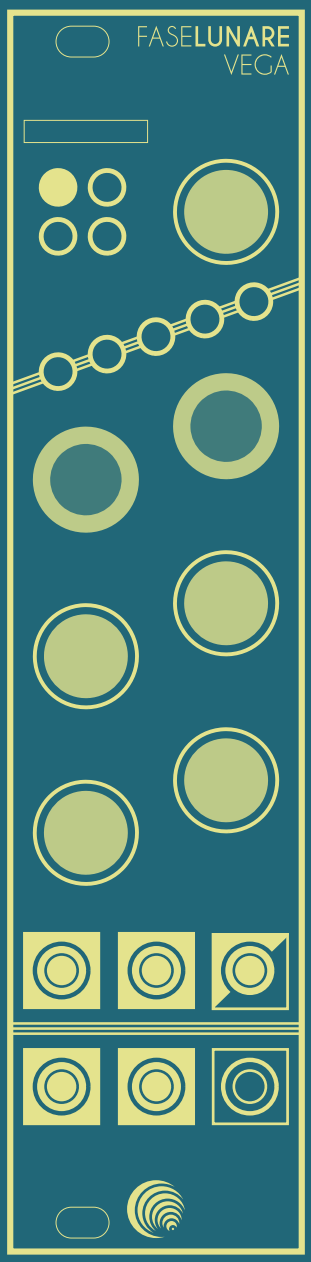
FASELUNARE
VEGA

4 VOICES EURORACK DRUM MODULE



FW version 2.0
Last update Dec 23

Manual version 2.0.1
Last update Jan 24

The Faselunare Vega module is a compact 6HP Eurorack module designed specifically for percussive sound generation. Featuring a versatile synthesis engine and sample capabilities, the module offers a powerful solution for crafting a wide range of percussion sounds in a compact space. With its efficient 6HP width, the Vega module allows for optimal use of limited rack space.

The module boasts four voices, seamlessly blending synthesis and sampled elements to provide a diverse palette of percussive tones. Its user-friendly interface is color-coded, enhancing the overall user experience by visually organizing controls for easy navigation and intuitive operation. This thoughtful design ensures that users can quickly and efficiently shape their sounds without unnecessary complexity.

To enhance usability further, the Faselunare Vega module incorporates preset functionality, allowing users to store and recall their favorite sound configurations effortlessly. This feature facilitates quick access to preferred settings, streamlining the creative process and making it an ideal choice for both live performances and studio productions. Overall, the Faselunare Vega module delivers a powerful and compact solution for eurorack enthusiasts seeking a dedicated module for expressive and dynamic percussive sound design.

In the 2.0 firmware iteration, the Faselunare Vega module underwent a comprehensive rewrite, bringing forth a host of enhancements and improvements. Notably, the digital signal processing (DSP) engine driving the module's sound generation capabilities was expertly crafted by Stefano D'Angelo of Orastron, utilizing the advanced and versatile Brickworks framework.

This collaboration with Stefano D'Angelo ensures that the Vega module leverages cutting-edge DSP techniques, elevating its sonic capabilities to new heights. The synergy between the redesigned firmware and the prowess of the Brickworks framework results in a module that not only excels in percussive sound generation but also pushes the boundaries of creative exploration within the Eurorack modular ecosystem.

