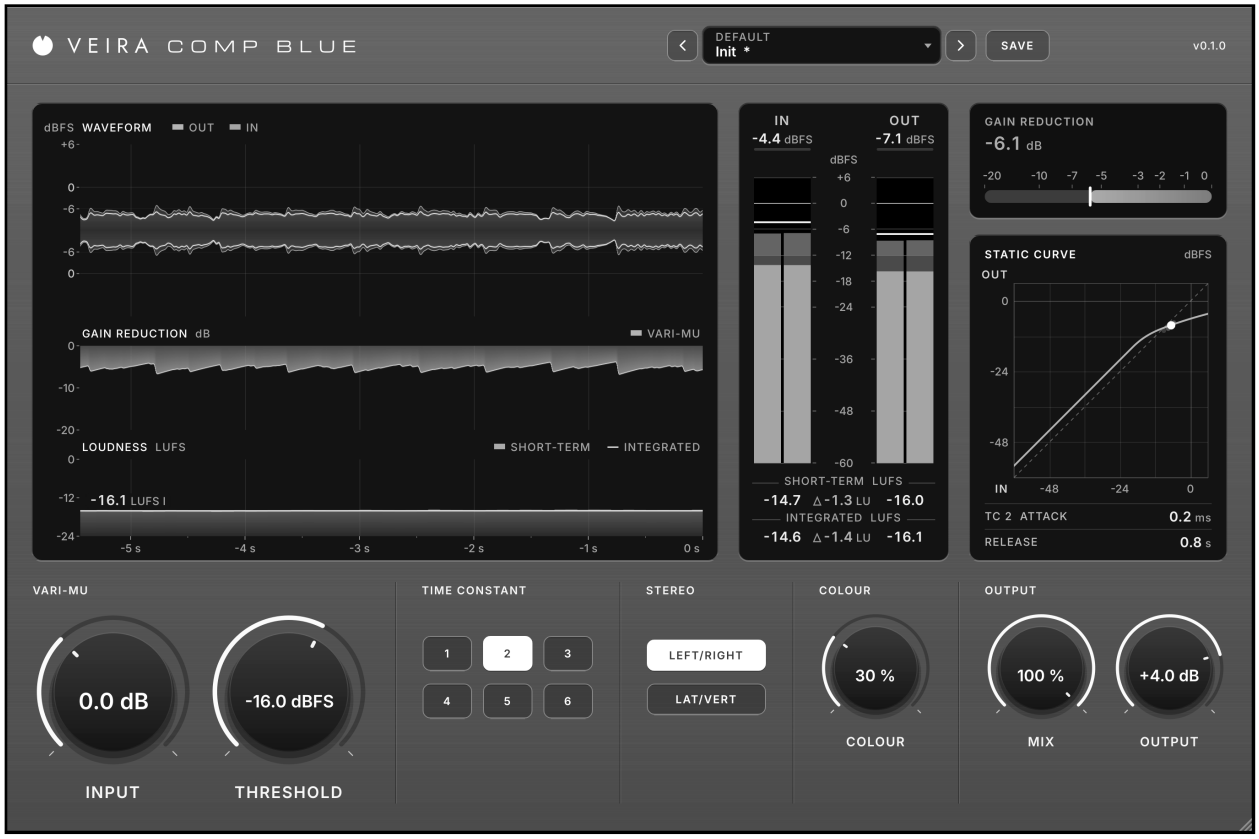
VEIRA

VARI-MU COMPRESSOR

VEIRA Comp Blue

User Manual

The vintage one of the four VEIRA colour compressors: a tube variable-mu compressor in the tradition of the classic vari-mu tube compressors of the late 1950s. A ratio that rises with level, six time constants, LAT/VERT and tube-and-transformer colour.



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Welcome

Thank you for choosing **VEIRA Comp Blue**. It is a vintage tube variable-mu compressor in the tradition of the classic vari-mu tube compressors of the late 1950s: the bus and master glue whose ratio rises gradually with level, with the six classic time constants (two of them programme-dependent), the lateral / vertical (mid / side) mode, and the colour of a push-pull tube stage and its transformers. It holds a mix together without ever sounding grabbed. It is the vintage one of the four VEIRA colour compressors (White, Red, Gold and Blue), and it is painted like VEIRA Limiter Blue and VEIRA EQ Blue.

What makes it different

- **A ratio that rises with level.** Barely compressing near the threshold (about 1.2:1), 2–3:1 a few dB over, about 4:1 when driven hard. The softest knee of the four.
- **Six time constants.** The classic attack / release pairs, from 0.3 s to 5 s, and two programme-dependent settings that release quickly after single peaks and slowly after sustained compression (up to 25 s). Measured against the published table.
- **LAT/VERT.** The classic lateral / vertical mode compresses the mid and the side separately, so loud wide parts are held without touching the centre.
- **Tube and iron colour.** COLOUR adds the push-pull stage's mostly odd, low-order harmonics, with a little extra weight on the bass from the transformers. Oversampled eight times; at 0 % the plugin is clean.
- **Easy to set.** INPUT, THRESHOLD, a time constant, OUTPUT. The STATIC CURVE shows the knee, and the read-out under it the attack and release in force.

How this manual is organised. *Getting started* covers installing and activating. *The panel at a glance* names every part of the window. *How a compressor works* is a short primer, and *How a vari-mu compressor works* explains what makes this one different. *Controls* and *Displays* explain every knob, button and graph with drawings. *Which colour compressor to choose* compares the four, and *Presets*, *Recipes*, *Specifications* and *Troubleshooting* close the manual.

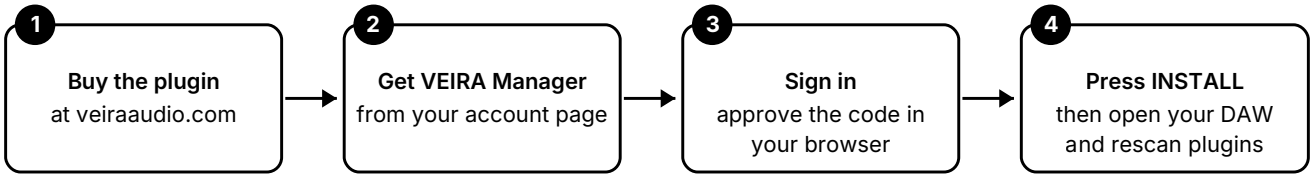
Getting started

What you need

macOS	macOS 11 Big Sur or later. Native on Apple silicon and Intel Macs (universal).
Windows	Windows 10 or 11, 64-bit.
Plugin formats	VST3 (macOS and Windows), Audio Units (macOS), and a standalone app. Pro Tools (AAX) versions arrive once they are signed for Pro Tools.
Hosts	Any DAW that loads VST3 or Audio Units: Logic Pro, Cubase, Nuendo, Ableton Live, Studio One, Reaper, FL Studio, Bitwig and others.
Account	A VEIRA account at veiraaudio.com, and the free **VEIRA Manager** app.
Internet	Needed to install and to refresh the licence. The plugin itself never goes online.

Install with VEIRA Manager

VEIRA plugins are not downloaded from the website one by one. You install them with **VEIRA Manager**, the free VEIRA app that installs, updates and activates everything you own. Its own manual covers it in full; the short version is:



One account works on up to three computers. Updates are free for life.

FIGURE 1 From purchase to first sound in four steps.

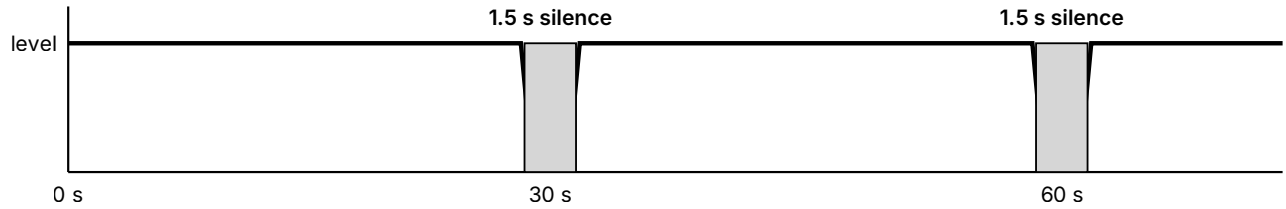
1. **Buy** VEIRA Comp Blue at **veiraaudio.com**. It's a one-time purchase: you own it for good, with free updates.
2. **Download VEIRA Manager** from your account page (or veiraaudio.com/manager) and install it.
3. **Sign in.** VEIRA Manager shows a short code and opens your browser; confirm the code there. Your password is never typed into the app.
4. Find VEIRA Comp Blue in the list and press INSTALL. When it says SHOW, it's installed. Open your DAW and let it rescan its plugins.

After installing, VEIRA Comp Blue appears in your DAW under the manufacturer **VEIRA** (in Logic Pro: Audio Units ▸ VEIRA ▸ VEIRA Comp Blue).

Activation and the licence

VEIRA Manager keeps a licence on your computer that the plugins check. It is refreshed every time VEIRA Manager opens and stays valid for 30 days offline, so you can work without internet as long as you open VEIRA Manager now and then.

