

THE_COMPRESSOR 2

USER MANUAL

Eight legendary compressor characters in one engine. Press SMART, play 8 seconds, and it sets itself up — then dive as deep as you dare.

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What It Is

THE_COMPRESSOR 2 is a do-everything dynamics compressor with a split personality — in the best possible way. Under the hood is one configurable engine that can transform into eight curated **Styles**: aggressive FET drum-grab, slow smooth Opto, transformer-coloured bus glue, gentle tube Vari-Mu, transparent Clean Modern and Mastering, snappy VCA, and a brutal FET brickwall limiter. Pick a Style and the whole personality of the compressor — its detector, envelope, knee, timing and saturation — changes in one move.

But the real magic is that you never *have* to touch a Style. Hit **SMART**, tell it what you're working on (vocals, drums, bass, master...), play about 8 seconds of your track, and THE_COMPRESSOR 2 listens and writes its own settings: Style, threshold, ratio, attack, release, knee and makeup. It's a finished starting point in seconds, matched to *your* source.

And when you're ready to go deeper, three views unfold the engine on demand. **Simple** is four knobs and a glowing analog VU needle. **Advanced** opens a full pro surface with a live transfer curve, scrolling waveforms, a gain-reduction display and IN/OUT meters. **Expert** is a terminal-style list where every single parameter is editable inline. Same engine, same sound — just as much or as little control as you want, with all your settings preserved as you switch.

Why You'll Love It

- **SMART setup does the hard part.** One button, about 8 seconds of playback, and the compressor configures itself for your source. No more guessing thresholds.
- **MATCH gives you honest A/B.** It level-matches the output peak to the input peak so "with compression vs. without" is a fair fight — no louder-sounds-better illusion.
- **Eight characters, one plugin.** From transparent clean leveling to iron-saturated bus glue to 20:1 brickwall limiting — all from a single engine.
- **One-click VIBE moves.** WARMER, TIGHTER, PUNCHIER, OPEN, HARDER — reshape the sound without hunting for knobs, in every view.
- **Save and share characters.** Dial in your own compressor character and save it as a **user style** (up to 20, shared across every DAW and project on your machine). Every character is also a short **text code** you can copy, paste and send to anyone — the code *is* the compressor.
- **Draw your own curves.** A proper editor for **custom knee and envelope** shapes — draw them, and they save and travel inside your styles and codes.
- **Three views, zero relearning.** Stay on four knobs forever, or open every parameter in Expert. Your settings travel with you.
- **You can see the compression.** Live transfer curve with a draggable threshold, scrolling input/output waveforms, a real-time gain-reduction ribbon and peak-hold meters. Great for working *and* learning.
- **Built-in parallel compression.** Mix, wet-only Makeup and post-mix Output are independent, so loudness and dry/wet never fight each other.
- **It goes as deep as the pros need.** Side-chain HP/LP + weighting + external key + a sidechain listen button, LUFS-S and VU detection, hold, lookahead, stereo link, Mid/Side, and upward/bidirectional compression.
- **Character on tap.** Transformer / tube / FET / soft-clip / tape saturation with bias and GR-coupling, plus up to 8x oversampling for clean drive.
- **Help built in.** Tooltips in five languages (EN/DE/FR/ES/IT), the built-in manual, and an AI assistant.

The Interface at a Glance

THE_COMPRESSOR 2 opens in a 900 × 560 px window with a vintage-console, dark theme; a corner handle lets you scale the whole interface. A thin top header carries a tooltip line on the left (it explains whatever you hover), the brand logo in the middle, and on the right **Undo/Redo**, **AI Chat** (robot), **Docs** (book), **Settings** (gear) and **Bypass** (power). Below it, a second row holds the **SMART** and **VIBE** pills on the left and the **SIMPLE | ADVANCED | EXPERT** view switcher on the right. Everything below is one big morphing display that changes with your chosen view:

- **SIMPLE** — a large analog **VU needle** showing live gain reduction, the **STYLE** pill, and four console knobs: **IN TRIM**, **THRESHOLD**, **OUTPUT** and **MIX**. A **MATCH** pill sits next to IN TRIM, and an **SC** pill under the meter switches to the external sidechain. Clean, fast, fun.
- **ADVANCED** — a live **transfer curve** with a draggable threshold line and knee handle, **scrolling input/output waveforms**, a **gain-reduction ribbon** with a GR readout, **IN/OUT level meters**, the **STYLE** pill, three knob groups — **DYNAMICS** (THRESHOLD, RATIO, KNEE, FLOOR), **TIMING** (ATTACK, HOLD, RELEASE, LOOKAHEAD, LINK) and **OUTPUT** (OUTPUT, MIX, IN TRIM, MAKEUP, plus the MATCH pill) — and three expandable panels along the bottom: **SIDE CHAIN**, **CHARACTER** and **ROUTING** (one open at a time).
- **EXPERT** — a terminal-style list of every parameter, editable inline, with **IN / GR / OUT** ASCII meters at the top and a **CHARACTER / CODE block** for copying, pasting and saving the character as a short text code. Drag a row sideways to scrub its value (Shift = fine, Cmd/Ctrl = coarse), scroll to step it, click a choice row to cycle it (right-click or Alt-click goes backwards), click an on/off row to toggle it.

In every view, double-click a knob (or an Expert row) to reset it.