TECH SPECS

Current draw

+12V 10mA
-12V 10mA
+5V 280mA Your rack must have the 5V

Dimensions

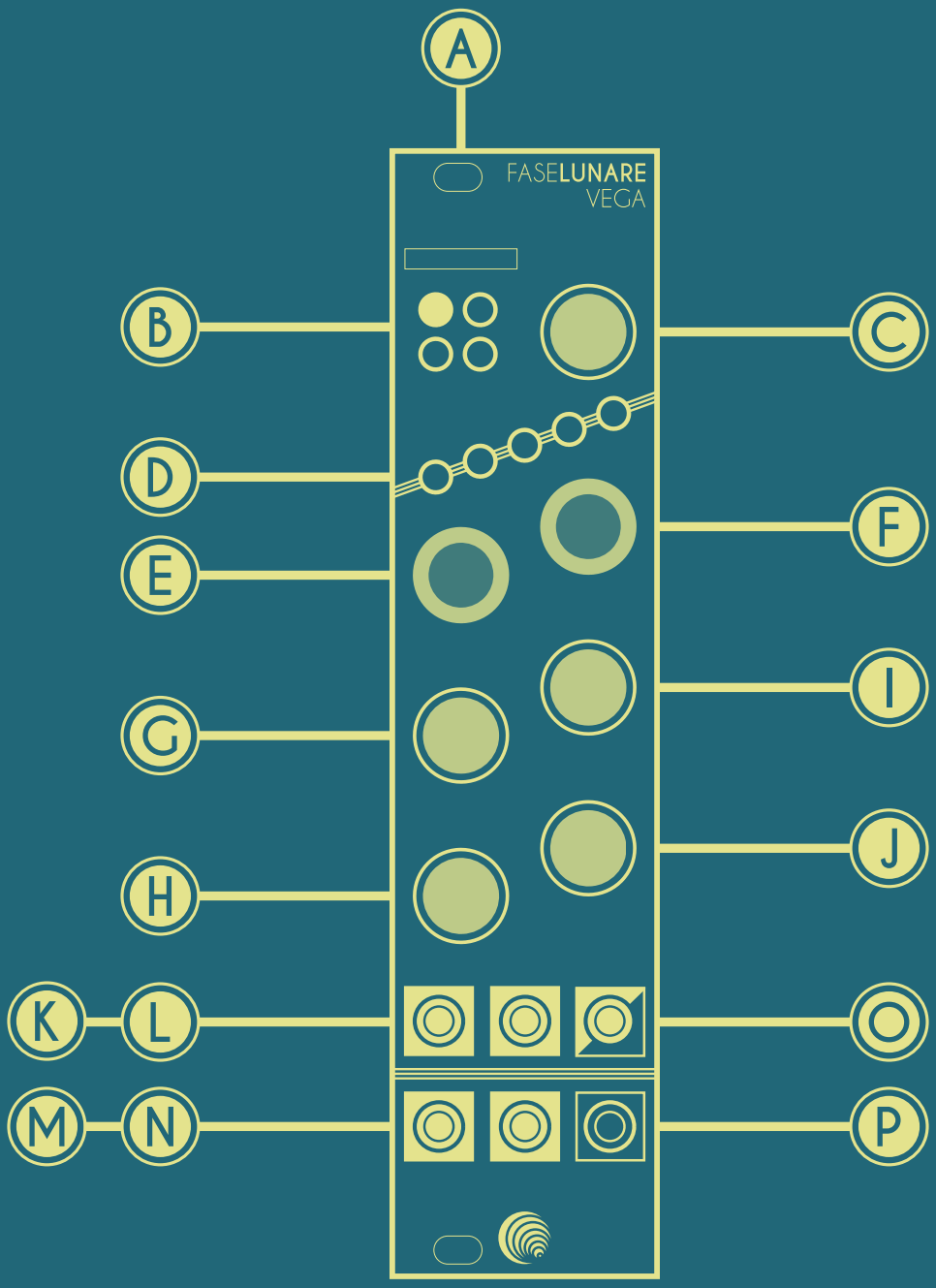
Width: 6HP

In the box

1 VEGA
1 Ribbon cable

Support

support@faselunare.com
www.faselunare.com
shop.faselunare.com



Ⓐ SD Card (for samples and presets) Ⓑ Pages

Ⓒ Page select Ⓓ Parameter levels and presets index

Ⓔ Ⓕ Encoders with push button

Ⓖ Ⓗ Ⓘ Ⓙ Voice select Ⓚ Ⓛ Ⓜ Ⓝ Voice triggers

Ⓞ Random Trigger Ⓟ Output

USER INTERFACE

A - SD CARD - Used to store samples and preset.

B - PAGES - A key point of the VEGA UI is pagination, the 4 leds (B) indicate the different pages. Each page hosts 2 parameters accessible with the 2 encoders..

C - FUNCTION - The function button used alone allows you to change the parameters page. When used in tandem with one of the voice buttons, this activates the MUTE mode. In combination with the encoder buttons activates the presets sub menu.

D - METER - The 5 LEDs indicate the value of the parameters and, on the first page, indicate the sound source (samples for the first fours or synthesis for the last).

E - F - ENCODERS - The 2 encoders are **RGB**, which means that different colors correspond to different functions.

