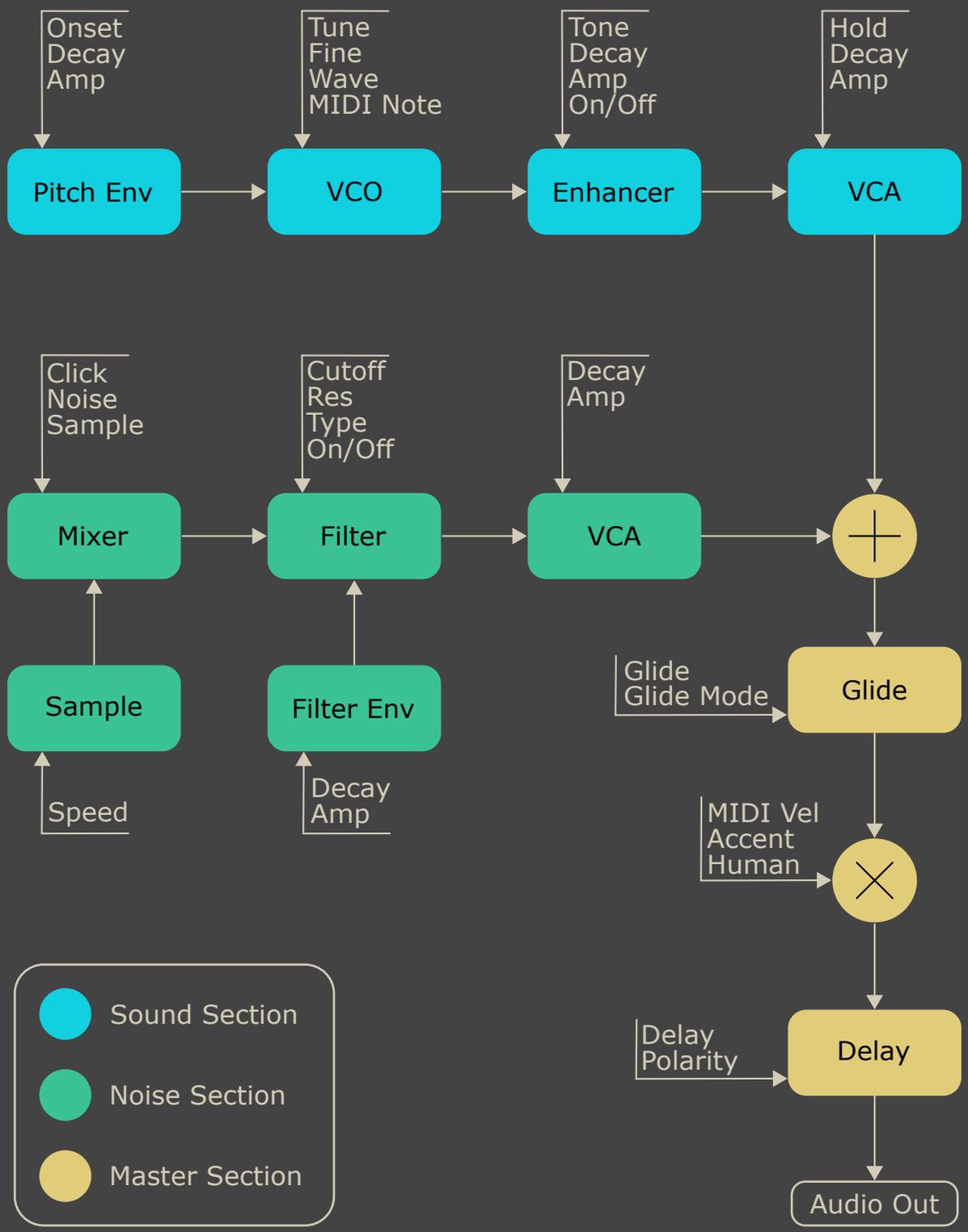


BDE-01
USER MANUAL

BDE-01 - Sound architecture



About the BDE-01

The Synsonic Instruments BDE-01 plugin is a versatile and powerful plugin specialized on bass drum synthesis.

It offers a wide range of styles and a lot of effective soundshaping possibilities. To get the most out of it, it is important to understand the concept of the BDE-01, so read the manual carefully.

There are three sections: The Sound Section which creates the body of the bass drum, the Noise Section which adds a click, noise or sample sound and the Master Section, which allows general settings.



Demo Version

You can download a free demo to test the plugin. The demo version will play a noise every minute and preset saving is not possible.

