



fComp

Multi-Mode Compressor
Plugin

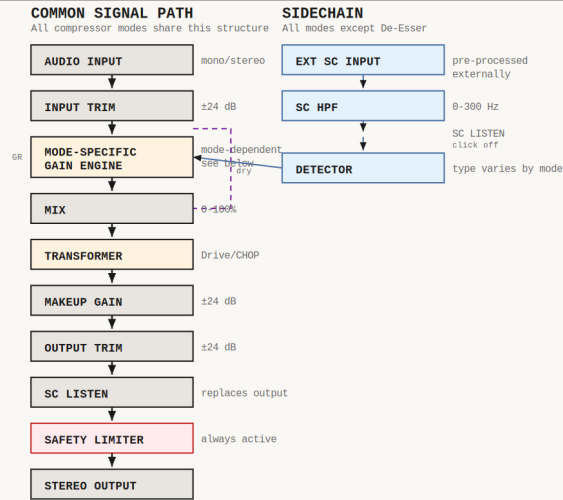
Product Manual

Build 1.0

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fboxaudio.com

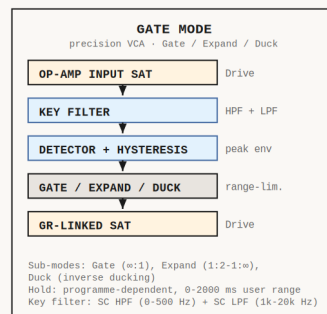
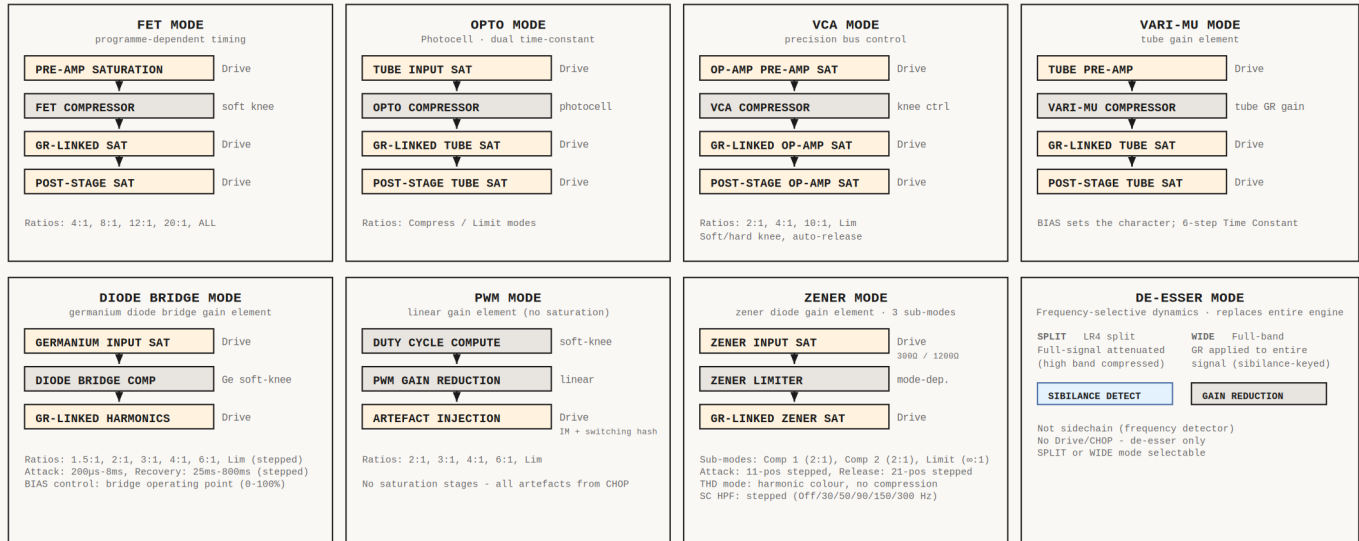
fComp - SIGNAL FLOW

FET · OPTO · VCA · VARI-MU · PWM · DIODE BRIDGE · ZENER · DE-ESSER · GATE



MODE-SPECIFIC GAIN ENGINES

Each mode replaces the gain engine block in the common path above. All other stages are shared.



