

MAKARA



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THE FUTURE OF SOUND

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1 Welcome to TRK-01

TRK-01 is an instrument for creating kick drums and bass sounds as the starting point and foundation of your track. For this purpose, it combines the flexible **KICK** and **BASS** for sound generation and processing with powerful sequencers that allow you to intuitively realize complex musical ideas.

The controls of the **KICK** and **BASS** are optimized for playability, offering smooth operation and the maximum of sweet spots. Different modes for sections like the **KICK**'s Layers or the **BASS**'s **OSCILLATOR** allow you to completely change the character of the sound in an instant.

The sequencers enhance classic step sequencing with advanced features like Step Locks and Parameter Focus that allow you to bring a whole new layer of animation to your sounds. For more information, refer to [↑13.5, Using Step Locks](#) and [↑13.6, Using Parameter Focus](#).

The innovative global **TUNING** concept ensures that the **KICK** and the **BASS** are always in tune with each other and additional elements in your track, allowing you to keep low-frequency content in check and match the key and scale of your project at all times. For more information, refer to [↑8.2, Tuning Panel](#).

Smart sound design and mixing features like the Ducking Envelope of the **BASS** allow you to fine-tune bass sounds in conjunction with your kick drum and interlace the two elements in interesting ways. For more information, refer to [↑12.6, Ducking Envelope Section](#).

By fusing all of these features into an intuitive user interface, TRK-01 empowers you to create the best possible foundation for your track in a playful manner. Enjoy!

2 Document Conventions

This document uses particular formatting to point out special facts and to warn you of potential issues. The icons introducing the following notes let you see what kind of information can be expected:



The speech bubble icon indicates a useful tip that may often help you to solve a task more efficiently.



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



The red cross icon warns you of serious issues and potential risks that require your full attention.

Furthermore, the following formatting is used:

- Text appearing in (drop-down) menus (such as *Open...*, *Save as...* etc.) in the software and paths to locations on your hard disk or other storage devices is printed in *italics*.
 - Text appearing elsewhere (labels of buttons, controls, text next to checkboxes etc.) in the software is printed in **blue**. Whenever you see this formatting applied, you will find the same text appearing somewhere on the screen.
 - Important names and concepts are printed in **bold**.
 - References to keys on your computer's keyboard you'll find put in square brackets (e.g., "Press [Shift] + [Enter]").
- Single instructions are introduced by this play button type arrow.
- Results of actions are introduced by this smaller arrow.

3 New in Version 1.1

The following features and changes have been added to TRK-01 1.1:

- New Sound Browsers with Sound Presets for the **KICK** and the **BASS** allow you to quickly mix and match sound presets within a Preset file. For more information, refer to [↑9.5, Sound Browser](#) and [↑10.5, Sound Browser](#).
- New **KICK** and **BASS** Sequencer Bypass buttons allow you to play the **KICK** and the **BASS** externally using MIDI keyboards and sequencers. For more information, refer to [↑6.2, Playing the Kick and the Bass via MIDI](#).
- New MIDI control over the global **ROOT** key allows you to transpose the **KICK** and **BASS** Sequencers externally. For more information, refer to [↑6.3, Playing the Root Key via MIDI](#).
- New visual aids in the **EQUALIZER** displays show the fundamental frequency of the **ROOT** key and its harmonics. For more information, refer to [↑11.4, Equalizer Section](#) and [↑12.4, Equalizer Section](#).
- New Step Lock Enable buttons in the **KICK** and **BASS** Sequencers allow you to enable or disable the Step Locks in a sequence. For more information, refer to [↑13.1, Kick Pattern Area](#) and [↑13.3, Bass Pattern Area](#).
- New Offset Up and Down buttons in the **BASS** Sequencer allow you to shift the pitches of all steps in the selected page up or down. For more information, refer to [↑13.3, Bass Pattern Area](#).
- New Layer Enable buttons for **LAYER A** and **LAYER B** in the **KICK** allow you to switch the Layers on or off. For more information, refer to [↑9.6, Layer Sections](#).
- New **INVERT** parameter in the **KICK** Layer's **SAMPLE** mode allows you to invert the phase of the loaded sample. For more information, refer to [↑9.6.3, Sample Mode](#).
- New individual stereo outputs for the **DELAY** and the **REVERB** send effects allow you to process and mix the signals in your host. For more information, refer to [↑6.5, Routing Outputs in a Host](#).
- Fixed timing issues when switching patterns in certain hosts.
- Updated and improved manual covering the new features as well as adding more information to a number of key sections.

4 Using TRK-01 in KOMplete KONTROL

TRK-01 is optimized to integrate with KOMplete KONTROL using Native Kontrol Standard (NKS). You can explore Factory Preset files in the KOMplete KONTROL Browser, and control the instrument using the KOMplete KONTROL keyboard.

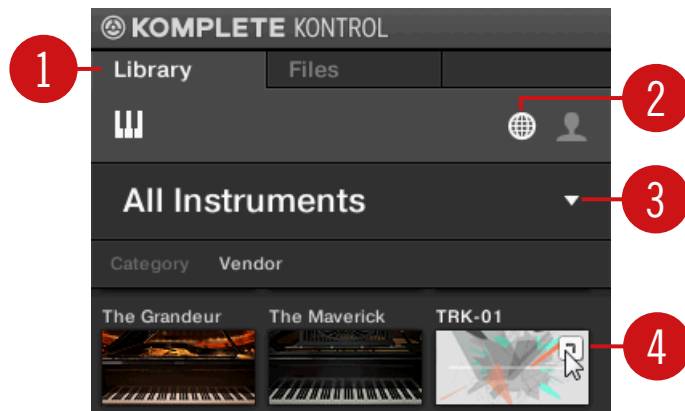
The following sections explain how to open TRK-01 in KOMplete KONTROL, as well as explore Factory Preset files and use User Preset files.



For more information about controlling TRK-01 using the KOMplete KONTROL keyboard, refer to [↑6, MIDI Control and Host Integration](#).

4.1 Opening TRK-01 in KOMplete KONTROL

To open TRK-01 in KOMplete KONTROL:



Opening TRK-01 in KOMplete KONTROL

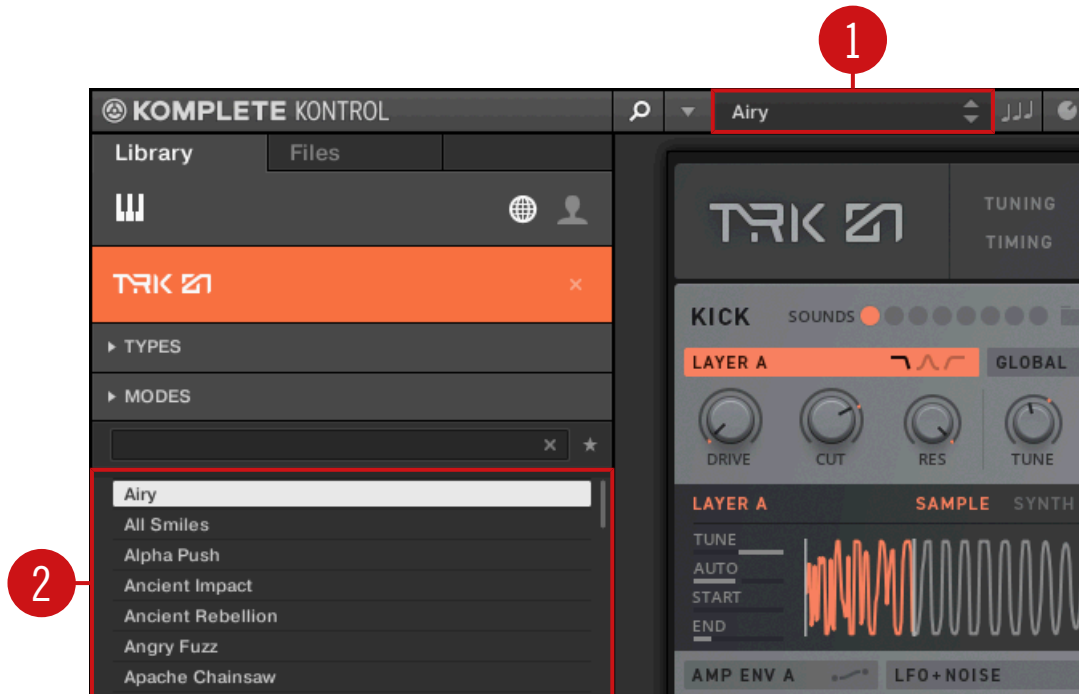
1. Go to the Browser's **Library** tab (1).
2. Select the factory content (2).
3. Open the Product selector by clicking on the arrow symbol (3).

4. Find TRK-01 in the list of Native Instruments products.
5. Place the mouse over the TRK-01 entry and click on the arrow symbol that appears in the upper right corner (4).

→ TRK-01 loads with its default Preset file.

4.2 Exploring Factory Preset Files in KOMplete KONTROL

To explore Factory Preset files in KOMplete KONTROL:



Exploring Factory Preset files in KOMplete KONTROL

You can use the Preset display in KOMplete KONTROL's Header to load Preset files.

- Click on the arrow buttons in the Preset display (1).

→ The Preset files are loaded one after the other.

Alternatively, you can load Preset files from the Browser's Results list and benefit from the Prehear function. This allows you to listen to the preview of a Preset file before loading it.

▶ Click on an entry in the Results list (2) to select it.

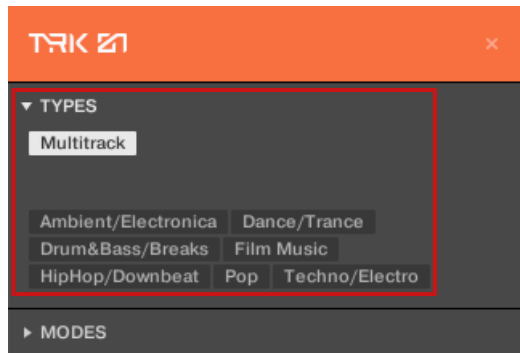
→ The preview of the corresponding Preset file is played back (Prehear needs to be enabled in KOMplete KONTROL).

▶ Double click on an entry in the Results list (2).

⇒ The corresponding Preset file is loaded.

Filtering Results by Musical Genre

If you want to only explore Preset files that are associated with a particular musical genre, you can do so by using the **TYPES** filter in the KOMplete KONTROL Browser.



The Types and Sub-Types for TRK-01

To filter the entries in the Browser's Results list by musical genres:

1. Open the **TYPES** filter in the Browser.
2. Click on the Type **Multitrack** to show the available Sub-Types.
3. Click on one of the musical genres available as Sub-Types.

→ The Results list only shows Preset files associated with the selected musical genre.

4.3 Saving and Loading User Preset Files in KOMplete KONTROL

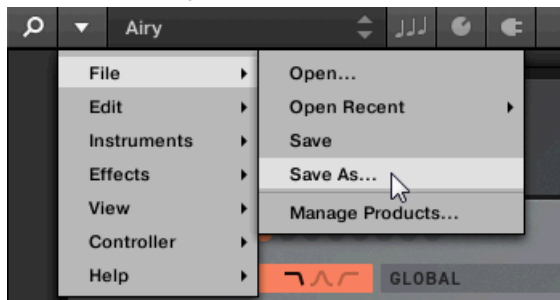
In order to permanently save all adjustments and settings made in TRK-01 including your sound variations, combinations of sound presets, samples, and patterns, you need to save a User Preset file.

- For more information about sound variations, refer to [↑9.4, Sound Selector](#) and [↑10.4, Sound Selector](#).
- For more information about sound presets, refer to [↑9.5, Sound Browser](#) and [↑10.5, Sound Browser](#).
- For more information about loading samples, refer to [↑9.6.3, Sample Mode](#).
- For more information about patterns, refer to [↑13.1, Kick Pattern Area](#).

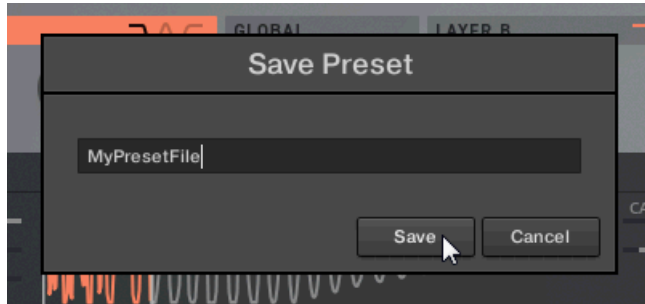
Saving User Preset Files

To save a User Preset file:

1. Select the entry *Save As...* in the *File* submenu of the KOMplete KONTROL menu.



2. Enter a name for your User Preset file and click on [Save](#) in the [Save Preset](#) dialog.

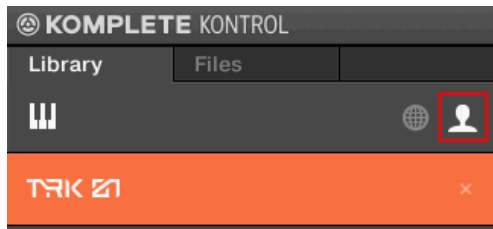


→ Your User Preset file is saved.

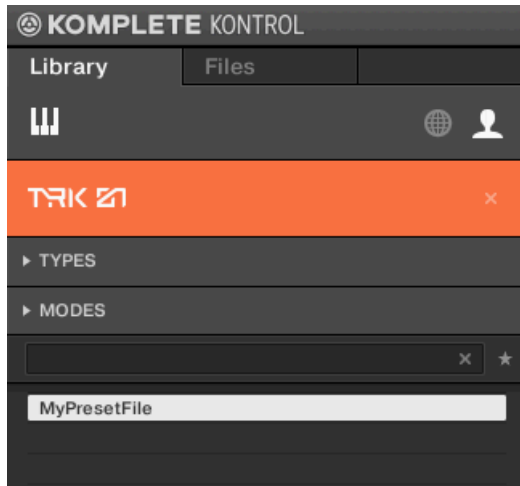
Loading User Preset Files

To load a previously saved User Preset file:

1. Select the user content in the KOMplete KONTROL Browser and ensure that TRK-01 is selected in the Product selector.



- Find your User Preset file in the Results list and double-click on it.



→ Your User Preset file is loaded.



User Preset files saved in KOMplete KONTROL can also be loaded when using TRK-01 in REAKTOR 6. For more information about loading User Preset files in REAKTOR 6, refer to [↑5.3, Saving and Loading User Preset Files in REAKTOR 6](#).

5 Using TRK-01 in REAKTOR 6

TRK-01 is a REAKTOR Ensemble that can be loaded in REAKTOR 6. This allows you to not only play the instrument, but also combine it with other Ensembles, or dive into its Structure to learn more about how it is built.

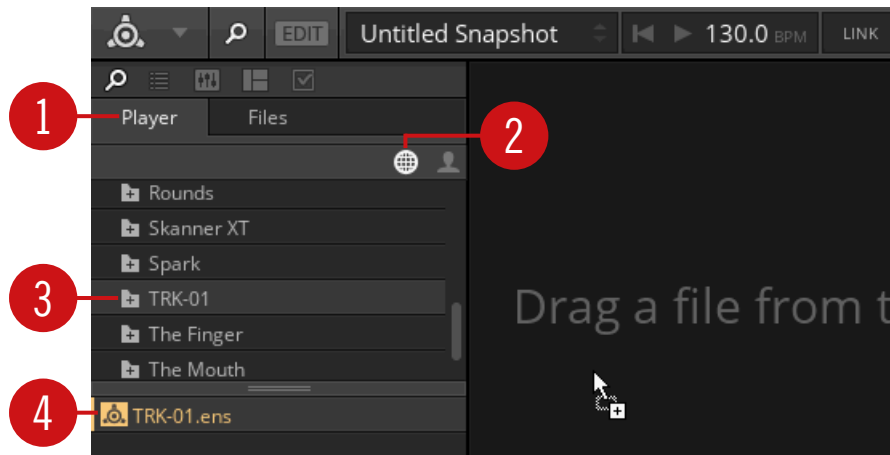


Information about using Ensembles and the Structure can be found in the REAKTOR 6 documentation.

The following sections explain how to open TRK-01 in REAKTOR 6, as well as explore Factory Preset files and use User Preset files.

5.1 Opening TRK-01 in REAKTOR 6

To open TRK-01 in REAKTOR 6:



Opening TRK-01 in REAKTOR 6

1. Go to the Browser's **Player** tab (1).
2. Select the factory content (2).

- Find the TRK-01 folder (3) in the list of Native Instruments products and click on it.
- Drag and drop [TRK-01.ens](#) (4) from the lower section of the Browser into REAKTOR's main area, or double-click on it.

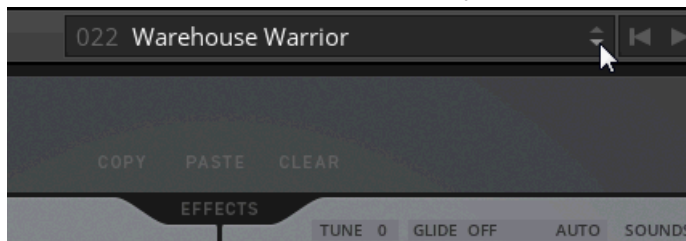
→ TRK-01 loads with its default Preset file.

5.2 Exploring Factory Preset Files in REAKTOR 6

In REAKTOR 6, TRK-01's Factory Preset files can be explored by loading Snapshots. The Snapshots are identical to the corresponding Preset files in KOMPLETE KONTROL.

You can use the Snapshot menu in REAKTOR's Toolbar to load Snapshots.

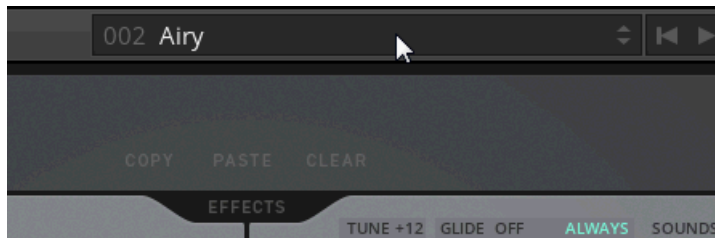
- Click on the arrow buttons in the Snapshot menu.



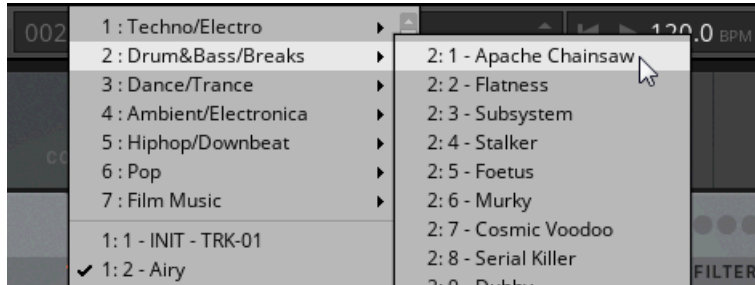
→ The Snapshots are loaded one after the other.

Alternatively, you can load Snapshots from a list that is organized in musical genres.

- Click on the Snapshot menu in REAKTOR's Toolbar.



2. Click on an entry in the list.



→ The corresponding Snapshot is loaded.

5.3 Saving and Loading User Preset Files in REAKTOR 6

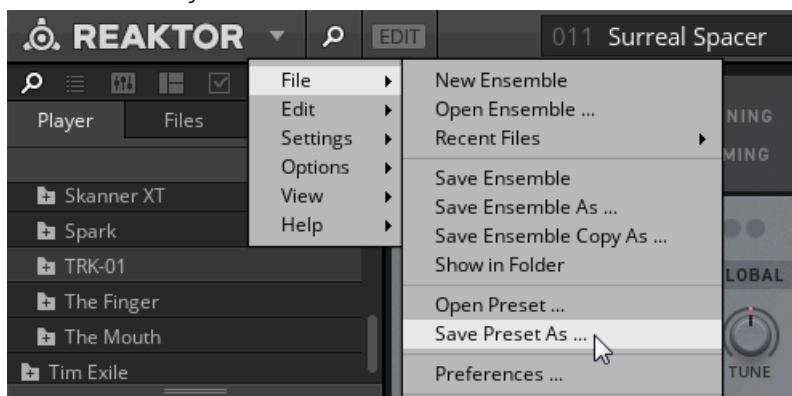
In order to permanently save all adjustments and settings made in TRK-01 including your sound variations, combinations of sound presets, samples, and patterns, you need to save a User Preset file.

- For more information about sound variations, refer to [↑9.4, Sound Selector](#) and [↑10.4, Sound Selector](#).
- For more information about sound presets, refer to [↑9.5, Sound Browser](#) and [↑10.5, Sound Browser](#).
- For more information about loading samples, refer to [↑9.6.3, Sample Mode](#).
- For more information about patterns, refer to [↑13.1, Kick Pattern Area](#).

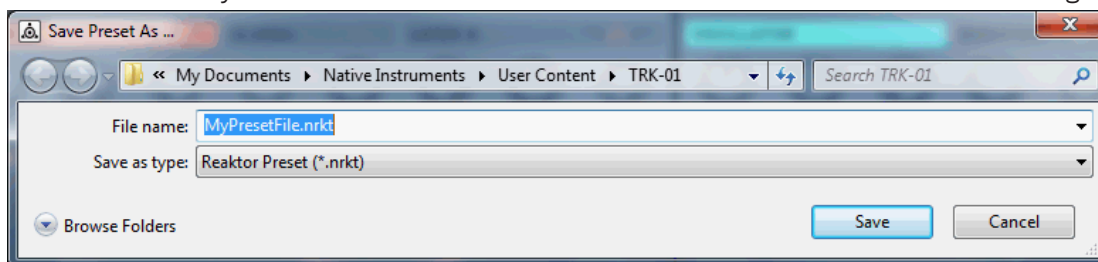
Saving User Preset Files

To save a User Preset file:

1. Select the entry *Save Preset As ...* in the *File* submenu of the REAKTOR Main menu.



2. Enter a name for your User Preset file and click on *Save* in the *Save Preset As ...* dialog.



→ Your User Preset file is saved.



