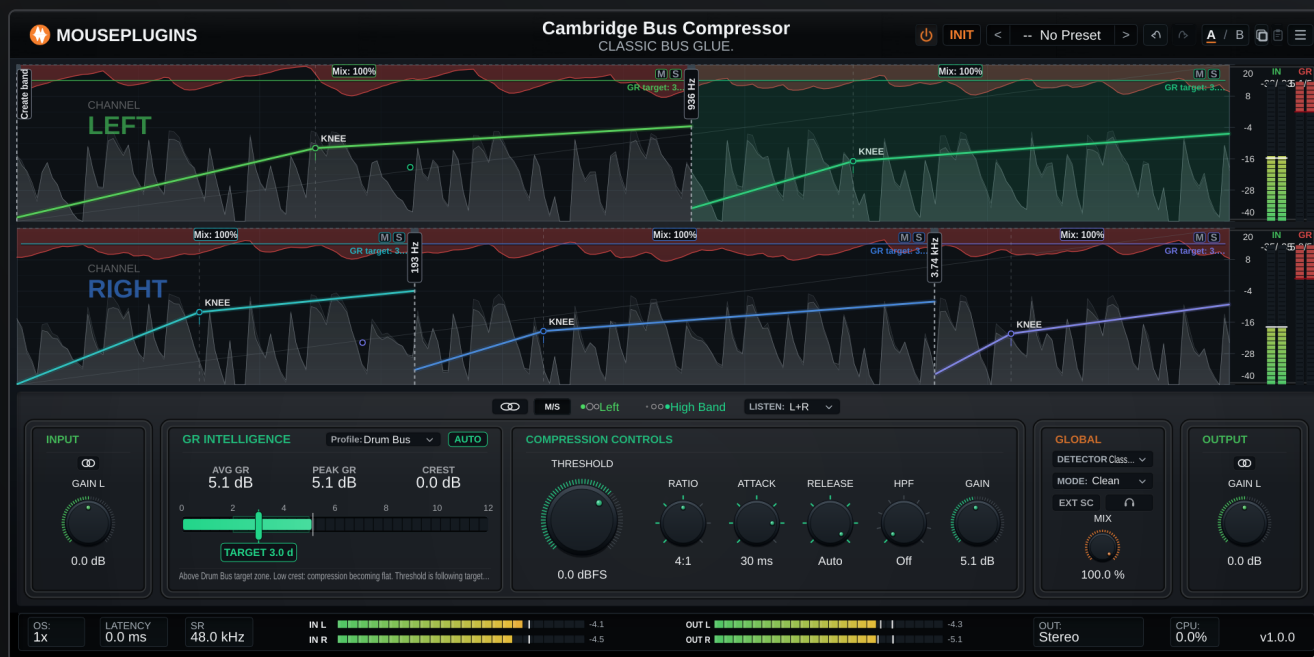




Cambridge Bus Compressor

Classic bus glue — with three bands and two independent lanes when you need them, a shapeable detector, and a gain-reduction read-out that tells you what the compressor is actually doing.



THE FULL INTERFACE IN LEFT/RIGHT MODE. THE LEFT LANE RUNS MID AND HIGH ONLY (SPLIT AT 936 HZ); THE RIGHT LANE RUNS ALL THREE BANDS (193 HZ AND 3.74 KHZ), INDEPENDENTLY OF THE LEFT, WITH EACH BAND'S OWN PARALLEL-MIX AMOUNT SHOWN ON ITS REGION. GR INTELLIGENCE, COMPRESSION CONTROLS, GLOBAL AND OUTPUT SIT IN THE ROW BELOW.

THREE BANDS PER LANE

STEREO / L-R / M-S

AUTO GR TARGETING

EXTERNAL SIDECHAIN

20 FACTORY PRESETS

FREE — NO LICENCE

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01 INTRODUCTION

Cambridge Bus Compressor is a bus compressor built around a familiar idea — put it across a group, pull the threshold down a little, let it hold everything together — with two things added that a conventional glue compressor does not have.

The first is **three bands**. Instead of one detector reacting to the whole spectrum, the signal can be split so the low end is controlled separately from the middle and the top. That can stop a loud kick from pulling the entire mix down with it.

The second is **two independent lanes**. Rather than one set of controls applied to both channels, the stereo field can be split into Left and Right, or Mid and Side, and each half compressed on its own terms — with its own band layout and crossover points.

Neither is compulsory. Leave both alone and it behaves as a straightforward single-band stereo bus compressor.