LEGEND



NOTES

1. Drive stages bypass when Drive is OFF (FET/Opto/VCA/Vari-Mu/Diode Bridge/Zener/Gate).
2. PWM has no Drive - CHOP (0-100%) scales artefacts + transformer + noise.
3. De-Esser has its own detector. Does not use the shared SC path.
4. Every mode is fully analogue-modelled - there is no clean digital mode.
5. Safety limiter is always active in all modes.
6. Transformer voicing differs per mode: each has its own character.
7. Timing and detection are voiced per mode, each with its own feel.
8. Diode Bridge + Zener: all time/ratio controls are stepped selectors (hardware-accurate).
9. Zener THD mode: bypasses gain reduction, runs signal through elevated saturation + HF bump.
10. Gate: key filters (HPF+LPF), hysteresis, hold, range limiting. Duck = inverse gate for sidechain ducking.

What fBox Is

fBox is a complete analogue mixing ecosystem - individual plugins, a universal rack processor, and a full 32-channel mixing console with built-in tape machine - built around a single idea: every piece of hardware that ever left a factory floor had its own personality, and your plugins should too.

Most plugin companies model hardware. They pick one unit, capture it as accurately as they can, and sell that one model to everyone. Your copy is identical to mine. The compressor on your kick is the same compressor on your vocal. It has always worked this way - and it is the reason in-the-box mixes sound in the box.

fBox is built on the opposite principle. Every plugin instance carries a unique serial-seeded analogue character, generated the moment it is created. Load three fComps in one session and you have three different compressors, each with its own voice. That serial is fixed to the instance forever - it never resets, and it travels with the session.

The choice is yours. Open a fresh instance whenever you like and it is a different unit with its own voice - or find one you love and keep it. Save it, recall it, and mix through it for as long as you like: the same character, every time. Learn how it sounds and it becomes an instrument you know. And a unit you keep is yours alone - its serial exists on no one else's machine, the same way a piece of hardware you buy is one specific unit and no other. Bought once, owned permanently, no subscription.

This is not emulation. This is character at the instance level.

What fComp Is

fComp is a multi-mode mono/stereo compressor. It offers nine modes - FET, Opto, VCA, Vari-Mu, PWM, Diode Bridge, De-Esser, Zener, and Gate - each with an analogue-modelled signal path, output transformer colour, and optional drive saturation (or the CHOP knob in PWM mode), all designed to behave like a piece of hardware. fComp always works with analogue-style behaviour; there is no digital mode.

The Drive toggle adds harmonic saturation and transformer shaping that increase with how hard you push the unit - from subtle warmth at gentle settings to obvious analogue character when driven hard. Each mode has its own drive character: FET saturation in FET mode, tube saturation in Opto and Vari-Mu modes, clean op-amp saturation in VCA mode, germanium diode saturation in Diode Bridge mode, and zener diode saturation in Zener mode. PWM mode replaces the Drive toggle with a continuous CHOP knob (0-100%) that scales its character from transparent to full vintage broadcast.

Every instance of fComp generates a unique serial number that defines its hardware character - the specific set of manufacturing tolerances that make this unit sound like this unit and no other. No two instances sound exactly alike, just like no two real compressors do.

fComp is part of the fBox ecosystem and shares the same analogue-modelling approach as the fBox Console, Rack and the rest of the range. It registers as an effect, works on mono or stereo tracks, and every parameter is fully automatable from your DAW.

