

VC-SSS-3

SQUARE SAW SOUND



SQUARE
SAW
SOUND

CONTENTS

ABOUT INSTALLATION THE KONTAKT INSTRUMENTS

MAIN EDIT PANEL

PATCH PRESET MENU
INSTRUMENT NAVIGATION TABS

MULTI FILTER (LPF / BPF / HPF)
ENVELOPE GENERATORS (OVERVIEW)
ENVELOPES PANEL
LFO PANEL
DBD ENVELOPE
LIMITER
STEREO WIDTH CONTROL
TAPE SATURATION
PORTAMENTO

EFFECTS EDIT PANEL

CHORUS
PHASER
DELAY
FLANGER
ROTARY SPEAKER
LO FI / BIT CRUSHER + NOISE GENERATOR
PARALLEL COMPRESSOR
TUBE DISTORTION
CONVOLUTION REVERB
CABINET AND PREAMP DRIVE

ARPEGGIATOR (ARP)

KONTAKT PERFORMANCE TIPS

E.U.L.A (END USER LICENSE AGREEMENT)

SQUARE SAW SOUND

ABOUT

Electronic Music Studios (EMS) VCS3

The VCS3 (also known as the 'Putney') is an analog monosynth housed in a distinctive wooden case. The VCS3 (Voltage Controlled Studio version 3) was first produced in 1969 and was one of the first synthesizers produced by EMS. The VCS3 was also one of the first portable, commercially available synthesizers.

The VCS3 was capable of producing Subtractive and FM Synthesis. It featured 3 x Voltage Controlled Oscillators (VCO's) with the third oscillator acting as an LFO (Low Frequency Oscillator.) The VCS3 has a flexible, semi-modular voice architecture that is controlled using a unique matrix-based patch system. There is also a joystick controller for changing assignable parameters during performance.

The VCS3 featured a Noise Generator, 2 Input Amplifiers, 1 Ring Modulator, 1 x Voltage Controlled Low Pass Filter (VCF), 1 Trapezoid Envelope Generator, 1 x Voltage Controlled Spring Reverb and 2 Stereo Output Amplifiers.



INSTALLATION

NATIVE INSTRUMENTS KONTAKT

Copy the entire “VC-SSS-3” folder to a destination on your hard drive where you would like to store your Kontakt instruments. Make sure you keep the folder structure as it is so that the Kontakt instruments can find their samples.

VC-SSS-3 MULTISAMPLES

Multisamples are instruments that play one “patch” across the keyboard. Each patch has been created by carefully sampling the EMS VCS3 at various pitches across several octaves. The VC-SSS-3 can be played Polyphonically, which is something that was not possible on the original, Monophonic EMS VCS3. There are a total of 207 “patches” to choose from the instrument’s patch preset menu.

PRESETS FOLDER (VC-SSS-3 MULTISAMPLES)

The folder “VC-SSS-3 Presets” contains preset instruments for the ‘VC-SSS-3 Multisamples’ instrument. The 150 presets are divided into sub-categories such as Bass, Pads, Leads etc.

VC-SSS-3 LOOP MACHINE

The Loop Machine contains 248 looped sequences. Each sequence has been stretched across the keyboard from C1 to G8 and has been ‘Beat Machined’ to allow all sequences to be played in sync with the tempo of your host DAW (Digital Audio Workstation.)

VC-SSS-3 SFX

SFX are a collection of 412 one-hit and looped sound effects and ambiences perfect for creating soundscapes and special effects. The samples are spread across the keyboard. There are 4 'banks' of SFX that can be selected via the instrument's preset menu. The first two banks "DELIA SFX BANK A" and "DELIA SFX BANK B" were created using patches inspired by Delia Derbyshire's original 'dope sheets' and recording notes from some of her personal patches for the EMS VCS3. Delia Derbyshire was an English musician and composer of electronic music. She is best known for her pioneering work with the BBC Radiophonic Workshop during the 1960's, particularly her electronic arrangement for the British science-fiction television series, Doctor Who. The last two banks of SFX are original Square Saw Sound samples of the EMS VCS3.



Main Edit Panel



Main Edit Panel Features:

- Multi Filter (LPF / BPF /HPF)
- ADSR Amplitude Envelope
- Multi Filter ADSR Envelope
- Pitch Envelope
- Multi Wave LFO (controlling cutoff frequency of the Multi Filter)
- LFO controlling the Multi Filter 'Type' (to morph between LPF / BPF / HPF)
- Vibrato / Auto Panner / Tremolo
- DBD Envelope
- Limiter
- Stereo Width Control
- Tape Saturation
- Portamento

Preset Menu + Navigation Tabs



Patch Preset Menu:

The preset menu gives a drop down menu of all the different patches stored in the instrument.

