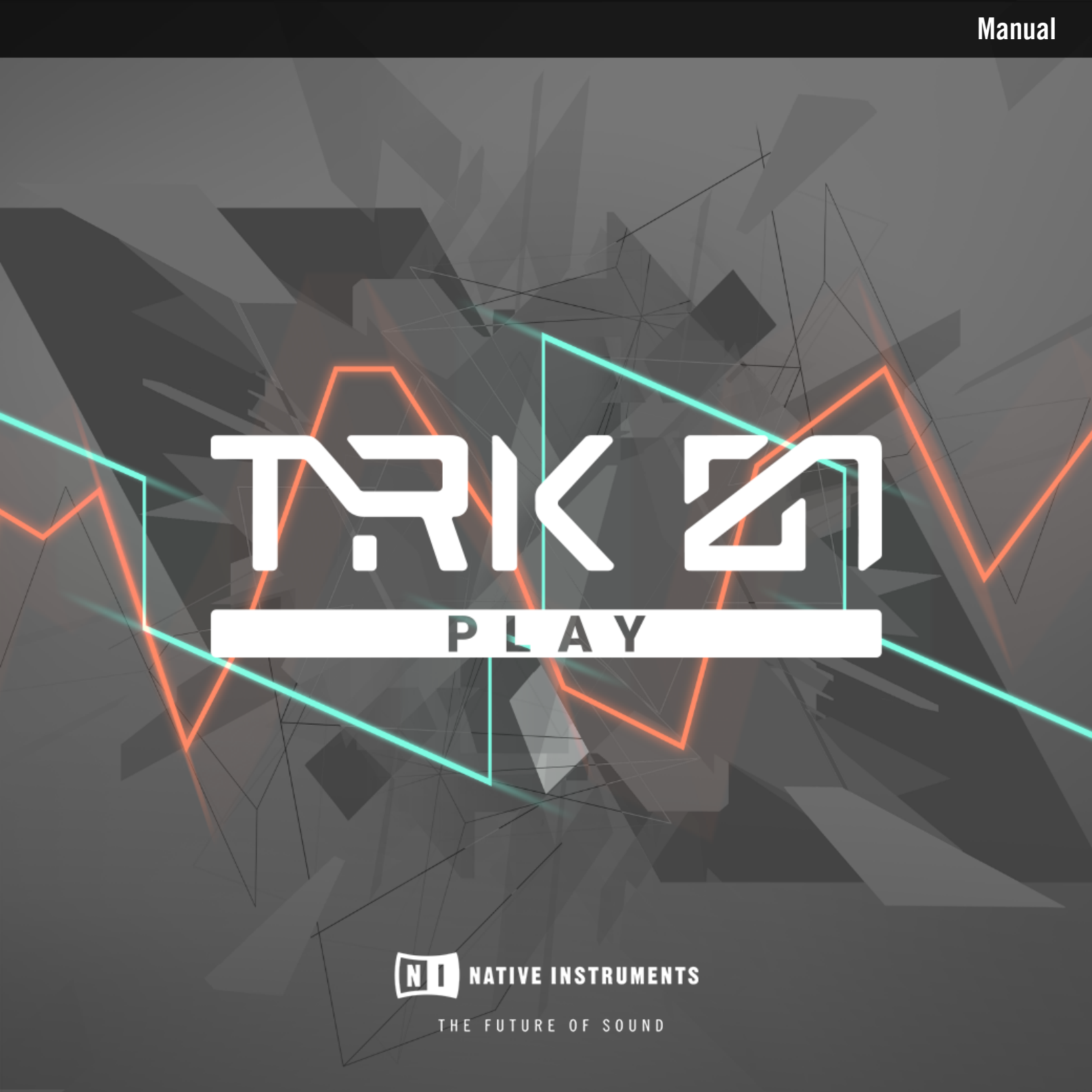
TRK 2
PLAY
NATIVE INSTRUMENTS
THE FUTURE OF SOUND

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NATIVE INSTRUMENTS

Table of Contents

1 Welcome to TRK-01 PLAY

TRK-01 PLAY is part of Native Instruments' KOMPLETE Instruments & Effects series. It can be loaded in REAKTOR 6 and the free REAKTOR 6 PLAYER, but also integrates seamlessly with KOMPLETE KONTROL and MASCHINE.

TRK-01 PLAY presents TRK-01's KICK and BASS as individual instruments for use in your host. TRK-01 KICK features extensive possibilities to sculpt any kick drum sound imaginable, and TRK-01 BASS allows you to create a huge variety of bass sounds.

The controls of TRK-01 PLAY are optimized for playability, offering smooth operation and a wide range of sweet spots. Different modes for sections like TRK-01 KICK's Layers or TRK-01 BASS's OSCILLATOR allow you to completely change the character of the sound in an instant.

TRK-01 PLAY provides you with the tools to create the foundation of your track in a playful manner. Enjoy!

2 Using TRK-01 PLAY in KOMPLETE KONTROL

TRK-01 PLAY consists of two instruments that can be loaded in KOMPLETE KONTROL: TRK-01 KICK and TRK-01 BASS. Both are optimized for integration 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.

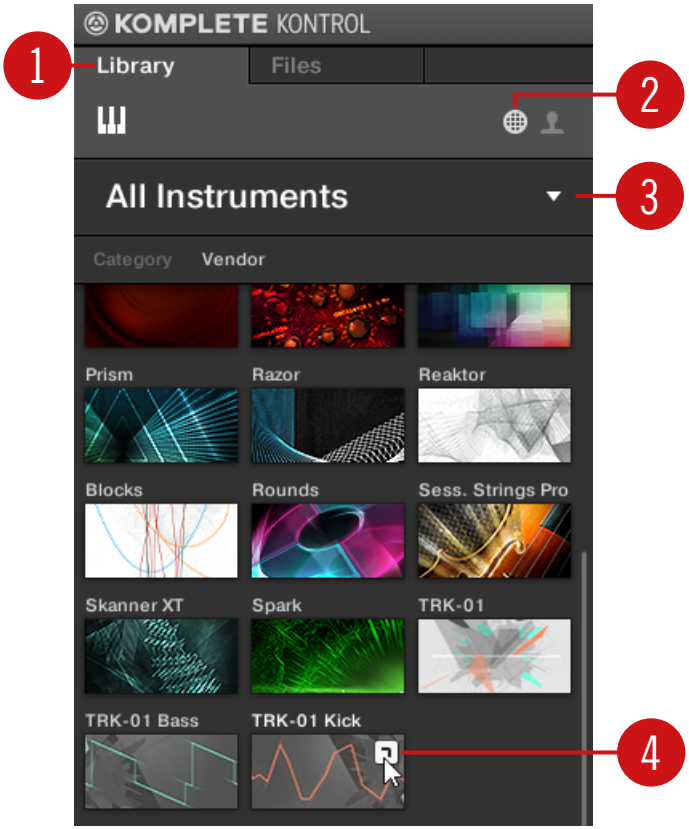
NKS also facilitates full integration with MASCHINE, allowing you to browse for Preset files and control the instruments using a MASCHINE controller.