Without a valid licence, VEIRA Comp Blue still loads and works, but **its sound fades out for 1.5 seconds every 30 seconds**, and a strip along the bottom of its window says why (for example, *NOT ACTIVATED ON THIS COMPUTER. SIGN IN WITH VEIRA MANAGER.*). Clicking the strip opens your account page.



Without a licence: short silences every 30 s, faded in and out so nothing clicks.

FIGURE 2 What an unlicensed copy does. With a valid licence the audio is never touched.

- **Activating while your DAW is open** takes effect within about two minutes. You don't need to reload the plugin.
- **"Not activated on this computer"**: open VEIRA Manager and sign in.
- **"Expired"**: open VEIRA Manager while online; it renews the licence at once.
- **"Not included"**: the signed-in account doesn't own VEIRA Comp Blue. Check that you're signed in with the account you bought it with.

Formats and where the files go

VEIRA Manager puts every format in the standard place, so you never need to copy files by hand:

Format	macOS	Windows
VST3	`~/Library/Audio/Plug-Ins/VST3` (just for me, the default) or `/Library/Audio/Plug-Ins/VST3` (all users)	`C:\Program Files\Common Files\VST3` (all users, the default) or `%LOCALAPPDATA%\Programs\Common\VST3`
Audio Units	`~/Library/Audio/Plug-Ins/Components` or `/Library/Audio/Plug-Ins/Components`	(Audio Units are macOS only)
Standalone	`~/Applications/VEIRA` or `/Applications/VEIRA`	`C:\Program Files\VEIRA` or `%LOCALAPPDATA%\Programs\VEIRA`

You choose *just for me* or *all users* in VEIRA Manager's install settings.

The standalone app runs VEIRA Comp Blue on its own, with your audio interface's input and output, which is handy for trying presets without a DAW.

The panel at a glance

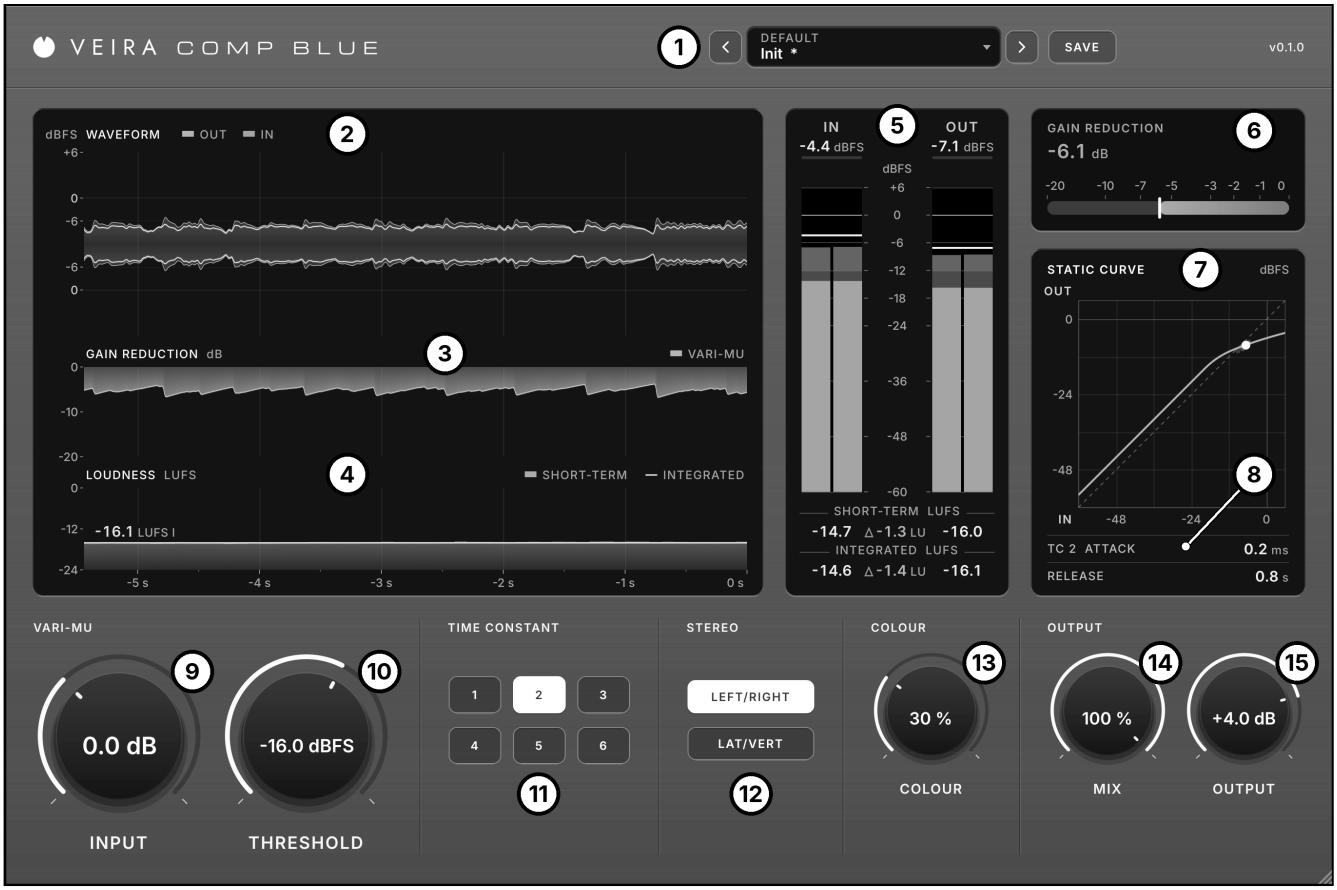


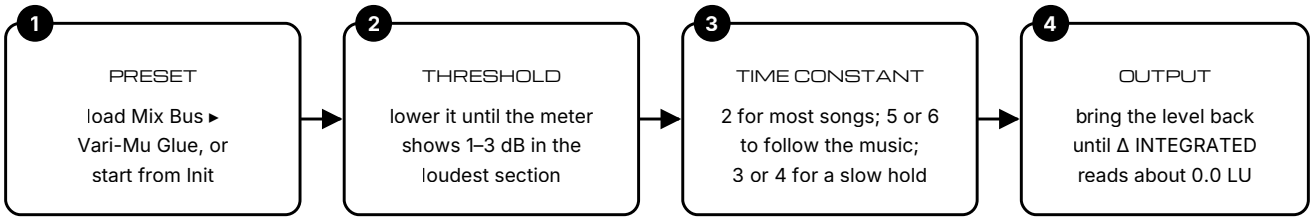
FIGURE 3 VEIRA Comp Blue, the steel-blue unit, on a pop mix: THRESHOLD −16.0 dBFS, TIME CONSTANT 2, LEFT/RIGHT, COLOUR 30 % and +4.0 dB of OUTPUT. The tubes are taking 6.1 dB off; the read-out under the curve shows TC 2's attack (0.2 ms) and release (0.8 s).

	Part	What it does
1	Preset browser	Steps through and saves presets. See *Presets*.
2	WAVEFORM	The last four and a half seconds: the output in front, what was taken off behind it.
3	GAIN REDUCTION lane	The reduction over time.
4	LOUDNESS lane	The output's short-term and integrated loudness.
5	Meter bridge	Input and output level and loudness.
6	GAIN REDUCTION meter	The reduction now, on a VU meter's movement.
7	STATIC CURVE	The compression curve for your settings, with the music's level on it.
8	Time-constant read-out	The selected TC, its attack and its release.
9	INPUT	How hard the music is driven into the tubes.

	Part	What it does
10	THRESHOLD	Where compression begins.
11	TIME CONSTANT	The six attack / release pairs.
12	STEREO	LEFT/RIGHT or LAT/VERT (mid / side).
13	COLOUR	The tube-and-transformer colour.
14	MIX	Parallel compression: the compressed signal against the dry one.
15	OUTPUT	The final level.

The window has the large display at the top left, the meter bridge in the middle and the GAIN REDUCTION meter over the STATIC CURVE at the right. The controls sit in five groups along the bottom, under the captions VARI-MU, TIME CONSTANT, STEREO, COLOUR and OUTPUT.

Quick start: glue on the mix bus in four moves

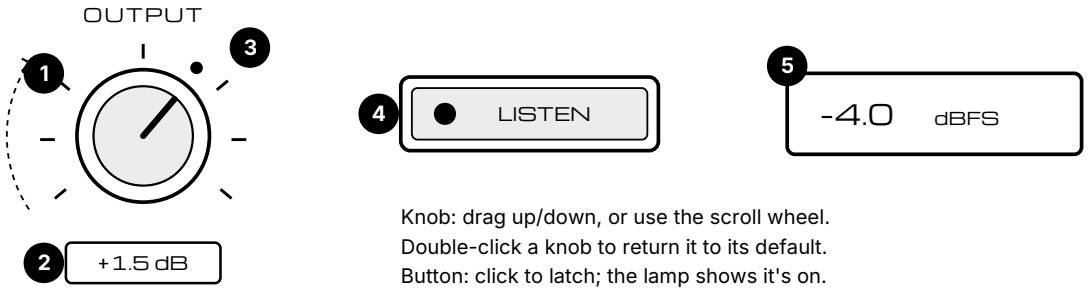


Then compare with your DAW's bypass: the mix should sound held together, not smaller.

