OCTAGEN

MULTI-VOICE SYSTEM
INTELLIGENT 4 VOICE PITCH-SHIFTER

[RACK EXTENSION]
MANUAL

Re Rack Extension
PRODUCT OF TURN2ON
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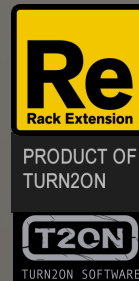
FX device by Turn2on Software
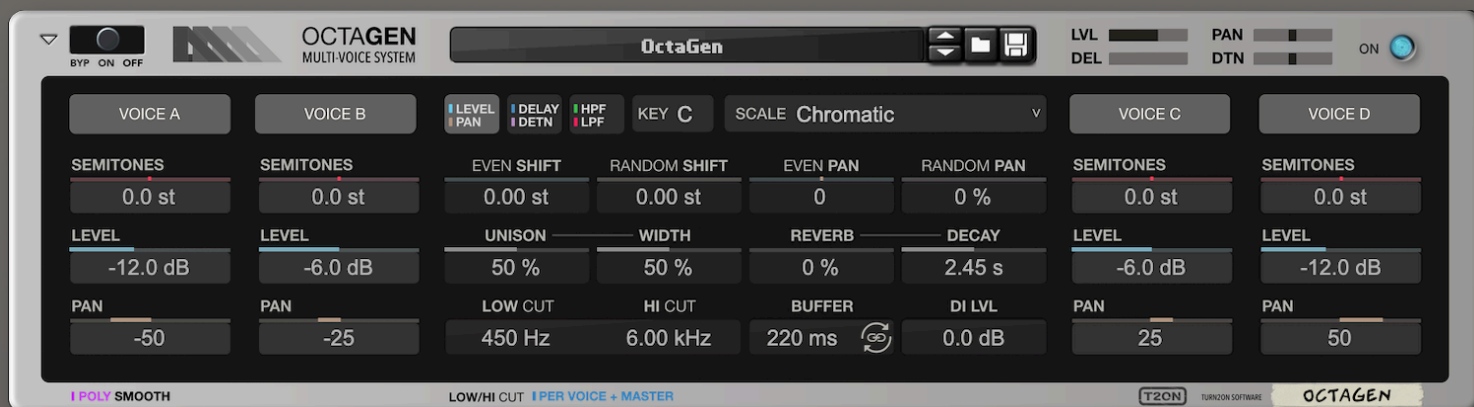
OCTAGEN is a powerful and deeply customizable four-voice pitch shifter and harmonizer for Reason Rack Extension. Inspired by various cutting-edge multivoicer processors, OctaGen opens new harmonic dimensions for guitarists, producers, and sound designers alike.

With four independently tunable pitch voices, extensive delay and pan control, fine detune, and a built-in reverb and unison engine, **OCTAGEN** delivers everything from subtle stereo thickening and classic octave effects to lush, full-spectrum chord voicings and randomized granular swarms. Explore chordal harmonies, create dynamic stereo fields, or warp the tonal center of your sound into entirely new realms. Whether you're processing synths, guitars, drums, or vocals, OctaGen transforms your signal with precision, beauty, and chaos—all at your command.

Pitch shifting has long been a staple of audio production. Early harmonizer units like the Eventide™ H-Series introduced the idea of real-time pitch shifting with detuning and delay capabilities. Guitar pedals such as the (DigiTech™ Whammy and Electro-Harmonix™ POG series) allowed musicians to explore octaves and harmonies live.

Modern multi-voice systems, like those in the TC-Helicon™ VoiceLive series or some software effects, brought scale-aware and granular pitch shifting into compact formats, enabling sophisticated chord and interval creation.

