users.

Snapshots overview

Snapshots contain the parameters and controls:

1. **Load Snapshot:** Opens the Snapshot menu where you can load a Snapshot from the **Factory** or **User** library. For more information, refer to [Loading a Snapshot](#).
2. **Snapshot Name:** Displays the name of the currently selected Snapshot.
3. **Snapshot Previous/Next** (<> icons): Allows you to quickly browse and load Snapshots. Pressing an arrow icon will load the previous or next Snapshot in the selected category. If no Snapshot is active, the first Snapshot on the list will be loaded. For more information, refer to [Loading a Snapshot](#).
4. **Save Snapshot** (floppy disk icon): Allows you to save changes made to a sound. When a User Snapshot is saved, the macros settings, parameter controls, and sequence are stored within it and can be accessed at any time via the **User** library. For more information, refer to [Saving a User Snapshot](#).
5. **Delete Snapshot** (bin icon): Deletes the currently selected Snapshot from the **User** library. You can only delete **User** Snapshots and not **Factory** Snapshots. For more information, refer to [Deleting a User Snapshot](#).
6. **Snapshot View** (camera icon): Provides access to the Snapshot features described above; saving, loading, browsing, and deleting. When **Snapshot View** is selected, configuration settings and features relating to the **Info View** are replaced in the display.

Loading a Snapshot

Snapshots are loaded from the drop-down menu in the top header of the instrument. You can also use the arrows to the left of the floppy disk icon to load the previous or next preset.

To load and browse Snapshots using the arrow icons:

1. Click the Snapshot View (camera icon) to open Snapshot view.
2. Click the arrow icons (<>) in the Snapshot header to browse through the Snapshots list.

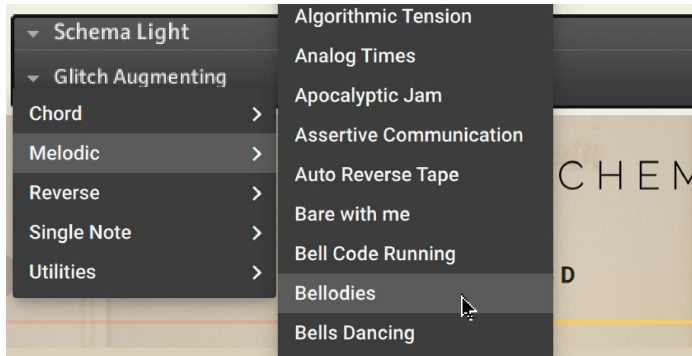


→ The previous or next Snapshot will load immediately each time an arrow icon is clicked.

To load a Snapshot from the library:

1. Click the Snapshot View (camera icon) to open Snapshot view.
2. Click the arrow icon next to the Snapshot name field to open the Snapshot menu.

3. Select the **Factory** category to load a Factory preset, or select the **User** category to load one of your own Snapshots.
4. Select an instrument category, if available.
5. Select a Snapshot to load it.



→ The loaded Snapshot is displayed in the instrument header.

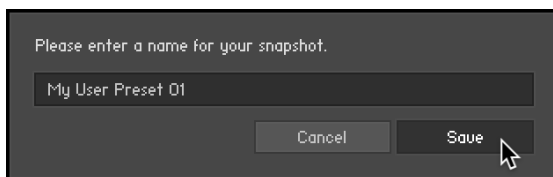
i The **User** category will not appear until you have first saved a Snapshot.

Saving a User Snapshot

Snapshots can be saved at any time while you are working on them. When a Snapshot is saved, all parameters and controls are also saved.

To save a Snapshot:

1. Click the Snapshot View button (camera icon) to open Snapshot view.
2. Click the Save button (floppy disk icon).
3. Enter a name for your new Snapshot in the **Save** dialog box.
4. Click **Save** to finish the process and close the dialog box.

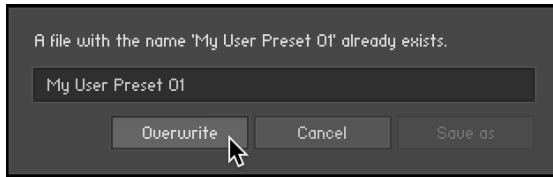


→ Your Snapshot .nksn file is saved to the User Snapshot Library. It appears in the **User** Snapshot list.

To overwrite a Snapshot:

1. Click the Snapshot View button (camera icon) to open Snapshot view.
2. Click the Save button (floppy disk icon).

3. Click **Overwrite** to confirm the process.

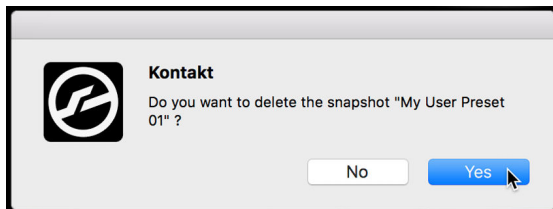


→ Your Snapshot .nksn file is saved to the User Snapshot Library, in replace of the old file.

Deleting a User Snapshot

Snapshots can be deleted using the bin icon in the instrument header. To delete a User Snapshot:

1. Click the Snapshot view (camera icon) to open Snapshot view.
2. Load the User Snapshot you wish to delete.
3. Click the **Delete** button (bin icon).
4. Confirm deletion of the Snapshot by selecting **Yes** in the dialog box.



→ The User Snapshot .nksn file is deleted from the User Snapshot Library.

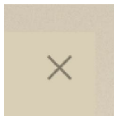
7. Layer Edit Pages

The Layer Edit pages allow you to precisely configure the behavior of the loop played in each layer, including the pattern and layer settings.

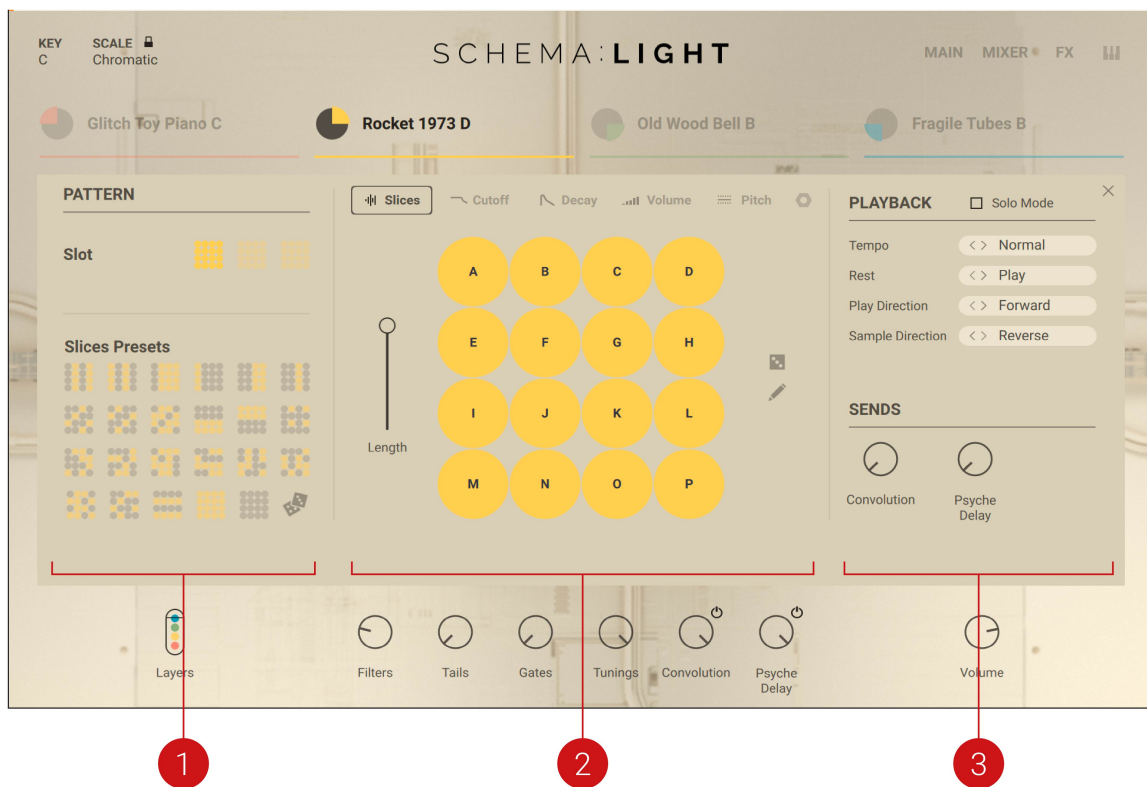
- ▶ To open the Layer Edit page of a particular layer, click the colored quarter icon left of the label in the desired layer tab.



