

BASS GENERATOR DOCUMENTATION



Your guide to *more* bass

Installation & Requirements	3
Maximum Distortion, Maximum Power	
Elevate Your Bass Game	4
User interface and concept	6
General UI controls	8
STEP 1 - Set Source	9
STEP 2 - Set Style	10
STEP 3 - Shape Style	11
STEP 4 - Add Extra Bassline	12
STEP 5 - Replace Sub	13
STEP 6 - Use The Sampler	14
STEP 7 - Add additional effects	15
Tips, tricks, additional info and best practises	15
Automation	16
Default values	16
Precision knob set	16
Render to audio to get consistent distortion	16
CPU Performance	16
Tuning and perceived pitch	17
BPM sync, sample start and speed timestretch	17
Phase inverting	17
Key ranges for best Bass	17
Velocity	17
HOW TO	18
Set the Main Bass so it plays on the off beat	18
Set the Extra Bass so it plays on the off beat	18
How to reset the distortion style to the init style	18
How to load more than 5 bass layers?	18
How to add my own audio samples to the kick, main bass and sampler?	19
How to correct the little latency when exporting to audio?	19

Lussive Audio presents
BASS GENERATOR
DOCUMENTATION (v1.0)

Installation & Requirements

This instrument is created for Kontakt Player and Kontakt v7.10.5 and newer.

OS: MacOS or Windows resolution 875x750 minimum.

The instrument requires 19 MB of instrument RAM memory on top of the usage of Kontakt and the DAW. The instrument is optimized and compatible with both NKS and NKS2. Ready-to-use on Machine and Kontrol.

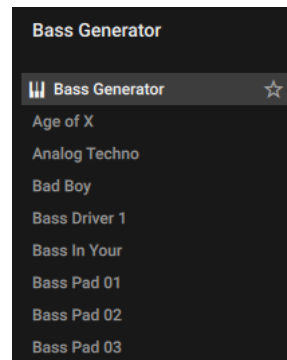
Installation

This instrument is installed via Native Access.

Go to <https://bass-generator.com/> for the latest installation instructions.

Loading the instrument

- Start your DAW and load Kontakt Player v7.10.5 or newer
- Go to the instrument library.. Search for Bass Generator



- Open by loading the main instrument or a specific preset
- The Bass Generator is ready to use





Maximum Distortion, Maximum Power Elevate Your Bass Game

The Bass Generator is a sampler instrument redefining heavy bass distortion. It consists of 6 different sound layers. It is designed to create bass sounds like basslines, bass pads, bass distortions, reversed basses and gated bass sounds.

The concept of the Bass Generator is based on 7 sound design steps.

1. Set the main bassline source
2. Set the style of distortion
3. Shape the distortion style to taste
4. Optionally add an extra bassline layer
5. Optionally replace the sub sound with a clean sub sound
6. Optionally play or load an additional bassline layer. Or export your generated distorted bass and continue with it in the sampler
7. Optionally add effects.

Additionally you can play a kick drum to support your bass sound.

▼ STEP 1 - Set source

Select any of the 25 bass layers to start with, or load your own

▼ STEP 2 - Set style

Choose any of the 10 modeled distortion algorithms and optionally set the rhythm style to none, straight, triplet or stutter mode.

▼ STEP 3 - Shape style

Shape the distortion style further with two EQ sets, a shape control, amount mix and analog control. Correct the output volume of the layer to taste

▼ STEP 4 - Add extra bassline

Use the bass wavetable synthesizer to add additional sound layers. The instrument features 25 bass wavetables which can be shaped to taste.

▼ STEP 5 - Replace sub

If desired the sub range of the bass sound can be replaced with a variety of 11 different sub sounds. From clean sub basses to reverb rumbles.

▼ STEP 6 - Use the Sampler

Use the on-board sampler to load an extra bass sound or load your newly created bass sound to use in your track. Including 20 ready-to-use sample layers

▼ STEP 7 - Add additional effects

Use the on-board effects engine to optimize your sound for instant usage in your track.

