



Rivet

The Versatile FET Compressor

User Manual

GANUE Audio

Version 1.1

Free – no iLok, no activation

Character, by the input.

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1. Overview

Rivet is a free, **versatile FET compressor** by GANUE Audio – one plugin that covers a whole family of classic FET compressor sounds. It is built around the classic input-driven dynamics circuit: you set how hard the signal hits the front end with INPUT, choose a fixed compression ratio, and shape the feel with fast, reversed attack and release controls. Instead of a threshold knob, you drive the compressor into gain reduction – turning INPUT up compresses more.

What makes Rivet so versatile is **REVISION**: five selectable voicings (A / AE / LN / F / H), each modelled on a different generation of the FET-compressor family. One plugin is the gritty early sound, the warm, even-harmonic sound, and the clean modern sound in turn – a Swiss-army compressor that reaches for the right FET character on any source, from vocals and drums to bass, guitar, and the mix bus (Section 3).

On top of that core, Rivet adds a set of modern, optional tools: a DRIVE character control, a soft GR LIMIT ceiling (with a saturate-only AMP mode), parallel MIX, a full sidechain section (high-pass plus a four-band detector EQ, internal or external), three stereo topologies, and oversampling.

Key facts:

- Versatile: one plugin, five classic FET compressor voicings, gritty to clean.
- Formats: VST3 and AAX on Windows; VST3, Audio Unit (AU), and AAX on macOS.
- Free. There is no license key, no iLok, and no online activation.
- Runs on macOS and Windows, mono or stereo.
- Five compressor revisions selectable per instance, saved with presets.
- On-screen text is plain ASCII for maximum host compatibility.

This manual documents Version 1.1.

2. The sound

Rivet is a character compressor. Its job is not to be invisible – it is to give a track the fast, forward, slightly aggressive grab of a classic FET unit, with harmonic colour on tap.

Input-driven FET dynamics. There is no threshold control. You push level into the compressor with INPUT and make it up again with OUTPUT; the harder you drive it, the more it compresses. This is the behaviour of the classic FET design, and it is where Rivet’s attitude comes from.

Assay DSP Engine. Rivet’s dynamics were built with GANUE’s Assay DSP Engine: real reference units were measured in detail, then rebuilt from those measurements with original code and math. It is not a sample and not a clone – it is a model tuned to match the measured ratios, knee shapes, and time constants of the hardware family.

Five revisions. Rivet is really five compressors in one. The REVISION bank picks one of five voicings (A / AE / LN / F / H), each modelled on a different generation of the FET family – from the gritty, early **A** to the clean, modern **H**. Each revision changes both the harmonic colour and the compression feel. See Section 3 for the full rundown.

Ratios and the “All” mode. Five fixed ratio positions. On most revisions they are All, 20, 12, 8, and 4 (the **AE** revision prints All, 20, 8, 4, and 2 – see Section 3). The effective ratio runs a little under the printed number, and the knee hardens and comes on later as the ratio climbs: low ratios grab softly and early, All snaps. **All** is the all-buttons-in mode of the classic unit: the most aggressive, hard-knee sound, useful for slam and parallel effects.

Fast, reversed time controls. ATTACK and RELEASE are continuous, and – like the original hardware – they are reversed: fully clockwise (FAST) is the fastest setting. Attack runs from about 17 ms at the slow end down to roughly 0.1 ms fully fast; release from about 1.5 seconds down to about 70 ms. The very fast attack lets Rivet catch transients hard.

DRIVE character. DRIVE is Rivet’s harmonic colour axis, from Restraint to Drive. It adds harmonic saturation on top of whichever revision you pick. At 0 it leans on the revision’s own baseline colour; turn it up for more FET soft-clip that thickens and saturates. The colour stage is oversampled and anti-aliased. DRIVE is a single global control – it is mirrored on both channel strips, so moving one moves the other.

