

Overgrown

A true circuit-modeled fuzz pedal — real diode clipping stages and tone stack, not a waveshaper doing an impression of one — with a built-in octave shifter for classic octave-fuzz character.

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

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What Overgrown is for

Overgrown is a fuzz pedal modeled at the circuit level — its clipping stages and tone stack are simulated as an actual electrical network (a Wave Digital Filter model), not approximated with a waveshaping curve. That's the difference between a plugin that sounds vaguely fuzz-like and one that behaves like a real pedal responding to how hard you drive it.

It's built in the spirit of classic swollen-pickle-style fuzz circuits, with a real-time octave shifter layered on top for the up/down octave-fuzz sounds those pedals are famous for.

The interface

Overgrown wears its own stompbox face rather than the family's usual rack chassis — a photoreal pedal with a footswitch, chrome knobs, and a botanical illustration. The footswitch's LED communicates engaged/bypassed state; the switch itself looks identical either way, exactly like a real pedal.

Sustain & Clip Type

Sustain drives both clipping stages — higher settings push the circuit model harder into clipping for more compression and sustain, the way turning up gain on a real fuzz circuit does. **Clip Type** selects the diode chemistry the circuit model actually simulates:

SILICON	GERMANIUM	LED
Harder, more aggressive clipping character	Softer, warmer, more vintage-fuzz character	Brighter, more open clipping with extra headroom

Switching Clip Type crossfades smoothly between diode models over a few milliseconds — there's no pop or discontinuity when you change it live.

Tone & Mid

Tone switches the modeled tone stack between Fat and Bright voicings. **Mid** controls how much midrange the tone stack cuts — because this is a real circuit model, Tone and Mid interact the way they would on the physical pedal, not as two independent EQ bands.

Octave

Octave Mode switches between Down, Off, and Up — a real-time pitch-tracked shifter, not a static harmonizer, so it tracks your playing dynamically. **Octave Blend** sets how much of the shifted signal mixes in alongside the fuzz. The shifter runs continuously in the background even when Mode is Off, so switching it on mid-note is instant rather than needing a moment to "warm up."

Harvest

The output trim (–24 to +6 dB) — an intentional creative/mixing level control, separate from and in addition to the automatic gain compensation Overgrown already applies internally to keep level sane as you push Sustain.

Specifications

Formats	Audio Unit, VST3
Platform	macOS, Apple Silicon
Modeling	Wave Digital Filter circuit model, double precision throughout
Clip types	Silicon, Germanium, LED — crossfaded live
Oversampling	8x on the nonlinear stages
Octave	Real-time pitch-tracked shifter, Down / Off / Up
Harvest (output)	−24 to +6 dB
Channel configuration	Stereo in / stereo out

Troubleshooting

The octave shifter sounds glitchy or unstable on some notes

Pitch-tracked octave shifting works best on clean, monophonic input — chords, heavy fuzz stacked before the shifter in your chain, or fast passages can confuse any pitch tracker. Try lowering Octave Blend or engaging the octave earlier in a simpler signal chain.

The output level jumps around as I change Sustain

Overgrown compensates automatically as you drive Sustain harder, but it's an RMS-based leveling system with some inherent smoothing lag, not an instant limiter — use Harvest for the final creative trim once you've settled on a Sustain setting.

Switching Clip Type sounds like it cuts out briefly

Clip Type crossfades over a few milliseconds by design to avoid a pop — on a very fast, repeated switch this can read as a brief softening rather than an instant change. That's expected behaviour, not a bug.