

Welcome to Detroubler

SMOOTH LIKE BUTTER SOUND



Supported Formats: VST, VST3, AU, AAX, AAX Native, Windows, and MacOSx both Intel and Apple Silicon-based CPUs as well as Native AAX format. It should work on all major DAWs and 3rd party plugin-supported audio editors.

Introduction

WA Production DETROUBLER is a plugin designed to control certain static frequencies that are psychoacoustically known to cause discomfort to the human ear, delivering a cleaner, warmer, and less fatiguing sound. If you're interested, let's dive into some of the scientific details. But if you're not into the science of sound, feel free to skip to the next page to learn how to use this one-knob plugin. We still think you'll enjoy these insights!

The Fletcher-Munson curves, first established in 1933, describe the human ear's sensitivity to different frequencies at varying loudness levels. Another psychoacoustic concept, the Bark Scale, introduced in 1961 by Eberhard Zwicker, defines critical frequency bands based on auditory perception. This research contributes to our understanding of frequency masking and discomfort to the human ear.

While developing Detroubler, we extensively analyzed both of these studies and combined them to pinpoint the most irritating frequencies for the human ear. By incorporating their Bark Scale equivalents into our algorithm, we created a system that smooths out any audio source, making it significantly less fatiguing to listen to.

In sound engineering jargon, terms like boomy, boxy, muddy, honky, harsh, and sizzle describe specific unpleasant sonic characteristics. We mathematically identified the corresponding frequencies and their masking effects using the Bark Scale. Detroubler not only minimizes these problematic frequencies but also restores the frequencies that were masked by them, resulting in an easy-to-listen, more natural sound. These problematic frequencies become an issue only when they exceed a certain threshold, and Detroubler dynamically minimizes them in real time with ZERO LATENCY.

Designed for effortless use, Detroubler eliminates trouble frequencies across individual channels, group tracks, mix bus, or master bus, simply anywhere you need a smoother, more polished sound. Inspired by the simplicity of WA Production's globally loved Deres plugin, we've made Detroubler a one-knob solution to instantly make your audio more pleasant to the ear without getting lost in complex technical details.

How to use?



These glowing orbits around the "**DETROUBLE**" knob are clickable meters. You can turn them on or off to include or exclude the process in these areas by simply clicking on them. The more they glow, the more processing is applied. If you don't see much activity on some glowing orbits, congratulations—your sound doesn't have troublesome issues in those frequencies.

Boomy – Excessive low-frequency resonance, often in the 100-250 Hz range, making the sound overpowering or lacking clarity.

Boxy – A hollow or resonant sound, usually due to excessive energy around 150-250 Hz, making instruments (especially drums and vocals) sound like they're in a small box.

Muddy – Lack of clarity due to overlapping frequencies in the 200-500 Hz region, often causing instruments to blend indistinctly.

Honky – A nasal, resonant midrange quality, typically around 500-1.5 kHz, making vocals or instruments sound like they're coming through a horn.

Harsh – Overly aggressive or piercing high-mid frequencies, often in the 2-6 kHz range, causing listener fatigue.

Sizzle – Excessive, uncontrolled high-frequency energy in the 8-12 kHz range, sometimes making cymbals or vocals sound overly bright or artificial.

These terms help engineers and producers communicate tonal issues and guide EQ adjustments to improve the mix.

Detrouble Knob

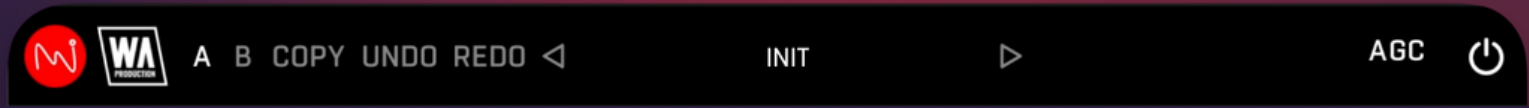


The **DETROUBLE** knob controls the sensitivity of the algorithm. The more you turn it, the more sensitive the plugin becomes to troublesome frequencies, and its effect is level-dependent. The processing can be subtle or very strong—you can adjust the input level or the DETROUBLE knob to find the perfect balance. If the effect is very subtle, it means the DETROUBLER isn't detecting many issues in your sound. If the effect is very strong, it means there are significant troublesome frequencies. You can even turn off some processing if you feel that DETROUBLER doesn't need to adjust a specific frequency area. Trust your ears here or you can hear what's being removed from your sound by simply clicking the Listen button.

LISTEN BUTTON: The Listen button allows you to instantly hear what is being fixed in the processed sound, depending on the **Detrouble** setting. In short, it's the Delta Listening button.

Here's a helpful tip for using this button: Before adjusting the Detrouble knob, activate Listen, slowly turn the Detrouble knob, and start hearing what the plugin begins to capture. Once you feel it has reached the desired level, turn off Listen and activate Auto Gain Compensation. When you toggle the bypass off and on again, you'll clearly hear how much smoother the sound has become.

OTHER CONTROLS



PRESETS MENU: You can select pre-made presets or save your own categories and presets here.

COPY, A, B, UNDO, REDO: These are self-explanatory controls for testing 2 different settings or undoing/redoning actions.

AGC: Auto Gain Compensation. If you wish to compensate for the gain you can use the AGC button to auto-compensate continuously. Please note: AGC calculates the process of the plugin, not the added gain from the Input knob or output knob.

INPUT, OUTPUT: You can still manually adjust the input and output gain.

BYPASS: This button bypasses the plugin.