To ensure compatibility with KOMPLETE KONTROL, save the file into the following folder:

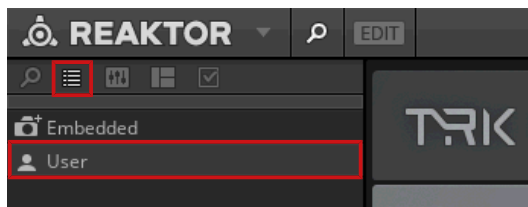
macOs: /Users/<user name>/Documents/Native Instruments/User Content/TRK-01

Windows: \Users\<user name>\Documents\Native Instruments\User Content\TRK-01

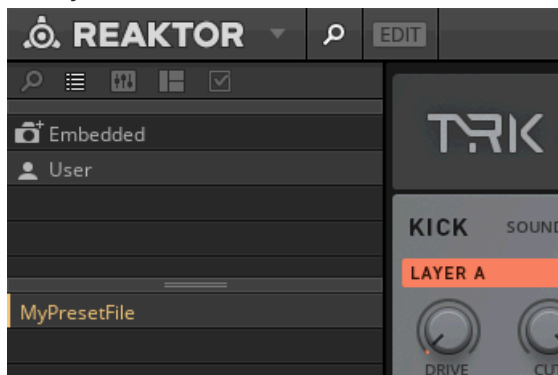
Loading User Preset Files

To load a previously saved User Preset file:

1. Select **User** in REAKTOR's Preset Browser.



2. Find your User Preset file in the lower section of the Browser and double-click on it.



→ Your User Preset file is loaded.



User Preset files saved in REAKTOR 6 can also be loaded in KOMPLETE KONTROL. For more information about loading User Preset files in KOMPLETE KONTROL, refer to [↑4.3, Saving and Loading User Preset Files in KOMPLETE KONTROL](#).

6 MIDI Control and Host Integration

You can control TRK-01 via MIDI to perform using standard MIDI keyboards and controllers. This allows you to switch sound variations and patterns, play the global **ROOT** key or the **KICK** and the **BASS** externally, and adjust instrument parameters remotely. TRK-01 is optimized for use with the KOMplete KONTROL keyboards by supporting Native Kontrol Standard (NKS) and the Light Guide.

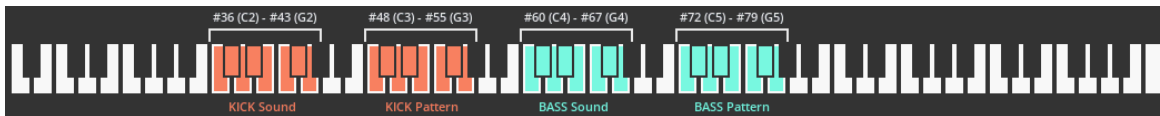
The instrument integrates with your host by providing host automation of key controls and allowing you to use sequencers to control and play TRK-01 via MIDI. To facilitate full integration into your host's mixer, individual stereo outputs are available for the **KICK**, the **BASS**, as well as the **DELAY** and the **REVERB** send effects.

6.1 Switching Sound Variations and Patterns via MIDI

You can use MIDI keyboards and sequencers to switch both sound variations saved in the **KICK**'s and **BASS**'s Sound Selectors, as well as patterns of the **KICK** and **BASS** Sequencers.

The sound variations and patterns are switched by sending specific MIDI note messages to TRK-01. When a MIDI note message is received, the switching occurs instantly.

The MIDI note messages are mapped to the sound variations and patterns as shown in the following image:



Keyboard mapping for KICK and BASS sound variations and patterns

- You can switch the sound variations saved in the eight slots of the **KICK**'s Sound Selector with MIDI notes # 36 (C2) to # 43 (G2).
- You can switch the eight patterns of the **KICK** Sequencer with MIDI notes # 48 (C3) to # 55 (G3).

- You can switch the sound variations saved in the eight slots of the **BASS**'s Sound Selector with MIDI notes # 60 (C4) to # 67 (G4).
- You can switch the eight patterns of the **BASS** Sequencer with MIDI notes # 72 (C5) to # 79 (G5).



On KOMplete KONTROL keyboards, the keys corresponding to the correct MIDI note messages for switching sound variations and patterns are highlighted in orange (for the **KICK**) and green (for the **BASS**) by using the Light Guide.

6.2 Playing the Kick and the Bass via MIDI

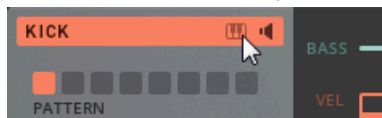
You can play the **KICK** and the **BASS** externally using MIDI keyboards and sequencers, which allows you to integrate TRK-01 into your performance or sequencing setup in a flexible manner. In order to do this, you have to bypass the **KICK** and **BASS** Sequencers.

Bypassing the Kick and Bass Sequencers

The **KICK** and **BASS** Sequencers can be bypassed independently. This way you can choose whether you want to play both the **KICK** and the **BASS** via MIDI or either one of them, allowing you to switch sound variations and patterns for the other. For more information about switching sound variations and patterns for the **KICK** and the **BASS**, refer to [↑6.1, Switching Sound Variations and Patterns via MIDI](#).

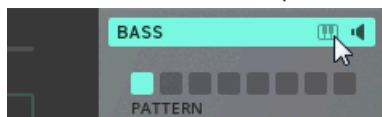
To bypass the **KICK** Sequencer and play the **KICK** via MIDI:

- ▶ Click on the **KICK** Sequencer Bypass button in the header of the pattern area.



To bypass the **BASS** Sequencer and play the **BASS** via MIDI:

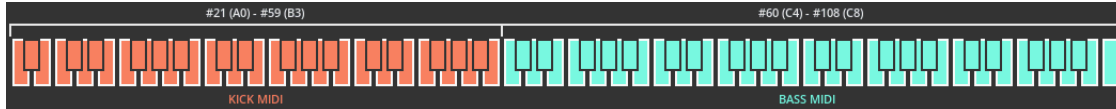
- ▶ Click on the **BASS** Sequencer Bypass button in the header of the pattern area.



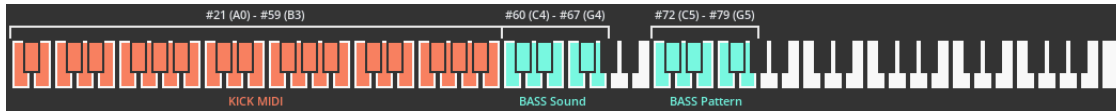
Configurations for MIDI Control

The following configurations for controlling TRK-01 via MIDI are possible:

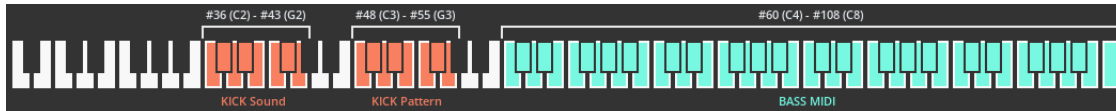
- **KICK and BASS Sequencer Bypass buttons enabled:** You can play the **KICK** with MIDI notes #21 (A0) to #59 (B3) and the **BASS** with MIDI notes #60 (C4) to #108 (C8):



- **KICK Sequencer Bypass button enabled, BASS Sequencer Bypass button disabled:** You can play the **KICK** with MIDI notes #21 (A0) to #59 (B3) and switch sound variations and patterns for the **BASS**:



- **KICK Sequencer Bypass button disabled, BASS Sequencer Bypass button enabled:** You can play the **BASS** with MIDI notes #60 (C4) to #108 (C8) and switch sound variations and patterns for the **KICK**:



Output Transposition

In order to provide you with a meaningful range of pitches when playing the **KICK** and the **BASS** externally, the MIDI note information is transposed in the following way:

- Playing the **KICK** in the given input range of MIDI notes #21 (A0) to #59 (B3) produces pitches in the range of MIDI notes #9 (A-1) to #47 (B2).
- Playing the **BASS** in the given input range of MIDI notes #60 (C4) to #108 (C8) produces pitches in the range of MIDI notes #24 (C1) to #72 (C5).



Note that in order for these ranges to apply, the **TUNE** controls on the **KICK** and the **BASS** need to be set to 0.

6.3 Playing the Root Key via MIDI

You can play the global **ROOT** key via MIDI in order to transpose the **KICK** and **BASS** Sequencers on the fly or program key changes in the host.

- ▶ To play the global **ROOT** key via MIDI send MIDI note events to TRK-01 on MIDI channel 16.

→ The global **ROOT** key is set to the respective pitch when a MIDI note event is received.



If you want to transpose only the **BASS** but not the **KICK**, ensure that **KICK TO ROOT** in the Header's **TUNING** panel is disabled. This way the pitch of the **KICK** is independent from the global **ROOT** key.

6.4 Automation and MIDI Control

TRK-01 allows for host automation and MIDI control of key controls. This enables you to perform using standard MIDI controllers and use the automation features of your host to take control over TRK-01.

The following controls are enabled for automation and MIDI control in a host:

- All controls in the Main and Modulation areas of the **KICK** and **BASS**.
- The **KICK** and **BASS** Level faders and the **KICK** and **BASS** Enable buttons in the **MASTER** Effects.
- The **DELAY**, **REVERB**, **BASS** Enhancer, and **BOOSTER** Enable buttons in the **MASTER** Effects.



Since TRK-01 supports Native Kontrol Standard (NKS), all enabled controls are automatically mapped to KOMPLETE KONTROL keyboards and MASCHINE controllers.

6.5 Routing Outputs in a Host

In addition to its main stereo output, TRK-01 also offers individual stereo outputs for the **KICK**, the **BASS**, as well as the **DELAY** and the **REVERB** send effects. This allows you to process and mix the signals in your host.

The **KICK** and **BASS** outputs are directly fed by the **OUTPUT** sections of the **KICK** and **BASS** and are unaffected by settings made in the **MASTER** Effects.

The additional outputs are reported to the host by KOMPLETE KONTROL and REAKTOR 6 and can be routed depending on the used host software.



For information about routing additional outputs of plug-ins in your host, refer to the host's product documentation.

7 Overview of TRK-01

TRK-01 consists of three main sections that structure the instrument's functionality in a logical and intuitive way:



Overview of TRK-01

(1) **Header:** The first main section provides global settings related to the tuning and timing of the instrument, and facilitates the instrument's workflows for copying, pasting, and clearing the contents of elements in the user interface.

- For more information about the Header, refer to [↑8, Header](#).
- For more information about copying, pasting, and clearing elements, refer to [↑8.1, Copying, Pasting, and Clearing Elements](#).

(2) **Engines / Effects:** The second main section hosts the sound generation and processing of the **KICK** and **BASS**. The **KICK** features extensive possibilities to sculpt any kick drum sound imaginable, and the **BASS** allows you to create a wide range of bass sounds. The central **EF-FECTS** button toggles between the Engines for the sound generation, and the Effects for the processing.

- For more information about the **KICK** and **BASS** Engines, refer to [↑9, Kick Engine](#) and [↑10, Bass Engine](#).
- For more information about the **KICK** and **BASS** Effects, refer to [↑11, Kick Effects](#) and [↑12, Bass Effects](#).

(3) **Sequencer / Master:** The third main section comprises the **KICK** and **BASS** Sequencers and the **MASTER** Effects. The **KICK** and **BASS** Sequencers allow you to quickly realize musical ideas for the **KICK** and the **BASS**, while the **MASTER** Effects provide the means to enhance and finalize the instrument's output. The central **MASTER** button toggles between the **KICK** and **BASS** Sequencers and the **MASTER** Effects.

- For more information about the **KICK** and **BASS** Sequencers, refer to [↑13, Sequencer](#).
- For more information about the **MASTER** Effects, refer to [↑14, Master](#).

8 Header

The Header at the top of the TRK-01 user interface provides global settings related to the tuning and timing of the instrument, and facilitates the instrument's workflows for copying, pasting, and clearing the contents of elements in the user interface.



The Header

- (1) **TRK-01 logo:** Shows the instrument's credits.
- (2) **TUNING:** Shows or hides the **TUNING** panel with settings for the global **ROOT** key and the Quantizer of the instrument. For more information, refer to [↑8.2, Tuning Panel](#).
- (3) **TIMING:** Shows or hides the **TIMING** panel with settings for the tempo and the groove of the instrument. For more information, refer to [↑8.3, Timing Panel](#).
- (4) **Focus View:** Shows the selected element in the user interface. This element can be used with the **COPY**, **PASTE**, and **CLEAR** buttons. For more information, refer to [↑8.1, Copying, Pasting, and Clearing Elements](#).
- (5) **COPY / PASTE / CLEAR:** These buttons are used to copy, paste, and clear the contents of selected elements in the user interface, including the slots of the Sound Selectors as well as the **KICK** and **BASS** Sequencer's patterns, pages and Step Locks. For more information, refer to [↑8.1, Copying, Pasting, and Clearing Elements](#).
- (6) **VOL slider:** Adjusts the instrument's output level in a range of -32 dB to +12 dB. The 0 dB position is indicated by a fine line.
- (7) **TUNE slider:** Adjusts the instrument's global tuning in a range of -100 to +100 cents. The 0 cent position is in the center and indicated by a fine line.

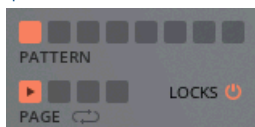
8.1 Copying, Pasting, and Clearing Elements

TRK-01 provides a workflow for copying, pasting, and clearing the contents of elements in the user interface. The following elements can be used with this workflow:

- Slots of the Sound Selector in the [KICK](#) and [BASS](#). For more information, refer to [↑9.4, Sound Selector](#) and [↑10.4, Sound Selector](#).



- Patterns and pages in the [KICK](#) and [BASS](#) Sequencers. For more information, refer to [↑13.1, Kick Pattern Area](#).



- Step Locks in the [KICK](#) and [BASS](#) Sequencers. For more information, refer to [↑13.5, Using Step Locks](#).

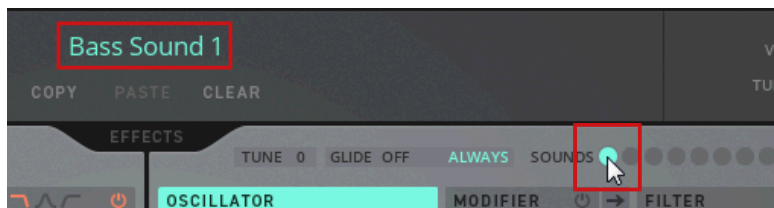


To permanently save the contents of elements in the user interface, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in COMPLETE KONTROL](#) and [↑5.3, Saving and Loading User Preset Files in REAKTOR 6](#).

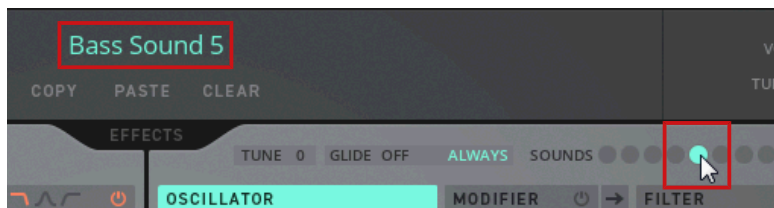
Copying and Pasting Elements

- To copy and paste the contents of elements in the user interface:

1. Select the element you want to copy content from, in this example the first slot of the **BASS's** Sound Selector. The name of the selected element is shown in the Focus View of the Header.



2. Click on **COPY** in the Header to copy the contents of the selected element to the clipboard.
3. Select the element you want paste the contents of the clipboard to, in this example the fifth slot of the **BASS's** Sound Selector. The name of the selected element is shown in the Focus View of the Header.

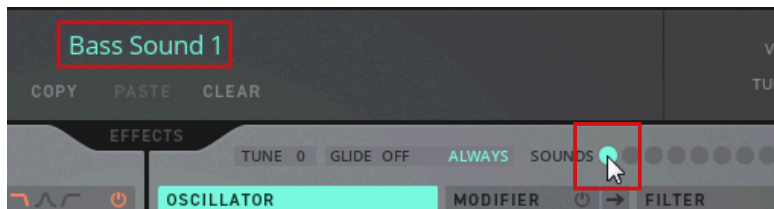


4. Click on **PASTE** in the Header to paste the contents of the clipboard to the selected element.
- The contents of the first element are copied to the second element.

Clearing Elements

To clear the contents of elements in the user interface:

1. Select the element you want to clear, in this example the first slot of the **BASS**'s Sound Selector. The name of the selected element is shown in the Focus View of the Header.



2. Click on **CLEAR** in the Header to clear the contents of the selected element.

8.2 Tuning Panel

The **TUNING** panel provides settings related to the global tuning of TRK-01, allowing you to match the key of other elements in your track and conveniently change the musical scale of Preset files.

The global **ROOT** key is at the core of TRK-01's tuning scheme. All tuning settings throughout the instrument relate to this base pitch and are set as offsets in semitones. This means that you can globally change the key of your project while preserving not only the intervals in your sequences, but also the relationship between the pitch of the **KICK** and the **BASS**.

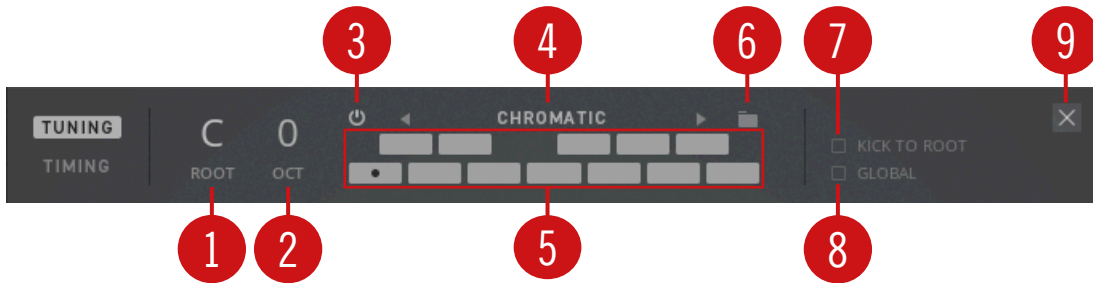
The central Quantizer processes the output of the **BASS** Sequencer and forces all pitches to a musical scale. In addition to selecting from a number of built-in scales, you can create your own custom scales in the Quantizer's Scale Editor.

The **GLOBAL** option allows you to preserve settings made in the **TUNING** panel when switching Preset files. This allows you to match the scale and key your track and keep these settings in place while exploring Preset files.

The **KICK TO ROOT** option locks the tuning of the **KICK** to the global **ROOT** key of the instrument. This allows you to maintain the pitch relationship of the **KICK** and the **BASS** while still being able to change the key of your track.



If you enable **KICK TO ROOT** and set the **KICK**'s global **TUNE** control as well as the **TUNE** parameters of both **LAYER A** and **LAYER B** to 0, the **KICK**'s fundamental frequency will always match the base pitch of the **BASS**. In many cases, this makes the low-frequency content of your track more solid.



The **TUNING** panel

- (1) **ROOT**: Sets the global **ROOT** key for the instrument in semitone steps. All tuning settings in TRK-01 relate to this base pitch.
- (2) **OCT**: Sets the global **ROOT** key in octave steps.
- (3) **Quantizer Enable button**: Switches the Quantizer on or off.
- (4) **Scale selector**: Shows the selected scale of the Quantizer and allows you to select an entry from the selection of built-in scales by clicking on the left and right arrow buttons.
- (5) **Scale Editor**: Shows the contents of the selected scale and allows you to create your own custom scale for the Quantizer by selecting different notes. The black dot highlights the global **ROOT** key.
- (6) **Scale Browser button**: Shows the Scale Browser with the built-in scales for the Quantizer:

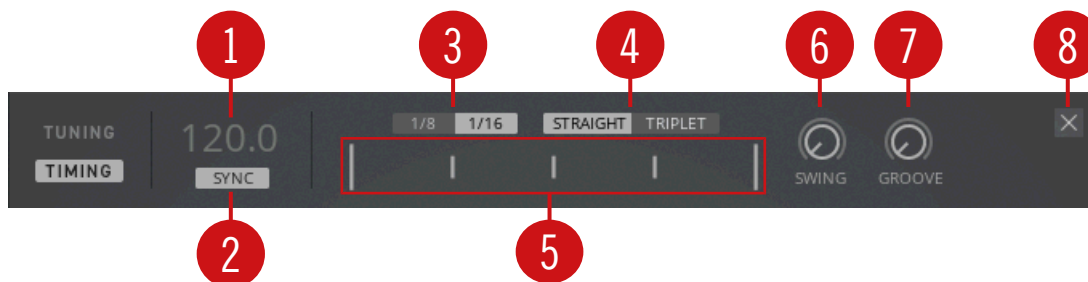


The scales are organized into two pages, which you can select by clicking on the left and right arrow buttons.

- (7) **KICK TO ROOT**: Locks the tuning of the **KICK** to the global **ROOT** key of the instrument.
- (8) **GLOBAL**: Toggles between the Quantizer settings saved in Preset Files and the global Quantizer settings.
- (9) **EXIT**: Exits the **TUNING** panel.

8.3 Timing Panel

The **TIMING** panel provides settings related to the global clock and rhythm of TRK-01, allowing you to not only set the tempo or synchronize the instrument to the host (**SYNC**), but also create interesting rhythms by changing the Clock Division, switching the **TIMING** to **TRIPLETS**, or adding a freely adjustable amount of **SWING** and **GROOVE**.



The **TIMING** panel

- (1) **Tempo**: Sets the tempo of the instrument's clock in BPM. When **SYNC** is enabled, the instrument is synchronized to the host clock and Tempo shows the host's BPM value.
- (2) **SYNC**: Synchronizes the instrument's clock to the host clock.
- (3) **Clock Division**: Sets the clock division of the **KICK** and **BASS** Sequencers to either 8th notes (**1/8**) or 16th notes (**1/16**).
- (4) **Timing Division**: Sets the rhythm of the **KICK** and **BASS** Sequencers to either a **STRAIGHT** or **TRIPLET**.
- (5) **Timing Display**: Shows the settings made with **SWING** and **GROOVE** in relation to the basic clock.
- (6) **SWING**: Adjusts the amount of swing applied to the clock.
- (7) **GROOVE**: Adjusts the amount of rhythmic variation applied to the clock when **SWING** is used.
- (8) **EXIT**: Exits the **TIMING** panel.

