



CHROMATRON

STATE VARIABLE FILTER

The Chromatron is the result of 10 years tweaking, refining and reimagining the state variable filter circuit. It is an optically-controlled analog filter that can switch between envelope control and manual control via expression pedal with the push of a button. The envelope detector is an original design, producing a musical filter response that spans a broad range of tones from vintage quack to future-synth psychedelica.

TIPS FOR GREAT TONE

A good starting point is to put the MIX knob full on, all other knobs at 12 o'clock, RANGE and BAND down, SWEEP up. From there, try turning each knob all the way through its range and listen to the way the sound changes.

For a classic envelope filter sound, try short attack and decay times.

Another fun setting is slow attack, fast decay and low resonance, and setting the RANGE switch to the down position. You can get sort of a slow gear-type sound with this setting, where each note seems to appear out of nowhere.

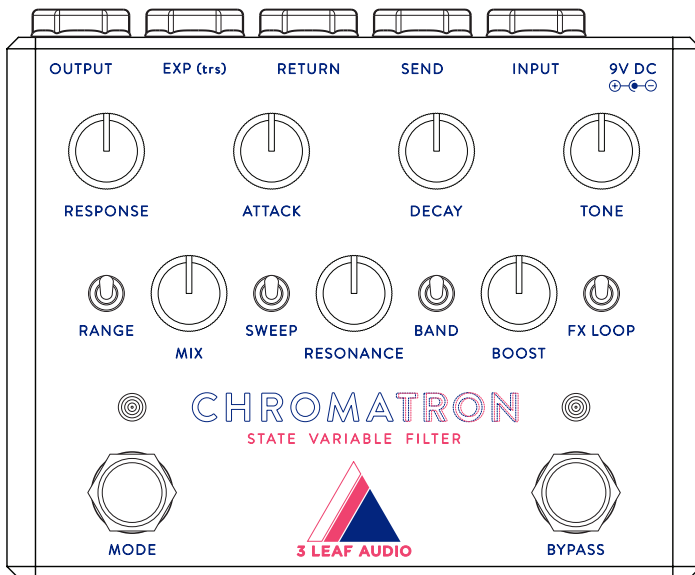
Octave and/or fuzz -> Chromatron is my favorite combination, especially on bass. Use an expression pedal to modulate the filter cutoff for huge synth-like sweeps.

Chromatron -> distortion is great for psychedelic rock tones. The resonant peak of the filter will accentuate the distortion around cutoff frequency.

Distortion -> Chromatron is perfect for dramatic, synth-like filter sweeps. The filter will lop off the high frequencies of the distortion as it sweeps down.

Chromatron -> delay is great for ambient textures, especially when using an expression pedal to sweep the filter.

Delay -> Chromatron is also very cool, as the delay repeats will be swallowed by the filter.



SPECIFICATIONS

POWER 9V DC, 30mA minimum. 2.1mm center-negative connector.

INPUT IMPEDANCE very high.

OUTPUT IMPEDANCE very low.

BYPASS transparent active bypass system with proprietary electronic switching. No clicks, no pops, will never break.

FOOTPRINT 122 mm x 101 mm

INPUTS/OUTPUTS

Plug your instrument into the **INPUT** jack and your amp into the **OUTPUT** jack.

The **FX SEND** and **RETURN** allow you insert any number of effects between the Chromatron's envelope detector and filter sections. This is useful because - for instance - you could put a volume-boosting distortion or dynamics-squashing fuzz into the FX loop, and your clean signal at the input jack will trigger the envelope detector while the filter is still last in the signal chain.

Run a cable from fx send to the input of an effect, and run another cable from the output of that effect to fx return. The Chromatron is still triggered by the signal from the in jack, but the filter affects the signal coming through the fx return jack. This is particularly useful with dynamics-killing effects like fuzz.

The FX loop can also be used with external triggers. If you plug your instrument into fx return, whatever is plugged into the input jack will trigger the filter. You can use anything as an external trigger; the possibilities are unlimited.

When the **FX LOOP** toggle switch is on, the pedals in the loop will remain in your signal chain when the Chromatron is bypassed. When off, the pedals in the loop are bypassed along with the Chromatron.

The **MODE** footswitch toggles between envelope and expression control modes. Use a TRS cable to plug your favorite expression pedal (I recommend the Dunlop DVP3) into the **EXP** jack and you can manually control the filter cutoff frequency. Only use an expression pedal with the standard voltage-on-ring configuration.

In expression control mode, the **RESPONSE**, **ATTACK** and **DECAY** knobs are disabled, and the **TONE** knob sets the cutoff frequency when the pedal is all the way in the toe position.

WARRANTY The Chromatron is guaranteed against defects for one year. The warranty covers the pedal under normal use, not abuse. If you need to send your pedal in for repair, send me an email.

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CONTROLS

RESPONSE is the sensitivity of the filter to your playing dynamics. Start with the sensitivity at minimum and turn up until the filter responds to your liking. This is the most important knob on the pedal!

ATTACK sets the speed at which the filter opens up. Lower settings produce a fast, snappy attack similar to , while higher settings produce a slow, fat “wah” sound.

In reverse sweep mode, **ATTACK** sets the minimum cutoff frequency of the filter.

DECAY sets the speed at which the filter closes back down. Higher settings allow the filter to stay open longer, while lower settings produce quicker, more “bubbly” envelope sounds.

TONE adjusts the maximum cutoff frequency of the filter. Think of it like the tone knob on a guitar.

MIX blends your clean input signal with the filter output.

RESONANCE sets the amount of feedback in the filter signal path. Higher settings produce a larger resonant peak at the filter's cutoff frequency, which makes the filter sound more prominent. Be careful: higher resonance settings cause sharp peaks that can damage speakers at high volumes.

BOOST is a post-filter gain stage.

RANGE sets the broad frequency range of the filter. Both positions have been fine-tuned to sound great in a variety of contexts.

SWEEP toggles between normal and reverse filter modes. In the up position, the filter sweeps normally. In the down position, the sweep is reversed. You may need to change the settings of the attack and decay knobs for best results.

BAND toggles between low pass and band pass responses. Down is low pass - a deep, full sound that retains all your low end. Up is band pass - a more aggressive sound that cuts low end as the filter opens up. Try mixing in some clean signal in band pass mode for a dramatic sound that retains low end.