Optional: Play a Kickdrum

Play any of the 10 included kickdrums to get a feeling of how your bass sounds in combination with a kick. Or load your own kick drum. The Bass Generator is not a kick generator so only 10 example kicks for various styles are included. Like techno, hardstyle and trance.

User interface and concept



The bass generation process is done in various steps but each step can also be used individually. The first 3 steps can be used to shape the main bass sound. Extra bass sounds can be added via step 4, which works independently from the main bass sound. This extra bass layer has a wide range of controls to shape and has its own distortion effect that can be shaped.

The main bass and extra bass layer together can be enough to create many types of bass sounds. Optionally steps 5 to 7 can be used to further shape the sound. The instrument features 128 presets, ready to be used. A supportive kick drum can be added to listen to the bass sound in context. Or to just use if the included kickdrums and bass are a match. This instrument is not focussed on kicks so there's just some kicks included fitting for various styles.

Main Bass Layer Step 1,2,3



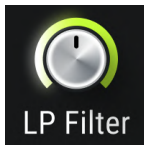
Extra Bass Layer Step 4



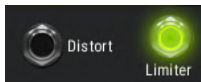
Optimize & Play Step 5,6,7



General UI controls



Knob – click and drag with your mouse to change the value. CMD / CTRL + click will reset to the default position, in case the knob has a default position. SHIFT + click and drag fine-tunes the value.



Enable / Toggle / Activate – Several controls can be used to enable or activate a feature, such as the power icon, line input icon and, text button

RESET LABELS

LOAD EXTRA BASS

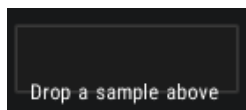
Sub Bass



Sub Straight



Sound selection - a dropdown menu can be used along a previous and next icon button to navigate the sounds.



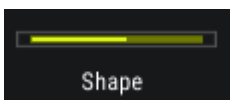
Drag & drop sample upload - drop an audio sample from your DAW or file explorer to load your own sound.



Reset feature - Restore a sound or distortion style to its original state.

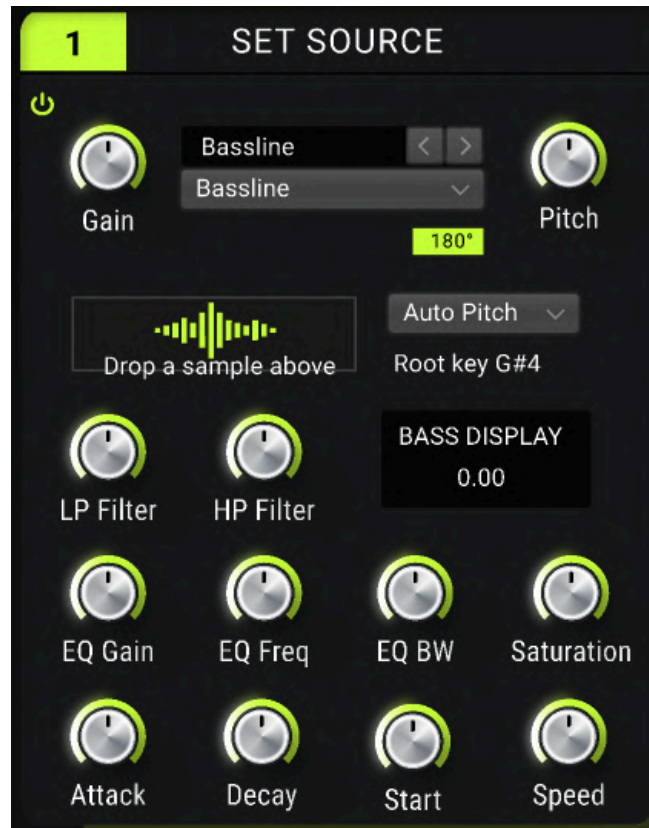


Toggle - Control to toggle between panels or active a feature



Slider - use the slider control by dragging left to right.

STEP 1 - Set Source



Select any of the 25 bass layers to start with, or load your own. When you drop an audio sample in the “drop a sample above” panel, the sound selection automatically is set to “Custom Bass / Sample / Kick”.