Other goodies: a **Settings overlay** (gear) with the language selector (EN/DE/FR/ES/IT), a Show Tooltips switch, a machine-wide **Default View** selector (LAST USED / SIMPLE / ADVANCED / EXPERT), Reset Zoom, a Tutorial link and your version number; the **AI assistant** panel; the built-in **documentation**; an update banner; **undo/redo**; and the corner zoom handle. Flip on Bypass and a full-window **"BYPASSED - CLICK ANYWHERE TO RE-ENABLE PROCESSING"** banner appears (in your chosen language).

Controls — In Depth

Bypass (header power button)

- **What it does:** Soft-bypasses the entire processing chain. While bypassed, a full-window banner appears; click anywhere on it to re-enable processing.
- **Range/units:** On/off (default: processing on).
- **In your music:** Instant A/B between processed and unprocessed signal.
- **Pro tip:** Pair it with MATCH for a *fair* comparison — same loudness in and out, so you judge tone and dynamics, not volume.

View switcher (SIMPLE / ADVANCED / EXPERT)

- **What it does:** Switches the UI layout only. Settings are preserved across all three; only the surface changes.
- **Range/units:** 3 views. A new instance opens in Simple unless you've set a Default View in Settings; after that, each instance remembers the view you last used.
- **In your music:** A beginner stays on four knobs; a power user reaches every parameter — without touching the sound.
- **Pro tip:** Set up fast in Simple, then flip to Advanced to *watch* the transfer curve and confirm you're working the right part of the signal.

Style

- **What it does:** Loads one of eight curated compressor characters in one move. A Style sets Ratio, Attack, Release, Knee width and Knee type, Detector, Weighting, Saturation type, Amount and Bias, ATK MOD, REL MOD and Oversampling (plus the Expert-only Envelope and Topology). It leaves your session alone: Threshold, In Trim, Makeup, Mix, Output, Hold, Auto Release, Floor, Direction, Lookahead, Link, Stereo mode, Coupling and the sidechain HP / LP / Source stay where you put them.
- **Range/units:** 8 factory Styles — Punch FET, Vintage Opto, Bus Glue, Tube Vari-Mu, Clean Modern, Mastering, Studio VCA, FET Brickwall. A new instance starts on **Clean Modern**. Your own saved characters appear in a **USER STYLES** section below the eight factory styles (Simple and Advanced); the same dropdown also holds "*Save current as user style...*" and "*Remove user style...*". In Expert, click the STYLE row to step through the factory Styles.
- **In your music:** One move to pick a personality — FET drum grab, slow opto smoothing, console-style bus glue, gentle vari-mu, transparent modern control, gentle mastering, hard-knee VCA grab, or 20:1 brickwall limiting.
- **Pro tip:** Because Style leaves Threshold and your gain staging alone, you can audition all eight back-to-back without losing your levels. Switching Style mutes the output for about a third of a second so the swap never clicks. The moment you change any character setting away from the selected style, the display marks it — **Bus Glue***, **MY STYLE*** — so you always know whether you're hearing the character or your own variation (Threshold, trims, Makeup, Mix, Output, Hold, Coupling

and the sidechain HP / LP / Source never trigger the marker; dial the value back or undo and it clears).

What each factory Style sets:

Style	Ratio	Attack	Release	Knee	Detector	Saturation	Oversampling
Punch FET	4:1	0.02 ms	200 ms	Soft, 6 dB	Peak	FET 15 %	2x
Vintage Opto	3:1	10 ms	60 ms	Soft, 8 dB	RMS	Tube 10 %	2x
Bus Glue	4:1	1 ms	100 ms	Soft, 4 dB	RMS + Console weighting	Transformer 5 %	2x
Tube Vari-Mu	2:1	3 ms	250 ms	Soft, 10 dB	RMS	Tube 12 %	2x
Clean Modern	4:1	1 ms	100 ms	Adaptive, 6 dB	Hybrid	None	1x
Mastering	2:1	3 ms	150 ms	Adaptive, 6 dB	Hybrid	None	1x
Studio VCA	4:1	1 ms	80 ms	Hard, 0 dB	RMS	None	1x
FET Brickwall	20:1	0.05 ms	50 ms	Hard, 0 dB	Peak	FET 25 %	2x

User Styles & Character Codes

- **What it does:** Saves the compressor's *character* — everything a Style sets, including any drawn knee or envelope curve — as a reusable **user style**, and encodes that same character as a short **text code** like **TC2-PECN-14H7-K5W6-F33Y-....**. Loading a user style or a code swaps the personality exactly like picking a factory Style: Threshold, trims, Makeup, Mix, Output and your sidechain filters and routing stay put.
- **Where:** Save from the **STYLE** dropdown ("*Save current as user style...*" opens a name prompt) or with **[SAVE]** in the Expert view's **CHARACTER / CODE** block (type the name right there; Enter saves, Esc cancels). Delete one with "*Remove user style...*" in the STYLE dropdown. In Expert, **[COPY]** puts the current code on the clipboard and **[PASTE]** reads one back — an inline question (for example "*LOAD CODE K7Q4? KEEPS SETTINGS - SWAPS CHARACTER*") waits for **[Y]ES** (Y or Enter) or **[N]O** (N, Esc or a click anywhere else) before anything changes. A pasted character shows as "CODE" plus its first four characters on the STYLE display until you save it under a name. The CODE line always tracks the live engine, so after any tweak the string on screen is the one to share.