OCTAGEN draws inspiration from these developments, giving Reason users a next-generation pitch processor with unmatched flexibility and power.
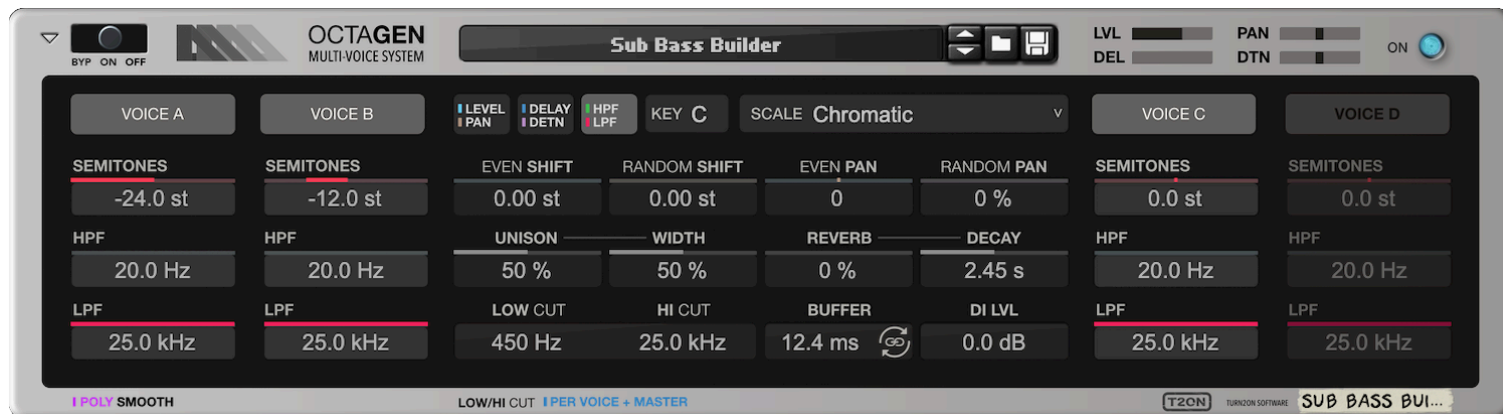
Best to try with:
- Guitar: harmonized leads, octaved fiffs, shimmering pads
- Synths: evolving textures, widen leads, or simulate polyphonic voicing
- Vocals: harmonies or lush detuned doubling
- Bass: octave layers or fatten the low end with mono protection
- Drums: glitchy, synthetic tonal elements from transients

📋 Top 3 Features

- Four independent pitch-shifted voice layers
- Granular engine with random & even grain control
- Built-in reverb, unison, delay, and tone shaping

PARAMETERS	MUSICAL ROOT KEY
ROOT KEY	Sets the root note (A to G#), C - default root key.
SCALE MODE	**CHROMATIC**: Transpose individual voice pitch in semitones (-24 to +24) **12 MUSICAL INTERVALS**: Major, Lydian, Mixolydian, Phrygian Dominant, Lydian Dominant, Natural Minor (Aeolian), Harmonic Minor, Melodic Minor, Dorian, Phrygian, Locrian, Altered (Super Locrian (-15 to +15 intervals)

PARAMETERS	VOICE CONTROLS (A, B, C, D)
CHROMATIC PITCH	Active at Chromatic scale mode. Transpose individual voices pitch in semitones (-24 to +24)
INTERVAL PITCH	Active at Musical scale modes. Transpose individual voices pitch in setps (-15 to +15)
VOICE LEVEL	Adjust the level of a voice (-inf to +12 db)
VOICE PAN	Adjust the output stereo pan of a voice (-100L to +100R)
VOICE DELAY	Time delay per voice up to 400 ms
VOICE DETUNE	Fine-tune each voice by -50 to +50 cents
VOICE HPF	Individual High Pass FIlter of a voice
VOICE LPF	Individual Low Pass FIlter of a voice
VOICE ENABLE	Toggles the individual voice on or off

PARAMETERS	GLOBAL CONTROLS
GLOBAL LEVEL	Master output level (-inf to +12 dB)
GLOBAL PAN	Adjusts the stereo balance of the whole mix (-100 to +100).
GLOBAL DELAY	Adds extra delay to all voices (0–400 ms)
GLOBAL DETUNE	Applies fine detuning across all voices (-50 to +50 cents)

PARAMETERS	ENGINE CONTROLS
BUFFER SIZE	Pitch works with the granular buffer. Grain duration range: 8–800 ms
BUFFER SYNC	Syncs grain size to the Reason tempo
SMOOTH	Adds extra delay to all voices (0–400 ms), exclude DI (parallel dry signal)
DI LEVEL	Controls level of dry input signal routed to output (-inf to 0 dB).