G - H - I - J - VOICE SELECTION - Select the voice to edit by pressing the corresponding button. When a voice is selected, it is brighter.

Pressing the C button together with one of the voice buttons enters the MUTE mode. Pressing C + VOICE again exits the MUTE mode. While in MUTE MODE, the button flash with a FADE IN and FADE OUT effects.

K - L - M - N - VOICE TRIGGERS - Each VEGA voice has its own triger input compatible with the Eurorack standard. Accept trig signals from other modules and external sequencers.

O - RANDOM TRIGGER - This additional input allows you to trigger all 4 voices randomly. If used alone, a trig signal (an LFO for example) will suffice to have random rhythmic sequences, if used together with the other 4 triggers, it will add unpredictability to a programmed sequence.

P - AUDIO OUTPUT - All the 4 voices summed

PAGES

The Vega's parameters are categorized into **PAGES**, each featuring two modifiable parameters controlled by the respective encoders.

The value of the selected or adjusted parameter is visually represented by the 5-LED bar.

To transition between pages, press the FUNCTION button.

VOICES

Each of the VEGA voices comes with **2 AUDIO ENGINES**, one that works with **SAMPLES** and one totally **SYHNTHESIZED** with **DSPs** made in collaboration with **Stefano D'Angelo's ORASTRON** company.

VOICE 1 - SAMPLE or DSP KICK, **VOICE 2** - SAMPLE or DSP SNARE, **VOICE 3** - SAMPLE or DSP HI-HAT, **VOICE 4** - SAMPLE or DSP HI-HAT

SAMPLE NAMING

Samples should be saved on the SD card within the 'VEGA' (all capital letters) folder. They should be mono audio files with a sampling rate of 44.100 Hz and must have the '.wav' extension. For the first voice, the files should be named **A1.wav**, **A2.wav**, **A3.wav**, and **A4.wav**. For the second voice, the files should be named **B1.wav**, **B2.wav**, and so on, up to **D4.wav**.

At VEGA startup, samples are read from the SD card and loaded into memory. While loading the samples, VEGA performs a sample compatibility check, indicating through the 5 LEDs arranged diagonally whether the samples have been loaded correctly (LED on) or not (LED off). If they fail to load, it could be due to non-compliance of the sample, which must be mono at 44.100 Hz, or an incorrect file naming, or the absence of the sample.

SD SWAP

Starting from version 2.0 of the firmware, you can change the SD card to have different sounds without turning off the rack by performing a soft reset. Replace the SD card, press all four voice buttons at the same time, the VEGA will blink, confirm by pressing the left encoder. After a few seconds, the new samples will be loaded. **WARNING**: During this operation, it is advisable to lower the volume of the VEGA to avoid any noise that may disrupt your performance.

BASIC OPERATIONS

To **EDIT** a voice, simply press the corresponding **VOICE BUTTON**
To **TRIG** a voice, using the corrisponding **TRIGGER IN JACK**
To **MUTE** a voice, press the **FUNCTION BUTTON + VOICE BUTTON**
To **UNMUTE** a voice, press the **FUNCTION BUTTON + VOICE BUTTON**

