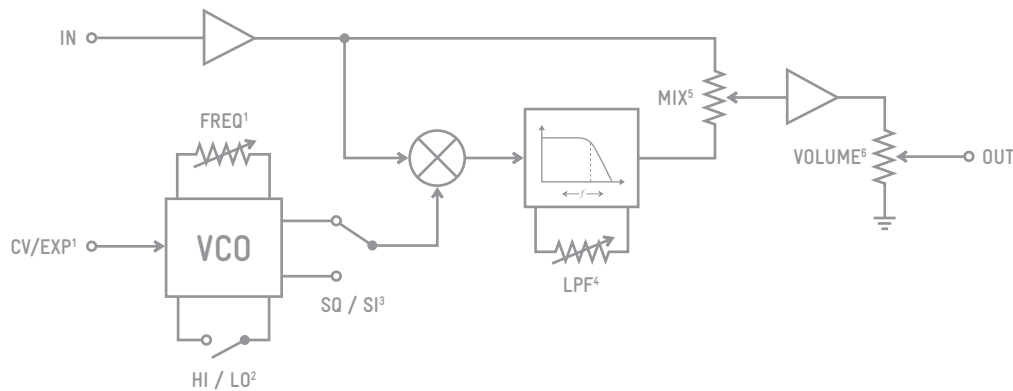


Randy's Revenge

Ring Modulator

Quick And Dirty Runthrough

- FREQ knob and CV/EXP input controls frequency of oscillator
- Selectable HI or LO frequency range
- Square and sine wave operation
- Variable frequency low pass filter
- MIX adjusts wet/dry balance
- True bypass switching
- Powered by center negative 9V power supply

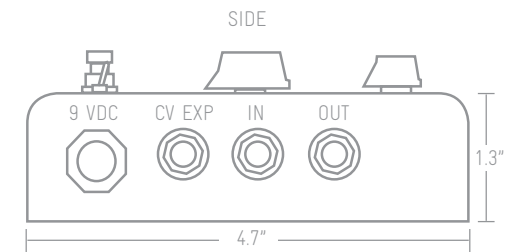
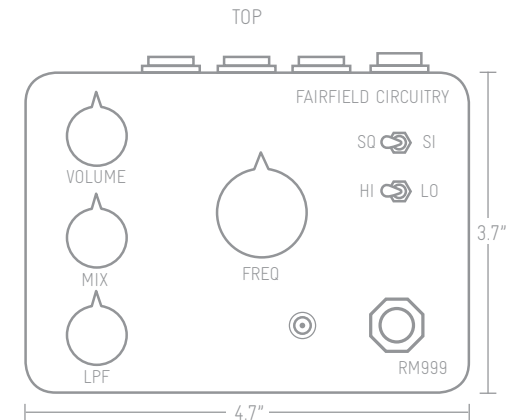


- Both the **CV/EXP** input and the **FREQ** knob control the frequency of the oscillator
- HI/LO** switch sets the operating range of the oscillator, **HI** for 50Hz - 1kHz, **LO** for 2Hz - 20Hz
- The oscillator waveshape is selected between square or sine with the **SQ/SI** switch
- LPF** sets the low pass filter's cutoff frequency, only the modulated signal is affected
- The balance of wet/dry signal is controlled with the **MIX** knob
- VOLUME** controls the overall output level



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Technical Specifications

Input Impedance	1 M Ω
Output Impedance	< 5 k Ω
Power Consumption	< 90 mA

The Voltage Controlled Oscillator

The VCO generates a low distortion sine wave whose frequency can be controlled in many ways. The HI/LO switch sets the operating range of the VCO; LO for 2Hz - 20Hz, HI for 50Hz - 1kHz. The FREQ control and the CV/EXP input sets the oscillator's rate within the selected range. The shape of the waveform sent to the analog multiplier is selected with SQ/SI switch; SQ for square, SI for sine.

The Four-Quadrant Multiplier

The effect commonly known as ring modulation is simply the multiplication of two signals. The result of which is the sum and difference of all frequencies involved. Ideally, this also means that none of the original signals should be present in the output. In reality, all multipliers exhibit some degree of bleedthrough. As is the case with noise in general, bleedthrough will become more audible when higher gain is involved.

The Low-Pass Filter

Located after the multiplier, the second order low-pass filter affects only the modulated signal, not the clean one. This proves useful in taming the incoherent mess generated by the multiplication. The LPF control sets the cutoff frequency of the filter.

The Audio Mixer

Nothing fancy going on here, the MIX controls the balance of clean and modulated signal.

The Input And Output

When engaged, the input is first buffered by a discrete JFET gain stage, providing an ideal interface for instrument level sources. The tube-like distortion characteristics of these devices allow the input to be clipped without harsh repercussions. The output level is set with VOLUME control. Unity gain is obtained when the control is set around noon. When disengaged, the pedal is true bypassed.

The Power Supply

Randy's Revenge requires a typical 9VDC, center negative power supply. There is no room for a battery.



MADE IN HULL, QUÉBEC

30-day Money Back Guarantee

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