9 Kick Engine

The **KICK** Engine features extensive possibilities to sculpt any kick drum sound imaginable and seamlessly integrates with the **BASS** Engine to provide a solid foundation for your track.

It couples sampling and synthesizer techniques in a basic structure: Two independent Layer sections including distortion and resonant filters, **LAYER A** and **LAYER B**, are combined in the **GLOBAL** section.

The **KICK** Engine's controls are optimized to provide smooth transitions between timbres, with focused parameter ranges that produce the maximum of sweet spots. The different modes of the **LAYER A** and **LAYER B** sections allow you to completely change the character of the **KICK** Engine on the fly.

The **KICK** Engine consists of three interface sections:



Overview of the **KICK** Engine

(1) **Main area:** Offers tuning settings, the Sound Selector for sound variations, and key controls that allow you to shape your sound. The controls are organized into three sections: **LAYER A**, **GLOBAL**, **LAYER B**. For more information, refer to [19.1, Main Area](#).

(2) **Display area:** Provides visual feedback and facilitates in-depth editing of additional parameters for each section of the **KICK** Engine, and gives you access to the Modulation Routing. For more information, refer to [↑9.2, Display Area](#).

(3) **Modulation area:** Offers immediate control over key parameters that allow you to shape how your sound changes over time. The controls are organized into three sections: **AMP ENV A**, **LFO +NOISE**, **AMP ENV B**. For more information, refer to [↑9.3, Modulation Area](#).

9.1 Main Area

In addition to the Sound Selector for sound variations, the Main area provides control over the distortion effect (**DRIVE**) and filter of the two Layers (**LAYER A**, **LAYER B**), as well as a global tuning control and a crossfade control to set the level balance between them (**GLOBAL**). This not only allows you to quickly adapt Presets files to your needs, but also perform with sounds in an intuitive way by changing key controls on the fly.



Additional parameters for each section in the Main and Modulation areas can be accessed in the Display area by clicking on the respective section's header. For more information, refer to [↑10.2, Display Area](#)

The Main area consists of the following sections:

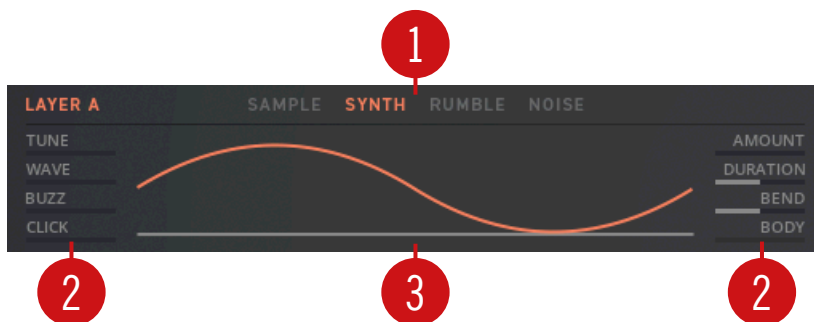


The **KICK** Engine's Main area

- (1) **Sound Selector and Browser:** The eight slots of the Sound Selector allow you to save and recall sound variations for the **KICK** or load any of the sound presets included in the dedicated Sound Browser. For more information, refer to [↑9.4, Sound Selector](#) and [↑9.5, Sound Browser](#).
- (2) **LAYER A:** The first of two independent Layer sections has three controls in the Main area that allow you to define the basic character of the sound. The first control adjusts the amount of **DRIVE**, or distortion, while the second and third control are dedicated to **LAYER A**'s filter. For more information, refer to [↑9.6, Layer Sections](#).
- (3) **GLOBAL:** This central section has two controls in the Main area that allow you to control the tuning and mix of the **KICK** Engine. The first control adjusts the tuning, while the second control blends between **LAYER A** and **LAYER B**. For more information, refer to [↑9.7, Global Section](#).
- (4) **LAYER B:** The second of two independent Layer sections has three controls in the Main area that allow you to define the basic character of the sound. The first control adjusts the amount of **DRIVE**, or distortion, while the second and third control are dedicated to **LAYER B**'s filter. For more information, refer to [↑9.6, Layer Sections](#).

9.2 Display Area

The Display area provides visual feedback for the selected section in the Main and Modulation areas of the **KICK** Engine and offers additional parameters that allow you to build your own sounds from scratch and fine-tune Preset files.



The **KICK** Engine 's Display area

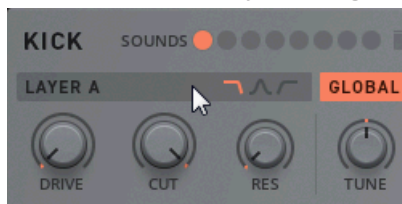
- (1) **Mode selector:** Allows you to change the character of the selected section by choosing from a number of different modes. For example, this includes different sampling or synthesizer techniques for [LAYER A](#) and [LAYER B](#), or a variety of synchronization options for [LFO+NOISE](#).
- (2) **Additional parameters:** Allow you to fine-tune settings related to the selected section. For example, this includes detailed settings for [LAYER A](#)'s and [LAYER B](#)'s [LAYER](#) modes and Pitch Envelopes, or additional options for the envelopes, [AMP ENV A](#) and [AMP ENV B](#).
- (3) **Display:** Provides visual feedback while you adjust the controls of the selected section. For example, this includes the waveform of [LAYER A](#), [LAYER B](#), and [LFO+NOISE](#), or the shape of the envelopes, [AMP ENV A](#) and [AMP ENV B](#).



The Display area is also used for Modulation Routing, allowing you assign the modulation produced by [AMP ENV A](#), [LFO+NOISE](#), and [AMP ENV B](#) to the Main area's controls. For more information, refer to [19.10, Modulation Routing](#).

Accessing Additional Parameters

- To access additional parameters for any section in the Main area or the Modulation area, select the section by clicking on its header.



- The Display area shows additional parameters for the selected section.



- For more information about [LAYER A's](#) and [LAYER B's](#) additional parameters, refer to [↑9.6, Layer Sections](#).
- For more information about [GLOBAL's](#) additional parameters, refer to [↑9.7, Global Section](#).
- For more information about [AMP ENV A's](#) and [AMP ENV B's](#) additional parameters, refer to [↑9.8, Envelope Sections](#).
- For more information about the [LFO+NOISE's](#) additional parameters, refer to [↑9.9, LFO+Noise Section](#).

9.3 Modulation Area

The Modulation area provides control over the contours of the Amplitude envelopes for [LAYER A](#) and [LAYER B](#), called [AMP ENV A](#) and [AMP ENV B](#), as well as the basic parameters of the combined low-frequency oscillator and noise generator, called [LFO+NOISE](#). This not only allows you to quickly adapt Presets files to your needs, but also perform with sounds in an intuitive way by changing key controls on the fly.



Additional parameters for each section in the Main and Modulation areas can be accessed in the Display area by clicking on the respective section's header. For more information, refer to [↑10.2, Display Area](#)

The Modulation area consists of the following sections:



The [KICK Engine's](#) Modulation area

(1) [AMP ENV A](#): An envelope generator that controls [LAYER A's](#) output level and can also be used to modulate any of the controls in the [KICK Engine's](#) Main area. For more information, refer to [↑9.8, Envelope Sections](#).

(2) **LFO+NOISE**: A combined low-frequency oscillator and noise generator that can be used to modulate any of the controls in the **KICK** Engine's Main area. For more information, refer to [↑9.9, LFO+Noise Section](#).

(4) **AMP ENV B**: An envelope generator that controls **LAYER B**'s output level and can also be used to modulate any of the controls in the **KICK** Engine's Main area. For more information, refer to [↑9.8, Envelope Sections](#).

9.4 Sound Selector

The Sound Selector allows you to save and recall sound variations. It is located at the top of the **KICK**:



The Sound Selector

It consists of eight slots for saving and recalling sound variations for the **KICK** on the fly. To get you started, the Factory Preset files come with pre-made sound variations in the first four slots, allowing you to quickly find new combinations of sounds and patterns within the same Preset file.

All changes made to the **KICK** are immediately saved in the selected slot and can be recalled as long as the current Preset file is loaded. The contents of the slots can be saved permanently as part of a User Preset file.



Slots can also be recalled from the **KOMLETE KONTROL** Keyboard. For more information, refer to [↑6.1, Switching Sound Variations and Patterns via MIDI](#).

Creating Sound Variations with the Sound Selector

To create sound variations for the **KICK**:

1. Select any slot of the Sound Selector.
 2. Set the controls and parameters of the **KICK** to the first sound variation you want to save.
 3. Select another slot of the Sound Selector.
 4. Set the controls and parameters to the second sound variation you want to save.
- You can now toggle between the slots and recall the two sound variations on the fly.



To permanently save your sound variations, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in KOMplete Kontrol](#) and [↑5.3, Saving and Loading User Preset Files in REaktor 6](#).

9.5 Sound Browser

The Sound Browser allows you to load sound presets into the slots of the Sound Selector. It is located at the top of the **KICK**:



The Sound Browser

The Sound Browser includes 64 sound presets that are organized in four categories: **ANALOG**, **DIGITAL**, **ACOUSTIC**, and **SUB**. The sound presets have been carefully selected to cover a wide range of different styles. This allows you to quickly mix and match sound presets within a Preset file.

Since the Step Locks in a sequence also affect the controls of the **KICK**, loading sound presets from the Sound Browser often leads to unexpected and interesting results. For more information about Step Locks, refer to [↑13.5, Using Step Locks](#).



The **DELAY** and **REVERB** effect sends are excluded from the sound presets in the Sound Browser. They retain their value when loading sound presets to preserve the mix of an existing Preset file.

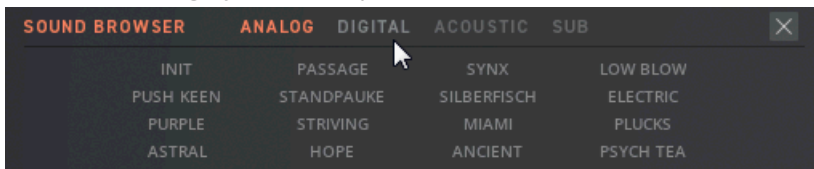
Loading Sound Presets from the Sound Browser

To load a sound preset from the Sound Browser:

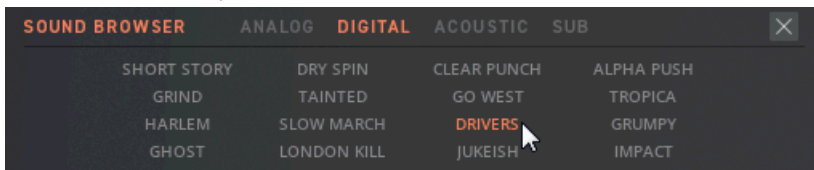
1. Click on the Sound Browser button to open it.



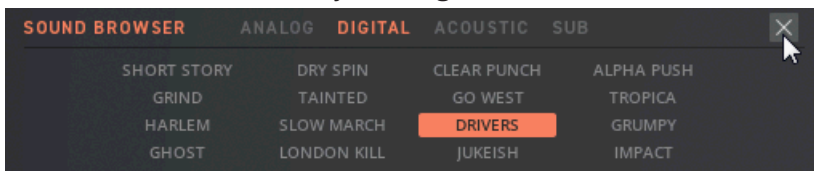
2. Click on a category of sound presets to select it.



3. Click on a sound preset to load it into the selected slot of the Sound Selector.



4. Close the Sound Browser by clicking on the Exit button.



→ The sound preset from the Sound Browser is loaded into the selected slot of the Sound Selector.



To permanently save your combination of sound presets, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in KOM-LETE KONTROL](#) and [↑5.3, Saving and Loading User Preset Files in REAKTOR 6](#).

9.6 Layer Sections

The Layer sections, **LAYER A** and **LAYER B**, are used to create two main sound elements that can be layered on top of each other, ranging from a variety of sampled or synthesized kick drums to noise components and additional textures.

Each of them offers four different **LAYER** modes, including a sampler, a synthesizer, and two specialized noise generators. You can select the **LAYER** mode in the Display area, which also provides additional parameters related to the selected mode and the Pitch Envelope. For more information, refer to [↑9.6.1, Layer Mode Selector](#) and [↑9.6.2, Pitch Envelope](#).

The Layer sections' controls in the Main area allow you to define the basic character of the sound:



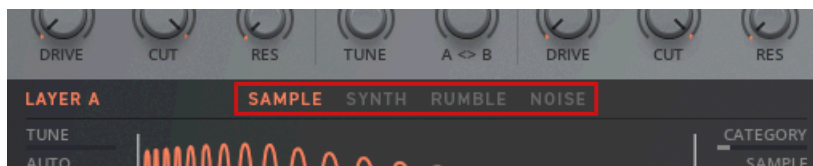
The **KICK** Engine's **LAYER A** and **LAYER B** sections

- **Filter Mode selector:** This selector (frequency response symbol) in the header of the section allows you to select one of three filter modes for Layer's filter: low-pass, band pass, and high pass.
- **Layer Enable button:** This button (power button symbol) in the header of the section switches the Layer on or off.
- **DRIVE:** Adjusts the amount of Layer's distortion effect.

- **CUT**: Adjusts the cutoff frequency of Layer's filter. The effect of this control on the sound depends on the setting of the Filter Mode selector. In low-pass mode, frequency content above the cutoff frequency is attenuated, creating a darker sound. In band pass mode, frequency content below and above the cutoff frequency is attenuated, creating a thinner sound. In high pass mode, frequency content below the cutoff frequency is attenuated, creating a brighter sound.
- **RES**: Adjusts the resonance amount of Layer's filter. As resonance increases, the frequency content at the cutoff frequency becomes more pronounced.

9.6.1 Layer Mode Selector

The **LAYER** Mode selector is one of the additional parameters in the Display area, allowing you to completely change the section's character by choosing from a number of different modes:



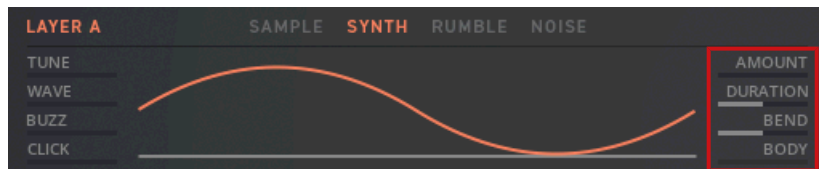
The **LAYER** Mode selector

Each of the four available modes has its own distinct quality:

- **SAMPLE**: A sampler that includes 120 carefully selected samples in 6 categories and can also load your own samples. For more information, refer to [↑9.6.3, Sample Mode](#).
- **SYNTH**: A synthesizer that is tailored towards creating kick drums, with special parameters for shaping the timbre of the sound. For more information, refer to [↑9.6.4, Synth Mode](#).
- **RUMBLE**: A synthesizer that specializes in low-frequency rumble and noise, with full control over the tonality and stability of the sound. For more information, refer to [↑9.6.5, Rumble Mode](#).
- **NOISE**: A synthesizer that specializes in textures and noise, with full control over the tonality and stability of the sound. For more information, refer to [↑9.6.6, Noise Mode](#).

9.6.2 Pitch Envelope

The Pitch Envelope is an additional envelope that allows you to dynamically control **LAYER A**'s or **LAYER B**'s pitch over the duration of a note event. It is available in **LAYER** modes **SYNTH**, **RUMBLE**, and **NOISE** and can be adjusted in the Display area:



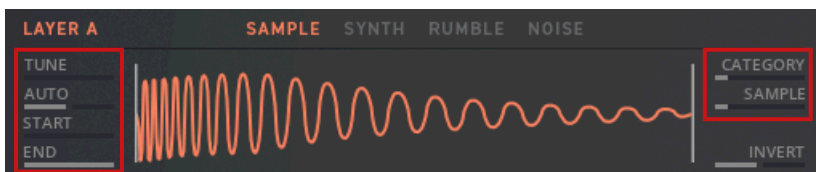
The Pitch Envelope parameters of **LAYER A**'s and **LAYER B**'s **SYNTH** mode

- **AMOUNT**: Adjusts the amount of envelope modulation applied to the Layer's pitch in a range of 0 to +96 semitones, effectively setting the initial pitch before the envelope falls to the base pitch as set with the **TUNE** controls.
- **DURATION**: Adjusts the duration of the envelope's decay phase, which is the time it takes for the envelope to fall to the base pitch as set with the **TUNE** controls.
- **BEND**: Adjusts the shape of the envelope's decay phase from a smooth, almost linear response to a snappy exponential response.
- **BODY**: Adjusts the shape of the envelope's decay phase by slowing down the initial rate of its fall. This gives the sound more weight and body.

9.6.3 Sample Mode

LAYER A's and **LAYER B**'s **SAMPLE** mode is a sampler that includes 120 carefully selected samples in six categories and can also load your own samples. This mode offers quick access to many classic or special kick drums and is useful for creating interesting layered sounds.

SAMPLE mode has six additional parameters in the Display area:



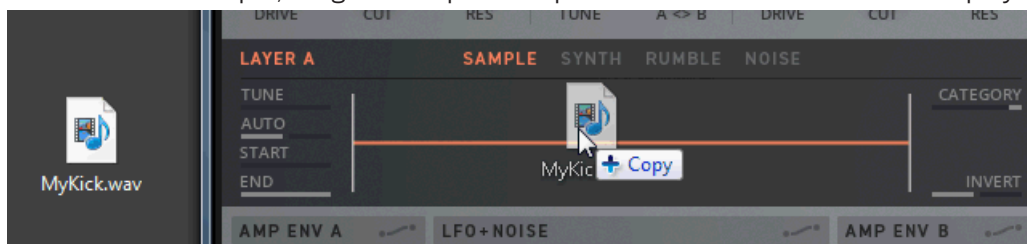
Additional parameters of **LAYER A**'s and **LAYER B**'s **SAMPLE** mode

- **TUNE**: Adjusts the pitch of the Layer in a range of -12 to +12 semitones.
- **AUTO**: Adjusts the base pitch of the sample to match the global **ROOT** key.
- **START**: Adjusts the start point of the sample.
- **END**: Adjusts the end point of the sample.
- **CATEGORY**: Selects a category of samples for the **SAMPLE** parameter. The last entry (<USER>) calls up the user sample loaded to the respective Layer in the current Preset file.
- **SAMPLE**: Selects a sample from the active **CATEGORY**.
- **INVERT**: Inverts the phase of the sample. This is useful for avoiding frequency cancellations when adding the sample to another Layer.

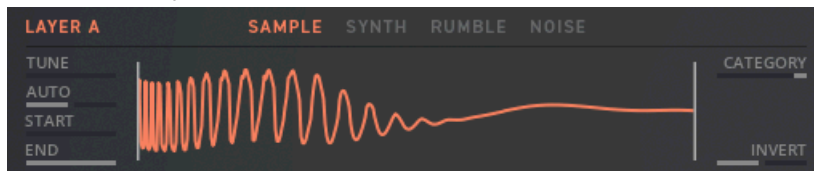
Loading User Samples

User samples can be loaded to a Layer in **SAMPLE** mode via drag and drop.

- To load a user sample, drag and drop the respective file onto the waveform display.



→ The user sample is loaded and **CATEGORY** switches to its last entry, **<USER>**.



Once a user sample has been loaded, it is available in the **<USER>** entry of the **CATEGORY** parameter of the respective Layer as long as the current Preset file is loaded.

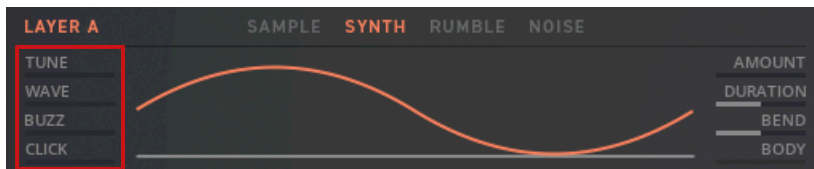


To permanently save your samples, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in KOMplete Kontrol](#) and [↑5.3, Saving and Loading User Preset Files in REAKTOR 6](#).

9.6.4 Synth Mode

LAYER A's and **LAYER B's** **SYNTH** mode is a synthesizer that is tailored towards creating kick drums, with special parameters for shaping the timbre of the sound. This mode offers full control over all aspects of a kick drum and is useful for creating the basic foundation of the sound.

SYNTH mode has four additional parameters in the Display area:



Additional parameters of **LAYER A's** and **LAYER B's** **SYNTH** mode

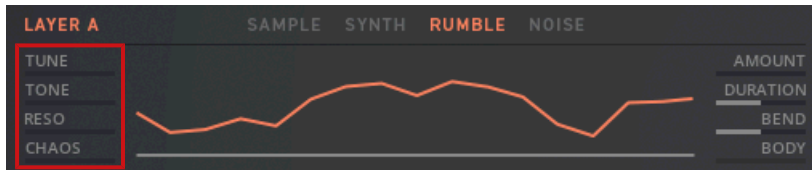
- **TUNE**: Adjusts the pitch of the Layer in a range of -12 to +12 semitones.
- **WAVE**: Blends the basic wave shape of the sound from sine to triangle to square, effectively adding a variable amount of odd harmonics. This adds warmth or roughness to the sound.
- **BUZZ**: Adjusts the level of a filtered pulse wave that is layered on top of the basic wave shape. This additional texture makes it easier to discern the pitch of the sound at very low frequencies.

- **CLICK**: Adjusts the level of a click and a short noise burst at the beginning of the sound. This creates a pronounced transient that is more likely to cut through other elements in the music.

