

RAVE *generation*

OTTX

Multiband Dynamics Processor

User Manual

Overview

OTTX is a multiband dynamics processor combining aggressive upward and downward compression with per-band waveshaping. Features include a mix knob for parallel compression and Smart Clip for 0dB ceiling limiting.

Signal Flow

Input → In Gain → 3-Band Split (Low/Mid/High) → Per-Band Compression → Per-Band Inflator → Sum → Out Gain → Mix with Dry → Smart Clip 0dB

Note: **SC HP** and **Smooth** don't appear in the main signal flow because they affect the detection circuit (sidechain), not the audio path itself.

The crossover splits your signal at two frequencies (Low/Mid and Mid/High). Each band gets independent upward and downward compression, then optional waveshaping via the Curve controls.

Main Controls



Depth	Master amount of compression effect (0-100%). At 0%, compression is bypassed. Higher values increase both upward and downward compression intensity.
Attack	Scales attack time for all bands (0-200%). 100% = default timing. Lower = faster attack, higher = slower.
Release	Scales release time for all bands (0-200%). 100% = default timing.
In Gain	Input gain before processing (-24 to +24 dB). Use to drive the compressor harder or softer.
Out Gain	Output gain after processing (-24 to +24 dB). Compensate for level changes.
Upward	Amount of upward compression (0-200%). Brings up quiet parts. 100% = default.
Downward	Amount of downward compression (0-200%). Pushes down loud parts. 100% = default.

Per-Band Controls

Gain & Threshold

Low/Mid/High Gain	Makeup gain per band (-40 to +6 dB). Adjust the balance between bands after compression.
Low/Mid/High Thresh	Threshold offset per band (0-200%). 100% = default. Lower values make compression kick in earlier.

Inflator & Ratio

Low/Mid/High Curve	Inflator waveshaping amount per band (0-100%). Adds harmonic density and loudness without traditional clipping. Subtle at low values, more aggressive higher up.
Low/Mid/High Ratio	Downward compression ratio per band (0-200%). 100% = default ratio. Higher = more aggressive limiting of peaks.

Crossover

Low/Mid Freq	Crossover between low and mid bands (28-148 Hz). Default 88 Hz works well for most material.
Mid/High Freq	Crossover between mid and high bands (2000-3000 Hz). Default 2500 Hz.

The crossovers use 24dB/octave Linkwitz-Riley filters for phase-coherent band splitting.

Utilities

SC HP	Sidechain high-pass filter (0-200 Hz). Filters low frequencies from the compressor's detection circuit to prevent pumping caused by sub-bass content. Set to 0 to disable.
Smooth	On/Off. Enables RMS detection and soft knee compression for a smoother, more transparent sound. Ideal for mastering or when you want less aggressive compression.
Mix	Wet/dry blend (0-100%). At 100% you hear only processed signal. Lower values blend in dry signal for parallel compression.
Smart Clip 0dB	On/Off. Enables soft-clipping followed by hard-limiting at 0dB to prevent output from exceeding digital full-scale.

Meters

The Low GR, Mid GR, and High GR meters show gain reduction per band in dB. Positive values indicate the signal is being pushed down (downward compression), negative values indicate it's being brought up (upward compression).

Quick Start

Classic sound: Set Depth to 50-70%, leave everything else at defaults.

Parallel compression: Depth at 100%, Mix at 30-50%. Blend to taste.

Cleaner processing: Enable Smart Clip 0dB to prevent clipping on loud peaks.

Add weight: Increase Low Gain, maybe add some Low Curve for saturation.

More punch: Adjust Attack to 50-80% for more transient punch.

Inflator trick: Set all Curve knobs to 100%, then blend in the effect with Depth (and Mix if needed) for rich harmonic saturation.

Support

For technical support, updates, and additional information:

Website: ravegeneration.io

Email: support@ravegeneration.io

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