Joranalogue Audio Design Walk 4 Accumulator & Warp 1 Waveshaper



High-quality Eurorack music synthesiser modules-maker Joranalogue Audio Design expands its lineup with Walk 4 and Warp 1 - taking things twice ahead of the curve as an analogue accumulator (combining four analogue accumulators, a clock generator, white noise, and auto reset to create a voltage-stepping juggernaut) and a new breed of analogue waveshaper (precisely implementing a mathematical power function relationship between input and output), respectively - as of February 10...

An analogue accumulator is a circuit that stores a voltage, then charges or discharges it in discrete steps according to a trigger signal - sort of like a battery for CV (Control Voltage). As a QUAD BROWNIAN ACCUMULATOR - according to the wording tastefully incorporated into its clear-cut front panel, Walk 4 combines four such accumulators with a clock generator, four white noise sources, and an AUTO RESET system to create a 10HP voltage-stepping juggernaut. Those high-precision accumulators are principally used to create staircase waveforms, with the stored voltage changing by a certain amount at each trigger. This value can be set directly through the VALUE INPUTS, through the module’s shared TREND, VOLATILITY, and CONSTRAIN parameters, or any combination thereof.

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TREND provides a fixed value input to all accumulators for simultaneous modulation of all accumulator values, while CONSTRAIN provides counteracting force, preventing voltages from accumulating too quickly. By bringing the noise generators into play, VOLATILITY adds an element of chance at every trigger. This elevates Walk 4 from being just a quad arpeggiator or subharmonics generator but also a fourfold random walk CV or coloured noise source.

An ADD input adds a continuous external signal to all ACCUMULATOR OUTPUTS, all of which are impedance compensated with dual-colour LEDs (Light Emitting Diodes). As a result of the full voltage control on offer, including independent VALUE INPUTS and TRIGGER INPUTS for each accumulator, there is always more stochastic patching to be explored. And anyone also needing a reliable CLK (clock) source with wide-ranging V/OCT. (1-volt-per-octave) tracking and external RESET need not worry - Walk 4 has that covered as well. Walk 4 brings a welcome touch of vintage analogue computing to any Eurorack system - sort of like sample-and-hold with a master’s degree.

As a new breed of analogue wave shaper - self-styled as a POWER CURVE WAVESHAPER, Warp 1 precisely implements a mathematical relationship between input and output, governed by a variable power function rather than being based on the inherent properties of transistors and diodes. Sharing some conceptual similarities to a beam of light travelling through a lens, straight waveforms segments are bent into ‘hollow-sounding’ concave or ‘driven-sounding’ convex curves. Curvature degree is determined by the EXPONENT control, while the SCALE parameter determines the ‘depth’ of curving action.

A precision CLIPPER on the output adds adjustable clamping (CLIP+ and CLIP-) of the positive and negative parts of the waveform; in conjunction with the ABS. (absolute) value switch, this allows Warp 1 to be used as a half or full wave rectifier - useful for limiting CV ranges, or as an audio octave-up effect. Elsewhere, flipping the mode switch from DIRECT to the HYPER setting exposes Warp 1’s dark side, whereby its exponent turns negative and outputs resemble hyperbolic curves. Creatively speaking, dual summed inputs (IN), an inverted signal output (INV.) and a polarity comparator gate output (POL.) round out Warp 1’s signal processing capabilities - albeit by adding a manually variable DC (Direct Current) offset to the signal inputs, the SYMMETRY control can be used to achieve asymmetric waveshaping. Warp 1 provides a level of control that is unprecedented in waveshapers, combining meaningful parameters, clear LED indication, complete voltage control, and DC to supersonic operation. All add up to allowing for subtle colouring to wild hyperbolic distortion - and all comfortably contained in an 8 HP Eurorack module.

As always, Joranalogue Audio Design prides itself on the high-quality components and assembly involved in its Eurorack music synthesiser modules - designed and made in Belgium - with Walk 4 and Warp 1 sharing a bullet-proof design anchored around a polarised power header and MOSFET protection, precision-milled 2mm anodised aluminium front panels with high-resolution, non-erasable graphics, and

premium mounting hardware - black screws, black nylon washers, and matching hex key. It is patently obvious, therefore, that both modules bear witness to the company concerned’s unrelenting passion for analogue circuits, the utilitarian aesthetic continuing to envelop designs providing immense depth, versatility, and precision.

Walk 4 is available immediately through Joranalogue Audio Design’s growing global network of dealers at a price of €275.00 EUR or $290.00 USD.

www.joranalogue.com

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