FIGURE 4 The quickest way to vari-mu glue. *Default* ▸ *Init* is a neutral start: INPUT 0 dB, THRESHOLD −10 dBFS, TIME CONSTANT 2, LEFT/RIGHT, COLOUR 30 %.

Using the controls

Every VEIRA plugin is played like a piece of hardware. The same few parts appear on every panel:



Knob: drag up/down, or use the scroll wheel.
Double-click a knob to return it to its default.
Button: click to latch; the lamp shows it's on.
Readouts always carry a unit (dB, dBFS, LUFS, LU, ms, %).

FIGURE 5 The parts you'll find on every VEIRA panel (the labels are examples).

- 1 **Knob.** Drag up to turn it clockwise, down to turn it back, or use your mouse wheel. **Double-click** returns it to its default. The engraved pointer and the small dot on the scale show where it's set.

- ② **Value window.** The backlit window under each knob shows its exact value with its unit.
- ③ **Silkscreen label.** The control's name, as it appears in your DAW's automation list.
- ④ **Push button.** Click to switch on; the lamp lights and the cap sits lower in its bezel. Click again to switch off.
- ⑤ **Readout.** Live numbers update ten times a second so you can read them while the meters move. A value over 0 dBFS shows as a warning.

Tooltips: hover over any control or display for a short explanation. On displays, the tooltip depends on where you point.

Automation: every knob and button is a host parameter, so you can automate it in your DAW and control it from a MIDI controller or control surface that your DAW maps.

Units: VEIRA never shows a bare number. **dBFS** is level against digital full scale (0 dBFS is the loudest a digital signal can be); **dB** is a change in gain; **LUFS** is loudness as streaming services and broadcasters measure it; **LU** is a difference in loudness (1 LU = 1 dB).

On VEIRA Comp Blue's panel the parts look a little different from the drawing above:

- **Knobs show their value in the middle** ([0.0 dB], [-16.0 dBFS], [30 %]): the knobs are black, and a ring printed in cream on the paint around each one (in print, the light arc) shows how far it is turned. The control's name is printed under the knob. [INPUT] and [THRESHOLD], the two you touch most, are the large ones.
- **Type a value:** right-click a knob (Control-click on a Mac). A field opens over it with the current value; type the new one and press Return. The number is enough: **-18** for a −18 dBFS threshold, **3** for 3 dB of [INPUT]. Press Escape or click elsewhere to leave it unchanged.
- **Buttons have no lamps:** the selected [TIME CONSTANT] and [STEREO] buttons fill with cream with dark lettering (in print, a light button); the others are dark wells in the paint with cream lettering. One time constant and one stereo mode are always selected.
- **Resize the window:** drag its bottom-right corner (the small diagonal lines). It scales from 75 % to 200 % of its normal size (1360 × 900 points) and keeps its proportions. Your DAW saves the size with the session.
- **The face:** Blue is painted like VEIRA Limiter Blue and VEIRA EQ Blue: 1970s steel blue with cream print and black knobs. The displays, the meter bridge and the preset window are dark screens set into the paint, so the meters keep their usual colours. Every label on the paint stands at least 4.5:1 against it (the WCAG AA contrast for text).

How a compressor works

If you already know compressors, skip to *How a vari-mu compressor works*. If not, this page makes every control obvious.

A compressor is an automatic hand on a fader. It listens to the signal, and whenever the signal gets louder than a level you choose (the **threshold**), it turns it down by an amount set by the **ratio**. Loud moments come down, quiet ones are left alone, so the difference between them gets smaller. Then you turn the whole thing back up with OUTPUT, and the quiet details become easier to hear. How quickly the hand moves down is the **attack**; how quickly it lets go, the **release**.

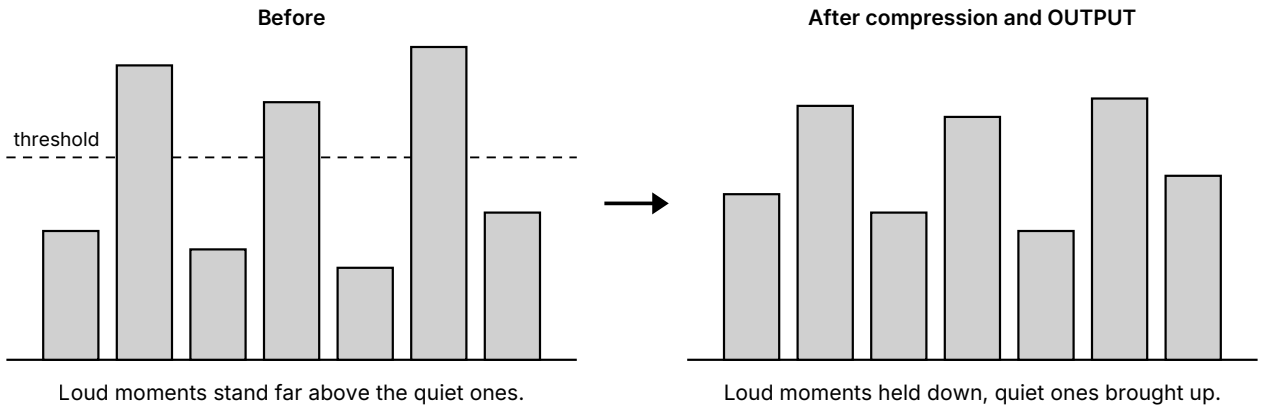


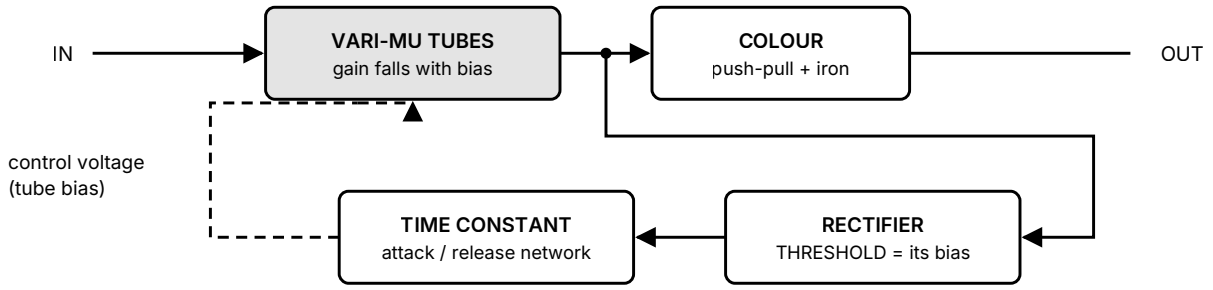
FIGURE 6 Compression narrows the gap between loud and quiet moments; output gain then brings the whole track back up.

On many compressors the ratio is a fixed number and the knee a separate setting. On a vari-mu compressor they are one thing, set by the tubes themselves, as the next chapter explains.

How a vari-mu compressor works

The tube is the gain control

In a vari-mu (“variable mu”, mu being a tube’s gain) compressor, the audio passes through tubes whose gain falls as their grid bias rises. The side chain rectifies the music into a control voltage and feeds it to the tubes as bias: the louder the music, the more bias, the less gain. The tubes chosen for the job (remote-cutoff types) turn their gain down smoothly, nearly in proportion to the bias in dB, so there is no switch-on point and no hard corner.

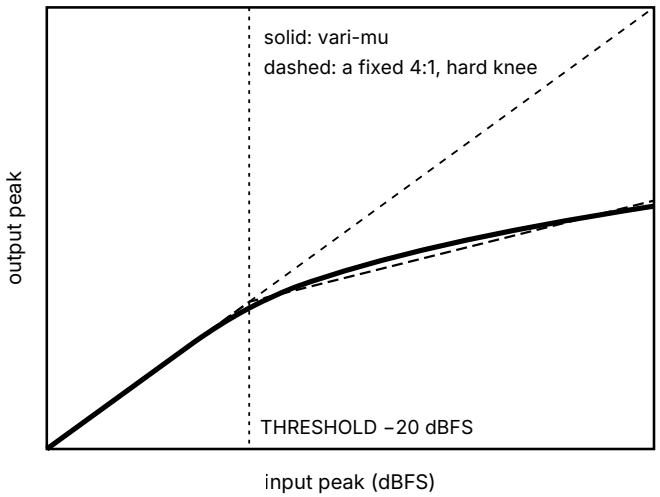


Feedback: the side chain reads the output of the gain cell, as the hardware's does.

FIGURE 7 The vari-mu principle. The rectifier turns the music into a control voltage; the time-constant network sets how fast it charges and discharges; the voltage biases the tubes, whose gain falls with it. Because the side chain listens after the tubes (feedback), the ratio isn’t fixed: it rises with level.

A ratio that rises with level

The rectifier’s bias makes the threshold, and it switches on softly: it starts to conduct a few dB under THRESHOLD and is fully on a few dB over it. Through the feedback, the ratio then keeps rising the harder you push. So near the threshold the compressor barely touches the music; a few dB over it is a gentle 2–3:1; driven hard, about 4:1. That gradual bend is the “glue” sound: nothing is ever grabbed.