GR LIMIT (with AMP). A soft ceiling on the amount of gain reduction. Off by default; turn it up to cap how far the compressor can pull down, from about 20 dB at the loose end down to 0 dB (**AMP**) fully tight. At AMP the compressor stops reducing level altogether and passes the signal through the colour stage only – a saturate-only mode. A small amber lamp lights whenever the limiter is shaving.

A detector you can shape and hear. The sidechain has a high-pass filter and a four-band EQ (low shelf, two bells, high shelf) that act only on what the compressor listens to, never on the audio. You can feed the detector from the track itself or from an external sidechain bus, and you can solo the detector to hear exactly what is driving the compression.

Under a plugin analyzer. If you like to inspect plugins in an analyzer, everything you will see is deliberate:

- The baseline harmonic colour depends on the revision (Section 3): the clean revisions (F, H) read a hundredth of a percent of THD at rest, the coloured ones (A, LN, AE) more. Turning DRIVE up adds harmonic content on purpose.
- At the default 2x oversampling, the nonlinear colour stage is anti-aliased; the detector and gain reduction run at the base rate. Even at the most coloured revision the aliasing and DC stay far down – the colour is harmonics, not noise. The one product you can find is gain-modulation aliasing from very loud top-end content (a 19 kHz tone at -6 dBFS reads about -89 dBc at 44.1 kHz). The optional **Detector OS** setting (Section 10.1) moves the detector inside the oversampler and pushes it down to about -105 dBc.
- Reported latency matches the measured delay. With oversampling Off the latency is zero; at 2x and above it is the oversampling filter’s group delay, reported to the host and shown in the kebab

menu. The oversampling filters are minimum-phase IIR (lowest latency), so the phase trace bends near Nyquist rather than being linear-phase.

3. The five revisions

Rivet's versatility lives here: it is five compressors in one. The **REVISION** bank to the right of each VU selects the voicing – A / AE / LN / F / H – each modelled on a different generation of the FET-compressor family with the Assay DSP Engine. Reach for one plugin and pick the FET character the track wants. Changing revision changes up to three things at once:

- the **harmonic colour** that is present even before you add DRIVE,
- the **compression curve** – how the ratios bend and how hard the knee is, and
- on the AE revision, the **printed ratio set**.

The revision is a sound choice, so it is stored in presets and in your session, and the panel colour changes with it. It is set from the panel (the REVISION bank), not the kebab menu. All five share the same controls, sidechain, oversampling, and metering; only the voicing changes, and DRIVE still adds colour on top of whichever revision you choose.

Pick by ear – but as a map, left to right on the panel:

A – gritty and early. The earliest, most aggressive voice. Odd-harmonic FET bite over the softest, earliest-onset ratios of the set: it starts grabbing gently but colours with an edge. Silver panel with a blue band. Reach for it on rock vocals, snare, and anything that wants attitude.

AE – the most coloured. A rich, refined even-harmonic (second-harmonic) warmth – the fullest colour of the five, but musical and smooth rather than harsh – over a moderate compression curve. Black panel with a blue band. AE also carries a lower printed ratio set (All / 20 / 8 / 4 / 2) for gentler, glue-style ratios. Use it when you want thick, warm analog colour: fat bass, drum bus, saturated glue.

LN – warm and smooth. The lower-noise, warm voice: even-harmonic warmth (gentler than AE) over the softest, widest-knee compression of the set. It eases into gain reduction and stays smooth. Black panel, no band. The all-rounder for vocals, bass, and bus glue when you want warmth without grit.

F – modern and tight. Essentially clean at rest (odd-harmonic FET character only when you push it), with the tightest, fastest-clamping ratios and the hardest knees of the set. Black panel, no band. Use it for precise, transparent control: modern vocals, transient-heavy sources.

H – clean and neutral (default). The cleanest, most neutral voice, and Rivet's default. The silver top-of-the-line generation: a clean, controlled compression curve and the lowest baseline colour of the five. Silver panel, no band. The reference starting point – compression without an obvious fingerprint.

