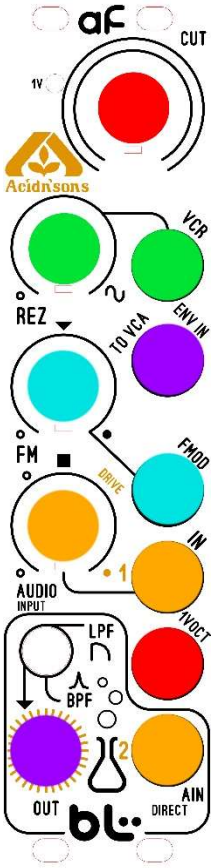
BLM ACID N SONS 3109 VCF



Red Section: Cutoff Knob and 1V Octave input jack. This section controls the frequency cutoff for the filter. Use the 1v Octave input jack for Self-Oscillation Scale tracking.

Green Section: Rez Knob and VCR input jack. Use this to control resonance. VCR is the cv input to control Resonance with external cv sources.

Blue Section: Bi Polar FM and FMOD input jack. In the middle 12 o clock position, CV is ‘off’ as best is can be. Clockwise, the signal is inverted, counter clockwise the signal is non inverted. The signal used is on the FMOD input jack.

Orange Section. Audio Input Drive Knob and 2 Channel input jacks. Ch1 input jack is connected with the Drive Circuit. There is GAIN on CH1. Ch2 direct input is to mix another audio channel with the filter core.

Purple Section. Output Jack and Internal VCA ‘Env’ Input jack. The OUT jack is the final output for this module. Use the ENV input jack if you want to use the module as a small voice. Patch an external Envelope Generator here. It is normal behavior to hear silence when something is patched into the ENV input jack. This ENV input jack is waiting for a CV swinging voltage.

BLM ACID N SONS 3109 VCF

This is one of the easier modules to use. Please take advantage of using the module as a sine wave tracking oscillator also. Simple turn the REZ knob fully clockwise to create a sine wave.

You can also use ‘pinging’ to create racquet ball sounding pops from this module. Use a trigger signal to get rid of the doubling effect. There are AC coupling capacitor on the audio inputs. If you use a GATE signal on these inputs you will here doubling on the rise and fall of your gate signal. To remedy this, just use a trigger signal. A short Attack/Decay, can be used a trigger signal also.

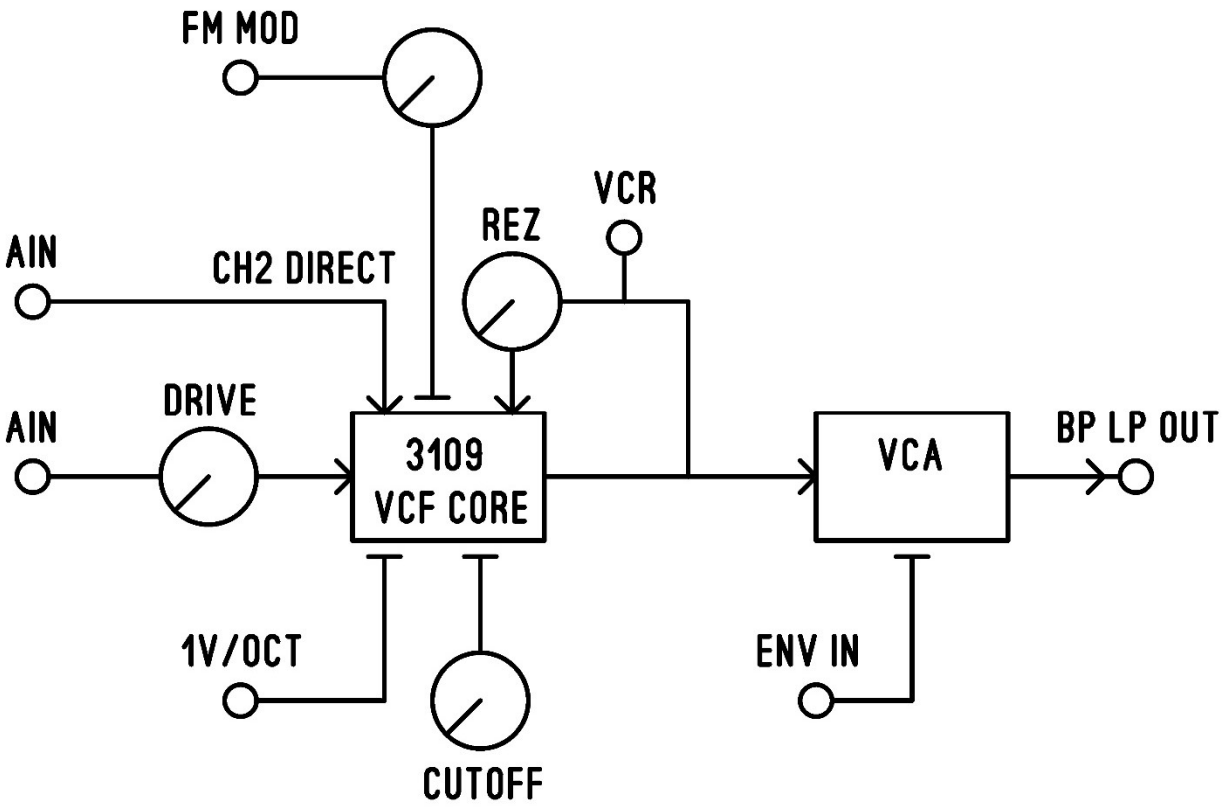
18db Band Pass was achieved using filter pole mixing. Careful resistor values were used to optimize the band pass curve.

Please don’t be the human who always has the Audio Input knob cranked up most of the time. The filter harmonizes at different input levels, having the level knob in lower counter clockwise settings get results.

There is an internal auto leveling for the resonance portion of the module. Audio dropout is non existing when using the Resonance knob in high clockwise settings. The auto leveling circuit was influenced from Mutable Instruments Ripples module. It uses an OTA IC as a comparator between the input signal and the feedback signal. Without this feature, the 3109 sounds wimpy, the volume drop is horrible, in my opinion.

Calibration: set the frequency of the sine wave to 50HZ. Go up 4 octaves on your setup. You will read a 600hz or 900hz range, which needs calibration. Adjust the trimmer while you are still in the 4 octave C note to 800hz. That’s it.

BLM ACID N SONS 3109 VCF



Web Listing Information:

BLM ACID n SONS FILTER

WIDTH: 6HP

CURRENT: +64mA -64mA

24DB VCF + VCA

This module has the modern 3109 filter chip. The older 3109 chip is found in the vintage Roland keyboards like SH-101.

What I did is add resonance audio drop out compensation and precision resistors for the exponential converter. The module

will easily track 5+ octaves when in full self oscillation. Band pass was also added as a bonus. The band pass steals the

show, as many have not heard an sh101 with band pass.

-24db low pass

-18db band pass

-Internal VCA for easy voice building

-FM Bi Polar CV input for the Filter

-Envelope Input for the VCA

-Dual Audio Inputs, one direct, and the other with over drive.