Measured, THRESHOLD −20 dBFS

input	reduction	local ratio
−20 dBFS	0.6 dB	1.2:1
−16	2.3	1.8:1
−12	4.7	2.5:1
−8	7.3	2.8:1
−4	10.0	3.1:1
0	12.8	3.5:1
+6	17.3	3.9:1

FIGURE 8 The vari-mu knee, measured (1 kHz sine, steady state; the model within 0.02 dB). The ratio climbs from about 1.2:1 at the threshold to about 4:1 when driven 26 dB over it. The STATIC CURVE panel draws exactly this for your settings.

The six time constants

The original's time constants are a capacitor network switched by one knob: each position is an attack and release pair. VEIRA Comp Blue has the same six:

TIME CONSTANT	1	2	3	4	5	6
Attack	0.2 ms	0.2 ms	0.4 ms	0.4 ms	0.4 ms	0.2 ms
Release	0.3 s	0.8 s	2 s	5 s	2 s after single peaks, 10 s after several	0.3 s after single peaks, 10 s after several, 25 s after consistent heavy compression

Releases are RC time constants: 63 % recovered in that time. **1 to 4** are fixed pairs, from a quick 0.3 s to a very slow 5 s. **5 and 6 are programme-dependent:** extra capacitors charge only while the music is being compressed, so a single peak barely touches them, but several peaks, or sustained heavy compression, fill them and the release lengthens with them.

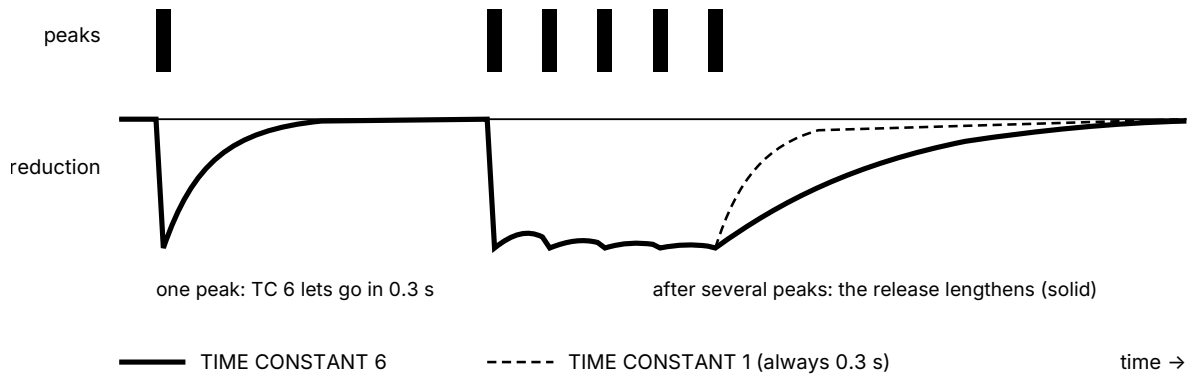


FIGURE 9 A programme-dependent time constant, roughly (down = more reduction). After a single peak, TIME CONSTANT 6 lets go as fast as 1; after a run of peaks it holds on much longer, so dense passages are held steadily and never pump, while isolated peaks recover quickly.

Measured against the published table (1 kHz sine, THRESHOLD −20 dBFS; release = 63 % of the reduction recovered):

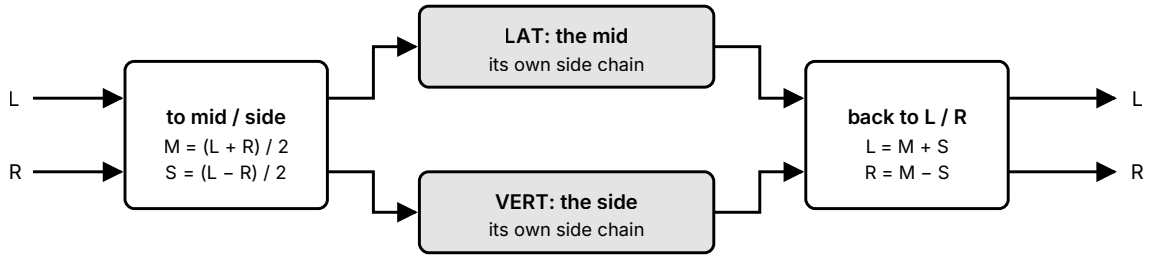
TC	Attack (published)	After one peak	After several	After 10 s heavy
1	0.15 ms (0.2)	0.30 s (0.3)	0.30 s (0.3)	0.30 s (0.3)
2	0.15 ms (0.2)	0.80 s (0.8)	0.80 s (0.8)	0.80 s (0.8)
3	0.19 ms (0.4)	2.00 s (2)	2.00 s (2)	2.00 s (2)
4	0.19 ms (0.4)	5.00 s (5)	5.00 s (5)	5.00 s (5)
5	0.19 ms (0.4)	2.00 s (2)	7.99 s (10)	9.77 s (10)
6	0.15 ms (0.2)	0.30 s (0.3)	7.91 s (10)	23.0 s (25)

The attacks measure a little quicker than the network's own time constant because the side chain is feedback: as the output falls, the rectifier stops charging sooner.

Choosing one: 1 for drums and anything that should recover between hits; 2, the most used, for mix buses, vocals and bass; 3 and 4 for a slow, steady hold over whole sections; 5 and 6 when the music changes a lot: quick on transients, slow through dense choruses. On a master, 5 and 6 are especially natural.

LAT/VERT: lateral and vertical

The original had a lateral / vertical mode, named after the two directions of a record groove: lateral is the sum of the channels (the **mid**, what is in both speakers) and vertical the difference (the **side**, what makes it wide). In LAT/VERT VEIRA Comp Blue compresses them separately, each with its own side chain.



Measured: a quiet centred tone under a loud side-only tone. In LAT/VERT the centre tone changes 0.00 dB; in LEFT/RIGHT the loud side pulls it down 8.9 dB.

FIGURE 10 LAT/VERT. The mid and the side are compressed separately, then turned back into left and right. Loud wide parts (doubled guitars, wide pads, reverbs) are held without pulling down the vocal, kick and bass in the centre. With no reduction the round trip is exact, bit for bit.

- LEFT/RIGHT (the default): one side chain compresses both channels together, so the image never moves. The usual choice.
- LAT/VERT: the mid and the side each have their own. Use it when wide elements push the compressor around: the side is held, the centre stays steady. Because the side can be compressed more than the mid, the image can get a little narrower on loud wide passages; that is the effect.

What happens inside VEIRA Comp Blue

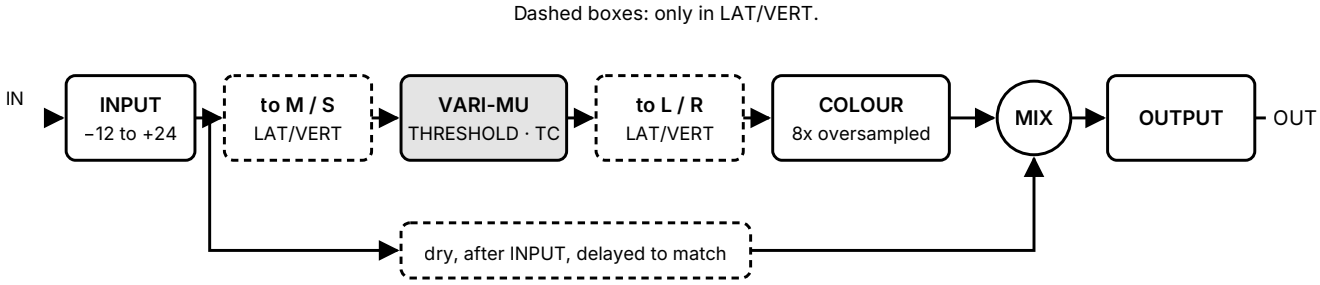


FIGURE 11 Signal flow. INPUT, then (in LAT/VERT) to mid / side, the vari-mu gain, back to left / right, the colour stage at eight times the sample rate, MIX against the dry signal (after INPUT, delayed to match) and OUTPUT.

- **Latency: 98 samples** at every sample rate (2.0 ms at 48 kHz): the colour stage's oversampling filters. It is constant whatever the settings and reported to your DAW. The host's bypass is delayed by the same amount.
- **Clean when idle:** with COLOUR at 0 % and no reduction (INPUT and OUTPUT at 0 dB), the output is the input, delayed, bit for bit, in LEFT/RIGHT and in LAT/VERT, at any MIX. MIX 0 % is the dry signal however hard it compresses.

Controls

VARI-MU: INPUT and THRESHOLD

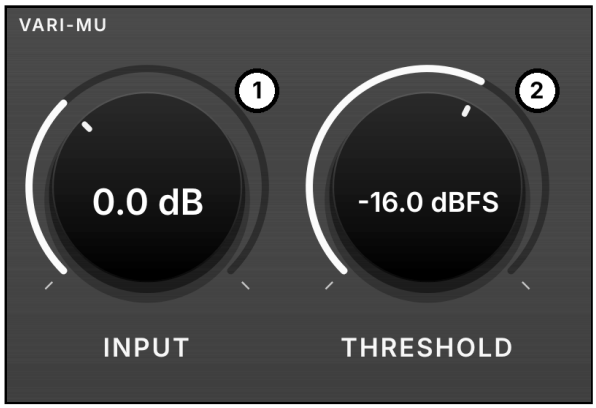


FIGURE 12 The VARI-MU group: 1 INPUT and 2 THRESHOLD.