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

For more information about controlling TRK-01 PLAY using the KOMPLETE KONTROL keyboard, refer to ↑4, MIDI Control and Host Integration.

2.1 Opening TRK-01 PLAY in KOMPLETE KONTROL

To open TRK-01 PLAY in KOMPLETE KONTROL:



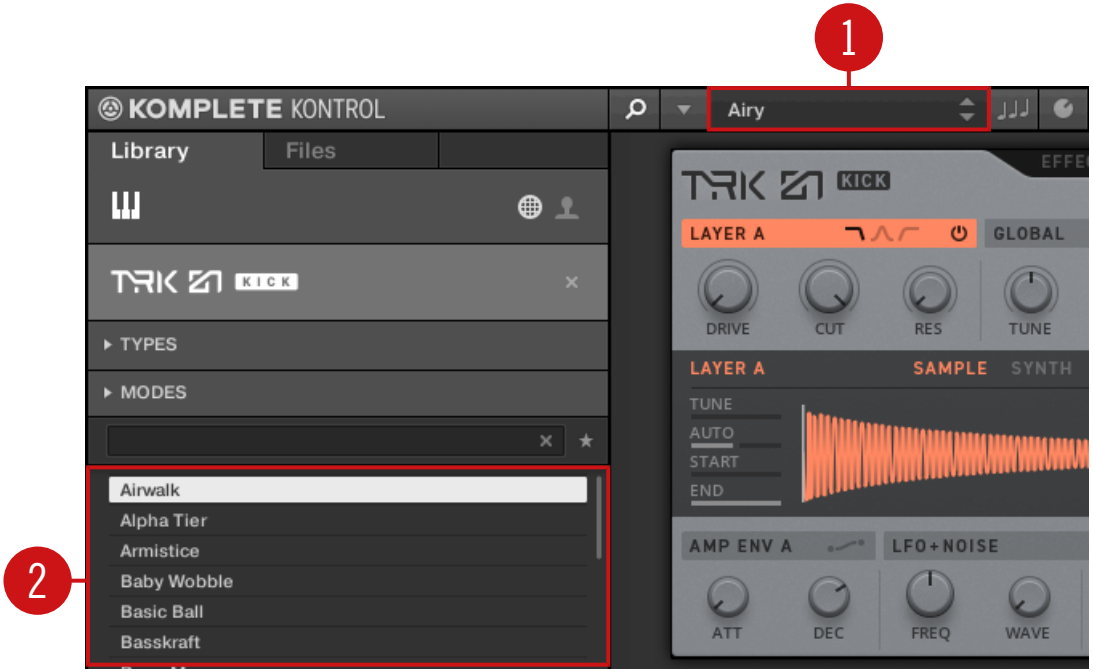
Opening TRK-01 PLAY in KOMPLETE KONTROL

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

→ The corresponding instrument loads with its default Preset file.

2.2 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.

2.3 Saving and Loading User Preset Files in KOMPLETE KONTROL

In order to permanently save all adjustments and settings made in TRK-01 PLAY including your samples you need to save a User Preset file.

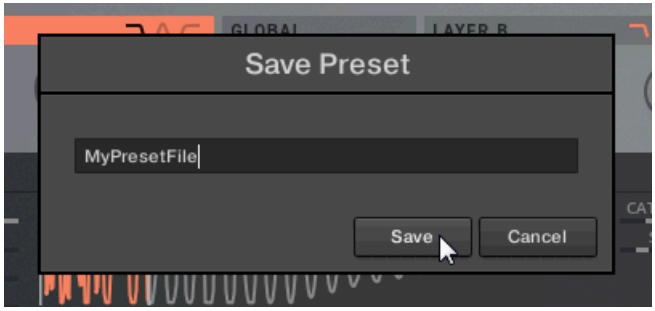
For more information about loading samples, refer to ↑6.3, Sample Mode.

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.

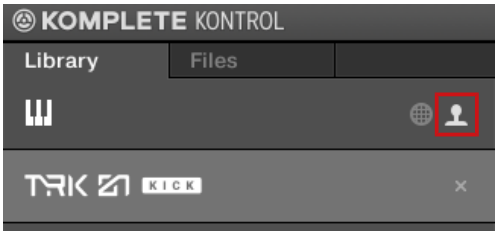


→ Your User Preset file is saved.

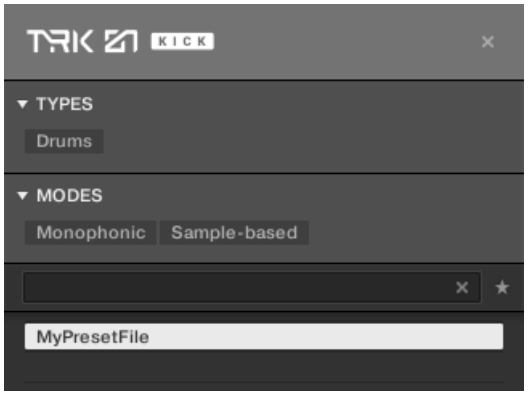
Loading User Preset Files

To load a previously saved User Preset file:

1. Select the user content in the KOMPLETE KONTROL Browser and ensure that TRK-01 Kick or TRK-01 Bass is selected in the Product selector.



2. 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 PLAY in REAKTOR 6. For more information about loading User Preset files in REAKTOR 6, refer to ↑3.3, Saving and Loading User Preset Files in REAKTOR 6.

3 Using TRK-01 PLAY in REAKTOR 6

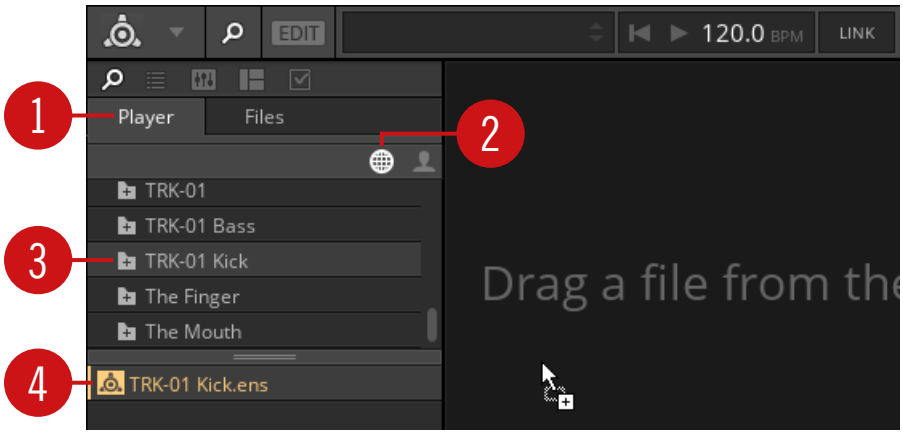
TRK-01 PLAY consists of two REAKTOR Ensembles that can be loaded in REAKTOR 6. This allows you to not only play the instruments, but also combine them with other Ensembles, or dive into their Structure to learn more about how they are built.

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.