- **Range/units:** Up to 20 user-style slots, stored **per machine** (every DAW and project sees the same list; saving under an existing name overwrites that slot). Names can be up to 18 characters — letters, numbers, spaces, hyphens and underscores, stored in capitals; save without a name in Expert and the slot is named "USER" plus the first four code characters. Codes are **typo-proof** — case, hyphens, spaces and line breaks don't matter, lookalike characters (O/0, l/L/1) are accepted, and a built-in checksum turns a real typo into **INVALID CODE** instead of a wrong compressor.
- **In your music:** Build your signature bus-glue or vocal character once, then recall it anywhere — or paste a friend's code and hear their exact character on your source.
- **Pro tip:** A character with a **drawn knee or envelope** produces a longer code that embeds the curve's control points, so custom shapes travel too — paste it and the exact curves come back.

Threshold

- **What it does:** Sets the level above which gain reduction begins (or below which upward gain begins when Direction is Upward or Both). It's on the THRESHOLD knob in Simple and Advanced, the threshold line on the Advanced display, and the THRESHOLD row in Expert.
- **Range/units:** -60 dB to 0 dB; a new instance starts at -6 dB (double-clicking the knob resets it to -18 dB).
- **In your music:** Pull it down to compress more of the signal; raise it to catch only peaks.
- **Pro tip:** In Advanced, drag the threshold line directly on the display — fastest way to dial it in by eye and ear.

Ratio

- **What it does:** How strongly the level is changed past the threshold. Above 1:1 it compresses; below 1:1 it expands instead (with Direction on Downward it lifts the signal above the threshold, with Upward it pushes quiet signal further down, gate-style). Found in Advanced (DYNAMICS) and Expert; in Simple the Style sets it.
- **Range/units:** 1:10 to 100:1; 4:1 on a new instance. 1:1 = no change, 4:1 = moderate, 20:1 = limiting; from 90:1 up, the ratio blends into a true ∞ :1 brickwall at 100:1.
- **In your music:** Low ratios for transparent leveling/glue; high ratios toward 20:1 for limiting and control.
- **Pro tip:** For glue on a bus, keep ratio low (around 2:1) and let just 1–3 dB of reduction do the cohesion.

Attack

- **What it does:** How fast gain reduction engages once the signal crosses threshold.
- **Range/units:** 0.01 ms to 200 ms; default 1 ms.
- **In your music:** Short = grabs/tames transients harder; long = lets transients punch through.
- **Pro tip:** On drums, a slightly *slower* attack lets the initial transient snap past before the compressor clamps — more punch, not less.

Hold

- **What it does:** Holds the gain reduction at its peak for a moment before the release starts. HOLD knob in the Advanced TIMING group; HOLD row in Expert.
- **Range/units:** 0 ms to 500 ms; default 0 ms (off).
- **In your music:** Keeps the compressor clamped through the body of a hit or note before it lets go — firmer, more controlled sustain.
- **Pro tip:** Hold plus a faster release shapes the body of a drum hit without smearing into the next one — the PUNCHIER vibe does exactly that with 50 ms of Hold.

Release

- **What it does:** How fast gain reduction recovers once the signal drops below threshold. While Auto Release is on, the knob is dimmed and ignored.
- **Range/units:** 5 ms to 3000 ms; default 100 ms.
- **In your music:** Fast = energetic/pumping; slow = smooth/transparent.
- **Pro tip:** Tune release to the tempo — let the needle return to rest just before the next hit for a groovy, breathing pump.

Auto Release

- **What it does:** Swaps the release stage for a program-dependent dual-envelope detector — a fast envelope (50 ms) tracks transients, a slow one (500 ms) tracks sustained material, and the louder of the two governs release. Overrides the Release knob. Switch it with the **AUTO** pill on the RELEASE knob (Advanced) or the AUTO RELEASE row (Expert).
- **Range/units:** On/off; default off.
- **In your music:** Hands-off, musical release for sources with shifting dynamics — vocals, drum bus, full mixes.
- **Pro tip:** Switch it on whenever a single release setting can't satisfy both the quiet and loud parts of a performance.

Knee width (KNEE)

- **What it does:** Width of the soft transition around threshold over which the ratio ramps in. It applies to every knee type: at 0 dB you get a sharp corner whatever type is selected. With Adaptive it's the starting width that widens on dynamic material; with Custom it's the span your drawn curve covers. KNEE mini knob in the Advanced DYNAMICS group; KNEE WIDTH (BASE) row in Expert.
- **Range/units:** 0 dB to 24 dB; a new instance starts at 6 dB (double-clicking the knob resets it to 4 dB).
- **In your music:** 0 dB = hard, abrupt onset; larger = gentler, smoother.
- **Pro tip:** In Advanced, drag the small triangle handle on the transfer curve sideways to set the width by eye. Widen the knee for transparent vocal/bus leveling; narrow it for snappy, obvious drum control.

Knee type (KNEE TYPE)

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What it does: Shape of the knee. **Hard** and **Soft** both follow the KNEE width you set (turn KNEE to 0 dB for a truly sharp corner); **Adaptive** widens the knee automatically on dynamic, peaky material — up to 2.5x the KNEE width — and stays at the KNEE width on already-dense material; **Custom** lets you draw the transition yourself. Choosing **Custom** reveals an explicit **EDIT** control — an EDIT pill under the KNEE TYPE selector (Advanced, CHARACTER panel) or an inline **[EDIT]** chip on the KNEE row (Expert) — that opens and closes the curve editor whenever you want; it never pops up on its own.

