

## THANK YOU FOR ORDERING ERICA FUSION DELAY/FLANGER/VINTAGE ENSEMBLE MODULE!

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 and Analogue Delay/Flanger.

Erica Synths Fusion Delay/Flanger/Vintage Ensemble module is distinct multifunctional analogue effects module that combines BBD chip based effects with an adjustable tube overdrive in the delay output and feedback path for extra thickness of sound. For more flexibility, lowpass filtering is fully adjustable from none to extreme. Special feature, not found in eurorack, is Vintage Stereo Ensemble – effect that's common on vintage synthesizers to create moving and thick spatial sound from a monaural tone generator, be it FM, DCO or any other kind. Such a spatial effect is achieved by mixing dry source with delayed and lowpass filtered out of phase signal.

### FEATURES:

- 2 BBD chips (1024 and 4096 stages)
- Delay and Flanger effects
- Vintage Ensemble Stereo effect
- Tube overdrive in the delay output and feedback path
- Dry/Wet mixing
- Passive Lowpass filter for extreme subbass sound

Adjust manually internal modulation LFO frequency that alters BBD sample rate and thus delay time

Adjust overdrive level from none to extreme in full CW setting. This is dual potentiometer that controls tube overdrive level in the delay output and feedback path simultaneously. Try it with guitar!

Adjust input audio signal level! Fusion modules are sensitive to input signal levels too high input signals give interesting overdrive effects, but reduce brightness of delay effect

This is internal and external modulation level attenuator

Connect audio signal here!



Patch an external modulation signal (LFO, EG, etc) here. Internal LFO will be automatically disconnected

These are Left and Right outputs. To enjoy Vintage Ensemble effect, use stereo mixer.

Adjust Delay time manually! Full CW setting will give you extreme delays and obscure effects

Select between 1024 and 4096 stage delay!

Adjust effect feedback manually! Turning the knob CW will initiate self oscillation

Use COLOUR potentiometer to filter off higher harmonics for extreme bass sound. Full CW setting works best at really low frequencies – C1 and below

This knob provides smooth mix between Dry and Wet signals

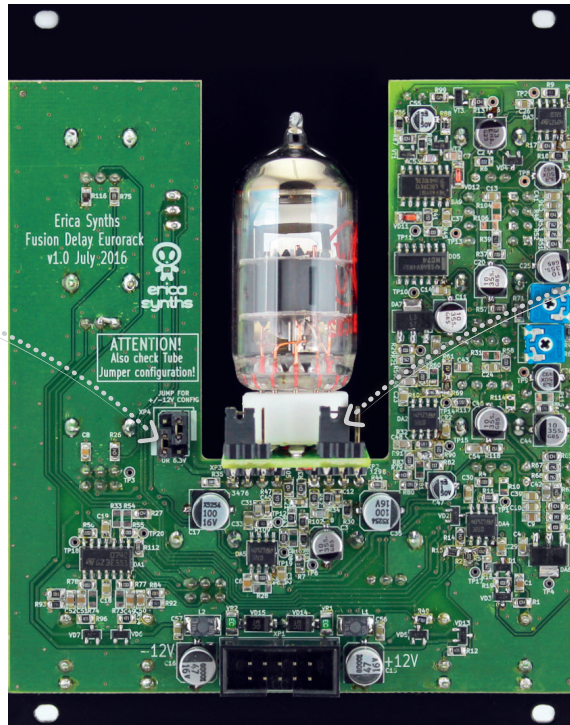
### TECHNICAL SPECIFICATIONS:

Audio input level: .....	up to 20V ptp
Max delay time SHORT setting: .....	20ms
Max delay time LONG setting: .....	200ms
LFO range: .....	0,1Hz – 30Hz
Panel width: .....	20HP
Module depth: .....	35mm
Power supply: .....	bipolar +-12V , eurorack standard and/or Erica Synths 6VAC PSU
Power consumption:	
Tube heater PSU configuration: .....	35mA@+12V, 20mA@-12V, 300mA@6VAC
Eurorack PSU configuration: .....	35mA@+12V, 185mA@-12V
	(NB – start-up power consumption for few seconds is ~250mA)

You can configure Erica Fusion modules for two PSU options.