9.6.5 Rumble Mode

LAYER A's and **LAYER B**'s **RUMBLE** mode is a synthesizer that specializes in low-frequency rumble and noise, with full control over the tonality and stability of the sound. This mode offers washed-out sub basses and is useful for adding a booming layer to the sound.

RUMBLE mode has four additional parameters in the Display area:



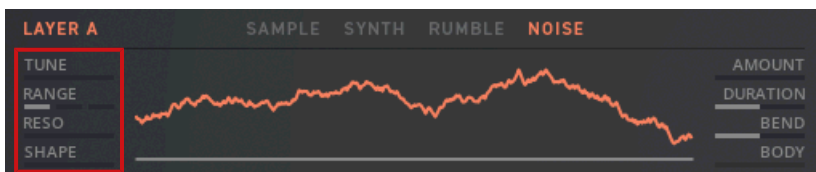
Additional parameters of **LAYER A**'s and **LAYER B**'s **RUMBLE** mode

- **TUNE**: Adjusts the pitch of the Layer in a range of -12 to +12 semitones.
- **TONE**: Adjusts the balance between low and high frequency components of the sound.
- **RESO**: Blends between noise and sine waves for both the low and high frequency components of the sound, giving the sound a distinct tonal quality.
- **CHAOS**: Adjust the amount of random stereo modulation applied to the pitch of the sound.

9.6.6 Noise Mode

LAYER A's and **LAYER B**'s **NOISE** mode is a synthesizer that specializes in textures and noise, with full control over the tonality and stability of the sound. This mode offers sizzling high frequencies and is useful for adding presence to the sound.

NOISE mode has four additional parameters in the Display area:



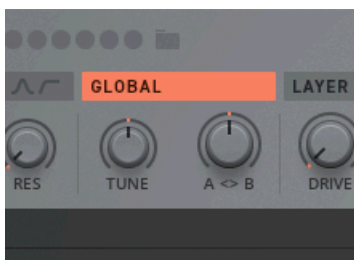
Additional parameters of **LAYER A**'s and **LAYER B**'s **NOISE** mode

- **TUNE**: Adjusts the pitch of the Layer in a range of -12 to +12 semitones.
- **RANGE**: Sets the pitch range of the sound across three octaves.
- **RESO**: Adjusts the amount of resonance at the Layer's base pitch, giving the sound a distinct tonal quality.
- **SHAPE**: Morphs the shape of the output signal from spikey to clipped.

9.7 Global Section

The **GLOBAL** section is used to combine the sound elements created with **LAYER A** and **LAYER B**. It also provides a **TUNE** control for transposing the **KICK** Engine in relation to the global **ROOT** key.

The **GLOBAL** section's controls in the Main area allow you to control the tuning and mix of the **KICK** Engine:

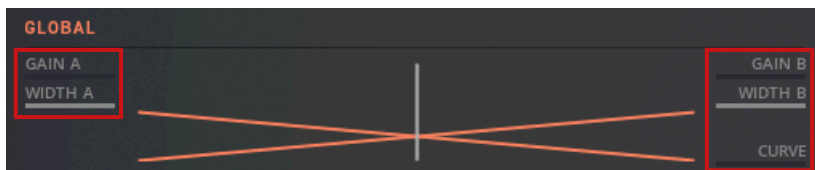


The **KICK** Engine's **GLOBAL** section

- **TUNE**: Transposes the **KICK** Engine globally in a range of -12 to +12 semitones. Changes are applied to both **LAYER A** and **LAYER B** in the same way.
- **A <=> B**: Blends between the output of **LAYER A** and **LAYER B**.

Additional Global Parameters

The **GLOBAL** section has five additional parameters in the Display area that allow you to fine-tune settings related to how the two Layers are mixed:



Additional parameters of **GLOBAL**

- **GAIN A**: Adjusts **LAYER A**'s level before the **A <> B** control in a range of -12 dB to +12 dB. The 0 dB position is in the center.
- **WIDTH A**: Adjusts **LAYER A**'s stereo width from mono to full stereo.
- **GAIN B**: Adjusts **LAYER B**'s level before the **A <> B** control in a range of -12 dB to +12 dB. The 0 dB position is in the center.
- **WIDTH B**: Adjusts **LAYER B**'s stereo width from mono to full stereo.
- **FADE CURVE**: Adjusts the response of the **A <> B** control. When set to 0, the **A <> B** control behaves like a linear crossfader. When set to 100, the **A <> B** control behaves like a DJ-style crossfader, mixing **LAYER A** and **LAYER B** at full level in center position.

9.8 Envelope Sections

The Envelope sections, **AMP ENV A** and **AMP ENV B**, provide AD (attack and decay) envelopes that are triggered by active sequencer steps and can be used to dynamically control sound characteristics over the duration of a note event.

AMP ENV A is hardwired to **LAYER A**'s output level (VCA control), while **AMP ENV B** is hardwired to **LAYER B**'s output level (VCA control). Both sections can also be manually assigned to any of the Main area's controls.

The Envelope sections' controls in the Modulation area provide access to the Modulation Routing and allow you to adjust the duration of each envelope's attack and decay phases:

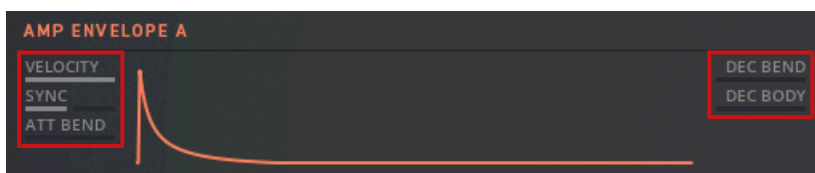


The KICK Engine's AMP ENV A and AMP ENV B sections

- **Route button:** This button in the section's header (wire connection symbol) shows the envelope's Modulation Routing in the Display area, allowing you to assign the modulation produced by the envelope to the Main area's controls. For more information, refer to [↑9.10, Modulation Routing](#).
- **ATT:** Adjusts the duration of the envelope's attack phase, which is the time the envelope takes to rise from zero to peak level.
- **DEC:** Adjusts the duration of the envelope's decay phase, which is the time the envelope takes to fall from peak to zero level.

Additional Envelope Parameters

Both AMP ENV A and AMP ENV B have five additional parameters in the Display area that allow you to fine-tune settings related to the envelope's behavior:



Additional parameters of AMP ENV A and AMP ENV B

- **VELOCITY:** Adjusts how much velocity values of incoming notes affect the envelope strength.
- **SYNC:** Enables tempo sync for the envelope, allowing you to set ATT and DEC in note values relative to the host tempo (e.g. 1/1 for whole notes, 1/4 for quarter notes, etc.).
- **ATT BEND:** Adjusts the shape of the envelope's attack phase from a snappy exponential response to a sustained logarithmic response.

- **DEC BEND**: Adjusts the shape of the envelope's decay phase from a snappy exponential response to a sustained logarithmic response.
- **DEC BODY**: Adjusts the shape of the envelope's decay phase by slowing down the initial rate of its fall. This gives the sound more weight and body.

9.9 LFO+Noise Section

The **LFO+NOISE** section provides a flexible modulation source that combines a low-frequency oscillator with a noise generator, allowing you to animate sound characteristics independently from note events. It produces a periodic or variably random signal depending on the amount of **NOISE** added.

LFO+NOISE is not hardwired to a parameter and can be manually assigned to any of the Main area's controls.

The section offers four different **LFO+NOISE** modes, allowing you to define the section's timing behavior. You can select the **LFO+NOISE** mode in the Display area, which also provides additional parameters related to the selected mode. For more information, refer to [↑9.9.1, LFO+Noise Mode Selector](#).

The **LFO+NOISE** section's controls in the Modulation area provide access to the Modulation Routing and allow you to adjust key parameters of the low-frequency oscillator and the noise generator:



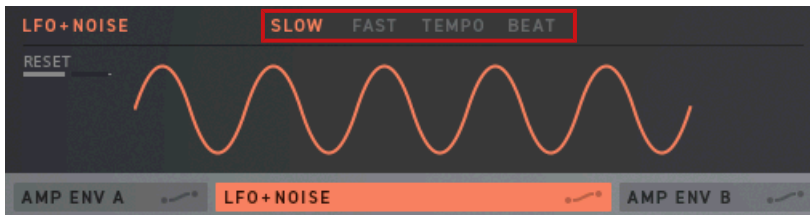
The KICK Engine's **LFO+NOISE** section

- **Route button**: This button in the section's header (wire connection symbol) shows the **LFO+NOISE**'s Modulation Routing in the Display area, allowing you to assign the modulation produced by the **LFO+NOISE** to the Main area's controls. For more information, refer to [↑9.10, Modulation Routing](#).

- **FREQ:** Adjusts the frequency of the low-frequency oscillator, allowing you to set the speed of the modulation.
- **WAVE:** Morphs between the four waveforms of the low-frequency oscillator: sine, triangle, saw, and square.
- **NOISE:** Blends between the low-frequency oscillator and the noise generator.
- **RATE:** Adjusts the sampling rate and the smoothing of the noise generator, allow you to dial in random signals ranging from smooth fluctuations to a variety of noise colors.

9.9.1 LFO+Noise Mode Selector

The **LFO+NOISE** Mode selector is one of the additional parameters in the Display area, allowing you to change the section's timing behavior by choosing from a number of different modes:



The **LFO+NOISE** Mode selector

Each of the four available **LFO+NOISE** modes offers a different timing behavior:

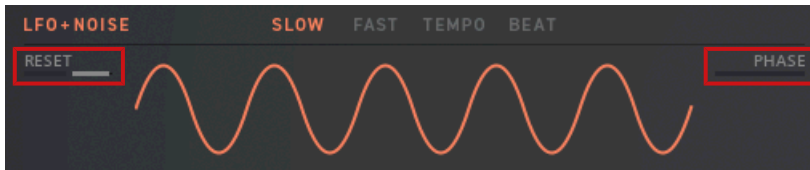
- **SLOW:** A free-running low-frequency oscillator with a frequency range of 0.03 Hz to 20 Hz. For more information, refer to [↑9.9.2, Slow, Fast, and Tempo Mode](#).
- **FAST:** A free-running audio frequency oscillator with a frequency range of 20 Hz to 500 Hz. For more information, refer to [↑9.9.2, Slow, Fast, and Tempo Mode](#).
- **TEMPO:** A free-running low-frequency oscillator that is set in relation to the host tempo. For more information, refer to [↑9.9.2, Slow, Fast, and Tempo Mode](#).
- **BEAT:** A beat-locked low-frequency oscillator that is perfectly synchronized to the host clock. For more information, refer to [↑9.9.3, Beat Mode](#).

9.9.2 Slow, Fast, and Tempo Mode

The **LFO+NOISE**'s **SLOW**, **FAST**, and **TEMPO** modes are free-running low-frequency oscillators with different frequency ranges:

- **SLOW** has a frequency range of 0.03 Hz to 20 Hz. This mode is useful for slow and evolving modulation that is independent of the host tempo.
- **FAST** has a frequency range of 20 Hz to 500 Hz. This mode is useful for modulation in the audible range, creating interesting sound effects.
- **TEMPO** is set in relation to the host tempo. This mode is useful for slow and evolving modulation that follows the tempo of the song.

The **SLOW**, **FAST**, and **TEMPO** modes have two additional parameters in the Display area:



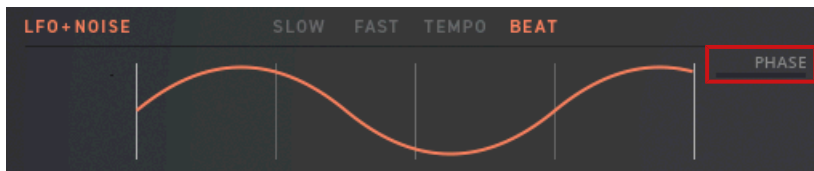
Additional parameters of the **LFO+NOISE**'s **SLOW**, **FAST**, and **TEMPO** modes

- **RESET**: Enables reset for the low-frequency oscillator. When enabled, each new note event forces the low-frequency oscillator to start at its reset position as set with the **PHASE** parameter. When disabled, the low-frequency oscillator continues its cycle independently from note events. **RESET** can be used to achieve consistent modulation for every note event.
- **PHASE**: When **RESET** is enabled, this parameter adjusts the reset position of the low-frequency oscillator, which is the point in its cycle where it starts for every new note event. When **RESET** is set to 0, the reset position is the beginning of the low-frequency oscillator's cycle. This parameter is not available when **RESET** is disabled.

9.9.3 Beat Mode

The **LFO+NOISE**'s **BEAT** mode is a beat-locked low-frequency oscillator that is perfectly synchronized to the host clock. This mode is useful for rhythmic modulation that exactly matches the beat of the song.

BEAT mode has one additional parameter in the Display area:



Additional parameter of the LFO+NOISE's BEAT mode

- **PHASE:** Shifts the position of the beat-locked LFO+NOISE in BEAT mode relative to the clock of the host.

9.10 Modulation Routing

The Modulation Routing allows you to assign the modulation produced by each section in the Modulation area to the controls of the Main area. This way you can dynamically control the timbre of your sounds.

- To access the Modulation Routing for a section, click on the Route button in the section's header.



→ The Display area shows the respective section's Modulation Routing.

The Modulation Routing in the Display area consists of one Modulation Amount control for each of the Main area's controls:



The [BASS](#)'s Modulation Routing

(1) **Modulation Amount controls:** Adjust the amount of modulation routed to the above control. Turning it to the right applies positive, regular modulation. Turning it to the left applies negative, inverted modulation.

(2) **RESET ALL:** Sets all Modulation Amount controls to zero position.

10 Bass Engine

The **BASS** Engine complements the percussive nature of the **KICK** Engine with a wide range of bass sounds suitable to contribute another layer of expression to the low registers of your track.

It combines a variety of synthesizer techniques in a basic structure: The open-ended **OSCILLATOR** section for complex sound generation feeds a **MODIFIER** section for additional processing and a **FILTER** section for controlling and shaping the frequency content of the sound.

The **BASS** Engine's controls are optimized to provide smooth transitions between timbres, with focused parameter ranges that produce the maximum of sweet spots. The different modes of the **OSCILLATOR**, **MODIFIER**, and **FILTER** sections allow you to completely change the character of the **BASS** Engine on the fly.

The **BASS** Engine consists of three interface areas:



Overview of the **BASS** Engine

(1) Main area: Offers tuning settings, the Sound Selector for sound variations, and key controls that allow you to shape your sound. The controls are organized into three sections: **OSCILLATOR**, **MODIFIER**, **FILTER**. For more information, refer to [↑10.1, Main Area](#).

(2) **Display area:** Provides visual feedback and facilitates in-depth editing of additional parameters for each section of the **BASS** Engine, and gives you access to the Modulation Routing. For more information, refer to [↑10.2, Display Area](#).

(3) **Modulation area:** Offers immediate control over key parameters that let you shape how your sound changes over time. The controls are organized into three sections: **AUX ENV**, **LFO**, **AMP ENV**. For more information, refer to [↑10.3, Modulation Area](#).

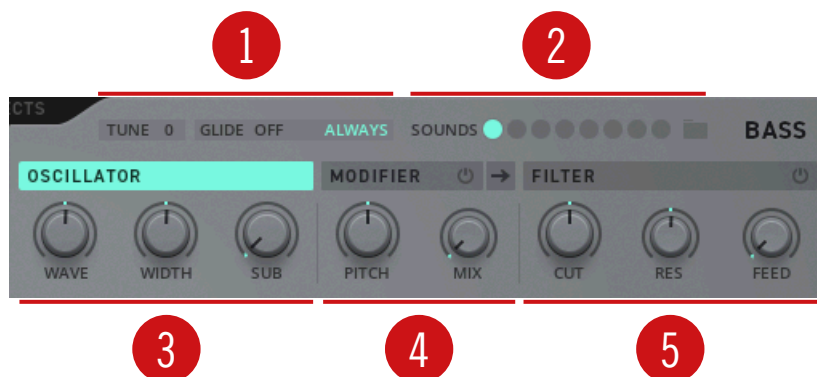
10.1 Main Area

In addition to tuning controls and the Sound Selector for sound variations, the Main area provides control over the sound generation (**OSCILLATOR**) and additional processing (**MODIFIER**) of the **BASS** Engine, as well as its filter (**FILTER**). This not only allows you to quickly adapt Presets files to your needs, but also perform with sounds in an intuitive way by changing key controls on the fly.



Additional parameters for each section in the Main and Modulation areas can be accessed in the Display area by clicking on the respective section's header. For more information, refer to [↑10.2, Display Area](#).

The Main area consists of the following sections:



The **BASS** Engine 's Main area

(1) **Tuning controls:** Allow you to transpose any note played by the **BASS** Engine and set the behavior of its **GLIDE** function (portamento). For more information, refer to [↑10.6, Tuning Controls](#).

(2) **Sound Selector and Browser:** The eight slots of the Sound Selector allow you to save and recall sound variations for the **KICK** or load any of the sound presets included in the dedicated Sound Browser. For more information, refer to [↑10.4, Sound Selector](#) and [↑10.5, Sound Browser](#).

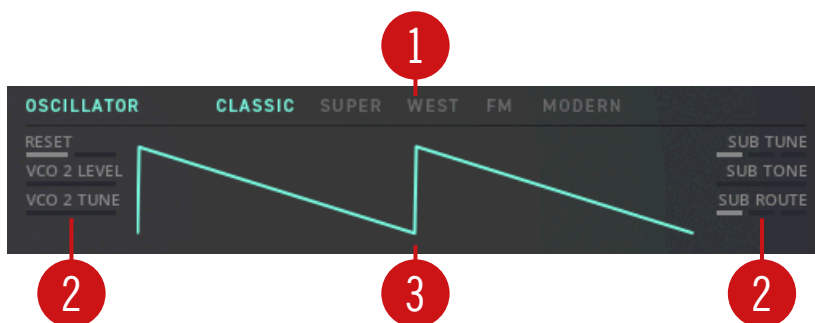
(3) **OSCILLATOR:** This open-ended section for complex sound generation has three controls in the Main area that allow you to define the basic character of the sound. The first two controls adjust parameters specific to the selected **OSCILLATOR** mode, while the third control always adjusts the level of the sub oscillator. For more information, refer to [↑10.7, Oscillator Section](#).

(4) **MODIFIER:** This section for additional processing has two controls in the Main area that allow you to further refine the character of the sound. The first control adjusts a parameter specific to the selected **MODIFIER** mode, while the second control adjusts the blend between the input signal and the processed signal. For more information, refer to [↑10.8, Modifier Section](#).

(5) **FILTER:** This section is used to control and shape the frequency content of a sound and has three controls in the Main area that allow you to shape the overall character of the sound. In addition to common cutoff and resonance controls, the third control adjusts the amount of feedback that is added to the **OSCILLATOR** signal from the output of the **BASS** Engine. For more information, refer to [↑10.9, Filter Section](#).

10.2 Display Area

The Display area provides visual feedback for the selected section in the Main and Modulation areas of the **BASS** Engine and offers additional parameters that allow you to build your own sounds from scratch and fine-tune Preset files.



The **BASS** Engine 's Display area

(1) **Mode selector:** Allows you to change the character of the selected section by choosing from a number of different modes. For example, this includes different synthesizer techniques for the **OSCILLATOR**, or a variety of synchronization options for the **LFO**.

(2) **Additional parameters:** Allow you to fine-tune settings related to the selected section. For example, this includes detailed settings for the **OSCILLATOR**'s **OSCILLATOR** modes and sub oscillator, or additional options for the envelopes, **AUX ENV** and **AMP ENV**.

(3) **Display:** Provides visual feedback while you adjust the controls of the selected section. For example, this includes the waveform of the **OSCILLATOR** and **LFO**, or the shape of the envelopes, **AUX ENV** and **AMP ENV**.



The Display area is also used for Modulation Routing, allowing you assign the modulation produced by **AUX ENV**, **LFO**, and **AMP ENV** to the Main area's controls. For more information, refer to [10.12, Modulation Routing](#).

Accessing Additional Parameters

- To access additional parameters for any section in the Main area or the Modulation area, select the section by clicking on its header.



→ The Display area shows additional parameters for the selected section.



- For more information about the [OSCILLATOR](#)'s additional parameters, refer to [↑10.7, Oscillator Section](#).
- For more information about the [MODIFIER](#)'s additional parameters, refer to [↑10.8, Modifier Section](#).
- For more information about [FILTER](#)'s additional parameters, refer to [↑10.9, Filter Section](#).
- For more information about [AUX ENV](#)'s and [AMP ENV](#)'s additional parameters, refer to [↑10.10, Envelope Sections](#).
- For more information about the [LFO](#)'s additional parameters, refer to [↑10.11, LFO Section](#).

10.3 Modulation Area

The Modulation area provides control over the contours of the Auxiliary and Amplitude envelopes, called [AUX ENV](#) the [AMP ENV](#), as well as the frequency and the waveform of the low-frequency oscillator, called [LFO](#). This not only allows you to quickly adapt Presets files to your needs, but also perform with sounds in an intuitive way by changing key controls on the fly.



Additional parameters for each section in the Main and Modulation areas can be accessed in the Display area by clicking on the respective section's header. For more information, refer to [↑10.2, Display Area](#).

The Modulation area consists of the following sections:



The **BASS** Engine's Modulation area

- (1) **AUX ENV**: An envelope generator that can be used to modulate any of the controls in the **BASS** Engine's Main area. For more information, refer to [↑10.10, Envelope Sections](#).
- (2) **LFO**: A low-frequency oscillator that can be used to modulate any of the controls in the **KICK** Engine's Main area. For more information, refer to [↑10.11, LFO Section](#).
- (4) **AMP ENV**: An envelope generator that controls the **BASS** Engine's output level and can also be used to modulate any of the controls in the **BASS** Engine's Main area. For more information, refer to [↑10.10, Envelope Sections](#).