- **Range/units:** Hard / Soft / Adaptive / Custom; a new instance starts on Adaptive. Until you draw, Custom behaves like a hard knee.
- **In your music:** From surgical control to self-adjusting glue, or a fully custom transfer shape.
- **Pro tip:** In the CUSTOM KNEE editor, draw the curve across the knee width — drag points to move them, drag the line to bend it, double-click to add or remove points (up to 12), or start from the **LINEAR / SOFT / GRAB** presets. It closes on its close button, a click outside, Escape, clicking EDIT again, or switching the knee off Custom. Leave the knee on Adaptive for "set and forget" musicality; reach for Custom when you want a transfer curve nothing else can give you.

Envelope (Expert)

- **What it does:** Chooses how the detector level is turned into gain-reduction movement, modelled on different circuit families: **Linear RC** (plain attack/release), **FET Cell** (release slows down the longer the signal sustains), **Opto Cell** (a fast stage plus a slow "memory" tail that lingers after loud passages), **Bias Shift** (vari-mu style — the harder it compresses, the slower it recovers), **Custom** (drawable, see below) and **VCA** (an extra-fast initial grab behind the attack). Only in Expert, on the ENVELOPE row; every Style picks its own.
- **Range/units:** Linear RC / FET Cell / Opto Cell / Bias Shift / Custom / VCA; a new instance starts on Linear RC. Auto Release, when on, replaces the envelope's own release behaviour.
- **In your music:** The difference between a compressor that snaps, one that breathes, and one that "remembers" the loud chorus.
- **Pro tip:** Keep a Style's settings but swap only the envelope to hear how much of a compressor's personality lives in its timing behaviour.

Custom Envelope (Expert)

- **What it does:** In the Expert view, setting **ENVELOPE** to **Custom** reveals its own **[EDIT]** chip, opening the CUSTOM ENVELOPE editor that remaps the smoothed detector level (−60...0 dB in and out). Bend the diagonal to make the envelope lazy or grabby at different levels. Same gestures and **LINEAR / SOFT / GRAB** presets as the knee editor.
- **Range/units:** Drawable transfer curve; until you draw, Custom behaves exactly like Linear RC.
- **In your music:** Shape *how* the compressor rides different levels — gentler on quiet passages, grabbier on loud ones, or the reverse.
- **Pro tip:** Custom envelope characters **save, share and restore** like everything else — they ride along inside the user style and the character code.

Upward Floor (FLOOR)

- **What it does:** Limits how much lift quiet material can get when Direction is Upward or Both. The upward boost grows as the signal falls below the threshold — but only down to FLOOR dB below it; anything quieter gets no extra lift beyond that point. The most boost you can get is roughly $\text{FLOOR} \times (1 - 1/\text{ratio})$ — about 15 dB at the default 20 dB and 4:1. FLOOR mini knob in the Advanced DYNAMICS group; UPWARD FLOOR row in Expert.
- **Range/units:** 0 dB to 60 dB; default 20 dB.
- **In your music:** Stops upward compression from dragging room noise and hiss up without limit.
- **Pro tip:** If upward mode is pulling up hiss or bleed, *lower* the FLOOR to cap the boost; raise it when quiet passages need more lift.

Lookahead

- **What it does:** Adds latency so the detector sees transients before processing them (reported to the host for delay compensation). LOOKAHEAD mini knob in the Advanced TIMING group.
- **Range/units:** 0 ms to 10 ms; default 0 ms.
- **In your music:** Catches peaks cleanly without softening the attack.
- **Pro tip:** A small amount (1–3 ms) is gold for transient-heavy limiting; keep it at 0 for tracking when latency matters.

Link (stereo link amount)

- **What it does:** Stereo detection linking — 0 % = independent L/R, 100 % = fully linked (the loudest channel governs both); values in between blend. Ignored in Mid/Side, where Mid and Side always compress independently. LINK mini knob in the Advanced TIMING group; STEREO LINK row in Expert.
- **Range/units:** 0 % to 100 %; default 100 %.
- **In your music:** Lower preserves stereo movement; higher keeps a rock-solid centered image.
- **Pro tip:** On a wide stereo bus, back off slightly from 100 % to let the image breathe without the center wandering.

Input Trim (IN TRIM)

- **What it does:** Pre-compressor gain — drive into the compressor. It's a knob in Simple, a mini knob in the Advanced OUTPUT group, and the INPUT TRIM row in Expert. MATCH writes it automatically.
- **Range/units:** –24 dB to +24 dB; default 0 dB.
- **In your music:** Push the compressor harder/softer without changing perceived output (compensate with Output).
- **Pro tip:** This is your "hit it harder" knob on character Styles — drive in, then pull Output down to taste.

Makeup

- **What it does:** Wet-only gain applied **after** compression and saturation but **before** the dry/wet Mix; compensates for level lost on the wet path only. SMART and MATCH write this automatically. (Available in Advanced, as a mini knob in the OUTPUT group, and in Expert.)

- **Range/units:** -24 dB to +24 dB; default 0 dB.
- **In your music:** Restores wet-path loudness to match the dry signal — keeps parallel blends honest.
- **Pro tip:** Usually leave it where SMART/MATCH parked it; it's the key to a Mix knob that crossfades level *and* dynamics, not just volume.

Mix (Dry/Wet)

- **What it does:** Crossfades between dry (uncompressed) and wet (compressed) signal.
- **Range/units:** 0 % to 100 % (0 % = dry, 100 % = fully compressed); default 100 %.
- **In your music:** Mid values give parallel / New York compression — punch with retained dynamics.
- **Pro tip:** Compress *hard* (low threshold, high ratio), then pull Mix down to ~30–50 % for thickness without crushing the life out of the source.