A quick way to think about it: **A** and **AE** are the coloured, characterful end (blue-band panels), **H** is the clean reference, **F** is the clean-but-tight modern option, and **LN** sits in the middle – warm and smooth.

4. Quick start

4.1 System requirements

- **macOS 11.0 (Big Sur) or later.** Universal binary – runs natively on both Apple Silicon and Intel Macs.
- **Windows 10 or later (64-bit).**
- A 64-bit VST3, Audio Unit, or AAX (Pro Tools) host.

4.2 Install

Copy the plugin to the standard folder for your system and format, then rescan in your DAW.

macOS

- VST3: /Library/Audio/Plug-Ins/VST3/Rivet.vst3 (or ~/Library/Audio/Plug-Ins/VST3/ for the current user only)
- AU: /Library/Audio/Plug-Ins/Components/Rivet.component (or ~/Library/Audio/Plug-Ins/Components/ for the current user only)
- AAX: /Library/Application Support/Avid/Audio/Plug-Ins/Rivet.aaxplugin

Windows

- VST3: C:\Program Files\Common Files\VST3\Rivet.vst3
- AAX: C:\Program Files\Common Files\Avid\Audio\Plug-Ins\Rivet.aaxplugin

Note for macOS users. This build is ad-hoc signed rather than notarized by Apple. In normal use the plugin loads without complaint, but if your DAW does not see it after a rescan, macOS may have quarantined the download. Clearing that flag in Terminal resolves it:

```
xattr -dr com.apple.quarantine "/Library/Audio/Plug-Ins/VST3/Rivet.vst3"  
xattr -dr com.apple.quarantine "/Library/Audio/Plug-Ins/Components/Rivet.component"
```

4.3 First sound

1. Insert Rivet on a channel in your DAW.
2. Play audio through it. At the defaults Rivet is in GR-metering rest state with no gain reduction (INPUT and OUTPUT at 0, ratio 4, revision H).
3. Turn **INPUT** up until the VU shows a few dB of gain reduction, then bring **OUTPUT** up to match the loudness. That is the whole loop: drive in, make up out.
4. Try a different **REVISION** (A / AE / LN / F / H) to hear the five voicings on your source (Section 3).
5. Try a factory preset (see Section 12) to hear the compressor working, then adjust to taste.



Rivet at its default (Init) settings, stereo (wide) view.

5. Signal flow

Each channel strip runs the same path. Reading in processing order:

```
INPUT TRIM --> INPUT (drive) --> [ detector: SC HPF + SC EQ ]  
--> gain reduction (RATIO, ATTACK/RELEASE, GR LIMIT)  
--> DRIVE (colour, oversampled) --> OUTPUT (make-up)  
--> MIX (parallel dry/wet) --> OUTPUT TRIM
```

- **INPUT** drives the signal into the compressor; there is no threshold. The detector listens to a filtered copy (SC HPF and the four-band SC EQ affect detection only, never the audio).
- **RATIO, ATTACK/RELEASE, and GR LIMIT** set how much gain reduction is applied and how it moves. **REVISION** sets the shape of that reduction and the baseline colour.
- **DRIVE** adds harmonic colour after compression (this is the stage that is oversampled).
- **OUTPUT** makes up level; **MIX** blends the compressed, coloured signal back against the clean input for parallel compression.
- **INPUT TRIM** and **OUTPUT TRIM** in the general section are global level trims around the whole strip.

The VU (gain reduction) and the general-section IN / GR / OUT bar meters are metering taps, not processing stages.

6. The header

The header runs across the top of the plugin. The GANUE AUDIO brand sits on the left; preset management sits in the middle; the kebab (three-dot) button sits on the right.

6.1 Presets

- **Preset name** – click to open the preset list (factory presets grouped by category, with any user presets alongside).
- **◀ / ▶** – step to the previous / next preset.