10.4 Sound Selector

The Sound Selector allows you to save and recall sound variations. It is located at the top of the **BASS**:



The Sound Selector

It consists of eight slots for saving and recalling sound variations for the **BASS** on the fly. To get you started, the Factory Preset files come with pre-made sound variations in the first four slots, allowing you to quickly find new combinations of sounds and patterns within the same Preset file.

All changes made to the **BASS** are immediately saved in the selected slot and can be recalled as long as the current Preset file is loaded. The contents of the slots can be saved permanently as part of a User Preset file.



Slots can also be recalled from the COMPLETE KONTROL Keyboard. For more information, refer to [↑6.1, Switching Sound Variations and Patterns via MIDI](#).

Creating Sound Variations with the Sound Selector

To create sound variations for the **BASS**:

1. Select any slot of the Sound Selector
2. Set the controls and parameters of the **BASS** to the first sound variation you want to save.
3. Select another slot of the Sound Selector.
4. Set the controls and parameters to the second sound variation you want to save.

→ You can now toggle between the slots and recall the two sound variations on the fly.

Alternatively, you can first copy an existing sound variation to another slot and make your changes based on the original settings. For more information, refer to [↑8.1, Copying, Pasting, and Clearing Elements](#).



To permanently save your sound variations, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in COMPLETE KONTROL](#) and [↑5.3, Saving and Loading User Preset Files in REAKTOR 6](#).

10.5 Sound Browser


The Sound Browser allows you to load sound presets into the slots of the Sound Selector. It is located at the top of the **BASS**:



The Sound Browser

The Sound Browser includes 64 sound presets that are organized in four categories: [ANALOG](#), [DIGITAL](#), [DISTORTED](#), and [SUB](#). The sound presets have been carefully selected to cover a wide range of different styles. This allows you to quickly mix and match sound presets within a Preset file.

Since the Step Locks in a sequence also affect the controls of the [BASS](#), loading sound presets from the Sound Browser often leads to unexpected and interesting results. For more information about Step Locks, refer to [↑13.5, Using Step Locks](#).

The [DELAY](#) and [REVERB](#) effect sends are excluded from the sound presets in the Sound Browser. They retain their value when loading sound presets to preserve the mix of an existing Preset file.

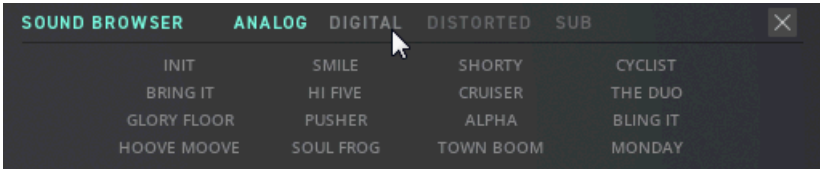
Loading Sound Presets from the Sound Browser

To load a sound preset from the Sound Browser:

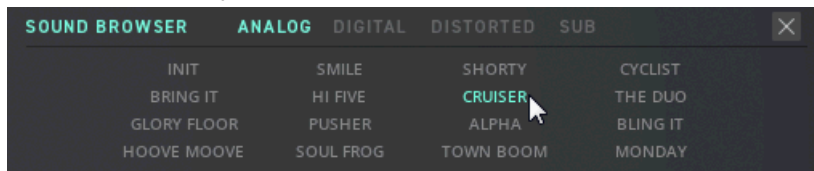
1. Click on the Sound Browser button to open it.



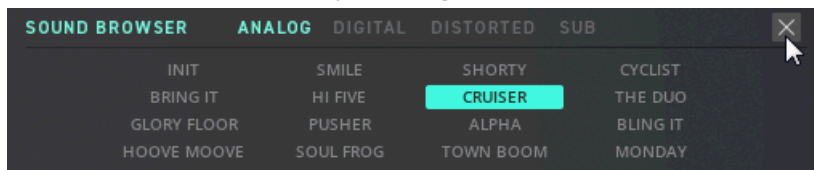
2. Click on a category of sound presets to select it.



- Click on a sound preset to load it into the selected slot of the Sound Selector.



- Close the Sound Browser by clicking on the Exit button.



→ The sound preset from the Sound Browser is loaded into the selected slot of the Sound Selector.



To permanently save your combination of sound presets, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in COMPLETE KONTROL](#) and [↑5.3, Saving and Loading User Preset Files in REAKTOR 6](#).

10.6 Tuning Controls

The Tuning controls allow you to transpose any note played by the **BASS** Engine and set the behavior of its Glide function. Glide, or portamento, forces the pitch to slide from one sequencer step to the next instead of changing abruptly.

The following controls are available:



The **BASS** Engine's Tuning controls

- **TUNE:** Transposes the **BASS** Engine globally in a range of -36 to +36 semitones (in steps of 12 semitones, or 1 octave).
- **GLIDE Duration:** Adjusts the time it takes the pitch to slide from one sequencer step to the next. When set to its lowest value, **OFF**, the Glide function is disabled.
- **GLIDE Mode:** Switches between the two modes of the Glide function, **ALWAYS** and **AUTO**, and changes the trigger behavior of the envelopes. Find more information below.

Glide Mode

The two modes of the Glide function, **ALWAYS** and **AUTO**, allow you to define how Glide, or portamento, is applied to the steps of the **BASS** Sequencer. Additionally, each mode causes the envelopes (**AUX ENV** and **AMP ENV**) to respond differently to the **BASS** Sequencer's **HOLD** function.

- **Glide function:** When set to **ALWAYS**, the Glide function is applied to every sequencer step. This means that the pitch When set to **AUTO**, the Glide function is only applied to sequencer steps that have **HOLD** enabled.
- **Envelope behavior:** When set to **ALWAYS**, all active steps trigger the envelopes, even if **HOLD** is enabled for them. When set to **AUTO**, only the first active step of a group of steps with **HOLD** enabled triggers the envelopes.

10.7 Oscillator Section

The **OSCILLATOR** section defines the sound of the **BASS** Engine by providing a sonic palette ranging from basic waveforms to more complex timbres that can be achieved with advanced techniques like FM and wavetable synthesis.

The section offers five different **OSCILLATOR** modes covering classic sawtooth and square waveforms, a super sawtooth, special wave shaping techniques, as well as FM and wavetable synthesis. You can select the **OSCILLATOR** mode in the Display area, which also provides additional parameters related to the selected mode and the sub oscillator. For more information, refer to [↑10.7.1, Oscillator Mode Selector](#) and [↑10.7.2, Sub Oscillator](#).

The **OSCILLATOR** section's controls in the Main area allow you to define the basic character of the sound:



The BASS Engine's OSCILLATOR section

- **Main OSCILLATOR controls:** The first two controls in the OSCILLATOR section are specific to the selected OSCILLATOR mode. For more information, refer to [↑10.7.1, Oscillator Mode Selector](#).
- **SUB:** Adjusts the level of the sub oscillator, allowing you to enhance the low-frequency content of your sound. The Display area offers additional parameters for the sub oscillator. For more information, refer to [↑10.7.2, Sub Oscillator](#).

10.7.1 Oscillator Mode Selector

The OSCILLATOR Mode selector is one of the additional parameters in the Display area, allowing you to completely change the section's character by choosing from a number of different modes:



The OSCILLATOR Mode selector

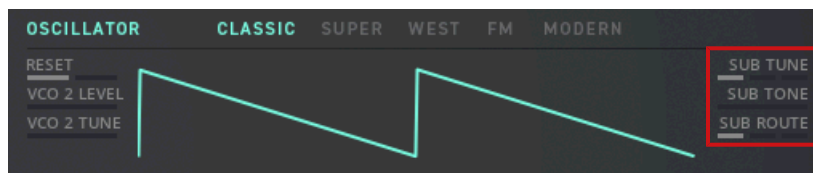
Each of the five available OSCILLATOR modes has its own distinct quality:

- **CLASSIC:** A dual oscillator that morphs from a sawtooth to a square waveform, with adjustable pulse-width. For more information, refer to [↑10.7.3, Classic Mode](#).
- **SUPER:** A sawtooth waveform oscillator that is mixed with six additional, variably detuned oscillator instances. For more information, refer to [↑10.7.4, Super Mode](#).

- **WEST**: A wave shaping oscillator that morphs between three special waveforms and applies additional wave folding. For more information, refer to [↑10.7.5, West Mode](#).
- **FM**: Two-operator frequency modulation with easily controllable frequency intervals and a deep modulation index. For more information, refer to [↑10.7.6, FM Mode](#).
- **MODERN**: A wavetable oscillator that smoothly morphs between two wavetables and applies special warping to the waveform. For more information, refer to [↑10.7.7, Modern Mode](#).

10.7.2 Sub Oscillator

The sub oscillator is an additional, basic oscillator that allows you to reinforce the fundamental frequency of the sound produced by the **BASS** Engine, or add a sub octave to it. The **SUB** control in the **OSCILLATOR** section adjusts the level of the sub oscillator, while the additional parameters in the Display area change its tuning, timbre, and routing:



The sub oscillator parameters of the **OSCILLATOR**'s **CLASSIC** mode

- **SUB TUNE**: Adjusts the pitch of the sub oscillator in a range of -24 to +0 semitones (in steps of 12 semitones, or 1 octave).
- **SUB TONE**: Morphs between the three waveforms of the sub oscillator: sine, triangle, square.
- **SUB ROUTE**: Sets the position where the sub oscillator is fed into the **BASS** Engine's signal path: after the **OSCILLATOR** (**POST OSC**), after the **MODIFIER** and **FILTER** (**PRE AMP**), or after the **BASS** Effect's **EQUALIZER** (**POST EQ**).

10.7.3 Classic Mode

The **OSCILLATOR**'s **CLASSIC** mode is a dual oscillator that morphs from a sawtooth to a square waveform, with adjustable pulse-width. This mode offers typical subtractive synthesizer timbres and is useful for classic bass sounds with a warm quality.

CLASSIC mode has two specific controls in the Main area and three additional parameters in the Display area:



Additional parameters of the **OSCILLATOR**'s **CLASSIC** mode

- **WAVE**: Morphs the waveform from sawtooth to square.
- **WIDTH**: Adjusts the pulse-width of the waveform, creating a lively chorusing effect when modulated.
- **RESET**: Enables oscillator reset. When enabled, the oscillator starts at the beginning of its cycle for every new note event. When disabled, the oscillator continues its cycle independently from note events. **RESET** can be used to avoid clicks at the beginning of note events when using fast settings for the envelope's attack phase (**ATT**).
- **VCO 2 LEVEL**: Adjusts the level of the second oscillator.
- **VCO 2 TUNE**: Adjusts the pitch of the second oscillator in a range of 0 to +24 semitones.

10.7.4 Super Mode

The **OSCILLATOR**'s **SUPER** mode is a sawtooth waveform oscillator that is mixed with six additional, variably detuned oscillator instances. This mode offers rich timbres and is useful for animated bass sounds with a thick quality.

SUPER mode has two specific controls in the Main area and one additional parameter in the Display area:



Additional parameters of the **OSCILLATOR's** **SUPER** mode

- **MIX**: Adjusts the level of six additional oscillator instances that are mixed with the basic oscillator.
- **DETUNE**: Introduces variations in pitch between the basic oscillator and the six additional oscillators, creating a thick and animated sound.
- **RESET**: Enables oscillator reset. When enabled, the oscillator starts at the beginning of its cycle for every new note event. When disabled, the oscillator continues its cycle independently from note events. Oscillator reset can be used to avoid clicks at the beginning of note events when using fast settings for the envelope's attack phase (**ATT**).

10.7.5 West Mode

The **OSCILLATOR's** **WEST** mode is a wave shaping oscillator that morphs between three special waveforms and applies additional wave folding. This mode offers abrasive timbres and is useful for low bass sounds with a buzzy quality.

WEST mode has two specific controls in the Main area and one additional parameter in the Display area:



Additional parameters of the **OSCILLATOR**'s **WEST** mode

- **SHAPE**: Morphs between three waveforms: sine, spike, and sawtooth.
- **FOLD**: Introduces additional wave shaping by folding the waveform back into itself, creating strong harmonics that add an abrasive quality to the sound.
- **RESET**: Enables oscillator reset. When enabled, the oscillator starts at the beginning of its cycle for every new note event. When disabled, the oscillator continues its cycle independently from note events. Oscillator reset can be used to avoid clicks at the beginning of note events when using fast settings for the envelope's attack phase (**ATT**).

10.7.6 FM Mode

The **OSCILLATOR**'s **FM** mode provides two-operator frequency modulation with easily controllable frequency intervals and a deep modulation index. This mode offers typical FM synthesizer timbres and is useful for percussive bass sounds with an organic quality.

FM mode has two specific controls in the Main area and one additional parameter in the Display area:



Additional parameters of the **OSCILLATOR**'s **FM** mode

- **INTRVL**: Adjusts the pitch interval between the two FM operators, changing the harmonics of the sound by shifting the sidebands created in the frequency spectrum.
- **INDEX**: Adjusts the amount of frequency modulation, creating stronger harmonics by amplifying the sidebands in the frequency spectrum.
- **RESET**: Enables oscillator reset. When enabled, the oscillator starts at the beginning of its cycle for every new note event. When disabled, the oscillator continues its cycle independently from note events. Oscillator reset can be used to avoid clicks at the beginning of note events when using fast settings for the envelope's attack phase (**ATT**).

10.7.7 Modern Mode

The **OSCILLATOR**'s **MODERN** mode is a wavetable oscillator that smoothly morphs between two wavetables and applies special warping to the waveform. This mode offers complex timbres and is useful for modern bass sounds with a textured quality

MODERN mode has two specific controls in the Main area and three additional parameters in the Display area:



Additional parameters of the **OSCILLATOR**'s **MODERN** mode

- **MORPH**: Morphs between the two wavetables selected with **WAVE A** and **WAVE B** in the Display area (see below).
- **WARP**: Bends the waveform towards the beginning and the end of its cycle, adding a complex texture to the sound when modulated.
- **RESET**: Enables oscillator reset. When enabled, the oscillator starts at the beginning of its cycle for every new note event. When disabled, the oscillator continues its cycle independently from note events. Oscillator reset can be used to avoid clicks at the beginning of note events when using fast settings for the envelope's attack phase (**ATT**).
- **WAVE A**: Selects the first of two wavetables that you can morph between with the **MORPH** control.
- **WAVE B**: Selects the second of two wavetables that you can morph between with the **MORPH** control.

10.8 Modifier Section

The **MODIFIER** section is used to refine the sound produced by the **OSCILLATOR** section. It provides additional processing ranging from subtle shifts in timbre to drastic distortion effects and radical transformations.

The section offers four different **MODIFIER** modes, including ring modulation, frequency shifting, wave folding, and sample rate reduction. You can select the **MODIFIER** mode in the Display area, which also provides additional parameters related to the selected mode. For more information, refer to [↑10.8.1, Modifier Mode Selector](#).

The **MODIFIER** section's controls in the Main area allow you to adjust the character and amount of the additional processing:



The **BASS** Engine's **MODIFIER** section

- **MODIFIER Enable button:** This button (power button symbol) in the header of the section switches the **MODIFIER** on or off.
- **MODIFIER Routing button:** This button (arrow symbol) in the header of the section allows you to choose whether the **MODIFIER** is inserted before or after the **FILTER**. When the arrow points to the right, the output of the **OSCILLATOR** first passes the **MODIFIER** and then the **FILTER**. When the arrow points to the left, the output of the **OSCILLATOR** first passes the **FILTER** and then the **MODIFIER**.
- **Main MODIFIER control:** The first control in the **MODIFIER** section is specific to the selected **MODIFIER** mode. For more information, refer to [↑10.8.1, Modifier Mode Selector](#).
- **MIX:** Blends between the input signal and the processed signal.

10.8.1 Modifier Mode Selector

The **MODIFIER** Mode selector is one of the additional parameters in the Display area, allowing you to completely change the section's character by choosing from a number of different modes:



The **MODIFIER** Mode selector

Each of the four available **MODIFIER** modes has its own distinct quality:

- **RING**: A ring modulator that tracks the **OSCILLATOR**'s pitch, with adjustable pitch offset for the modulation signal. For more information, refer to [↑10.8.2, Ring Mode](#).
- **FREQ**: A frequency shifter that tracks the **OSCILLATOR**'s pitch, with adjustable pitch offset. For more information, refer to [↑10.8.3, Freq Mode](#).
- **SINE**: A wave shaper that folds the signal's waveform back into itself, with adjustable amount of folding. For more information, refer to [↑10.8.4, Sine Mode](#).
- **S&H**: A sample rate reducer that tracks the **OSCILLATOR**'s pitch, with adjustable pitch offset for the sampling rate. For more information, refer to [↑10.8.5, S&H Mode](#).

10.8.2 Ring Mode

The **MODIFIER**'s **RING** mode is a ring modulator that tracks the **OSCILLATOR**'s pitch, with adjustable pitch offset for the modulation signal. This mode is useful for adding a metallic quality to the signal.

RING mode has one specific control in the Main area and one additional parameter in the Display area:



Additional parameters of the **MODIFIER**'s **RING** mode

- **PITCH**: Adjusts the frequency of the ring modulator's modulation signal, shifting the additional harmonics created by the ring modulator in the frequency spectrum.
- **TONE**: Morphs the ring modulator's modulation signal's waveform from sine to square.

10.8.3 Freq Mode

The **MODIFIER**'s **FREQ** mode is a frequency shifter that tracks the **OSCILLATOR**'s pitch, with adjustable pitch offset. This mode is useful for adding a dissonant quality to the signal.

FREQ mode has one specific control in the Main area:



Additional parameters of the **MODIFIER**'s **FREQ** mode

- **PITCH**: Adjusts the frequency of the frequency shifter's modulation signal, shifting the input signal's harmonics in the frequency spectrum.

10.8.4 Sine Mode

The **MODIFIER**'s **SINE** mode is a wave shaper that folds the signal's waveform back into itself, with adjustable amount of folding. This mode is useful for adding an abrasive quality to the signal.

SINE mode has one specific control in the Main area:



Additional parameters of the **MODIFIER**'s **SINE** mode

- **DRIVE**: Adjusts the amount of wave folding applied to the signal, creating strong additional harmonics in the frequency spectrum.

10.8.5 S&H Mode

The **MODIFIER**'s **S&H** mode is a sample rate reducer that tracks the **OSCILLATOR**'s pitch, with adjustable pitch offset for the sampling rate. This mode is useful for adding a degraded quality to the signal.

S&H mode has one specific control in the Main area:



Additional parameters of the [MODIFIER](#)'s S&H mode

- **PITCH**: Adjusts the frequency of the sample rate reducer's sample rate, degrading the input signal by adding downsampling artifacts.

10.9 Filter Section

The [FILTER](#) section is used to shape the overall character of the sound. It provides different flavors of filtering that allow you to create classic filter sweeps, screaming resonances, and phaser or vocal-like effects.

The section offers four different [FILTER](#) modes, including three different low-pass filters and a notch filter. You can select the [FILTER](#) mode in the Display area, which also allows you to adjust the amount of key tracking. For more information, refer to [↑10.9.1, Filter Mode Selector](#) and [↑10.9.2, Filter Key Tracking](#).

The [FILTER](#) section's controls in the Main area allow you to adjust the cutoff frequency and resonance of the filter as well as the amount of feedback introduced to the [BASS](#) Engine's signal chain:



The BASS Engine's FILTER section

- **FILTER Enable button:** This button (power button symbol) in the header of the section switches the FILTER on or off.
- **CUT:** Adjusts the cutoff frequency of the filter. The effect of this control on the sound depends on the selected FILTER mode. In 2-POLE, 4-POLE, and 8-POLE mode, frequency content above the cutoff frequency is attenuated, creating a darker sound. In NOTCH mode, frequency content in two narrow bands (or notches) around the cutoff frequency is attenuated, creating a vowel-like sound.
- **RESO:** Adjusts the resonance amount of the filter. As resonance increases, the frequency content at the cutoff frequency becomes more pronounced. In NOTCH mode, RESO sets the amount of spread of the two notches in the frequency spectrum.
- **FEED:** Adjusts the amount of feedback that is added to the OSCILLATOR signal from the output of the BASS Engine. This allows you to create dirty and distorted sounds by introducing non-linear behavior.

10.9.1 Filter Mode Selector

The FILTER Mode selector is one of the additional parameters in the Display area, allowing you to completely change the section's character by choosing from a number of different modes:



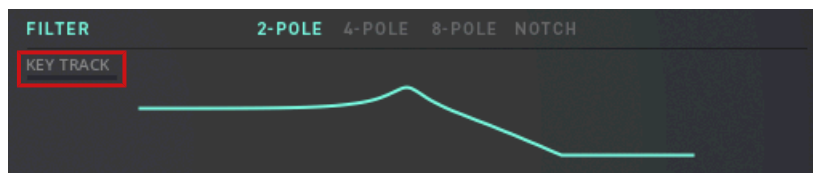
The FILTER Mode selector

Each of the four available **FILTER** modes has its own distinct quality:

- **2-POLE**: A 2-pole low-pass filter that attenuates frequency content above the cutoff frequency with a 12 dB/oct response. This mode is useful for a smooth filtering effect.
- **4-POLE**: A 4-pole low-pass filter that attenuates frequency content above the cutoff frequency with a 24 dB/oct response. This mode is useful for a strong filtering effect.
- **8-POLE**: An 8-pole low-pass filter that attenuates frequency content above the cutoff frequency with a 48 dB/oct response. This mode is useful for extreme filtering effects.
- **NOTCH**: A dual notch filter that attenuates frequencies in two narrow frequency bands (or notches) around the cutoff frequency. This mode is useful for phaser or vocal-like filtering effects.

10.9.2 Filter Key Tracking

The key tracking function makes the cutoff frequency follow the pitch of the oscillator, allowing you to achieve a consistent filtering behavior independently from the notes played by the **BASS** Engine. It is available as an additional parameter in the Display area:



The key tracking parameter of the **FILTER**

- **KEY TRACK**: Adjusts the degree to which the **FILTER**'s cutoff frequency (**CUT**) follows the pitch of the **OSCILLATOR**.