- ▶ To close the page and return to the Main page, click the little cross in the top right corner of the page. You can also switch directly to another page by clicking its dedicated button or tab.



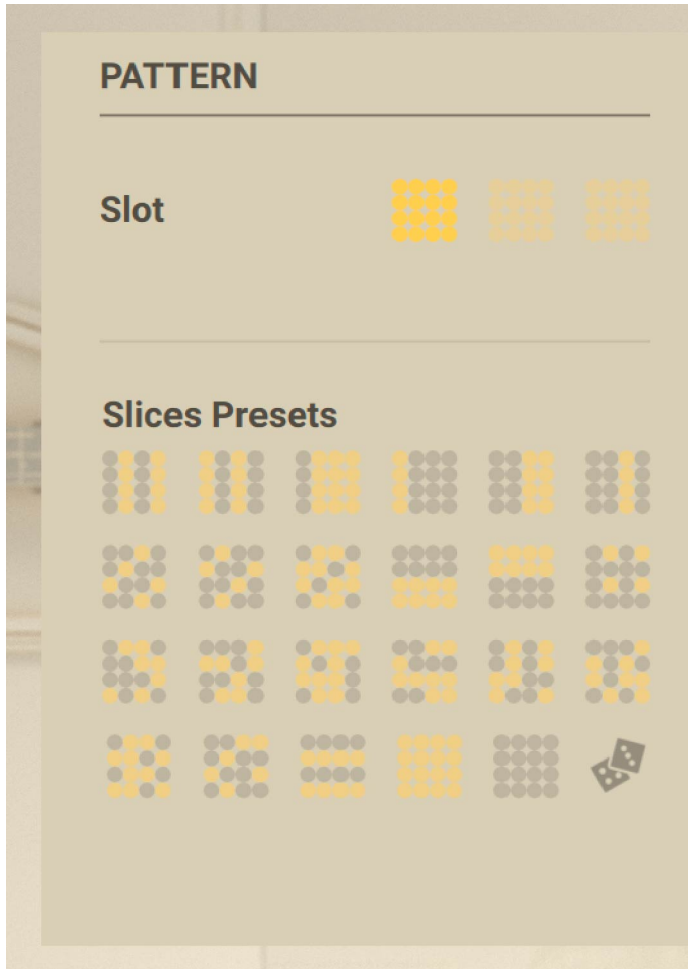
A Layer Edit page consists of three main areas:



- PATTERN area:** In the left part of the page, you can select a pattern for use and for editing. The selected pattern is loaded and its details appear in the middle part of the page. For more information, refer to [Selecting a Pattern](#).
- Pattern Edit panels:** In the middle part of the page, the pattern settings are organized into various panels in which you can precisely adjust pattern parameters for each single step. Furthermore, the panels let you modify how the Macros affect the sound of this layer. For more information, refer to [Pattern Edit Panels](#).
- PLAYBACK and SENDS areas:** In the right part of the page, you can adjust global settings for the layer. For more information, refer to [Layer Settings](#).

Selecting a Pattern

In the left part of the Layer Edit page, the **PATTERN** area allows you to select patterns, both for playing and for editing.



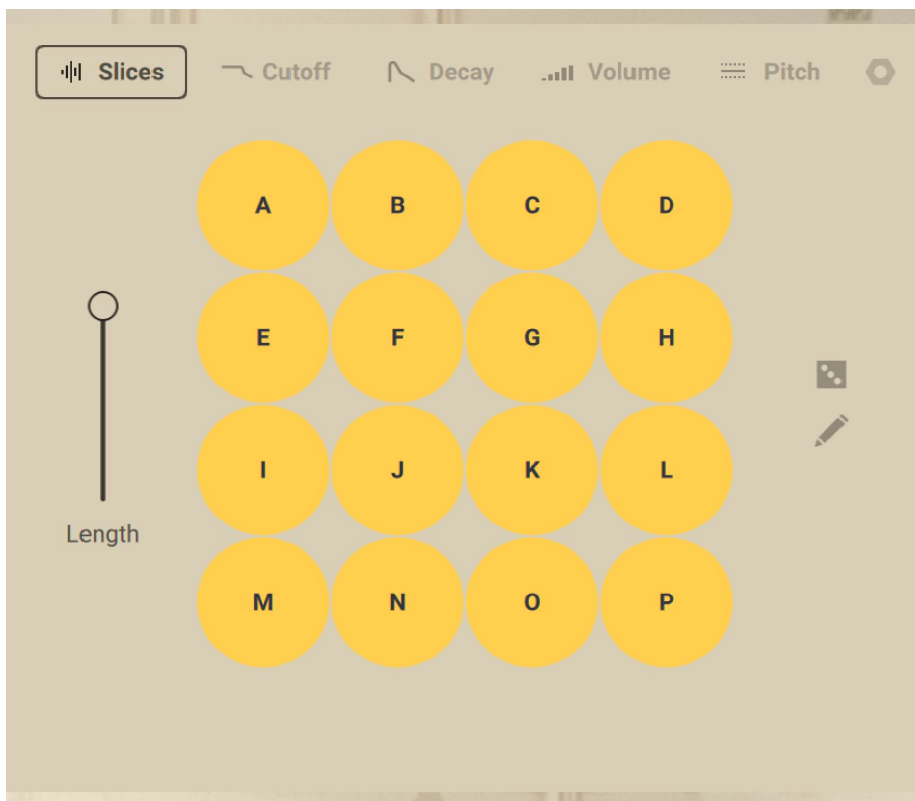
The **PATTERN** area contains the following elements:

- **Slot section:** Contains the three pattern slots available in the layer. These slots let you quickly switch between your preferred patterns.
 - The highlighted slot indicates the active pattern: This pattern is loaded in the layer and its settings are displayed and can be modified in the [Pattern Edit panels](#) (in the middle of the page). Any modification you make in the Pattern Edit panels or in the **Presets** section below will always affect the pattern in this highlighted slot.
 - You can load another pattern at any time by clicking another pattern slot. The selected pattern will be used for playback in this layer and its details will show up in the Pattern Edit panels.