On recall a preset first resets every control to default, then applies its stored values, so each preset is a complete, repeatable starting point. A preset also selects a **revision** (shown in its name, e.g. “Vocal Smooth (Rev H)”). The stereo mode and the view settings (oversampling, Detector OS, UI scale, display mode) are never stored in a preset. See Section 12 for the factory list.

6.2 Kebab menu

The three-dot button opens the options menu:

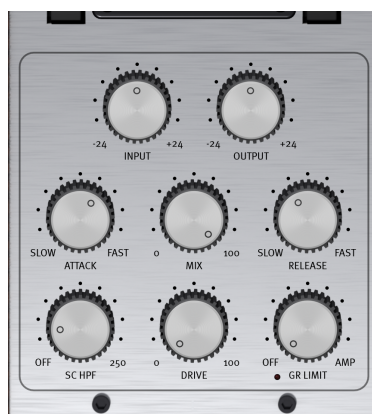
- **About line** – shows the product name and version (“Rivet 1.1.0”).
- **Display** – choose the general-section screen: Comp Curve, GR History, or SC EQ (see Section 9).
- **UI scale** – discrete scaling at 100%, 125%, 150%, 175%, and 200%.
- **SC input** – Internal or External (SC bus) (see Section 8).
- **Look (detection)** – shift the detector earlier or later than the audio (look-ahead / look-behind) (see Section 8.4).
- **Oversampling (Realtime)** – Off / 2x / 4x / 8x (default 2x; see Section 10).
- **Oversampling (Offline)** – Same as Realtime / Off / 2x / 4x / 8x.
- **Detector OS** – Off / On (default Off; see Section 10.1).
- **Latency** – an information line showing the current reported latency in samples.

The revision is chosen on the panel (the REVISION bank), not here. There are no web links in the menu; this manual ships alongside the plugin in the download.

7. Section reference

This section documents every control, with its range, unit, and default. All per-strip controls exist on both channel strips. The main controls are black knobs with a slotted skirt and a raised, spun-aluminium cap; the small printed ring near the edge of the cap is the pointer.

Drag a knob up or down to turn it, or roll the mouse wheel over it; double-click a knob to return it to its default. For fine adjustment, hold **Ctrl** (Windows) or **Cmd** (macOS) while dragging or rolling the wheel: the knob then moves in exact steps of 0.1 dB (INPUT, OUTPUT and the IN / OUT trims), 0.1 ms (ATTACK), 1 ms (RELEASE), 1 % (MIX, DRIVE), 1 Hz (SC HPF) and 1 dB of ceiling (GR LIMIT), one step per wheel notch. You can press or release the key in the middle of a drag.



The per-strip control rack: INPUT / OUTPUT, ATTACK / MIX / RELEASE, SC HPF / DRIVE / GR LIMIT.

7.1 RATIO, the VU, and REVISION

To the left of each VU is the **RATIO** button bank; to the right is the **REVISION** bank. Each bank is a column of five latching push-buttons that share one slot in the panel. Click a button to select it: it latches in (it sits lower and a little darker than the others) and its label turns bold. Exactly one button per bank is latched at a time.

Control	Options	Default
Ratio	ALL / 20 / 12 / 8 / 4	4
Revision	A / AE / LN / F / H	H

- **RATIO** selects the fixed compression ratio. **ALL** (the top button) is the all-buttons-in mode – the most aggressive, hard-knee sound, for slam and parallel effects. On the **AE** revision the printed set is ALL / 20 / 8 / 4 / 2 (see Section 3).
- **REVISION** selects the compressor's voicing – five models of the FET family, A / AE / LN / F / H. It changes the harmonic colour and the compression curve, and the panel colour changes with it. This is a sound choice and it is saved with presets. See Section 3 for the full breakdown.
- The **VU** shows **gain reduction** – an authentic analog-style meter (about 285 ms integration). The face sits in a deep window behind glass and is lit from inside by a single hooded lamp under the lower edge of the window, so the lower part of the face is brighter and the needle casts a short shadow that fades out near the scale arc. When the plugin is powered off (the general-section rocker), the lamp goes out: the face dims to its off state and the needle shadow disappears. (The general section also has separate IN / GR / OUT bar meters; see Section 7.8.)