10.10 Envelope Sections

The Envelope sections, **AUX ENV** and **AMP ENV**, provide ADSR (attack, decay, sustain, and release) envelopes that are triggered by active sequencer steps and can be used to dynamically control sound characteristics over the duration of a note event.

The **AUX ENV** is not hardwired to any parameter, while the **AMP ENV** is hardwired the output level (VCA control). Both sections can also be manually assigned to any of the Main area's controls.

The Envelope sections' controls in the Modulation area provide access to the Modulation Routing and allow you to adjust the duration of each envelope's attack and decay phases as well as the level of the sustain phase:

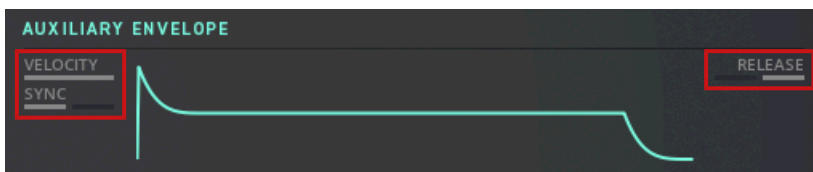


The **BASS Engine's** **AUX ENV** and **AMP ENV** sections

- **Route button:** This button in the section's header (wire connection symbol) shows the envelope's Modulation Routing in the Display area, allowing you to assign the modulation produced by the envelope to the Main area's controls. For more information, refer to [10.12, Modulation Routing](#).
- **ATT:** Adjusts the duration of the envelope's attack phase, which is the time the envelope takes to rise from zero to peak level.
- **DEC:** Adjusts the duration of the envelope's decay phase, which is the time the envelope takes to fall from peak to sustain level. When **RELEASE** is enabled in the Display area, this control also adjusts the duration of the envelope's release phase, which is the time the envelope takes to fall from sustain level to zero.
- **SUS:** Adjusts the level of the envelope's sustain phase, at which the envelope stays as long as a note is held.

Additional Envelope Parameters

Both **AUX ENV** and **AMP ENV** have three additional parameters in the Display area that allow you to fine-tune settings related to the envelope's behavior:



Additional parameters of [AUX ENV](#) and [AMP ENV](#)

- **VELOCITY:** Adjusts how much velocity values of incoming notes affect the envelope strength.
- **SYNC:** Enables tempo sync for the envelope, allowing you to set [ATT](#) and [DEC](#) in note values relative to the host tempo (e.g. 1/1 for whole notes, 1/4 for quarter notes, etc.).
- **RELEASE:** Enables the envelope's release phase, which is the time the envelope takes to fall from the level of the sustain phase to zero. When enabled, the duration of the release phase is tied to the duration of the decay phase and can be adjusted with the [DEC](#) control.

10.11 LFO Section

The [LFO](#) section provides a low-frequency oscillator that allows you to animate sound characteristics independently from note events. It produces a periodic signal that can be morphed between a number of different waveforms.

The [LFO](#) is not hardwired to a parameter and can be manually assigned to any of the Main area's controls.

The section offers four different [LFO](#) modes, allowing you to define the section's timing behavior. You can select the [LFO](#) mode in the Display area, which also provides additional parameters related to the selected mode. For more information, refer to [↑10.11.1, LFO Mode Selector](#).

The [LFO](#) section's controls in the Modulation area provide access to the Modulation Routing and allow you to adjust key parameters of the low-frequency oscillator:



The BASS Engine 's LFO section

- **Route button:** This button in the section's header (wire connection symbol) shows the LFO's Modulation Routing in the Display area, allowing you to assign the modulation produced by the LFO to the Main area's controls. For more information, refer to [↑9.10, Modulation Routing](#).
- **FREQ:** Adjusts the frequency of the low-frequency oscillator, allowing you to set the speed of the modulation.
- **WAVE:** Morphs between the four waveforms of the low-frequency oscillator: sine, triangle, saw, and square.

10.11.1 LFO Mode Selector

The LFO Mode selector is one of the additional parameters in the Display area, allowing you to change the section's timing behavior by choosing from a number of different modes:



The LFO Mode selector

Each of the four available LFO modes offers a different timing behavior:

- **SLOW:** A free-running low-frequency oscillator with a frequency range of 0.03 Hz to 20 Hz. For more information, refer to [↑10.11.2, Slow, Fast, and Tempo Mode](#).

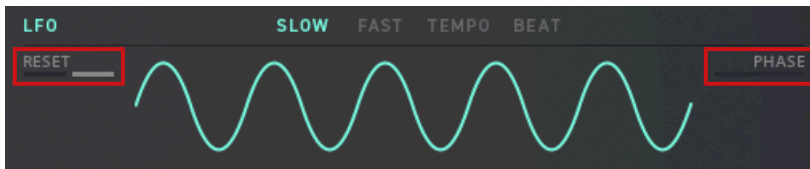
- **FAST**: A free-running audio frequency oscillator with a frequency range of 20 Hz to 500 Hz. For more information, refer to [↑10.11.2, Slow, Fast, and Tempo Mode](#).
- **TEMPO**: A free-running low-frequency oscillator that is set in relation to the host tempo. For more information, refer to [↑10.11.2, Slow, Fast, and Tempo Mode](#).
- **BEAT**: A beat-locked low-frequency oscillator that is perfectly synchronized to the host clock. For more information, refer to [↑10.11.3, Beat Mode](#).

10.11.2 Slow, Fast, and Tempo Mode

The **LFO**'s **SLOW**, **FAST**, and **TEMPO** modes are free-running low-frequency oscillators with different frequency ranges:

- **SLOW** has a frequency range of 0.03 Hz to 20 Hz. This mode is useful for slow and evolving modulation that is independent of the host tempo.
- **FAST** has a frequency range of 20 Hz to 500 Hz. This mode is useful for modulation in the audible range, creating interesting sound effects.
- **TEMPO** is set in relation to the host tempo. This mode is useful for slow and evolving modulation that follows the tempo of the song.

The **SLOW**, **FAST**, and **TEMPO** modes have two additional parameters in the Display area:



Additional parameters of the **LFO**'s **SLOW**, **FAST**, and **TEMPO** modes

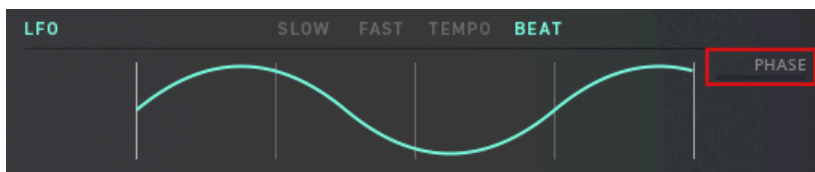
- **RESET**: Enables reset for the low-frequency oscillator. When enabled, each new note event forces the low-frequency oscillator to start at its reset position as set with the **PHASE** parameter. When disabled, the low-frequency oscillator continues its cycle independently from note events. **RESET** can be used to achieve consistent modulation for every note event.

- **PHASE:** When **RESET** is enabled, this parameter adjusts the reset position of the low-frequency oscillator, which is the point in its cycle where it starts for every new note event. When **RESET** is set to 0, the reset position is the beginning of the low-frequency oscillator's cycle. This parameter is not available when **RESET** is disabled.

10.11.3 Beat Mode

The **LFO's BEAT** mode is a beat-locked low-frequency oscillator that is perfectly synchronized to the host clock. This mode is useful for rhythmic modulation that exactly matches the beat of the song.

BEAT mode has one additional parameter in the Display area:



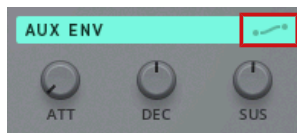
Additional parameter of the **LFO's BEAT** mode

- **PHASE:** Shifts the position of the beat-locked **LFO** in **BEAT** mode relative to the clock of the host.

10.12 Modulation Routing

The Modulation Routing allows you to assign the modulation produced by each section in the Modulation area to the controls of the Main area. This way you can dynamically control the timbre of your sounds.

- To access the Modulation Routing for a section, click on the Route button in the section's header.



→ The Display area shows the respective section's Modulation Routing.

The Modulation Routing in the Display area consists of one Modulation Amount control for each of the Main area's controls:



The **BASS's** Modulation Routing

(1) **Modulation Amount controls:** Adjust the amount of modulation routed to the above control. Turning it to the right applies positive, regular modulation. Turning it to the left applies negative, inverted modulation.

(2) **RESET ALL:** Sets all Modulation Amount controls to zero position.

11 Kick Effects

The **KICK** Effects add to the **KICK** Engine with a selection of effects and processors suitable to enhance and polish the basic sound of your kick drum.

It combines a flexible **INSERT** section for distortion and filtering effects with an **EQUALIZER** and an **OUTPUT** section that includes effect sends to the **MASTER** Effect's **DELAY** and **RE-VERB** as well as a built-in compressor for final shaping of your kick drums' dynamics.

The **KICK** Effects consist of two interface sections:



Overview of the **KICK** Effects

(1) **Main area:** Offers the Sound Selector for sound variations and key controls that allow you to shape your sound. The controls are organized into three sections: **INSERT**, **EQUALIZER**, **OUTPUT**. For more information, refer to [↑11.1, Main Area](#).

(2) **Display area:** Provides visual feedback and facilitates in-depth editing of additional parameters for each section of the **KICK** Effects. For more information, refer to [↑11.2, Display Area](#).

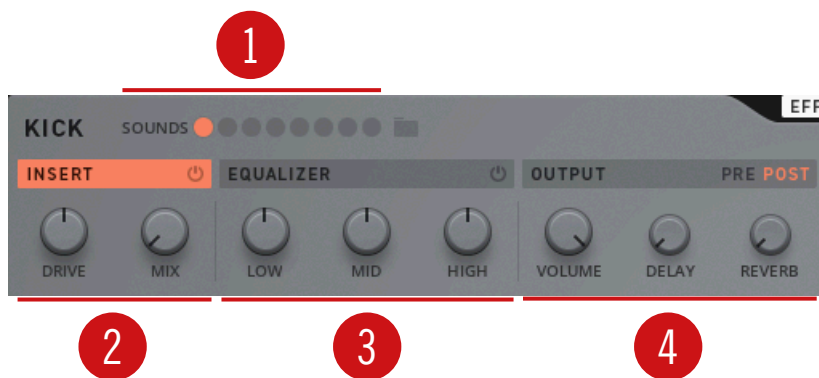
11.1 Main Area

In addition to the Sound Selector for sound variations, the Main area provides control over the flexible distortion and filtering effect (**INSERT**), the equalizer for balancing frequency content (**EQUALIZER**), as well as the output volume and effect sends (**OUTPUT**).



Additional parameters for each section in the Main and Modulation areas can be accessed in the Display area by clicking on the respective section's header. For more information, refer to [↑10.2, Display Area](#)

The Main area consists of the following sections:



The **KICK** Effects' Main area

(1) **Sound Selector and Browser:** The eight slots of the Sound Selector allow you to save and recall sound variations for the **KICK** or load any of the sound presets included in the dedicated Sound Browser. For more information, refer to [↑9.4, Sound Selector](#) and [↑9.5, Sound Browser](#).

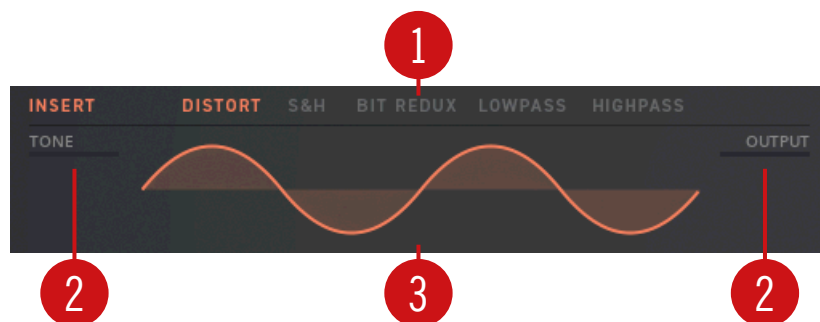
(2) **INSERT:** This section for distortion and filtering effects has two controls in the Main area that allow you to enhance the sound. The first control adjusts a parameter specific to the selected **INSERT** mode, while the second control adjusts the blend between the input signal and the processed signal (except in **LOWPASS** and **HIGHPASS** mode). For more information, refer to [↑11.3, Insert Section](#).

(3) **EQUALIZER**: This section is used to fine-tune frequency content and has three controls in the Main area that allow you to adjust the tonal balance of the sound. The three controls attenuate or amplify the low, mid, and high frequencies. For more information, refer to [↑11.4, Equalizer Section](#).

(4) **OUTPUT**: This section for mixing has three controls in the Main area that allow you to finalize the sound. The first control adjusts the output level, while the second and third control adjust the level of the effect sends. For more information, refer to [↑11.5, Output Section](#).

11.2 Display Area

The Display area provides visual feedback for the selected section in the Main area of the **KICK** Effects and offers additional parameters that allow you to refine your sounds in high detail.



The **KICK** Effect 's Display area

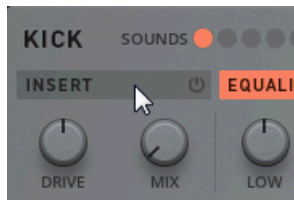
(1) **Mode selector**: Allows you to change the character of the **INSERT** by choosing from a number of different modes. This section is also used for selecting different filter types for the **EQUALIZER**, as well as switching the **OUTPUT**'s built-in compressor on or off.

(2) **Additional parameters**: Allow you to fine-tune settings related to the selected section. For example, this includes detailed settings for the three bands of the **EQUALIZER**, or the built-in compressor available in the **OUTPUT** section.

(3) **Display**: Provides visual feedback while you adjust the controls of the selected section. For example, this includes the frequency response of the **EQUALIZER**, or detailed metering for the **OUTPUT** section.

Accessing Additional Parameters

1. To access additional parameters for any section in the Main area, select the section by clicking on its header.



2. The Display area shows additional parameters for the selected section.



- For more information about the **INSERT**'s additional parameters, refer to [↑11.3, Insert Section](#).
- For more information about the **EQUALIZER**'s additional parameters, refer to [↑11.4, Equalizer Section](#).
- For more information about the **OUTPUT**'s additional parameters, refer to [↑11.5, Output Section](#).

11.3 Insert Section

The **INSERT** section is used to enhance the sound produced by the **KICK** Engine. It provides distortion and filtering effects that can subtly shape a sound's timbre, add new textures to it, or completely change its character.

The section offers five different **INSERT** modes, including distortion, sample rate and bit reduction, as well as filtering. You can select the **INSERT** mode in the Display area, which also provides additional parameters related to the selected mode. For more information, refer to [↑11.3.1, Insert Mode Selector](#).

The **INSERT** section's controls in the Main area allow you to adjust the character and amount of the effect:



The **BASS** Effects' **INSERT** section

- **INSERT Enable button:** This button (power button symbol) in the header of the section switches the **INSERT** on or off.
- **Main INSERT control:** The first control in the **INSERT** section is specific to the selected **INSERT** mode. For more information, refer to [↑11.3.1, Insert Mode Selector](#).
- **MIX:** Blends between the input signal and the processed signal. In both **LOWPASS** and **HIGHPASS** mode **MIX** is replaced with the filter's resonance control (**RES**). For more information, refer to [↑11.3.5, Lowpass Mode](#) and [↑11.3.6, Highpass Mode](#).

11.3.1 Insert Mode Selector

The **INSERT** Mode selector is one of the additional parameters in the Display area, allowing you to completely change the section's character by choosing from a number of different modes:



The **INSERT** Mode selector

Each of the five available **INSERT** modes has its own distinct quality:

- **DISTORT**: A distortion effect that saturates or even clips the signal, with adjustable amount of input gain. For more information, refer to [↑11.3.2, Distort Mode](#).
- **S&H**: A sample rate reducer that tracks the **KICK** Engine's pitch, with adjustable pitch offset for the sampling rate. For more information, refer to [↑11.3.3, S&H Mode](#).
- **BIT REDUX**: A bit crusher with adjustable amount of bit reduction. For more information, refer to [↑11.3.4, Bit Redux Mode](#).
- **LOWPASS**: A low-pass filter that attenuates frequency content above the cutoff frequency, with adjustable cutoff frequency and resonance amount. For more information, refer to [↑11.3.5, Lowpass Mode](#).
- **HIGHPASS**: A high-pass filter that attenuates frequency content below the cutoff frequency, with adjustable cutoff frequency and resonance amount. For more information, refer to [↑11.3.6, Highpass Mode](#).

11.3.2 Distort Mode

The **INSERT**'s **DISTORT** mode is a distortion effect that saturates or even clips the signal, with adjustable amount of input gain. This mode is useful for adding an aggressive quality to the signal.

DISTORT mode has one specific control in the Main area and two additional parameters in the Display area:



Additional parameters of the **INSERT**'s **DISTORT** mode

- **DRIVE**: Adjusts the amount of distortion applied to the signal.

- **TONE**: Adjusts the tonal quality of the distortion effect from dark to bright.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

11.3.3 S&H Mode

The **INSERT**'s **S&H** mode is a sample rate reducer that tracks the **KICK** Engine's pitch, with adjustable pitch offset for the sampling rate. This mode is useful for adding a degraded quality to the signal.

S&H mode has one specific control in the Main area and three additional parameters in the Display area:



Additional parameters of the **INSERT**'s **S&H** mode

- **PITCH**: Adjusts the frequency of the sample rate reducer's sample rate, degrading the input signal by adding downsampling artifacts.
- **LP PRE**: Adjusts the cutoff frequency of a low-pass filter applied to the input signal. Frequency content above the cutoff frequency is attenuated, making the sound darker before it is processed by the sample rate reduction.
- **LP POST**: Adjusts the cutoff frequency of a low-pass filter applied to the output signal. Frequency content above the cutoff frequency is attenuated, making the sound darker after it is processed by the sample rate reduction.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

11.3.4 Bit Redux Mode

The **INSERT**'s **BIT REDUX** mode is a bit crusher with adjustable amount of bit reduction. This mode is useful for adding a degraded quality to the signal.

BIT REDUX mode has one specific control in the Main area and four additional parameters in the Display area:



Additional parameters of the **INSERT**'s **BIT REDUX** mode

- **CRUSH**: Adjusts the amount of bit reduction, degrading the input signal by lowering the resolution of the audio data and adding quantization noise.
- **LP PRE**: Adjusts the cutoff frequency of a low-pass filter applied to the input signal. Frequency content above the cutoff frequency is attenuated, making the sound darker before it is processed by the bit reduction.
- **SQUASH**: Adjusts the amount of compression applied to the input signal, reducing its dynamic range before it is processed by the bit reduction.
- **LP POST**: Adjusts the cutoff frequency of a low-pass filter applied to the output signal. Frequency content above the cutoff frequency is attenuated, making the sound darker after it is processed by the bit reduction.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

11.3.5 Lowpass Mode

The **INSERT**'s **LOWPASS** mode is a 2-pole low-pass filter that attenuates frequency content above the cutoff frequency with a 12 dB/Oct response, with adjustable cutoff frequency and resonance amount. This mode is useful for adding a dark quality to the sound.

LOWPASS mode has two specific controls in the Main area and one additional parameter in the Display area:



Additional parameters of the **INSERT**'s **LOWPASS** mode

- **CUT**: Adjusts the cutoff frequency of the low-pass filter. Frequency content above the cutoff frequency is attenuated, creating a darker sound.
- **RES**: Adjusts the resonance amount of the low-pass filter. As resonance increases, the frequency content at the cutoff frequency becomes more pronounced.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

11.3.6 Highpass Mode

The **INSERT**'s **HIGHPASS** mode is a high-pass filter that attenuates frequency content below the cutoff frequency, with adjustable cutoff frequency and resonance amount. This mode is useful for adding a bright quality to the sound.

HIGHPASS mode has two specific controls in the Main area and one additional parameter in the Display area:



Additional parameters of the **INSERT**'s **HIGHPASS** mode

- **CUT**: Adjusts the cutoff frequency of the high-pass filter. Frequency content below the cutoff frequency is attenuated, creating a brighter sound.
- **RES**: Adjusts the resonance amount of the high-pass filter. As resonance increases, the frequency content at the cutoff frequency becomes more pronounced.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

11.4 Equalizer Section

The **EQUALIZER** section is used to fine-tune the tonal character of the sound. It provides common equalizer controls that allow you to balance out frequency content or make precise changes to specific frequencies.

The section offers three bands of filtering: The **LOW** band can be either a low-shelf or bell filter, the **MID** band is always a bell filter, and the **HIGH** band can be either a high-shelf or bell filter. You can select the filter types in the Display area, which also provides additional parameters like the filter frequency and bandwidth.

The **EQUALIZER** section's controls in the Main area allow you to attenuate or amplify the low, mid, and high frequencies:

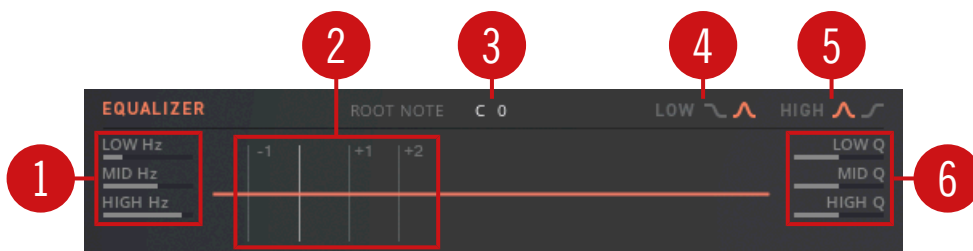


The KICK Effects' **EQUALIZER** section

- **EQUALIZER Enable button:** This button (power button symbol) in the header of the section switches the **EQUALIZER** on or off.
- **LOW:** Attenuates or amplifies the low-frequency band in a range of -15 dB to +15 dB. The 0 dB position is in the center.
- **MID:** Attenuates or amplifies the mid-frequency band in a range of -15 dB to +15 dB. The 0 dB position is in the center.
- **HIGH:** Attenuates or amplifies the high-frequency band in a range of -15 dB to +15 dB. The 0 dB position is in the center.

