



NEVA DSP

PINCH-76

FET LIMITING AMPLIFIER

USER MANUAL



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THIS MANUAL INSIDE THE PLUG-IN

Choose ≡ › **User manual** to open this PDF at any time. The installer keeps a copy at Documents\Neva DSP\PINCH-76\PINCH-76-User-Manual.pdf. The headings in the contents above are links.

N 01 INTRODUCTION

PINCH-76 is a FET compressor modelled on the classic studio FET limiters. It reacts fast, adds harmonic colour as you drive it, and is most often used on vocals, bass and drums. The controls work the way the hardware does: more INPUT means more compression, the timing is fast and the ratio keys latch. On top of that you get the tools you expect from a plug-in, such as presets, snapshots, undo and level matching.

Gain reduction happens in a **feedback** loop: the detector reads the signal after the FET gain cell, so the cell's own non-linearity is part of what the detector reacts to. As a result, compression and colour move together: the harder you drive INPUT, the more of both you get.

■ MAIN FEATURES

FEATURE	WHAT YOU GET
Four Eras	Rev A (1967), Rev D (LN) (1970), Rev F (1973) and AE (2026), each with its own voicing, ratio set, faceplate and wear. Pick one with the ERA switch.
15 ratio combinations	Every combination of the four keys latches and is individually calibrated, all four together included. One click on ALL gets you there.
Dual Unit	A complete second unit with its own Era, wired in series or in parallel inside the same instance.
ATTACK OFF	The attack knob has an OFF position: the circuit stays in the path but does not compress.
Gain staging help	LEARN sets INPUT and OUTPUT from your audio. AUTO GAIN holds loudness steady. HEADROOM calibrates the internal level per Era. A/B comparisons can be level-matched, and the optional Output Safety keeps the output at or below 0 dBFS.
Modern sidechain	Filter with selectable slope, tilt, external key, detector listen, DELTA and a DRY control for parallel work.
Stereo	Linked, L/R or M/S, with separate settings per side when you need them.
Character controls	FET DRIVE, XFMR, NOISE, NUKE (a parallel all-buttons layer), PUNCH and CATCH (short lookahead).
Unit tolerance	Every new instance is its own "physical" unit with a random serial. The serial plate lets you choose another, from a matched pair to a worn vintage unit.
CPU and latency	About 1.4 % of one CPU core per stereo instance at default settings (0.77 % at 1x oversampling); 3 samples of latency at 2x.

■ CONVENTIONS

- Control names appear as printed on the panel, e.g. **INPUT** or **ADVANCED**.
- ATTACK and RELEASE positions refer to the 1–7 knob scales (the ATTACK scale is engraved OFF, 1, 3, 5, 7); 7 is the fastest setting on both.
- Shortcuts use the Windows **Ctrl** key.
- Numbers in circles, like ⑦, refer to the panel maps in sections 6 and 7.

02 INSTALLATION

■ SYSTEM REQUIREMENTS

ITEM	REQUIREMENT
Operating system	Windows 10 or 11, 64-bit. No Visual C++ redistributable is needed.
Host	Any 64-bit host that loads VST3 or CLAP plug-ins.
Sample rate	44.1 to 192 kHz (follows the host)
Channels	Mono, stereo and mono → stereo, plus an optional stereo sidechain input

■ WHERE THE FILES GO

WHAT	FOLDER
VST3 plug-in	C:\Program Files\Common Files\VST3\Neva DSP
CLAP plug-in	C:\Program Files\Common Files\CLAP\Neva DSP
Your presets	Documents\Neva DSP\PINCH-76\Presets
This manual	Documents\Neva DSP\PINCH-76\PINCH-76-User-Manual.pdf

- 1 Quit your host, then install PINCH-76 and select the formats you use (VST3, CLAP or both).
- 2 Start the host and let it scan for new plug-ins. PINCH-76 is listed under the vendor **Neva DSP**.
- 3 If it does not appear, run the plug-in rescan from your host's preferences.
- 4 Open PINCH-76 once to start the 14-day trial, or activate your licence (section 3).

■ REMOVING PINCH-76

Delete the PINCH-76 files from the VST3 and CLAP folders. Your presets folder is left alone, so keep or delete it as you wish.

03 LICENCE AND TRIAL

You can try PINCH-76 for 14 days with every feature. To keep using it after that, buy a licence and activate it with the e-mail address and serial number from your purchase.

■ TRIAL

- The trial starts the first time PINCH-76 opens on a computer and runs for 14 days. Nothing is locked or limited during the trial.
- The preset box in the toolbar shows how many days are left, for example **TRIAL - 9 DAYS**. Click it to activate a licence at any time.
- When the trial ends, PINCH-76 passes the audio through unprocessed, like bypass, with the latency kept. A window offers **Buy** and **Activate**. Your settings stay in the project, and processing returns as soon as you activate.

■ ACTIVATION

- 1** Choose ≡ › *Activate...*, or click **TRIAL** or **ACTIVATE** in the preset box.
- 2** Enter the e-mail address and serial number from your purchase e-mail, then click **Activate**. The computer needs an internet connection for this step.
- 3** ≡ › *About PINCH-76* now shows **LICENSED TO** and your name.

■ COMPUTERS AND ONLINE CHECKS

- One licence covers up to **3 computers**.
- To move PINCH-76 to another computer, choose ≡ › *Deactivate this computer* on the old one first. This frees its place for the new computer.
- PINCH-76 checks the licence online at most once every 14 days, when you open its window. Working offline is fine: if the check cannot reach the server for 30 days, *About* shows *Please connect to verify your licence*. The audio is never muted or changed because of a missed check.
- Activation sends your e-mail address, serial number and an ID of this computer to Neva DSP. Audio and project data are never sent. Details are in the Privacy Policy on the Neva DSP website.

Without a licence, ≡ › *Buy PINCH-76...* opens the Neva DSP shop in your browser.

N 04 QUICK START

These six steps take you from an empty insert to a usable setting.

- 1 **Load PINCH-76** as an insert on the track or bus and loop its loudest section.
- 2 **Pick a Start preset for the source.** Click the preset name ① and type *start* in the search field. Each Start preset sets Era, ratio, timing and sidechain filter for one kind of source; the level is still up to you.

SOURCE	START PRESET	SOURCE	START PRESET
Lead vocal	Vocal Start	Drum or mix bus	Bus Glue
Vocal with attitude	Brutal Vocal	Room mics	Room Crunch
Snare	Snare Smack	Peaks only	Peak Catcher
Kick	Kick Grab	Gentle levelling	Gentle AE
Bass	Bass Lock		

- 3 **Set INPUT for the gain reduction you want**, reading the needle with the meter on **GR**. Good first targets on the loud parts:

JOB	GAIN REDUCTION
Vocal	5–7 dB
Drum bus	3–5 dB
Peak catching	1–3 dB

LEARN is a shortcut: play the loud part, press **LEARN**, and within about 6 seconds it sets **INPUT** for a few dB of reduction and **OUTPUT** to match the bypass level. Press it again to cancel.

- 4 **Match the level with OUTPUT**, so that bypassing with the **ON** switch does not change the loudness. Or switch on **AUTO GAIN** and let PINCH-76 keep the level for you.
- 5 **Check the PEAK lamp** in the toolbar. If it lights, lower **OUTPUT** or switch on **≡ > Output Safety**.
- 6 **Fine-tune ATTACK and RELEASE**. Turning either one **clockwise** makes it faster.

TIPS

- **Snare:** start with **ATTACK** and **RELEASE** both fast, towards 7, then turn **ATTACK** back until the stick cuts through again.
- **Which ratio?** Start on the 20 key, where the compression is easy to hear, then step down to 12, 8 or 4 until it stops drawing attention to itself.
- **Same level, more or less squeeze:** hold **Shift** while dragging **INPUT** and **OUTPUT** moves by the same amount the other way.
- **After loading a preset**, check **INPUT**. Track levels differ, so the same preset can compress one track lightly and another heavily.

NO THRESHOLD HERE

INPUT decides how hard the circuit is pushed and therefore how much it compresses; **OUTPUT** only sets what leaves the unit. The Default preset sets **INPUT** to 28 dB and **OUTPUT** to +12.6 dB, so a source at about –16 dBFS RMS comes out at about the level it went in. Louder sources come out a little quieter because they are compressed harder; **LEARN** matches the level exactly.

N 05 SIGNAL FLOW

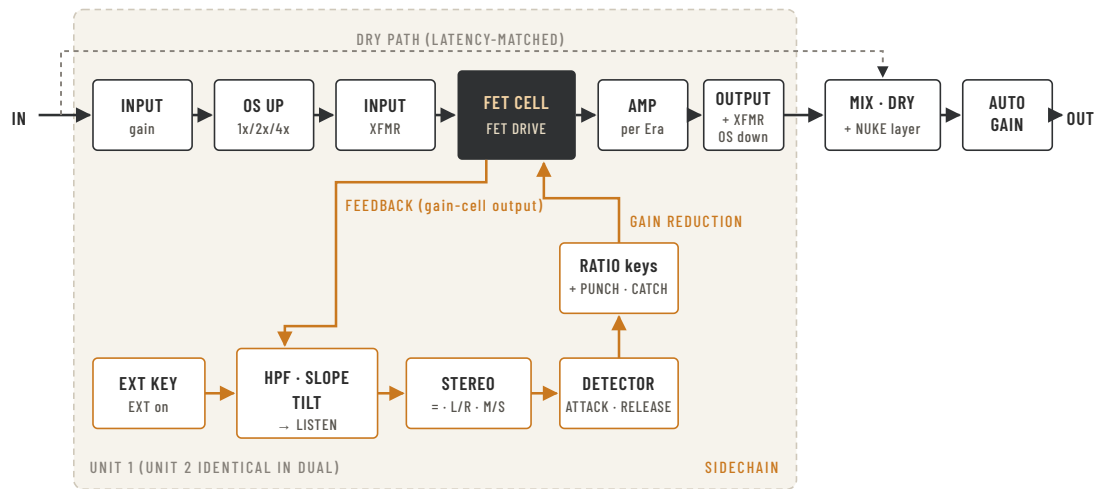


FIGURE 1 One unit of PINCH-76: audio path in grey, sidechain in amber. With EXT on, the external key feeds the detector in place of the feedback signal. With Dual Unit on, the unit block is doubled and the two units are joined in series or in parallel before the MIX stage.

- **Audio.** INPUT gain, oversampling, input transformer, FET gain cell (with FET DRIVE), the Era's amplifier stage, OUTPUT gain with output transformer, then back to the host rate.
- **Detector.** Fed from the FET cell's output, or from the external key when EXT is on. It passes the sidechain filter and tilt, the STEREO linking, the ATTACK and RELEASE timing and the latched ratio keys.
- **After the unit.** Dual Unit combines both units, MIX blends dry and processed signal, DRY adds dry signal on top (scaled by MIX), NUKE adds its all-buttons layer, and AUTO GAIN trims loudness last.