Note: *fComp is not DAW-only. Use it as an insert in the fBox Console, in the dawless fBox Console Standalone, or in a slot in the fBox Rack - the serial and everything you set is saved with whichever session you are in.*

Getting Started

Sound working in two minutes

1. Insert fComp on a track in your DAW - or on a channel or bus in the fBox Console, the dawless Console Standalone, or a slot in the fBox Rack.
2. Pick a mode from the Mode selector - FET is a good all-rounder to start with.
3. Pull the Threshold down until the gain-reduction meter shows a few dB of movement on the loudest parts.
4. Set Attack and Release to taste, then use Makeup (or the Gain Match button) to bring the level back and A/B against bypass.

If you hear nothing, check the Mode is set to a compressor (not De-Esser) and that Bypass is off.

Tip: Start with Ratio at 4:1, Threshold around -16 dB, and adjust from there. Aim for 2 to 6 dB of gain reduction for gentle control - watch the meter to see how hard it is working.

New to compression?

The short version: Threshold sets how loud a signal has to be before the compressor starts working, Ratio sets how hard it clamps down once it does, and Attack and Release set how fast it grabs and lets go. Start with a low ratio and a few dB of gain reduction, get that sounding natural, then reach for the character controls. Each mode is a different flavour - FET is fast and punchy, Opto is smooth and forgiving, VCA is precise and clean, Vari-Mu is warm and gluey - and each keeps its own settings, so switching mode never loses what you dialled in.

Interface

The main panel shows the controls for the current mode - the primary knobs (threshold, ratio, timing) along the top and the shared controls (mix, stereo link, mid/side, sidechain and the trims) below. The gain-reduction meter, the serial number and the watermark sit along the bottom, and switching mode changes the panel to match. The window opens at Medium; the Size button offers Small (75%), Medium (100%) and Large (150%).

Across the top

Control	What it does
Mode	Choose one of the nine compressor modes. The panel changes to match.
Quality	Eco, Studio or Master (see Quality).
Unit	The unit menu - roll a new unit, save or recall one, and pin a default (see Units and Patch Cards).
Size	Small (75%), Medium (100%) or Large (150%).
Reset Engine	Clears any fault and resets the internal DSP.
Help	Opens the built-in help window.

The green buttons (bottom-right corner)

Control	What it does
Gain Match	A one-shot button that estimates a sensible makeup gain from your current threshold and ratio and applies it. It lights gold while engaged and does not click off - move the Makeup knob by hand to release it, and it drops back to its idle green. It is greyed out in Gate mode, where it is not used. It is an estimate, not a precise loudness match - fine-tune by ear.
Reset	Return the controls to their defaults. The serial number does not change.
Save Patch Card	Save the whole unit (all settings) to a patch card.
Load Patch Card	Load a patch card - it asks whether to recall its unit or just apply its settings (see Units and Patch Cards).

Signal Flow

The signal passes through these stages in this order. Earlier stages influence how later ones behave, especially with Drive engaged.

#	Stage	Notes
1	Input Trim	Gain into the unit; also drives the saturation when Drive is on
2	Drive saturation	Drive only, before the compressor
3	Compression	Detector reads the internal input or the external sidechain
4	Drive saturation	Drive only, scaled by how much compression is happening
5	Mix	Dry/wet blend for parallel compression
6	Transformer colour	Drive only, per-unit tonal character
7	Makeup	Post-compression gain
8	Output Trim	Final level
9	SC Listen	When active, replaces the output with the detector signal
10	Safety Limiter	Always active

Slower and faster attacks, deeper thresholds and higher ratios all push the Drive character harder - tone is a result of how hard the unit is driven, not a separate amount control.

The Nine Modes

fComp is nine compressors in one, chosen from the Mode selector. Each keeps its own independent settings, so switching mode never disturbs another mode's setup.

Mode	In a nutshell
FET	Fast, punchy, coloured. The aggressive one.
Opto	Smooth and programme-dependent. No timing knobs.
VCA	Precise, clean bus compression with a knee control and optional auto release.
Vari-Mu	Warm tube glue. Compression and colour arrive together.
PWM	A broadcast pulse-width compressor. A CHOP knob sets the character.
Diode Bridge	A germanium diode-bridge compressor with stepped, hardware-style controls.
Zener	A zener-diode programme limiter with three operating modes.
Gate	A gate, downward expander and ducker in one.
De-Esser	A frequency-selective processor for taming sibilance.

