

BLACK VCO AND VCO EXPANDER

THANK YOU FOR PURCHASING ERICA SYNTHS BLACK SERIES MODULE!

Erica Black Series include high-end, unique functionality and superior quality modules. Only the best, highest quality components are used, all inputs and outputs are protected against undesired overvoltage. Erica Black series consist of range of modules that are needed to put together entire synth. Enjoy!

Erica Black VCO is analogue VCO with four simultaneous waveform outputs and one octave down suboscillator. The core of the VCO is borrowed from famous Russian synth Polivoks VCO and in exponential converter we use the original matched transistor IC that was used in Polivoks. Unlike harsh logic divider based suboscillators, Black VCO transistor-based suboscillator generates distinct, rounded squarewave. Together with Black VCO Expander – waveform mixer you get massive analogue sound source with plenty of patch points for modular use.

FEATURES:

Simultaneous sine, triangle, saw and pulse wave outputs

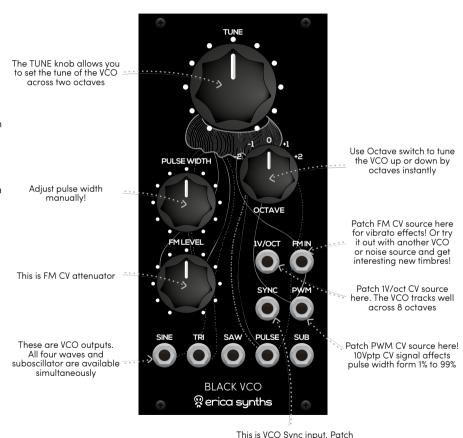
-1 octave suboscillator Manually adjustable and CV controlled pulse width

Great tracking across 8 octaves
Exponential FM input with attenuator
Synchronization input

Octave switch – 5 octaves Skiff-friendly design

TECHNICAL SPECIFICATIONS:

LCIMICAL OF LCIF ICATIONS.	
CV level	10V - +10V
Audio output amplitude	10Vptp
Octave range	C0 – C8
Panel width	12HP
Module depth	35mm
Power consumption	
40mA@+12V,	36mA@-12V
Power consumption w. Expande	er
55mA@+12V,	



another VCO output here to reset VCO circle. This gives you new, interesting waveforms



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SUB COLOUR

SINE/TRI LVL

SUB MIX

-2 OCT

OUT

SUBMIX

OUT

BLACK VCO EXPANDER

Perica synths

Erica Black VCO Expander essentially is advanced waveform mixer plus two octaves down suboscillator, and it allows you to explore wave design in brand new areas. NB! This is expander module that can be connected only to Black VCO. It will not work as standalone eurorack module.

FFATURES:

Waveform mixer/inverter Sine/Triangle/"Tits" waveform switch Transistor-based -2 octave suboscillator -1 and -2 octave suboscillator crossfade Suboscillator lowpass filter Diode limiter on output signal amplitude Three simultaneous outputs

Use ribbon cable supplied with the module to connect it to the Black VCO!





Turn this konb CW to set sine/triangle/"tits" waveform level. Turn this knob CCW to set inverted waveform level

This knob sets direct or inverted pulse wave level. Apply VCO PWM CV and get cool waveshaping on the main output

Use this knob to fade between -1 and -2 octaves == suboscillators

Use this three position switch to select, which waveform is routed to the top left mixer knob!
Top position is sinewave, bottom position is triangle, and mid position give you distinct "fits" waveform present in some FM synths



This knob sets direct or inverted sawtooth waveform

Turn this knob CW to increase suboscillator level! This knob is assigned to filtered -1/-2octaves suboscillator mix

This is suboscillator mix lowpass filter cutoff frequency knob. In full CW setting no filtering is applied, in full CCW setting you have almost sinewave at very low frequencies

This is suboscillator mix output – filtered suboscillator waves are present here

This is master mix output – all waveforms are present here

 This dedicated -2 octaves suboscillator output



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SAFETY INSTRUCTIONS

Please follow the instructions for use of this Erica Synths module below, 'cause only this will guarantee proper operation of the module and ensure warranty from Erica Synths.

Water is lethal for most of the electric devices, unless they are made waterproof. Erica

Synths module is NOT intended for use in a humid or wet environment. No liquids or other conducting substances must get into the module. Should this happen, the module should be disconnected from mains power immediately, dried, examined and cleaned by a aualified technician.



Do not expose the module to temperatures above +50°C or below -20°C.



Transport the instrument with modules installed carefully, never let it drop or fall over. Warranty does not apply to modules with visual damages.



The module has to be shipped in the original packaging only. Any module shipped to us for return, exchange and/or warranty repair has to be in its original packaging. All other deliveries will be rejected and returned to you. Make sure you keep the original packaging and technical documentation.

You will find Erica Synths terms of warranty at http://ericasynths.lv/en/terms/

Items for return, exchange and/or warranty repair have to be sent to: Erica Synths, Andrejostas Str.12, Riga, Latvia, LV-1045

DISPOSAL

This device complies to the EU guidelines and is manufactured RoHS conforming without use of led, mercury, cadmium and chrome.

Nevertheless, this device is special waste and disposal in household waste is not recommended.

Designed and made in Latvia. User manual by Girts Ozolins@Erica Synths. Design by Baiba Stelle.

Copying, distribution or any commercial use in any way is prohibited and needs the written permission by Erica Synths.

Specification's are subject to change without notice.

In case of any questions feel free to contact us via e-mail info@ericasynths.lv

Check out other Erica Synths modules & devices at www.ericasynths.lv