N 06 PANEL MAP



FIGURE 2 Toolbar (1–5), faceplate (6–16) and control strip (17–24). Rev D (LN) at UI size 200 %.

TOOLBAR

- 1 **PRESET NAME** Opens the preset browser; the < > arrows step through presets.
- 2 **SAVE · SAVE AS** Overwrite the current user preset, or store a new one.
- 3 **UNDO · REDO** Each knob move, key press or preset load is one step; 100 steps are kept.
- 4 **A · B · C · D** Four snapshot slots, each holding a full setting.

FACEPLATE

- 6 **SERIAL PLATE** Each new instance gets its own random unit; click to choose another. Shows Era and year.
- 7 **INPUT** 0–48 dB · default 28
Drive into the circuit; sets the amount of compression.
- 8 **OUTPUT** ±24 dB · default +12.6
Level after compression (make-up gain).
- 9 **ATTACK** OFF, 1–7 · default 250 μs
Clockwise is faster. OFF stops compression but keeps the colour.
- 10 **RELEASE** 1–7 · default 300 ms
Clockwise is faster. Times in section 8.
- 11 **RATIO KEYS** 4 · 8 · 12 · 20 (AE: 2 · 4 · 8 · 20)
Latching; combine freely. No key latched means no compression.

CONTROL STRIP

- 17 **AUTO GAIN** Keeps output loudness matched to the input while you adjust.
- 18 **COLOR** The unit's tone without its compression character. Gain reduction is computed but not applied; the output is held at the compressor's average level over about 0.5 s, like a very slow leveller (level change on switching ≤ 0.45 dB).
- 19 **LEARN** Sets INPUT for a few dB of reduction, then OUTPUT to match bypass (about 6 s). Click again to cancel.

- 5 **MENU** UI size, tolerance, new instance, level-matched A/B, Output Safety, tooltips, MIDI mappings and templates, show hidden presets, update check, licence, quick guide, user manual, About (section 12).
- LOAD DEFAULT** Right of the > arrow; loads the Default preset. Not in the screenshot.
- PEAK LAMP** Red jewel left of the slots (4); lights for 1.5 s when the output passes 0 dBFS. Not in the screenshot.

- 12 **ALL** Latches all four keys at once (all-buttons, section 9). Lit whenever all four are in.
- 13 **VU METER** Gain reduction or output level; a red hairline holds the GR peak for about 2 s.
- 14 **METER KEYS** GR · +8 · +4 · OFF · default GR
+8 and +4 read output level against the HEADROOM reference.
- 15 **ON SWITCH + LAMP** Down bypasses the unit with latency kept constant; the lamp follows the output.
- 16 **ERA** A · D (LN) · F · AE · default D (LN)
Click to step or drag; changes crossfade (section 8).

- 20 **STEREO** L/R · M/S · default L/R, =
Click the label to choose L/R or M/S. = links both sides; LEFT/RIGHT or MID/SIDE shows and edits that side only (section 11).
- 21 **DUAL UNIT** OFF · SER · PAR
Adds a second unit (section 10).
- 22 **UNIT LINK** off when Dual starts
While lit, unit 2 follows unit 1.
- 23 **MIX** 0–100 % · default 100
Dry/processed balance; 0 % = dry only.
- ADVANCED** Opens or closes the drawer (section 7).

N 07 THE ADVANCED DRAWER

Click **ADVANCED** ▼ 24 to open the drawer. Its three rows cover the sidechain and monitoring, the character of the circuit, and quality settings plus unit 2.

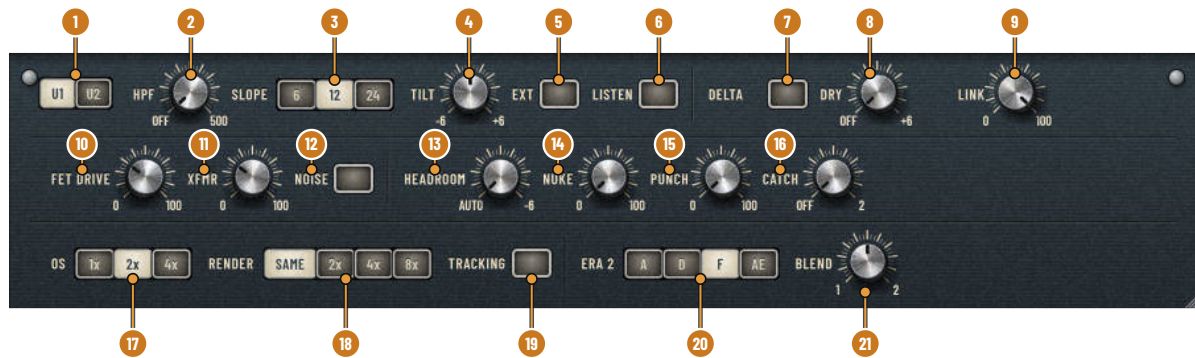


FIGURE 3 The ADVANCED drawer at UI size 200 %. Defaults shown.

ROW 1 • SIDECCHAIN AND MONITORING

- 1 **U1 | U2** Chooses which unit's sidechain filter the HPF knob sets: U1, U2 or both. U2 is dimmed while Dual Unit is off.
- 2 **HPF** OFF, 20–500 Hz · default OFF
Sidechain high-pass, also applied to the external key. Bass still compresses, about half as much.
- 3 **SLOPE** 6 · 12 · 24 dB/oct · default 12
Steepness of the HPF.
- 4 **TILT** ±6 dB · default 0
Tilts the detector around 1 kHz; positive values favour highs.
- 5 **EXT** Uses the external sidechain input as the key (FAQ, section 17).
- 6 **LISTEN** Plays the detector signal so you can hear the filter and tilt.
- 7 **DELTA** Plays only what the compressor removes.
- 8 **DRY** OFF, –48 to +6 dB · default OFF
Adds unprocessed signal on top at this level; scaled by MIX.
- 9 **LINK** 0–100 % · default 100
How tightly the two sides' gain reduction is tied while STEREO = is lit (section 11).

ROUTING A SIDECCHAIN

1. Insert PINCH-76 on the track you want to compress, for example the bass.
2. In your host, send the key track (for example the kick) to PINCH-76's sidechain input. Hosts call this sidechain, key input or aux input.
3. In PINCH-76: ADVANCED > **EXT** on. **LISTEN** plays the filtered key; HPF and TILT shape what triggers compression.
4. The kick still plays normally; only its signal feeds the detector. EXT is a session setting, not saved in presets.

ROW 2 • CHARACTER

- 10 **FET DRIVE** 0–100 % · default 30
FET distortion inside the feedback loop; 30 is the calibrated value.
- 11 **XFMR** 0–100 % · default 30
Transformer saturation, mainly in the lows.
- 12 **NOISE** default off
Adds the hiss of the selected Era.
- 13 **HEADROOM** AUTO, –24 to –6 dBFS · default AUTO
The digital level treated as 0 VU. AUTO is calibrated per Era.
- 14 **NUKE** 0–100 % · default 0
Blends in a parallel all-buttons layer.
- 15 **PUNCH** 0–100 % · default 0
Gives transients back at ratio 12, 20 and all-buttons; smooth on bass even at 100 %.
- 16 **CATCH** OFF, 0.1–2 ms · default OFF
Lookahead for the fastest peaks; adds its own length as latency.

ROW 3 • QUALITY AND UNIT 2

- 17 **OS** 1x · 2x · 4x · default 2x
Oversampling during live playback.
- 18 **RENDER** SAME · 2x · 4x · 8x · default SAME
Oversampling for offline bounces (export, render) only; SAME follows OS. The latency reported to the host is the larger of OS and RENDER, so RENDER 8x adds its latency during playback too.
- 19 **TRACKING** Zero-latency mode for recording: oversampling is forced to 1x (OS and RENDER) and CATCH is bypassed.
- 20 **ERA 2** A · D · F · AE · default F
Era of unit 2; mirrors unit 2's own ERA switch. Greyed out while Dual Unit is OFF.
- 21 **BLEND** 1 ... 2 · default 50 %
Balance of the two units; greyed out unless Dual Unit is in PAR.

N 08 THE ERA SWITCH

■ ATTACK AND RELEASE TIMES

Both knobs turn continuously and higher numbers are faster on both; the ATTACK scale is engraved OFF, 1, 3, 5, 7. **Nominal** is the value the balloon shows while you turn the knob, the same on every Era. The other columns give the measured time, in ms, for PINCH-76 to complete 63 % of a gain change (chart G, section 15). It is longer than the nominal figure because the detector sits in a feedback loop with a soft onset. Hardware units behave the same way: ATTACK 3 measures about 3.8 ms here, against roughly 5 ms for a hardware unit in the same test. ATTACK 1 measures about 3.8 ms here, against roughly 5 ms for a hardware unit in the same test.

ATTACK	NOMINAL	A	D (LN)	F	AE	RELEASE	NOMINAL	A	D (LN)	F	AE
1 slow	800 μ s	9.1	9.1	9.3	43 SLOW	1 slow	1100 ms	1810	1650	1810	1510
2	433 μ s	7.0	7.0	7.0	15	2	657 ms	1650	1440	1740	1270
3	234 μ s	3.8	3.8	3.9	8.9	3	393 ms	1350	1140	1550	976
4	126 μ s	1.6	1.6	1.6	4.1	4	235 ms	1010	840	1260	709
5	68 μ s	0.63	0.63	0.63	1.5	5	140 ms	673	565	881	452
6	37 μ s	0.25	0.25	0.25	0.50	6	84 ms	394	342	534	249
7 fast	20 μ s	0.13	0.13	0.13	0.13	7 fast	50 ms	221	198	306	134

ATTACK OFF stops gain reduction in every Era; the circuit still colours the sound, and turning from OFF to 1 while the unit compresses causes no jump or click. Defaults: ATTACK 250 μ s, RELEASE 300 ms (nominal). **AE**: the balloon shows the same nominal values as on the other Eras (433 μ s at position 2, for example), but AE scales the real attack time so that it is softer: position 2 measures 15 ms. Only position 1 is special: **SLOW**, a 30 ms time constant that measures 43 ms. On AE the whole ATTACK range is slower than on the other Eras; fully clockwise is still the fastest. Attack times below 1 ms are resolved to about 0.13 ms, so at position 7 all Eras read the same. Measured at 1 kHz, ratio 4, INPUT 24 dB, with a 22 dB level step; release after a 1 s hold.

Release after short hits. The release depends on the programme. After a long, loud passage it recovers at the speed in the table; after a short hit it lets go sooner. After a 30 ms burst, RELEASE 7 recovers 63 % in about 69 ms and RELEASE 4 in about 410 ms.