02 INSTALLATION AND FORMATS

FORMATS	VST3 and CLAP
WINDOWS	Windows 10 or later, 64-bit
LINUX	64-bit, glibc 2.35 or newer (Ubuntu 22.04+, Debian 12+, recent Fedora/Arch)
MACOS	Not supported in this version
SAMPLE RATES	44.1 / 48 / 88.2 / 96 / 176.4 / 192 kHz
LICENCE	None. The plugin is free and fully functional — there is no key to enter and no trial period.

On Windows, place the `.vst3` in `C:\Program Files\Common Files\VST3` and the `.clap` in `C:\Program Files\Common Files\CLAP`. On Linux, use `~/vst3` and `~/clap`, or the system equivalents. Rescan plugins in your host afterwards.

03 FIRST LAUNCH

On a fresh insert the defaults are: Threshold 0 dBFS, Knee 2.5 dB, Ratio 4:1, Mix 100 %, lanes linked, and the Colour-related settings at their neutral state. The detector carries a fixed internal calibration offset, so these defaults are a sensible starting point rather than a guarantee of zero gain reduction on a hot input.

Only the Mid band is active from Init. The Low and High bands start switched off, so the plugin is a single genuinely full-range compressor until you enable them. This catches people out — if you were expecting three bands immediately, see section 14. Factory presets enable all three from the moment you load one.

The window opens at 75 % of its maximum on-ratio size and is locked to a fixed aspect ratio — it can be resized freely between 50 % and 100 % of that maximum without ever distorting the layout.

04 INTERFACE OVERVIEW

REGION	CONTAINS
Header	Power/bypass, INIT, preset navigation, undo/redo, copy/paste, A/B, menu.
Chart	One per active lane. Level-history trace, transfer curve with its knee, band overlay with crossover dividers and per-band parallel-mix, per-band mute/solo, and IN/GR meters.
Selector row	Link button, M/S button, the lane and band readout, and LISTEN (channel monitor).
Control row	INPUT, GR INTELLIGENCE, COMPRESSION CONTROLS, GLOBAL (now five controls) and OUTPUT.
Footer	Processing rate, latency, sample rate, independent input and output peak meters, output mode, CPU and version.



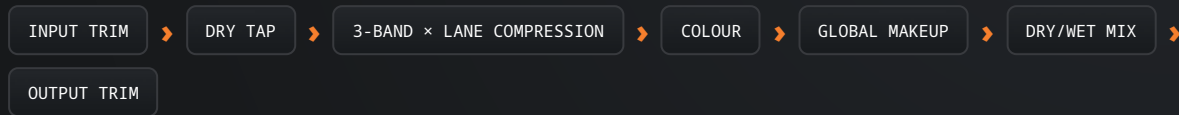
HEADER — POWER/BYPASS, INIT, PRESET NAVIGATION, UNDO/REDO, A/B, COPY/PASTE AND MENU.

SELECTOR ROW — LINK, M/S, THE ACTIVE VIEW/BAND READOUT, AND LISTEN (HERE: LEFT LANE, MID BAND SELECTED, LISTEN OFF).

05 SIGNAL FLOW

There are really two paths through the plugin: the audio itself, and the sidechain that only shapes what the compressor *detects*.

AUDIO



DETECTOR



Five details are worth knowing. First, the **dry signal used by Mix (and by Bypass) is captured immediately after Input Trim** — so Input Trim always applies to what you hear, whether the plugin is wet, dry-blended, or bypassed.

Second, the **detector path only shapes what triggers compression**, not the audio itself: it runs in parallel to the audio path, not in series with it. DETECTOR mode (section 8) shapes how it tracks the signal envelope.

Third, **each band has its own parallel mix** before the bands are summed: at the default 100 % you hear the fully compressed band; pull it down and that band blends toward its own uncompressed signal. See section 14.

Fourth, the **bands are summed back together** after compression, so what you hear is always the three bands recombined. With a band disabled, its frequency range is handed to its neighbouring active band rather than silently passed through untouched — see section 14 for exactly how that works per lane.

Fifth, the **LISTEN monitor tap** is drawn from the signal right after Global Makeup. When engaged it replaces the final output for monitoring a single processing lane (Left/Right or Mid/Side); it does not itself pass through Mix. See section 13.

Colour and Global Makeup run after compression, before Mix. Global Makeup has no visible control in this release (see section 17); Colour does — it is the MODE dropdown in GLOBAL (section 8). Both are part of the live signal path, sitting between the compressor and the dry/wet blend.