Control	Range	Default	What it does
INPUT	−12 to +24 dB	0.0 dB	How hard the music is driven into the tubes.
THRESHOLD	−40 to 0 dBFS	−10.0 dBFS	Where compression begins (on the level after INPUT).

THRESHOLD is where the compression begins. Lower it until the GAIN REDUCTION meter shows the amount you want: 1–3 dB on a mix bus or master, 3–6 dB on a vocal, bass or drum bus. Because the knee is so soft, the meter starts moving gently a few dB before the threshold.

INPUT drives the music into the tubes: more INPUT means more compression *and* more colour (it drives the colour stage harder too), and OUTPUT brings the level back. For glue, leave it at 0 dB and set THRESHOLD; for a fatter, more saturated sound, add a few dB of INPUT and raise THRESHOLD to keep the same reduction.

TIME CONSTANT

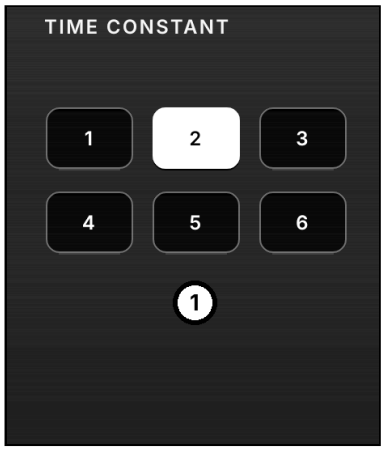


FIGURE 13 1 The TIME CONSTANT buttons 1 to 6 (2 is lit).

Control	Values	Default	What it does
TIME CONSTANT	1 to 6	2	The attack / release pair (see *The six time constants*).

Press a button to choose. The read-out under the STATIC CURVE shows the one in force, for example TC 2 ATTACK 0.2 ms RELEASE 0.8 s. A fast release on low notes (1, and to a lesser degree 2) lets the gain ripple with the bass wave, as the hardware's does: a 50 Hz tone compressed 8.5 dB measures 0.89 % THD with 1, 0.35 % with 2 and 0.06 % with 4. That is part of the vintage sound on drums; use 3 or 4 for a cleaner low end.

STEREO: LEFT/RIGHT and LAT/VERT



FIGURE 14 1 The STEREO buttons: LEFT/RIGHT (lit) and LAT/VERT.

Control	Values	Default	What it does
STEREO	LEFT/RIGHT, LAT/VERT	LEFT/RIGHT	Both channels together, or the mid and the side separately.

See *LAT/VERT: lateral and vertical*. In LAT/VERT the GAIN REDUCTION meter and lane show the larger of the mid's and the side's reduction. On a mono track the choice makes no difference.

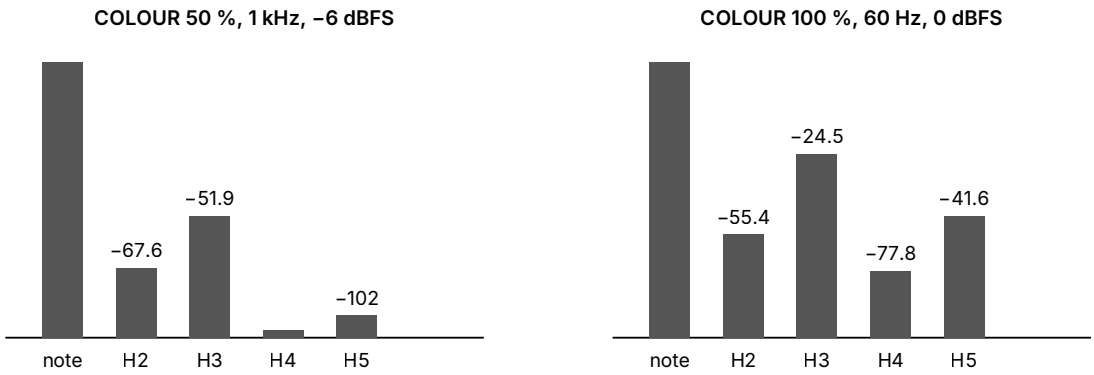
COLOUR



FIGURE 15 1 COLOUR.

Control	Range	Default	What it does
COLOUR	0 to 100 %	30 %	The push-pull tube line amplifier and its transformers. 0 % is clean.

COLOUR is the sound of the original's output stage. A push-pull pair of tubes is nearly symmetric, so it makes mostly **odd** harmonics (the 3rd leading, with a whisper of 2nd from a slightly unbalanced pair), and the output transformer's iron saturates on the low frequencies, giving the bass a little more 3rd. Like the tubes, it gets stronger with level: quiet passages stay nearly clean, loud ones thicken.



Measured, no compression, in dBc (heights roughly to scale). The odd harmonics lead; the iron adds 3rd on the bass.

FIGURE 16 What COLOUR adds: on a mid tone, mostly the 3rd harmonic (0.26 % THD at 50 %, −6 dBFS); on a loud bass note at 100 %, much more 3rd and 5th from the transformer (6.0 %).

Measured, no compression	THD	H2	H3	H5
COLOUR 30 %, 1 kHz, −12 dBFS	0.024 %	−78.4	−73.6	−145 dBc
COLOUR 50 %, 1 kHz, −6 dBFS	0.26 %	−67.6	−51.9	−102 dBc
COLOUR 50 %, 1 kHz, 0 dBFS	0.87 %	−62.5	−41.2	−81.2 dBc
COLOUR 100 %, 1 kHz, 0 dBFS	3.7 %	−57.1	−28.8	−55.8 dBc
COLOUR 50 %, 60 Hz, −6 dBFS	1.1 %	−67.4	−38.8	−65.0 dBc
COLOUR 100 %, 60 Hz, 0 dBFS	6.0 %	−55.4	−24.5	−41.6 dBc

The colour stage runs at eight times the sample rate, so its harmonics don't fold back: the worst aliased product with high tones at full COLOUR measured −125 dBc (−102 dBc with INPUT +12 dB). At 0 % the stage is an exact delay.

OUTPUT: MIX and OUTPUT

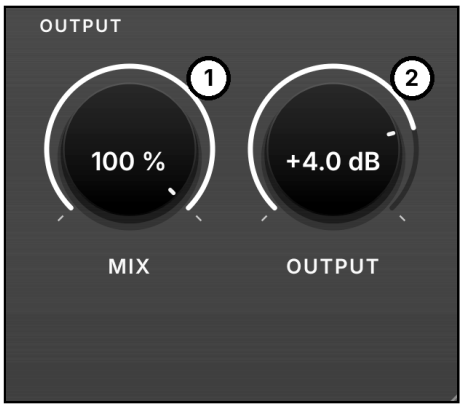


FIGURE 17 The OUTPUT group: 1 MIX and 2 OUTPUT.

Control	Range	Default	What it does
MIX	0 to 100 %	100 %	Parallel compression: the compressed signal against the dry one (after INPUT, delayed to match).
OUTPUT	−24 to +12 dB	0.0 dB	The final level.

MIX: parallel compression

MIX blends the compressed signal with the dry signal. At 100 % you hear only the compressor; at 0 % only the dry signal; in between, both. **Parallel compression** keeps the dry signal's natural attack while the compressed one fills in the body: *Mix Bus* ▸ *Parallel Weight* (40 %) and *Creative* ▸ *Drum Crush Parallel* (45 %) use it. The dry signal is taken after INPUT, so INPUT changes both paths' level together, and it is delayed by the same 98 samples, so nothing smears.

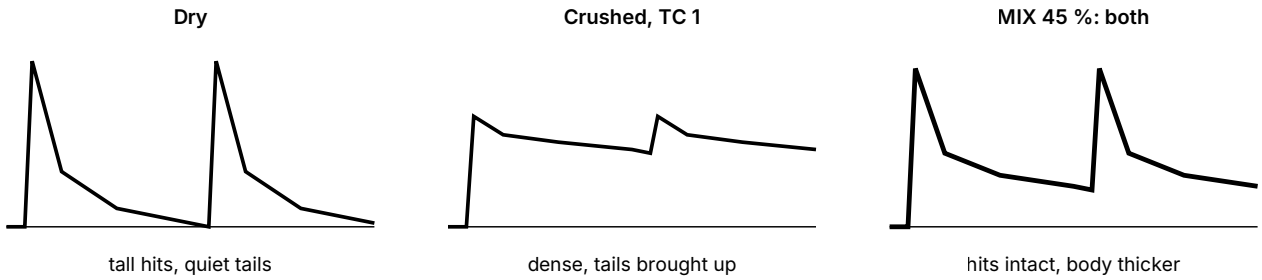


FIGURE 18 Parallel compression with [MIX]: the dry hits keep their attack and the compressed copy brings up the body.

OUTPUT

[OUTPUT] sets the final level. Set it so the meter bridge's Δ [INTEGRATED] reads about 0.0 LU, then compare with bypass: louder always sounds better, so compare at equal loudness.