■ THE FOUR ERAS

Each ERA position has its own voicing, gain structure and ratio set. Switching Era is like swapping the unit in the rack for a different one.



A Rev A · Bluestripe · 1967



D (LN) Rev D (LN) · Blackface · 1970



F Rev F · Silverface · 1973



AE AE · Anniversary · 2026

ERA	RATIO KEYS	CHARACTER	GOOD ON
Rev A 1967	4 · 8 · 12 · 20	The dirtiest of the four. Its FET preamp runs about 5 dB hotter, it produces the most harmonics, and its release reacts to the programme.	Vocals with attitude, room mics, crushed parallel drums
Rev D (LN) 1970 · default	4 · 8 · 12 · 20	The low-noise version: cleaner, with a full low end.	Bass, lead vocals, anything that should stay clean
Rev F 1973	4 · 8 · 12 · 20	Brighter, leaner in the lows, more odd harmonics from its class A/B output; holds gain reduction a little longer.	Guitars, snare, vocals that must cut
AE 2026	2 · 4 · 8 · 20	The softest. Its whole ATTACK range is slower than on the other Eras; position 1 is SLOW, a 30 ms time constant (43 ms measured).	Gentle levelling, acoustic sources, buses

- Changing the Era crossfades and keeps all knob and key positions. Each Era has its own gain structure, so re-check INPUT and OUTPUT afterwards, or leave AUTO GAIN on.
- With HEADROOM on AUTO, a source at -18 dBFS drives every Era to a comparable degree.
- Faceplate colour, serial plate and visible wear change with the Era. That part is purely visual.

N 09 RATIO KEYS AND ALL-BUTTONS

The four keys are numbered by position, bottom to top, and the Era decides what each position means.

KEY POSITION	1 (BOTTOM)	2	3	4 (TOP)
Rev A · Rev D (LN) · Rev F	4:1	8:1	12:1	20:1 (measures $\approx$ 28:1)
AE	2:1	4:1	8:1	20:1

Any mix of keys latches, which gives 15 combinations: four singles, six pairs, four triples and all four. Each one has its own calibration of ratio, knee, threshold offset and timing. As a rule, lower ratios bend softly into compression, higher ratios bend sharply, and every extra key adds aggression and colour.

■ ALL-BUTTONS, EXPLAINED

With all four keys latched (or **ALL** pressed), the ratio does not go up. It drops to about 17:1, **below the 20 key alone** at about 28:1. What changes is the knee, the timing and the distortion: the knee turns hard, the timing speeds up, distortion rises and the first transient gets a short bite that the needle can barely show. This is why all-buttons is popular on room mics and drum buses, and why it rarely suits a lead vocal.

KEYS LATCHED (REV A / D / F)	EFFECTIVE RATIO
4 + 8	$\approx$ 10:1
8 + 12	$\approx$ 15:1
4 + 8 + 12	$\approx$ 16:1
4 + 8 + 12 + 20 (ALL)	$\approx$ 17:1, with the all-buttons character
20 alone	$\approx$ 28:1, tuned for hard limiting

Want the all-buttons sound without losing your current setting? Turn up **NUKE** in the drawer; it runs an all-buttons layer in parallel. To recover snap after heavy settings at 12, 20 or ALL, add **PUNCH**.

N 10 DUAL UNIT

Dual Unit adds a second, complete compressor below the first, inside the same instance. A common use: unit 1 catches peaks, unit 2 does slower levelling (recipe 5).



FIGURE 4 SER mode: unit 1 in Rev D (LN), unit 2 in Rev A. Strip and drawer take on unit 2's colours.

MODES

- **OFF** One unit; the window returns to its normal height.
- **SER** Unit 1 feeds unit 2. Because unit 2 receives an already compressed signal, its needle usually moves less.
- **PAR** Both units receive the same input; **BLEND** sets their balance (default 50 %).

UNIT 2

Unit 2 has its own faceplate with INPUT, OUTPUT, ATTACK, RELEASE, ratio keys, ON switch and ERA switch (default F). Its ERA switch and ERA 2 in the drawer are the same control. Its sidechain filter is set with **U2**. While Dual Unit is OFF, **ERA 2** and **BLEND** are greyed out; **BLEND** works only in PAR.

UNIT LINK

When you switch Dual Unit on, unit 2 starts as a copy of unit 1 and **UNIT LINK** is off, so you can set unit 2 by hand straight away. Light **UNIT LINK** and unit 2's INPUT, OUTPUT, ATTACK, RELEASE, ratio keys and sidechain HPF follow unit 1. The Era of each unit is always independent.

WINDOW HEIGHT

With Dual Unit on, the window grows by one faceplate (about 297 pixels at UI size 100 %). When that extra height is not available, PINCH-76 shows the rack either scaled down to fit or with a scroll bar.



FIGURE 5 Both units scaled to fit the window.



FIGURE 6 Full-size rack that scrolls to reach unit 2.

PINCH-76 can compress a stereo signal as one, or treat its two sides separately: left and right, or mid and side.

■ L/R OR M/S

Click the **STEREO** label  and choose **L/R** or **M/S**. The three keys next to it then read **LEFT = RIGHT** or **MID = SIDE**. In M/S, MID is what the two channels have in common (the centre of the image) and SIDE is the difference between them (the width).

■ LINKED: THE = KEY

= is the default. Both sides share one set of controls. The **LINK** knob in the **ADVANCED** drawer sets how closely their gain reduction is tied: at 100 % both sides always get the same reduction and the stereo image stays put; lower values let each side react more to its own signal.

■ EDITING ONE SIDE

Press **LEFT** or **RIGHT** (or **MID** or **SIDE**) and the panel shows that side only. **INPUT**, **OUTPUT**, **ATTACK**, **RELEASE**, the ratio keys (ALL included) and **MIX** now change that side alone. A small amber lamp marks the side you are editing. Era, **COLOR**, **METER**, **ON** and everything in the drawer stay shared.

- The first time you pick a side, the other side starts as an exact copy, so nothing jumps.
- Press = to make both sides the same again. The side you worked on last is copied to the other side, and from then on they move together.
- Separate sides run a second detector and use a little more CPU.

■ WITH DUAL UNIT

The side selection applies to both units. With **UNIT LINK** off, each side of unit 2 has its own settings. With **UNIT LINK** on, unit 2 follows unit 1 side by side.

■ WHERE IT HELPS

- **Mix bus in M/S:** compress MID a little more than SIDE to hold the centre (vocal, kick, bass) steady while the width stays open.
- **Two-mic recordings in L/R:** on overheads or a stereo piano, separate settings can even out one side that plays louder than the other.
- The **Stereo** category in the preset browser collects presets that use these modes.



STEREO M/S with SIDE selected: the amber lamp marks the side being edited.

N 12 PRESETS, MENUS AND WINDOW SIZE

■ PRESET BROWSER

Click the preset name ①; press **Esc** or click elsewhere to close it.

- **Search** (*SEARCH PRESETS OR TAGS...*) matches preset names and tags as you type, so “dirty drums” finds every preset tagged both ways. The **LOAD DEFAULT** button in the same row loads the Default preset.
- **Tags as shortcuts:** type *start* to list the nine Start presets, or *engineer* for the 21 Engineer Series presets.
- **Categories** with counts: Drums, Vocal, Guitar / Bass, Keys / Synth, Mix Bus, Hard, Subtle, Stereo, Dual, plus Favorites, Recent (the presets you loaded last) and User.
- **List:** twelve rows at a time, scroll for more; click to load, hover to read the one-line description and tags, click ★ to mark a favourite.
- **Right-click** a user preset for *Edit category / tags...*, *Rename...* and *Delete...* (to the recycle bin; the **Delete** key works too). Right-click a factory preset to *Hide* it; ≡ > *Show hidden presets* lists hidden ones again so you can *Unhide* them.

Save As asks for a name, a category and tags (comma-separated; a *Tags in use* list helps you reuse existing ones) and an optional description. Category and tags are stored in the preset file.

There are **90 factory presets**, each with a one-line description, all tagged by source (vocals, drums, bass...), character (gentle, aggressive, clean, dirty), Era, and parallel, dual or lookahead use. The **LOAD** key in the toolbar loads the Default preset in one click. Presets you save go to `Documents\Neva DSP\PINCH-76\Presets`; ≡ > *Open presets folder* takes you there.

■ START PRESETS

Nine factory presets, each a first setting for one kind of source. They sit in their usual categories and carry the tag *start*. ATTACK and RELEASE are knob positions on the 1–7 scales; INPUT is left for you to set (section 4).

PRESET	CATEGORY	ERA	RATIO	ATTACK	RELEASE	SC HPF
Vocal Start	Vocal	D (LN)	4:1	3	5	80 Hz
Brutal Vocal	Vocal	A	ALL	5	6	100 Hz
Snare Smack	Drum	F	8:1	3	6	—



FIGURE 7 The preset browser, Vocal category selected; the list shows twelve rows and scrolls.

PRESET	CATEGORY	ERA	RATIO	ATTACK	RELEASE	SC HPF
Kick Grab	Drum	D (LN)	4:1	2	6	–
Bass Lock	Guitar / Bass	D (LN)	8:1	4	3	–
Bus Glue	Mix Bus	D (LN)	4:1	1	5	100 Hz
Room Crunch	Drum	A	ALL	6	7	–
Peak Catcher	Subtle	D (LN)	20:1	7	6	–
Gentle AE	Subtle	AE	2:1	1 (SLOW)	4	–

■ ENGINEER SERIES

Twenty-one factory presets modelled on the starting points mix engineers often use. They sit in their usual categories and carry the tag *engineer*; type *engineer* in the browser's search field to list them all. Unlike the Start presets, INPUT and OUTPUT are pre-set: a source at about –18 dBFS RMS reaches the listed gain reduction (GR) at roughly the same loudness, within ± 0.5 dB on most of them. ATTACK and RELEASE are knob positions on the 1–7 scales.