1. When used with easy to install 6VAC Erica Tube heater PSU, Fusion modules have insignificant (max 35 mA) power consumption from eurorack PSU. Erica Fusion 6VAC PSU is designed to power up to 7 Erica Fusion modules, but your eurorack case needs 220VAC or 110VAC routed inside the case (this is typical for most Doepfer cases and some other producers that use switching PSU). Latest Erica Synths cases have Fusion tube heater connectors on integrated PSU boards.
2. When configured to work with standard  $\pm 12V$  eurorack PSU, power consumption is about  $35mA@+12V$  and  $185mA@-12V$ , and you do not need to install Fusion PSU. This configuration is the best for Make Noise and similar PSU systems that route only  $+12V$  in the case and use switching ICs to generate  $\pm 12V$ .

For  $\pm 12V$  operation install 2 jumpers on the Fusion PSU connector as shown on the picture. If you use this module with the Erica Fusion PSU, no need to install these jumpers. You connect Fusion PSU ribbon cable here.



For  $\pm 12V$  operation install 2 jumpers on the tube heater connector on the left side as shown on the picture! For 6VAC operation from the Fusion PSU, install jumpers on the right side. Also, you can refer to small 12V or 6V notes next to jumpers

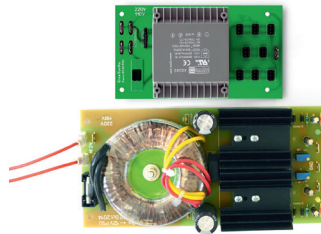
## ERICA FUSION 6VAC PSU INSTALLATION

 It is advised that installation is performed by person, who has experience working with 220/110V voltages. Before installing the PSU, make sure your modular system is turned off and disconnected from wall power socket.

Follow simple instructions below, and you will not go wrong with the installation!

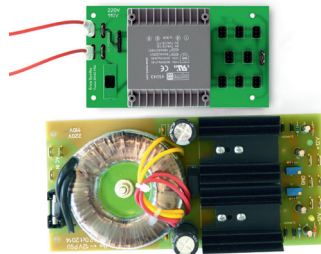


Use spacers and screws supplied with the Erica Fusion PSU kit to fix it in your modular case next to the eurorack power supply unit!

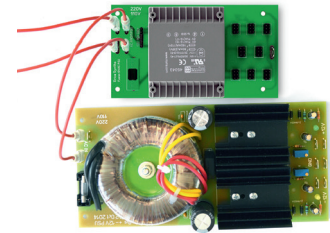


Disconnect 220/110V wires from eurorack PSU!

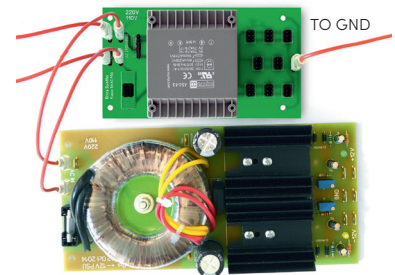
Connect 220/110V wires to relevant lugs of Erica Fusion PSU!



Use wires supplied with the Erica Fusion PSU kit to connect eurorack PSU to relevant lugs on the Fusion PSU module!



One side of Erica Fusion PSU 6VAC output has to be connected to the GND of your modular system. Use the wire supplied with the kit to do so. Since 6VAC circuit is isolated, if you connect this wire somewhere incorrectly. But that may affect quality of sound of Erica Fusion models.



Congratulations, you have completed installation of Erica Fusion 6VAC PSU! Now you can try modules!

## 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.



You will find Erica Synths terms of warranty at <http://ericasynts.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.  
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Specifications are subject to change without notice.  
In case of any questions feel free to contact us via e-mail [info@ericasynts.lv](mailto:info@ericasynts.lv)

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