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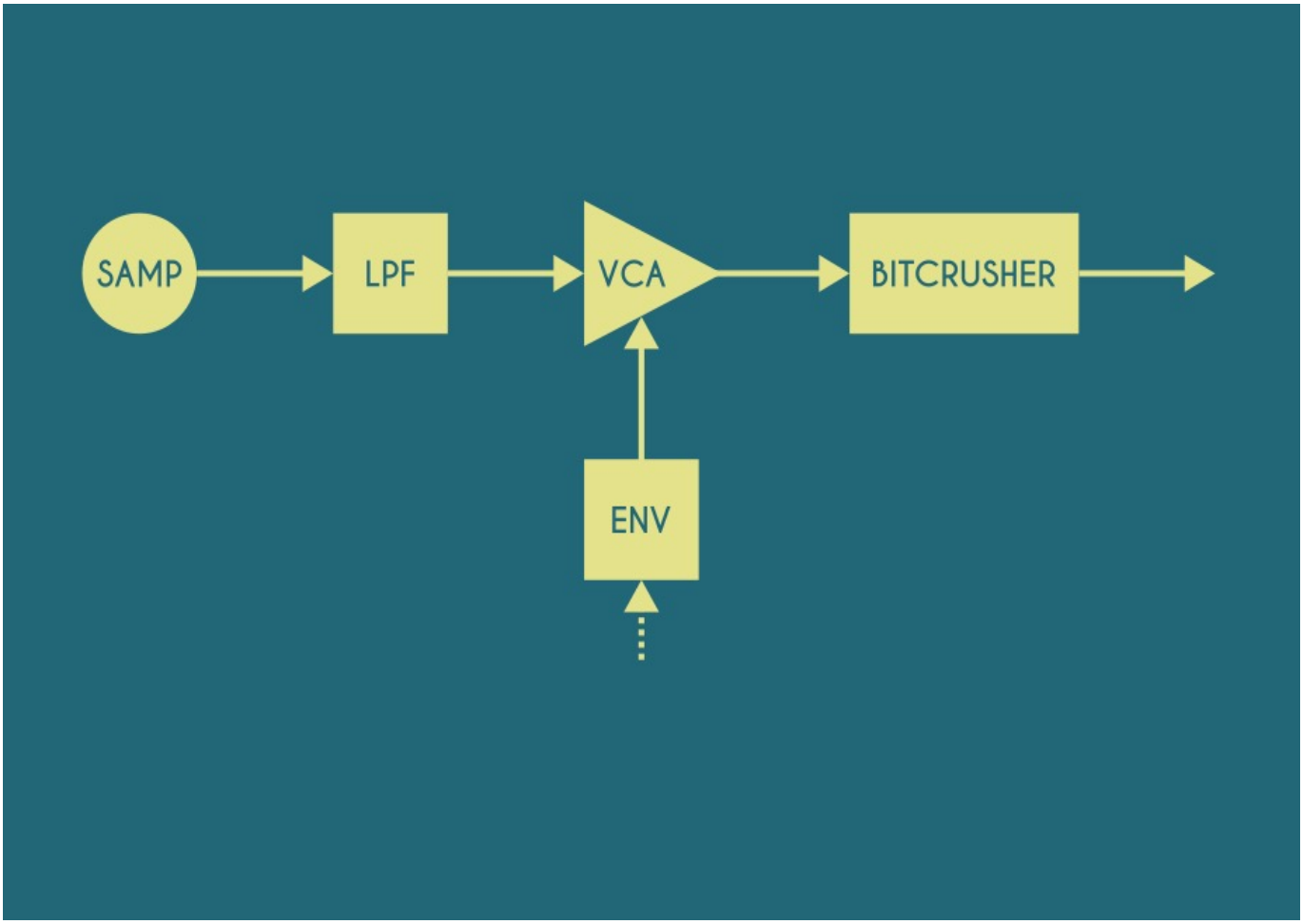
SAMPLE VOICE