Instrument Navigation Tabs:

The Navigation Tabs allows you to select different panels for the instrument. The Navigation Tabs (located on the right, next to the Patch Preset Menu) allow you to scroll between the 'MAIN', 'EFFECTS', and 'ARP' (arpeggiator) edit panels of the instrument.



Multi Filter

Cutoff:

Controls the cutoff frequency of the filter.

Resonance:

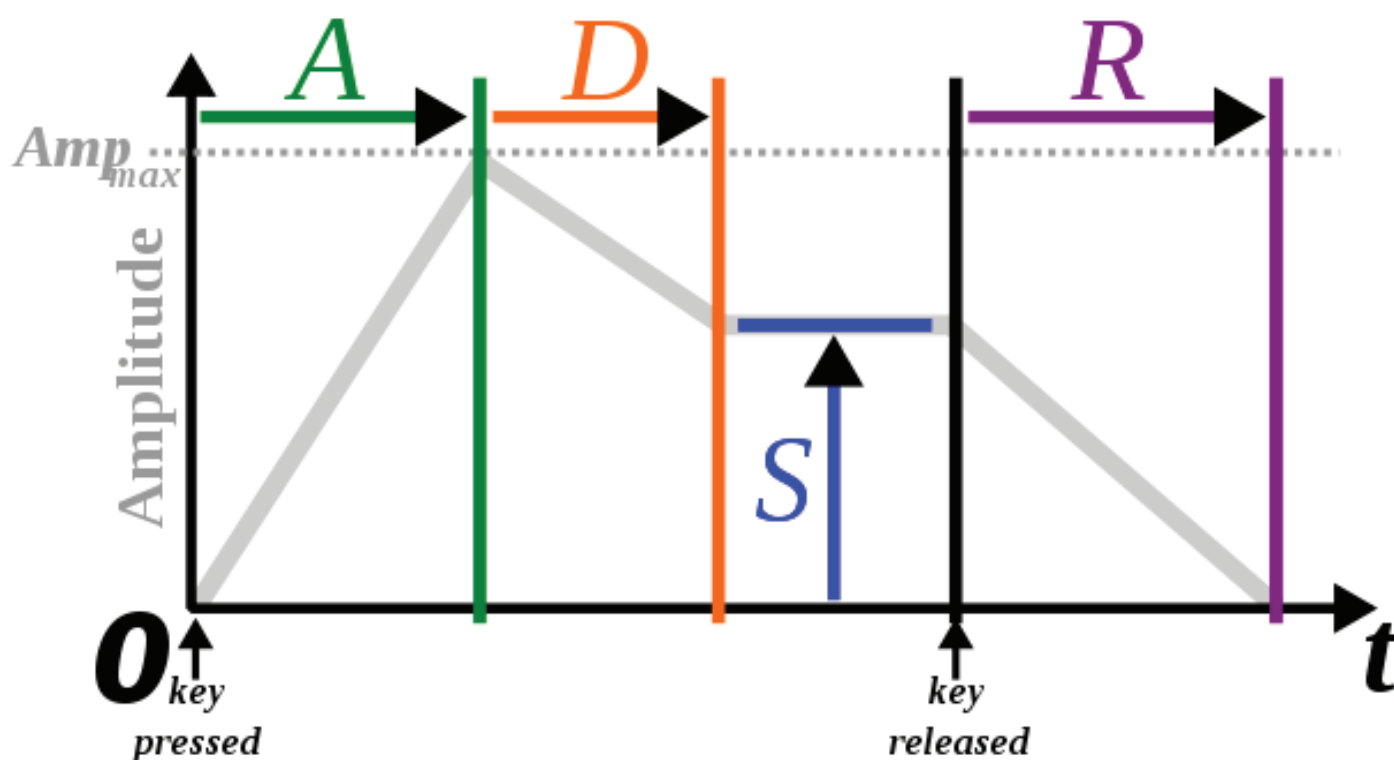
'Reso' sets the resonance (boost at the cutoff frequency) for the filter. High settings will cause the filter to self-oscillate.

Filter Type:

Morphs between a Low Pass, Band Pass and High Pass Filter.