PRESET	CATEGORY	ERA	RATIO	ATTACK	RELEASE	GR	EXTRA
Vocal • Rap Lead Lock	Vocal	F	8:1	5	6	8 dB	SC HPF 120 Hz, CATCH 0.5 ms
Vocal • Two-Stage Smooth	Vocal	D (LN) → AE	4:1 / 2:1	3 / 1	5 / 3	4 + 3 dB	Dual SER
Vocal • Parallel Grit	Vocal	A	ALL	4	6	15 dB	MIX 30 %, FET DRIVE 55 %
Vocal • Backing Bed	Vocal	AE	4:1	2	4	5 dB	SC HPF 150 Hz, TILT +2 dB
Drums • Snare Crack	Drum	F	4:1	2	7	6 dB	–
Drums • Snare Fat	Drum	A	8:1	4	6	8 dB	FET DRIVE 50 %
Drums • Overheads Tame	Drum	D (LN)	4:1	4	5	3 dB	SC HPF 150 Hz
Drums • NY Parallel	Drum	A	ALL	5	7	15 dB	MIX 35 %
Drums • Toms Sustain	Drum	D (LN)	8:1	2	6	6 dB	–
Bass • Growl	Guitar / Bass	A	8:1	5	5	7 dB	FET DRIVE 60 %, XFMR 50 %
Bass • Picked Clarity	Guitar / Bass	F	4:1	3	5	5 dB	–
Guitar • Clean Funk Squash	Guitar / Bass	D (LN)	12:1	6	6	8 dB	–
Guitar • Acoustic Polish	Guitar / Bass	AE	2:1	2	4	4 dB	SC HPF 120 Hz
Guitar • Lead Sustain	Guitar / Bass	A	20:1	4	3	10 dB	–
Bus • Mix Kiss	Mix Bus	AE	2:1	1 (SLOW)	4	1.5 dB	SC HPF 60 Hz
Bus • Mid Focus	Mix Bus	D (LN)	4:1	2	5	2 dB	STEREO M/S
Bus • Parallel Bus Push	Mix Bus	A	ALL	4	6	12 dB	MIX 25 %
Keys • Piano Even	Keys / Synth	AE	2:1	2	3	4 dB	–
Color • Iron Only	Subtle	F	none	OFF	4	colour	XFMR 60 %
Color • Bluestripe Warmth	Subtle	A	none	OFF	4	colour	FET DRIVE 60 %

PRESET	CATEGORY	ERA	RATIO	ATTACK	RELEASE	GR	EXTRA
Peak • Podcast Voice	Vocal	D (LN)	8:1	4	5	6 dB	SC HPF 100 Hz, AUTO GAIN on, CATCH 0.5 ms

Two-Stage Smooth splits the work between both units in Dual Unit SER: unit 1 in Rev D (LN), unit 2 in AE; the slash separates the two units' values. The two **Color** presets press no ratio key: colour only, no compression. The slow-attack drum presets let transients through by design, so their peaks sit a little above the body.

■ ≡ MAIN MENU

ITEM	WHAT IT DOES
Init preset	Returns every control to its default.
Copy A → B	Copies snapshot A into slot B (Ctrl + Shift + C).
Load / Save preset file...	Imports or exports one preset as a file, handy for sharing.
Open presets folder	Shows the user presets folder in Explorer.
Show hidden presets	Shows factory presets you hid, so you can unhide them (right-click › <i>Unhide</i>).
UI size ►	75, 100, 125, 150 or 200 %.
Tooltips	Hints when hovering any control, any ≡ menu item or any entry in the unit list that opens from the serial plate (#0001, #0412, #0733, #1967, Random), on or off. Off hides them all.
Level-match A/B	Applies automatic gain when switching snapshot slots, so loudness does not bias the comparison. Default off.
Output Safety	Default off, and then bit-transparent. When on, the output passes unchanged up to -1 dBFS and is then bent softly into a ceiling at 0 dBFS, so even OUTPUT at +24 dB never goes over 0 dBFS.
Oversampling ►	Same as OS in the drawer (default 2x).
Tolerance ►	Off / Light / Vintage: how strongly the unit's personality is applied. Default Light.
New instance ►	What a newly inserted PINCH-76 starts as: <i>Random unit (Tolerance Light)</i> , the default, or <i>Unit #0412 (Tolerance Off)</i> , for identical instances every time.
MIDI mappings...	Lists every MIDI CC assignment; clear one or all, or load an 8-knob controller template (section 13).
Quick guide	Shows the first-run guide again: three glass balloons that point out the main controls. It appears by itself only the first time PINCH-76 opens on a computer.
Check for updates	Checks online whether a newer version of PINCH-76 is available and tells you the result.
Buy PINCH-76... · Activate...	Shown until the licence is activated: opens the Neva DSP shop, or asks for your e-mail and serial number (section 3).
Deactivate this computer	Shown once activated: frees this computer's place so you can activate another one (section 3).
User manual	Opens this PDF from <code>Documents\Neva DSP\PINCH-76\PINCH-76-User-Manual.pdf</code> .
Copy system info	Copies version, format, DAW, OS, CPU/RAM, sample rate, buffer, latency, oversampling, channel layout, unit and licence state to the clipboard; shows <i>System info copied</i> . Paste it into a support e-mail.
Open log folder	Opens <code>%APPDATA%\Neva DSP\PINCH-76\logs</code> in Explorer.
About PINCH-76	Blurs the plug-in window behind a frosted-glass plate: the PINCH logo, NEVA DSP · FET LIMITING AMPLIFIER · MODEL 76, and three fields, VERSION, SERIAL No. (NV76-xxxx-xxxx, this installation) and UNIT (Era of unit 1 and its unit number, e.g. REV D (LN) · #0733). Below them it shows the licence state, for example LICENSED TO and your name. USER MANUAL opens this PDF; CLOSE , Esc or a click outside the plate closes it.

■ UNITS, TOLERANCE AND THE SERIAL PLATE

No two analog units sound exactly alike, and the two channels of one unit differ slightly too. PINCH-76 works the same way. Every new instance is its own unit: it rolls a random serial between 2 and 9999, shows it on the serial

plate ⑥ and saves it with your project. ≡ > *Tolerance* decides how much of the unit's personality you hear; the default is **Light**. With **Off** both channels are identical, whichever unit is chosen. The plate's 076-xxxx number only names the tolerance unit; the NV76 serial under ≡ > *About* identifies your installation.

- Loading a preset or the Default preset keeps the unit. To change it, click the serial plate and choose a unit from the list, or *Random unit...* to roll a new one.
- ≡ > *New instance* decides how the next new instance starts: *Random unit (Tolerance Light)*, or *Unit #0412 (Tolerance Off)* for identical instances.
- A project keeps its unit and Tolerance setting.

UNIT	PERSONALITY	UNIT	PERSONALITY
#0001	Matched pair	#0733	Warmer left side
#0412	Light drift	#1967	Worn vintage unit
Random unit...	Rolls a new unit (2–9999) and shows its number on the plate		

■ WINDOW SIZE

≡ > *UI size* scales the whole window. The figure shows the four sizes captured with the ADVANCED drawer open, drawn to scale relative to each other. PINCH-76 also follows Windows display scaling: on a display set to 150 %, UI size 100 % fills 1350 × 608 physical pixels with the drawer closed.



Sizes in pixels with the drawer open, at 100 % Windows scaling. With the drawer closed the window is 405 pixels tall at UI size 100 %.

N 13 MIDI LEARN

- 1 Right-click a control and choose **MIDI Learn**. An amber ring shows that it is waiting.
- 2 Move a knob or fader on your controller. The control is now mapped and carries a small **CC nn** tag.
- 3 To undo a mapping, right-click and choose **Clear MIDI**. ≡ > **MIDI mappings...** lists all of them.

■ CONTROLLER TEMPLATES

For controllers with eight knobs, ≡ › **MIDI mappings...** offers two ready maps, **Template: CC 21–28** and **Template: CC 70–77**. Pick the one that matches the CC numbers your knobs send. Loading a template replaces all current mappings.

KNOB	1	2	3	4	5	6	7	8
Control	INPUT	OUTPUT	ATTACK	RELEASE	MIX	ERA	FET DRIVE	XFMR
CC 21–28	21	22	23	24	25	26	27	28
CC 70–77	70	71	72	73	74	75	76	77

Your host must pass MIDI from the controller to PINCH-76; check the plug-in's MIDI input setting in the host. All other mouse and keyboard actions are on the shortcuts card at the end of this manual.

N 14 RECIPES

Six tested starting points. Set the controls shown, then adjust INPUT until the needle shows the stated gain reduction (GR) on the loud parts. Controls not listed stay at their defaults. Knob positions refer to the 1–7 scales.

1 LEAD VOCAL

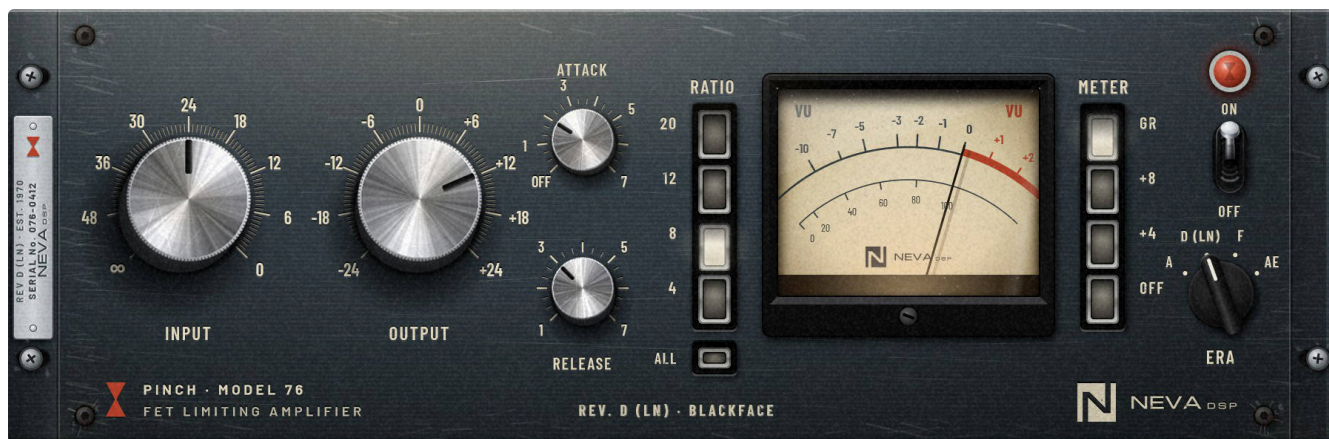


ERA	Rev D (LN)
RATIO	4:1
ATTACK	position 3
RELEASE	position 5
INPUT	set for 3–6 dB gain reduction
SC HPF	100 Hz
SLOPE	12
MIX	100 %
AUTO GAIN	on

Steady levelling for a lead vocal that should sit in front of the mix. Rev D (LN) stays clean; switch to Rev F if the voice has to cut through a dense mix, or Rev A when you want grit.

The sidechain filter at 100 Hz keeps plosives and mic rumble from pulling the whole phrase down as much. If the vocal still breathes between words, slow RELEASE to 4. For a louder, more pinned sound, latch 4 and 8 together instead of 4 alone.

■ 2 BASS DI



ERA	Rev D (LN)
RATIO	8:1
ATTACK	position 2
RELEASE	position 3
INPUT	set for 4–6 dB gain reduction
XFMR	45 %
FET DRIVE	30 %
SC HPF	OFF
MIX	100 %

Rev D (LN) holds the low end together while the slower attack lets the pluck through. Keep RELEASE on the slow side: releasing inside a low-frequency cycle is what makes bass compression growl and distort.