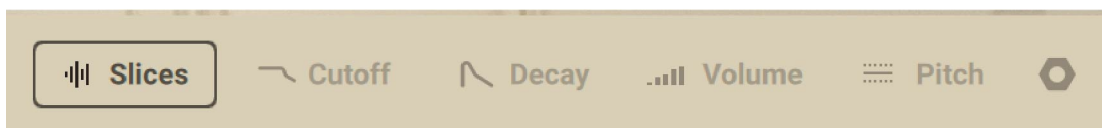
- **Presets section:** Contains presets to quickly replace the entire sequence in the pattern. Presets are available for each of the Pattern Edit panels.
 - Clicking any preset loads it into the pattern. When the **Slices** panel in the middle of the page is selected, presets will affect the on/off states of the pattern steps. When another panel is selected, presets will affect the respective value of each step. For example in the **Cutoff** panel, presets will affect the Filter Cutoff value of each step.
 - The Preset section for the **Slices** panel includes a little dice icon, which randomizes the on/off state of the steps when clicked.

Pattern Edit Panels

In the middle part of the Layer Edit page, a series of panels allow you to edit in detail the settings for each step in the loaded pattern.



- To open the desired Pattern Edit panel, click the panel's tab in the top row in the middle part of the Layer Edit page.



The following panels are available:

- **Slices panel:** Defines the on/off state of each step. Only steps that are on will be played. Furthermore, the **Slices** panel lets you reorder the 16 slices of the loop and freely place them onto the desired steps. For more information, refer to [Slices Panel](#).
- **Cutoff panel:** Adjusts the filter applied to each single step. For more information, refer to [Cutoff Panel](#).

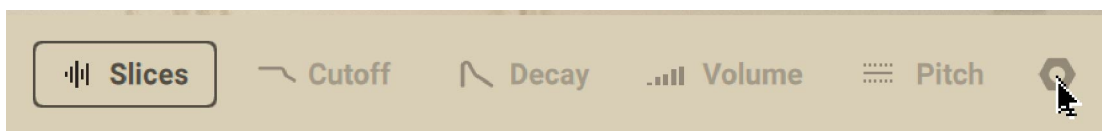
- **Decay panel:** Adjusts the decay phase of each single step. For more information, refer to [Decay Panel](#).
- **Volume panel:** Adjusts the volume level of each single step. For more information, refer to [Volume Panel](#).
- **Pitch panel:** Adjusts the pitch offset of each single step. For more information, refer to [Pitch Panel](#).

Additionally, the **Cutoff**, **Decay**, **Volume**, and **Pitch** panels allow you to adjust how much each step will be affected by the four Macros available at the bottom of the Instrument. For more information, refer to [Adjusting Macros](#).

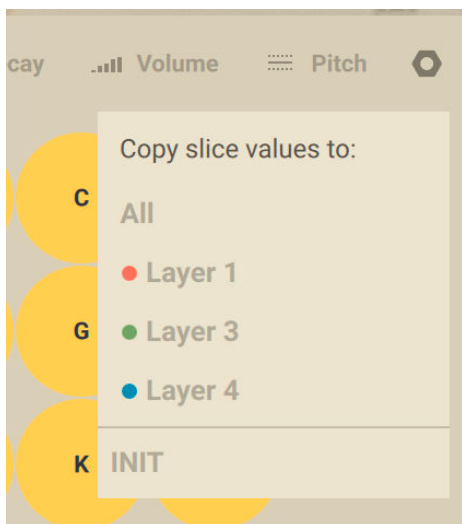
Copy Menu

The Copy menu enables copying of slice values between layers.

- ▶ To open the Copy menu, click on the icon next to Pitch in the panel tabs.



The Copy menu includes the following controls:

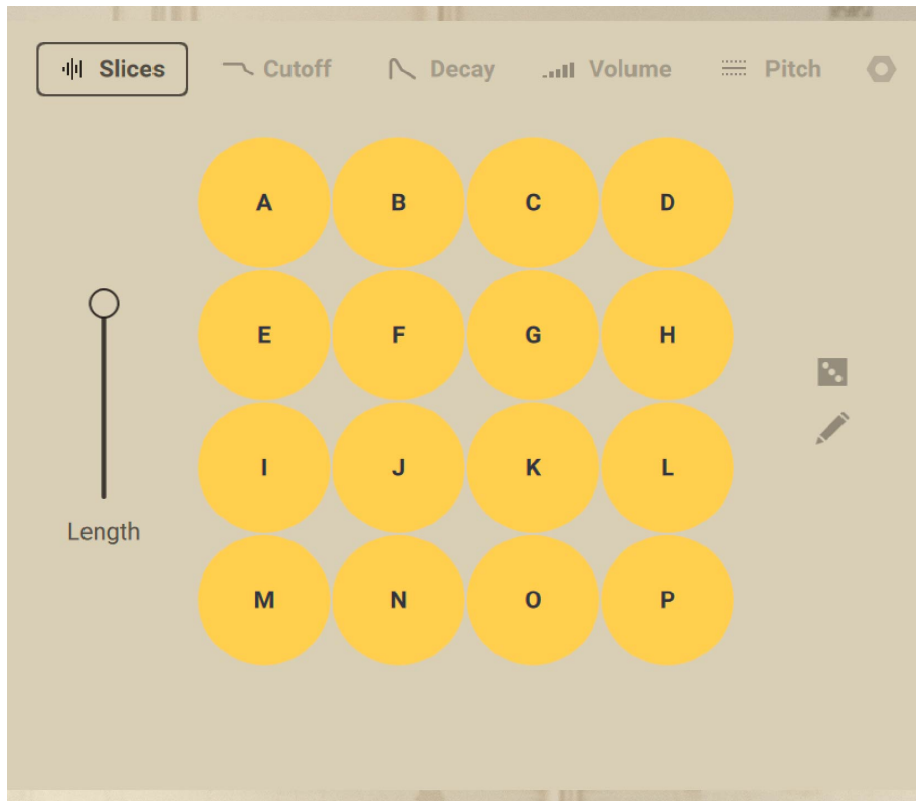


- **All:** Copies the slice values of the currently selected layer to all other layers.
- **Layer 1/2/3:** Copies the slice values of the currently selected layer to to one of the respective layers.
- **INIT:** Set all slice values of the currently selected layer to their default state.

Slices Panel

The **Slices** panel lets you configure two essential features:

- By default, you can activate or deactivate each single step of the pattern. Only active steps will be played.
- In Reorder mode, you can reorder the slices in the pattern by defining which slice should be played on each step.



By default, the elements in the **Slices** panel work as follows:

- **Length:** Adjusts the pattern length from 1 step (slider at the bottom) to 16 steps (slider at the top). Steps beyond the current length are outside the pattern: They are grayed out and cannot be edited. The **Length** slider is available on all panels.
- **Step grid:** Clicking the desired steps lets you activate or deactivate them. Active steps are lit with the layer's color, while inactive steps are gray. Only active steps will be playing a slice. The played slice is indicated by the letter on each step.



You can also quickly set the state for all steps at once by selecting the desired pattern preset in the **Preset** area in the left part of the page. For more information, refer to [Selecting a Pattern](#).

- **Dice:** Reorders the slices randomly within the pattern. You can also manually reorder slices by enabling the Pen button underneath (see below).
- **Pen:** Activates or deactivates Reorder mode, which allows you to reorder slices within the pattern. When Reorder mode is active, the Pen button is lit. See below for more information about reordering slices.

Reordering Slices Within the Pattern

By clicking the pen icon on the right of the **Slices** panel, you switch the panel to Reorder mode. In Reorder mode you can move slices to the desired steps in the pattern and reorder the slices to your liking.



The audio loop loaded in the selected layer is cut into 16 audio pieces called slices. These slices can be freely placed on the 16 steps of the pattern.