06 MAIN WORKFLOW

1. Pick a starting point: step through the factory presets, or start from Init.
2. Choose your routing: leave Stereo Linked, or split to L/R or M/S.
3. Select the band and lane you want to shape by clicking its chart region; the selector row confirms the active cell.
4. Dial in Threshold, Ratio, Attack, Release and Gain for that cell — or let Auto GR find the threshold for you.
5. Bring in Low and/or High bands by dragging the chart edges inward, if you need them.
6. Set the global HPF, DETECTOR, MODE, EXT SC and Mix to taste.
7. Match levels with OUTPUT and bypass to compare.

07 HEADER, PRESETS AND UTILITIES

CONTROL	WHAT IT DOES
Power	Bypasses the plugin. See section 15 for the exact signal path this selects.
INIT	Returns every parameter to its default.
< name >	Steps through the 20 factory presets; click the name to browse.
Undo / redo	Steps back and forward through edits made in the interface.
Copy / Paste	Copies the whole plugin state and pastes it back. Both are scoped to the currently open editor window — closing and reopening the editor, or moving to a different plugin instance, does not carry a copied state with it.
A / B	Two slots to compare within the same open editor session. Set up A, switch to B, change something, flip between them.
Menu	Reset to Init, User Manual, Quick Start, the MousePlugins website, and About.

Saving your own settings. The preset field browses the 20 factory presets and Init — there is no "Save" for your own presets inside the plugin. Use your host's own preset or project/session save to keep a setup permanently.

08 COMPRESSION CONTROLS AND GLOBAL

COMPRESSION CONTROLS always edits **the band and lane currently selected** in the row above it. Change the selection and five of the six knobs re-point; the values you set are kept per cell, so each band in each lane holds its own settings.



COMPRESSION CONTROLS: THRESHOLD, RATIO, ATTACK, RELEASE, HPF, GAIN. HPF IS THE EXCEPTION — IT IS GLOBAL AND DOES NOT RE-POINT PER BAND OR LANE.

CONTROL	RANGE	NOTES
THRESHOLD	-40 ... +20 dBFS	The centre of the knee transition, for this band and lane. With the default soft Knee, gain reduction actually begins Knee÷2 below this value. Default 0 dBFS.
RATIO	1.5 · 2 · 3 · 4 · 6 · 10 · 20 :1	How hard it clamps past the threshold. Default 4:1.
ATTACK	0.1 · 0.3 · 1 · 3 · 10 · 30 ms · Auto	How quickly it responds. Default 30 ms.
RELEASE	0.1 · 0.2 · 0.3 · 0.6 · 0.8 · 1.2 s · Auto	How quickly it recovers. Default Auto — adapts to the material rather than holding a fixed time.
GAIN	-12 ... +24 dB	Makeup for this band and lane. Default 0 dB. Animates live while Auto GR is engaged (section 10) — that's a display of the effective value, not you turning the knob.
HPF	Off · 30 · 45 · 60 · 90 · 120 · 180 · 240 · 320 Hz	Global — the one knob in this panel not tied to the active cell. High-passes the compressor's detector, not the audio itself. Default Off.

08 COMPRESSION CONTROLS AND GLOBAL — GLOBAL panel

Five controls, all global to the whole plugin, not per band or lane:



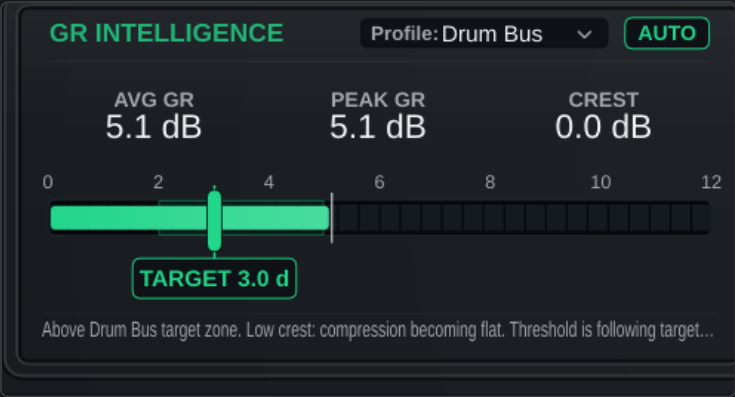
DETECTOR, MODE, EXT SC, THE HEADPHONE SIDECHAIN LISTEN BUTTON, AND MIX.