Common Controls

Most modes share this set of controls. Mode-specific controls are covered in each mode's own section. Every knob resets on a double-click.

Input Trim

Range: -24 dB to +24 dB. Default: 0 dB. The first gain stage, applied before any processing. Without Drive it is a clean gain control that sets how hard the compressor is driven. With Drive on it becomes part of the sound - higher input means more saturation and harmonic content.

Tip: *Think of Input Trim as how hard you are pushing the front end. More signal in means more gain reduction and more Drive character. Set it once you have your threshold and ratio.*

Bypass

Bypass is not a hard true-bypass, and that is deliberate. It takes out the compression and the Drive colour, but your Input Trim, Makeup and Output Trim stay active - so your gain staging holds and the level does not jump when you toggle it. You are comparing the effect against the dry signal at matched levels, hearing what the compressor is actually doing rather than a change in volume. The switch is a smooth, click-free crossfade.

Tip: *To hear the completely unprocessed signal, set the trims and makeup to 0 dB before engaging Bypass.*

Drive

Adds the mode's harmonic saturation and transformer colour. The amount is not fixed - it scales with how hard you push the compressor (trims, threshold, ratio and timing all contribute), so it stays gentle at rest and grows obvious when driven. PWM uses the CHOP knob instead.

Tip: *Tone is a result of how hard the circuit is driven. Use Studio or Master quality when Drive is engaged for the cleanest character.*

Threshold

Range: -60 dB to 0 dB. The level above which compression begins - pull it down to compress more. A subtle per-unit offset means two instances start compressing at very slightly different points with the same setting.

Mix

Range: 0 to 100%. Dry/wet blend for parallel compression. At 100% you hear only the compressed signal; lower values blend the dry back in, keeping the tonal character while restoring the dynamics.

Tip: *Parallel compression is one of the most useful tricks in mixing. Set aggressive settings - low threshold, fast attack - then pull Mix back to 40-60% for the punch and density of heavy compression with the original dynamics intact.*

Stereo Link and M/S

Stereo Link on: one detector drives both channels and the stereo image is preserved. Off: each channel compresses on its own (no effect on mono tracks). M/S compresses the mid and side separately, then recombines to stereo.

Sidechain: SC HPF, SC Listen, external sidechain

SC HPF (0 to 200 Hz) filters low frequencies out of the detector so bass stops pumping the compressor. SC Listen replaces the output with the detector signal so you can hear exactly what it is reacting to. And fComp accepts an external sidechain from your DAW: route another track to its sidechain input and an EXT indicator lights up, so that signal drives the detector while compression is still applied to the main audio.

Tip: *Set the SC HPF to 80-100 Hz to stop kicks and bass pumping the whole mix - especially useful on the mix bus or drum bus. Use the external sidechain for ducking (duck the music under a vocal), de-essing (key from a filtered vocal) or rhythmic pumping (key from a kick). Remember to turn SC Listen off before you bounce.*

I/O Link

Links Input Trim and Output Trim inversely - raising the input lowers the output by the same amount, and vice versa. Drive the input harder for more saturation while your monitoring level stays put.

Makeup and Output Trim

Makeup (-24 to +24 dB) is post-compression gain to restore level. Output Trim (-24 to +24 dB) is the final level, after everything and before the safety limiter. Both are always active, even in bypass.

Meters

Input and output meters

Stereo input meters sit on the left (IL, IR) and stereo output meters on the right (OL, OR), showing the levels in real time. Click a meter to switch it between Peak and RMS - the label reads PK or RMS to show which mode it is in.

Peak follows the instantaneous highest sample level, so it jumps with every transient and shows the true maximum the signal reaches. **RMS** shows the average energy over a short window, so it sits steadier and reads much closer to how loud the signal actually sounds - the classic VU-style reading.