LEFT ENC RIGHT ENC	SOURCE PITCH	BITCRUSH SAMPLERATE	ATTACK RELEASE	CUTOFF RESONANCE	VOLUME

SAMPLE VOICE

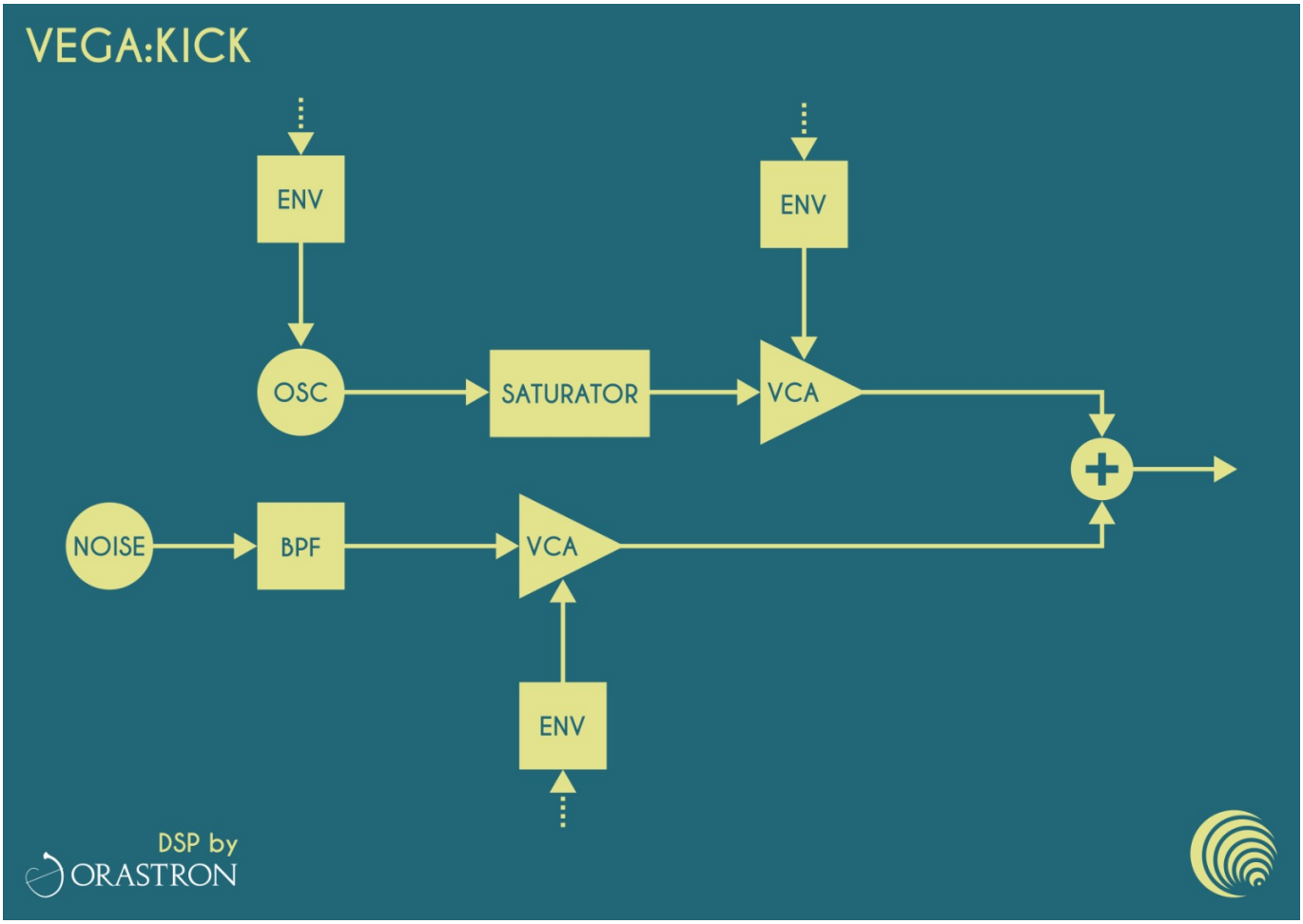
The 'Sample' voice on the Vega presents a versatile sonic palette, offering users the ability to choose from a selection of four samples using the source encoder. You have the flexibility to incorporate your own samples by loading them onto the SD card within the 'Vega' folder. Ensure your samples adhere to the specified criteria: they should be in Mono format, possess a sampling rate of 44.1 kHz, and be saved in WAV format, following the provided naming convention (refer to page 6 of this manual).

The envelope of the 'Sample' voice features a maximum release time of 4 seconds, allowing for experimentation with extended samples, extending beyond the realm of traditional drum sounds. Manipulate the sample's intonation precisely with the pitch control, while the bitcrush and samplerate parameters introduce character by sculpting new harmonics and incorporating intriguing distortions.

Refine the temporal dynamics using the attack and release parameters, shaping the volume envelope over time. Simultaneously, the cutoff and resonance controls offer extensive filtering options, enabling users to sculpt the frequency spectrum to suit their preferences.

With its comprehensive set of features, the 'Sample' voice on the Vega empowers musicians and producers to create distinctive and expressive sounds. This includes the flexibility of sample selection coupled with dynamic control over pitch, distortion, and filtering, providing a rich and engaging sonic experience.