XFMR a little above its default thickens the bottom. If the low strings still disappear, reduce the gain reduction before reaching for more drive. On a busy track, ratio 4 with 6 dB of reduction often beats ratio 8 with 3 dB.

■ 3 ROOM MIC SMASH (ALL-BUTTONS)



ERA	Rev A
RATIO	all four ≈17:1
ATTACK	position 7 (20 μs)
RELEASE	position 7 (50 ms)
INPUT	set for 10–20 dB gain reduction
MIX	40–60 %
PUNCH	20 %
XFMR	40 %
METER	GR

Use this on room mics when you want them dense and loud behind the close mics. Set Rev A, all four keys, and both timing knobs fully clockwise. Push INPUT until the needle sits far to the left; at 10 to 20 dB of gain reduction that is expected.

Use MIX to decide how much of it reaches the mix; around half is a good start. PUNCH gives back some stick attack that all-buttons swallows. On a drum bus rather than room mics, get the same flavour without losing your main setting by raising NUKE instead.

■ 4 PARALLEL DRUM BUS (MIX / DRY)



ERA	Rev D (LN)
RATIO	4:1
ATTACK	position 2
RELEASE	position 6
INPUT	set for 6–10 dB gain reduction
MIX	35 %
DRY	OFF
SC HPF	80 Hz
NUKE	0–20 %

Parallel compression for a drum bus. Because MIX keeps most of the untouched kit, you can drive the compressed side much further than you would in series: aim for 6 to 10 dB of reduction and set the balance by ear with MIX.

MIX and DRY do related but different jobs. MIX crossfades between dry and compressed, so the total level stays roughly constant. DRY adds unprocessed signal on top at a chosen level: leave MIX at 100 % and bring DRY up from OFF until the kit regains its attack. Use one or the other. DRY is scaled by MIX, so turning MIX down also lowers DRY.

■ 5 DUAL A → D IN SERIES



UNIT 1 ERA	Rev A
UNIT 1 RATIO	20:1 ≈ 28:1
UNIT 1 ATTACK	position 6
UNIT 1 RELEASE	position 6
UNIT 1 INPUT	set for 2–4 dB gain reduction
UNIT 1 DUAL UNIT	SER
UNIT 1 UNIT LINK	off
UNIT 2 ERA	Rev D (LN)
UNIT 2 RATIO	4:1
UNIT 2 ATTACK	position 3
UNIT 2 RELEASE	position 4
UNIT 2 INPUT	set for 3–5 dB gain reduction
UNIT 2 ERA 2	D (LN)
UNIT 2 MIX	100 %

Unit 1 in Rev A works as a fast peak catcher: a high ratio, only a few dB of reduction, and the dirt of the oldest Era on the transients. Unit 2 in Rev D (LN) then does the slow, clean levelling on a signal whose peaks are already tamed.

UNIT LINK is off when you switch Dual Unit on; leave it off so each unit keeps its own settings. Unit 2's needle moves less than you might expect, because it receives an already compressed signal. The reverse order, clean first and dirty second, sounds noticeably different and is also worth a listen.

■ 6 BUS GLUE THAT IGNORES THE KICK



ERA	AE
RATIO	4:1 (AE key 2)
ATTACK	position 2
RELEASE	position 5
INPUT	set for 1–3 dB gain reduction
SC HPF	120 Hz
SLOPE	24
TILT	+2 dB
MIX	100 %

On a mix or drum bus, the kick carries most of the energy and will drive the whole compressor on its own. The sidechain filter at 120 Hz with the steep 24 dB/oct slope lowers the kick's pull on the detector, so the compressor responds more to the rest of the music. The kick is still compressed a little, but much less.

Press LISTEN while setting the filter: you are listening to the detector, and you want the kick clearly reduced but the snare and vocals still present. A small positive TILT tips the detector further towards the upper mids. Keep the reduction small, 1 to 3 dB, and compare with  > Level-match A/B.

N 15 ERA CHARACTER, MEASURED

These charts show how the four Eras differ on the test bench. Each one comes with a short note on what it means in practice. All were measured at 48 kHz with OS 2x and sine tones. Colours are the same in every chart: **Rev A**, **Rev D (LN)**, **Rev F**, **AE**; line styles differ too, so the charts also read in greyscale.

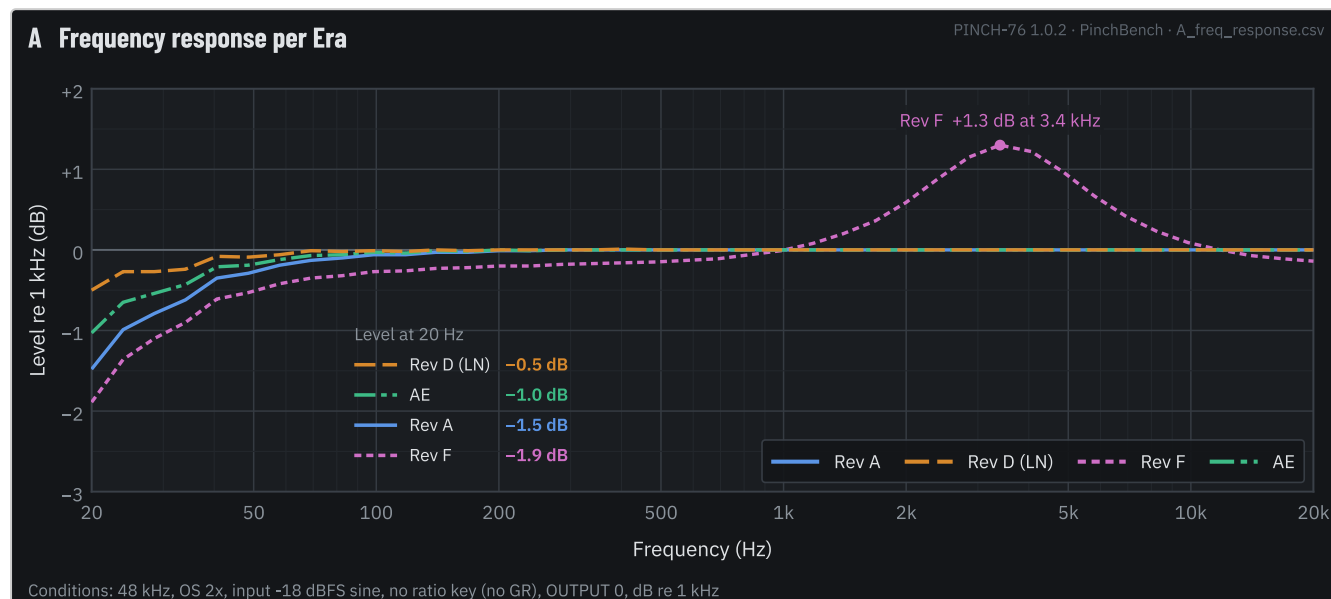


CHART A Frequency response without gain reduction, relative to 1 kHz.

In practice: Rev A, Rev D (LN) and AE leave the tone almost untouched; they only roll off slightly below 30 Hz. Rev F sounds brighter, with a broad lift of about +1.3 dB around 3.4 kHz and a little less deep bass (-1.9 dB at 20 Hz).

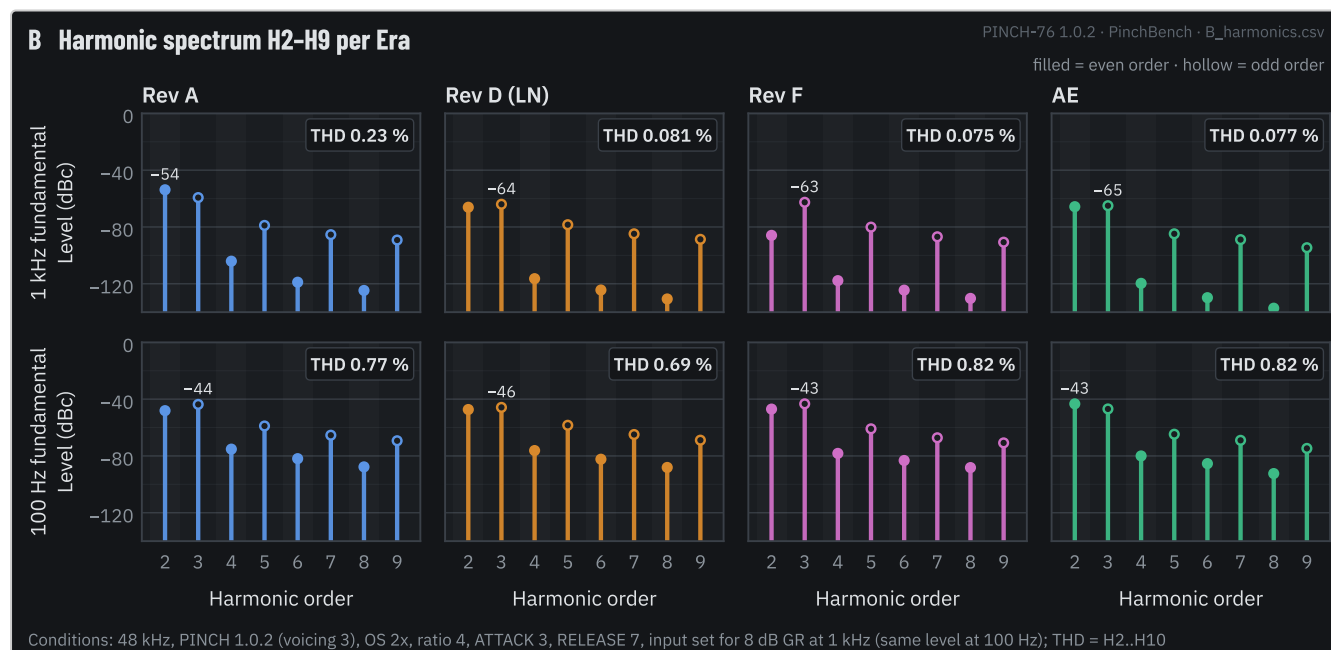


CHART B Harmonics 2 to 9 relative to the fundamental at 8 dB of gain reduction; THD (H2 to H10) in each panel.

In practice: Rev A adds about three times more harmonics than the others in the mids (0.23 % against about 0.08 %), mostly second harmonic, which sounds warm and thick. Rev F adds mostly odd harmonics, which sound edgier. On bass all four Eras distort about equally.