PARAMETERS	ENHANCEMENTS CONTROLS
EVEN SHIFT	Adds pitch to the even grains, subtracts from odd
RANDOM SHIFT	Random pitch for each grain
EVEN PAN	Alternating pan. Tune even grains side up and subtracts odd side down
RANDOM PAN	Adds random panning to grains

PARAMETERS	UNISON & REVERB CONTROLS
UNISON	Blends in unison detuned voices (0–100%)
UNISON WIDTH	Controls stereo width of unison effect (0–100%)
REVERB	Set Reverb dry/wet mix (0–100%)
REVERB DECAY	Reverb tail length (0.1 to 60 s)

PARAMETERS	TONE SHAPING CONTROLS
LOWCUT TONE	High-pass filter (20 Hz to 20 kHz)
HIGHCUT TONE	Low-pass filter (1 kHz to 25 kHz)
HC & HC MODE	Optional switch "Low/High Cut": Per Voic / PerVoice + Master / Post-Master
BASS MONO	Frequencies below this point are summed to mono (0–1000 Hz)
LIMITER	Output limiter release time (0–1000 ms)

How to Use OCTA**GEN**

1. Enable voices to create up to 4 simultaneous pitch-shifted layers.

2. Set intervals in semitones or scale degrees depending on Scale Mode.

3. Adjust detune, delay, and pan per voice for spatial effects.

4. Use Global controls to shift, mix, or offset all voices together.

5. Enable Unison for thick, modulated voice doubling.

6. Add Reverb for ambiance or shimmer.

7. Fine-tune the sound using Even/Random grain shifts and panning.

8. Sculpt tone with LowCut/HighCut and set the grain buffer size.

9. Activate the Limiter to tame output peaks or create saturation.

Example Multi-Voice Settings

TYPE	SETTINGS
Classic Octaver	Voice1 = -12 st, Voice2 = +12 st, Delay = 0, Detune = 0
Queen-style	3-Part Harmony: Voice1 = +3st, Voice2 = +7st, Voice3 = +12st
Radiohead-style	Detune: All voices +0st, Detune = +/-10c, Delay = small
Tame Impala Wide	Chorus: All voices = 0st, Detune = +/-20c, Delay = 20-40ms, Pan = L/R
Guitar Synth Pad	*Random Pitch and Pan enabled, Buffer = 300 ms, Reverb = 70%*

INSTRUMENT	CHARACTER
ELECTRIC GUITAR	Create harmonized leads, octaved fiffs, or shimmering pads
SYNTHS	Build evolving textures, widen leads, or simulate polyphonic voicing
VOCALS	Add harmonies or lush detuned doubling
BASS	Generate octave layers or fatten the low end with mono protection
DRUMS / PERC	Create glitchy, synthetic tonal elements from transients

CONTROLS

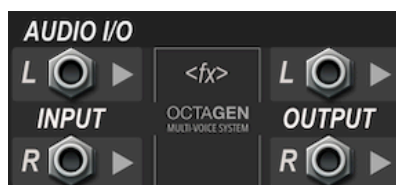|	
LIMITER	Output limiter release time (0–1000 ms)
BASS MONO	Convert stereo signal from the selcted limit of frequency to the mono signal (in range 0–1000 Hz) to tighten low-end content.
SMOOTH	Adds extra delay to all voices (0–400 ms), exclude DI (parallel dry signal)

CONNECTORS

AUDIO I/O	Mono or Stereo connections for audio signals.

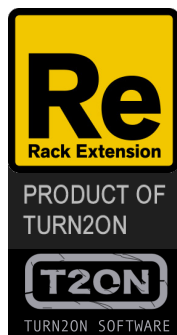|	
CV INPUTS	Use these CV inputs to control the main parameters by external CV source curves

SIGNAL ROUTING | Stereo Spreading Fx

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Reason Studios Add-on Shop

Turn2on

Rack Extension Developer

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Thanks to all beta-testers