Envelope Generators

When an acoustic musical instrument produces a sound, the loudness and spectral content of the sound change over time. The "attack" and "decay" of a sound have a great effect on the sonic character of the instrument. Sound synthesis techniques often employ an 'envelope generator' that controls a sound's parameters at any point in its duration. Most often this is an (ADSR) envelope, which may be applied to overall amplitude control, frequency, etc. The contour of an ADSR envelope is specified using four parameters - Attack, Decay, Sustain and Release.



Attribution:

CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=1729613>

Envelopes Panel



ADSR Envelope Controls:

Attack: Adjusts the initial time it will take the envelope to reach its maximum level after it has been triggered.

Decay: Adjusts the time it will take the envelope to fall from its maximum level to the level set by the 'Sustain' control.

Sustain: Adjusts the level at which the envelope will stay as long as the key is being held, after it has completed its attack and decay phases.

Release: Adjusts the time it will take the envelope to fall from its sustain level back to zero after the key has been released.

Amp Envelope: An ADSR modulator that controls the envelope of the amplitude.

Multi Filter Envelope: The Multi Filter Envelope is an ADSR modulator that controls the envelope of the Multi Filter's cutoff frequency.

(Multi Filter) Filter Envelope Amount: Sets the amount of the Multi Filter Envelope.

(Multi Filter Type) Sync to Sine LFO: Morphs between LPF / BPF / HPF with a sine wave LFO. There are controls for amount and rate.

(Multi Filter Envelope) 'Filt Env Invert' Switch: If this switch is activated all modulation for the Multi Filter envelope will be reversed.

Pitch Envelope:

The Pitch Envelope is an ADSR modulator that controls the envelope of the instrument's pitch. **Pitch Invert:** If activated, the pitch modulation will be reversed in direction.

When the switch is in the 'up' position the pitch modulation will rise upwards. In the 'down' position the pitch modulation will fall down in pitch.

LFO Panel



ENV / LFO buttons:

Clicking these buttons hides/reveals the Envelope and LFO sections of the instrument.

Multi Filter LFO:

The Multi Filter LFO is a multi wave LFO that modulates the cutoff frequency of the 'Multi Filter.' There are controls for LFO amount, rate and delay. The LFO delay adds a delay to the LFO taking effect. If greater than zero, the LFO will not start the waveform right away when a note is received, but rather smoothly ramp it up over time.

Square Wave / Sine Wave / Triangle Wave / Sample + Hold:

These knobs control the amount of each waveform that is to be included in the Multi Wave LFO.

Pulse Width:

Controls the amount of pulse width modulation added to the Square Wave.

Vibrato: A Sine Wave LFO that modulates the instrument's pitch. There are controls for LFO amount, rate and delay. The LFO delay adds a delay to the LFO taking effect. If greater than zero, the LFO will not start the waveform right away when a note is received, but rather smoothly ramp it up over time.

Auto Pan: A tempo-synced Sine Wave LFO that modulates the instrument's pan position. There are controls for LFO amount, rate and delay. The LFO delay adds a delay to the LFO taking effect. If greater than zero, the LFO will not start the waveform right away when a note is received, but rather smoothly ramp it up over time.

Tremolo: A tempo-synced Square Wave LFO that modulates the instrument's volume. There are controls for LFO amount, rate and waveform morph. The 'waveform morph' control adds a Triangle Waveform to the Square Wave Tremolo. This results in a less harsh sounding Tremolo effect.



DBD Envelope

DBD Envelope: Can create interesting pitch rise/fall effects. It is useful for creating synth drum-machine type sounds and special sound effects.

Amount: Controls the amount of the Envelope that is applied to the instrument's pitch.

Delay 1+2: Adjusts the time it will take the envelope to rise or fall from zero to the 'break point' after it has been triggered.

Break Point: The level of the break point. If this value is negative the envelope will fall, then rise and behave the other way around if it is positive.

Limiter Input Gain

Limiter: Sets the level of the Limiter's input gain. The Limiter's output/ceiling is set to 0.0dB. The Limiter is the last insert of the instrument's insert FX. Note: The Limiter does not control/limit the output level of the instrument's Chorus, Phaser, Flanger and Delay 'Send FX.'

Stereo Width Control

Stereo Width: Sets the width of the stereo field. Negative values close it until at full counter clockwise, the signal becomes mono. Positive values push the stereo spread outward.

Tape Saturation

Input Gain: Controls the input gain of the effect. This will increase the amount of tape saturation and compression.

Portamento

Portamento: Adjusts the speed of the Portamento / Glide. When the Portamento knob is turned fully anti-clockwise the Portamento effect is set to 0%.