KICK



LEFT ENC	SOURCE	DROP	LENGTH	BEATER COLOR	VOLUME
RIGHT ENC	PITCH	STRETCH	COLOR	BEATER MIX	

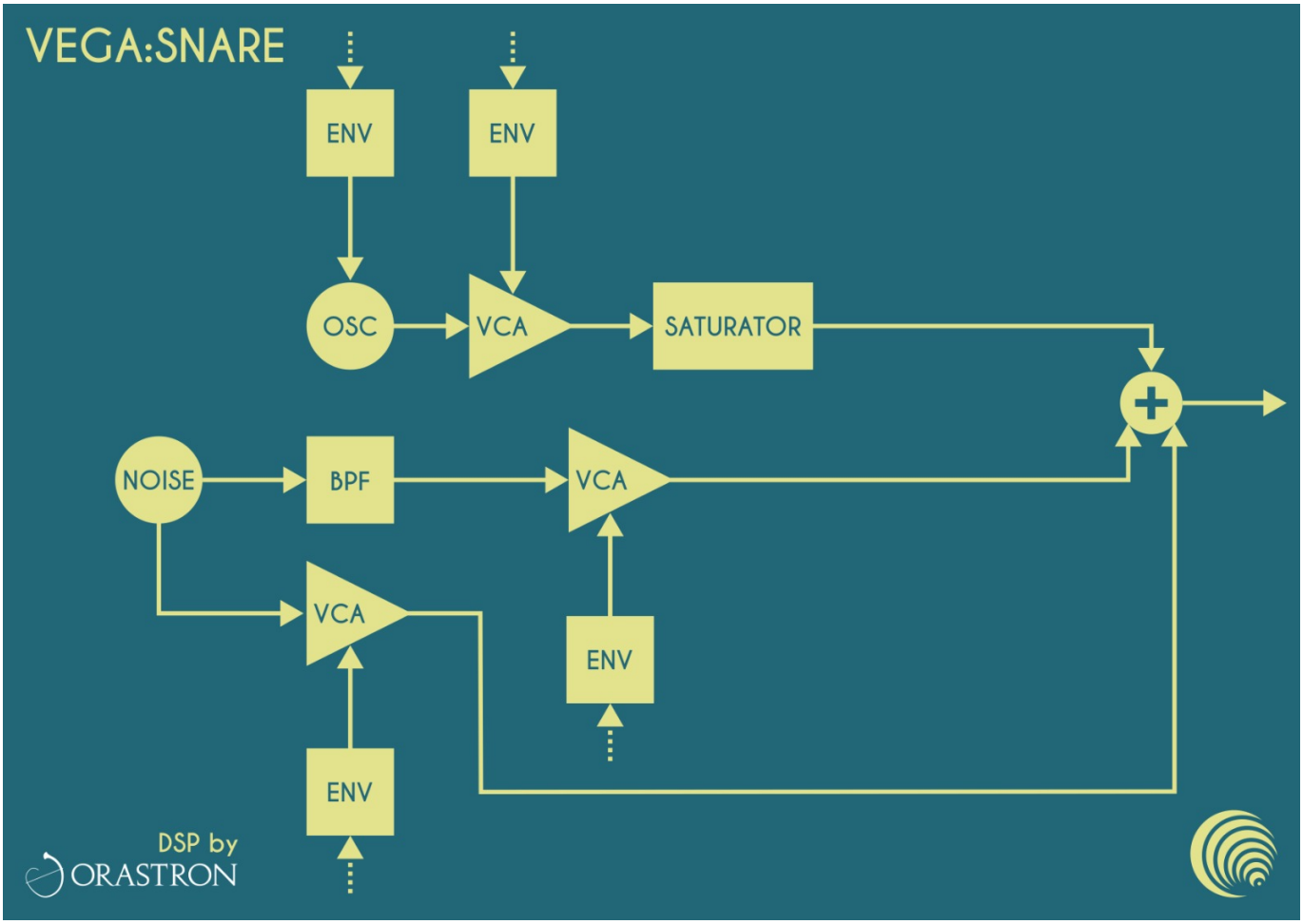
KICK

Orastron's Synthesized Kick Voice with Brickworks Framework

Kick Parameters:

Pitch, **Drop**, **Stretch**: Envelope applied to the pitch oscillator.
Length: Envelope affecting the VCA sine wave.
Color: Saturator for tonal richness.
Beater Color: Band-pass filter (BPF).
Beater Mix: Envelope applied to the VCA side of the noise generator.
Volume: Applied post-summing.