CONTROL	RANGE	NOTES
DETECTOR	Peak / RMS-Smooth / Classic Blend	How the detector tracks the signal envelope. Default Classic Blend.
MODE	Clean / VCA / Console / Drive	Colour character, applied after compression (section 5). Default Clean — no colouring.
EXT SC	Internal / External	Switches the compressor's detector to your host's sidechain input. See section 16.
Sidechain Listen	off / on	Headphone icon. Monitor the filtered detector signal itself — what the compressor is reacting to, not the audio. Default off.
MIX	0 ... 100 %	Blend of the fully processed signal against dry. Default 100 % (fully wet). Not the same control as a band's own parallel mix — see section 14.

Sidechain Listen and LISTEN are two different controls. Sidechain Listen (here) monitors the detector's filtered input. LISTEN, in the selector row above the charts, monitors one output processing lane (Left/Right or Mid/Side) of the compressed signal. If you engage both, Sidechain Listen takes priority. See section 13 for LISTEN.

09 GR INTELLIGENCE

A read-out panel: it tells you what the compressor is doing, and how that compares with a sensible target for the kind of material you are working on. Apart from Auto GR, described next, nothing in this panel changes your audio.



AVG GR, PEAK GR AND CREST ABOVE THE 0-12 DB TARGET SCALE, WITH TARGET AND THE PROFILE'S GUIDANCE TEXT.

READ-OUT	MEANING
AVG GR	Time-averaged gain reduction for the selected band and lane — the steady weight of the compression.
PEAK GR	The largest recent reduction, briefly held so it is readable.
CREST	Peak minus average. A large crest (once reduction is happening) means the compressor is catching transients and releasing between them; a small crest means it is staying relatively steady. With no gain reduction at all, both figures read zero.
Target scale & TARGET	The 0-12 dB strip, with the recommended zone for the chosen profile marked, and your target marker on it.
Profile	Kick, Snare, Drum Bus, Bass, Vocal, Mix Bus, Master, Custom — a shared list; on a bus compressor, Mix Bus, Master and Drum Bus are the most likely to be relevant.

The profile is guidance only. Choosing a different one moves the recommended zone and the advice line to suit that source. It never changes a single audio setting.

GR Intelligence always reads the **selected band**, in the selected lane — not necessarily the loudest one. The chart's own GR meter (section 11) shows something slightly different: the strongest currently active band in that lane. The two can legitimately disagree.

10 AUTO GR

Auto GR reverses the usual way of working. Instead of setting a threshold and seeing how much gain reduction you get, you say how much gain reduction you want and the plugin finds the threshold.

STEP	WHAT HAPPENS
Set TARGET	Drag the target marker to the gain reduction you are aiming for. On its own this changes nothing.
Engage AUTO	The effective threshold and makeup move automatically to reach the target. The GAIN knob animates live to show the effective makeup; THRESHOLD's knob stays showing your stored value. On the chart, the knee marker follows the effective Threshold, and the transfer curve also reflects the effective Gain. Turning either knob by hand still edits your stored value underneath, correctly accounting for Auto GR's live offset.
Disengage AUTO	Both runtime offsets are handed back to you: THRESHOLD and GAIN are left at the effective values Auto had found, editable by hand from there.

The servo runs on the audio engine, not the interface. It is serviced once per processed audio block, using real elapsed sample time, so it keeps converging whether or not the plugin window is open — including during offline bounces. It is per band and per lane: each cell can chase its own target independently.

Auto GR's threshold and level-restoring makeup offsets are applied on top of your stored THRESHOLD and GAIN values, not written into them, while AUTO is engaged. Turning AUTO off — from the interface, from host automation, or with no editor open at all — hands both effective values back to THRESHOLD and GAIN, so the sound (and the GR meter) does not jump. In Stereo Linked, the handoff commits to both lanes at once.

11 METERS AND VISUAL FEEDBACK

DISPLAY	SHOWS
Chart IN / GR	Both genuinely follow that lane: IN is RMS , GR is the strongest gain reduction among that lane's currently active bands — not necessarily the band selected below. In Stereo Linked, the single chart shows the combined linked signal.
Chart level trace	Signal history drawn behind the curve, from the same per-lane RMS value as Chart IN.
Footer IN / OUT	Peak meters, independent per channel — a signal on one side moves only that bar.
Footer telemetry	Fixed processing rate, latency, sample rate, output mode, CPU and version.



FOOTER — FIXED 1× PROCESSING RATE, LATENCY, SAMPLE RATE, INDEPENDENT L/R INPUT AND OUTPUT METERS, OUTPUT MODE, CPU AND VERSION.

The chart and the footer disagree on purpose. The chart is RMS — steadier, easier to read as a shape over time, and genuinely per-lane when unlinked. The footer meters are peak, which is what matters for clipping, and always per physical channel regardless of routing mode. A peaky signal reads noticeably higher in the footer than on the chart.