Output (Output Trim)

- **What it does:** Final post-mix master output level; scales dry + wet together. In Simple this is the primary level control. SMART and MATCH park it at 0 dB.
- **Range/units:** -24 dB to +24 dB; default 0 dB.
- **In your music:** Set overall loudness without disturbing dry/wet balance or saturation character.
- **Pro tip:** Use Output for final gain-matching to the next plugin; use Makeup for the wet path alone.

SMART setup

- **What it does:** Click **SMART** (available in every view) to open the SMART SETUP popup. Choose a **SIGNAL TYPE**, a **COMPRESSION** amount and an **OUTPUT TARGET**, then click **LISTEN · 8 SEC** and play your track. Step 1 listens to your input for 3 seconds; step 2 measures the compressed output for 4 seconds. SMART then picks the Style for your signal type, writes Attack, Release, Knee width, Ratio and Threshold, sets OUTPUT to 0 dB, and writes Makeup to hit your output target. Your MIX is held at 100 % while it measures and put back afterwards. The popup shows a summary (In ... dB → Out ... dB · Makeup ... dB) and warns "*Match capped at ±24 dB — lower IN TRIM*" when the makeup would need more than ±24 dB. If it hears nothing, it says "*COULDN'T HEAR ANY AUDIO*" and lets you try again. One Undo reverts the whole SMART run.
- **Range/units:**
 - **SIGNAL TYPE:** Vocals, Drums, Bass, Acoustic Gtr, Electric Gtr, Synth/Keys, Bus, Master, Speech, Custom (Bus is preselected). Style it picks: Vocals and Acoustic Gtr → Vintage Opto, Drums and Electric Gtr → Punch FET, Bass → Tube Vari-Mu, Synth/Keys → Studio VCA, Bus → Bus Glue, Master → Mastering, Speech → Clean Modern. **Custom** keeps your current Style, Attack, Release, Knee and Ratio and only sets Threshold and Makeup.
 - **COMPRESSION:** 1–20 dB, from SOFT to EXTREME (5 dB preselected) — how much gain reduction SMART aims for on your peaks; more also raises the ratio and tightens the knee.
 - **OUTPUT TARGET:** SAME (match the input peak, preselected), 0, -3, -6 or -12 dBFS. The fixed targets keep 1 dB of extra headroom.
 -

Attack and Release land within a range typical for the chosen source, so two runs can come out slightly different. The popup remembers your last choices.

- **In your music:** One-click, hands-off compressor setup matched to your source.
- **Pro tip:** Play your *loudest, busiest* part during LISTEN so the analysis sees real peaks — then tweak from a great starting point. You can click LISTEN first and then start playback: it waits up to about 10 seconds for audio to arrive.

MATCH (Simple + Advanced pill)

- **What it does:** Two-step level match. Step 1 listens to your input for 3 seconds and sets IN TRIM so the compressor sees a healthy level (the body of the signal around -12 dBFS, peaks no hotter than -1 dBFS); step 2 measures the compressed output for 4 seconds and sets MAKEUP so the output peak matches the original input peak (net gain $\approx$ 0 dB). OUTPUT is parked at 0 dB; MIX is held at 100 % while measuring and then restored. The pill counts down while it listens. **Cmd/Ctrl-click or Alt-click** = level-only mode (adjusts MAKEUP only, leaves IN TRIM untouched).
- **Where:** Next to IN TRIM in Simple, and at the top right of the OUTPUT group in Advanced. In Expert, clicking the LEARN (AUTO-CLEARs) row runs the same match.
- **Range/units:** Momentary action. If no audio arrives, nothing is changed.
- **In your music:** Same loudness in, same loudness out — an honest, level-matched A/B against bypass.
- **Pro tip:** Run MATCH before you decide whether the compression is actually helping. Louder isn't better; matched is fair.

VIBE (one-click moves)

- **What it does:** Click **VIBE** (available in every view) to open five one-click moves that reshape the current settings:
 - **WARMER** — slower attack and release, a wider knee, more saturation drive and more Coupling.
 - **TIGHTER** — faster attack and release, a higher ratio, a harder knee.
 - **PUNCHIER** — attack set to 30 ms so transients escape, 50 ms of Hold, faster release, a bit more ratio and more REL MOD.
 - **OPEN** — 50 ms attack, slower release, 2:1 ratio, 8 dB knee.
 - **HARDER** — much faster attack, double the ratio, a hard knee, a touch more saturation drive, Hold off.
- **Range/units:** Momentary. Each move works on top of what's there, so clicking WARMER twice warms further; values always stay inside each control's range. Every click is one undo step.
- **In your music:** Quick, musical nudges without hunting for knobs — perfect in Simple, where Attack, Release and Ratio aren't on the panel.
- **Pro tip:** The saturation part of WARMER and HARDER only adds colour when a saturation type other than None is active — pick a Style with saturation (or set SAT TYPE) first.

SC HP (side-chain high-pass)

- **What it does:** High-passes the detector signal only (audio path untouched). HP knob in the SIDE CHAIN panel; SC HIGHPASS row in Expert.
- **Range/units:** 20 Hz to 500 Hz; default 20 Hz.
- **In your music:** Stops bass from pumping the compressor.
- **Pro tip:** On a full mix or drum bus, set SC HP around 80–120 Hz so the kick stops dragging the whole mix down.

SC LP (side-chain low-pass)

- **What it does:** Low-passes the detector signal only. LP knob in the SIDE CHAIN panel; SC LOWPASS row in Expert.
- **Range/units:** 2 kHz to 20 kHz; default 20 kHz.
- **In your music:** Stops cymbals/hiss from triggering reduction.
- **Pro tip:** Roll it down if bright transients are causing the compressor to react more than the body of the sound warrants.

