
Paddington Manual

SV Modular



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Paddington Users Manual

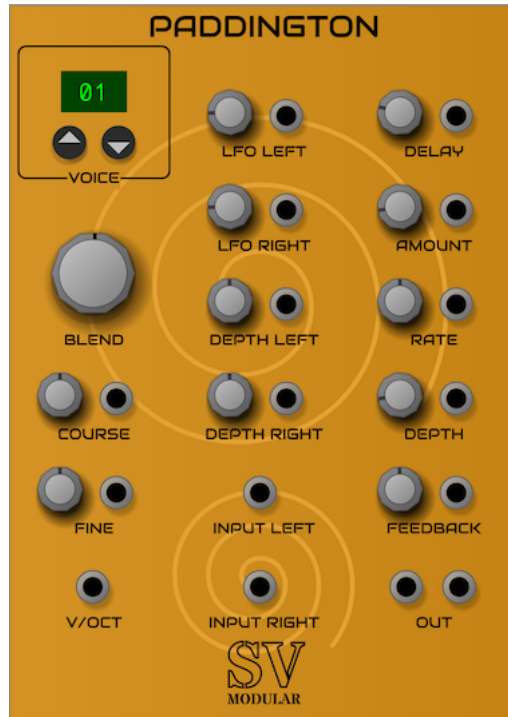


Figure 1: Paddington

Paddington is an implementation of the PADSynth Algorithm, along with two Voltage Controlled Filters (VCF) to add additional texture. It is monophonic, and provides two (stereo) outputs, controlled by a single V/OCT input.

The PADSynth algorithm cannot be processed easily in real-time, so Paddington attempts to compromise by providing nine pre-rendered voices. Each voice attempts to provide a different aspect of the algorithm, while still minimizing CPU usage.

Signal Path

Paddington packs the synth engine along with a Chorus Effect and Ring Modulator.

Panel Controls and Functions

Paddington is divided into three sections each controlling a different aspect of the sound.

Voice

The *Voice* module is divided into parameters affecting the overall sound of the module itself.

Voice The *Voice* parameter allows for selection between nine pre-rendered voices implementing the PADSynth algorithm. The voices alter parameters such as bandwidth and the spread of frequencies.

Blend The *Blend* parameter controls the overall dryness and wetness of the module. This parameter affects both the chorus module and the ring modulator.

Coarse The *Coarse* parameter provides a coarse tuning of the voice. It provides adjustment from one octave below to one octave above the base frequency fed into the voice itself.

Fine The *Fine* parameter allows for an adjustment of $-1/10$ of an octave to $+1/10$ of an octave.

Chorus

The *Chorus* module controls aspects of the chorus effect, a stereo module that brings aspects of the sound in and out with additional feedback.

Delay The *Delay* parameter controls the overall delay of the chorus effect. This ranges between 0.01 and 1.0 seconds.

Amount The *Amount* parameter controls the amount, or depth, of the Low Frequency Oscillator (LFO) driving the chorus effect.

Rate The *Rate* parameter controls the rate of the Low Frequency Oscillator (LFO) that drives the chorus effect.

Depth The *Depth* parameter controls the overall depth of the chorus effect.

Feedback The *Feedback* parameter controls the amount of feedback that is sent back into the chorus effect.

Ring Modulator

The *Ring Modulator* module provides frequency mixing and modulation based on a carrier frequency provided by a Low Frequency Oscillator (LFO) or by external input.

There are two ring modulators, one for each output, and they operate separately from each other, and can be adjusted independently.

LFO Left The *LFO Left* parameter controls the speed of the carrier sine wave fed into the left channel carrier signal. It can be adjusted between 0.1hz and 120hz.

LFO Right The *LFO Right* parameter controls the speed of the carrier sine wave fed into the left channel carrier signal. It can be adjusted between 0.1hz and 120hz.

Depth Left The *Depth Left* parameter controls the depth, or amount of the oscillation to be applied via the carrier frequency. Note that this depth only applies to the built-in oscillator. It can be adjusted between 1% and 100%.

Depth Right The *Depth Right* parameter controls the depth, or amount of the oscillation to be applied via the carrier frequency. Note that this depth only applies to the built-in oscillator. It can be adjusted between 1% and 100%.

Input Left The *Input Left* input is used to provide your own carrier frequency for the ring modulator. This can be any signal ranging from -10v to 10v. This overrides both the internal LFO and its depth.

Input Right The *Input Right* input is used to provide your own carrier frequency for the ring modulator. This can be any signal ranging from -10v to 10v. This overrides both the internal LFO and its depth.