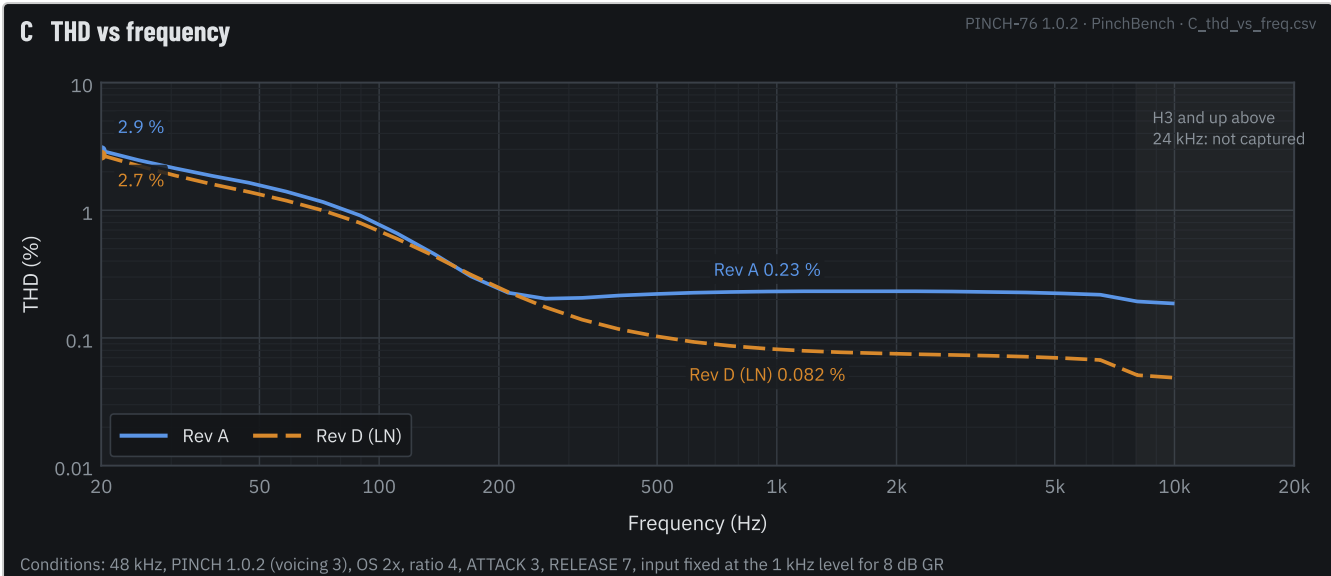


CHART C THD across the band at a fixed input level, Rev D (LN) and Rev A.

In practice: distortion is mainly a low-end effect. Below about 200 Hz it rises steeply in both Eras; in the mids and highs Rev D (LN) stays very clean and Rev A stays at a steady, higher level. (The drop above 8 kHz is a limit of the 48 kHz measurement.)

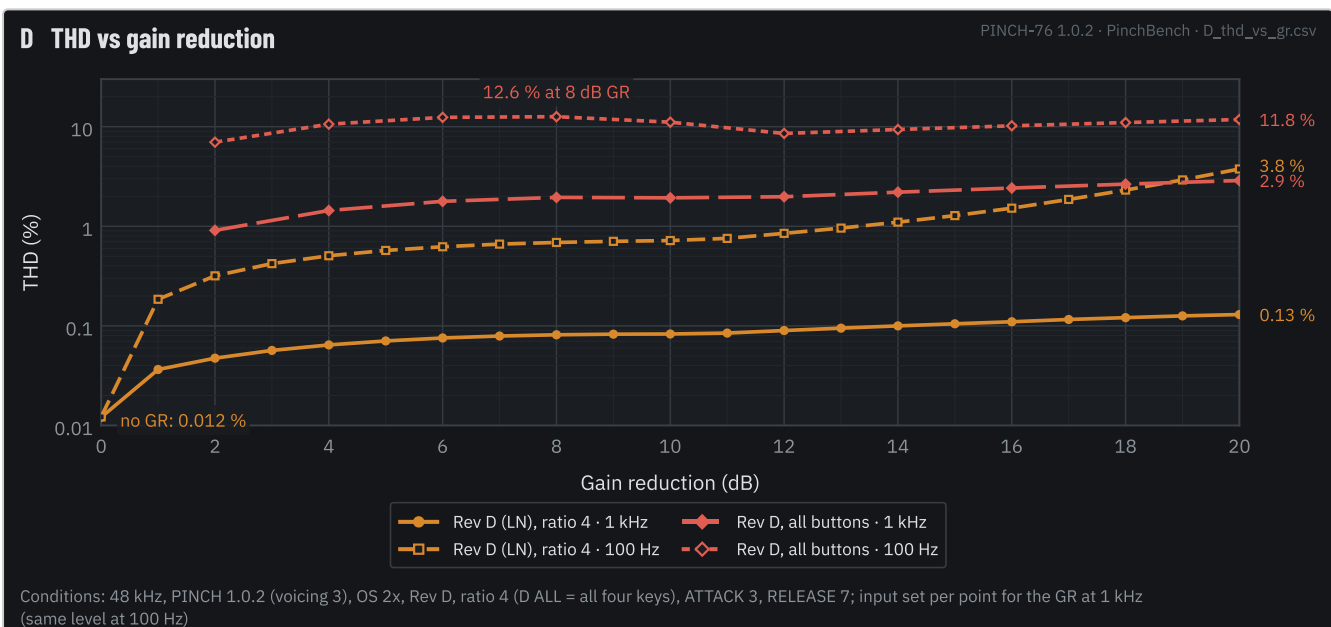
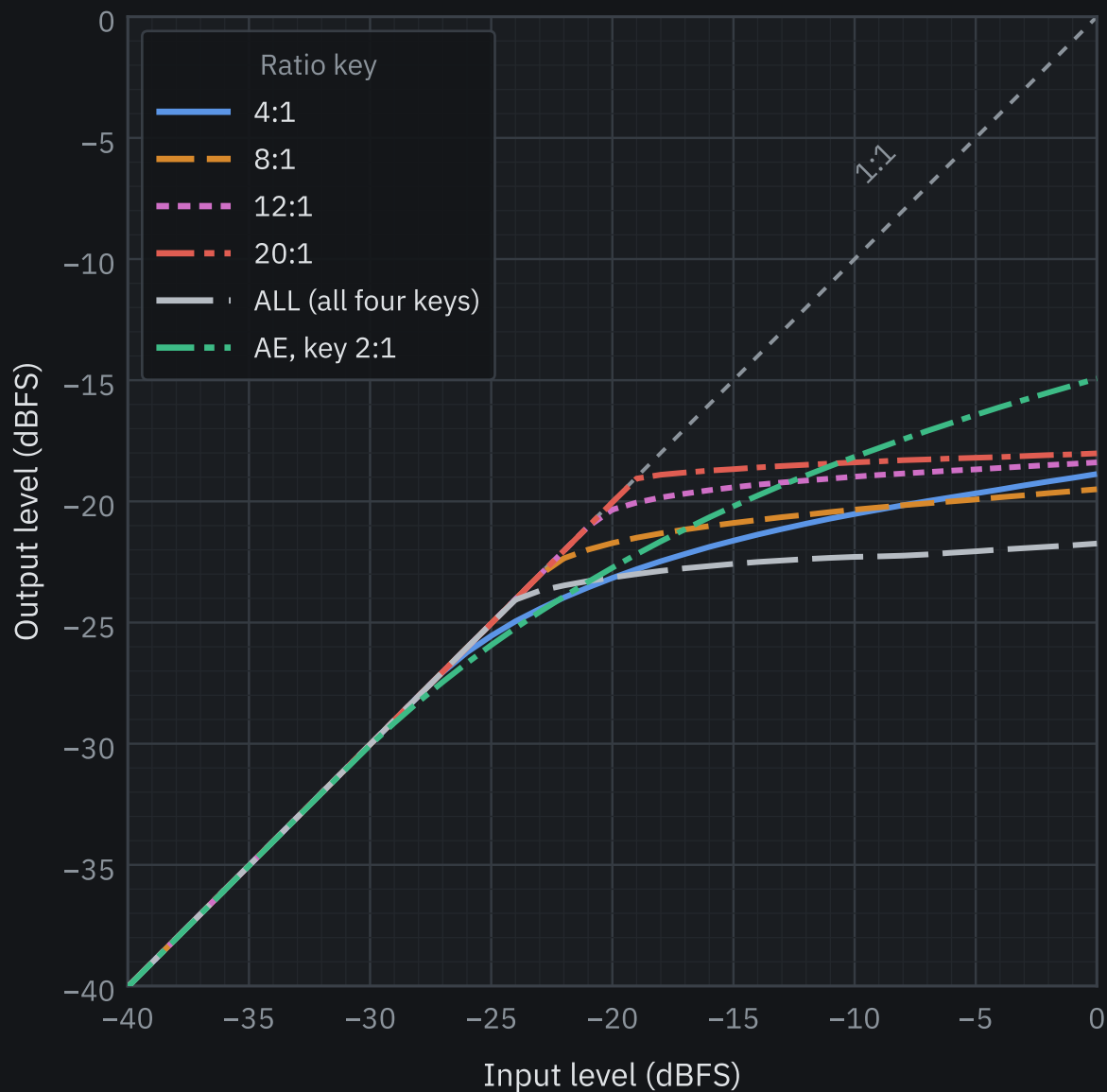


CHART D THD of Rev D (LN) against gain reduction at 1 kHz and at 100 Hz, on the 4 key and with all buttons.

In practice: the more you compress, the more it distorts, and much more so on bass. At 8 dB of gain reduction a 100 Hz tone measures 0.69 % on the 4 key, while all-buttons raises it to 12.6 %. That is the growl you hear on heavily compressed bass. If you want it clean, use less gain reduction and avoid all-buttons on low sources.