Tip: Use Peak to watch headroom and make sure nothing is clipping - keep the peaks below 0 dBFS. Use RMS to judge loudness and to balance one part against another by how loud they actually sound, since two sounds can share the same peak but sit at very different loudness. Peak for safety, RMS for balance.

Gain reduction meter

The horizontal bar shows gain reduction in real time, growing from no reduction toward heavy reduction, with a numeric readout of the exact value. It warms from amber to red as the compression deepens. Watch it to keep an eye on how hard the unit is working - 2 to 6 dB is a good range for gentle control.

FET Mode

Fast, punchy and coloured - the aggressive one. Great on drums, vocals, bass and room mics, and for parallel crush tricks.

Controls

Ratio - four positions plus ALL: 4:1, 8:1, 12:1, 20:1, ALL. Click the knob to step through. The soft knee is widest at 4:1 and tightest at 20:1. ALL engages every ratio at once - the classic all-buttons-in trick for aggressive, heavily saturated limiting. **Attack** - 0.02 to 0.8 ms, fully clockwise is fastest in the classic FET convention. **Release** - 50 to 1100 ms, programme-dependent (faster on transients, slower on sustained material). FET Drive adds the fast, edgy saturation the topology is known for.

Tip: Start around threshold -16 dB, 4:1. 4:1 is gentle and musical for vocals and bus; 8:1 and 12:1 firm things up for drums and bass; 20:1 is near-limiting. Fast attack under 0.1 ms tames peaks; slow attack over 0.4 ms lets transients through for punch. Set Mix to 40-60% for parallel punch. ALL is a creative effect - powerful on room mics and sound design, not subtle.

Opto Mode

Smooth, forgiving and programme-dependent - beautiful on vocals, acoustic instruments and mix buses. There are no attack or release knobs: the photocell sets the timing on its own, catching transients quickly and easing off slowly on sustained material. That long, gentle release is what gives opto compressors their transparent character.

Controls

Peak Reduction (-60 to 0 dB) is the main control - lower values give more compression. **Type** chooses Compress (a gentle, programme-dependent ratio that rises with level - musical and transparent) or Limit (catches peaks hard with the opto's soft knee). Opto Drive adds a softer, warmer tube-style colour with a rounded bloom when pushed.

Tip: Start with Peak Reduction around -16 dB in Compress and let it work - it responds to the material, so trust the timing. Compress for vocals and buses, Limit for peak control. Parallel (Mix 40-60%) adds body without squashing. The opto is gorgeous on the mix bus.

VCA Mode

Precise, clean and predictable - built for the mix bus and stems. Precise enough for surgical work, with enough warmth on tap (Drive) when you want it.

Controls

Threshold -60 to 0 dB. **Ratio** - 2:1, 4:1, 10:1, Lim (2:1 for gentle glue up to Lim for limiting). **Attack** - 0.01 to 30 ms, a wide range from ultra-fast transient control to slow bus settings (default 10 ms is bus-friendly). **Release** - 50 to 1200 ms (default 300 ms). **Knee** - Hard (begins abruptly at threshold) or Soft (eases in for a gentler onset). **Auto Release** adapts the release to the material. VCA Drive is the cleanest of the modes - a tight, controlled saturation.

Tip: *Threshold -16 dB, 2:1, soft knee is the classic bus-glue setup - aim for 2-4 dB of reduction. Soft knee at 2:1 is the transparent bus sweet spot. Use Auto Release when the arrangement varies a lot. SC HPF at 60-100 Hz stops kicks pumping the bus. Parallel (Mix 50-70%) adds density without touching the transient balance.*

Vari-Mu Mode

Warm tube glue. The tube is the gain element, so compression and harmonic colour arrive together - the more it works, the warmer it gets. The heaviest transformer character of any mode. Ideal for bus glue, mastering and adding tube warmth. It uses a self-regulating design, so it is inherently stable and musical - it will not over-grab the way some compressors can. This mode also has the widest unit-to-unit variation.

