Acid Rain — Chainsaw

- Manual PDF

Manual PDF

Acid Rain Technology Chainsaw — melodic use in a Eurorack system

Chainsaw is a **stereo super-oscillator** designed to generate rich, harmonically dense pitched material. From the manual, it is a **digital oscillator** with:

- **3 independent voices**
- **7 waves per voice**
- up to **21 total waves**
- **1V/oct pitch inputs** for each voice
- global **detune**, **wave morph**, and **linear FM**
- stereo outputs with the internal waves spread across **left/right**

This makes it especially strong for melodic duties like:

- supersaw leads
- stacked chords
- unison basses
- animated arpeggios
- wide stereo pads
- pseudo-paraphonic lines

What the module does musically

1. Three pitchable voices

Chainsaw has three separate **V/Oct inputs**:

- **V/O 1**
- **V/O 2**
- **V/O 3**

Each input activates one voice when patched. Since each voice is independently pitch-controlled, you can use the module for:

- **single-oscillator unison melodies**
- **interval stacking**
- **triads and chord voicings**
- **parallel melodic lines**

A very practical melodic interpretation:

- patch one sequencer to **V/O 1** for the melody root
- patch transposed copies or separate sequencer rows to **V/O 2** and **V/O 3**
- create chords such as:
- root + major third + fifth
- root + minor third + fifth
- octaves + fifth for powerful riffs
- suspended voicings for ambient lines

Because each voice contains **7 detuned oscillators**, even simple pitch material becomes huge and animated.

Core sound-shaping controls for melody

2. Root frequency encoder

The encoder sets the root pitch in semitones when the **note** LED is lit.

- each encoder step = **1 semitone**
- press once to enter **fine tune** mode
- fine tune mode = **1 cent per step**
- hold for 2 seconds to reset to **C1 (32.7 Hz)**

Musically, this is useful for:

- quickly tuning the module to your patch
- setting a performance key center
- creating fixed drone roots against sequenced voices
- precise tuning for intervals and harmonic layering

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3. Detune

The **detune** knob spreads the 7 oscillators in each voice around the root:

- 3 above
- 3 below
- 1 at root

At minimum, they are in perfect unison. As you increase detune, the spread follows a curve that creates the classic supersaw widening effect.

There is also a **detune CV input** accepting **-5V to +5V**.

For melodic work, detune is one of the most important controls:

- **low detune**: focused melodic lines, basses, tighter harmony
- **medium detune**: lush leads and chords
- **high detune**: trance-style supersaws, smeared harmonic clouds, wide pads

Patch ideas:

- slow LFO to detune CV for evolving pad movement
- envelope to detune CV for notes that “bloom” wider after attack
- stepped random CV for phrase-by-phrase variation

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4. Saw-to-square morph

The second large knob morphs all waveforms from **sawtooth to square**.

There is also a **morph CV input** accepting **-5V to +5V**.

Musically:

- **saw side**: brighter, buzzy, harmonically dense, ideal for leads and supersaw stacks
- **square side**: hollower, weightier, excellent for bass and retro chord textures
- **in-between**: animated hybrid timbres that keep melodies lively

Great melodic uses:

- use an envelope on morph CV for per-note timbral articulation
- use a slow modulation source to gradually shift a progression from bright to hollow
- automate morph with sequencer CV to make each step of a melody feel orchestrated differently

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5. Linear FM

Chainsaw has a global **linear FM input** for all voices, accepting **-5V to +5V** and responding predictably up to **2 kHz**.

This is useful melodically for:

- vibrato with a sine/triangle LFO
- audio-rate FM for brighter, more aggressive harmonic content
- subtle motion to keep held notes alive

Recommended musical use:

- for tonal melodic patches, keep FM **subtle**
- use very small modulation depth for expressive vibrato
- for more modern/aggressive lead tones, apply light audio-rate FM from another oscillator

Since FM affects all voices together, it works well when Chainsaw is used as a chord or supersaw stack.

Stereo behavior and why it matters melodically

The 7 oscillators of all 3 voices are spread across:

- **Out L**
- **Out R**

This creates a naturally wide stereo image.

For melodic composition, that means:

- a single note already occupies space like a layered production
- intervals and chords sound large without external panning
- arpeggios can feel cinematic even before adding effects

You can also use only one output for mono operation, which is useful if:

- you want to process the sound through a mono filter or VCA chain
- you are building a more focused bass or lead patch
- your system has limited mixer inputs

How to use Chainsaw for melodic roles

1. Monophonic supersaw lead

Patch:

- sequencer pitch CV → **V/O 1**
- gate → envelope → VCA controlling Chainsaw output
- Chainsaw **Out L/R** → stereo mixer or stereo filter/VCA

Settings:

- low-to-medium detune
- saw-heavy morph
- subtle FM vibrato from LFO

Result:

- huge lead sound with width and energy
- ideal for trance, melodic techno, synthwave, or cinematic hooks

Tip: keep detune lower for faster melodies so pitch remains articulate.

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2. Massive bassline

Patch:

- pitch sequence → **V/O 1**
- use one output or both summed carefully to mono/stereo chain
- envelope-controlled filter after Chainsaw

Settings:

- low detune
- morph toward **square**
- very subtle or no FM

Result:

- thick, hollow basses
- stable pitch with lots of harmonic weight for filtering

Tip: too much detune can weaken low-end focus, so keep spread restrained for bass parts.