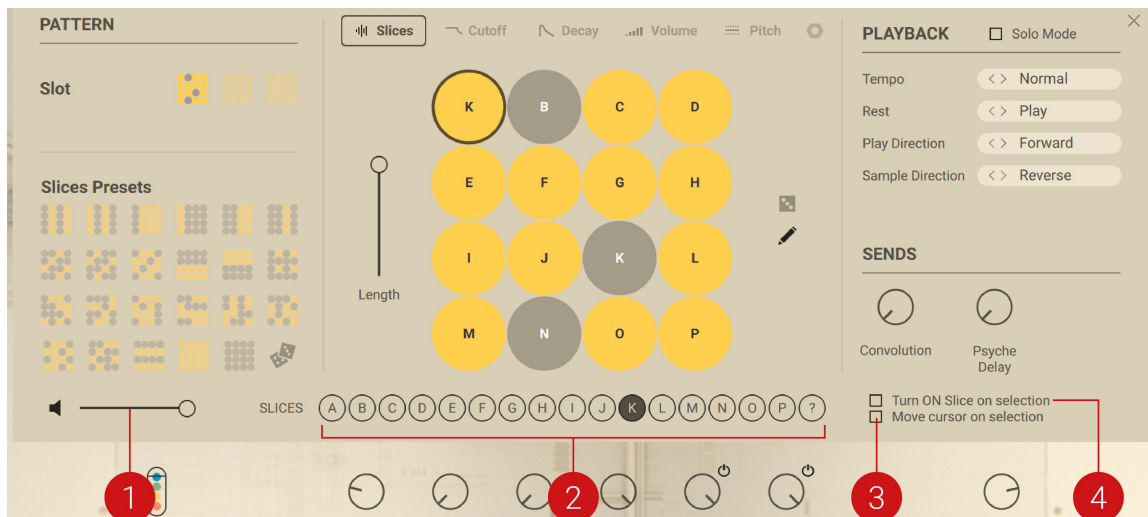
The 16 slices of your loop are indicated by the letters **A** to **P**. In the Step grid, the letter on each step indicates which slice is loaded on that step.

In Reorder mode, use the Step grid as follows to reorder your slices:

1. In the Step grid, click the step on which you want to load another slice.
 - The selected step is highlighted with a white circle.
2. In the row of letters under the Step grid, click a letter to load the corresponding slice onto the selected step.
 - The selected slice is loaded onto the step. The step now indicates the letter of the new slice.

Clicking a particular step will not activate or deactivate it, but instead it will select it (the step gets a white circle around it) so that you can choose a slice to use in this step from the row of letters at the bottom.

In Reorder mode, the following additional elements show up in the **Slices** panel:



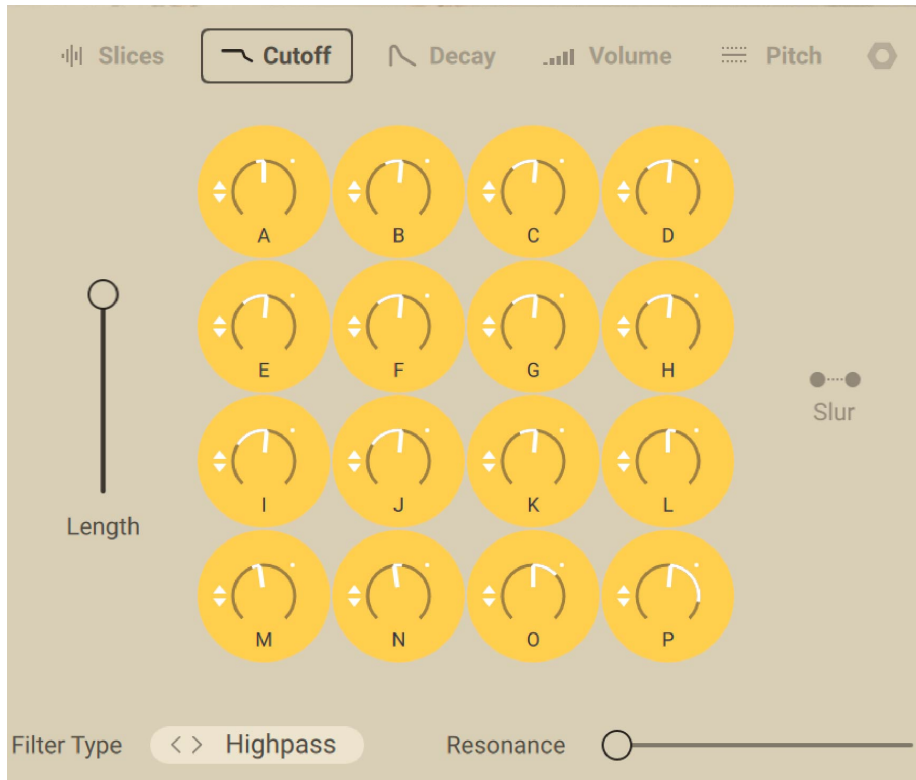
1. **Prelisten:** Adjusts the volume level at which you can prelisten the slice A–P upon selection. You can turn the Prelisten feature on or off by clicking the little speaker on the left.
2. **Slice letters:** The highlighted letter indicates which slice is loaded into the step selected in the grid above. You can choose another slice for this step by clicking its letter.
3. **Move cursor on selection:** When this button is on, as soon as you click a slice letter in the bottom row to load that slice onto the selected step, the next step gets automatically selected, as indicated by the white circle around it. This way, starting from a particular step, you can click the desired letters one after each other to quickly build the desired sequence of slices.
4. **Turn ON Slice on selection:** When this button is on, the selected step is automatically activated (if it was not) as you load a slice onto it.



You cannot activate or deactivate steps in your pattern using your mouse when Reorder mode is active. To do this, first deactivate Reorder mode by clicking the little pen icon (it turns off).

Cutoff Panel

The **Cutoff** panel lets you configure a filter that can affect each step differently.

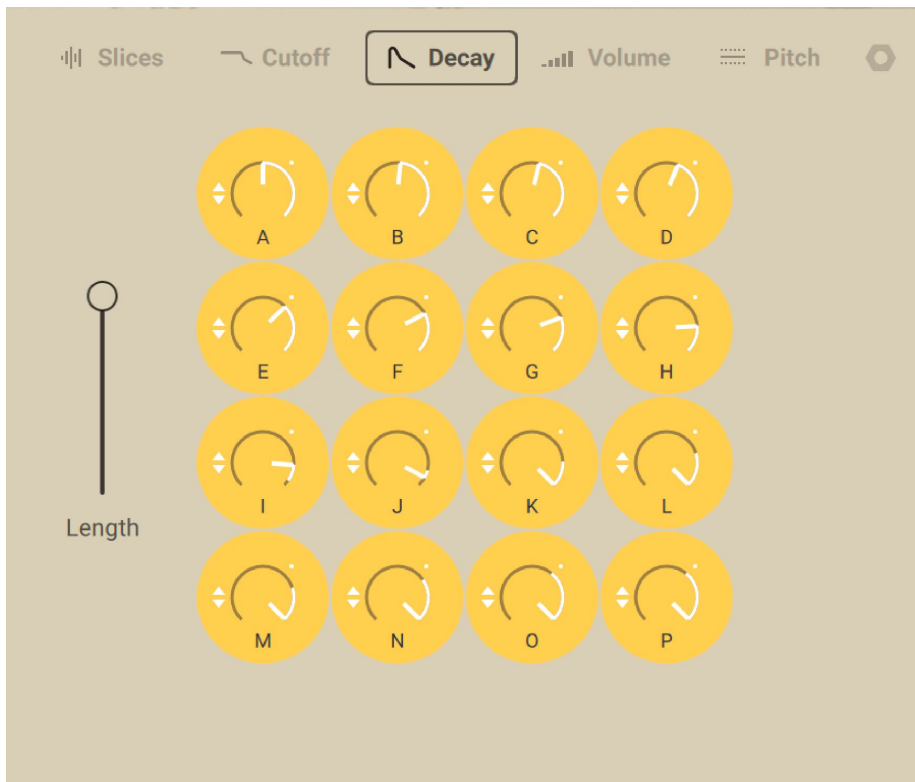


The **Cutoff** panel contains the following elements:

