Vintage EQ-V

Five-Band Vocal EQ. Vintage Style.

INTRODUCTION

Vintage EQ-V is a five-band, vintage-style equaliser for vocals, with the band frequencies chosen for shaping a voice. Every band has a gain dial and a frequency switch, and every control is on the front panel. The LF, LMF and HMF bands add a small amount of saturation when they are boosted hard.



Please note: Vintage EQ-V is an original design and is not a model of any particular hardware equaliser.

FEATURES

- Five bands: Low Cut, LF shelf, LMF bell, HMF bell and HF shelf
- Switchable frequencies on every band, chosen for vocals
- Gain of -12 to +12 dB on the four tone bands, with a snap to exactly 0 dB
- Gentle shelves, and bells that become narrower as the gain increases
- Low Cut: 80 Hz, 24 dB per octave, On/Off
- Light saturation on LF, LMF and HMF that only affects the signal the band itself adds
- Zero latency
- A band set to 0 dB is bypassed completely: with all gains at 0 dB and Low Cut Off, the audio passes through unchanged
- VU meter with an Input/Output switch and a VU scale switch
- Mono and stereo
- Clean, simple layout - every control is on the front panel

INSTALLATION

The installers put the plugin in the standard system folders:

- Windows: VST3 in C:\Program Files\Common Files\VST3. The installer is not code-signed, so Windows SmartScreen may show an unknown-publisher warning. Choose More info, then Run anyway.
- macOS: VST3 in /Library/Audio/Plug-Ins/VST3 and AU in /Library/Audio/Plug-Ins/Components
- Linux: VST3 in /usr/lib/vst3 (Debian package)

Rescan your plugins in your DAW after installing. The plugin window has a fixed size of 900 × 400 pixels and cannot be resized.

CONTROLS

Low Cut:	On/Off. A 80 Hz high-pass filter with a slope of 24 dB per octave. It removes low-frequency rumble. Off by default.
LF Gain:	Low shelf gain (-12 to +12 dB). Boosts or cuts everything below the LF frequency.
LF Freq:	110 Hz or 220 Hz. The frequency of the low shelf.
LMF Gain:	Low-mid bell gain (-12 to +12 dB).
LMF Freq:	360 Hz, 700 Hz or 1.6 kHz. The centre frequency of the low-mid bell.
HMF Gain:	High-mid bell gain (-12 to +12 dB).
HMF Freq:	3.2 kHz, 4.8 kHz or 7.2 kHz. The centre frequency of the high-mid bell.
HF Gain:	High shelf gain (-12 to +12 dB). Boosts or cuts everything above the HF frequency.
HF Freq:	10 kHz or 12 kHz. The frequency of the high shelf.
Gain dials:	Drag up or down to change the gain. The value is shown while you drag, and when you hover over the dial. The dial snaps to exactly 0 dB when you pass close to it. Hold *Shift* while dragging for fine adjustment. Double-click to reset to 0 dB. The mouse wheel also changes the gain.
Frequency switches:	Click to step to the next frequency; after the last one it returns to the first. Right-click to step backward. The mouse wheel steps up (forward) or down (backward) without wrapping. Hover to see the selected frequency.
VU meter:	Shows the level at the Input or at the Output, in VU. Hover over the meter to see the current 0 VU reference. See VU METER.
In/Out switch:	Chooses which level the VU meter shows: *Input* (before Low Cut) or *Output* (after the HF shelf).
VU scale switch:	Four positions: 0 VU = -18, -12, -6 or 0 dBFS. It changes only what the needle shows, not the audio. Hover over it to see the current setting. The default is -18 dBFS.

EQ BANDS

Vintage EQ-V has a Low Cut and four tone bands: a low shelf (LF), two bells (LMF and HMF) and a high shelf (HF). Each tone band has a gain dial and a frequency switch. The frequencies are fixed to the positions listed under CONTROLS. All bands are On at all times; a band whose gain is 0 dB does nothing.

Where they sit in the signal path

- Input meter
- Low Cut
- LF shelf, then LF saturation
- LMF bell, then LMF saturation
- HMF bell, then HMF saturation
- HF shelf
- Output meter

The Input meter reads before the Low Cut. The Output meter reads after the HF shelf, so it includes everything the plugin does. Each saturator follows the band in front of it.

