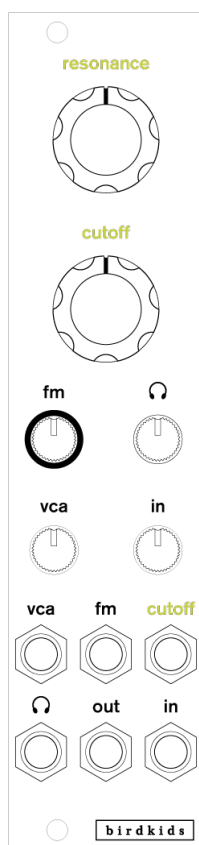


Voltage Controlled Oscillator mkII

Representation

Revision: rev.2 (mkII)  
 Short Description: 6HP Expander for TheBateleur Voltage Controlled Oscillator.  
 Width: 6HP (3U)  
 Maximum Depth: 20mm  
 Power Consumption: Powered by TheBateleur VCO, does not require additional supply.

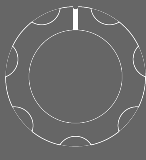







Input	Function	Representation	Range	Characteristic	Short explanation
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vca	VCA Modulation input, CV signal.		-5V to +5V	bipolar	Control Voltage input for VCA modulation signals. <b>Normalized</b> to cutoff in.
fm	Frequency Modulation input, CV signal.		-5V to +5V	exponential	Control Voltage input for Frequency modulation signals. <b>Exponential characteristic!</b>
cutoff	VCF cutoff modulation, CV input.		-5V to +5V	exponential	Modulate Filter Cutoff-Frequency using Control Voltage.
in	VCA input, audio signal.		-5V to +5V	audio input	VCA audio input.

Output	Function	Representation	Range	Characteristic	Short explanation
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headphone out	Headphone Level Audio output.		-1V to +1V	audio output	Headphone Mix, Stereo 3.5mm Jack (double Mono). Use headphone control to set desired output gain.
out	VCA output, audio signal.		-5V to +5V	audio output	VCA audio output post modulation.

Control	Function	Representation	Range	Characteristic	Short explanation
<b>fine</b>	VCO pitch fine-tuning control. +/-7 Semitone range.	<p>resonance</p> 	7 Semitones +/-	linear	Fine-Tunes the Oscillator's frequency by 7 Semitones up/down.
<b>cutoff</b>	VCF Cutoff frequency control.	<p>cutoff</p> 	0-100%	linear	Set modulation depth for Pulse Width Modulation. VCF range = ca. 14Hz to 22KHz
<b>mod</b>	VCO Modulation depth control	<p>fm</p> 	<b>Sync &amp; Linear FM</b> = 0-100%; <b>Through-Zero FM</b> = min. Threshold level to max. Modulation level.	linear	Set modulation depth / level for the chosen modulation mode. See Modulation Switch (VCO) for more info on modes.
<b>headphone control</b>	Headphone Out Level control.		0-100%	logarithmic	Set comfortable Headphone output level for Mix.
<b>vca</b>	VCA CV attenuator.	<p>vca</p> 	0-100%	linear	Set amount of attenuation for incoming VCA modulation signals.
<b>in</b>	VCA Audio input, initial gain.	<p>in</p> 	0V-5V	linear	Offset gain for VCA. 5V = open.
<b>IMPORTANT!</b>	<p>The module is powered directly by TheBateleur VCO using a 14PIN Flat Ribbon connector.  The 14PIN Connector for TheBateleur EXPANDER(s) is bundled with the EXPANDER!  <b>Red stripe = -12v</b>  <b>Misalignment or misorientation of Flat-Ribbon connector might damage the unit!</b></p>				