Controls

BIAS (0 to 100%, default 50%) is the master character control - a single knob that sets ratio, knee width and the effective threshold together. Low BIAS gives gentle levelling with a very soft knee; mid BIAS is the classic vari-mu sweet spot; high BIAS gives firmer compression with a tighter knee and more obvious tube colour. **Time Constant** (positions 1-6, default 2) sets attack and release together, like a classic front-panel switch - position 1 is fast and punchy through to position 6 for glacial, mastering-style timing, all programme-dependent.

Tip: *BIAS 50%, Time Constant 2, threshold down to 2-4 dB of reduction is the sweet spot for transparent bus glue. For mastering, BIAS 30-40% with Time Constant 4-6 for gentle, slow levelling. For parallel, push BIAS to 70-80% and blend with Mix at 30-50%. Drive on adds heavier transformer weight than the other modes.*

PWM Mode

A broadcast pulse-width compressor. Its gain reduction is clean on its own - all of its character comes from the CHOP knob, which dials in the vintage broadcast flavour. Best on drums, bus and broadcast-style programme.

Controls

CHOP (0 to 100%) replaces the Drive toggle. At 0% the PWM is one of the cleanest compressors here; around 30% (default) gives moderate broadcast character; at 100% it is full vintage, with prominent artefacts, transformer warmth and a whisper of hiss. **Threshold** -60 to 0 dB (default -18 dB). **Attack** - 0.02 to 30 ms, the fastest of any fComp mode. **Recovery** - 25 to 2000 ms (named in broadcast style), always programme-dependent for glue without pumping. **Ratio** - 2:1, 3:1, 4:1, 6:1, Lim (3:1 is the broadcast standard default).

Tip: Drums - fast attack, 4:1, CHOP 40-60% for bite. Mix bus - 3:1, moderate attack, CHOP 20-30%. Broadcast - 3:1, 1 ms attack, 200 ms recovery, CHOP 30%. Transparent - CHOP 0%, any timing.

Diode Bridge Mode

A germanium diode-bridge compressor with a naturally soft knee and even-harmonic warmth. Its stepped, hardware-style controls and self-regulating design give a musical, less aggressive character. Germanium devices are famously inconsistent, so this mode's unit-to-unit variation is wide. Ideal for vocals, mix bus and mastering.

Controls

BIAS (0 to 100%) sets the bridge operating point - low bias is cleaner with a harder knee and a higher effective threshold; high bias brings earlier, richer, softer compression (50% is the calibration point). **Ratio** is stepped: 1.5:1, 2:1, 3:1, 4:1, 6:1, Lim. **Attack** stepped: 0.2, 0.4, 0.8, 2, 4, 8 ms. **Recovery** stepped: 25, 50, 100, 200, 400, 800 ms, programme-dependent. Diode Bridge Drive adds a soft, round germanium colour with even-harmonic warmth.

Tip: *Vocals - 3:1 or 4:1, 0.8 ms attack, 200 ms recovery, BIAS 50-60%, Drive on. Mix bus - 2:1, 4 ms, 400 ms, BIAS 40-50% for subtle glue. Drums - 4:1 or 6:1, fast attack, higher BIAS with Drive for germanium crunch. Mastering - 1.5:1, 8 ms, 800 ms, low BIAS for gentle, transparent control.*

Zener Mode

A zener-diode programme limiter with a characteristically sharp transition - clean below the threshold, a sharp turn at it, gradual limiting above, with a grittier edge than tube or FET. Stable and predictable in use. Ideal for programme limiting, broadcast and mastering.

Controls

Mode chooses the operating character: Comp 1 (a gentle 2:1 broadcast compressor with a soft knee for long-term levelling), Comp 2 (also 2:1 and soft, but with a quicker recovery - a hybrid between compression and limiting), or Limit (brick-wall programme limiting, fast and punchy - the default). **Threshold** -60 to 0 dB (default -10 dB). **Attack** and **Release** are stepped selectors whose available times change with the Mode, and the release is always programme-dependent. **Drive** switches the unit to a harder, hotter character with more harmonic colour. **THD** bypasses the gain reduction and runs the signal through the full saturation path, for harmonic colour with no compression. **SC HPF** is stepped: Off, 30, 50, 90, 150, 300 Hz.