Weighting (side-chain pre-emphasis)

- **What it does:** Applies an EQ curve to the detector only — **None** (flat), **Console** (takes the lows out of the detector below about 100 Hz — the bus-glue setting), **Vocal** (+6 dB presence lift around 3 kHz), **Kick** (+6 dB around 60 Hz). **Custom** currently behaves like None. WEIGHTING in the SIDE CHAIN panel; SC WEIGHTING row in Expert.
- **Range/units:** None / Console / Vocal / Kick / Custom; a new instance starts on None (Bus Glue switches it to Console).
- **In your music:** Tilts *what* the compressor listens to so it reacts to the right part of the spectrum.
- **Pro tip:** Use Vocal weighting to make the compressor follow the presence of a lead vocal rather than its lows.

Source (side-chain source)

- **What it does:** Internal = reacts to its own input; External = reacts to the host's side-chain input (falls back to internal if nothing is routed there). SOURCE in the SIDE CHAIN panel, SC SOURCE row in Expert — and in Simple, the **SC** pill under the meter does the same switch.
- **Range/units:** Internal / External; default Internal.
- **In your music:** Enables ducking one track from another (e.g., kick ducking a bass/pad).
- **Pro tip:** Route the kick to the side-chain input, set Source = External, and tune Release to the groove for classic pumping ducks.

Detector

- **What it does:** Level-detection mode — Peak (transient-accurate), RMS (averaged loudness), Hybrid (a mix of both), LUFS-S (K-weighted loudness, about 400 ms averaging), VU (slow, about 300 ms averaging like a classic VU meter). DETECTOR in the SIDE CHAIN panel.

- **Range/units:** Peak / RMS / Hybrid / LUFS-S / VU; a new instance starts on Hybrid.
- **In your music:** Choose snappy transient response vs. smooth loudness-based or metering-style detection.
- **Pro tip:** RMS, LUFS-S or VU for transparent mastering-style leveling; Peak for catching fast transients on drums.

Sidechain Listen (headphone button)

- **What it does:** The **SIDCHAIN LISTEN** headphone button in the open SIDE CHAIN panel replaces the output with the signal the detector hears — after SC HP/LP, Weighting and (with LUFS-S) the loudness filter — so you hear exactly what the compressor reacts to. Click again to return to normal.
- **Range/units:** On/off; always off when a session opens.
- **In your music:** Set the sidechain filters and Weighting by ear instead of by guesswork.
- **Pro tip:** Switch it off when you're done — while it's on you're not hearing your track.

Saturation (SAT TYPE)

- **What it does:** Selects the saturation model in the character stage, applied to the compressed (wet) signal only, so Mix still blends against a clean dry. Each model has its own tone: **Transformer** (low-end bloom, softened top), **Tube** (warm lows, airy top, asymmetric warmth), **FET** (leaner bass, forward presence, the firmest clipping), **Soft Clip** (neutral, clean soft limiting), **Tape** (low-end bump, gentle top roll-off, the softest saturation curve). SAT TYPE in the CHARACTER panel; SATURATION row in Expert.
- **Range/units:** None / Transformer / Tube / FET / Soft Clip / Tape; a new instance starts on None.
- **In your music:** Adds colour — iron, tube glow, FET bite, clean soft limiting, tape softness, or none for transparency.
- **Pro tip:** Pick the model first with Amount low, then push Amount to find the sweet spot. The level is partly compensated, so more drive won't blow up your output — but it still gets a little louder, so use MATCH or Makeup when you compare.

Amount (saturation drive)

- **What it does:** Drive into the chosen saturation model; 0 % bypasses the shaper. AMOUNT in the CHARACTER panel; the second SATURATION row (in %) in Expert.
- **Range/units:** 0 % to 100 %; a new instance starts at 0 % (double-clicking the knob resets it to 5 %).
- **In your music:** From subtle warmth to overt harmonic grit.
- **Pro tip:** A touch of Transformer + low Amount is the secret sauce on a bus — it "iron-glues" the mix together.

Bias (saturation asymmetry)

- **What it does:** Pushes the shaper curve off-axis to favour even vs. odd harmonics (the offset is removed again, so no DC shift). BIAS in the CHARACTER panel; SAT BIAS row in Expert.
-

Range/units: 0 % to 100 %; a new instance starts at 0 % (double-clicking the knob resets it to 10 %).

- **In your music:** More Bias = richer, tube-like even harmonics; less = cleaner, odd-harmonic edge.
- **Pro tip:** Nudge Bias up for vocal warmth; keep it low for a tighter, more transformer-style edge.

Coupling (saturation / GR coupling)

- **What it does:** How strongly the current gain reduction pushes the saturation drive. COUPLING in the CHARACTER panel; SAT COUPLING row in Expert.
- **Range/units:** 0 % to 100 %; default 30 %.
- **In your music:** Couples character to dynamics — the shaper bites harder on louder material, like classic transformer iron.
- **Pro tip:** Raise Coupling so saturation blooms only on the hits — clean in the quiet parts, gritty on the peaks.

Oversampling (OVERSAMP)

- **What it does:** Oversampling factor for the character/saturation stage. Whenever 2x or higher is selected, the oversampler stays in the path even with saturation on None, so the latency doesn't jump when you switch saturation on and off.
- **Range/units:** 1x / 2x / 4x / 8x; a new instance starts on 1x. Styles set it too: 2x for Punch FET, Vintage Opto, Bus Glue, Tube Vari-Mu and FET Brickwall; 1x for Clean Modern, Mastering and Studio VCA.
- **In your music:** Higher reduces aliasing from saturation at the cost of CPU and a small host-reported latency.
- **Pro tip:** Choose your Style first (it resets Oversampling), then bump to 4x or 8x on the master or when pushing heavy saturation.

