VariOhm

Vari-Mu Compressor / Limiter — User Manual

Version 1.1.0 · VST3 · Windows 10 / 11 64-bit · DSP.Erience 2026

VariOhm is a **vari-mu compressor / limiter**: the gain is not computed by a formula, it is the behaviour of a tube whose own operating point moves with the signal. The circuit is solved sample by sample, so the compression, the harmonics and the way the unit recovers all come from the same place — which is why pushing the input changes the colour and not just the level. This manual maps every control on the panel and tells you what each one does.

1 · Interface map



Each marker (A–V) matches one row of the table on the next page.

At a glance

- **INPUT** sets how much tube you hear; **THRESHOLD** sets how much it compresses. They are not the same knob.
- **MIX** blends dry and wet per channel, and **DRY LEVEL** sets the level of that dry path on its own.
- **ST / M·S / M** is real routing: in Mid/Side the left channel works on the Mid and the right one on the Side.
- The meters are true VU: 0 VU is −9 dBFS, and **VU SPEED** is there for when the needle is too slow for drums.

2 · Control reference

A	BYPASS	Bypasses the plug-in. True bypass: the dry signal leaves untouched, with no level change.
B	LINK	Links channels L and R. The left channel leads and the right one follows it (its controls dim and lock). Active in Stereo mode only.
C	ON	Master power. With the unit off the tubes are cold: no processing and no metering. It overrides everything else, bypass included.
D	THRESHOLD (L)	Where compression starts on the left channel. MIN = more compression, MAX = less; at MAX a 0 dBFS tone passes with no gain reduction at all.
E	OUTPUT (L)	Make-up gain for the left channel, −12 to +12 dB. Compensates the gain reduction.
F	MIX (L)	Dry / wet blend for this channel — parallel compression per channel. Fully wet by default.
G	ATTACK (L)	Attack of the envelope detector, 18 ms (fast) to 73 ms (slow). Those are the measured times of the circuit, not nominal figures.
H	RELEASE (L)	Recovery time, 0.2 s to 4 s. Default 0.6 s.
I	RECOVERY MODE (L)	FAST is a single slope. SLOW is a dual network: a fast peak followed by a programme-dependent tail.
J	VU METERS (L / R)	One needle per channel. 0 VU sits at −9 dBFS. What they read depends on VU MODE (N).
K	INPUT	How hard the tube is driven, −12 to +18 dB. At the same gain reduction, more input means more colour — take the level back with OUTPUT. The DUAL mark on the panel is +6 dB.
L	SIDE CHAIN	Feeds the detector from the external key bus instead of the programme. It only engages if your DAW is actually sending signal to that bus.
M	DRY LEVEL	Level of the dry path only, ±12 dB. The wet level is set by INPUT, and bypass is not affected.
N	VU MODE (GR / IN / OUT)	What the needles show: gain reduction, input or output.
O	WARM BIAS	Idle bias of the tube: how much harmonic character is there before any compression happens.
P	ASYMMETRY	Unbalances the two grids and brings in the (mostly even) harmonics of the vari-mu colour. Ramped sample by sample since 1.1.0, so moving it no longer clicks.
Q	VU SPEED	Ballistics of the needles: 1× is the 300 ms VU standard, 4× is roughly 75 ms and reads transients almost like a PPM. Default 2×. Affects IN / OUT only — the GR needle keeps standard ballistics.
R	ST / M·S / M	Routing, not a label: Stereo, Mid/Side (left channel on the Mid, right channel on the Side) or Mono (L+R summed, with only the left-hand controls in play).
S	CHANNEL R	Mirror of the left channel: THRESHOLD, OUTPUT, MIX, ATTACK, RELEASE and RECOVERY MODE. With LINK on it follows the left; unlinking keeps the mirrored value, with no jump.
T	COMPRESSOR / LIMITER	Side-chain gain: from compressor, where the unit leans on the signal, to limiter, where it holds the ceiling.
U	ABOUT	Opens the credits panel.
V	PRESET BAR	Preset name with arrows to step through the folder, SAVE, and the A / B slots to compare two settings.

3 · Getting started

Installing

Unzip the whole package into any folder and run `Install VariOhm.cmd`. The wizard copies the complete bundle, clears out older copies and, when it is done, checks that the plug-in really loads on your machine. Close your DAW first, and let it rescan its VST3 folder afterwards. The build ships with the Microsoft runtime inside, so there is nothing else to install.

Activating your licence

Paste your licence code (it starts with `DSP-`) when the wizard asks, and this computer is activated for you; a serial you already have (`VOH-`) works too. You can also leave it blank — VariOhm still processes audio — and activate later from the plug-in's own licence screen. Your code covers up to three computers, and reinstalling on the same one does not use up an activation.

Where everything lives

- Plug-in — `C:\Program Files\Common Files\VST3\VariOhm.vst3`
- Presets — `Documents\DSPerience\VariOhm Presets`
- Licence — `Documents\DSPerience\VariOhm.license`
- Install log — `Documents\DSPerience\VariOhm_Install.log`

Presets and A / B

The bar at the top of the panel holds the preset name, arrows to step through your folder and SAVE. The **A** and **B** slots keep two complete settings so you can switch between them while you listen; the **»** button copies the one you are on into the other slot, which is how you audition a change without losing where you came from.

4 · Working with it

Set the drive before the threshold

INPUT decides how much tube you are hearing and THRESHOLD decides how much it compresses. They are not interchangeable: the same 3 dB of gain reduction sounds one way reached with a lot of input and a high threshold, and another way reached with little input and a low one. Find the colour first with INPUT, set the amount with THRESHOLD, then bring the level back with OUTPUT.

Parallel, in two places

MIX blends dry and wet per channel; DRY LEVEL sets the level of that dry path on its own. Between the two you can keep the transients of the source while the tube works underneath.

Mid / Side

In M·S the left channel processes the Mid and the right one the Side, so you can hold the centre down while the sides breathe, or the other way round. LINK does not apply here — it is a Stereo-only feature.

> **The tube is off when the unit is off.** Power (C) takes precedence over everything: with the unit off there is no processing and the needles rest. Bypass (A) sits below it and above the MIX — bypass hands you the dry signal, straight.

5 · What's new in 1.1.0

- ASYMMETRY no longer clicks when you move it, with or without signal running: the control is now ramped sample by sample inside the engine.
- Typography and the size of the screw-style trim controls reworked across the panel.
- New ABOUT panel with the credits, on the bottom strip of the panel.
- Version packaging fixed: plug-in, installer and wizard all report 1.1.0.
- The installer no longer leaves a report on your Desktop. It is kept with your plug-in data, and the last screen lets you copy it, open it or save a copy wherever you want it.

6 · Specifications

- Format: VST3, 64-bit — Windows 10 / 11
- Stereo, with external side-chain input
- Channel modes: Stereo, Mid / Side, Mono
- Attack 18–73 ms · Release 0.2–4 s · Input −12 to +18 dB · Output ±12 dB · Dry level ±12 dB
- Metering: VU (0 VU = −9 dBFS), switchable GR / IN / OUT
- No external runtime required

7 · If something goes wrong

If your DAW does not see the plug-in, force a rescan from its preferences — most hosts keep a cached list. If the installation itself failed, the wizard's last screen has three buttons: **Copy report** puts the report on your clipboard, **Open report** shows it, and **Save report as…** saves it wherever you want. Send us that report and we will know exactly what happened, with no guessing.

8 · Support

Write to **info@dsperience.com** or visit **www.dsperience.com**.

> VariOhm — finest valvular circuit design and emulation for audio compression and tube colour.
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