RATIO bank, the gain-reduction VU, and the REVISION bank.

7.2 INPUT and OUTPUT

Control (caption)	Range	Unit	Default
INPUT	-24 to +24	dB	0
OUTPUT	-24 to +24	dB	0

- **INPUT** drives the signal into the compressor. Because Rivet is input-driven, this is your main compression control: more input, more gain reduction.
- **OUTPUT** is the make-up gain that brings the level back after compression.

7.3 ATTACK and RELEASE

Control (caption)	Range	Default
ATTACK	SLOW to FAST	centre
RELEASE	SLOW to FAST	centre

- Both controls are **reversed**: turning toward **FAST** (fully clockwise) is the fastest setting.
- **ATTACK** runs from about 17 ms (SLOW) to roughly 0.1 ms (FAST).
- **RELEASE** runs from about 1480 ms (SLOW) to about 67 ms (FAST).
- While you turn either knob its live readout shows the actual time – microseconds (us) below 1 ms, then milliseconds – not a percentage.
- The attack applies while the compressor is grabbing and the release while it recovers; that asymmetry is what gives the compressor its feel.
- The release recovers in **two stages**: a faster stage that the RELEASE knob moves directly, and a slow tail of a few seconds that sits underneath it. Turning toward FAST speeds up the fast stage and also reduces how much of the recovery the slow tail carries, so the two ends of the dial differ in character, not only in speed. The ms figure quoted above and in the knob readout is the single-pole-equivalent time – what a single-exponential measurement reads back off that two-stage recovery.

7.4 MIX

Control (caption)	Range	Unit	Default
MIX	0 to 100	%	100

- **MIX** blends the compressed, coloured signal against the clean input for parallel (“New York”) compression. 100% is fully processed; lower values keep more of the dry signal.

7.5 SC HPF

Control (caption)	Range	Unit	Default
SC HPF	20 to 250	Hz	20

- **SC HPF** high-passes the detector sidechain so low frequencies drive the compressor less. At the far-left position (20 Hz) it reads **OFF**. It affects detection only, never the audio. (For the full detector EQ, see Section 8.)

7.6 DRIVE

Control (caption)	Range	Unit	Default
DRIVE	0 to 100	%	0

- **DRIVE** is the harmonic colour control (Restraint to Drive). It adds saturation on top of the current revision's baseline colour; turn it up for more FET-style saturation.
- DRIVE is a single **global** control shared by both channel strips – moving one strip's DRIVE moves the other. The colour stage is oversampled.

7.7 GR LIMIT

Control (caption)	Range	Unit	Default
GR LIMIT	OFF to AMP	dB (ceiling)	OFF

- **GR LIMIT** sets a soft ceiling on how much gain reduction the compressor can apply. At the far-left position it reads **OFF**. Turn it up to tighten the ceiling, from about 20 dB (loose) down toward 0 dB, with a soft knee.
- At the fully clockwise end the ceiling reaches **AMP** (0 dB): gain reduction is clamped to zero, so the compressor stops reducing level entirely and the signal passes through the DRIVE / colour stage only. Use AMP to run a revision purely as a FET saturation stage – character without compression.
- The amber lamp beside the caption lights whenever GR LIMIT is actively holding the reduction back.

7.8 General section (right)

The general (master) section runs down the right side.

Control	Range	Unit	Default
IN trim	-18 to +18	dB	0
OUT trim	-18 to +18	dB	0
Stereo mode	Stereo / Summed S/C / Dual Mono / Mid-Side	–	Stereo
Power (rocker)	on / off	–	on

- **IN** and **OUT** are global level trims around the whole strip (white-cap knobs with a centre-0 scale).
- The **Stereo** dropdown selects the processing topology (see Section 11). It appears on stereo tracks.
- The **power rocker** is the plugin's click-free bypass / power switch. When off, the panel dims: the VU lamps go out (off face, no needle shadow), the screens darken, and the power lamps dim.
- The **+48V / +16V / -16V** lamps are decorative power-rail indicators. They light when the plugin is powered and dim when it is bypassed; they carry no audio function (they are not phantom power or voltage controls).