Effects Edit Panel



Effects Edit Panel Features:

- Chorus
- Phaser
- Delay
- Flanger
- Lo-Fi / Bit Crusher + Noise Generator
- Rotary
- Parallel Compressor
- Tube Drive
- Convolution Reverb
- Speaker Cabinets + Preamp Drive (Distortion)

Chorus

Depth: Sets the amount of LFO modulation applied to a signal. Higher amounts result in a stronger chorusing effect.

Phase: Adjusts the phase difference between the two LFO's that drive the left and right stereo channels.

Rate: Sets the speed of the LFO modulating the signal.

Phaser

Depth: Sets the amount of LFO modulation applied to a signal. Higher values make The phaser effect stronger.

Feedback: Routes the processed signal back to the module's input. Higher values create a sharper, more intense effect.

Rate: Sets the speed of the LFO modulating the signal.

Delay

Time: Determines the interval between the straight signal and the first delay of the delayed signal.

Feedback: Sends a portion of the output signal back into the input of the delay line, which creates repeating echoes.

HF Damp: Reduces high frequencies in the delayed signal. With feedback applied, each successive echo has progressively lower high-frequency response.

Flanger

Depth: Determines the interval between the straight signal and the first delay of the delayed signal.

Speed: Sets the speed of the LFO modulating the signal.

Feedback: Routes the processed signal back to the module's input. Higher values create a sharper, more intense effect.

Mix (Chorus/ Phaser/ Delay/ Flanger): Controls the send level for each effect.

Rotary Speaker

Slow/Fast:

Switches the speed of the rotating speaker. Choose between slow and fast.

Mic Distance:

Edits the distance between the virtual microphones and the rotating speaker. Higher values increase the distance.

Lo-Fi / Bit Crusher + Noise Generator

Bit Rate: Determines the sound's resolution in bits. Lower values cause a stronger lo-fi effect. When 'Bit Rate' knob is turned fully clockwise the effect is turned off. Press Cmd/Ctrl + Right Click to set the effect to the default 'off' position.

Sample Rate: This control reduces high frequency response and overall signal quality. When 'Sample Rate' knob is turned fully clockwise the effect is turned off. Press Cmd/Ctrl + Right Click to set the effect to the default 'off' position.

Noise: Adds hiss to the audio signal.

Noise Colour: Determines the tonality of the noise applied to the signal. It works like a low pass filter. Increase the value to dampen the high-frequency response of the noise/hiss.

Compressor + Tube Distortion

Compressor

Controls the dry/wet mix of the compressor. This can be used to create a parallel compression style routing which increases the quieter signals rather than reducing the louder ones. The compressor is set to a 4:1 ratio with a threshold of -20dB, an attack time of 3ms and a release time of 200ms.

Tube Distortion

Determines the amount of tube distortion applied to the signal. Higher values increase the distortion effect.

Convolution Reverb



The grey and black 'Reverb' and 'Cabinet' buttons allow you to switch between the convolution reverb and cabinet panels. The button for the panel that is currently selected will be highlighted in black.

The 'Edit' buttons allow you to scroll between the two main edit panels of the convolution reverb effect.

Preset Menu:

Select different IR reverbs from the drop down menu.

Wet Level:

Controls the wet level of the Reverb

Dry Level:

Controls the dry level of the Instrument.

Predelay:

Creates a delay between the clean dry signal and the convolution reverb

HPF (High Pass Filter):

Attenuates low frequencies of the reverb.

LPF (Low Pass Filter):

Attenuates high frequencies of the reverb.

IR Size: Changes the length of the impulse sample upto 150% and down to 50% of it's original length. The sample length is 100% when in the default position (Ctrl/Cmnd, Click.)



Cabinet + Preamp Drive



Cabinet:

Preset Menu: choose from 11 different types of cabinet speakers that model several different guitar amplifiers, a bass amplifier and a 'Leslie' rotating speaker amplifier.

Air: Controls the level of early reflections adding a sense of space to the sound. Higher values will give a more 'distant' sound with increased stereo spread. Lower values will give a 'closer' sound with a narrower stereo image.

Treble: Boosts or cuts the level of high frequencies. Treble is neutral at the default position (Ctrl/Cmnd, Click.)

Bass: Boosts or cuts the level of low frequencies. Bass is neutral at the default position (Ctrl/Cmnd, Click.)

On/Off Switch: Toggles the Cabinet effect on and off.