Displays

WAVEFORM, GAIN REDUCTION and LOUDNESS lanes

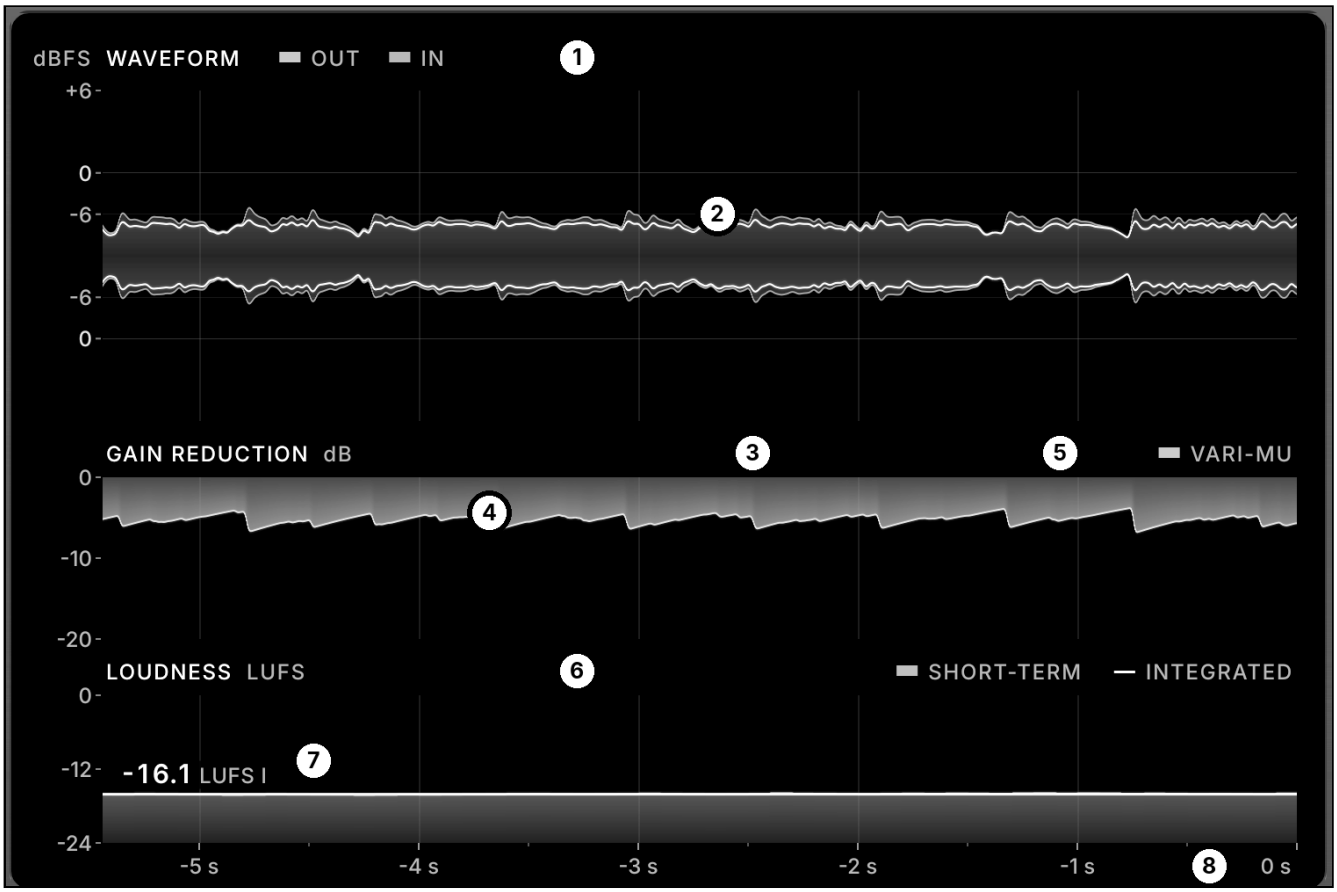


FIGURE 19 1 Legend, 2 output in front with the input behind it, 3 GAIN REDUCTION lane, 4 the reduction (hanging from the top line), 5 its key (VARI-MU), 6 LOUDNESS lane, 7 the integrated loudness so far, 8 time scale.

The large display shows the last four and a half seconds or so, newest at the right edge (0 s).

- **Waveform.** 2 The **output** is drawn in blue, in front, mirrored around the centre line; the scale is linear, with +6 dBFS at the edges. Wherever the input rose above the output, it shows **behind** it in grey: what the compressor took off. In print the output is the band in the middle and the input the paler shape beyond it.
- **GAIN REDUCTION.** 4 The reduction over time, hanging from 0 at the top down to -20 dB (in LAT/VERT, the larger of the mid's and the side's). With TIME CONSTANT 5 or 6, watch the release lengthen after sustained compression.
- **LOUDNESS.** 6 The output's short-term loudness (3 s) as a filled curve, on a scale from 0 to -24 LUFS, with the integrated loudness so far as a thin line 7 , also written at the top left of the lane (for example -16.1 LUFS I).

Hover anywhere on the three plots for a read-out of that moment: TIME, IN and OUT peaks (dBFS), GR (dB) and SHORT-TERM loudness (LUFS).



FIGURE 20 A drum bus with INPUT +6.0 dB, THRESHOLD −26.0 dBFS, TIME CONSTANT 1, LAT/VERT, COLOUR 75 %, MIX 60 % and OUTPUT +2.0 dB: the fast TC 1 recovers between hits (the lane), and the STATIC CURVE shows the soft knee blended at 60 %.

GAIN REDUCTION meter, STATIC CURVE and time constant

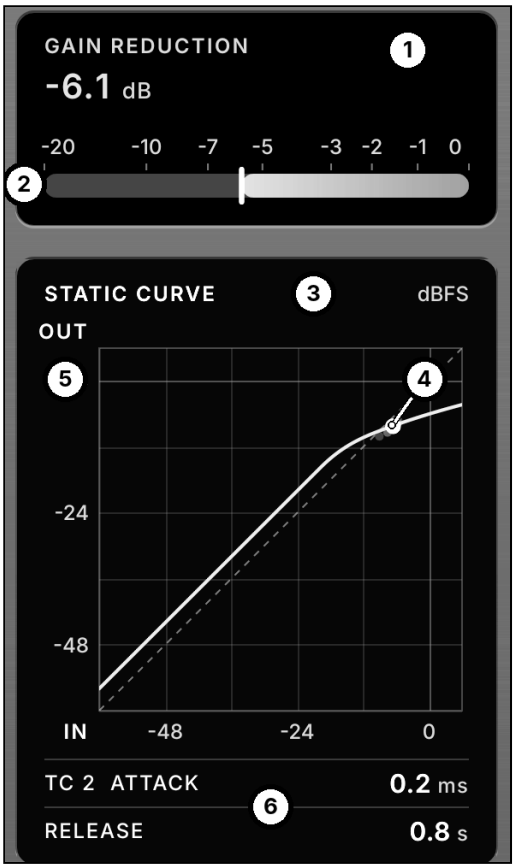


FIGURE 21 1 The GAIN REDUCTION meter and 2 its bar; 3 the STATIC CURVE with 4 the dot (the music now) and 5 the output scale; 6 the time constant in force, with its attack and release.

- 1 **GAIN REDUCTION meter.** The reduction now, from 0 to −20 dB, on the scale -20 -10 -7 -5 -3 -2 -1 0. 2 The bar (red on screen; in print, the lighter block) grows from 0 at the right towards the left, with a VU meter's movement (IEC 60268-17), so it shows how hard the compressor is working on average.
- 3 **STATIC CURVE.** The output's peak level for an input's peak level (a steady 1 kHz tone; the colour left out), IN across and OUT up, with the 1:1 line dashed. It follows INPUT, THRESHOLD, MIX and OUTPUT, and shows the soft vari-mu knee. 4 The dot is the music now, with its recent past fading behind it.
- 6 **The read-out** under it names the TIME CONSTANT in force with its ATTACK and RELEASE; for 5 and 6 it lists the releases from a single peak to sustained compression (2 / 10 s and 0.3 / 10 / 25 s).

Meter bridge (IN | OUT)

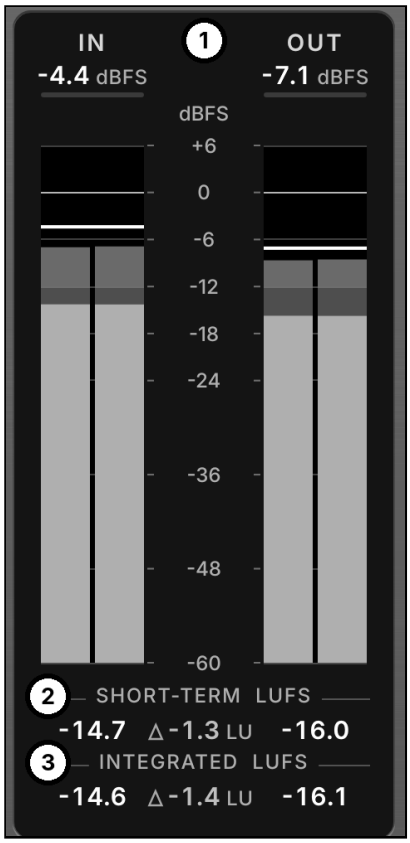


FIGURE 22 The meter bridge: 1 input and output columns, 2 short-term and 3 integrated loudness, with the OUT − IN difference between them.

VEIRA Comp Blue uses the standard VEIRA meter bridge, with an input and an output column and no gain-reduction column (the GAIN REDUCTION meter and lane show that). Δ shows how much louder or quieter Blue made the music, in LU: aim for about 0.0 LU when you compare with bypass. Everything else works as described below.

