ATOMIC LABS

EFFECT

CANTOR

4-voice formant-preserving harmonizer

EFFECT · VST3 · WINDOWS 64-BIT · 300 PRESETS · V1.0



USER MANUAL

VERSION 1.0 · 2026

01 About Cantor

Cantor adds up to four harmony voices to a solo voice or instrument. It tracks the pitch of the input and re-synthesises each voice at its own pitch while keeping the natural vowel colour, so harmonies sound like real singers instead of chipmunks.

Each voice can follow a fixed interval, a scale degree in the chosen key, or a note played on a MIDI keyboard. An optional lead correction snaps the original voice to the scale.

TYPE	FORMAT	SIGNAL	LATENCY
Effect	VST3 · Win x64	Stereo in → stereo out · MIDI in	2048 samples

FACTORY PRESETS	CONTROLS	WINDOW	VERSION
300 + Init	45 automatable	Resizable	1.0

02 Quick start

1. Insert Cantor on a vocal or any monophonic track.
2. Set Key and Scale to the song.
3. Switch voices on and choose Interval (always the same distance), Scale (stays in key) or MIDI (plays the notes you send).
4. Balance Dry Level and Harmony Level. Cantor reports 2048 samples of latency, which your DAW compensates.

INSTALLATION

Install

Copy the folder `Cantor.vst3` into `C:\Program Files\Common Files\VST3\`, then restart your DAW or rescan plug-ins. It appears under the manufacturer **Atomic Labs**.

This manual

A copy of this PDF lives inside the plug-in folder, next to `Contents`. Your DAW ignores it; it is there so the manual always travels with the plug-in.

03 The interface



Voices 1-4

On, Mode (Interval, Scale, MIDI), Interval in semitones or scale steps, Fine, Formant (move the vowel colour up or down), Level, Pan and Delay (a small time offset for a looser feel).

Key and scale

Key and Scale (major, minor, dorian, harmonic minor, pentatonics, blues, chromatic) used by Scale mode and lead correction.

Lead correction

Lead Correction snaps the input voice to the scale; Correction Speed sets how fast (fast for a robotic effect, slow for natural).

Character

Gender shifts the formants of all harmony voices. Humanize adds small pitch and timing differences. Width spreads the voices, Harmony Low Cut thins the harmonies, Space adds a soft room.

Output

Dry Level, Harmony Level, Output and Bypass.

04 Presets

Cantor comes with **300** factory presets in 10 categories, plus an **Init** program to start from scratch. Every preset was designed for this plug-in and level-matched, so you can browse without jumps in volume.

- **30** Pop Harmonies
- **30** Choir Stacks
- **30** Octave Doubles
- **30** Gender Bender
- **30** Robot & FX
- **30** Fifths & Power
- **30** MIDI Choir
- **30** Tight Doubles
- **30** Gospel Thirds
- **30** Pitch Correct

A FEW TO TRY

- Chart Harmony
- Glossy Thirds
- Candy Duet
- Hook Harmony
- Chapel Stack
- Cathedral Choir
- Sacred Ensemble
- Choral Stack
- Twin Twins
- Low Layer
- Deep Double
- Octave Twins
- Fairy Character
- Baritone Throat
- Monster Persona
- Robot Voice
- Static Machine
- Laser Speech
- Circuit Voice
- Anthem Chant
- Power Fifths
- Heroic Power
- Bold Chant
- Studio Chords
- Chord Voices
- Live Choir
- Keyboard Chords
- Thick Take
- Studio Pair
- Double Track
- Gospel Thirds
- Revival Stack
- Glory Choir
- Soulful Thirds
- Smooth Pitch
- Perfect Tune

05 Tips

For gospel thirds: two voices in Scale mode, +2 and -2 scale steps.

For a choir of one: four voices, Humanize high, Width high, Space around 30 %.

MIDI mode: route a MIDI track to Cantor and play chords to choose the harmony live.

06 Atomic Labs essentials

These work the same way in every Atomic Labs plug-in.

Preset browser

Use the arrows next to the preset name to step through the presets, or click the name to open the menu sorted by category. The current category is shown above the name.

SAVE: your presets and banks

SAVE stores the complete state as your own preset (.atp) in Documents\Atomic Labs\Cantor\Presets. From the same menu you can delete presets and export or import a whole bank (.atb) to share or back up. Your presets appear at the end of the preset menu.

DICE

DICE rolls a brand-new patch: it starts from a factory design and changes the main settings at random. Not happy? Roll again, or step back to a preset.

SIZE and resizing

Drag the bottom-right corner to resize the window, or pick a fixed zoom from SIZE. The size is remembered with the project.

Automation

Every control can be automated and is listed with its full name in your DAW. Changes are smoothed, so automation never clicks.

Project recall

The whole state (including drawn waves, patterns, steps and window size where available) is saved with your project.

STABILITY

Every Atomic Labs plug-in is tested at sample rates from 44.1 to 192 kHz and at block sizes from 1 to 8192 samples, before and after the host prepares it, and with every factory preset. The audio code never allocates memory while playing, and signals are protected against invalid values, so it stays quiet and stable in long sessions.

07 Control reference

Every automatable control as your DAW lists it, with its range and default value. Where a set of controls repeats (for example several identical layers, bands or slots), it is shown once.

General

CONTROL	RANGE / OPTIONS	DEFAULT
Key	C · C# · D · D# · E · F · F# · G · G# · A · A# · B	C
Scale	Major · Minor · Dorian · Harmonic Minor · Pentatonic Major · Pentatonic Minor · Blues · Chromatic	Major
Dry Level	0 % to 100 %	100 %
Harmony Level	0 % to 100 %	80 %
Lead Correction	0 % to 100 %	0 %
Correction Speed	5 ms to 305 ms	32 ms
Gender	-12.0 st to +12.0 st	0.0 st
Humanize	0 % to 100 %	20 %
Width	0 % to 100 %	80 %
Harmony Low Cut	20 Hz to 1000 Hz	80 Hz
Space	0 % to 100 %	0 %
Output	-24.0 dB to +12.0 dB	0.0 dB
Bypass	Off · On	Off

Voice 1–4

4 identical sets - Voice 1 shown

CONTROL	RANGE / OPTIONS	DEFAULT
On	Off · On	On
Mode	Interval · Scale · MIDI	Interval
Interval	-24 to 24	4
Fine	-50.0 ct to +50.0 ct	0.0 ct
Formant	-12.0 st to +12.0 st	0.0 st
Level	0 % to 100 %	70 %
Pan	L100 to R100	L60
Delay	0.0 ms to 120.0 ms	0.0 ms



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Cantor · 4-voice formant-preserving harmonizer

Atomic Labs makes original instruments and effects with futuristic, animated interfaces, deep sound design and hundreds of presets in every plug-in.

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