Preamp Drive: The effect is placed before the 'Cabinet' and is great for enhanced, overdriven amp sounds when used in conjunction with the 'Cabinet' effect. The Preamp Drive is a 'V51 Preamp Distortion.'

Output Gain: A simple control for boosting or attenuating the output gain of the Preamp Drive effect - this effect controls the output gain of the effect only. It does not increase or decrease the amount of distortion.

On/Off Switch: Toggles the Preamp Drive effect on and off.

Arpeggiator (ARP)



Arp Octave: Sets the octave displacement, i.e. the distribution of the arpeggio pattern in various octaves. The arpeggio pattern cycles from the played octave to the octave set by this control.

Arp Rate: Sets the arpeggiator rate and is synced to your host's tempo.

Grid Steps: Sets the number of steps of the rhythmic pattern and controls the 'Rhythm Grid' table.

Note Duration: Sets the duration of the arpeggiated MIDI notes in percent. This will only change the length of the MIDI notes, not the volume envelope.

Rhythm Grid: Sets the rhythmic pattern of the arpeggiated notes. The columns set the velocity of each note. If a column is set to 0 (eg. by Cmd/Ctrl clicking on a table column), then the step will not be played.

Kontakt Performance Tips

Kontakt Performance Tips:

1. Reset A Control

To reset a control or parameter to its default position simply use the following key command – Mac (CMD + Click) PC (CTRL + Click).

2. Finely Adjust A Control

Fine adjustments can be made using the following key command – Mac (SHIFT + Click) PC (SHIFT + Click).

3. How To Assign Individual Controls To MIDI Controls

Assigning knobs/sliders to MIDI controls can be a useful tool for automation. If you right click on a control then it will give you the opportunity to assign the control to a control on your MIDI controller using the 'Learn MIDI CC# Automation.' Move the knob/slider on your MIDI controller whilst the instrument's control is selected and this control will be assigned to your MIDI controller.

4. How To Limit CPU Overload.

Streaming samples from disk is a primary cause of CPU issues, which can lead to random audio cut outs and “popping” sounds. Avoiding CPU spiking can be easily achieved by using some of Kontakt's inbuilt features. Enabling “CPU Overload Protection” from within Kontakt's main Engine Options panel can ensure voice counts do not exceed your systems capabilities. You can also control voice counts and their settings on a patch by patch basis by limiting the “Voices Max” parameter located in your patches header. Accessing the internal Instrument “Voice Handling” Options allows you to alter the mode of voice stealing.

Your libraries user manual also contains advice on how to lower CPU consumption and voice counts.

E.U.L.A

END USER LICENSE AGREEMENT

PREFACE: This End-User License Agreement ("EULA") is a legal agreement between you and Square Saw Sound for the Square Saw Sound product accompanying this EULA, which includes computer software and may include associated media, printed materials and online or electronic documentation. By installing, copying or using the software, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA you may not use the software. The software is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The software is licensed, not sold.

Square Saw Sound grants the owner of a Square Saw Sound product the right to create finished musical works and performances using the sounds and software that comprises the Square Saw Sound product. The making of sample libraries in any form, commercial or otherwise using Square Saw Sound audio or software (be they single hits, loops, fully mixed audio clips, or scripts) is strictly forbidden without the express written agreement of Square Saw Sound and violations will be prosecuted to the full extent of international and local copyright law. The ownership of all title and copyrights in and to the software (including but not limited to any images, photographs, animations, video, audio, music and text incorporated into the software) is fully asserted by Square Saw Sound.

The owner may only install and use the Square Saw Sound libraries and software on multiple computers strictly under the following conditions: where multiple computers comprise part of a single composition workstation for a composer: or where the owner has two non-concurrent sites of work, for example a studio desktop and a laptop for live performance.

The owner may not transfer, modify, rent, lease, loan, resell, distribute, network, electronically transmit or merge the software.

E.U.L.A

DISCLAIMER OF WARRANTY:

The software is provided "as is" and without warranty of any kind. The entire risk arising out of the performance of the software and documentation remains with the user. To the maximum extent permitted by applicable law, Square Saw Sound further disclaims all warranties, either expressed, implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose with regard to the software and any accompanying hardware. To the maximum extent permitted by applicable law, in no event shall Square Saw Sound be liable for any consequential, incidental, direct, indirect, special, punitive or other damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information or other pecuniary loss arising out of this EULA or the use of or inability to use the software, even if Square Saw Sound has been advised of the possibility of such damages.