The Sound Section

The sound section creates the body of the bass drum sound and consists of four parts:



VCO

The VCO generates the waveform and has following parameters:

Pitch: Controls the pitch in halftones. Lowering the pitch generates subbass-frequencies and increasing the pitch generates tom-like sounds.

Fine: Controls the pitch in cents. Good for fine tuning.

Wave: You can choose between a sine, triangle, rectangle and sawtooth waveform. Each waveform has different harmonics and thereby alters the sound.

KYB: By enabling the KYB switch, the pitch of the BDE-01 will depend on the note value of the incoming MIDI messages. Thereby you can play the BDE-01 as a bass-synth.

Pitch Envelope

The Pitch Envelope modulates the frequency of the VCO. There is a very short envelope, with it's amplitude adjustable via Onset and a second envelope, which can also be used to obtain a slow decaying pitch.

Onset: Adjusts the amount of a very short increase in pitch at the beginning of the sound. This creates a nice attack sound.

Decay: Controls the decay of the second pitch envelope.

Amp: Controls the amplitude of the second pitch envelope.

Enhancer

The Enhancer shapes the waveforms produced by the VCO and behaves different for each waveform. For a bass drum sound we need waveforms with only a few harmonics, especially for the decaying part.

A sinewave has no harmonics at all. With the enhancer you can distort the sine to get some character to the sound.

The triangle waveform has too much harmonics. The Enhancer shapes the triangle towards a sinewave to reduce harmonics.

Rectangle and Sawtooth have lots of harmonics, so the Enhancer reduces them by lowpass filtering.

The attack sound of a bass drum can have a lot of harmonics. With the enhancer envelope you can increase the amount of harmonics in the attack phase and reduce it during the decaying part.

Here are the parameters of the enhancer:

Tone: Adjusts the amount of harmonics of the waveform.

Decay: Controls the decay of the harmonics envelope.

Amp: Controls the amplitude of the harmonics envelope.

On/Off: Bypass the enhancer.

VCA

The VCA of the bass drum controls the amplitude of the sound. Notice that sometimes a long decay will sound more like a synth sound than a bass drum sound. By increasing the hold time instead you may get a more precise and natural sounding bass drum. Parameters are:

Hold: Adjusts the hold time of the sound envelope.

Decay: Controls the decay of the sound envelope.

Amp: Controls the amplitude of the sound envelope.

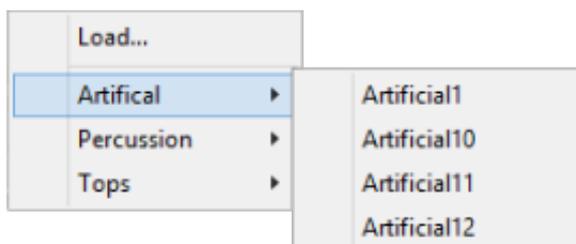
The Noise Section

In the noise section you can add a click, noise or a sample to the bass drum sound to get more character and complexity.



Sample

By clicking on the button with the down arrow you can choose a sample you want to add to your sound.



You can also browse the samples by clicking on the left and right arrows in the samplebox. There are some pre-installed samples, but you can add your own samples just by copying them into the BDE-01 samples folder.

The samples folder is at:

PC: C:\Users\~User~\Documents\Synsonic Instruments\BDE01\Samples\

OSX: /Library/Application Support/Synsonic Instruments/BDE01/Samples/

Please note that only samples in these directories are supported, e.g. they can be saved within a project or in a preset. Also only .wav files are supported.

You can set the sample playbackrate with the speed parameter.

Speed: Set the speed of sample playback.

Filter

The Filter filters the sound of the noise and the sample. Parameters are:

Cutoff: Adjusts the cutoff/center frequency of the filter.

Res: Controls the resonance of the filter.

Type: You can choose between Lowpass and Bandpass.

On/Off: Bypass the filter.

Filter Envelope

With the Filter Envelope you can modulate the filter frequency. This allows you to get harmonic rich transients and a low frequency decaying part.

Decay: Controls the decay of the filter envelope.

Amp: Controls the amplitude of the filter envelope.

Mixer

The Mixer adjusts the levels of the click, noise and samplesounds.

Click: Level of click-sound.

Noise: Level of noise-sound.

Sample: Level of sample-sound.

VCA

In the VCA the noise sound gets amplitude modulated by an envelope.

Decay: Controls the decay of the noise-section envelope.

Amp: Controls the amplitude of the noise-section envelope.