12 THE CHART AND THE BAND OVERLAY

Each active lane gets its own chart. Linked stereo shows one; L/R and M/S show two, stacked.

ELEMENT	MEANING
Transfer curve	Input level to output level, in that band's colour. The axis runs -40 to +20 dBFS , matching the Threshold range exactly.
KNEE	Marks the threshold and the soft-knee transition around it. Moves live, including while Auto GR is steering the effective threshold.
Create band	Handles at the chart edges. Drag inward to bring in the Low or High band for that lane.
Crossover divider	The line between bands, labelled with its frequency. Drag to move the split.
M / S	Mute and solo for that band, in that lane.
Mix: n%	That band's own parallel mix. Drag the label to adjust. See section 14.

13 ROUTING: STEREO, L/R AND M/S

The plugin has two processing lanes. The channel mode decides what they represent.

MODE	LANES	CHARTS
Stereo Linked	One set of controls governs both channels.	One
L/R	Lane A is the left channel, lane B the right.	Two, stacked
M/S	Lane A is the Mid (centre), lane B the Side (width).	Two, stacked

The **Link** button is a toggle: click it while unlinked (L/R or M/S) to return to Stereo Linked; click it while already in Stereo Linked to leave, restoring whichever of L/R or M/S you last had active — on a fresh instance with no history yet, that default is L/R. The separate **M/S** button (visible only while unlinked) switches directly between L/R and M/S. Whichever one you choose becomes the mode Link restores the next time you leave Stereo Linked.

In Stereo Linked, lane A's compressor controls govern both channels — but not everything is lane A only. Manual THRESHOLD, RATIO, ATTACK, RELEASE and GAIN edits target lane A only; lane B's own values for these stay stored and untouched until you unlink. Band layout (crossovers), mute/solo, and per-band Mix are different: editing them while linked writes to **both** lanes at once. Auto GR's handoff (section 10) is also an exception — when linked, its effective Threshold and Gain commit to both lanes.

Why M/S is worth trying on a bus. Compressing the Mid a little harder than the Side tightens the centre — kick, snare, bass, lead vocal — while leaving the width less affected and more open. In Stereo the loud centre would have pulled the sides down with it.

LISTEN

Next to the band readout is a channel monitor. Its choices change with the routing mode:

MODE	CHOICES	WHAT YOU HEAR
Stereo Linked	L+R <i>only</i>	No isolation is possible — there is only one lane.
L/R	L+R / Left / Right	Left or Right plays that channel alone, genuinely isolated.
M/S	M+S / Mid / Side	Mid plays the centre; Side plays the width, decoded back to a genuine stereo signal.

LISTEN monitors the fully processed signal, right after Global Makeup, in place of the normal output — it does not pass through Mix. It resets to off automatically whenever you change routing mode, so it never silently keeps monitoring a channel that no longer means what it used to.

14 MULTIBAND EDITING

Each lane has three bands: **Low**, **Mid** and **High**. Mid is always present. Low and High are optional and start switched off.

ENABLING AND DISABLING, PER LANE

Drag the **Create band** handle at the left or right edge of a lane's chart inward to bring that band in for *that lane*. Drag its divider back out to the edge to switch it off again, also for that lane only. Band layout is genuinely independent per lane — one lane can run two bands while the other runs three, exactly as shown on the cover page (left: two bands; right: three).



LEFT/RIGHT MODE. THE LEFT LANE RUNS MID AND HIGH ONLY, SPLIT AT 936 HZ; THE RIGHT LANE RUNS ALL THREE, SPLIT AT 193 HZ AND 3.74 KHZ — SET AND EDITED INDEPENDENTLY OF THE LEFT. THE MIX LABELS SHOW EACH BAND'S OWN PARALLEL-MIX AMOUNT, ALSO INDEPENDENT PER LANE.

CROSSEOVERS

SPLIT	RANGE	DEFAULT
Low / Mid	40 Hz ... 600 Hz	250 Hz
Mid / High	800 Hz ... 8 kHz	2500 Hz

Both dividers cover their full range independently per lane. Dragging the Low/Mid divider down to its 40 Hz floor turns Low off for that lane; dragging the Mid/High divider up to its 8 kHz ceiling turns High off. Either way, that band's frequency range is handed to its neighbouring active band rather than left as a silent or dry sliver. Only when both Low and High are off does the Mid band become genuinely full-range.

MUTE AND SOLO

The **M** and **S** buttons on each band region mute and solo that band. Solo overrides mute, and both work per lane when unlinked — soloing a band in one lane does not silence the other. While Stereo Linked, a mute or solo edit mirrors to both lanes.