3.1 Opening TRK-01 PLAY in REAKTOR 6

To open TRK-01 PLAY in REAKTOR 6:



Opening TRK-01 PLAY in REAKTOR 6

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

3. Find the TRK-01 Kick and TRK-01 Bass folders (**3**) in the list of Native Instruments products and click on the one corresponding to the instrument you want to load.
4. Drag and drop TRK-01 Kick.ens or TRK-01 Bass.ens (**4**) from the lower section of the Browser into REAKTOR's main area, or double-click on it.

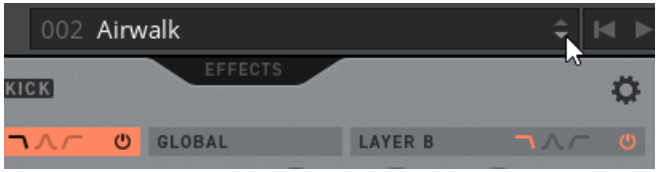
→ The corresponding instrument loads with its default Preset file.

3.2 Exploring Factory Preset Files in REAKTOR 6

In REAKTOR 6, TRK-01 PLAY'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:

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

2. Click on an entry in the list.

→ The corresponding Snapshot is loaded.

3.3 Saving and Loading User Preset Files in REAKTOR 6

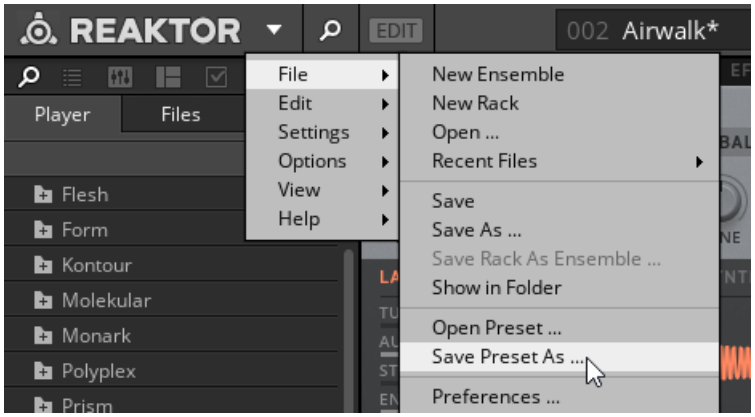
In order to permanently save all adjustments and settings made in TRK-01 PLAY including your samples you need to save a User Preset file.

- For more information about loading samples, refer to ↑6.3, Sample Mode.

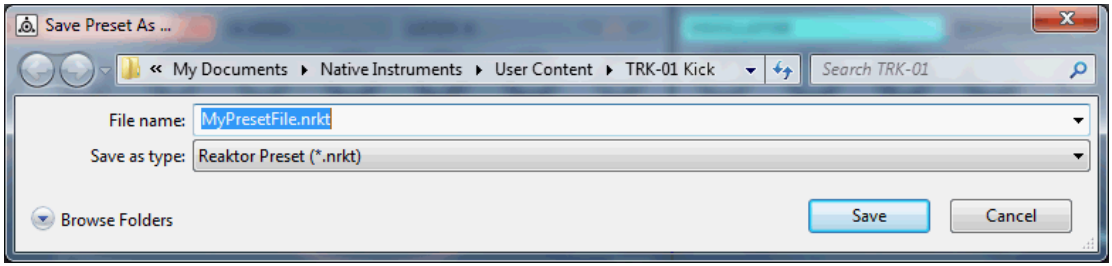
Saving User Preset Files

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:

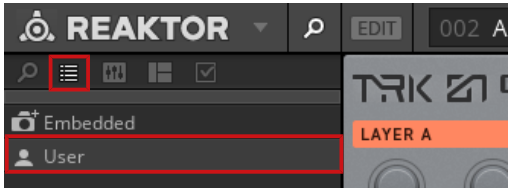
macOs: /Users/<user name>/Documents/Native Instruments/User Content/[TRK-01 Kick or TRK-01 Bass]

Windows: \Users\<user name>\Documents\Native Instruments\User Content\[TRK-01 Kick or TRK-01 Bass]

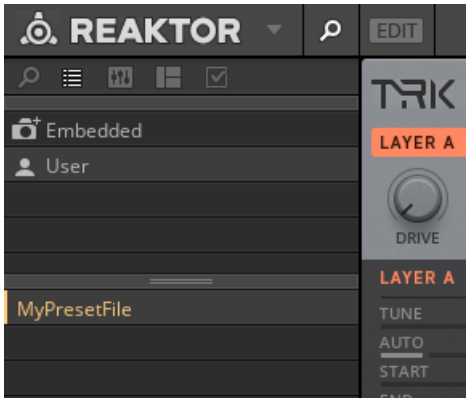
Loading User Preset Files

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 ↑2.3, Saving and Loading User Preset Files in KOMPLETE KONTROL.

4 MIDI Control and Host Integration

You can play TRK-01 KICK and TRK-01 BASS via MIDI using standard MIDI keyboards and adjust instrument parameters remotely using MIDI controllers. They are optimized for use with KOMPLETE KONTROL keyboards and MASCHINE controllers by supporting Native Kontrol Standard (NKS).

In order to provide a meaningful range of pitches for playing a kick drum, TRK-01 KICK transposes the MIDI input down by two octaves. This means if you play C3 (MIDI note #60), the instrument outputs C1.

TRK-01 KICK and TRK-01 BASS integrate with your host by providing host automation of key controls and allowing you to use sequencers to control and play them via MIDI.

All controls are enabled for automation and MIDI control in a host except the ones found in the instruments' Settings. Selectors with multiple values like the LAYER Mode selector or the Filter Mode selector operate as single controls. The values are distributed evenly across the range of the control. Some hosts cannot automate the selectors, including Ableton Live.

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

5 Kick Overview

TRK-01 KICK is an instrument that features extensive possibilities to sculpt any kick drum sound imaginable. It couples sampling and synthesizer techniques in a basic structure: Two independent Layer sections for sound generation including distortion and resonant filters are combined in the GLOBAL section.

TRK-01 KICK's controls are optimized to provide smooth transitions between timbres, producing a wide range of sweet spots. The different modes of LAYER A and LAYER B allow you to completely change the character of TRK-01 KICK on the fly.

TRK-01 KICK consists of the following areas:

Overview of TRK-01 KICK

(**1**) **Header**: Provides access to the Effects and the Settings. For more information about the Effects, refer to ↑10, Kick Effects. For more information about the Settings, refer to ↑11, Kick Settings.

(**2**) **Main area**: Provides key controls to shape your sound. The controls are organized into three sections: LAYER A, GLOBAL, LAYER B. For more information, refer to ↑5.1, Main Area.

(**3**) **Display area**: Provides visual feedback and facilitates in-depth editing of additional parameters for each section of TRK-01 KICK, and gives you access to the Modulation Routing. For more information, refer to ↑5.2, Display Area.

(**4**) **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 ↑5.3, Modulation Area.

5.1 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 ↑5.2, Display Area.