Tip: Limit for catching broadcast or master peaks - fast attack, short release. Comp 2 for vocal levelling - its quicker recovery handles vocal dynamics. Comp 1 for gentle, long-term mastering-style levelling. THD on with Drive on gives zener colour with no compression - set the input level to control how much.

Gate Mode

A gate, downward expander and ducker in one, built on the same clean gain element as the VCA mode. For drum gating, dialogue cleanup, noise reduction and sidechain ducking.

Controls

Mode - Gate (a hard noise gate), Expand (a downward expander with a selectable ratio) or Duck (inverse dynamics - drops the level when signal is present, for sidechain ducking). **Threshold** -60 to 0 dB (default -30 dB). **Ratio** - 1:2, 1:3, 1:4, 1:8 or full (Gate is always full). **Attack** 0.01-50 ms. **Hold** 0-2000 ms, the minimum time it stays open (with programme-dependent behaviour), which stops it closing during short pauses. **Release** 5-4000 ms. **Range** -80 to 0 dB, how far it closes - keep it modest (say -20 to -40 dB) for natural decay tails rather than hard cut-offs. **Hysteresis** 0-12 dB prevents chatter on borderline signals. The **SC HPF** and **SC LPF** together form a key filter for frequency-selective gating, and the external sidechain lets you trigger from another source.

Gain Match is greyed out in this mode, where it is not used.

Tip: *Drum gating - Gate mode, fast attack, medium hold and release, SC HPF to isolate the drum, Range around -40 to -60 dB. Dialogue - Expand mode, a gentle ratio, slow release for transparency. Ducking - Duck mode with the ducking source in the external sidechain (a voiceover over music, or a kick for the classic pump).*

De-Esser Mode

A frequency-selective processor that tames sibilance and harsh highs without dulling the rest of the sound. It listens in a chosen band and reduces gain only when that band gets too loud.

Controls

Mode - Split (compresses only the high band and recombines it with the untouched low band - surgical and transparent) or Wide (ducks the whole signal slightly when sibilance is detected - more natural on some sources). **Freq** - 800 Hz to 16 kHz, where it listens (5-8 kHz for most vocals). **Band** - 0.5 to 4.0 octaves, narrow for surgical work, wide for broader brightness control. **Thresh** -60 to 0 dB. **Range** down to -40 dB, the maximum reduction (a safety limit that keeps it natural). **Atk** 0.01 to 5 ms, fast to catch sibilants. **Rel** 5 to 200 ms. **Mix** for parallel de-essing, **Link** for the detection, and **Listen** to hear the detection signal and find the right frequency.

Tip: Turn Listen on, sweep Freq until the 'ess' and 'sh' sounds are loudest, narrow Band onto them, then turn Listen off and set Thresh so reduction only triggers on the sibilant peaks. Range -8 to -12 dB is a good start. Narrow band (1.0-1.5 oct) for surgical de-essing, wider (2.0-3.0 oct) for general brightness. Try both Split and Wide. A/B against bypass so you do not dull the voice. For harsh cymbals or acoustic guitars, try 8-12 kHz with a wider band.

Automation

Every on-screen control in every mode is exposed to your DAW and can be written and read through its automation lanes like any other parameter, including the mode selector itself. The complete state of all nine modes, plus the serial, is saved with your session.

Units and Patch Cards

fComp's character lives in its serial number. There are two ways to keep and move your work: units (the character) and patch cards (the whole setup).

The unit menu

A unit is the compressor's character on its own - its serial and the analogue voice that serial produces, with no settings attached. The Unit button opens the menu:

Menu item	What it does
New Unit	Roll a fresh unit with a new serial and a new voice.
Save Unit...	Save the current unit so you can recall it later. Saved units live in Documents/fBox Units/fComp.
Load saved unit	Recall a unit you saved, or browse for a unit file.
Recall my pinned unit	Jump back to your pinned default.
Pin this unit as my default	Make this unit the one every new instance opens with - this is how you keep one unit for good.
Use a new unit each time	Go back to a fresh unit on each new instance.