Reading the IN and OUT meters

The meter bridge measures what goes into VEIRA Comp Blue and what comes out, in level and in loudness. The drawing shows the input and output columns; any extra column on your plugin's bridge is described above.

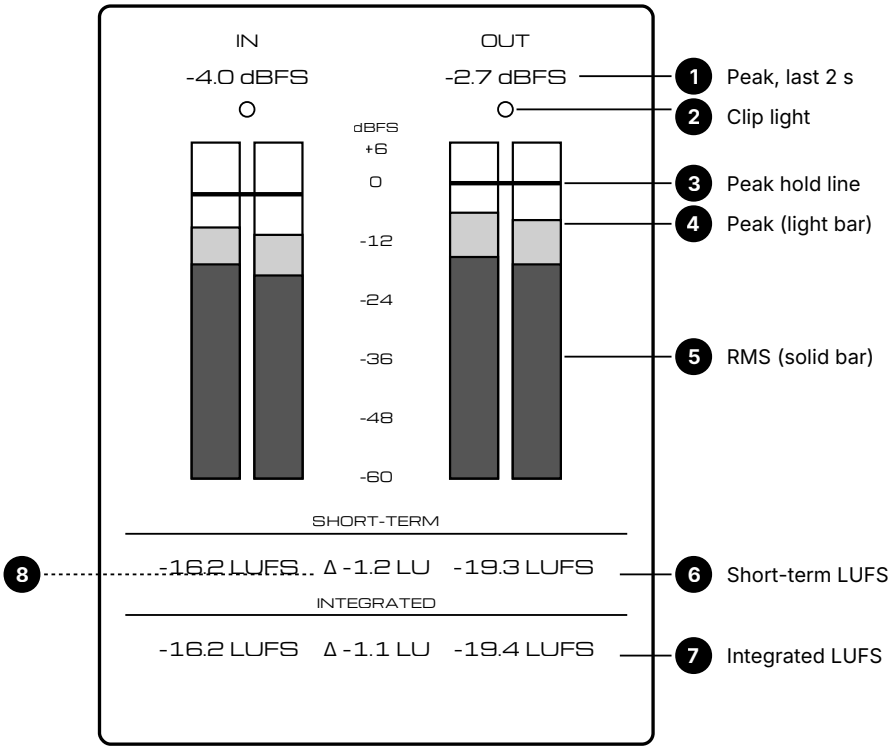


FIGURE 23 The meter bridge, left and right channel bars for input and output, with loudness below.

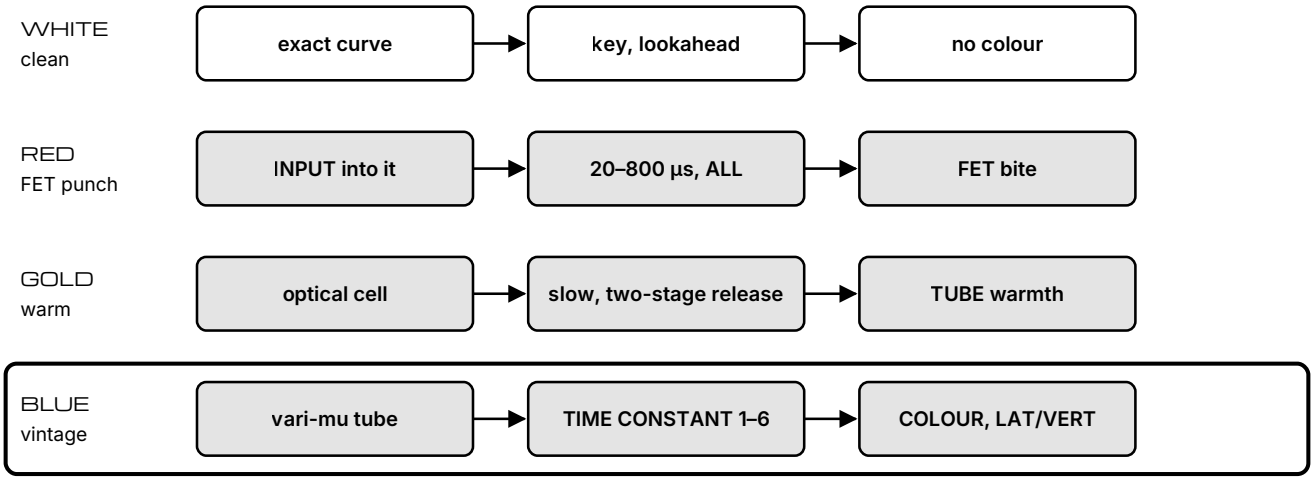
- 1 **Peak readout:** the highest sample peak of the last two seconds, in dBFS. It turns to a warning above 0 dBFS.
- 2 **Clip light:** lights on any sample at or over full scale. It stays lit until you click the meter.
- 3 **Hold line:** marks the recent peak on the bar.
- 4 **Peak bar** (the lighter part): the instantaneous sample peak of each channel.
- 5 **RMS bar** (the solid part): the average level over 300 ms, closer to how loud it sounds.
- 6 **SHORT-TERM:** loudness over the last 3 seconds, in LUFS, for the input (left) and the output (right).
- 7 **INTEGRATED:** loudness of everything since the measurement started, gated as the ITU-R BS.1770-4 and EBU R 128 standards require.
- 8 **Δ (delta):** OUT minus IN, in LU. It tells you how much louder (+) or quieter (−) VEIRA Comp Blue made the signal, so you can match levels fairly when you compare with bypass. It reads [--] while either side is too quiet to measure (below −70 LUFS).

The scale: on screen the bars are coloured like a studio console: green below −12 dBFS, yellow from −12 to −3, orange from −3 to 0 and red above 0 dBFS.

Clicks: click a level meter to reset its hold and clip light. Click the loudness readouts to restart the integrated measurement, for example at the start of a song.

Which colour compressor to choose

VEIRA Comp Blue is one of four VEIRA colour compressors, each painted like the colour limiter and colour EQ of the same name. All four have a parallel [MIX], a meter bridge with loudness and a display that shows the reduction over time. What differs is the kind of compressor, and how much of its own sound it adds.



Grey: a character of its own. The framed row is the one in your hands.

FIGURE 24 The four colours, side by side.

	Character	Choose it when
White	Clean. A transparent, modern compressor: exact curve, [RATIO] to infinity, [KNEE], [LOOKAHEAD], [AUTO] release and makeup, external key with [LISTEN], stereo [LINK]. No colour at all.	You want control without a sound of its own: any track, bus or master; ducking from a sidechain.
Red	FET punch. In the tradition of the classic FET studio compressor: [INPUT] into a fixed threshold, 20–800 µs attack, ratios 4, 8, 12, 20 and [ALL], a second-harmonic bite that grows with the reduction.	Drums, rock vocals, bass that should growl, room mics, parallel smash: when you want the compressor to be heard.
Gold	Warm. A tube optical leveller in the tradition of the classic tube optical levellers: one [PEAK REDUCTION] knob, [COMPRESS] or [LIMIT], an optical cell with a slow two-stage release, and [TUBE] warmth.	Vocals, bass and buses that should sit still without sounding held; when you want smooth and simple.
Blue	Vintage. A vari-mu tube compressor in the tradition of the classic vari-mu tube compressors: a ratio that rises with level, six [TIME CONSTANT] settings, [LAT/VERT] (mid/side) and tube-and-transformer [COLOUR].	Mix-bus and master glue, drum buses, anything that should be held together gently and sound a little vintage.

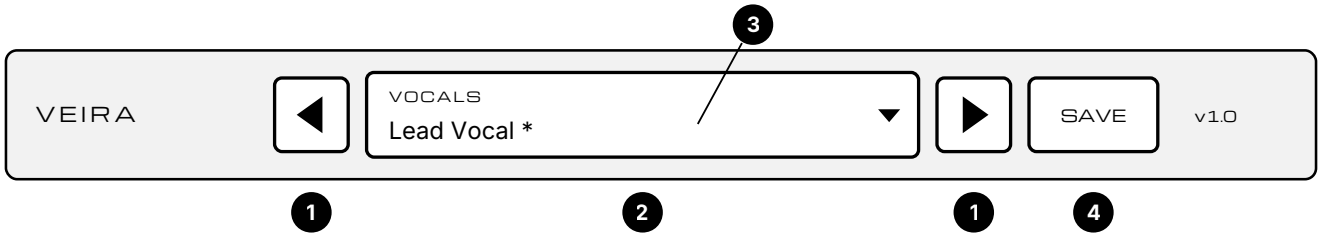
Blue is the vintage one. Reach for it on the mix bus and the master, on drum buses and on anything that should be held together gently and sound a little older. For control with no colour and a sidechain key, try White; for bite, Red; for smooth levelling of a single part, Gold.

Presets

VEIRA Comp Blue comes with **37 factory presets** in 9 folders. Each one is a starting point made for a real job. Load one close to what you need, then adjust the first control its note mentions.

The preset browser

The preset browser sits in the header, at the top of the window.



The header: logo and plugin name, then the preset browser, then the version.

FIGURE 25 The preset browser.