The Main area consists of the following sections:

TRK-01 KICK's Main area

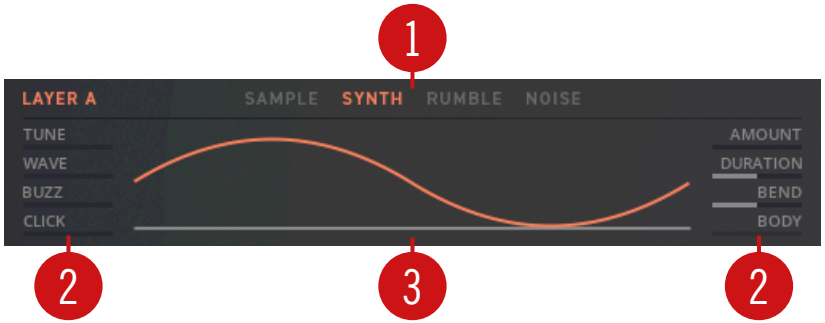
(**1**) LAYER A: The first of two independent Layer sections has three controls in the Main area that allow you to define the basic character of the sound. The first control adjusts the amount of DRIVE, or distortion, while the second and third control are dedicated to LAYER A's filter. For more information, refer to ↑6, Kick Layer Sections.

(**2**) GLOBAL: This central section has two controls in the Main area that allow you to control the tuning and mix of TRK-01 KICK. The first control adjusts the tuning, while the second control blends between LAYER A and LAYER B. For more information, refer to ↑7, Kick Global Section.

(**3**) 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 ↑6, Kick Layer Sections.

5.2 Display Area

The Display area provides visual feedback for the selected section in the Main and Modulation areas of TRK-01 KICK and offers additional parameters that allow you to build your own sounds from scratch and fine-tune Preset files.



TRK-01 KICK '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 ↑5.2.2, Modulation Routing.

5.2.1 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 ↑6, Kick Layer Sections.
- For more information about GLOBAL's additional parameters, refer to ↑7, Kick Global Section.

- For more information about AMP ENV A's and AMP ENV B's additional parameters, refer to ↑8, Kick Envelope Sections.
- For more information about the LFO+NOISE's additional parameters, refer to ↑9, Kick LFO +Noise Section.

5.2.2 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:

TRK-01 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.

5.3 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 ↑5.2, Display Area.

The Modulation area consists of the following sections:

TRK-01 KICK'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 TRK-01 KICK's Main area. For more information, refer to ↑8, Kick Envelope Sections.

(**2**) LFO+NOISE: A combined low-frequency oscillator and noise generator that can be used to modulate any of the controls in TRK-01 KICK's Main area. For more information, refer to ↑9, Kick 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 TRK-01 KICK's Main area. For more information, refer to ↑8, Kick Envelope Sections.

6 Kick 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 ↑6.1, Layer Mode Selector and ↑6.2, Pitch Envelope.

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

TRK-01 KICK'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.

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:

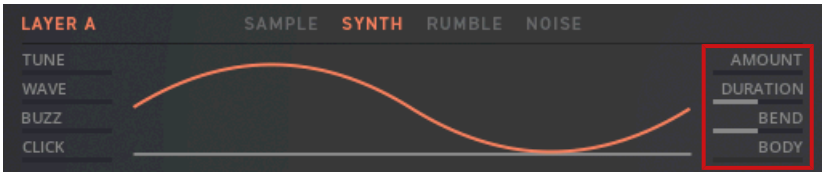
The LAYER Mode selector

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 ↑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 ↑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 ↑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 ↑6.6, Noise Mode.

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:



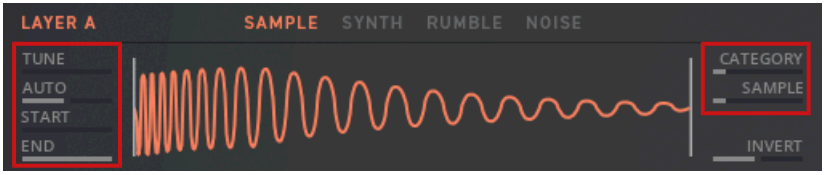
The Pitch Envelope parameters of LAYER A's and LAYER B's SYNTH mode

- 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.

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

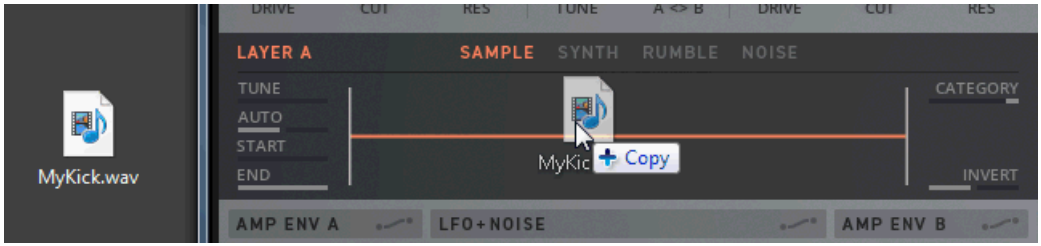
- TUNE: Adjusts the pitch of the Layer in a range of -12 to +12 semitones.
- AUTO: Tunes the sample to match the instrument's pitch.

- 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.

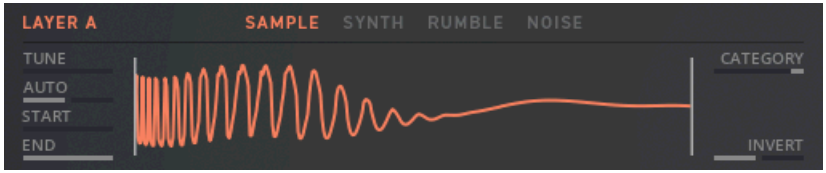
Loading User Samples

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>.



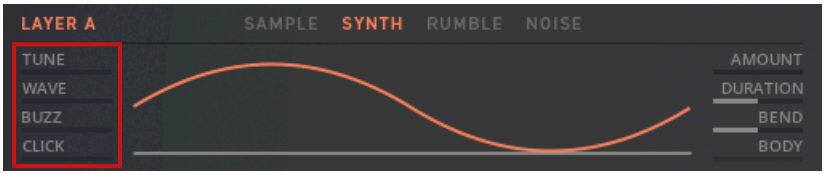
Once a user sample has been loaded, it is available in the <USER> entry of the CATEGORY parameter of the respective Layer as long as the current Preset file is loaded.

To permanently save your samples, you need to save them as part of a User Preset file. For more information, refer to ↑2.3, Saving and Loading User Preset Files in KOMPLETE KONTROL and ↑3.3, Saving and Loading User Preset Files in REAKTOR 6.

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:



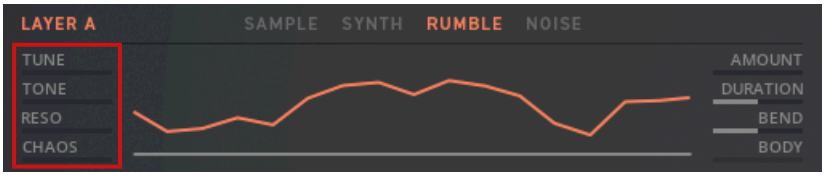
Additional parameters of LAYER A's and LAYER B's SYNTH mode

- 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.