Additional Equalizer Parameters

The **EQUALIZER** has two selectors and six additional parameters in the Display area that allow you to fine-tune settings related to the **EQUALIZER**'s behavior:



Additional parameters of the **EQUALIZER**

(1) **LOW Hz / MID Hz / HIGH Hz:** Moves the respective frequency band from 10 Hz to 22 kHz in the frequency spectrum.

(2) **Harmonics indicators:** These visual aids mark the fundamental frequency of the global **ROOT** key (strong vertical line) as well as the first sub-harmonic and the first and second harmonic (fine vertical lines).

(3) **ROOT NOTE display:** Shows the fundamental frequency of the global **ROOT** key. By clicking on the display you can toggle between the frequency value and the corresponding note value.

(4) **LOW selector:** Sets the filter type of the low-frequency band to low-shelf or bell. A low-shelf filter evenly attenuates or amplifies frequency content below the set frequency. A bell filter attenuates or amplifies frequency content at and around the set frequency.

(5) **HIGH selector:** Sets the filter type of the high-frequency band to low-shelf or bell. A high-shelf filter evenly attenuates or amplifies frequency content above the set frequency. A bell filter attenuates or amplifies frequency content at and around the set frequency.

(6) **LOW Q / MID Q / HIGH Q:** Adjusts the width of the respective frequency band from wide to narrow.



The **ROOT** Note display and the Harmonics indicators help you tune the **EQUALIZER** to the harmonic structure of your kick drum and bass sounds. For more information about the global **ROOT** key, refer to [18.2, Tuning Panel](#).

11.5 Output Section

The **OUTPUT** section is used to finalize the sound of the **KICK**. It offers basic mixing controls as well as a compressor for controlling the dynamics of the output signal. You can adjust all settings related to the compressor in the Display area.

The **OUTPUT** section's controls in the Main area allow you to adjust the output volume and the effect sends:

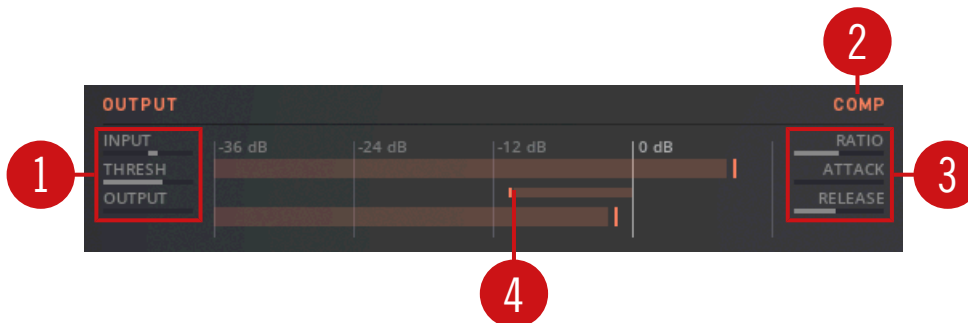


The KICK Effects' OUTPUT section

- **PRE / POST selector:** Selects whether the **DELAY** and **REVERB** effect sends are set independently from the **VOLUME** control (**PRE**) or not (**POST**).
- **VOLUME:** Adjusts the output volume of the **KICK**.
- **DELAY:** Adjusts the level of the signal sent to the **DELAY** in the **MASTER** Effects, effectively controlling the amount of the echo effect.
- **REVERB:** Adjusts the level of the signal sent to the **REVERB** in the **MASTER** Effects, effectively controlling the amount of the reverberation effect.

Additional Output Parameters

The **OUTPUT** has one button and six additional parameters in the Display area that allow you to control the section's built-in compressor:



Additional parameters of the OUTPUT

(1) Compressor Level Parameters:

- **INPUT:** Adjusts the compressor's input level in a range of -24 dB to +24 dB. The 0 dB position is in the center.
- **THRESH:** Adjusts the compressor's threshold in a range of -36 dB to 0 dB. When the level of a signal crosses the threshold, the compressor starts to attenuate the signal dynamically.
- **OUTPUT:** Adjusts the compressor's output level in a range of -24 dB to +24 dB. The 0 dB position is in the center.

(2) **COMP button:** Switches the compressor on or off.

(3) **Compressor Behavior Parameters:**

- **RATIO:** Adjusts the amount of attenuation applied to signals when their level crosses the threshold (**THRESH**). Increasing **RATIO** leads to stronger attenuation.
- **ATTACK:** Adjusts the time it takes the compressor to apply the full amount of attenuation to the signal after its level has crossed the threshold (**THRESH**).
- **RELEASE:** Adjusts the time it takes the compressor to stop attenuating the signal after its level has fallen below the threshold (**THRESH**).

(4) **Metering:** Shows the peak level of the compressor's input signal at the top, the amount of attenuation applied by the compressor in the middle, and the peak level of the compressor's output signal at the bottom.

12 Bass Effects

The **BASS** Effects add to the **BASS** Engine with a selection of effects and processors suitable to enhance and polish your basic bass sound.

It combines a flexible **INSERT** section for distortion and modulation effects with an **EQUALIZER** and an **OUTPUT** section that includes effect sends to the **MASTER** Effect's **DELAY** and **REVERB** as well as a built-in compressor for final shaping of your bass sound's dynamics.

The additional **DUCK ENV** is a special envelope generator that is triggered by active steps of the **KICK** Sequencer, allowing you to create effects similar to rhythmic sidechain-compression or ducking.

The **BASS** Effects consist of three interface sections:



Overview of the **BASS** Effects

(1) **Main area**: Offers tuning settings, the Sound Selector for sound variations, and key controls that allow you to shape your sound. The controls are organized into three sections: **INSERT**, **EQUALIZER**, **OUTPUT**. For more information, refer to [↑12.1, Main Area](#).

(2) **Display area:** Provides visual feedback and facilitates in-depth editing of additional parameters for each section of the **BASS** Effects. For more information, refer to [↑12.2, Display Area](#).

(3) **Modulation area:** Offers immediate control over key parameters of the **DUCK ENV** section, a special envelope generator that is triggered by active steps of the **KICK** Sequencer. For more information, refer to [↑12.6, Ducking Envelope Section](#).

12.1 Main Area

In addition to tuning controls and the Sound Selector for sound variations, the Main area provides control over the flexible distortion and modulation effect (**INSERT**), the equalizer for balancing frequency content (**EQUALIZER**), as well as the output volume and effect sends (**OUTPUT**).



Additional parameters for each group of controls can be accessed in the Display area by clicking on the respective group's header. For more information, refer to [↑10.2, Display Area](#).

The Main area consists of the following sections:



The **BASS** Effect's Main area

(1) **Tuning controls:** Allow you to transpose any note played by the **BASS** Engine and set the behavior of its **GLIDE** function (portamento). For more information, refer to [↑10.6, Tuning Controls](#).

(2) **Sound Selector and Browser:** The eight slots of the Sound Selector allow you to save and recall sound variations for the **KICK** or load any of the sound presets included in the dedicated Sound Browser. For more information, refer to [↑10.4, Sound Selector](#) and [↑10.5, Sound Browser](#).

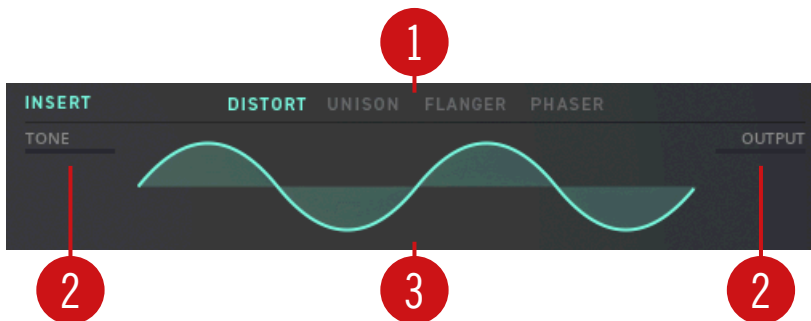
(3) **INSERT:** This section for distortion and modulation effects has two controls in the Main area that allow you to enhance the sound. The first control adjusts a parameter specific to the selected **INSERT** mode, while the second control adjusts the blend between the input signal and the processed signal. For more information, refer to [↑12.3, Insert Section](#).

(4) **EQUALIZER:** This section is used to fine-tune frequency content and has three controls in the Main area that allow you to adjust the tonal balance of the sound. The three controls attenuate or amplify the low, mid, and high frequencies. For more information, refer to [↑12.4, Equalizer Section](#).

(5) **OUTPUT:** This section for mixing has three controls in the Main area that allow you to finalize the sound. The first control adjusts the output level, while the second and third control adjust the level of the effect sends. For more information, refer to [↑12.5, Output Section](#).

12.2 Display Area

The Display area provides visual feedback for the selected section in the Main area of the **BASS** Effects and offers additional parameters that allow you to refine your sounds in high detail.



The **BASS** Effect's Display area

(1) **Mode selector:** Allows you to change the character of the [INSERT](#) by choosing from a number of different modes. This section is also used for selecting different filter types for the [EQUALIZER](#), as well as switching the [OUTPUT](#)'s built-in compressor on or off.

(2) **Additional parameters:** Allow you to fine-tune settings related to the selected section. For example, this includes detailed settings for the three bands of the [EQUALIZER](#), or the built-in compressor available in the [OUTPUT](#) section.

(3) **Display:** Provides visual feedback while you adjust the controls of the selected section. For example, this includes the frequency response of the [EQUALIZER](#), or detailed metering for the [OUTPUT](#) section.

Accessing Additional Parameters

1. To access additional parameters for any section in the Main area, select the section by clicking on its header.



2. The Display area shows additional parameters for the selected section.



- For more information about the [INSERT](#)'s additional parameters, refer to [↑12.3, Insert Section](#).
- For more information about the [EQUALIZER](#)'s additional parameters, refer to [↑12.4, Equalizer Section](#).

- For more information about the **OUTPUT**'s additional parameters, refer to [↑12.5, Output Section](#).
- For more information about the **DUCK ENV**'s additional parameters, refer to [↑12.6, Ducking Envelope Section](#).

12.3 Insert Section

The **INSERT** section is used to enhance the sound produced by the **BASS** Engine. It provides distortion and modulation effects that can subtly shape a sound's timbre, add new textures to it, or completely change its character.

The section offers four different **INSERT** modes, including distortion, a chorus-like unison effect, flanging, and phasing. You can select the **INSERT** mode in the Display area, which also provides additional parameters related to the selected mode. For more information, refer to [↑12.3.1, Insert Mode Selector](#).

The **INSERT** section's controls in the Main area allow you to adjust the character and amount of the effect:



The **BASS** Effects' **INSERT** section

- **INSERT Enable button:** This button (power button symbol) in the header of the section switches the **INSERT** on or off.
- **Main INSERT control:** The first control in the **INSERT** section is specific to the selected **INSERT** mode. For more information, refer to [↑12.3.1, Insert Mode Selector](#).
- **MIX:** Blends between the input signal and the processed signal.

12.3.1 Insert Mode Selector

The **INSERT** Mode selector is one of the additional parameters in the Display area, allowing you to completely change the section's character by choosing from a number of different modes:



The **INSERT** Mode selector

Each of the four available **INSERT** modes has its own distinct quality:

- **DISTORT**: A distortion effect that saturates or even clips the signal. For more information, refer to [↑12.3.2, Distort Mode](#).
- **UNISON**: A chorus-like effect that tracks the **BASS** Engine's pitch. For more information, refer to [↑12.3.3, Unison Mode](#).
- **FLANGER**: A flanger effect that produces moving, harmonically related peaks and notches in the frequency spectrum. For more information, refer to [↑12.3.4, Flanger Mode](#).
- **PHASER**: A phaser effect that produces moving peaks and notches in the frequency spectrum. For more information, refer to [↑12.3.5, Phaser Mode](#).

12.3.2 Distort Mode

The **INSERT**'s **DISTORT** mode is a distortion effect that saturates or even clips the signal, with adjustable amount of input gain. This mode is useful for adding an aggressive quality to the signal.

DISTORT mode has one specific control in the Main area and two additional parameters in the Display area:



Additional parameters of the **INSERT's DISTORT** mode

- **DRIVE**: Adjusts the amount of distortion applied to the signal.
- **TONE**: Adjusts the tonal quality of the distortion effect from dark to bright.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

12.3.3 Unison Mode

The **INSERT's UNISON** mode is a chorus-like effect that tracks the **BASS** Engine's pitch, adding six variably detuned voices to the signal. This mode is useful for adding an ensemble-like quality to the signal.

UNISON mode has one specific control in the Main area and two additional parameters in the Display area:



Additional parameters of the **INSERT's UNISON** mode

- **DETUNE**: Adjusts the amount of detuning applied to the voices added by **UNISON** mode.
- **WIDTH**: Spreads the voices added by **UNISON** mode in the stereo image.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

12.3.4 Flanger Mode

The **INSERT**'s **FLANGER** mode is a flanger effect that produces moving, harmonically related peaks and notches in the frequency spectrum, with adjustable rate of movement. This mode is useful for adding a resonant quality to the signal.

FLANGER mode has one specific control in the Main area and three additional parameters in the Display area:



Additional parameters of the **INSERT**'s **FLANGER** mode

- **RATE**: Adjusts the modulation frequency, changing the speed of the flanger effect's movement.
- **DEPTH**: Adjusts the amount of modulation, adding movement to the flanger effect.
- **FEEDBACK**: Adjusts the level of the flanger's feedback signal, creating a more resonant and metallic sound.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

12.3.5 Phaser Mode

The **INSERT**'s **PHASER** mode is a phaser effect that produces moving peaks and notches in the frequency spectrum, with adjustable rate of movement. This mode is useful for adding a vowel-like quality to the sound.

PHASER mode has one specific control in the Main area and three additional parameters in the Display area:



Additional parameters of the **INSERT**'s **FLANGER** mode

- **RATE**: Adjusts the modulation frequency, changing the speed of the phaser effect's movement.
- **DEPTH**: Adjusts the amount of modulation, adding movement to the phaser effect.
- **FEEDBACK**: Adjusts the level of the phaser's feedback signal, making the peaks and notches in the frequency spectrum more pronounced.
- **OUTPUT**: Adjusts the effect's output level in a range of -12 dB to +12 dB. The 0 dB position is in the center.

12.4 Equalizer Section

The **EQUALIZER** section is used to fine-tune the tonal character of the sound. It provides common equalizer controls that allow you to balance out frequency content or make precise changes to specific frequencies.

The section offers three bands of filtering: The **LOW** band can be either a low-shelf or bell filter, the **MID** band is always a bell filter, and the **HIGH** band can be either a high-shelf or bell filter. You can select the filter types in the Display area, which also provides additional parameters like the filter frequency and bandwidth.

The **EQUALIZER** section's controls in the Main area allow you to attenuate or amplify the low, mid, and high frequencies:

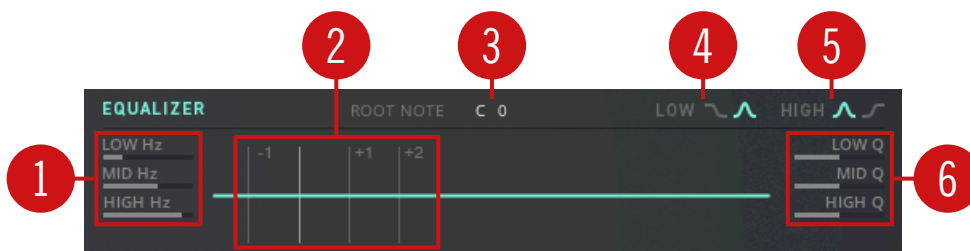


The **BASS** Effects' **EQUALIZER** section

- **EQUALIZER Enable button:** This button (power button symbol) in the header of the section switches the **EQUALIZER** on or off.
- **LOW:** Attenuates or amplifies the low-frequency band in a range of -15 dB to +15 dB. The 0 dB position is in the center.
- **MID:** Attenuates or amplifies the mid-frequency band in a range of -15 dB to +15 dB. The 0 dB position is in the center.
- **HIGH:** Attenuates or amplifies the high-frequency band in a range of -15 dB to +15 dB. The 0 dB position is in the center.

Additional Equalizer Parameters

The **EQUALIZER** has two selectors and six additional parameters in the Display area that allow you to fine-tune settings related to the **EQUALIZER**'s behavior:



Additional parameters of the **EQUALIZER**

(1) **LOW Hz / MID Hz / HIGH Hz**: Moves the respective frequency band from 10 Hz to 22 kHz in the frequency spectrum.

(2) **Harmonics indicators**: These visual aids mark the fundamental frequency of the global **ROOT** key (strong vertical line) as well as the first sub-harmonic and the first and second harmonic (fine vertical lines).

(3) **ROOT NOTE display**: Shows the fundamental frequency of the global **ROOT** key. By clicking on the display you can toggle between the frequency value and the corresponding note value.

(4) **LOW selector**: Sets the filter type of the low-frequency band to low-shelf or bell. A low-shelf filter evenly attenuates or amplifies frequency content below the set frequency. A bell filter attenuates or amplifies frequency content at and around the set frequency.

(5) **HIGH selector**: Sets the filter type of the high-frequency band to low-shelf or bell. A high-shelf filter evenly attenuates or amplifies frequency content above the set frequency. A bell filter attenuates or amplifies frequency content at and around the set frequency.

(6) **LOW Q / MID Q / HIGH Q**: Adjusts the width of the respective frequency band from wide to narrow.



The **ROOT** Note display and the Harmonics indicators help you tune the **EQUALIZER** to the harmonic structure of your kick drum and bass sounds. For more information about the global **ROOT** key, refer to [↑8.2, Tuning Panel](#).

12.5 Output Section

The **OUTPUT** section is used to finalize the sound of the **BASS**. It offers basic mixing controls as well as a compressor for controlling the dynamics of the output signal. You can adjust all settings related to the compressor in the Display area.

The **OUTPUT** section's controls in the Main area allow you to adjust the output volume and the effect sends:

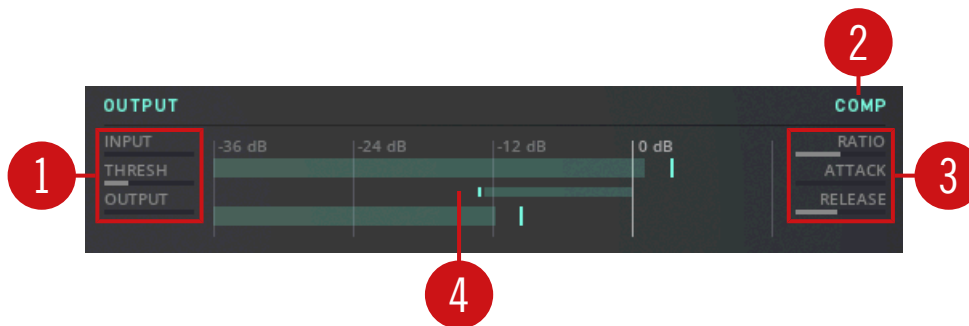


The **BASS** Effects' **OUTPUT** section

- **PRE / POST selector:** Selects whether the **DELAY** and **REVERB** effect sends are set independently from the **VOLUME** control (**PRE**) or not (**POST**).
- **VOLUME:** Adjusts the output volume of the **BASS**.
- **DELAY:** Adjusts the level of the signal sent to the **DELAY** in the **MASTER** Effects, effectively controlling the amount of the echo effect.
- **REVERB:** Adjusts the level of the signal sent to the **REVERB** in the **MASTER** Effects, effectively controlling the amount of the reverberation effect.

Additional Output Parameters

The **OUTPUT** has one button and six additional parameters in the Display area that allow you to control the section's built-in compressor:



Additional parameters of the **OUTPUT**

(1) Compressor Level Parameters:

- **INPUT:** Adjusts the compressor's input level in a range of -24 dB to +24 dB. The 0 dB position is in the center.
- **THRESH:** Adjusts the compressor's threshold in a range of -36 dB to 0 dB. When the level of a signal crosses the threshold, the compressor starts to attenuate the signal dynamically.
- **OUTPUT:** Adjusts the compressor's output level in a range of -24 dB to +24 dB. The 0 dB position is in the center.

(2) COMP button: Switches the compressor on or off.

(3) Compressor Behavior Parameters:

- **RATIO:** Adjusts the amount of attenuation applied to signals when their level crosses the threshold (**THRESH**). Increasing **RATIO** leads to stronger attenuation.
- **ATTACK:** Adjusts the time it takes the compressor to apply the full amount of attenuation to the signal after its level has crossed the threshold (**THRESH**).
- **RELEASE:** Adjusts the time it takes the compressor to stop attenuating the signal after its level has fallen below the threshold (**THRESH**).

(4) Metering: Shows the peak level of the compressor's input signal at the top, the amount of attenuation applied by the compressor in the middle, and the peak level of the compressor's output signal at the bottom.

12.6 Ducking Envelope Section

The **BASS** Effects' **DUCK ENV** is a special envelope generator that is triggered by note events sent from the **KICK** Sequencer. It produces an inverted modulation signal, meaning that it decreases the value of a modulated control instead of increasing it like a regular envelope.

It can be used to modulate all controls of the **BASS** Effects' Main area. This allows you to create effects similar to rhythmic sidechain-compression or ducking, with the freedom to apply such modulation not only to the level of your bass sound, but also the **INSERT**, the **EQUALIZER**, or the **DELAY** and **REVERB** effect sends.

