

Firewaves

A mastering-grade mid harmonic console — tighten resonant buildup, then add tube-driven warmth and presence, keyed to one master frequency you can hear moving through the mix.

Formats • AU, VST3 (macOS) Version • 2.0 Manufacturer • Smash Happy Audio

CONTENTS

- | | |
|--------------------|-----------------------|
| 01 Overview | 06 Solo Listen |
| 02 The Interface | 07 Undo & A/B Compare |
| 03 Focus & Tighten | 08 Specifications |
| 04 The Three Bands | 09 Troubleshooting |
| 05 Tube Output | |

What Firewaves is for

Firewaves treats the mid range in two moves: clean up resonant buildup first, then add harmonic richness on top of what's left. Everything is additive and parallel — the dry signal is never removed from the mix, only added to — so pushing Firewaves hard thickens and warms a mid range rather than reshaping it.

Three bands (Low-Mid, Mid, High-Mid) each get a Blend push-fader and a Triode/Pentode character knob, all driven by a shared, fixed-hot internal drive stage and a global tube output section for the final analog-style warmth.

The interface

Six sections run left to right: Focus, Tighten, Low-Mid, Mid, High-Mid, and Output/Tube. Focus is the master control every other section keys off — moving it retunes where Tighten listens and where each band's harmonic generation is centred.

Focus & Tighten

FOCUS

The master frequency (400 Hz–4 kHz) that everything else in the plugin follows. The knob face reads the live frequency in Hz — move it and you're retuning both the resonance detector and where the added harmonics land.

TIGHTEN

Dynamic mud/resonance suppression swept around Focus. Three detectors, skewed below Focus where boxy buildup typically lives, only cut when real resonance is detected — clean material sees little to no reduction. Runs before the harmonic stages, so you're always adding warmth on top of a cleaned-up signal, not compounding buildup.

The three bands: Low-Mid, Mid, High-Mid

Each band shares the same two controls:

- **Blend** — the main push-fader. This is level, harmonics, and density together in one push, not a subtle "amount" knob — push it like you'd push a saturation send.
- **Triode / Pentode** — warm (triode) to bright (pentode) character, gating how much even-harmonic warmth versus odd-harmonic edge the band adds.

The added content from Focus's own band is deliberately voiced above the Focus frequency itself, so pushing Firewaves adds presence and clarity at the target rather than cloudiness below it.

Tube output

A global 12AX7-modelled output stage, off by default. Engage it for a final pass of analog-style warmth across the whole signal after the three bands have done their work — its glow in the interface tracks the actual signal level driving it, warming around -24 dBFS and running hot by -3 dBFS.

Solo listen

The Δ button solos exactly what Firewaves is adding and removing — the difference between input and output — so you can dial in Blend, Character, and Tighten purely by what's being added, without the full mix in the way.

Undo & A/B compare

UNDO

Steps back your last change. Related edits in quick succession group into one undo step.

ALT

A/B compare: first press stores your current settings as the alternate; press again to flip and compare.

Specifications

Formats	Audio Unit, VST3
Platform	macOS, Apple Silicon
Bands	Low-Mid, Mid, High-Mid — Blend + Triode/Pentode each
Focus range	400 Hz – 4 kHz
Processing	4x oversampled, alias-suppressed saturation
Signal path	Parallel/additive — dry signal never removed
Tube stage	12AX7-modelled global output, off by default
Channel configuration	Stereo in / stereo out

Troubleshooting

Firewaves is making the mix sound cloudy

Try raising Tighten and setting Focus on the boxy area you're hearing before adding more Blend — Firewaves is designed to clean up resonance first, add warmth second, and pushing Blend without Tighten can compound existing buildup rather than fix it.

I can't hear the bands doing anything

Blend is a push fader, not a subtle trim — push it further than you'd expect from a typical "amount" control. Use Solo Listen to hear exactly what's being added in isolation.

The tube stage sounds inactive

It's off by default and its visual glow tracks real signal level — quiet passages will show little glow even when engaged. Confirm the Tube control itself is turned up.