The Master Section

In the master section you can set the following parameters:

Global

By clicking on the yellow triggerpad you can trigger the bass drum.

KYB: If activated the level of the bass drum sound will depend on the MIDI note velocity.

Accent: Overall gain of the bass drum sound.

Glide: Time to glide from one note to another. Only active if KYB in the sound section is active.

Glide Mode: Up/Down: glides up and down, Up: glides only if note is higher than previous, Down: glides only if not is lower than previous.

Human: By increasing this value the accent of the bass drum sound will be changed randomly and thereby simulate a human player.

Phase

Bass drum sounds tend to interfere with other low frequency sounds resulting in sound cancellation. To avoid this you can adjust the phase of the sound:

Delay: Adds a small latency to the sound. If you notice cancellation use this parameter to delay the sound until cancellation stops.

Polarity: Inverts the polarity of the sound. Also use this parameter when facing cancellation problems.

MIDI

Learn: If you like to control a parameter of the BDE-01 with an external MIDI controller, activate the Learn switch. Then twiddle the control of the BDE-01 you want to control. Afterwards twiddle the knob of your MIDI-Controller. Afterwards deactivate the Learn function.

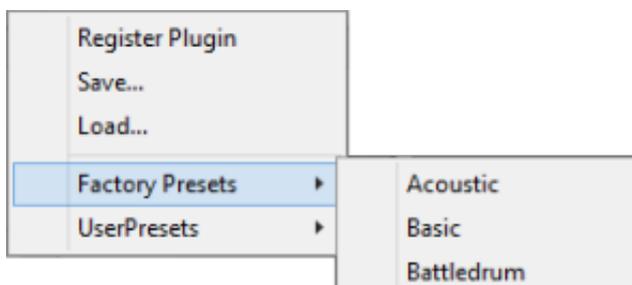


Clear: To remove a controller assignment activate the Clear switch and twiddle the BDE-01 parameter knob for which you want to delete the assignment.

Preset Menu



Click on the button with the arrow down next to the presetbox to get access to the presets.



There are two folders. In the folder Factory Presets you find the presets included in the plugin. In the folder User Presets you can save your own presets.

Click on Save... to save a preset.

Click on Load... to load a preset.

You can also browse the presets by clicking the left or right arrow in the presetbox.

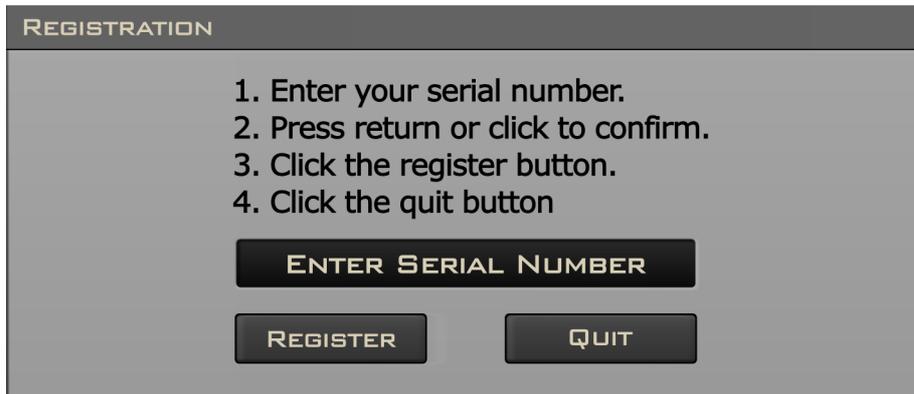
Presets are stored in the following folders:

PC: C:\Users\~User~\Documents\Synsonic Instruments\BDE01\Presets\

OSX: /Library/Application Support/Synsonic Instruments/BDE01/Presets/

Please note that only presets in these directories are supported.

Register your plugin



A registration dialog box with a dark gray header containing the word "REGISTRATION" in white. Below the header, on a light gray background, are four numbered instructions: "1. Enter your serial number.", "2. Press return or click to confirm.", "3. Click the register button.", and "4. Click the quit button". Below the instructions are three buttons: a large "ENTER SERIAL NUMBER" button, and two smaller buttons labeled "REGISTER" and "QUIT" positioned side-by-side.

In order to register your plugin click on the button with the arrow down next to the presetbox. Then choose Register Plugin. A window appears where you can enter your serial number. If your serial is correct "Registered" appears in the textfield.

NEED HELP?

CONTACT: INFO@SYNSONIC-INSTRUMENTS.COM