

FixerUpper

An audio-repair workbench built around a genuinely mastering-grade De-Click engine — detect and reconstruct clicks by predicting what the signal itself expected to hear, not just flagging loud samples.

Formats • AU, VST3, Standalone (macOS) **Version** • Phase 1 — De-Click

Manufacturer • Smash Happy Audio

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What FixerUpper is for

FixerUpper repairs clicks, crackle, and pops without treating every loud sample as damage. Its detector predicts what each sample *should* have been from the signal's own recent behaviour — a click is a sample that breaks that prediction, not simply a sample that's loud. This lets it stay quiet on real musical transients (drum hits, plucks, consonants) while still catching genuine clicks buried in dense, busy material.

De-Click is Phase 1 of a larger repair workbench — De-Noise, De-Hum, De-Clip, De-Reverb, and a Voice AI module are visible in the tool rail as upcoming additions to the same shell.

Two ways to work

LIVE INSERT

Drop FixerUpper on a track like any other insert. Audio streams through continuously and is repaired live, with a small, constant, host-compensated latency. This is how you'd use it during tracking, comping, or on a live signal path.

OFFLINE EDITOR

Capture or drop in a clip, run a full-quality batch repair pass over the whole thing, then compare Source against Repaired (and hear exactly what was removed via Diff) before exporting. This is the highest-quality path and where the detailed workbench view — waveform, spectrogram, stats — comes alive.

Switch modes from the tool rail; FixerUpper handles the transition cleanly without any audio glitch.

The interface

A waveform view sits over a real spectrogram, with a frequency gutter and stereo meters on the right. In Offline Editor mode, use **CAPTURE** to record host input or drop a file directly onto the window, then **REPAIR** to run the full pass. In Live Insert mode the same canvas becomes a scrolling live waveform instead.

De-Click

One control does the real work: **Sensitivity**. Raise it to catch subtler clicks; lower it to stay conservative and leave anything ambiguous untouched. The detector normalises against each moment's own local signal level, so a loud, dense passage doesn't get flooded with false detections the way a single global threshold would — the same setting stays meaningful whether the material around a click is quiet or busy.

Detected regions are reconstructed with a model that predicts the gap from the clean signal immediately surrounding it, rather than a simple interpolation — the repair is built to sound like the material that was actually there, not a smoothed-over guess.

Source, Repaired & Diff

After a repair pass, switch between three ways of listening:

- **Source** — the original, untouched audio.
- **Repaired** — the result after De-Click has done its work.
- **Diff** — hear *only* what was removed. This is the fastest way to judge whether Sensitivity is set correctly: if Diff sounds like clicks and crackle, you're in the right zone; if you start hearing actual music in the Diff, back Sensitivity off.

Export

Once you're happy with the Repaired result, `EXPORT` writes it to a WAV file directly from the workbench — no need to route audio back through your DAW's own bounce process.

Specifications

Formats	Audio Unit, VST3, Standalone
Platform	macOS, Apple Silicon
Repair method	Autoregressive prediction + least-squares AR gap reconstruction (cubic fallback for very short gaps)
Live Insert latency	~128 ms at 48 kHz, constant and host-reported
Offline Editor latency	None — batch pass over the full clip
Export format	24-bit WAV
Channel configuration	Stereo in / stereo out

Troubleshooting

De-Click is removing musical transients, not just clicks

Lower Sensitivity, then check by switching to Diff — you should hear only clicks and crackle there. If you're hearing real musical content in the Diff, Sensitivity is set too high for this material.

Some clicks are still getting through

Raise Sensitivity, and re-run Repair. For material with unusually dense or loud surrounding content, the detector's local normalisation may need a higher setting than typically necessary to make a subtle click stand out.

The other tools in the rail are greyed out

De-Noise, De-Hum, De-Clip, De-Reverb, and Voice AI are upcoming modules in the same workbench shell — only De-Click is available in this release.