ATK MOD (attack follows ratio)

- **What it does:** Makes the attack faster as the ratio goes up — at 100 % and high ratios the attack drops to roughly a fifth of the knob setting, the classic "all-buttons" FET grab. ATK MOD in the CHARACTER panel; ATK-RATIO MOD row in Expert.
- **Range/units:** 0 % to 100 %; a new instance starts at 0 % (double-clicking the knob resets it to 20 %). Styles set their own (Punch FET 70 %, FET Brickwall 90 %).
- **In your music:** The harder you squeeze, the harder it grabs — aggressive control that tightens up automatically.
- **Pro tip:** Leave it at 0 % for surgical work where the attack must stay exactly where you set it.

REL MOD (release follows gain reduction)

- **What it does:** Lengthens the release while the compressor is working hard — at 100 %, every 6 dB of gain reduction adds another full release time (6 dB $\approx$ twice as long). REL MOD in the CHARACTER panel; REL-GR MOD (STACKED) row in Expert.
-

Range/units: 0 % to 100 %; a new instance starts at 0 % (double-clicking the knob resets it to 20 %). Styles set their own (Vintage Opto 70 %, Tube Vari-Mu 50 %).

- **In your music:** Light compression recovers fast, heavy compression recovers slowly — the smooth "memory" of classic opto and vari-mu boxes.
- **Pro tip:** Raise it on vocals and buses for smoother recovery after loud phrases; keep it low on drums where you want every hit to release the same way.

Stereo Mode (STEREO)

- **What it does:** **L/R** = normal stereo compression; **Mid/Side** = the compressor works on Mid (center) and Side (stereo difference) as two independent channels, then decodes back to L/R. STEREO in the ROUTING panel; STEREO MODE row in Expert.
- **Range/units:** L/R / Mid/Side; default L/R.
- **In your music:** In Mid/Side, a loud center (vocal, kick, bass) no longer pulls the stereo sides down with it — and busy sides don't duck the center.
- **Pro tip:** Try Mid/Side on a full mix when heavy center elements make the whole stereo image pump.

Direction

- **What it does:** **Downward** = classic downward compression above threshold; **Upward** = boosts signals below threshold up toward it (capped by Upward Floor); **Both** = both at once. DIRECTION in the ROUTING panel.
- **Range/units:** Downward / Upward / Both; default Downward.
- **In your music:** Even out very dynamic material, or lift quiet passages instead of (or as well as) taming loud ones.
- **Pro tip:** Both with a sensible Upward Floor rescues uneven takes from both ends — quiet words come up, loud ones come down.

Topology & FF/FB Blend (Expert)

- **What it does:** **TOPOLOGY** sets where the detector listens: **Feedforward** (to the incoming signal — tends to grab) or **Feedback** (to the compressor's own output — tends to smooth, the classic vintage design). **FF/FB BLEND** works only with Feedback and crossfades between the two: 100 % = pure feedback, lower values mix in feedforward detection. Both rows are Expert-only.
- **Range/units:** Feedforward / Feedback (a new instance starts on Feedforward; Punch FET, Vintage Opto and FET Brickwall use Feedback). FF/FB BLEND 0 % to 100 %; default 100 %.
- **In your music:** The partial blend is a musical middle ground between a grabby modern compressor and a smooth vintage one.
- **Pro tip:** On a Feedback Style that feels a little too lazy, pull FF/FB BLEND down a touch for more grip.

Undo / Redo

-

What it does: The undo/redo arrows in the header step back and forward through your changes — up to 50 steps. A knob move, a menu pick, a drag on the display, a VIBE click, a whole SMART run or a whole MATCH each count as one step.

- **Range/units:** Up to 50 steps.
- **In your music:** Experiment freely — the last good setting is always one click away.
- **Pro tip:** Run SMART, tweak, and if you preferred SMART's version, undo back to it.

Default View (Settings)

- **What it does:** Chooses which view each new plugin instance opens in. Found in the Settings panel (gear icon).
- **Range/units:** LAST USED (default — reopen each instance in its last-used view), SIMPLE, ADVANCED, EXPERT. Machine-wide.
- **In your music:** Make every new instance start on the surface you actually work from.
- **Pro tip:** Power users: set it to **EXPERT** and every new instance in every DAW opens straight into the terminal-style parameter list.

Visual Feedback & Metering

THE_COMPRESSOR 2 is built to be *watched* — all metering is audio-driven, so it animates while audio plays:

- **SIMPLE:** a large analog **VU needle** — it swings left as gain reduction grows (the scale runs down to -20) and swings right when upward compression is lifting the signal.
- **ADVANCED:**
 - A live **Transfer Curve** that redraws as you change Threshold, Ratio, Knee width or Knee type — including your drawn Custom knee.
 - A **draggable Threshold line** (with a THRESH readout) and a small **knee handle** on the curve — drag it sideways to set the knee width.
 - **Scrolling input/output waveforms** (about 6 seconds of history) — the input behind, the compressed output in front; where they separate, the compressor is working.
 - A **gain-reduction ribbon** that hangs from the top of the display and reaches further down the more the compressor reduces, plus a live **GR** readout in dB.
 - **IN / OUT peak meters** with peak-hold markers at the right edge.
 - A fixed 0 to -36 dB scale.
- **EXPERT:** terminal-style **ASCII IN / GR / OUT meters** at the top (the GR bar swings left for reduction and right for upward boost), a parameter list that reflects the live state, and a status line at the bottom that reads "compressing" or "idle".

