



THANK YOU FOR PURCHASING THE ERICA FUSION VCA-WAVESHAPER-RINGMODULATOR!

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 – two types of VCO, Mixer, Ringmodulator using audio transformers and germanium diode ring, two VCFs, VCA, Analogue Delay/Flanger, Palsma Drive and others. Also Erica Fusion Systems are available.

The Fusion VCA –Waveshaper - Ringmodulator is a complex modulation source that combines VCA, waveshaper and ringmodulator. It's not a regular VCA; it can operate as one, but most of the power of the module is in advanced modulations – with two CVs applied simultaneously to different stages of the VCA, audio rate modulations, using ringmodulator as a waveshaper – your imagination is a limit!



- 1 These are the manual VCA bias controls. Like with CV inputs each of BIAS controls adjust the voltage on different grid of both vacuum tubes, thus giving more waveshaping possibilities. Combination of two BIAS settings define the characteristics of the VCA – from conventional VCA behaviour to waveshaping and reverse responses in settings over 1PM. The BIAS2 control has less impact on the resulting signal
- 2 These are CV level controls. As this is not a conventional VCA, CV level settings will greatly affect the response of the module
- 3 This is audio input crossfader – you can select one of inputs at far clockwise or counter clockwise settings or fade between them, making new waveforms, if different signals are applied to IN1 and IN2.
- 4 This is manual overdrive control, assigned to the main output OUT1+2. It is essentially a crossfader between dry signal and overdriven signal, so at far counter clockwise settings, you have an unaltered signal from the VCA.
- 5 These are CV Inputs. Unlike on conventional VCAs, where CV inputs are mixed, on this module each CV controls different grids of both tubes, thus giving more modulation possibilities. CV is added to the BIAS potentiometer setting.
- 6 These are the ringmodulator inputs. They are normalised to the VCA OUT1 and OUT2, therefore you always have a signal on the ringmodulator output. If different waveforms form the same VCO are patched in IN1 and IN2, the ringmodulator becomes a distinct waveshaper. Otherwise, you can use it as regular ringmodulator.
- 7 These are audio inputs. IN1 is normalised to IN2, so you do not lose the audio signal at any Input Fader position. Try to patch here different waveforms from the same VCO, and see the waveshaping possibilities of the module!
- 8 This is the VCA mode switch. If you want to use a full potential of the module, set it to the BIASED position and then the BIAS knobs have an effect on the VCA response. If you want simple, straight-forward VCA, flip the switch to the DIRECT position, and set CV LEVEL controls to 1PM. In this mode BIAS controls have no effect on the signal.
- 9 OUT1 is a "conventional" output – it takes the signal from the anodes of vacuum tubes. If the Sawtooth wave is applied to one of inputs, changing the BIAS1 will result in a waveshaping on the OUT1 – the wave will fade from a sawtooth of a ramp
- 10 OUT2 takes the signal from one of grids of the vacuum tubes, and it will behave different than a signal on OUT1
- 11 OUT1+2 is a sum of both outputs with a distortion added – most interesting results here.

FEATURES:

Full analogue design
Vacuum tube based VCA – two miniature pentodes for better gain reduction
Two unconventional CV controls – CVs are not mixed, but they control different grid voltages of the tubes
Manual VCA bias control
Manual overdrive
Input corossfader
Built-in ringmodulator
Direct switch for conventional VCA mode
Low power consumption due to miniature vacuum tubes

TECHNICAL SPECIFICATIONS:

Audio Input level	10Vptp
CV input level (full swing)	-10V - +10V
Panel width	14HP
Module depth	36mm
Power consumption	48mA@+12V, 69mA@-12V

SAFETY INSTRUCTIONS

Please follow the instructions for use of the 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. This 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. If you have transported module in extreme low temperatures, leave it in room temperature for an hour before plugging it in.



Transport the instrument 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.



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.

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 through www.ericasynths.lv.

You will find the Erica Synths terms of warranty at www.ericasynths.lv. Items for return, exchange and/or warranty repair should be sent us according to the guidelines on SUPPORT section on www.ericasynths.lv.

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