An uploaded sound will be automatically analyzed for pitch. In case the auto-detection fails or you want to manually override it, set the “Auto Pitch” dropdown to Manual and use the knob to set the root key manually.

Changing the pitch can be done in case you want to slightly de-tune or move the bass sound an octave up or down. Use the shift control for precision mapping.

The start and speed controls can be used to better time your audio to the desired BPM or use a different part of the bass wave as a starting point.

In case multiple bass layers are stacked, it is advised to test reversing the phase by clicking the 180 / 0 degrees icon.. Sometimes this leads to interesting sound variation or optimized quality.

STEP 2 - Set Style



Choose any of the 10 modeled distortion algorithms and optionally set the rhythm style to none, straight, triplet or stutter mode.

Rhythm - means there is no automating volume shaping applied. Some bass layers play from the start and they can be used to make bass pads. Other layers already have a straight bassline on their own.

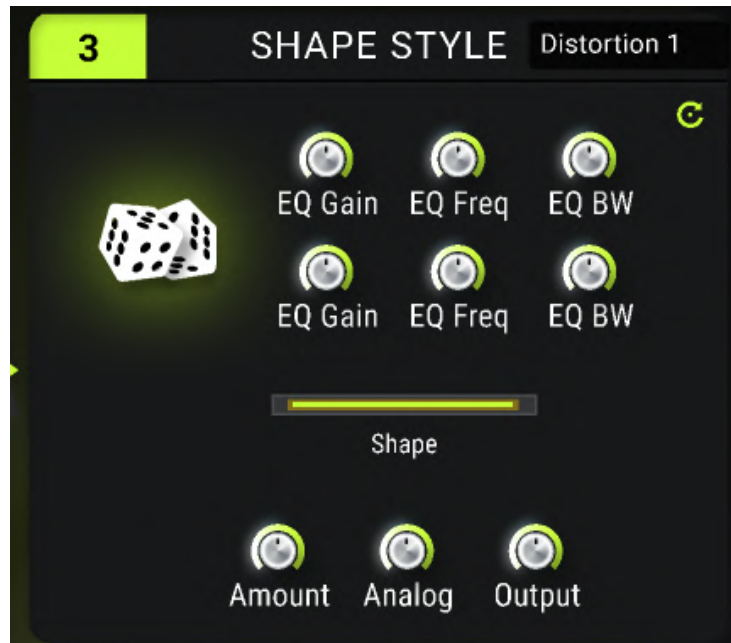
Straight and Triplet means the volume automation is set to half beat (straight) or at around $\frac{2}{3}$ of a beat.

Stutter mode plays the sound with a volume shape of 3 peaks.

Play with the mix to play the non volume shaped sound together with the shaped out. The rhythm control lets you play with the timing of the shaper effect.

Each distortion type has its set of controls which load when changing the style. See "Step 3"

STEP 3 - Shape Style



Shape the distortion style further with two EQ sets, a shape control, amount mix and analog control. Correct the output volume of the main bass to match other used layers..

Use the dice to randomize the EQ controls for interesting and quick sound shaping.

Each distortion style has its own controls which are loaded when the style is switched. They are remembered in the current loaded instrument instance.

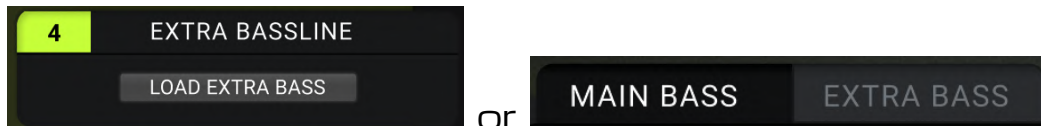
The shape controls a set of unique parameters per distortion style in one go. The amount sets the distortion amount and can be used to lower or increase the effect.

The analog control adds some bitcrusher noise and saturation to give an analog effect. Since distortion usually increases the output volume, the output knob can be used to mix the main bass layer with others.

In case you want to reset the distortion style, click the reset icon in the top right.