PER-BAND MIX

The **Mix: *n*%** label on each band region is a real control, independent per band and per lane when unlinked. At its default 100 % you hear that band fully compressed. Pull it down and the band blends toward its own uncompressed signal — genuine per-band parallel compression, distinct from the GLOBAL MIX knob (section 8), which blends the entire processed signal against the entire dry signal instead. While Stereo Linked, the same edit is written to both lanes.

15 BYPASS AND GAIN STAGING

CONTROL	RANGE	NOTES
INPUT GAIN	-24 ... +24 dB	Trim before the main compressor path and the internal detector source. Does not trim the host external sidechain input.
MIX	0 ... 100 %	Blend of processed against dry.
OUTPUT GAIN	-24 ... +24 dB	Trim after everything, including the mix.

Plugin Active off routes the post-Input-Trim dry signal around compression, Colour, Global Makeup, and Mix. Input Trim still shapes what you hear while bypassed; Output Trim does not, and neither does Global Makeup. Use OUTPUT to bring the processed signal to the bypassed level, not the other way round, when comparing.

Parallel compression. Compress hard — low threshold, high ratio, fast attack — then pull **MIX** back to 30–50 %. The peaks stay controlled while the uncompressed detail remains.

16 SIDECCHAIN AND DETECTOR

CONTROL	LOCATION	NOTES
EXT SC	GLOBAL panel	Switches the detector from the plugin's own input to your host's sidechain bus. Its tooltip warns you directly if External is selected but no host sidechain bus is active.
SC HPF	Compression Controls panel (global)	High-passes the detector only. Feeds the compression engine directly, so it genuinely shapes what triggers compression.

Set SC HPF to 45–90 Hz and the kick and bass drive the detector less on every hit — one of the fastest ways to reduce low-end pumping on a bus compressor.

To route a source: send it to Cambridge Bus Compressor's sidechain input bus in your host, then set EXT SC to External. If EXT SC is on but its tooltip says no host bus is active, the routing in the host is the first thing to check. To hear exactly what the detector hears — after HPF and the hidden Tilt stage — use the headphone Sidechain Listen button next to EXT SC (section 8), and DETECTOR to change how the envelope is tracked.

17 ADVANCED HOST/PRESET PARAMETERS

Five controls are live — they genuinely affect the sound — but have no knob or switch in this release. They are only reachable via factory presets, saved host state, or (for most of them) host automation. This is a deliberate design choice, not an oversight.

PARAMETER	RANGE	DEFAULT	AUTOMATABLE
Drive (colour amount)	0 ... 100 %	0 %	Yes
Sidechain Tilt	-6 ... +6 dB/oct	0	Yes
Knee	0 ... 12 dB	2.5 dB	Yes
Auto Makeup	off / on	off	Yes
Global Makeup	-12 ... +24 dB	0 dB	No — state/preset only

Drive is the intensity behind MODE (Colour) — MODE itself has a visible dropdown in GLOBAL (section 8), but how far it pushes has no knob. Sidechain Tilt shapes the detector's frequency balance, in addition to SC HPF. Global Makeup is a separate master gain stage from the per-band Gain knobs. Factory presets set all five, so switching presets can change the sound even though none has an on-screen control.

Colour Mode, Detector Mode, Sidechain Listen and Channel Listen used to live here too. All four now have real controls — MODE and DETECTOR in GLOBAL (section 8), the headphone Sidechain Listen button beside EXT SC (section 8), and LISTEN in the selector row (section 13).

18 PRESETS AND STATE

Twenty factory presets ship with the plugin, grouped by intent — general, mix bus, mastering, drums, parallel, vocals, synths, M/S, sidechain and creative. Every preset loads the standard three-band layout with its own authored compression, routing and colour settings, so loading one puts you in multiband immediately.

The plugin does not save your own presets. The built-in browser holds the 20 factory presets and Init only. Keep your own settings via your host's project or preset system, or move a setup between instances by saving/reloading the host's own state — Copy/Paste and A/B are both scoped to the current open editor window, not to the plugin's saved state.

19 AUTOMATION

The compression controls, including each band's own parallel mix, are exposed to host automation per band and per lane, so the Low band on lane A is a separate automation target from the High band on lane B. Also automatable: channel mode, band enables, crossover frequencies, mute and solo, Auto GR and its target, bypass, input and output trim, mix, HPF, EXT SC, LISTEN, Sidechain Listen, DETECTOR, MODE, and the five advanced parameters in section 17 (with the single exception of Global Makeup, which is state/preset-only). Appendix A lists every parameter the interface exposes, with its exact range, default and automation status, plus a short note on the legacy compatibility fields that exist in the schema but do nothing audible.