- The three **IN / GR / OUT** bar meters show input level, gain reduction, and output level on recessed screens. Level meters read -60 to +6 dB with a clip light and peak-hold (click a meter to clear the clip and hold); the GR meter reads 0 to 20 dB. On linked stereo the IN/OUT meters split L/R with a single linked GR bar; in Dual Mono and M/S every meter splits.



The general section: brand, display screen, IN / GR / OUT bar meters, IN / OUT trims, Stereo dropdown, power rocker, and rail lamps.

8. Sidechain

Rivet's detector (the signal that decides how much to compress) has its own high-pass filter and a four-band EQ. These shape only what the compressor listens to – the audio you hear is never EQ'd by them.

8.1 SC HPF

The **SC HPF** knob (Section 7.5) high-passes the detector from 20 Hz (OFF) up to 250 Hz, so bass drives the compressor less and the low end stays open.

8.2 SC EQ (four bands)

A fixed four-band detector EQ. Each band has a frequency and a gain (-12 to +12 dB, 0 = off). A band is active only when its gain is non-zero.

Band	Type	Freq range	Freq default
1	Low shelf	30 to 300 Hz	80 Hz
2	Bell	100 to 2000 Hz	300 Hz
3	Bell	500 to 8000 Hz	1500 Hz
4	High shelf	2000 to 18000 Hz	6000 Hz

Each band also has a **Q** (0.1 to 24.0), set with the mouse wheel over that band's dot on the SC EQ page - hold **Shift** for a finer step, and **Alt + double-click** the dot to put its Q back to the default. Low Q is a broad, gentle tilt; high Q is a narrow notch or peak, which on a shelf becomes a corner resonance. The default Q is the value Rivet used before it was adjustable, so nothing changes until you move it.

Boosting a band makes the compressor more sensitive to that range (for example, a high-shelf boost turns the detector into a de-esser); cutting a band makes it less sensitive there. You edit the SC EQ on the **SC EQ** display page (Section 9.3), where each band is a draggable dot over a spectrum of the detector feed.

8.3 Internal or external detector

By default the detector listens to the track itself (Internal). Choose **SC input -> External (SC bus)** in the kebab menu to feed the detector from an external sidechain bus instead, and route a source to Rivet's sidechain input in your DAW. On the SC EQ page an **EXT** tab toggles the same setting, and a **SOLO** tab lets you monitor the detector feed so you can hear exactly what the compressor is reacting to.

8.4 Look (detector timing)

The **Look (detection)** submenu in the kebab menu shifts the detector in time relative to the audio, so the compressor can react early or late: **Off**, **Behind 5 ms**, **Behind 10 ms**, **Ahead 5 ms**, **Ahead 10 ms**, or **Ahead 20 ms**. Like oversampling it is a config choice, not host-automatable.

- **Off** (default) – detector and audio are aligned; the compressor reacts as the transient arrives.
- **Look-Ahead** (Ahead 5 / 10 / 20 ms) – the detector sees the signal before the audio, so gain reduction is already in place when a transient hits. This catches fast peaks cleanly, with fewer overshoots. It delays the audio by the chosen time, so it **adds latency** (reported to the host) – use it for mixing and mastering, not for live tracking.
- **Look-Behind** (Behind 5 / 10 ms) – the detector is delayed behind the audio, so gain reduction lags slightly and more of the initial transient gets through before the compressor clamps, for a punchier, more open attack. It adds **no latency**.

In short: look-ahead trades latency for cleaner peak control; look-behind keeps zero latency and lets transients punch through. Either way the parallel MIX dry path stays time-aligned.

9. Display screen

The general-section screen has three modes. Choose one from the kebab menu (**Display**); the screen updates immediately.