STEP 4 - Add Extra Bassline

Click “load extra bass” or the “extra bass” tab to load the extra bassline panel



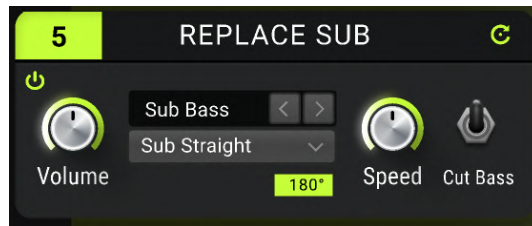
Use the bass wavetable synthesizer to add additional sound layers. The instrument features 25 bass wavetables which can be shaped to taste. Two sound layers can be set as the source. Using the same layers for both results in using the same instance. It is best to use different layers in case you want to create a layered sound with panning, different pitch, et cetera.

Use the “SCRUB” feature to set the starting position of the wavetable sound. In the bottom left there are controls for pitch and two LFO’s. Use the toggle to navigate between the pitch LFO and the filter LFO. Enable them independently by clicking the LFO Pitch or LFO Cutoff knobs.

Use the roar mode to give a fast looping effect to the sound. When used, check the tuning of the instrument to make sure the sound plays in key (if you care for the type of sound you are creating.)

Enable the distortion in the top right and shape the distortion with three different shape styles. Make sure the shaping is enabled first and then individually enable the shapes by clicking the text button.

STEP 5 - Replace Sub



If desired the sub range of the bass sound can be replaced with a variety of 11 different sub sounds. From clean sub basses to rumbles with reverb.

Some sub sounds are a full length sub tone and some have a bassline rhythm. The ones marked with a T mean they are in triplet mode.

Use the Speed knob to match the sub to your desired BPM and rhythm. Try to reverse the phase in case multiple layers also play in the sub range.

The Cut Bass toggle is an easy way to automatically enable a high pass filter on the other layers, making room under 70 hz for the sub layer to play solo. Toggle up means the other layers have the high pass filter enabled.

STEP 6 - Use The Sampler



Use the on-board sampler to load an extra bass line or load your newly created bass sound to use in a track. Including 20 ready-to-use sample layers.

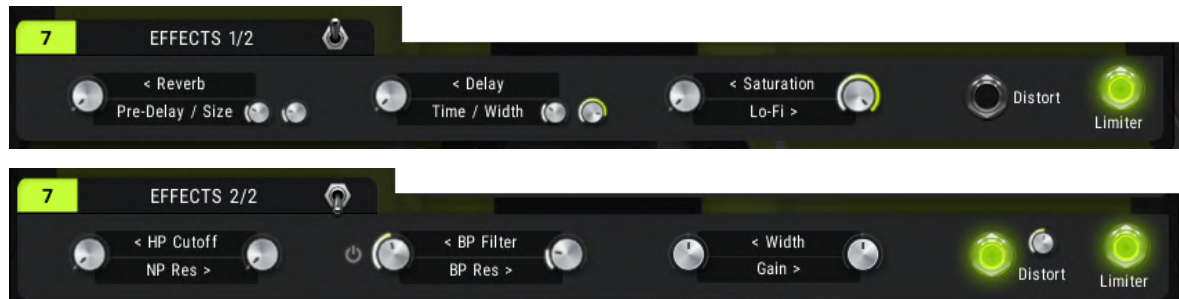
The EQ is chained before the saturation effect so it can be used to add extra character to the distorted sound.

Some sample layers are auto mapped to the DAW's BPM. For these sounds the start and speed controls are hidden.

Some of the sample layers are created on a specific BPM, such as the reversed basses on 150 bpm.

You can easily time the sound to your liking by using the sample start knob and the speed control. The speed control is a high quality timestretch effect, making it possible to time the bassline to any bpm. .

STEP 7 - Add additional effects



Use the on-board effects engine to optimize your sound. This is optional as you can of course also use effects in your DAW.

The effects engine is divided into 2 panels which can be switched via the toggle in the panel header.