20 HOST NOTES

TOPIC	NOTES
Channels	Mono and stereo are both supported. A mono input is duplicated into both engine lanes and folded back to mono on the way out.
External sidechain	The plugin exposes a sidechain input bus that accepts disabled, mono or stereo. Route a source to it in your host, then set EXT SC to External.
Processing rate	Fixed 1× — the plugin does not oversample. This is a deliberate policy, not a missing feature.
Latency	Reported to the host and shown in the footer; delay compensation is handled automatically.
Offline render	Auto GR remains active during offline rendering, because its servicing is audio-clocked and does not depend on the editor being open.

21 TROUBLESHOOTING

SYMPTOM	CAUSE AND FIX
No gain reduction at all	Threshold is above the signal — lower it until AVG GR moves. From Init only the Mid band, lane A, exists — check which band and lane is selected.
Only one band responds	Low and High start disabled, per lane. Drag a Create band handle inward on the lane you want.
Plugin sounds unchanged	MIX is at 0 %, or the plugin is bypassed — both pass the dry signal.
A band is silent	Another band in that lane is soloed. Solo overrides mute.
Your edits do nothing	You're editing a different band or lane than you think. Check the selector row before you turn a knob. In Stereo Linked, edits always target lane A.
Unlinking shows unexpected settings on the second lane	Expected for THRESHOLD/RATIO/ATTACK/RELEASE/GAIN — those stay untouched while linked. Band layout, mute/solo and per-band Mix are mirrored while linked, so those match what you saw.
It pumps on every kick	The detector is hearing the low end. Raise SC HPF to 45–90 Hz.
External sidechain seems to do nothing	Check the EXT SC tooltip — it says directly if no host sidechain bus is active. Route a source in your host.
Copy/Paste or A/B don't carry over	Expected — both are scoped to the currently open editor window, not to another instance or a reopened editor.
You seem to have lost a channel, or it's gone mono	LISTEN (selector row) or Sidechain Listen (GLOBAL) is engaged. Set LISTEN to L+R/M+S, or switch Sidechain Listen off.
Output clipping	Lower GAIN or the OUTPUT trim.

22 VERSION COMPATIBILITY

This is version 1.0.0. Its state IDs are retained for forward compatibility, so projects and presets saved with it are intended to keep loading in later versions.

A PARAMETER REFERENCE — global and shell controls (1 of 2)

Per-band controls exist once for every combination of band (Low, Mid, High) and lane (A, B) — **six cells** in total, listed on the next page. Most of the controls below are global, one instance each; the two crossover rows near the bottom are the exception — each represents two genuinely per-lane parameters, four in total.

PARAMETER	RANGE	DEFAULT	AUTOMATABLE
Bypass	off / on	off	Yes
Input Trim	-24 ... +24 dB	0 dB	Yes
Output Trim	-24 ... +24 dB	0 dB	Yes
Mix	0 ... 100 %	100 %	Yes
Sidechain HPF (SC HPF)	Off, 30, 45, 60, 90, 120, 180, 240, 320 Hz	Off	Yes
Detector Source (EXT SC)	Internal / External	Internal	Yes
Channel Mode	Stereo Linked / L-R / M-S	Stereo Linked	Yes
Colour Mode (MODE)	Clean / VCA / Console / Drive	Clean	Yes
Drive (colour amount)	0 ... 100 %	0 %	Yes
Detector Mode (DETECTOR)	Peak / RMS-Smooth / Classic Blend	Classic Blend	Yes
Sidechain Listen	off / on	off	Yes
Sidechain Tilt	-6 ... +6 dB/oct	0	Yes
Channel Listen (LISTEN)	off / lane A / lane B	off	Yes
Knee	0 ... 12 dB	2.5 dB	Yes
Auto Makeup	off / on	off	Yes
Global Makeup	-12 ... +24 dB	0 dB	No
Low Band enable (<i>global</i>)	off / on	off	Yes
High Band enable (<i>global</i>)	off / on	off	Yes
Low/Mid crossover (<i>per lane</i>)	40 ... 600 Hz	250 Hz	Yes
Mid/High crossover (<i>per lane</i>)	800 ... 8000 Hz	2500 Hz	Yes

Each Band enable ID is a single, shared parameter, not one per lane. What looks like per-lane band control in the interface (section 14) comes from combining that shared flag with each lane's own crossover position — you don't need the internals to use it, only to read this table correctly. In the plugin's LISTEN widget, Lane A/Lane B are displayed as Left/Right in L-R routing and Mid/Side in M-S routing (section 13); host parameter labels remain Lane A/Lane B. In Stereo Linked only "off" is reachable.