Patch cards

A patch card is a portable copy of the whole unit - its serial and every setting across all nine modes - written to a single file. Your unit is also saved with your session; a patch card is for carrying a unit between instances and projects. **Save Patch Card** writes the current unit to a patch card, a file you choose the home for. **Load Patch Card** reads one back in: if the card was saved on a different unit, it asks how to bring it in:

Option	What it does
Recall Unit	Bring back the exact unit the card was saved on - its character and all its settings.
Apply Settings Only	Keep your current unit and drop the saved settings on top.

A patch card carries its identity, so a card saved for a different fBox product is refused with a note.

Important: *A unit is the character; a patch card is the character plus every setting on top of it. Both save the serial, so the exact voice comes back with them.*

Quality

The Quality selector sets the processing quality of the analogue stages:

Tier	Use
Eco	Lowest CPU. Sounds great for tracking and dense sessions.
Studio	The sweet spot for mixing. Richer saturation and enhanced quality on the analogue path. The default.
Master	Maximum quality. For final mixes and mastering.

Tip: Studio is the right choice for normal use. Drop to Eco if your computer is struggling; switch to Master for a final mix or master. When you bounce offline, fComp uses its highest quality whatever tier is selected, so your renders are always full quality.

Performance and CPU

The quality of the analogue stages costs CPU. fComp gives you the same Eco / Studio / Master control the rest of the range uses, so you can mix light and render heavy.

Mix at Eco, render at Master

Mix at Studio, or drop to Eco if your machine struggles - the sound still plays, just at lighter quality. Then, when you bounce, switch to Master and let your DAW render. The render is offline, so it takes as long as it needs and comes out at full Master quality however much the live playback stuttered. Close editor windows you are not using, and freeze or bounce the track when you want the heavy processing to run offline.

What fComp Writes To Your Computer

For transparency, here is everything fComp writes and where. It writes nowhere else, and sends nothing anywhere unless you choose to.

Folder	Contents
Documents/fBox/Diagnostics	Plain-text diagnostic logs, kept so a crash can be worked out afterwards.
Documents/ fBox Units	Your saved units, so you can find, back up and share them.
AppData/Roaming/fBoxAudio (Windows)	Your licence, and a small settings file recording which unit you have pinned.

Patch cards go wherever you save them. The compressor's own state lives in your session, not in a file of its own. Nothing is filed away somewhere you did not pick, and nothing is written to your Desktop.

When something goes wrong

Diagnostics are written automatically as fComp runs and survive a crash or freeze. If you hit a problem, zip the whole Documents/fBox/Diagnostics folder and email it to support@fboxaudio.com - send the entire folder, since what else was running alongside fComp often explains the problem. Tell us what you were doing, what you expected, and what happened. The logs are plain text; you are welcome to read them, but you do not need to.

Analogue Character

Every instance of fComp generates a unique serial number, shown in the bottom-right watermark. It defines the unit's hardware character throughout the signal path.

On real analogue hardware, no two units from the same line sound identical. One grabs a snare a little faster. Another lets the transient breathe before pulling it back. Push them both into gain reduction and you hear the character - one is warmer, the other has more bite. The threshold sits a hair differently, the timing has its own feel, the saturation starts at its own point, and the output has its own colour.

fComp models these variations throughout. The same serial always produces the same unit, different serials produce different units, and the serial is saved with your session - whether that is your DAW, the fBox Console, the Console Standalone or the Rack - and with any unit or patch card you keep.

Tip: *You cannot dial a unit's character to order any more than you can a real one - but you can learn it, and you can keep it. Find one you love, pin it, and it is the compressor you open every time. If you want two identical compressors, save a patch card from one and load it on the other with Recall Unit - the serial and all its character transfer with the card.*

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