The **DUCK ENV** consists of the following controls:

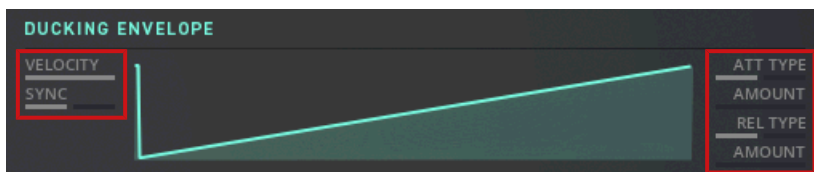


The **BASS** Effects' **DUCK ENV**

- **Route button:** This button in the section's header (wire connection symbol) shows the **DUCK ENV**'s Modulation Routing in the Display area, allowing you to assign the modulation produced by the **DUCK ENV** to the Main area's controls. For more information, refer to [↑10.12, Modulation Routing](#).
- **TIME:** Adjusts the overall duration of the envelope, which is the time it takes the envelope to complete its attack, hold, and release phases.
- **ATT:** Adjusts the duration of the envelope's attack phase as a fraction of the overall duration (**TIME**). The attack phase is the time the envelope takes to rise from zero to peak level.
- **HOLD:** Adjusts the duration of the envelope's hold phase as a fraction of the overall duration (**TIME**). The hold phase is the time the envelope rests at peak level.

Additional Envelope Parameters

The **DUCK ENV** has six additional parameters in the Display area that allow you to fine-tune settings related to its behavior:



Additional parameters of **DUCK ENV**

- **VELOCITY**: Adjusts how much velocity values of incoming note events from the **KICK** Sequencer affect the envelope strength.
- **SYNC**: Enables tempo sync for the envelope, allowing you to set **TIME** in note values relative to the host tempo (e.g. 1/1 for whole notes, 1/4 for quarter notes, etc.).
- **ATT TYPE**: Selects one of two types for the shape of the envelope's attack phase: **TYPE 1** provides logarithmic and exponential shapes, **TYPE 2** provides sinusoidal shapes.
- **AMOUNT**: Adjusts the shape of the envelope's decay phase. Depending on the selected **ATT TYPE**, either logarithmic and exponential shapes, or sinusoidal shapes are available.
- **REL TYPE**: Selects one of two types for the shape of the envelope's release phase: **TYPE 1** provides logarithmic and exponential shapes, **TYPE 2** provides sinusoidal shapes.
- **AMOUNT**: Adjusts the shape of the envelope's release phase. Depending on the selected **REL TYPE**, either logarithmic and exponential shapes, or sinusoidal shapes are available.

13 Sequencer

TRK-01 integrates dedicated sequencers for both the **KICK** and the **BASS** to facilitate a fluent and inspiring workflow. It provides you with all the tools you need to create a solid foundation for your track in one intuitive and cohesive interface.

The **KICK** and **BASS** Sequencers enhance classic step sequencing with advanced features like Step Locks and Parameter Focus, allowing you to quickly realize musical ideas for the **KICK** and the **BASS** but also bringing a whole new layer of animation to your sounds.

- To switch from the **MASTER** Effects to the **KICK** and **BASS** Sequencers, click on the central **MASTER** button.



The **KICK** and **BASS** Sequencers

- (1) **KICK Pattern area:** Facilitates switching and organization of patterns, as well as of the pattern's individual pages. For more information, refer to [↑13.1, Kick Pattern Area](#).
- (2) **KICK / BASS Sequencer lanes:** Give you full control over the musical content of your patterns following the classic step sequencing paradigm. For more information, refer to [↑13.2, Kick Sequencer Lanes](#) and [↑13.4, Bass Sequencer Lanes](#).
- (3) **BASS Pattern area:** Facilitates switching and organization of patterns, as well as of the pattern's individual pages. For more information, refer to [↑13.3, Bass Pattern Area](#).

13.1 Kick Pattern Area

The **KICK** Pattern area to the left of the **KICK** and **BASS** Sequencer lanes allows you to organize your musical ideas in patterns that can have up to four pages each. Additionally, it combines workflow enhancements like the **PAGE** Loop buttons for looped playback of single pages in a pattern with more creative features like the variable number of **STEPS** for polyrhythms.

By using the workflow for copying, pasting, and clearing elements in the user interface you can quickly come up with variations of existing patterns and arrange them in a meaningful way. For more information about this workflow, refer to [↑8.1, Copying, Pasting, and Clearing Elements](#).

The **KICK** Pattern area consists of the following elements and controls:



The **KICK** Pattern area

- **KICK header:** Shows the **KICK** Sequencer lanes.
- **KICK Sequencer Bypass button:** This button (keyboard symbol) in the header of the Pattern area bypasses the **KICK** Sequencer and allows you to play the **KICK** via MIDI. For more information, refer to [↑6.2, Playing the Kick and the Bass via MIDI](#).
- **KICK Enable button:** This button (loudspeaker symbol) in the header of the Pattern area switches the **KICK** on or off by muting the **KICK** Sequencer. This means the audio signal is not cut off and long notes or effect signals can smoothly decay to silence.
- **PATTERN slots:** Each slot selects one of eight patterns.
- **PAGE slots:** Each slot selects one of four pages of the selected pattern. The pattern cycles through the individual pages one after the other, unless **PAGE** Loop is enabled.
- **PAGE Loop buttons:** These buttons (loop symbol) loop the selected page.

- **LOCKS Enable button:** Enables or disables Step Locks. When enabled, Step Locks are recalled during playback. When disabled, Step Locks are not recalled and the set values of the respective controls are used.
- **STEPS:** Sets the number of steps in each page for the selected pattern.
- **PAGE:** Sets the number of pages for the selected pattern.
- **OFFSET left/right buttons:** Shift the contents of the selected page by one step to the left or to the right.

13.2 Kick Sequencer Lanes

The **KICK** Sequencer lanes follow the classic step sequencing paradigm and offer a fluent workflow for creating musical patterns that is supported by the clear user interface and its refined mouse interactions.

The **KICK** Sequencer consists of the following elements and controls:



The **KICK** Sequencer

- **BASS Sequencer Display lane:** Shows the selected page of the **BASS** Sequencer in relation to the **KICK** Sequencer. Double-clicking this lane switches to the **BASS** Sequencer.
- **VEL lane:** Allows you to create note events and set their velocity. Left-click and drag activates steps and sets velocity. Double-click sets velocity to default. Right-click deactivates steps.
- **LOCK lane:** Enters Step Lock mode for the selected step. Clicking the selected step again exits Step Lock mode. For more information about Step Locks, refer to [↑13.5, Using Step Locks](#).

- **POS lane:** Shows the current playback position of the **BASS** Sequencer.

13.3 Bass Pattern Area

The **BASS** Pattern area to the right of the **KICK** and **BASS** Sequencer lanes allows you to organize your musical ideas in patterns that can have up to four pages each. Additionally, it combines workflow enhancements like the **PAGE** Loop buttons for looped playback of single pages in a pattern with more creative features like the variable number of **STEPS** for polyrhythms.

By using the workflow for copying, pasting, and clearing elements in the user interface you can quickly come up with variations of existing patterns and arrange them in a meaningful way. For more information about this workflow, refer to [↑8.1, Copying, Pasting, and Clearing Elements](#).



To permanently save your patterns, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in KOMplete Kontrol](#) and [↑5.3, Saving and Loading User Preset Files in REaktor 6](#).

The **BASS** Pattern area consists of the following elements and controls:



The **BASS** Pattern area

- **BASS header:** Shows the **BASS** Sequencer lanes.
- **BASS Sequencer Bypass button:** This button (keyboard symbol) in the header of the Pattern area bypasses the **BASS** Sequencer and allows you to play the **BASS** via MIDI. For more information, refer to [↑6.2, Playing the Kick and the Bass via MIDI](#).

- **BASS Enable button:** This button (loudspeaker symbol) in the header of the Pattern area switches the **BASS** on or off by muting the **BASS** Sequencer. This means the audio signal is not cut off and long notes or effect signals can smoothly decay to silence.
- **PATTERN slots:** Each slot selects one of eight patterns.
- **PAGE slots:** Each slot selects one of four pages of the selected pattern. The pattern cycles through the individual pages one after the other, unless **PAGE** Loop is enabled.
- **PAGE Loop buttons:** These buttons (loop symbol) loop the selected page.
- **LOCKS Enable button:** Enables or disables Step Locks. When enabled, Step Locks are recalled during playback. When disabled, Step Locks are not recalled and the set values of the respective controls are used.
- **STEPS:** Sets the number of steps in each page for the selected pattern
- **PAGE:** Sets the number of pages for the selected pattern.
- **OFFSET left/right buttons:** Shift the contents of the selected page by one step to the left or the right.
- **OFFSET up/down buttons:** Shift the pitches of all steps in the selected page up or down by one semitone.

13.4 Bass Sequencer Lanes

The **BASS** Sequencer lanes follow the classic step sequencing paradigm and offer a fluent workflow for creating musical patterns that is supported by the clear user interface and its refined mouse interactions.

The lanes always show the contents of the selected **PATTERN** and **PAGE** slots in the **BASS** Pattern area. All changes made to the lanes are immediately saved in the selected slots and can be recalled as long as the current Preset file is loaded.



To permanently save your patterns, you need to save them as part of a User Preset file. For more information, refer to [↑4.3, Saving and Loading User Preset Files in KOMplete KONTROL](#) and [↑5.3, Saving and Loading User Preset Files in REAKTOR 6](#).

The **BASS** Sequencer consists of the following elements and controls:



The BASS Sequencer

- **KICK Sequencer Display lane:** Shows the selected page of the **KICK** Sequencer in relation to the **BASS** Sequencer. Double-clicking this lane switches to the **KICK** Sequencer.
- **PITCH lane:** Sets the pitch for each step in semitones relative to the global **ROOT** key. Left-click activates a step, drag up or down sets pitch (hold **SHIFT** for octave steps). Double-click sets pitch to default. Right-click deactivates a step.
- **VEL lane:** Allows you to create note events and set their velocity. Left-click and drag activates steps and sets velocity. Double-click sets velocity to default. Right-click deactivates steps.
- **HOLD lane:** Sets the duration of note events by extending the length of the gate produced by a step to 1.5 steps. When **HOLD** is enabled for successive steps, even longer notes can be created. Depending on the selected **GLIDE** Mode in the **BASS** Engine's Tuning controls **HOLD** affects the Glide and Envelope behavior differently. For more information, refer to [↑10.6, Tuning Controls](#).
- **LOCK lane:** Enters Step Lock mode for the selected step. Clicking the selected step again exits Step Lock mode. For more information about Step Locks, refer to [↑13.5, Using Step Locks](#).
- **POS lane:** Shows the current playback position of the **BASS** Sequencer.

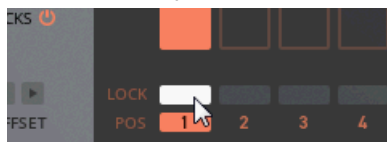
13.5 Using Step Locks

Step Locks add a whole new layer of animation to your sounds. They allow you to save values for controls of the **KICK** and **BASS** to individual steps of the **KICK** and **BASS** Sequencers, which recall the saved values once the playback position has reached the corresponding steps.

All controls in the Main and Modulation areas of the **KICK** and the **BASS** are enabled for the Step Locks of the **KICK** Sequencer and the **BASS** Sequencer, respectively. This allows you to create dramatic effects by completely changing your sounds for each step of a sequence.

To save values for controls to individual steps by creating Step Locks:

1. Click on a step in the **LOCK** lane to enter Step Lock mode for this step.



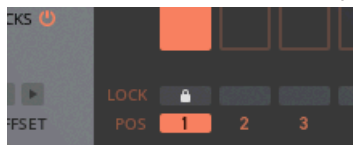
2. Change any control in the Main or Modulation area.



3. Exit Step Lock mode by clicking on the Exit button.



→ The changed value is saved to the Step Lock and will be recalled once the playback position has reached the corresponding step.



13.6 Using Parameter Focus

Parameter Focus is a special mode in TRK-01 that allows you to conveniently edit all values saved in Step Locks for a specific control in the Main and Modulation areas of the **KICK** and the **BASS**.

Additionally, this mode can be used to create multiple Step Locks for the control in focus at once simply by drawing in values across the Step Lock lane.

To enter Parameter Focus mode for a specific control:

- Double click on the control's label.



→ The control's label turns white and the Sequencer switches to Parameter Focus mode.



Parameter Focus mode

(1) **KICK / BASS Sequencer Display lane:** Shows the selected page of the **KICK** Sequencer or the **BASS** Sequencer.

(2) **Step Lock Lane:** Creates Step Locks and sets values for the control in focus. Left-click and drag creates Step Locks and sets values. Double-click sets value to default. Right-click removes Step Locks.

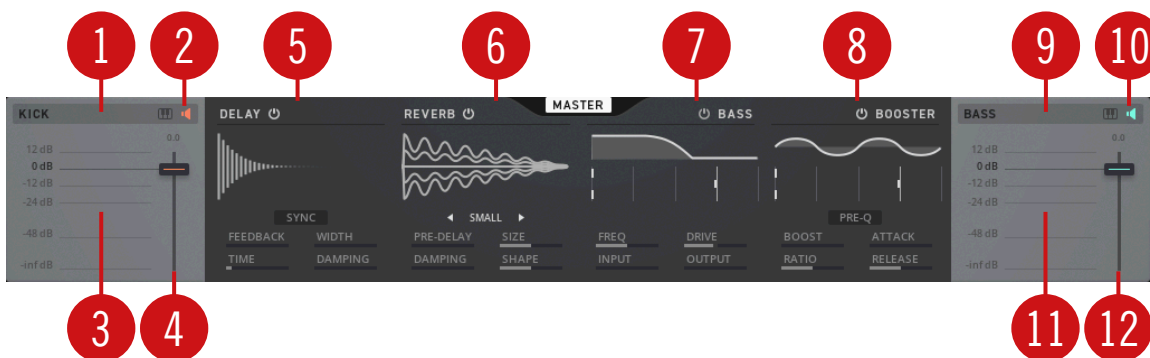
- (3) **POS Lane:** Shows the current play back position of the KICK Sequencer.
- (4) **Exit button:** This button (X symbol) in the upper right corner of exits Parameter Focus mode.

14 Master

The **MASTER** Effects provide the means to enhance and finalize the instrument's output. The two large faders at the sides can be used to set the final mix of the **KICK** and the **BASS**, with individual metering showing the respective peak level.

The **DELAY** and **REVERB** allow you to fine-tune the sound of the effect sends available in the **OUTPUT** sections of the **KICK** and **BASS**, and the **BASS** Enhancer and the **BOOSTER** maximize the final mix before it is sent out of the instrument.

- To switch from the **KICK** and **BASS** Sequencers to the **MASTER** Effects, click on the central **MASTER** button.



The **MASTER** Effects

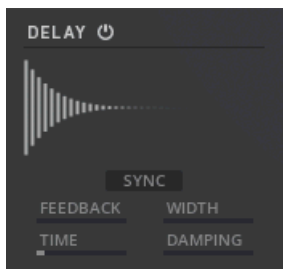
- (1) **KICK header**: Shows the **KICK** Sequencer.
- (2) **KICK Enable button**: Switches the **KICK** on or off by muting the **KICK** Sequencer. This means the audio signal is not cut off and long notes or effect signals can smoothly decay to silence.
- (3) **KICK metering**: Shows the peak level of the **KICK**'s output signal.
- (4) **KICK Level fader**: Adjusts the final output level of the **KICK**.
- (5) **DELAY**: Provides all settings of the echo send effect. For more information, refer to [↑14.1, Delay](#).

- (6) **REVERB**: Provides all settings of the reverberation send effect. For more information, refer to [↑14.2, Reverb](#).
- (7) **BASS Enhancer**: Provides all settings of the bass enhancement master effect. For more information, refer to [↑14.3, Bass Enhancer](#).
- (8) **BOOSTER**: Provides all settings of the compression master effect. For more information, refer to [↑14.4, Booster](#).
- (9) **BASS header**: Shows the **BASS** Sequencer.
- (10) **BASS Enable button**: Switches the **BASS** on or off by muting the **BASS** Sequencer. This means the audio signal is not cut off and long notes or effect signals can smoothly decay to silence.
- (11) **BASS metering**: Shows the peak level of the **BASS**'s output signal.
- (12) **BASS Level fader**: Adjusts the final output level of the **BASS**.

14.1 Delay

The **DELAY** is a flexible echo send effect that is fed by the **DELAY** effect sends in the **KICK** and **BASS** Effects' **OUTPUT** section.

The following parameters are available to fine-tune its sound:



The **DELAY** in the **MASTER** Effects

- **DELAY Enable button**: This button (power button symbol) in the header switches the **DELAY** on or off.

- **SYNC:** Enables tempo sync for the delay time, allowing you to set **TIME** in note values relative to the host tempo.
- **FEEDBACK:** Adjusts the level of the delay's feedback signal, effectively increasing the number of delay repetitions.
- **TIME:** Adjusts the delay time. Depending on the **SYNC** setting, the delay time either adjusted in milliseconds or set in note values relative to the host tempo (e.g. 1/1 for whole notes, 1/4 for quarter notes, etc.).
- **WIDTH:** Spreads the delay repetitions in the stereo image.
- **DAMPING:** Adjusts the tonal quality of the delay effect from dark to bright.

14.2 Reverb

The **REVERB** is a flexible reverberation send effect that is fed by the **REVERB** effect sends in the **KICK** and **BASS** Effects' **OUTPUT** section.

The following parameters are available to fine-tune its sound:



The **REVERB** in the **MASTER** Effects

- **REVERB Enable button:** This button (power button symbol) in the header switches the **REVERB** on or off.
- **Spaces selector:** Selects one of eight types of reverberant spaces: **SMALL**, **LARGE**, **OUTSIDE**, **REVERSE**, **GATED**, **NONLIN**, **GRAINY**, **REFLEX**
- **PRE-DELAY:** Adjusts time it takes for the reverb effect to set in.
- **DAMPING:** Adjusts the tonal quality of the reverb effect from dark to bright.

- **SIZE:** Adjusts the size of the selected reverberant space.
- **SHAPE:** Transforms the selected reverberant space by changing the contour of the reflection pattern and the amount of diffusion. The changes range from subtle shifts in the spatial perception to extreme reverse reverberation effects.

14.3 Bass Enhancer

The **BASS** Enhancer is a specialized bass enhancement master effect that can be used to reinforce and glue together the low-frequency components of the final output signal.

The following parameters are available to fine-tune its sound:



The **BASS** Enhancer in the **MASTER** Effects

- **BASS Enhancer Enable button:** This button (power button symbol) in the header switches the **BASS** Enhancer on or off.
- **FREQ:** Adjusts the cutoff frequency of the **BASS** Enhancer. Frequency content below the cutoff frequency is amplified.
- **INPUT:** Adjusts the **BASS** Enhancer's input level in a range of -24 dB to +24 dB. The 0 dB position is in the center.
- **DRIVE:** Enables the internal saturation stage of the **BASS** Enhancer, adding harmonics to the signal.
- **OUTPUT:** Adjusts the **BASS** Enhancer's output level in a range of -24 dB to +24 dB. The 0 dB position is in the center.

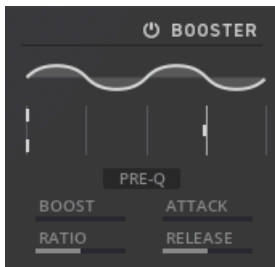
14.4 Booster

The **BOOSTER** is a specialized compression master effect that can be used to maximize and saturate the output signal.



You can use the **BOOSTER** only as a saturation effect, or soft clipper, by setting the **RATIO** of the **BOOSTER**'s compressor to 1. This way the compressor is effectively bypassed.

The following parameters are available to fine-tune its sound:



The **BOOSTER** in the **MASTER** Effects

- **BOOSTER Enable button:** This button (power button symbol) in the header switches the **BOOSTER** Enhancer on or off.
- **PRE-Q:** Enables a fixed equalizer that applies low-cut filtering at 20 Hz and high-cut filtering at 18 kHz to the input signal.
- **BOOST:** Adjusts the **BOOSTER**'s input level in a range of -12 dB to +36 dB. The 0 dB position is in the center. Increasing **BOOST** also adds saturation to the signal.
- **RATIO:** Adjusts the amount of attenuation applied to signals when their level crosses the fixed threshold of the **BOOSTER**'s compressor. Increasing **RATIO** leads to stronger attenuation.
- **ATTACK:** Adjusts the time it takes the **BOOSTER**'s compressor to apply the full amount of attenuation to the signal after its level has crossed the fixed threshold.
- **RELEASE:** Adjusts the time it takes the **BOOSTER**'s compressor to stop attenuating the signal after its level has fallen below the fixed threshold.

15 Troubleshooting

If you are experiencing problems related to your product that the supplied documentation does not cover, you can get further help in the Support section of the Native Instruments website:

<https://support.native-instruments.com/hc>

The Support section allows you to search both the Knowledge Base and the Support Community for content related to your issue. The Knowledge Base and the Support Community gather useful information about your Native Instruments product and can be of great help to solve possible issues you may encounter.

- The Knowledge Base is an ever-growing database of help articles by Native Instruments, providing solutions to common issues and answering frequently asked questions.
- The Support Community allows users to help users, and makes all the information and discussion publicly available.
- ▶ Enter your query into the search field at the top of the Support section's landing page in order to find related entries from the Knowledge Base and the Support Community.



Before getting help please make sure you have downloaded the latest software for your product from Native Access.

Support

If no entry from the Knowledge Base and the Support Community matches your problem, or if the matching entry does not solve the problem, you can contact the Native Instruments Support team. You will find [Contact Support](#) buttons in the Support section of our website after looking for related content in the Knowledge Base and the Support Community.

When communicating with the Native Instruments Support team, keep in mind that the more details you can provide about your hardware, your operating system, the version of the software you are running, and the problem you are experiencing, the better they will be able to help you.

In your description, you should mention:

- How to reproduce the problem
- What you have already tried to fix the problem

- A description of your setup, including all hardware and the version of your software
- The brand and specifications of your computer



When installing new software or software updates, a Readme file is included that contains late breaking news and new information that was not yet included in the documentation. Please open and read this Readme file before contacting Technical Support.

User Forum

In the Native Instruments User Forum, you can discuss product features directly with other users and with experts moderating the forum. You can reach the User Forum via: <http://www.native-instruments.com/forum>.

16 Credits

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