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:



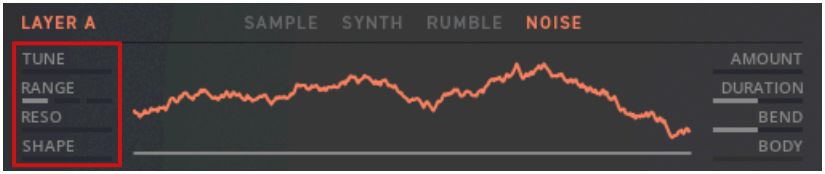
Additional parameters of LAYER A's and LAYER B's RUMBLE mode

- 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.

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.

7 Kick 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 TRK-01 KICK globally.

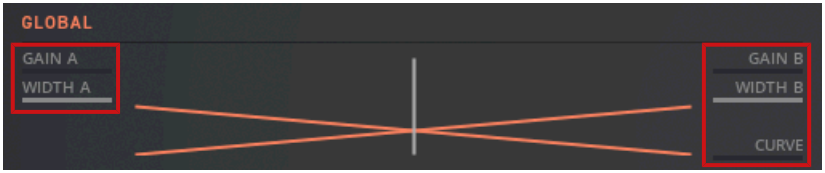
The GLOBAL section's controls in the Main area allow you to control the tuning and mix of TRK-01 KICK:

TRK-01 KICK's GLOBAL section

- TUNE: Transposes TRK-01 KICK 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.

8 Kick 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.

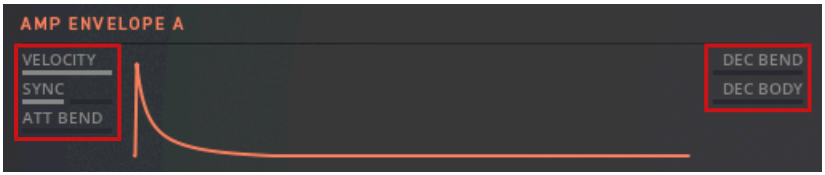
The Envelope sections' controls in the Modulation area provide access to the Modulation Routing and allow you to adjust the duration of each envelope's attack and decay phases:

TRK-01 KICK'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 ↑5.2.2, 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 Kick 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 ↑9.1, 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:

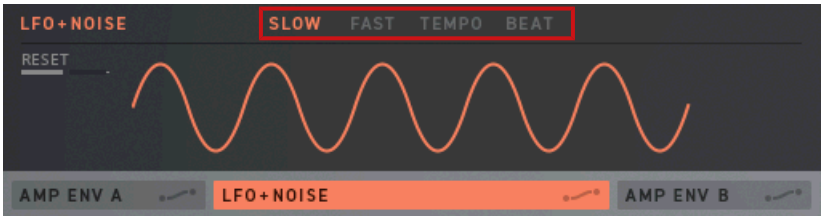
TRK-01 KICK's LFO+NOISE section

- **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 ↑5.2.2, 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.

9.1 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 ↑9.2, 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 ↑9.2, 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 ↑9.2, 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 ↑9.3, Beat Mode.

9.2 Slow, Fast, and Tempo Mode

The LFO+NOISES'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:

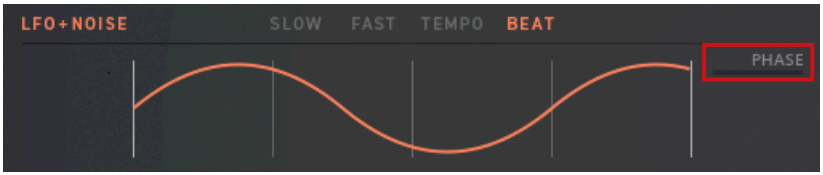
Additional parameters of the LFO+NOISE's SLOW, FAST, and TEMPO modes

- 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.

9.3 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.

10 Kick Effects

The Effects add to TRK-01 KICK with a selection of effects and processors suitable to enhance and polish the basic sound of your kick drum. They consist of a flexible INSERT section for distortion and filtering effects, an EQUALIZER for balancing frequency content, and an OUTPUT section featuring a built-in compressor for final shaping of your kick drums' dynamics.

► To open the Effects, click on the Effects button at the center of TRK-01 KICK's Header.

The Effects consist of the following sections:

The Effects' Main area

(**1**) 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 ↑10.1, Insert Section.

(**2**) 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 ↑10.2, Equalizer Section.

(**3**) 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 ↑10.3, Output Section.

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 ↑5.2, Display Area.

10.1 Insert Section

The INSERT section is used to enhance the sound produced by TRK-01 KICK. 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 ↑10.1.1, Insert Mode Selector.

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

The 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 ↑10.1.1, 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 ↑10.1.5, Lowpass Mode and ↑10.1.6, Highpass Mode.

10.1.1 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 ↑10.1.2, Distort Mode.
- S&H: A sample rate reducer that tracks the instrument's pitch, with adjustable pitch offset for the sampling rate. For more information, refer to ↑10.1.3, S&H Mode.
- BIT REDUX: A bit crusher with adjustable amount of bit reduction. For more information, refer to ↑10.1.4, 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 ↑10.1.5, 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 ↑10.1.6, Highpass Mode.

10.1.2 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.

10.1.3 S&H Mode

The INSERT's S&H mode is a sample rate reducer that tracks TRK-01 KICK'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.

10.1.4 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.

10.1.5 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.

10.1.6 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.

10.2 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.

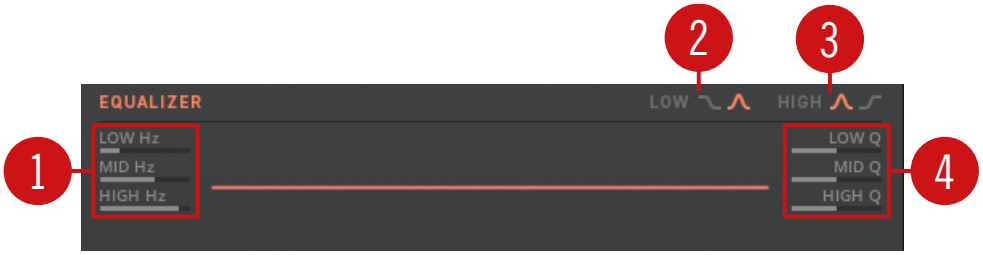
The EQUALIZER section's controls in the Main area allow you to attenuate or amplify the low, mid, and high frequencies:

The 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**) 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.

(**3**) 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.

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

10.3 Output Section

The OUTPUT section is used to finalize the sound of TRK-01 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 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 TRK-01 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).

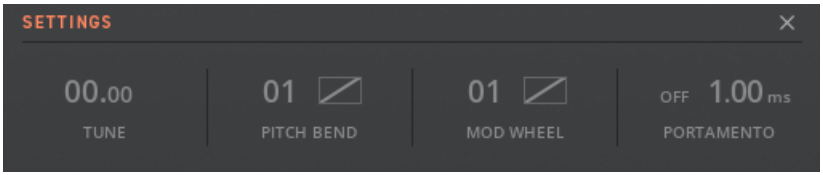
(**4**) **Metering**: Shows the peak level of the compressor's input signal at the top, the amount of attenuation applied by the compressor in the middle, and the peak level of the compressor's output signal at the bottom.