E Static transfer curves

PINCH-76 1.0.1 · PinchBench · E_transfer.csv



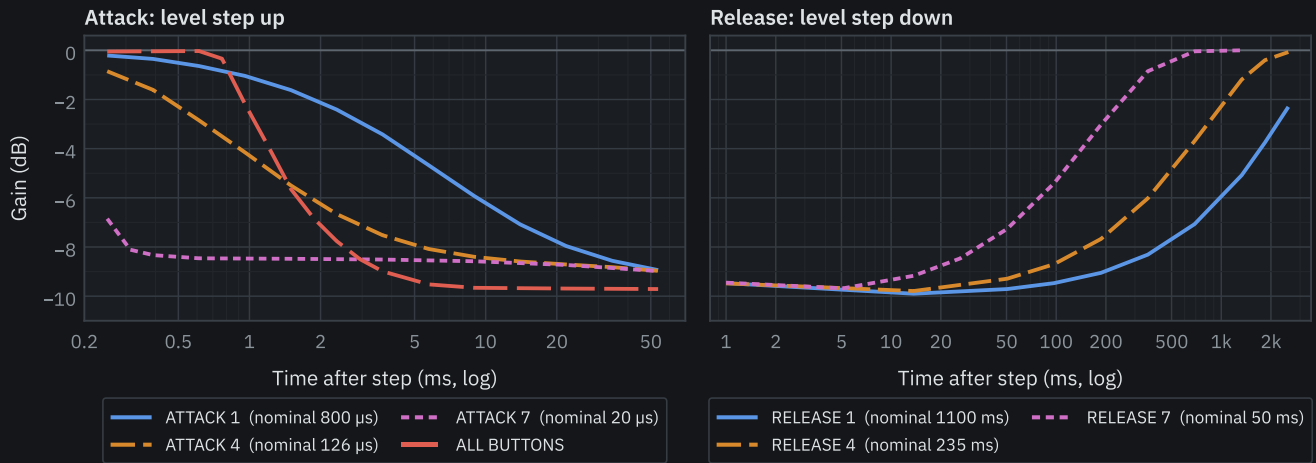
Conditions: 48 kHz, OS 2x, 1 kHz sine, INPUT 24 dB (default), OUTPUT 0, default ATTACK / RELEASE; dBFS peak

CHART E Static transfer curves, 1 kHz, Rev D (LN) and the AE 2:1 key; the dashed diagonal is 1:1.

In practice: the ratio grows as the compression gets deeper, so the printed ratio is a starting point rather than a fixed slope. The 4:1 key starts bending near -26 dBFS and reaches about 6:1 over the top 10 dB. Higher keys start later and end steeper; all four keys together start earlier and hold the output lowest.

F Attack and release envelopes

PINCH-76 1.0.2 · PinchBench · F_envelopes.csv



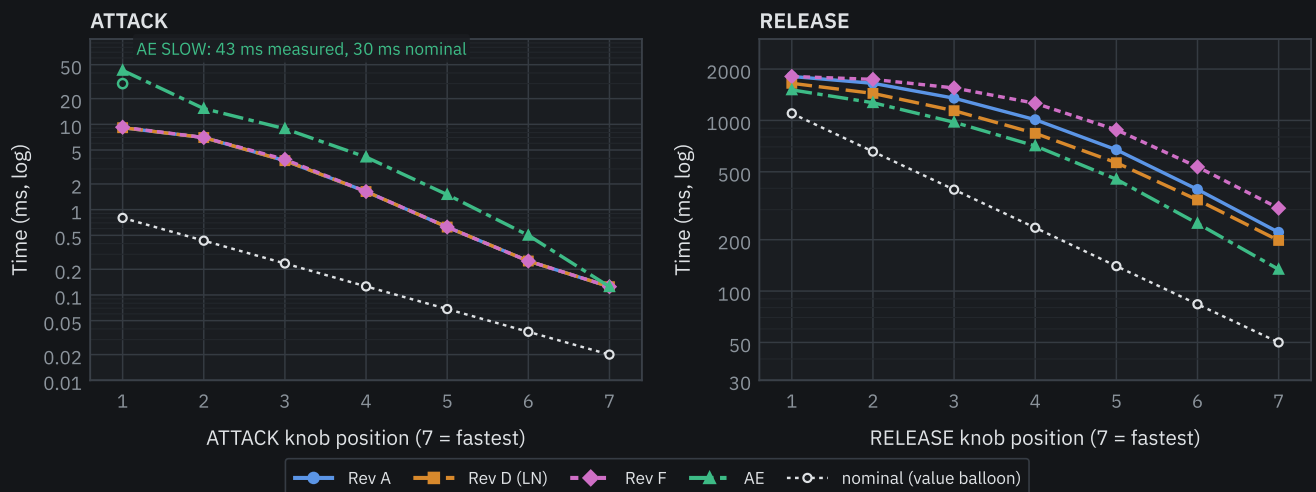
Conditions: 48 kHz, PINCH 1.0.2 (voicing 3), OS 2x, Rev D, ratio 4 (ALL BUTTONS = all four keys), 4 kHz carrier; attack: step from -40 dBFS to the level for 10 dB GR; release: step 20 dB down after 1 s at 10 dB GR; gain_db negative = reduction

CHART F Gain over time after a level step up (attack) and down (release), Rev D (LN), ratio 4.

In practice: ATTACK 7 grabs a transient within about 0.3 ms, ATTACK 4 in about 5 ms and ATTACK 1 in about 22 ms, so slower settings let more of the hit through. All-buttons waits about 0.7 ms and then clamps harder, which is where its bite comes from. After a long loud passage, RELEASE 7 is back within 1 dB in about 0.4 s, while RELEASE 1 still holds some reduction after 2.5 s.

G Knob position vs measured time (63 %)

PINCH-76 1.0.2 · PinchBench · G_knob_times.csv



Conditions: 48 kHz, PINCH 1.0.2 (voicing 3), OS 2x, ratio 4, INPUT 24, 1 kHz; time to 63 % of the GR change. attack: step -30 → -8 dBFS; release: step -8 → -30 dBFS after 1 s. nominal_ms = the knob's nominal value (value balloon)

CHART G Measured time to 63 % of the gain change for every knob position, against the nominal values shown in the value balloon. The numbers are in the table in section 8.

In practice: from position 2 upwards, each ATTACK step roughly halves the time. Rev A, Rev D (LN) and Rev F share the same attack; AE is about two to two and a half times slower, which makes it the gentlest Era. Release differs per Era: Rev F holds longest and AE lets go fastest.

H FET DRIVE and XFMR vs THD

PINCH-76 1.0.2 · PinchBench · H_drive_xfmr.csv



Conditions: 48 kHz, PINCH 1.0.2 (voicing 3), OS 2x. XFMR: 50 Hz, input -10 dBFS, no ratio key (no GR). FET DRIVE: 1 kHz, ratio 4, ATTACK 3, RELEASE 7, input for 8 dB GR

CHART H THD at FET DRIVE and XFMR settings of 0, 30 (default) and 100 %.

In practice: FET DRIVE is a fine adjustment that adds a little more grain across the band. XFMR is the stronger control and works mainly on the low end; Rev F's transformer saturates first. On Rev A most of the low-end colour comes from the circuit itself, so XFMR changes it less.

16 SPECIFICATIONS

ITEM	VALUE
Product	PINCH-76 FET Limiting Amplifier, Neva DSP, version 1.0.4
Formats · host	VST3 and CLAP for Windows 10 / 11, 64-bit, no Visual C++ redistributable needed
Channels	Mono, stereo, mono → stereo; optional stereo sidechain input
Sample rates	44.1–192 kHz
Topology	Feedback FET compressor with the distortion modelled inside the loop
Eras	Rev A (1967), Rev D (LN) (1970, default), Rev F (1973), AE (2026); switching crossfades
Ratio keys	A / D / F: 4, 8, 12, 20 · AE: 2, 4, 8, 20 · 15 calibrated combinations · 20 key ≈ 28:1 · all four ≈ 17:1
INPUT · OUTPUT	0–48 dB (default 28) · -24 to +24 dB (default +12.6 dB: a source at about -16 dBFS RMS leaves at about the same level)
ATTACK	OFF, 1–7 (engraved OFF, 1, 3, 5, 7); nominal 800 μs to 20 μs in the value balloon on every Era (default 250 μs); AE position 1 = SLOW (30 ms). Measured 63 % time: 9.1 to 0.13 ms (A / D / F), 43 to 0.13 ms (AE, slower across the range)
RELEASE	Nominal 1100 ms to 50 ms (default 300 ms). Measured 63 % time after a 1 s hold: 1.5–1.8 s to 0.13–0.31 s depending on Era; RELEASE 7 after a 30 ms hit: about 69 ms
Sidechain	HPF OFF / 20–500 Hz (about halves the bass's pull on the detector), slope 6 / 12 / 24 dB/oct, tilt ±6 dB around 1 kHz, external key, listen; separate HPF for unit 2
Stereo	L/R or M/S; = links both sides (LINK 0–100 %); each side can have its own INPUT, OUTPUT, ATTACK, RELEASE, ratio keys and MIX, in both units
Parallel	MIX 0–100 % (0 % = dry signal only), DRY OFF / -48 to +6 dB scaled by MIX, DELTA, NUKE all-buttons layer, Dual Unit PAR with BLEND

ITEM	VALUE
Character	FET DRIVE and XFMR 0–100 % (default 30), NOISE, PUNCH 0–100 %, HEADROOM AUTO / –24 to –6 dBFS
Lookahead (CATCH)	OFF, 0.1–2 ms
Oversampling	Playback 1x / 2x / 4x (default 2x); offline render SAME / 2x / 4x / 8x
Latency	3 samples at 2x; 0 with TRACKING; CATCH adds its lookahead time (up to 2 ms). Reported to the host; bypass stays time-aligned
CPU	About 1.4 % of one CPU core per stereo instance at default settings (2x oversampling); 0.77 % at 1x. Dual Unit, NUKE, CATCH and separate stereo sides add to this
Frequency response	A, D (LN), AE flat 200 Hz–20 kHz; Rev F +1.3 dB at 3.4 kHz; –0.5 to –1.9 dB at 20 Hz (chart A)
Metering	VU with GR / +8 / +4 / OFF (default GR) and GR peak hold; PEAK lamp for output above 0 dBFS (held 1.5 s)
Presets	90 tagged factory presets in 9 categories, including nine Start presets (tag <i>start</i>) and 21 Engineer Series presets (tag <i>engineer</i>); search by name or tag, user presets, favourites, ↻ load Default
Unit · Tolerance	Random unit per new instance (serial 2–9999, saved with the project) or a chosen unit; Tolerance Off / Light / Vintage, default Light
Compatibility	A project opens with the voicing, unit and Tolerance it was saved with, so updates do not change finished mixes
Output Safety	Off by default (bit-transparent); on: linear to –1 dBFS, soft ceiling at 0 dBFS
Snapshots · Undo	A / B / C / D with optional level matching · 100 steps
Interface	Analog-style panel; UI size 75 / 100 / 125 / 150 / 200 %; follows Windows display scaling; tooltips on every control, ≡ menu item and unit-list entry
MIDI	MIDI learn (CC) on every control; two 8-knob templates (CC 21–28, CC 70–77)
Licence	14-day full trial; online activation with e-mail and serial; 3 computers per licence; online check at most every 14 days, 30 days offline without a note

17 TROUBLESHOOTING AND FAQ

GETTING HELP

🔗 Something goes wrong. What should I send to support?

Choose ≡ › *Copy system info* and paste the text into your message, with a short description of what you did. If asked, choose ≡ › *Open log folder* and attach `pinch.log`. The log keeps at most three files of 1 MB (`pinch.log`, `pinch.1.log`, `pinch.2.log`) and never contains audio, your e-mail, serial number, user name or full file paths.

SETUP AND ROUTING

🔗 PINCH-76 does not show up in my host.