- **Length:** Adjusts the pattern length from 1 step (slider at the bottom) to 16 steps (slider at the top). Steps beyond the current length are outside the pattern: They are grayed out and cannot be edited. The **Length** slider is available on all panels.
- **Step grid:** On each step, you can click the knob and drag your mouse vertically to adjust the cutoff frequency of the filter for that particular step. The cutoff frequency value temporarily appears under the knob as you drag your mouse. Additionally, the two little arrows to the left of the knob let you adjust how the **Filters** Macro (located at the bottom of the instrument's window) will influence this particular control. For more information about adjusting Macros, refer to [Adjusting Macros](#).
- **Slur:** Smoothens the jump in the parameter value between the steps. Any abrupt changes in the parameter value, as set by the various knob positions in the Step grid, are shaped into smooth transitions.
- **Filter Type:** Selects from various types of filters, each of them affecting the sound differently. For all filter types, you can adjust the filter's cutoff frequency for each single step using the knobs in the Step grid, as described above. The following filter types are available:
 - **Lowpass:** A low-pass filter that attenuates frequency content above the cutoff frequency.
 - **Highpass:** A high-pass filter that attenuates frequency content below the cutoff frequency.
 - **Daft:** A low-pass filter adapted from the Massive synthesizer and with a more aggressive filter design. The filter is a 2-pole low-pass, which attenuates frequencies above the cutoff frequency at a rate of -12 dB/octave.
- **Resonance:** Controls the amount of boost around the cutoff frequency. High resonance makes the filter sound colorful and more noticeable.

Decay Panel

The **Decay** panel lets you configure how fast the sound fades out on each step.



The **Decay** panel contains the following elements:

- **Length:** Adjusts the pattern length from 1 step (slider at the bottom) to 16 steps (slider at the top). Steps beyond the current length are outside the pattern: They are grayed out and cannot be edited. The **Length** slider is available on all panels.
- **Step grid:** On each step, you can click the knob and drag your mouse vertically to adjust the decay of the amplitude level for that particular step, i.e. the time it takes for the slice to fade out. The decay value temporarily appears under the knob as you drag your mouse. Additionally, the two little arrows to the left of the knob let you adjust how the **Tails** Macro (located at the bottom of the instrument's window) will influence this particular control. For more information about adjusting Macros, refer to [Adjusting Macros](#).

Volume Panel

The **Volume** panel lets you adjust the volume attenuation of each step.

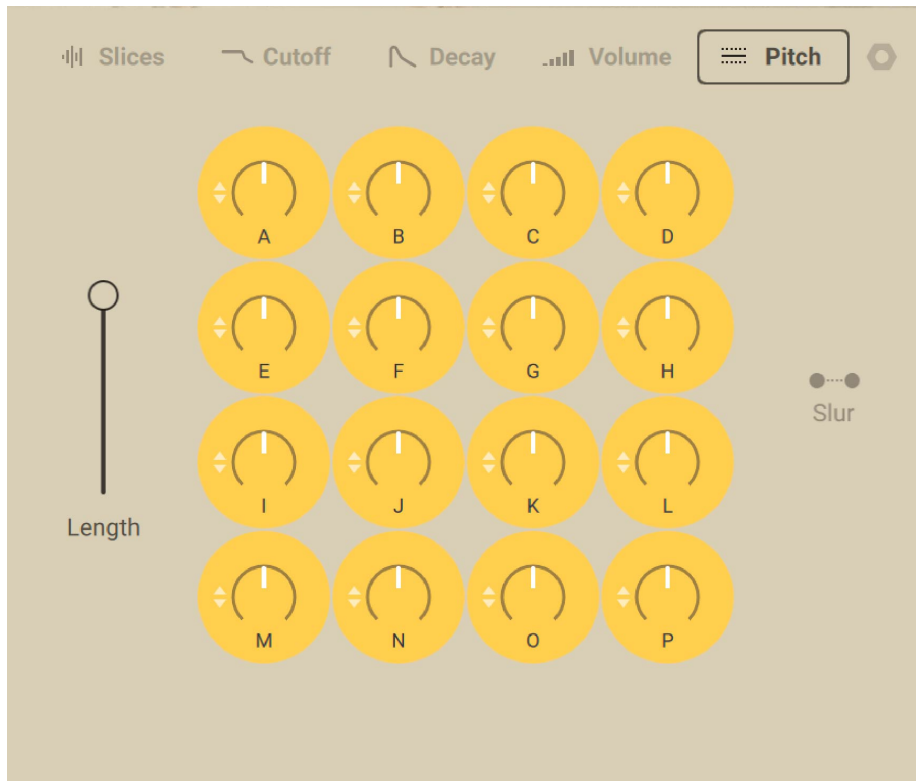


The **Volume** panel contains the following elements:

- **Length:** Adjusts the pattern length from 1 step (slider at the bottom) to 16 steps (slider at the top). Steps beyond the current length are outside the pattern: They are grayed out and cannot be edited. The **Length** slider is available on all panels.
- **Step grid:** On each step, you can click the knob and drag your mouse vertically to adjust the **volume attenuation** (in dB) of that particular step. With the knob at full right, the slice is played at its original volume level. With the knob at full left, the attenuation is infinite and the slice is not audible. The volume level temporarily appears under the knob as you drag your mouse. Additionally, the two little arrows to the left of the knob let you adjust how the **Gates** Macro (located at the bottom of the Instrument's window) will influence this particular control. For more information about adjusting Macros, refer to [Adjusting Macros](#).
- **Slur:** Smoothens the jump in the parameter value between the steps. Any abrupt changes in the parameter value, as set by the various knob positions in the Step grid, are shaped into smooth transitions.

Pitch Panel

The **Pitch** panel lets you adjust the pitch offset of each step.

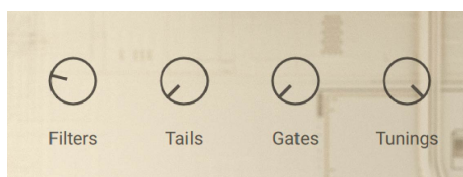


The **Pitch** panel contains the following elements:

- **Length:** Adjusts the pattern length from 1 step (slider at the bottom) to 16 steps (slider at the top). Steps beyond the current length are outside the pattern: They are grayed out and cannot be edited. The **Length** slider is available on all panels.
- **Step grid:** On each step, you can click the knob and drag your mouse vertically to shift the **pitch** of that particular step between -12 and +12 semitones. The pitch offset temporarily appears under the knob as you drag your mouse. Additionally, the two little arrows to the left of the knob let you adjust how the **Tunings** Macro (located at the bottom of the Instrument's window) will influence this particular control. For more information about adjusting Macros, refer to [Adjusting Macros](#).
- **Slur:** Smoothens the jump in the parameter value between the steps. Any abrupt changes in the parameter value, as set by the various knob positions in the Step grid, are shaped into smooth transitions.