Effects include:

Send FX on the main bass, extra bass and sampler

- Reverb (Amount, Pre-delay, Size)
- Delay (Amount, Time, Width)

Insert FX on the master Kontakt instrument output

- Saturation
- Lo-fi bitcrusher
- Distortion (Amount)
- Limiter
- HP Filter / Resonance
- BP Filter / Resonance
- Stereo Width
- Gain

Tips and relevant information:

Turning the stereo width left makes the bass sound more mono.

In case you want to get as much clipping as possible in the sound design process, you can clip on the master of your DAW by disabling the limiter.

Caution, loud volumes are to be expected when turning the limiter off.

The delay is always timed to the BPM of your DAW. In case you want to use a more creative delay, it is advised to use an effect in your DAW.

Tips, tricks, additional info and best practises

Automation

By default all 125+ knobs and controls have been configured in the Host Automation. Ready to use for all controls for which Kontakt allows automation. For example, automation on a switch doesn't work as it's just visual. Just turn on the automation write mode in your DAW, start playback and twist the knobs.

Default values

Many knobs have a default setting value. Like 0,0 DB or 0,00 Tune.
Ctrl / CMD + Mouse click results in the knob to be restored to its default position.

Precision knob set

You can set a knob with more precision by holding the SHIFT key while you change the value.

Render to audio to get consistent distortion

When heavy bass distortion is applied together with EQ peaks shaping the sound, each note played can sound different. This is a logical effect for EQ + Distortion chains. In case a particular distortion sound is favored, it is advised to export the sound to a single note WAV file and load it into the sampler so play every note in the same sound.

So, when you are done creating the bass sound on a specific note, export or record your single bass sound in your DAW. The resulting sample can then be loaded directly into the sampler via drag and drop.

This way you can have consistent distortion playing over all played keys, including timestrething and sample start features. It depends on the amount and type of distortion applied, if this is necessary.

CPU Performance

In case the instrument is heavy on your CPU, there are a few things you can do to increase performance.

1. Disable the reverb and / or delay by setting the amount all the way to 0 (left). Both effects take up quite some CPU so when disabled it's more CPU friendly.
2. Use a different distortion style algorithm. Some use a chain of up to 8 effects which can be CPU heavy.

Tuning and perceived pitch

When applying distortion and using EQ peaks, our ears sometimes focus on specific parts of the timbre. Especially when certain harmonics are boosted more than others. This can result in a sound being out of tune. Most layers have fine-tune pitch control. Best practice here is to play a pure tone with a sine generator from another synth and tune your bass this way.

BPM sync, sample start and speed timestretch

Some sound layers have a specific rhythm, like the psy bass sounds.

They are automatically synced to the chosen BPM.

Some sounds are intentionally not, but do have silence in it and a specific rhythm. Those sounds, like Bass 1 (source bass) and Sampler 1 (sampler bass), can creatively be controlled and still be timed to your desired BPM.

This can be done using the sample start and speed controls.

Turning the speed control left time stretches the sound longer making it slower.

Turning right makes the sound shorter and faster. The sample start knob can be used to start a sound sooner or later.

Phase inverting

180°

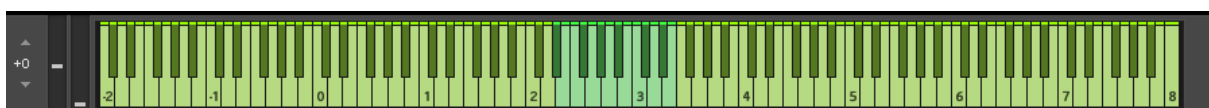
Phase inversion flips the waveform's polarity. It's a powerful tool in audio engineering for resolving phase issues and creatively manipulating sound.

When frequencies in the same range collide they can cause phase issues. The phase of the waveform can either cancel out or multiply the wave's amplitude. This effect can be very interesting in designing a distortion character. So make sure to now and then click the "180 / 0" buttons on the main bass, sub or sampler layer.

Key ranges for best Bass

All keys are mapped to play back the sounds and colored with a lime color..