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3. Three-note chord generator

Patch:

- root sequence → **V/O 1**
- transposed CV (+3 or +4 semitones) → **V/O 2**
- transposed CV (+7 semitones) → **V/O 3**

This gives:

- minor triad: root / +3 / +7
- major triad: root / +4 / +7

Alternative: Use three independent sequencer rows to create changing voicings and inversions.

Settings:

- medium detune
- saw-to-square based on desired tone
- slow modulation to detune or morph

Result:

- instant supersaw chords
- excellent for stabs, pads, and chord progressions

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4. Moving chord stabs

Patch:

- same triad setup as above
- gate sequence → snappy envelope → VCA
- second envelope or modulation lane → morph CV
- optional LFO → detune CV

Settings:

- moderate detune
- bright saw start, slightly more square during decay or vice versa

Result:

- dynamic chord hits
- very effective for house, techno, and synth-pop harmonic parts

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5. Arpeggiated stereo texture

Patch:

- clocked pitch sources or sequential switching to **V/O 1/2/3**
- Chainsaw stereo outputs → delay/reverb

Approach:

- assign different intervals to each voice
- create broken chords over time
- use slow detune modulation for motion

Result:

- wide, immersive arpeggios
- complex harmonic movement from relatively simple pitch material

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6. Pseudo-paraphonic patch

Since there are three pitch inputs, you can treat Chainsaw as a kind of compact chord/paraphonic voice source.

Patch:

- three separate pitch streams to **V/O 1, 2, 3**
- one shared envelope/VCA/filter path after the outputs

Result:

- three-note harmonic content with shared articulation
- excellent for:
- chord memory style riffs
- held intervals
- ensemble lines

Important limitation: This is not a fully separate 3-voice synth voice, because the module provides shared audio outputs rather than independent outputs per voice. So each voice is independently pitched, but they are mixed internally into stereo.

Best supporting modules to pair with Chainsaw for melody

Chainsaw is an oscillator, so to build complete melodic parts it works best with:

Sequencers

Needed for:

- note patterns
- transposition
- chord interval generation

- arpeggios

Especially useful: - quantized CV sequencers - precision adders - chord interval generators

Envelopes and VCAs

Needed for:

- note articulation
- plucks
- stabs
- swells

Without a VCA/envelope, Chainsaw will behave more like a continuously sounding drone source.

Filters

Very effective after Chainsaw because the waveform is harmonically dense.

Use filters for:

- opening/closing lead brightness
- carving basses
- creating animated chord stabs
- taming high-frequency density

Stereo effects

Because Chainsaw already has a stereo image, it pairs extremely well with:

- stereo delay
- stereo reverb
- chorus
- phaser

This can turn simple melodies into polished, finished-sounding musical layers.

Modulation sources

Use LFOs, envelopes, random, or sequencer CV to animate:

- detune
- wave morph
- FM amount

This is the key to making repeated melodic phrases feel alive.

Strong melodic patch recipes

A. Trance lead

- sequencer → V/O 1
- medium detune
- morph near saw
- subtle LFO → FM for vibrato
- stereo delay + reverb after output

Why it works: The supersaw architecture naturally creates the classic uplifting lead sound.

B. Minor chord pad

- root CV → V/O 1
- root + 3 semitones → V/O 2
- root + 7 semitones → V/O 3
- slow envelope or LFO → morph CV
- slow random/LFO → detune CV
- long reverb

Why it works: The internal 21-wave total architecture makes even static triads feel orchestral and wide.

C. Octave/fifth bass stack

- bass sequence → V/O 1
- same sequence +12 semitones → V/O 2
- same sequence +7 semitones → V/O 3
- low detune
- morph toward square
- mono or centered stereo mix

Why it works: This creates a harmonically reinforced bass that stays musical and powerful.

D. Evolving melodic drone

- fixed or slowly sequenced CV to V/O 1, 2, 3
- very slow modulation to detune and morph
- slight FM from slow LFO
- stereo reverb/delay

Why it works: Chainsaw excels at sustained harmonic material because of its layered oscillators and stereo spread.

Things to keep in mind

It needs external articulation

Chainsaw is a sound source, not a complete voice. To make traditional notes, you will usually want:

- VCA
- envelope

- often a filter

Detune affects clarity

For melodic precision:

- use less detune for bass and fast lines
- use more detune for pads, leads, and sustained chords

One shared timbral engine

All three voices share the same overall waveform morph and FM behavior. That means it is best thought of as:

- a unified chord/supersaw engine rather than
- three completely independent synth voices

That shared architecture is actually an advantage for cohesive melodic textures.

Summary

Chainsaw is excellent for melodic work because it combines:

- **accurate 1V/oct tracking**
- **three independently pitched voices**
- **supersaw-to-supersquare timbral range**
- **CV control over detune and morph**
- **stereo width built into the oscillator**

In a system, it works especially well as:

- a **lead oscillator**
- a **bass voice**
- a **stereo chord generator**
- a **pad/arpeggio source**
- a **compact paraphonic harmonic engine**

If you pair it with a sequencer, envelopes, VCA, and ideally a filter/effects chain, Chainsaw can serve as the core melodic voice for a very wide range of electronic styles.

Generated With Eurorack Processor