A PARAMETER REFERENCE — per-band, per-lane controls (2 of 2)

Each row below exists once for every one of the **six cells** — Low, Mid and High, on lane A and lane B — independently.

PARAMETER (PER CELL)	RANGE	DEFAULT	AUTOMATABLE
Threshold	-40 ... +20 dBFS	0 dBFS	Yes
Ratio	1.5 · 2 · 3 · 4 · 6 · 10 · 20 :1	4:1	Yes
Attack	0.1 · 0.3 · 1 · 3 · 10 · 30 ms · Auto	30 ms	Yes
Release	0.1 · 0.2 · 0.3 · 0.6 · 0.8 · 1.2 s · Auto	Auto	Yes
Gain	-12 ... +24 dB	0 dB	Yes
Mix (parallel)	0 ... 100 %	100 %	Yes
Target GR	0 ... 12 dB	3 dB	Yes
Auto GR	off / on	off	Yes
Mute	off / on	off	Yes
Solo	off / on	off	Yes

All user-facing parameters, across both pages of this appendix, are automatable. Among the live advanced parameters (section 17), only Global Makeup — which has no interface control at all — is state/preset-only.

LEGACY COMPATIBILITY FIELDS

Eight further IDs exist in the saved-state schema but have no interface control and no audible effect:

`wsbc.threshold_dbfs`, `wsbc.ratio`, `wsbc.attack`, `wsbc.release`, `wsbc.stereo_link_pct`, `wsbc.mid_threshold_offset_db` and `wsbc.side_threshold_offset_db` are retained only as factory-bank compatibility carriers, and `wsbc.quality` is a fixed-policy field locked to the native 1× rate described in section 20. None of the eight is host-automatable, and none can change what you hear; they are listed here only so host parameter/state lists and saved projects referencing them make sense.

B INTERFACE STATE REFERENCE

Every mode the interface can be in, and what changes when it is.

STATE	SET BY	WHAT CHANGES
Bypassed	Power button	Output is the post-Input-Trim dry signal. Output Trim does not apply while bypassed.
Stereo Linked	Link button	One chart. Manual THRESHOLD/RATIO/ATTACK/RELEASE/GAIN edits target lane A only, leaving lane B's values stored and untouched; band layout, mute/solo and per-band Mix edits mirror to both lanes. Auto GR's handoff is the exception, committing to both lanes when linked.
Left / Right	Link/M-S, restoring the remembered mode	Two stacked charts, LEFT and RIGHT, independently editable and independently banded.
Mid / Side	M/S button, or the remembered mode	Two stacked charts, MID and SIDE.
Active lane	Clicking a chart when unlinked	Re-points Compression Controls and GR Intelligence to that lane.
Active band	Clicking a band region on the chart	Re-points Compression Controls and GR Intelligence to that band. The selector row's readout is display-only, not clickable.
Band enabled/disabled	Dragging a Create band handle, per lane	That lane's band appears, or its frequency range is handed to its neighbouring active band. When unlinked, the other lane is unaffected; while linked, the edit mirrors to both.
Band muted / soloed	M / S on the band, per lane	That band is silenced, or all others in that lane are.
Band mix adjusted	Dragging a Mix label, per band per lane	That band blends toward its own uncompressed signal. Other bands are unaffected; when unlinked so is the other lane, but while linked the edit mirrors to both.
Auto GR engaged	AUTO in GR Intelligence	The effective threshold and makeup move automatically, serviced on the audio thread; the chart follows their runtime values while the stored Threshold/Gain values stay put.
External sidechain	EXT SC in GLOBAL	Detector listens to the host sidechain bus instead of the plugin's own input.
Sidechain Listen engaged	Headphone button in GLOBAL	Output is replaced by the filtered detector signal, for monitoring.
Channel Listen engaged	LISTEN in the selector row	Output is replaced by one isolated lane of the processed signal, for monitoring — shown as Left/Right or Mid/Side on the LISTEN widget itself. Resets to off on any routing-mode change, even with the editor closed.
Clipping	Output above full scale	Visible in the footer's output meters.

SUPPORT

Questions, problems or suggestions: support@mouseplugins.com

Cambridge Bus Compressor is free. There is no activation, no trial limit and no feature restriction — the complete plugin, on as many systems as you like.

Thank you for using it. If it earns a place on your bus, the rest of the MousePlugins range is at mouseplugins.com.