SNARE



LEFT ENC RIGHT ENC	SOURCE PITCH	DROP STRETCH	LENGTH CLICK	RATTLE RATTLE COLOR	VOLUME

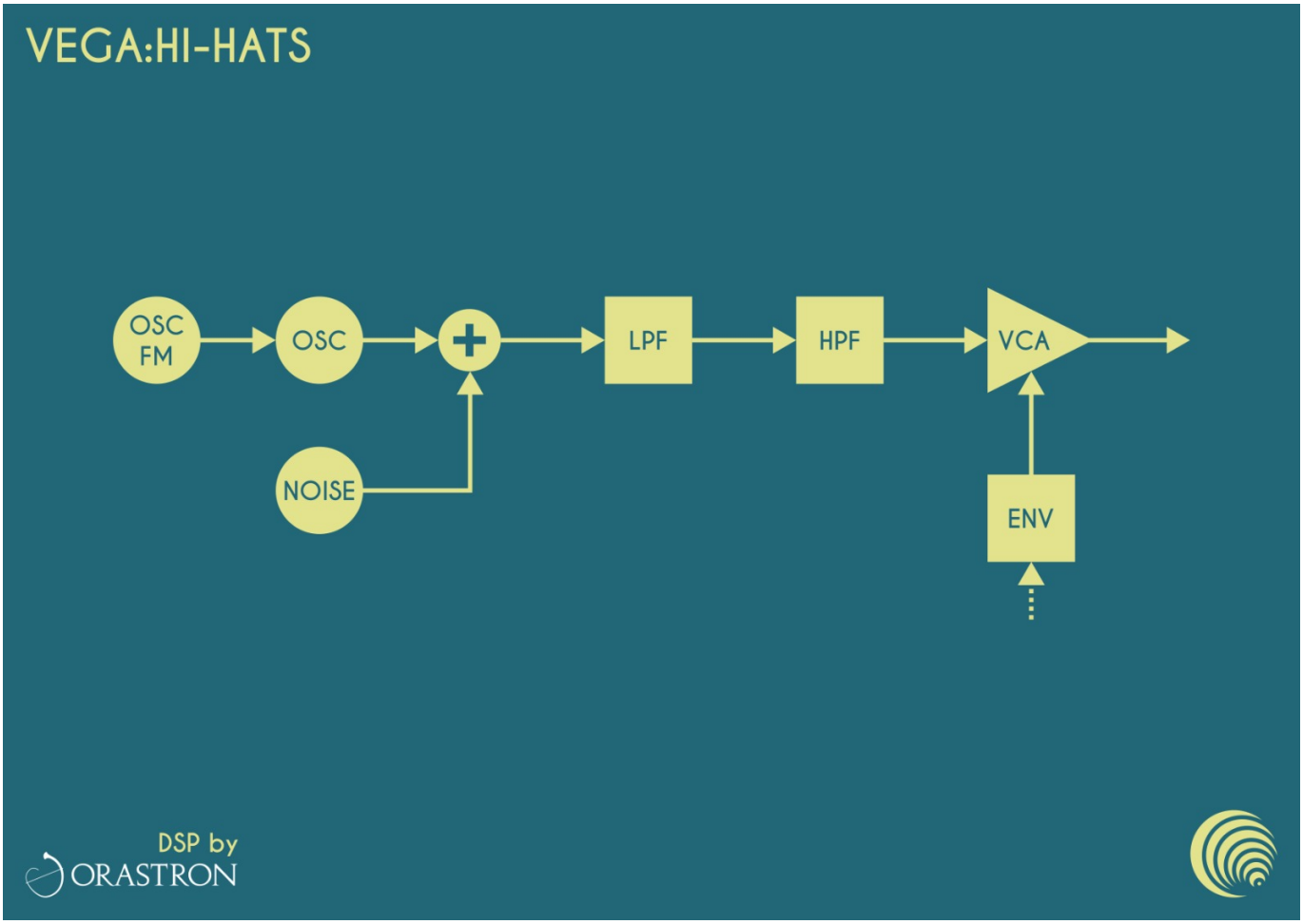
SNARE

Orastron's Synthesized Snare Voice with Brickworks Framework

Snare Parameters:

Pitch, Drop, Stretch: Envelope applied to the pitch oscillator.
Length: Envelope affecting both the VCA sine wave and the filtered noise.
Click: Saturator for tonal richness.
Rattle Color: Band-pass filter (BPF).
Rattle: Envelope applied to the VCA side of the filtered noise.
Volume: Applied post-summing.