Adjusting Macros

Schema: Light provides four Macros, always visible at the bottom of the instrument:



Each Macro affects one dedicated parameter from a particular panel in the Layer Edit pages. It affects this parameter for all steps in all layers, however to a different, customizable extent for each individual step:

- The **Filters** Macro affects the cutoff frequencies set by the controls on the **Cutoff** panel of the Layer Edit pages. For more information, refer to [Cutoff Panel](#).
- The **Tails** Macro affects the decay times set by the controls on the **Decay** panel of the Layer Edit pages. For more information, refer to [Decay Panel](#).
- The **Gates** Macro affects the volume attenuations set by the controls on the **Volume** panel of the Layer Edit pages. For more information, refer to [Volume Panel](#).
- The **Tunings** Macro affects the pitch offsets set by the controls on the **Pitch** panel of the Layer Edit pages. For more information, refer to [Pitch Panel](#).

The influence of a Macro on its dedicated parameter comes on top of the current parameter value as defined by its control. In that, the Macro acts as a modulator.



You can configure the Macro influence on a particular control by using the little up and down arrows on that control:

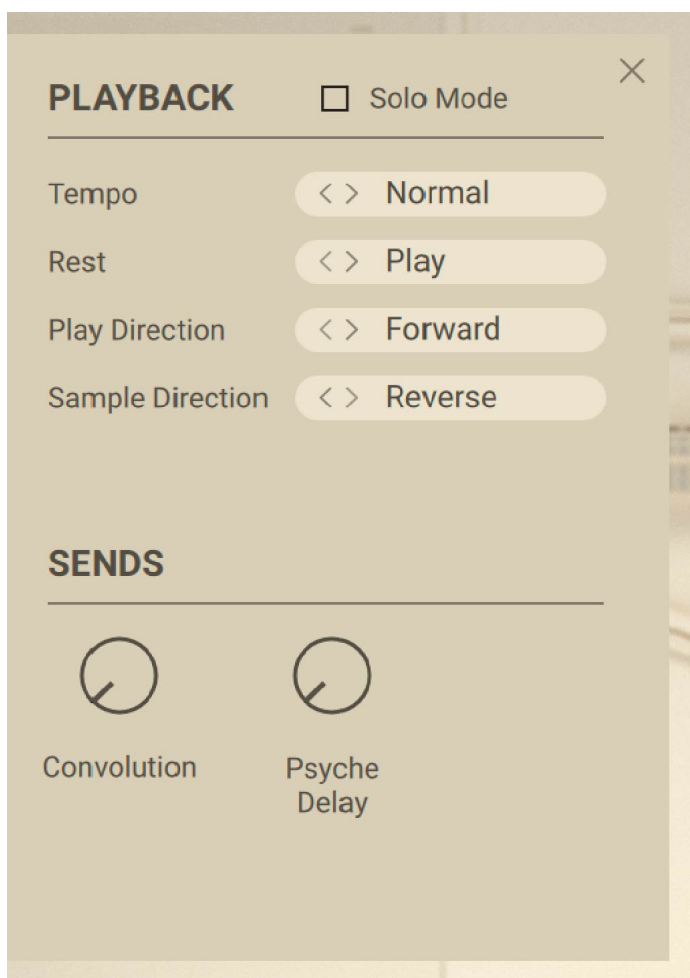
- ▶ To adjust the extent at which a Macro will modify the parameter value for a step, click the little up and down arrows left of the step's control and drag your mouse vertically.
- The extent at which this parameter will be affected by the Macro is indicated by a white segment on the control's ring. Additionally, a white point indicates that this control is affected by the Macro.

i The modulation from the Macro is bipolar: From the middle (unmodulated) position, if you drag your mouse upward the Macro will have a positive influence on the parameter (turning up the Macro will increase the parameter value), whereas if you drag your mouse downward the Macro will have a negative influence on the parameter (turning up the Macro will decrease the parameter value). This is always indicated by the position of the white segment on either side of the control's cursor.

By adjusting this Macro modulation on each individual step and for each layer, you can finely tailor how each of the four Macros will affect the overall sound.

Layer Settings

In the right part of the Layer Edit page, the **PLAYBACK** and **SENDS** areas allow you to adjust settings that apply to the entire layer, independently of the loaded pattern.



The **PLAYBACK** area contains the following elements:

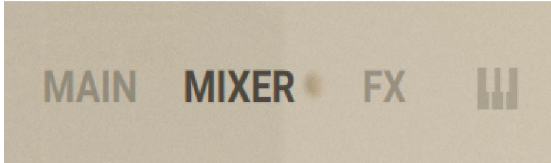
- **Solo Mode:** Mutes all other layers as long as the Layer Edit page is open. Enabling Solo mode can help you focus on editing tiny sonic details of the selected layer without being disturbed by the sound of the other layers.
- **Tempo:** Adjusts how the tempo of patterns in that layer relates to Kontakt's master tempo. You can select either **Normal** (default value, patterns play at Kontakt's tempo), **Halftime** (patterns play at half speed), or **Doubletime** (patterns play at double speed).
- **Rest:** Selects what to do with inactive steps in the patterns: If **Play** is selected, a silence is played for each inactive step. If **Skip** is selected, the playback directly jumps to the next active step.
- **Play Direction:** Selects in which direction patterns are played. Available directions are **Forward** (default), **Backward**, and **PingPong** (alternating between forward and backward).
- **Sample Direction:** Selects in which direction audio samples (the loops and their slices) are played back. You can choose between **Normal** (default) and **Reverse**.

The **SENDS** area contains two controls, which adjust how much audio from this layer is sent to each effect, respectively. You can select and configure Effects in the [FX page](#).

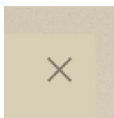
8. Mixer Page

The Mixer page allows you to adjust the mix between the four layers.

- ▶ To open the Mixer page, click the **MIXER** button in the top right corner of the instrument.

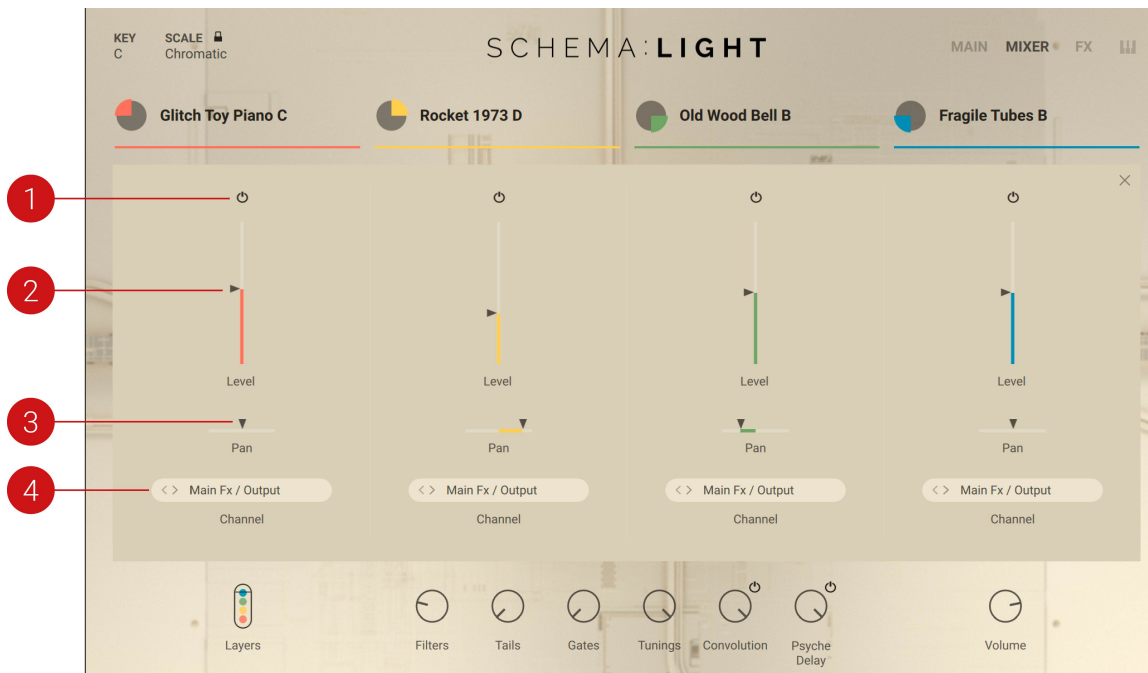


- ▶ To close the page and return to the Main page, click the little cross in the top right corner of the page. You can also switch directly to another page by clicking its dedicated button or tab.