Make sure the plug-in file sits in `C:\Program Files\Common Files\VST3\Neva DSP` or `...\CLAP\Neva DSP`, that the host scans that folder, and run a rescan. PINCH-76 is 64-bit only and will not load in a 32-bit host.

🔗 How do I feed a sidechain into PINCH-76?

Route the key track (for example a kick) to PINCH-76's sidechain input in your host, then open the ADVANCED drawer and press **EXT**. Briefly press **LISTEN**: you should hear the kick. Switch **LISTEN** off again and raise **INPUT**

until the needle shows the ducking you want. SC HPF also filters the external key. If LISTEN is silent, the host is not sending the key to PINCH-76 yet. EXT is a session setting and is not saved in presets.

🔔 Where are my presets, and how do I back them up or share one?

User presets live in `Documents\Neva DSP\PINCH-76\Presets` (≡ > *Open presets folder*). Copy that folder to back up everything, or use ≡ > *Save preset file...* and *Load preset file...* for a single preset. The 90 factory presets are part of the plug-in.

🔔 Where is this manual stored?

`Documents\Neva DSP\PINCH-76\PINCH-76-User-Manual.pdf` ; ≡ > *User manual* opens it.

🔔 Where do I find my serial number?

≡ > *About PINCH-76* shows it under SERIAL No. (NV76-xxxx-xxxx). The 076-xxxx number on the faceplate belongs to the tolerance unit and is a sound setting, not a serial number.

🔔 How do I find a preset quickly?

Type into the browser's search field. It matches names and tags, so words such as *vocals*, *gentle*, *dirty drums*, *parallel* or an Era name narrow the list. Hover a preset to see its tags.

LEVELS AND SOUND

🔔 What level should I feed PINCH-76, and where should OUTPUT end up?

Leave HEADROOM on AUTO and aim for track levels averaging around -18 dBFS; that is the level each Era is calibrated for. Then let INPUT decide the amount of compression. If you have to turn INPUT far down to avoid squashing, your track is very hot: lower it before the plug-in or set HEADROOM to a higher value (towards -6). The Default preset (INPUT 28 dB, OUTPUT +12.6 dB) leaves a source at about -16 dBFS RMS at the same level; louder material comes out a little quieter because it is compressed harder. Set OUTPUT, or use LEARN or AUTO GAIN, so that bypassing does not change the perceived loudness. Rev A runs about 5 dB hotter than the other Eras, so expect to trim OUTPUT after switching to it.

🔔 The needle does not move and nothing is compressed.

Check for ATTACK on OFF, no ratio key latched, COLOR on (gain reduction is computed but not applied), METER set to OFF, or the ON switch down. If none of these apply, the signal is too quiet: turn up INPUT or press LEARN. With EXT on, the external key must actually receive signal.

🔔 Why does my level jump, or my track clip?

Watch the **PEAK** lamp in the toolbar: it lights for 1.5 s whenever the output goes above 0 dBFS. Lower OUTPUT until it stays dark, or switch on ≡ > *Output Safety*, which holds the output at or below 0 dBFS with a soft ceiling. The lamp reads the level before that ceiling, so it keeps warning you even with Safety on. Big jumps after loading a preset or changing Era come from the new gain structure; AUTO GAIN evens them out.

🔔 How do I get back to the default setting?

Click 🔊 in the toolbar, right after the > preset arrow, or 🔊 **LOAD DEFAULT** in the preset browser's search row. Both load the Default preset. ≡ > *Init preset* remains available as well.

🔔 Why does the level change slightly when I press COLOR?

COLOR holds the output at the compressor's average level over about half a second instead of following every movement, so the two settings never match exactly. The difference is at most about 0.45 dB.

🔔 My older project sounds the same after an update. Is the update active?

Yes. A project opens with the voicing it was saved with, so finished mixes do not change. New projects use the current voicing.

❗ Is it really better, or just louder?

Turn on AUTO GAIN while setting up, and enable  > *Level-match A/B* before you compare snapshot slots.

❗ I hear distortion I did not ask for.

Distortion rises with gain reduction, with low frequencies and with fast release. Back off the gain reduction, slow RELEASE on bass-heavy sources, lower FET DRIVE and XFMR, try Rev D (LN), and avoid all-buttons. Keep HEADROOM on AUTO.

❗ There is hiss.

NOISE in the drawer is on. Switch it off.

❗ The stereo image moves when the unit compresses.

Light STEREO = with LINK at 100 %, and check  > *Tolerance*: at Light (the default) or Vintage some units are deliberately unbalanced. Choose Off or unit #0001.

❗ The bounce sounds slightly different from playback.

RENDER uses more oversampling than OS; it applies only to offline bounces, while OS is what you hear live. Set RENDER to SAME for identical results.

LATENCY AND CPU

❗ How much latency does PINCH-76 add?

3 samples at the default 2x oversampling. CATCH adds its own lookahead time on top, up to 2 ms. TRACKING brings latency to zero by bypassing oversampling and CATCH, which is the right choice while recording through the plug-in; switch it off again for mixing. The latency is reported to the host, and bypass stays time-aligned.

❗ My parallel bus is out of phase.

Make sure the host's plug-in delay compensation is on. After changing CATCH, OS or TRACKING during playback, some hosts only pick up the new latency once you stop and restart playback.

❗ How much CPU does it use?

About 1.4 % of one CPU core per stereo instance at default settings, and 0.77 % with OS at 1x. Dual Unit, NUKE, CATCH and separate stereo sides add to this. To save CPU, lower OS, switch off Dual Unit when you do not need it, and keep NUKE at 0 and CATCH OFF when unused.

CONTROLS

❗ Unit 2's knobs do not respond.

UNIT LINK is lit, so unit 2 follows unit 1. Switch UNIT LINK off.

❗ The U2 key next to HPF is dimmed.

Dual Unit is OFF; unit 2's filter can only be set in SER or PAR. Light both U1 and U2 to set both filters with the one knob.

❗ Every new PINCH-76 shows a different number on the serial plate.

Each new instance is its own unit with a random serial, heard at Tolerance Light. For identical instances, choose  > *New instance* > *Unit #0412 (Tolerance Off)*, or click the plate and pick a unit.

❗ Why does the "20" key measure about 28:1?

The 20 key is tuned for hard limiting, so it measures about 28:1. The label keeps the traditional key marking.

❗ Is there a macOS version?

Version 1.0.4 is for Windows only.

🔔 My trial has ended and PINCH-76 no longer compresses.

After the 14-day trial PINCH-76 passes the audio through unprocessed until you activate a licence. Choose ☰ › *Activate...* and enter the e-mail and serial number from your purchase (section 3). Your settings are still in the project and come back as soon as you activate.

🔔 How do I move PINCH-76 to a new computer?

On the old computer choose ☰ › *Deactivate this computer*, then activate on the new one. One licence covers up to 3 computers at a time.

🔔 I work offline. Will PINCH-76 stop working?

No. The licence is checked online at most every 14 days. If no check succeeds for 30 days, About asks you to connect, but the audio is never muted because of it.

18 LEGAL AND CREDITS

■ PROVIDED AS IS

PINCH-76 1.0.4 is provided as is, without warranty of any kind, express or implied, and Neva DSP is not liable for any loss or damage arising from its use. Save your work often and keep backups of your sessions. Details in this manual may change without notice.

■ LICENCE

Use of PINCH-76 is governed by the Neva DSP End User Licence Agreement (EULA) shown during installation and included in the plug-in folder. Activation and the trial are described in section 3. The Privacy Policy and Refund Policy are published on the Neva DSP website.

■ TRADEMARKS

All product and company names are trademarks of their respective owners. Historical revision names describe eras of classic studio hardware only. Neva DSP has no affiliation with any hardware manufacturer, and no manufacturer endorses or sponsors this product. VST is a registered trademark of Steinberg Media Technologies GmbH. Windows is a trademark of Microsoft Corporation. CLAP is an open plug-in standard.

■ TECHNOLOGY

Built with the JUCE framework. The compressor design draws on Giannoulis, Massberg and Reiss, "Digital Dynamic Range Compressor Design – A Tutorial and Analysis" (JAES, 2012), and the distortion behaviour on published measurements of classic FET compressor hardware by Moore et al. Static non-linearities use antiderivative anti-aliasing.

■ CREDITS



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PINCH-76 • SHORTCUTS

QUICK REFERENCE CARD
VERSION 1.0.4 • WINDOWS

KNOBS

Drag up / down	Turn; a value balloon shows the value (nominal time on ATTACK and RELEASE)
Mouse wheel	Turn the knob under the pointer
Shift + drag	Fine adjustment (10x finer on ATTACK and RELEASE)
Shift + drag INPUT	OUTPUT moves the opposite way; level stays put (one undo step)
Ctrl + click	Type a value; Enter applies, Esc cancels
Double-click	Reset to default

RIGHT-CLICK MENU

MIDI Learn	Waits for a CC; the control then shows a CC tag
Clear MIDI	Removes this control's mapping
Type value...	Same as Ctrl + click
Reset to default	Same as double-click
Copy / Paste value	Move a value from one control to another

FACEPLATE

Click / drag ERA	Step to the next Era; the sound crossfades
ALL key	Latch all four ratio keys (all-buttons)
Click serial plate	Choose the unit (#0001, #0412, #0733, #1967, random)
LEARN	Set INPUT and OUTPUT from your audio (about 6 s); click again to cancel

KEYBOARD

Ctrl + Z	Undo (100 steps)
Ctrl + Y · Ctrl + Shift + Z	Redo
Ctrl + Shift + C	Copy snapshot A → B
Esc	Close an open menu, the browser or About

If the host grabs a shortcut, click inside PINCH-76 first or use the ↶ ↷ buttons.

TOOLBAR

Click preset name	Browser: search names and tags, categories, ★
< > ↺	Previous / next preset · load Default preset
PEAK lamp	Output went above 0 dBFS (lit 1.5 s)
Save · Save As	Overwrite / new user preset
A · B · C · D	Switch snapshot slots
≡ > User manual	Opens this PDF
≡ > Level-match A/B	Fair comparisons between slots
≡ > Output Safety	Soft ceiling at 0 dBFS (default off)
≡ > About	Glass plate: version, serial, unit; Esc or click outside closes

DEFAULTS AT A GLANCE

INPUT · OUTPUT	28 · +12.6 dB
ATTACK · RELEASE	250 μs · 300 ms
RATIO · ERA · METER	4 · D (LN) · GR
FET DRIVE · XFMR	30 · 30
OS · RENDER	2x · SAME
ERA 2 · BLEND	F · 50 %
Unit · Tolerance	Random · Light

COLOR: TONE ONLY, LEVEL HELD

ZERO LATENCY: TRACKING

NEVA DSP



PINCH-76 · VERSION 1.0.4