HI-HAT



LEFT ENC RIGHT ENC	SOURCE LENGTH	LOW CUT HI CUT	HI Q RING MOD	RING FREQ RING SPREAD	VOLUME

HI-HAT

Orastron's Synthesized Hi-Hat Voice with Brickworks Framework

Hi-Hat Parameters:

Length: Envelope release.
Ring Frequency: Set the frequency for both oscillators.
Ring Spread: Second oscillator (carrier).
Ring: VCA after the second oscillator.
Low Cut: High-pass filter (HPF).
High Cut, Resonance: Low-pass filter (LPF).
Volume: Applied post-summing.

PRESETS

VEGA can save **up to 5 PRESETS** each of which contains the information of all parameters and sound sources, the presets are stored on the **SD card** along with the samples in the **vega** folder.

SAVE A PRESET

After perfecting your sound, preserve it by accessing the presets submenu. Simultaneously press the **FUNCTION** button and the **LEFT ENCODER BUTTON**; the encoders will turn **BLUE** and **PINK**. Next, press the **G BUTTON** to switch the encoders to **GREEN** and **RED**. Use the left encoder (now in green) to select your desired preset position (1 to 5) and confirm the choice by pressing the left encoder button (it will start blinking). Press the left encoder button again to **SAVE**, or press the **RED** encoder to discard.

LOAD A PRESET

To load a preset, after navigating to the presets submenu by pressing the **FUNCTION** button and the **LEFT ENCODER BUTTON** simultaneously (causing the encoders to turn **BLUE** and **PINK**), press the **I BUTTON** to switch the encoders to **GREEN** and **RED**. Choose the desired preset position (1 to 5) using the left encoder (now in green) and confirm the selection by pressing the left encoder button (it will start blinking). Press the left encoder button again to **LOAD** the èreset or press the **RED** encoder to discard.

FAQ

Can I change the SD card without turning off the rack?

Yes, you can change the SD card to switch samples while performing without interrupting your rack's operation. Press all four voice buttons simultaneously after changing the SD card, confirm by pressing the left encoder. The Vega will restart. **CAUTION**: During this operation and until completion (which takes just a few seconds), set the volume of the Vega to zero to avoid unexpected noises during the performance.

Some samples are not recognized, and the corresponding LED remains off.

Ensure that the sample meets the following criteria:

Format: MONO
Sampling Rate: 44.100Hz
Naming Convention: Follow the guidelines outlined on page 6 of the manual.

By confirming these specifications, you can enhance the likelihood of proper sample recognition.

The sample is recognized, but no sound is heard when triggered.

Ensure that the envelope is configured with the following settings:

Attack: 0
Release: Non-zero value
Setting the attack to 0 ensures that the sound starts immediately upon triggering, while a non-zero release allows the sound to fade out smoothly. Adjusting these envelope parameters appropriately should resolve the issue of silent triggering for recognized samples.

FAQ

The sound of the samples is distorted.

Bitcrush and Samplerate Settings:
Check the Bitcrush and Samplerate parameters. Experiment with adjusting these settings to find a balance that minimizes distortion. Lowering the intensity of these effects may help achieve a cleaner sound.

Volume Levels:
Ensure that the overall volume levels, both within the samples and the global output, are appropriately set. Excessive volume levels can lead to distortion. Try reducing the volume to see if it resolves the issue.

Sample Quality:
Ensure that the quality of the samples themselves is good. Low-quality samples may introduce unwanted artifacts and distortion. Try using high-quality, well-recorded samples to improve the sound.

SUPPORT: support@faselunare.com
PRODUCT PAGE: https://faselunare.com/products/eurorack/vega
SHOP: https://shop.faselunare.com

FASELUNARE:VEGA

The Vega is developed and assembled in **Turin** by **Faselunare** (www.faselunare.com).

The Team:

Francesco Mulassano: Project ideation, design, and UI development.
Alessandro Comanzo: Electronic design and circuit implementation.
Lorenzo Tanci: Main Firmware Developer.
Daniele Pagliero: Developer of the initial firmware version and consultant.

Beta Testers:

Tito Castelli
Paolo Della Piana

Special thanks to **Stefano D'Angelo** and **Orastron** for their invaluable contributions to DSP algorithm implementation.

We extend our gratitude to **Soundmit** (www.soundmit.com) and **Alphalab Audio** (www.alphalab.audio).

Your support and collaboration have been instrumental in bringing the Vega to life. Thank you for being a part of our journey.