The Mixer page provides four channels, each of them controlling one layer. The channels mirror the color of their layer.

Each channel contains the following elements:

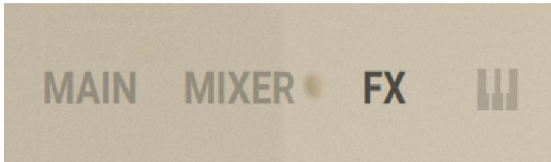


- 1. Channel On/Off button:** Activates or deactivates the layer. When you deactivate a layer, its audio turns off and all its controls are dark and disabled. This button is equivalent to the Layer On/Off button available when hovering the [layer tab](#).
- 2. Level fader and Level meters:** Adjusts the volume level of this layer. The colored meters on either side of the fader indicate the layer's current stereo level.
- 3. Pan slider:** Adjusts the position of the layer in the stereo field.
- 4. Channel selector:** Selects the output channel for the layer. You can select any of the output channels available in the Outputs section of Kontakt. For more information about configuring output channels in Kontakt, refer to the Kontakt manual.

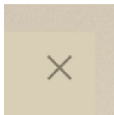
9. FX Page

The FX page allows you to configure the two effect units of Schema: Light. Both effect units are available as send effects for all four layers of the instrument. Available effects include two reverbs, a delay, a chorus, a phaser, and a flanger.

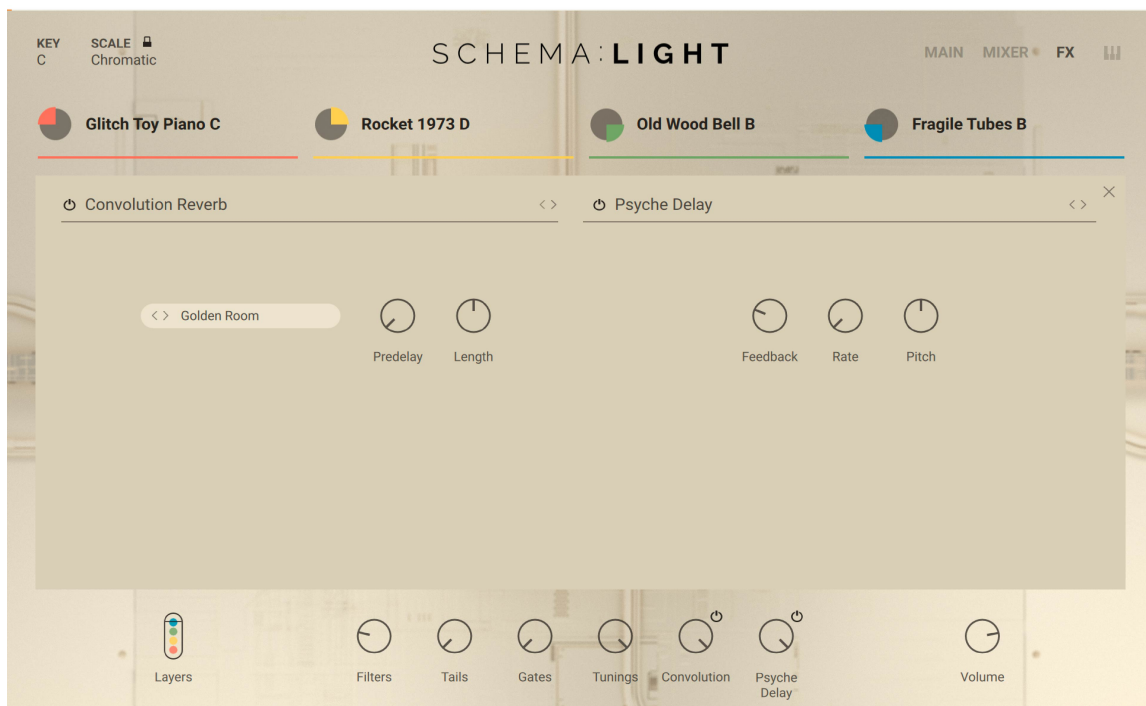
- ▶ To open the FX page, click the **FX** button in the top right corner of the instrument.



- ▶ To close the page and return to the Main page, click the little cross in the top right corner of the page. You can also switch directly to another page by clicking its dedicated button or tab.

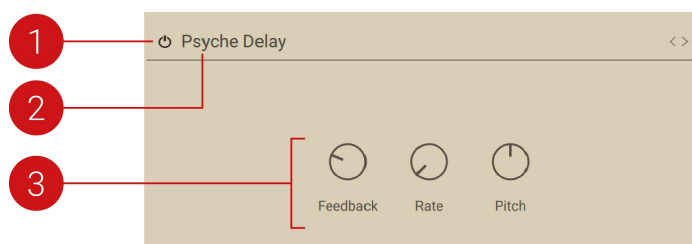


The FX page is split in two parts: one effect unit in the left half, the other effect unit in the right half.



Effect Unit Overview

On either side of the FX page, the effect unit contains the following elements:



1. **Effect On/Off button:** Switches the effect unit on or off (power button icon). This button is equivalent to the on/off button next to the Effect Return control located in the [performance controls](#) at the bottom of the instrument.
2. **Effect selector:** Selects an effect for loading into the unit. The selector shows the name of the effect loaded in the unit. To select another effect, you can click the name and select another effect from the menu that appears, or you can click the little arrows on the right to load the previous/next effect from the list.
3. **Effect controls:** The controls displayed here vary with the selected effect.

For all details on the available effects and their parameters, refer to [Effect Reference](#).

i Each effect unit in the FX page lets you select and configure one send effect. To actually hear the effect in action on your layers, you need to send some audio from your layers to the effect unit. This is done in the Layer Edit pages by adjusting the corresponding Send Level control in the [layer settings](#). Furthermore, you can adjust the level of the audio returning from each effect unit via the corresponding Effect Return control located in the [performance controls](#) at the bottom of the instrument window.

Effect Reference

Schema: Light provides six different effects, which can be loaded into either [effect unit](#). This section describes each effect and its parameters.

Convolution Reverb

Convolution is a sophisticated mathematical process that, technically speaking, allows you to replicate the acoustical behavior of a linear system such as a room, a speaker or a hardware reverb unit, for use with your own signals. To accomplish this, a short audio recording of a wide-band signal played through the system is fed into the convolution processor. This recording is usually a normal audio file, called an impulse response.

Convolution is best known among users as a method for achieving highly realistic reverbs; it works just as well for simulating the characteristic resonances of speaker cabinets and other loudspeakers, though.