11 Kick Settings

The Settings allow you to configure how the instrument responds to incoming MIDI data, for example from a MIDI keyboard or a sequencer.

► To open the Settings, click on the Settings button in the upper right corner of the user interface.

The Settings consist of the following controls:



TRK-01 KICK Settings

TUNE: Allows you to configure the global tuning of the instrument.

- **Coarse**: Adjusts the tuning in the range of -24 to +24 semitones (in steps of 1 semitone).
- **Fine**: Adjusts the tuning in the range of -24 to +24 semitones (in steps of 1 cent).

PITCH BEND: Allows you to configure the instrument's response to playing the pitch bend control on a MIDI keyboard.

- **Range**: Adjusts the range of the pitch bend control in semitones.
- **Shape**: Adjusts the response curve of the pitch bend control.

MOD WHEEL: Allows you to configure the instrument's response to playing the modulation wheel on a MIDI keyboard.

- **Range**: Adjusts the range of the modulation wheel control in semitones. It controls the intensity of a vibrato effect generated by the LFO.
- **Shape**: Adjusts the response curve of the modulation wheel control.

PORTAMENTO: Allows you to configure the behavior of the portamento function. Portamento, or glide, forces the pitch to slide from one note to the next instead of changing abruptly.

- **Mode**: Enables the portamento function. ON applies portamento to all notes. In this case, any key press triggers a note and sets off the envelopes. AUTO applies portamento only when playing legato. In this case, pressing a key while holding another does not trigger a note and does not set off the envelopes.
- **Duration**: Adjusts the time it takes portamento to smoothly go from the pitch of one note to the next.

12 Bass Overview

TRK-01 BASS is an instrument that allows you to create a huge variety of expressive bass sounds. 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.

TRK-01 BASS's controls are optimized to provide smooth transitions between timbres, producing a wide range of sweet spots. The different modes of the OSCILLATOR, MODIFIER, and FILTER sections allow you to completely change the character of TRK-01 BASS on the fly.

TRK-01 BASS consists of the following areas:

Overview of TRK-01 BASS

(**1**) **Header**: Provides access to the Effects and the Settings. For more information about the Effects, refer to ↑18, Bass Effects. For more information about the Settings, refer to ↑19, Bass Settings.

(**2**) **Main area**: Provides key controls to shape your sound. The controls are organized into three sections: OSCILLATOR, MODIFIER, FILTER. For more information, refer to ↑12.1, Main Area.

(**3**) **Display area**: Provides visual feedback and facilitates in-depth editing of additional parameters for each section of TRK-01 BASS, and gives you access to the Modulation Routing. For more information, refer to ↑12.2, Display Area.

(**4**) **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 ↑12.3, Modulation Area.

12.1 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 TRK-01 BASS, 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 ↑12.2, Display Area.

The Main area consists of the following sections:

TRK-01 BASS's Main area

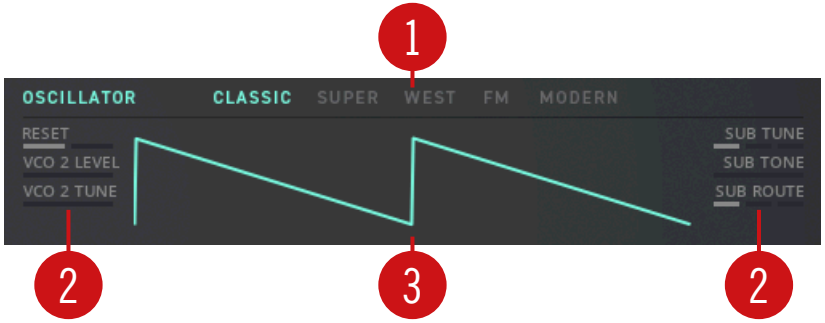
(**1**) OSCILLATOR: This open-ended section for complex sound generation has three controls in the Main area that allow you to define the basic character of the sound. The first two controls adjust parameters specific to the selected OSCILLATOR mode, while the third control always adjusts the level of the sub oscillator. For more information, refer to ↑13, Bass Oscillator Section.

(**2**) 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 ↑14, Bass Modifier Section.

(**3**) 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 TRK-01 BASS. For more information, refer to ↑15, Bass Filter Section.

12.2 Display Area

The Display area provides visual feedback for the selected section in the Main and Modulation areas of TRK-01 BASS and offers additional parameters that allow you to build your own sounds from scratch and fine-tune Preset files.



TRK-01 BASS'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 ↑12.2.2, Modulation Routing.

12.2.1 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 ↑13, Bass Oscillator Section.
- For more information about the MODIFIER's additional parameters, refer to ↑14, Bass Modifier Section.

- For more information about FILTER's additional parameters, refer to ↑15, Bass Filter Section.
- For more information about AUX ENV's and AMP ENV's additional parameters, refer to ↑16, Bass Envelope Sections.
- For more information about the LFO's additional parameters, refer to ↑17, Bass LFO Section.

12.2.2 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:

TRK-01 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.

12.3 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 ↑12.2, Display Area.

The Modulation area consists of the following sections:

TRK-01 BASS's Modulation area

(**1**) AUX ENV: An envelope generator that can be used to modulate any of the controls in TRK-01 BASS's Main area. For more information, refer to ↑16, Bass Envelope Sections.

(**2**) LFO: A low-frequency oscillator that can be used to modulate any of the controls in TRK-01 KICK's Main area. For more information, refer to ↑17, Bass LFO Section.

(**4**) AMP ENV: An envelope generator that controls TRK-01 BASS's output level and can also be used to modulate any of the controls in TRK-01 BASS's Main area. For more information, refer to ↑16, Bass Envelope Sections.

13 Bass Oscillator Section

The OSCILLATOR section defines the sound of TRK-01 BASS 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 ↑13.1, Oscillator Mode Selector and ↑13.2, Sub Oscillator.

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

TRK-01 BASS '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 ↑13.1, 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 ↑13.2, Sub Oscillator.

13.1 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:

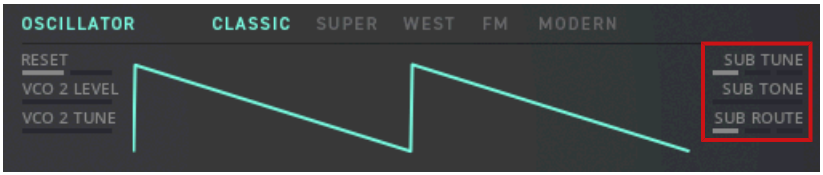
The OSCILLATOR Mode selector

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 ↑13.3, Classic Mode.
- SUPER: A sawtooth waveform oscillator that is mixed with six additional, variably detuned oscillator instances. For more information, refer to ↑13.4, Super Mode.
- WEST: A wave shaping oscillator that morphs between three special waveforms and applies additional wave folding. For more information, refer to ↑13.5, West Mode.
- FM: Two-operator frequency modulation with easily controllable frequency intervals and a deep modulation index. For more information, refer to ↑13.6, FM Mode.
- MODERN: A wavetable oscillator that smoothly morphs between two wavetables and applies special warping to the waveform. For more information, refer to ↑13.7, Modern Mode.