9.1 Comp Curve

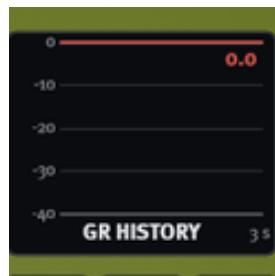
The static input-to-output transfer curve, drawn from the same model the DSP uses, with a live amber dot showing the current operating point. Because Rivet is input-driven, there is no threshold marker; the GR-LIMIT ceiling is drawn as a plateau when engaged (a flat line at AMP). The curve follows the selected revision.



Comp Curve.

9.2 GR History

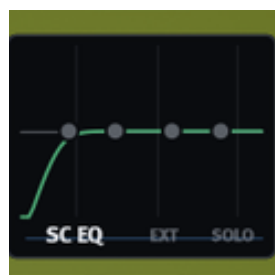
A three-second scrolling history: the input envelope plus the gain-reduction trace (red), on a 0 to -40 dB scale. Good for watching how the compressor moves over time.



GR History.

9.3 SC EQ

A spectrum of the detector feed (“what the compressor hears”) with the combined SC HPF and four-band SC EQ curve overlaid. Drag the four band dots to set frequency and gain, and roll the mouse wheel over a dot to set that band’s Q (Shift = fine). Double-click a dot to reset its gain to 0; Alt + double-click resets its Q. A readout under the graph shows the value you are changing. The **EXT** and **SOLO** tabs (Section 8.3) live here.



SC EQ (detector spectrum + curve).

10. Oversampling

Oversampling runs the nonlinear DRIVE colour stage at a higher internal sample rate to reduce aliasing. The detector and gain reduction stay at the base rate, and a matched dry path keeps the parallel MIX phase-coherent. Oversampling is set from the kebab menu and is not automatable, because changing it changes the plugin's latency.

Setting	Options	Default
Oversampling (Realtime)	Off / 2x / 4x / 8x	2x
Oversampling (Offline)	Same as Realtime / Off / 2x / 4x / 8x	Same as Realtime

- The **realtime** setting applies during normal playback. The default is 2x, which is the shipped sound.
- The **offline** setting applies during bounce/render. “Same as Realtime” keeps the realtime quality; choose a higher setting for cleaner renders.
- With oversampling **Off** the latency is zero. At 2x and above the plugin reports the oversampling filter's group delay to the host (shown in the kebab “Latency” line). The filters are minimum-phase (lowest latency). Switching the setting crossfades through silence, so it never clicks.

10.1 Detector OS

By default the detector and the gain reduction run at the base sample rate. On very loud high-frequency content the detector follows the waveform itself, and that fast ripple in the gain folds back into the audible band as a faint aliasing product. **Detector OS** (kebab menu, Off / On) runs the detector and the gain reduction inside the same oversampler as the colour stage, so that ripple is filtered instead of folded back.

	19 kHz at -6 dBFS, OS		
Detector OS	2x, 44.1 kHz	48 kHz	CPU (2x, 44.1 kHz)
Off (default)	about -89 dBc	about -93 dBc	about 0.6 % of one core
On	about -105 dBc	about -98 dBc	about 0.8 % (+0.2 %)

- **Default Off** – Off is the v1.1.0 sound, bit for bit. Existing sessions and presets are unchanged.
- **No latency change** – Detector OS uses the oversampler that is already running, so the reported latency stays the same.
- **Needs oversampling** – at Oversampling Off there is nothing to run inside, so Detector OS has no effect.
- **Sound** – the compression itself is the same; the 1 kHz harmonic levels move by less than a quarter of a dB.
- **48 kHz residual** – at 48 kHz a small product near 19 kHz stays at about -98 dBc with Detector OS on, because the detector's 38 kHz ripple (twice a 19 kHz tone) has a 5th harmonic at 190 kHz that still folds back at 2x and 4x. Oversampling 8x removes it (about -124 dBc) at the cost of 8x's extra latency and CPU.
- **Follows the effective oversampling mode** – Detector OS runs inside whichever oversampling mode is active at the moment: the Realtime setting during playback, the Offline setting during a bounce. With Realtime Off and Offline 2x, for example, it takes effect only in the bounce.
- **Switching** – turning Detector OS on or off crossfades through a short silence (about 3 to 8 ms), the same as changing the oversampling mode, so it never clicks.
- Like oversampling, Detector OS is saved with the session, is not stored in presets, and is not host-automatable.