The Convolution Reverb contains the following controls:

- **Impulse Response selector:** Selects the impulse response used for creating the convolution effect. You can open the drop-down menu by clicking on the name and select an entry from the list. Alternatively, you can use the left and right arrow buttons to select the previous or next entry, respectively.

- **Predelay:** Introduces a short amount of delay between the direct signal and the convolution output. This is useful when used with impulse responses to simulate the reverberation of big rooms, where a short delay occurs between the direct sound and the first reflections from distant walls.
- **Length:** Artificially compresses or stretches the impulse response in time.

Psyche Delay

The Psyche Delay is a stereo delay effect that produces a range of atmospheric ambient echoes and reverse effects reminiscent of the “backwards tape” sound of the 1960s.

The Psyche Delay contains the following controls:

- **Feedback:** Adjusts the amount of feedback. Turning **Feedback** to the right increases the amount of delay repetitions.
- **Rate:** Adjusts the delay time. The delay time is synchronized to the tempo and is measured in note length values.
- **Pitch:** Adjusts the pitch of the echo repeats in the range of -12 to +12 semitones. Combined with feedback you can use this to create progressively harmonized echo cascades.

Algorithmic Reverb

The Algorithmic Reverb provides a classical reverb module that generates a natural reverb.

The Algorithmic Reverb contains the following controls:

- **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.
- **Predelay:** Introduces a short amount of delay before the reverb takes effect.

Chorus

The Chorus adds depth and richness to the audio signal by layering the original signal with a copy of itself that is detuned by a LFO.

The Chorus contains the following controls:

- **Depth:** Adjusts the range of modulated detuning. Higher values give a more pronounced chorusing effect.
- **Speed:** Adjusts the LFO speed.

Phaser

The Phaser continually changes the phase relationships in your signal with an all-pass filter. This results in a comb filtering effect, which attenuates some frequencies while boosting others. The sound is similar to that of a flanger but in a more subtle manner.

The Phaser contains the following controls:

- **Depth:** Adjusts the amount of LFO modulation. Higher values cause the phasing effect to sweep over a wider frequency range.
- **Speed:** Adjusts the LFO speed.
- **Feedback:** Adjusts the emphasis of the peaks and notches that the comb filter effect imparts on the signal.

Flanger

The Flanger splits the audio signal up and delays one version in relation to the original signal. By modulating the delay time using a LFO, as well as feeding an adjustable amount of the output signal back into the input, the Flanger creates a characteristic “whooshing” sound.

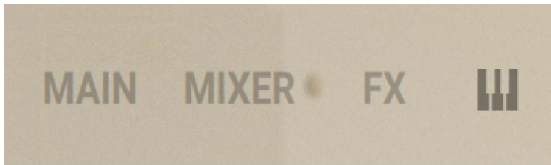
The Flanger contains the following controls:

- **Depth:** Adjusts the amount of LFO modulation. Higher values cause the flanging effect to sweep over a wider range.
- **Speed:** Adjusts the LFO speed.
- **Feedback:** Adjusts the amount of the delayed signal that is fed back into the module’s input, thereby creating a more pronounced effect.

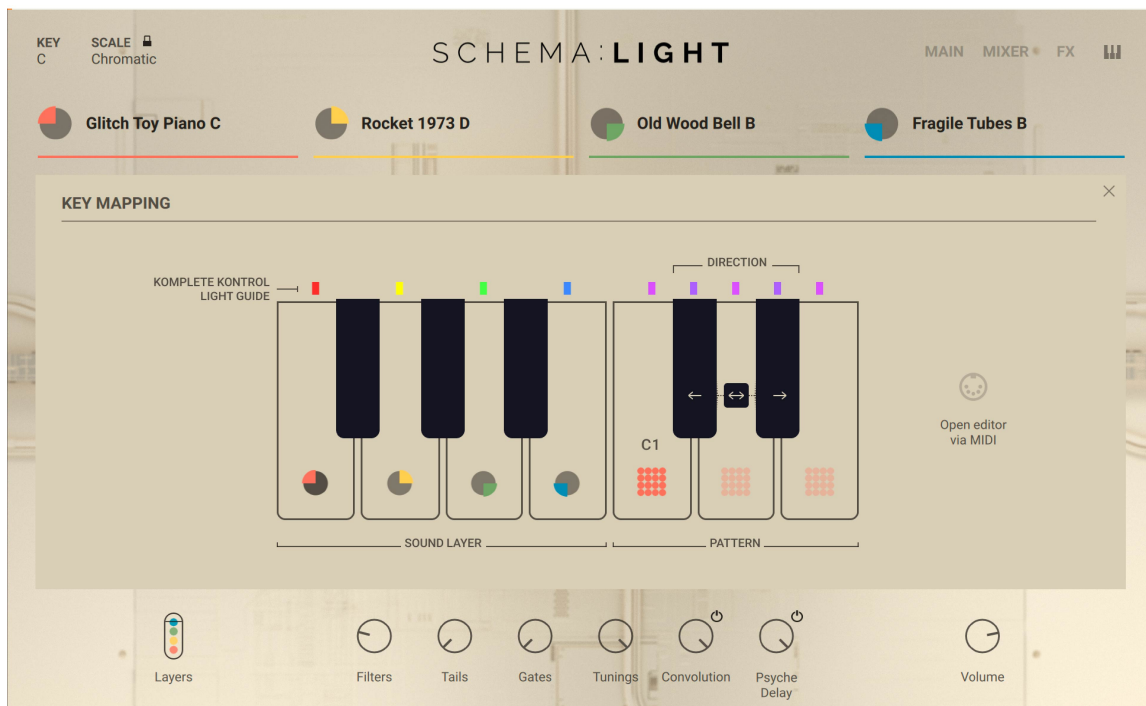
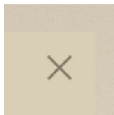
10. Key Mapping Page

The Key Mapping page shows you how to control Schema: Light from your MIDI keyboard.

- ▶ To open the Key Mapping page, click the Keyboard button in the top right corner of the instrument.



- ▶ To close the page and return to the Main page, click the little cross in the top right corner of the page. You can also switch directly to another page by clicking its dedicated button or tab.



The Key Mapping page shows you how to use the following keys on your MIDI keyboard to control Schema: Light:

- **F0, G0, A0, B0:** Select layer 1 to 4 for editing. This determines which layer will be affected by the selection of a pattern slot or a play direction using the C1–E1 keys (see below). Additionally, if the **Open editor via midi** button is enabled on the right, pressing either F0–B0 key opens the corresponding [Layer Edit page](#) in the Instrument.
- **C1, D1, E1:** Select pattern slot 1 to 3 for the layer previously selected via F0–B0. For more information about pattern selection, refer to [Selecting a Pattern](#).
- **C#1, D#1:** Select the forward or backward play direction for the layer previously selected via F0–B0. Pressing both C#1 and D#1 keys simultaneously selects the PingPong mode instead. For more information about the play direction, refer to [Layer Settings](#).

Komplete Kontrol S-Series Keyboards: Additional Info on the Light Guide

On Komplete Kontrol S-Series keyboards, the Light Guide above the keys provides you with useful additional info:

- Layer selection: The LEDs above F0, G0, A0, and B0 reflect the color of each layer. The LED for the selected layer is brightly lit.
- Pattern selection: The LED for the selected pattern slot (C1, D1 or E1 key) is brightly lit.
- Play direction selection: The LED for the selected Play Direction (C#1 or D#1 key) is brightly lit; if PingPong mode is selected, both keys are brightly lit.

11. Credits

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Native UI Development: Lizzie Davis

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