13.2 Sub Oscillator

The sub oscillator is an additional, basic oscillator that allows you to reinforce the fundamental frequency of the sound produced by TRK-01 BASS, 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 TRK-01 BASS's signal path: after the OSCILLATOR (POST OSC), after the MODIFIER and FILTER (PRE AMP), or after the Effect's EQUALIZER (POST EQ).

13.3 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.

13.4 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).

13.5 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).

13.6 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).

13.7 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.

14 Bass 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 ↑14.1, Modifier Mode Selector.

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

TRK-01 BASS'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 ↑14.1, Modifier Mode Selector.
- MIX: Blends between the input signal and the processed signal.

14.1 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 ↑14.2, Ring Mode.
- FREQ: A frequency shifter that tracks the OSCILLATOR's pitch, with adjustable pitch offset. For more information, refer to ↑14.3, 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 ↑14.4, 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 ↑14.5, S&H Mode.

14.2 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.

14.3 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.

14.4 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.

14.5 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.

15 Bass 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 ↑15.1, Filter Mode Selector and ↑15.2, 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 TRK-01 BASS's signal chain:

TRK-01 BASS '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 TRK-01 BASS. This allows you to create dirty and distorted sounds by introducing non-linear behavior.

15.1 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:

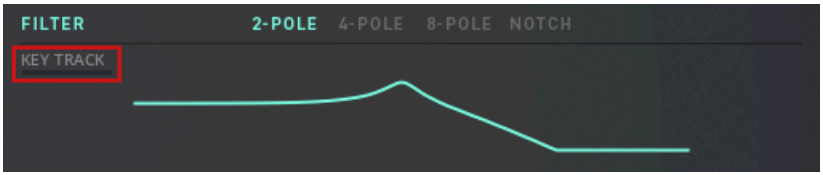
The FILTER Mode selector

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.

15.2 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 TRK-01 BASS. 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.

16 Bass 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.

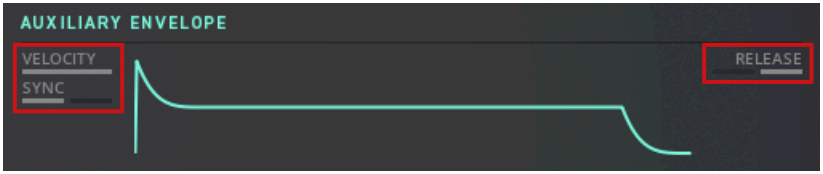
The Envelope sections' controls in the Modulation area provide access to the Modulation Routing and allow you to adjust the duration of each envelope's attack and decay phases as well as the level of the sustain phase:

TRK-01 BASS'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 ↑12.2.2, 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'fs 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.

17 Bass 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 ↑17.1, LFO Mode Selector.

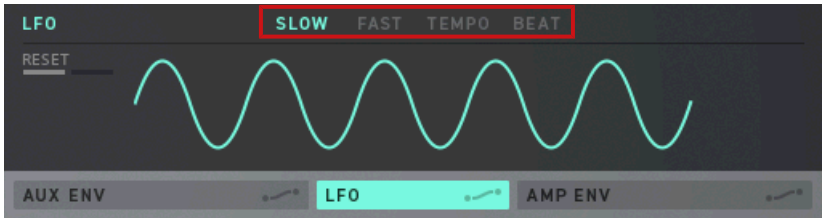
The LFO section's controls in the Modulation area provide access to the Modulation Routing and allow you to adjust key parameters of the low-frequency oscillator:

TRK-01 BASS '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 ↑12.2.2, 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.

17.1 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 ↑17.2, 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 ↑17.2, 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 ↑17.2, 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 ↑17.3, Beat Mode.

17.2 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:

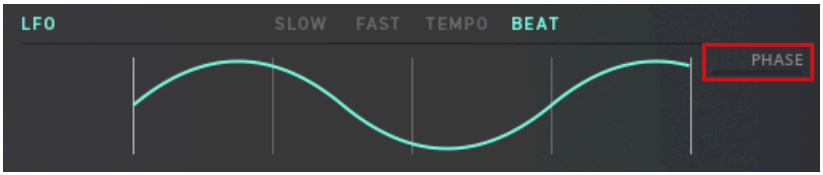
Additional parameters of the LFO's SLOW, FAST, and TEMPO modes

- 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.

17.3 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

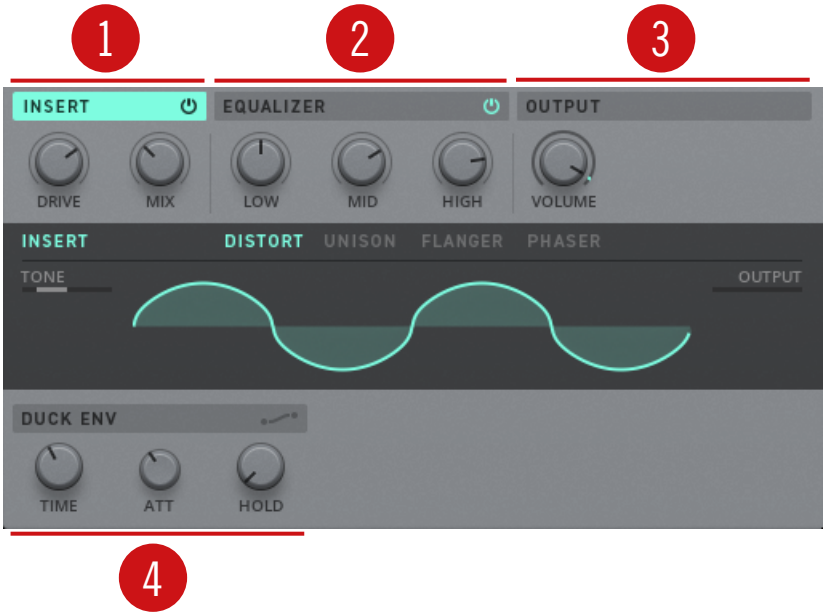
- PHASE: Shifts the position of the beat-locked LFO in BEAT mode relative to the clock of the host.

18 Bass Effects

The Effects add to TRK-01 BASS with a selection of effects and processors suitable to enhance and polish your basic bass sound. They consist of a flexible INSERT section for distortion and modulation effects, an EQUALIZER for balancing frequency content, and an OUTPUT section featuring a built-in compressor for final shaping of your bass sound's dynamics. The additional DUCK ENV allows you to create effects similar to rhythmic sidechain-compression or ducking.

► To open the Effects, click on the Effects button at the center of TRK-01 BASS's Header.

The Effects consist of the following sections:



The Effect 's Main and Modulation areas

(**1**) 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 ↑18.1, Insert Section.

(**2**) 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 ↑18.2, Equalizer Section.

(**3**) 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 ↑18.3, Output Section.

(**4**) DUCK ENV: This section offers immediate control over key parameters of a special envelope generator that can be triggered independently of the notes TRK-01 BASS is playing. For more information, refer to ↑18.4, Ducking Envelope Section.