11. Stereo modes

On stereo tracks the general-section dropdown selects one of four processing topologies:

- **Stereo** (default) – linked, Classic Linked detector law. One detector drives both channels together, and the left strip's controls drive both. The detector takes the louder of left/right (each channel rectified separately, then combined by max), so a loud transient on either side triggers the same shared gain reduction. The stereo image stays centred. The right strip mirrors the left.
- **Summed S/C** – linked, like Stereo, but with a different detector law: left and right are summed before rectifying (a single shared Mid-only detector), instead of taking the louder channel. This makes the detector blind to out-of-phase Side content – content that is strong on one channel but cancels in the sum drives the compressor less than it would under the default Stereo law. Both strips still share the one detector and the one gain reduction; only the law that builds the detector signal changes.
- **Dual Mono** – independent. The left strip processes the left channel and the right strip processes the right, each with its own controls and its own detector.
- **Mid-Side** – the signal is encoded to Mid and Side; the left strip processes Mid and the right strip processes Side, then it is decoded back to left/right. Use it to compress the centre and the sides differently.

In Dual Mono and Mid-Side the two strips are fully independent, and the channel labels read L/R or M/S accordingly. Stereo and Summed S/C keep the two strips linked (only the detector law differs between them). On mono tracks Rivet shows a single strip. The revision is global across all four modes.

12. Presets

Use the header buttons to step through presets (Section 6.1). Factory presets are grouped by category; your own saved presets sit alongside them. Each factory preset also selects a revision, shown in its name in parentheses (for example “Snare Crack (Rev A)”).

Factory starting points (from `Source/GUI/FactoryPresets.h`):

Vocal: Vocal Level, Vocal Smooth, Vocal Aggressive, Vocal Warm Drive, Modern Vocal, Backing Glue

Drums: Snare Crack, Snare Fat, Kick Punch, Room Smash, Overhead Glue, Parallel Punch

Bass: Bass Level, Bass Sustain, Bass Grit, Fat Bass

Guitar: Rhythm Guitar, Guitar Sustain, Acoustic Clean

Bus: Bus Glue, Drum Bus, Mix Glue 2-Bus

Master: Master Gentle, Master Transparent

FX: All Buttons Slam, Pump, Lo-Fi Crush, Explode Parallel

Sidechain: SC De-Ess, SC Kick Focus, SC Presence

These are starting points, not finished settings – adjust to your source.

13. Specifications, credits, and license

Specifications

- Formats: VST3, AAX (Windows and macOS); AU (macOS).
- Platforms: macOS 11.0 or later (Universal – Apple Silicon and Intel); Windows 10 or later (64-bit).
- Compressor revisions: five (A / AE / LN / F / H), selectable per instance.
- Channels: mono and stereo (Stereo, Summed S/C, Dual Mono, or Mid-Side on stereo tracks).
- Sidechain: internal or external bus; detector high-pass plus four-band EQ; look-ahead / look-behind detector timing.
- Oversampling: up to 8x, separate realtime and offline settings.
- UI scaling: 100% to 200% (discrete).

Credits

- Rivet is designed and built by GANUE Audio.
- Dynamics modelled with the GANUE Assay DSP Engine (measured, then rebuilt).
- Beta testing and revision feedback: Mars (MDL Records).

License

Rivet is free. There is no license key, no iLok, and no activation. You may use it in personal and commercial productions. All panel and control artwork is original.

Character, by the input.