However, it is advised to play your bass sounds in the range of the green colored keys below. This is where the sub frequencies are strongest. Of course, this all depends on how you use the Bass Generator



Velocity

Use the velocity on / off button in the bottom to enable playing by velocity. By default velocity is fixed to 100 meaning the sound levels are fed on maximum volume to the distortion units. Turning it off allows you to use the velocity of your midi notes. This impacts the sound volume and distortion timbre.

HOW TO

Set the Main Bass so it plays on the off beat

You can use the Rhythm Control in the bottom of the Set Style panel to make an off beat bassline. You can set the Rhythm to “Straight”, meaning the bassline plays right in the center of a beat. In some cases you can change the “start” of the sound to play a different timbre. The Rhythm control on the right lets you play with the timing. Centered means “Straight”

between the beats. The more to the left, the more “Triplet” it becomes so then it’s

playing slightly later. All the way to the right means the bassline starts right away after the kick. Important to know here is that not all main bass layers are a full length bass tone. Some are actually basslines on their own already. This impacts the way the rhythm works in combination with the sample start.

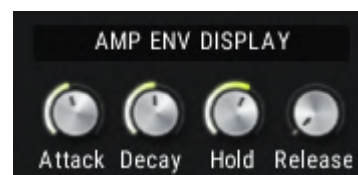


Set the Extra Bass so it plays on the off beat

There are two ways of making the Extra Bass layers play like a bassline.

1: Use the AMP Envelope

by increasing the attack time and setting a short hold and decay time, the sound will play like a bassline that fades in.



2. If you want a more direct bassline, it is best to use the LFO Filter function.

Enable the LFO, set the timing to 1/4 and open either the Sine or Rect knob. The rectangle means it is opening up like a square wave, so very direct.

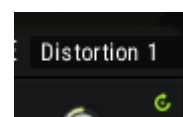
The sine knob shapes the LFO to be fading in and out. Use the Phase to adjust further timing. This can for instance be used to play the Extra Bass sound on the kick and not between kicks.



How to reset the distortion style to the init style

There is a small “reset icon” below the distortion label in the top right corner. Pressing this icon resets the distortion style to how it’s designed in the instrument default.

This reset function is also available on all the sound layer panels to reset the controls to their default state.

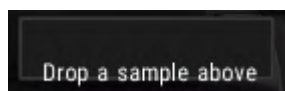


How to load more than 5 bass layers?

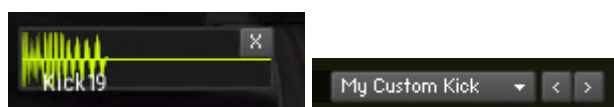
That’s easy, just load another instance of the Bass Generator in the same Kontakt instance and set the MIDI channel to the same number. And repeat the process if you even need more layers.

How to add my own audio samples to the kick, main bass and sampler?

Adding your own sounds is possible on the Kick, Main Bass and Sampler layers. In each of the panels there's a drag & drop area where you can drop a sample. Accepted audio formats are: wav, aif, aiff, ncw)

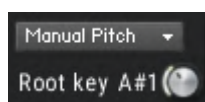


After dropping your sample, the waveform shows and the custom layer is automatically selected.



You can remove the sample again by pressing the X. Replacing the sample is done by simply dropping a new file on the waveform area.

The Main Bass and Sampler audio files can be tuned by changing the root key. Initially the pitch is auto-detected by the instrument and the key is indicated. If your audio file doesn't have a clearly defined pitch, it can be the algorithm fails detection and indicates the wrong key. In this case you can set the Auto Pitch to Manual Pitch and use the root key control to set it according to the key of your sound.



The Kick layer doesn't have auto pitch detect as it doesn't tune with the key pressed on the keyboard. So any key plays the kick as it is. It can be pitched with the tune control.

How to correct the little latency when exporting to audio?

When using Kontakt, some minor latency can be introduced due to the processing of the instrument. When you want perfectly timed audio it is advised to record / export your instrument output to an audio track in your DAW. Move the resulting audio forward in time to get it perfectly on the timeline.