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 ↑12.2, Display Area.

18.1 Insert Section

The INSERT section is used to enhance the sound produced by TRK-01 BASS. 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 ↑18.1.1, Insert Mode Selector.

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

The 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 ↑18.1.1, Insert Mode Selector.
- MIX: Blends between the input signal and the processed signal.

18.1.1 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 ↑18.1.2, Distort Mode.
- UNISON: A chorus-like effect that tracks the instrument's pitch. For more information, refer to ↑18.1.3, Unison Mode.

- FLANGER: A flanger effect that produces moving, harmonically related peaks and notches in the frequency spectrum. For more information, refer to ↑18.1.4, Flanger Mode.
- PHASER: A phaser effect that produces moving peaks and notches in the frequency spectrum. For more information, refer to ↑18.1.5, Phaser Mode.

18.1.2 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.

18.1.3 Unison Mode

The INSERT's UNISON mode is a chorus-like effect that tracks the instrument'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.

18.1.4 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.

18.1.5 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.

18.2 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.

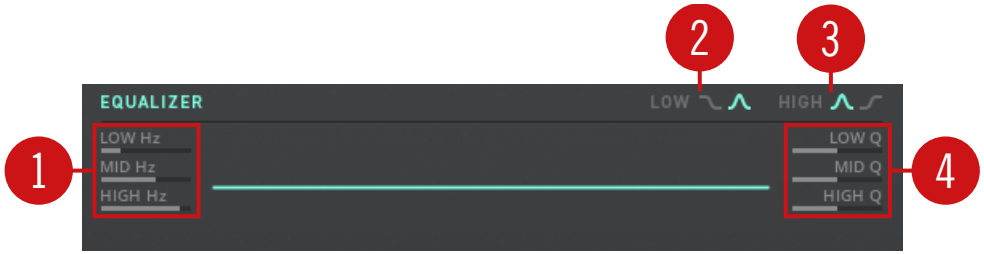
The EQUALIZER section's controls in the Main area allow you to attenuate or amplify the low, mid, and high frequencies:

The 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**) 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.

(**3**) 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.

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

18.3 Output Section

The OUTPUT section is used to finalize the sound of TRK-01 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:

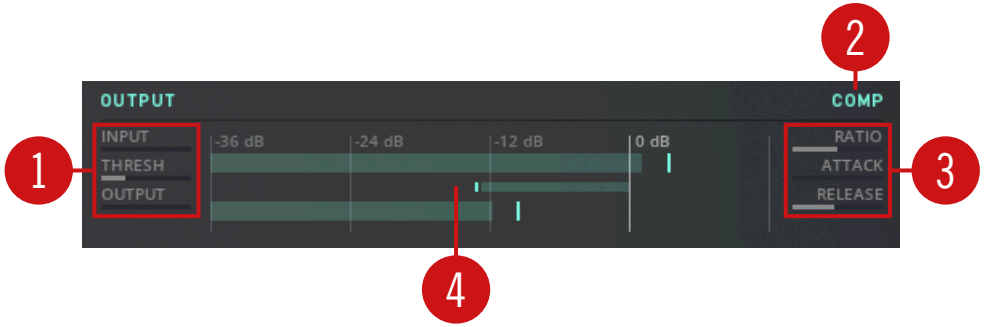
The Effects' OUTPUT section

- 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 TRK-01 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.

18.4 Ducking Envelope Section

The Effects' DUCK ENV is a special envelope generator that is triggered by a specific MIDI note sent to the instrument. By default, it can be triggered by sending C0 (MIDI note #60).

You can change the MIDI note triggering the DUCK ENV in the Settings. For more information, refer to ↑19, Bass Settings.

The DUCK ENV 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 Effects' Main area. This allows you to create effects similar to rhythmic side-chain-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:

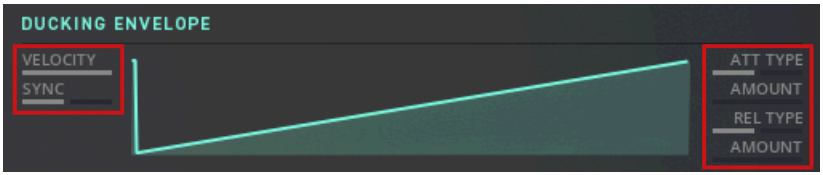
The Effects' DUCK ENV

- **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 ↑12.2.2, 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 ENVA

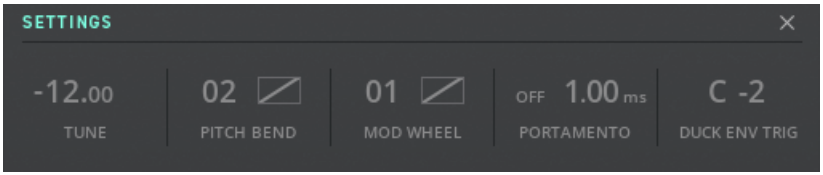
- VELOCITY: Adjusts how much velocity values of incoming note events from the Sequencer affect the envelope strength.
- SYNC: Enables tempo sync for the envelope, allowing you to set TIME in note values relative to the host tempo (e.g. 1/1 for whole notes, 1/4 for quarter notes, etc.).
- ATT TYPE: Selects 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.

19 Bass Settings

The Settings allow you to configure how the instrument responds to incoming MIDI data, for example from a MIDI keyboard or a sequencer.

► To open the Settings, click on the Settings button in the upper right corner of the user interface.

The Settings consist of the following controls:



TRK-01 BASS Settings

TUNE: Allows you to configure the global tuning of the instrument.

- **Coarse**: Adjusts the tuning in the range of -24 to +24 semitones (in steps of 1 semitone).
- **Fine**: Adjusts the tuning in the range of -24 to +24 semitones (in steps of 1 cent).

PITCH BEND: Allows you to configure the instrument's response to playing the pitch bend control on a MIDI keyboard.

- **Range**: Adjusts the range of the pitch bend control in semitones.
- **Shape**: Adjusts the response curve of the pitch bend control.

MOD WHEEL: Allows you to configure the instrument's response to playing the modulation wheel on a MIDI keyboard.

- **Range**: Adjusts the range of the modulation wheel control in semitones. It controls the intensity of a vibrato effect generated by the LFO.
- **Shape**: Adjusts the response curve of the modulation wheel control.

PORTAMENTO: Allows you to configure the behavior of the portamento function. Portamento, or glide, forces the pitch to slide from one note to the next instead of changing abruptly.

- **Mode**: Enables the portamento function. ON applies portamento to all notes. In this case, any key press triggers a note and sets off the envelopes. AUTO applies portamento only when playing legato. In this case, pressing a key while holding another does not trigger a note and does not set off the envelopes.
- **Duration**: Adjusts the time it takes portamento to smoothly go from the pitch of one note to the next.

DUCK ENV TRIG: Allows you to configure a custom MIDI note for triggering the DUCK ENV. For more information, refer to ↑18.4, Ducking Envelope Section.

- **Note**: Adjusts the MIDI note triggering the DUCK ENV in semitones.
- **Octave**: Adjusts the MIDI note triggering the DUCK ENV in octaves.