Shelves

The LF and HF shelves are gentle shelves with a fixed slope. They have a small overshoot near the shelf frequency, which gives a slightly vintage shape.

Bells

The bells are proportional-Q: they are wide for small gains and become narrower as the gain increases, up to +/-12 dB. Boosts and cuts of the same size have the same width. Small moves affect a broad area; larger moves are more focused.

Low Cut

A 4th-order Butterworth high-pass filter at 80 Hz (-3 dB at 80 Hz, 24 dB per octave).

Saturation

The LF, LMF and HMF bands each have a light saturator, with a soft clipper that is mostly symmetrical with a touch of asymmetry. It has no hard threshold and no oversampling or latency. It does nothing until the gain of its band goes above +6 dB (LF and LMF) or +9 dB (HMF). From there the amount rises smoothly and reaches about 2 % at +12 dB. Cuts never trigger saturation.

Saturation is scaled to a nominal level of -18 dBFS. At that level the saturated signal has the same loudness as the clean signal, so it changes the tone rather than the loudness. Louder signals are saturated progressively more.

Latency

There is no latency. Nothing needs to be compensated by your DAW. Internally the plugin works in double precision.

VU METER

The meter shows the average level of the signal, with the slow response of a VU meter. For a stereo signal it uses the average of both channels, so out-of-phase

content does not cancel. For a track with signal in one channel only, the meter reads 6 dB lower. On a mono track it shows the single channel.

Calibration
With the default scale, 0 VU = -18 dBFS: a steady sine tone with a peak level of -18 dBFS reads exactly 0 VU. The scale runs from -20 to +3 VU, and the needle stops just beyond +3. Real programme material is not a steady sine, so the needle reading and the peak level will differ.

VU scale switch
The default 0 VU = -18 dBFS places the needle high on much modern material. The VU scale switch sets which dBFS level the 0 VU mark stands for: -18, -12, -6 or 0 dBFS. Choose the setting that keeps the needle moving in the middle of the scale for your material. The switch changes the display only. The In/Out switch and the VU scale switch are saved with your session. They are not host parameters, so they cannot be automated.

AUTOMATION

These nine parameters are available to your DAW for automation: Low Cut, LF Freq, LF Gain, LMF Freq, LMF Gain, HMF Freq, HMF Gain, HF Freq and HF Gain.

EXAMPLES OF USE

Vocals	Start with all gains at 0 dB. Switch Low Cut On to remove rumble. Use LMF to reduce boxiness or muddiness, HMF to bring the voice forward, and HF to add or remove top-end brightness. Make small moves first.
Boxy or muddy	Set LMF to 360 Hz or 700 Hz and cut a few dB until the voice opens up. Try LF at 220 Hz with a small cut if the low end is heavy.
Presence	Set HMF to 3.2 kHz or 4.8 kHz and raise the gain gradually. Stop when the voice sounds forward but not hard.
Harsh or sibilant	Set HMF to 7.2 kHz and cut a few dB. Compare with the HF shelf at 10 kHz or 12 kHz.
Adding weight	Set LF to 110 Hz and add a small boost. Check the Input meter and keep an eye on the Output level.
Adding colour	Boost LF, LMF or HMF above the saturation point (+6 dB, or +9 dB for HMF) and listen for a little extra density. Saturation is subtle by design, and it only appears on boosts.
Other sources	The frequencies are chosen for vocals, but the bands work on any source. Try them on guitars, keys and other instruments.
Anything else	Experiment! Switch between the frequency positions during playback, and compare with your DAW bypass at the same loudness to judge the sound, not the level.

QUICK TIPS

- Cut before you boost. A cut in the problem area often does more than a boost elsewhere.
- Boosts raise the level and the plugin has no output control. Lower the channel fader to compare with the original at the same loudness.
- Hold Shift while dragging a dial for fine adjustment, and double-click to return to 0 dB.
- Saturation only starts above +6 dB (+9 dB on HMF). If you hear colour you do not want, lower that band's gain.
- Set the VU scale switch so that the needle moves in the middle of the scale.
- Trust your ears first. The meter is there to help, not to decide.

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