- 1 ◀ ▶ step to the previous or next preset, through every folder in order.
- 2 **The display** shows the folder (small, above) and the preset's name. Click it to open the preset menu. Hover over it to read the preset's note: what it's for and what to adjust first.
- 3 **An asterisk (*)** after the name means you've changed something since the preset loaded.
- 4 SAVE stores your current settings as a user preset.

The preset menu

Clicking the display opens a menu with:

- one submenu per **factory folder**, in the order shown below;
- **User Presets**, with your own presets in their folders;
- **Save...**, **Delete** (only for user presets: factory presets can't be deleted), **Rescan** (re-reads the user folder, if you copied presets in by hand) and **Show User Preset Folder** (opens it in Finder or Explorer).

Saving your own presets

1. Set VEIRA Comp Blue the way you like it.
2. Press SAVE. A dialog opens inside the plugin window.
3. Type a name, choose a folder or type a new folder name, and confirm.

Each user preset is one small .veirapreset file:

	Folder
macOS	~/Library/Audio/Presets/VEIRA/VEIRA Comp Blue/<Folder>/
Windows	%APPDATA%\VEIRA\VEIRA Comp Blue\Presets\<Folder>\

Copy these files to move your presets to another computer, or to back them up. Presets keep loading in future versions: any control added later simply starts at its default.

Presets in your DAW

The factory presets also appear in your DAW's own preset or program menu, named *Folder: Name* (for example *Vocals: Lead Vocal*). Whatever preset is selected is saved with your session and comes back when you reopen it, including the asterisk if you'd changed it.

The **Default ▸ Init** preset equals a fresh instance of the plugin: every control at its default.

The factory folders

Folder	Presets
Default	Init
Vocals	Vintage Vocal, Velvet Vocal, Vocal Ride TC5, Backing Vocal Bed
Drums	Drum Bus Vari-Mu, Overheads Tame, Snare Weight, Kick Tube
Bass	Vintage Bass, Bass Glue TC2, Sub Bass Hold, Fat Bass Drive
Guitars	Strummed Acoustic, Electric Glue, Wide Guitars LatVert, Lead Sustain
Keys	Piano Glue, Electric Piano Tube, Organ Hold, Pad Width LatVert
Mix Bus	Vari-Mu Glue, Programme Glue TC5, Slow Bus TC4, Parallel Weight, Wide Bus LatVert, Warm Bus Colour
Mastering	Mastering Glue, Mastering TC5, Mastering TC6, Mastering LatVert, Mastering Colour, Mastering Clean
Creative	Drum Crush Parallel, Pumping TC1, Tube Drive, Side Squeeze LatVert

Levels matter. Each preset's THRESHOLD was fitted so its folder's material (tracks peaking at −8 dBFS, drums and buses at −4 dBFS, premasters at −3 dBFS) reaches the preset's designed reduction, then OUTPUT so the material comes out as loud as it went in: every preset outside Default and Creative within 0.10 dB of bypass. On your music, set THRESHOLD by the GAIN REDUCTION meter first, then OUTPUT by ear. On a dense, already-loud mix, the Mix Bus and Mastering presets compress a little more.

Recipes

Step-by-step starting points. In each, set OUTPUT last, so the Δ INTEGRATED reading is near 0.0 LU when you compare with bypass.

Mix-bus glue

1. Load **Mix Bus ▸ Vari-Mu Glue** (TIME CONSTANT 2, COLOUR 30 %).
2. Lower THRESHOLD until the meter shows 1–3 dB in the loudest section.
3. If the choruses pump, try **Programme Glue TC5**: quick on transients, slow through dense sections.

A gentle master

1. Load **Mastering ▸ Mastering Glue**, or **Mastering TC5** / **Mastering TC6** for programme-dependent release.
2. Keep the reduction around 1 dB, 2 at most. For no colour at all, use **Mastering Clean** (COLOUR 0 %).

Wide guitars, steady centre

1. On a bus with doubled guitars or wide keys, load **Guitars ▸ Wide Guitars LatVert** (LAT/VERT).
2. The loud wide parts are held on their own; the vocal and the rhythm section in the centre stay where they are.
3. On a whole mix, **Mix Bus ▸ Wide Bus LatVert** does the same gently.

A vintage drum bus

1. Load **Drums ▸ Drum Bus Vari-Mu** (TIME CONSTANT 2, COLOUR 40 %).
2. For more snap between hits, try TIME CONSTANT 1; for more weight, add INPUT and COLOUR.
3. For crushed parallel drums, load **Creative ▸ Drum Crush Parallel** and set MIX to taste.

A vocal held in place

1. Load **Vocals ▸ Vintage Vocal**, or **Vocal Ride TC5** for a programme-dependent ride.
2. Lower THRESHOLD for 3–6 dB on the loud phrases.

Tubes and iron as an effect

1. Load **Creative ▸ Tube Drive** (INPUT +12 dB, COLOUR 100 %, THRESHOLD 0 dBFS).
2. Set the drive with INPUT and the level with OUTPUT.

Specifications

Type	Variable-mu tube compressor: feedback side chain, six-position time-constant network (two programme-dependent), push-pull tube and transformer colour
Channels	Mono and stereo; LEFT/RIGHT (linked) or LAT/VERT (mid / side, each with its own side chain)
Latency	98 samples at every sample rate (2.0 ms at 48 kHz), constant, reported to the host; the DAW's bypass is delayed by the same amount
Clean when idle	With COLOUR at 0 % and no reduction (INPUT and OUTPUT at 0 dB), the output is the input, delayed, bit for bit, in both stereo modes, at any MIX
Knee	Ratio about 1.2:1 at the threshold, rising to about 4:1 driven hard (measured, the model within 0.02 dB)
INPUT	−12 to +24 dB (default 0.0 dB)
THRESHOLD	−40 to 0 dBFS (default −10.0 dBFS)
TIME CONSTANT	1 to 6 (default 2): attack 0.2 / 0.2 / 0.4 / 0.4 / 0.4 / 0.2 ms, release 0.3 / 0.8 / 2 / 5 s; 5: 2–10 s; 6: 0.3–25 s
STEREO	LEFT/RIGHT or LAT/VERT (default LEFT/RIGHT)
COLOUR	0 to 100 % (default 30 %); mostly odd harmonics, more 3rd on the bass; 8× oversampled; aliasing −125 dBc at 100 %
MIX	0 to 100 % (default 100 %)
OUTPUT	−24 to +12 dB (default 0.0 dB)
Metering	Waveform (about 4.5 s) with the reduction and short-term and integrated loudness; GAIN REDUCTION bar with VU ballistics; STATIC CURVE with the music's level and the time constant in force; IN and OUT meters (peak, RMS, short-term and integrated loudness per ITU-R BS.1770-4 / EBU R 128)
Presets	37 factory presets in 9 folders, plus your own
Window	1360 × 900 points; resizable from 75 % to 200 %, saved with the session
Formats	VST3, Audio Units, standalone; AAX once signed
Plugin ID	Manufacturer Veir, plugin Vcbl

Troubleshooting and questions

The sound drops out for a moment every 30 seconds. The plugin isn't activated on this computer. Open VEIRA Manager and sign in; the strip at the bottom of the plugin's window says exactly what's wrong. See *Getting started ▸ Activation and the licence*.

I don't see VEIRA Comp Blue in my DAW. Make sure VEIRA Manager shows SHOW (installed) for it, then rescan plugins in your DAW. In Logic Pro, open the Plug-in Manager and choose *Reset & Rescan Selection* if needed. Look under the manufacturer **VEIRA**.

Where is the ratio control? There isn't one, as on the original: the tubes set the ratio, and it rises with level. For a firmer hold, lower THRESHOLD (or add INPUT); for a gentler one, raise it.

Nothing is being compressed. THRESHOLD is above your music's peaks. Lower it until the meter moves.

The mix pumps. The release is too fast for the tempo, or the compressor is working too hard. Try TIME CONSTANT 2, 3 or 5, and keep the reduction to 1–3 dB on a mix bus.

The level stays down after a loud section. With TIME CONSTANT 4, 5 or 6 the release is long, and after sustained compression 5 and 6 lengthen it on purpose (up to 25 s with 6). Choose 2 or 3 if it holds on too long for your song.

The bass sounds grainy. A fast time constant (1) lets the gain ripple with the bass wave, and COLOUR adds 3rd harmonic on the low end. Use TIME CONSTANT 3 or 4, or lower COLOUR.

The image gets narrower on loud passages. That is LAT/VERT compressing the side more than the mid. Switch to LEFT/RIGHT, or raise THRESHOLD.

Does VEIRA Comp Blue add latency? Yes: 98 samples at every sample rate (2.0 ms at 48 kHz), always the same, and reported to your DAW, which compensates automatically. The host's bypass is delayed by the same amount, so bypassing keeps the track in time.

The window is too small (or too big) on my screen. Drag its bottom-right corner. It scales from 75 % to 200 % and keeps its proportions; the size is saved with your session.

How do I type an exact value? Right-click the knob (Control-click on a Mac), type the number and press Return.

Do my sessions keep my settings? Yes. Every control, the selected preset and the window size are saved with your session.

Contact: support@veiraaudio.com. Mention your computer (Mac or Windows and its version), your DAW and version, and what you see.



VEIRA Comp Blue · User Manual · Version 0.1.0

Support: **support@veiraaudio.com** · Web: **veiraaudio.com**

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