

## THANK YOU FOR ORDERING ERICA FUSION VCO2!

The Erica Synths Fusion series modules are designed combining vacuum tubes and semiconductors therefore they bring warm, powerful sound and overdrive possibilities of vacuum tubes into your modular system. Erica Fusion series consist of range of modules used in sound shaping circuit – VCO, Mixer, real Ringmodulator using audio transformers and germanium diode ring, VCF, VCA, Analogue Delay/ Flanger, Palsma Drive and others. Also Erica Fusion System is available.

**Fusion VCO2** is full analogue sound source with lots of distinct features. The core of the module is highly stable AS3340-based VCO with three simultaneously available waveforms, transistor-based suboscillator and detune function – two BBD delay lines that make frequency shifter that is mixed back to the principal oscillator in order to emulate two detuned VCOs. Tube crunch – distinct tube overdrive – is added on the top of the mix. Furthermore, Audio input mixes an external audio signal with the principal oscillator which results in crazy sonic experience. Fusion VCO2 is exactly what you need, if you wish to go really low frequencies and have a sound that sets your modular system apart from mass!

This is manual tune knob – it will adjust tune of the VCO over 2 octaves

Adjust pulse width manually! PWM CV is added to the potentiometer setting

This is FM attenuator – adjust it to achieve anything from nice vibrato to extreme FM madness

This is octave switch – depending on the setting it will transpose the VCO one octave up or one octave down

This is logarithmic FM CV input. Adjust the attenuator for desired FM level

This is an external audio input. It mixes the external audio signal with the oscillator and the suboscillator and feeds it into tube overdrive circuit

This is 1V/oct input. The VCO tracks great over 8 octaves and more

This is Pulse Width Modulation CV input. The CV is added to the Pulse Width knob



Detune emulates two detuned VCOs. Two BBD delay lines that make frequency shifter that is mixed back to the principal oscillator. Turning the knob CW increases detune amount and the internal LFO frequency and in extreme CW setting you get crazy frequency beats

Adjust the transistor based suboscillator level! Full CW setting will provide max suboscillator presence

The resulting signal of the VCO+suboscillator +frequency shifter is passed through two tube overdrive circuits for ultimate crunchiness of the sound

This is dedicated Pulse wave output

Select the waveform of the VCO that is assigned to the main output

This is the main output of the VCO

This is dedicated suboscillator output

This is dedicated Triangle wave output

This is Sync input. Besides regular VCO synchronization, we implemented unique suboscillator sync circuit

This is the suboscillator Colour switch – essentially lowpass filter. Select the suboscillator timbre to your taste

**FEATURES:**

Full analogue design  
Great tracking over 8 octave range  
Detune function for thickening the sound  
-1oct transistor based suboscillator  
Tube overdrive circuit  
External audio input  
VCO synchronization  
Simultaneous waveform outputs

**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 qualified 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.

**TECHNICAL SPECIFICATIONS:**

Audio input level.....10Vptp  
Audio output level..... 10Vptp  
VCO range.....C0-C8 and more  
PWM CV range (full span).....-5V - +5V  
Panel width..... 14HP  
Module depth.....42mm  
Power consumption.....228mA@+12V, 55mA@-12V

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. 43, Riga, Latvia, LV-1045

**DISPOSAL**

This device complies to the EU guidelines and is manufactured RoHS conforming without use of lead, 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.

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

Specifications are subject to change without notice.

In case of any questions feel free to contact us via

e-mail: [info@ericasynths.lv](mailto:info@ericasynths.lv)

Check out other Erica Synths modules & devices at [www.ericasynths.lv](http://www.ericasynths.lv)