How to Use It — Real-World Workflows

Punchy Drum Bus

1. Style → **Punch FET** (or Studio VCA). Detector → Peak.
2. Attack short-to-medium, Release tuned to the groove; Ratio ~4:1.
3. Set SC HP ~80–120 Hz so the kick doesn't drag the whole bus down.
4. Restore level with Makeup, set final loudness with Output, and watch the gain-reduction ribbon grab on the hits.

Up-Front Vocals

1. Style → **Vintage Opto** (or a moderate-ratio soft-knee). Mix at 100 %.
2. SC HP ~100 Hz to stop plosives from pumping; Weighting → Vocal to follow the presence.
3. Turn on **Auto Release** for performances with shifting dynamics.
4. Aim for 3–6 dB of reduction on the loud phrases; tweak Threshold by dragging the line on the curve.

Mix-Bus Glue

1. Style → **Bus Glue**, Ratio low (~2:1), and aim for just 1–3 dB of reduction.
2. Bus Glue already brings Console weighting and a touch of Transformer saturation — nudge AMOUNT up for more iron, with COUPLING around 30 %.
3. Run **MATCH**, then Bypass A/B — if the mix sounds bigger *and* glued at equal loudness, you're done.

Mastering

1. Style → **Mastering** or **Tube Vari-Mu**. Detector → RMS, LUFS-S or VU.
2. Gentle Ratio, wide/Adaptive Knee, small Lookahead (1–3 ms). Oversampling 4x (after picking the Style).
3. Keep gain reduction subtle — watch the GR readout and the transfer curve to stay honest.

Parallel (New York) Punch

1. Compress hard: low Threshold, high Ratio, fast Attack.
2. Pull **Mix** down to ~30–50 % for thickness with retained dynamics.
3. Trust **Makeup** to keep the wet level honest under the blend.

Pro Tips & Creative Techniques

- **Let SMART start, then steer.** SMART nails timing, threshold, ratio, knee and makeup — your job is the last 10%.
- **Audition all eight Styles** without losing levels: Style never touches your threshold, trims, makeup, mix or output.
- **Nudge with VIBE.** Not sure which knob to grab? Click WARMER, TIGHTER, PUNCHIER, OPEN or HARDER — and undo if it's not the one.
- **Couple saturation to dynamics** — high Coupling means clean verses, gritty choruses, automatically.
- **Mid/Side for full mixes:** switch STEREO to Mid/Side so a heavy center doesn't pull the stereo width down with it.
- **Rescue uneven takes** with Direction = Both and an Upward Floor around 18–24 dB.
- **Duck like a pro:** Source = External, key from the host's sidechain (kick ducks a synth/pad), and tune Release to the groove.
- **Hear what it hears:** open SIDE CHAIN and press SIDECHAIN LISTEN while you set HP, LP and Weighting.
- **Learn by watching:** keep Advanced open and study the transfer curve, waveforms and gain-reduction ribbon as you tweak — it's the fastest way to *understand* compression.
- **Bottle your sound.** When a character nails a source, save it as a **user style** or copy its **code** — you'll recall (or send) that exact personality in seconds, curves and all.
- **Watch for the *.** A * on the STYLE display (**Bus Glue***) means you're hearing your own variation, not the factory character — dial the value back or undo and it clears.
- **Open the way you like.** Set a machine-wide **Default View** in Settings (LAST USED / SIMPLE / ADVANCED / EXPERT) so every new instance starts where you want.

Quick Start

1. Drop THE_COMPRESSOR 2 on a track (if it asks, log in with your philspeiser.com account).
2. Click **SMART**, pick your Signal Type (e.g., Vocals/Drums/Bus/Master), set the Compression amount and an Output Target.
3. Click **LISTEN · 8 SEC** and play the loudest part of your track.
4. Listen — it's already configured. Nudge **Threshold** for more/less compression and set loudness with **Output**.
5. Want a different flavour? Try a **VIBE** move, or switch to **Advanced** or **Expert** — your settings come with you.

Specs

- **Formats:** VST3, AU (macOS), AAX (Mac + Windows). No standalone version.
- **Plugin type:** Effect (dynamics compressor) with external sidechain input.
- **Window:** 900 × 560 px, scalable with the corner zoom handle (Settings → Reset Zoom returns to 100 %).
- **Views:** Simple / Advanced / Expert (settings preserved across all); machine-wide Default View selector (LAST USED / SIMPLE / ADVANCED / EXPERT).
- **Characters:** 8 factory styles + up to 20 machine-wide **user styles**; every character encodes to a shareable, typo-proof **text code** (checksummed), with drawable custom knee and envelope curves that save and travel inside styles and codes.
- **Saturation:** Transformer, Tube, FET, Soft Clip, Tape; oversampling 1x / 2x / 4x / 8x.
- **Languages:** tooltips in EN / DE / FR / ES / IT; built-in docs and AI assistant.
- **Undo:** up to 50 steps.
- **Latency:** Zero on a fresh instance; Lookahead and Oversampling at 2x or higher (which several Styles switch on) add a small latency that's reported to your DAW for automatic compensation.
- **Version:** 1.2.0.

Stuck, or found something this manual doesn't cover? Write to me at philspeiser.com/support. I answer support myself.