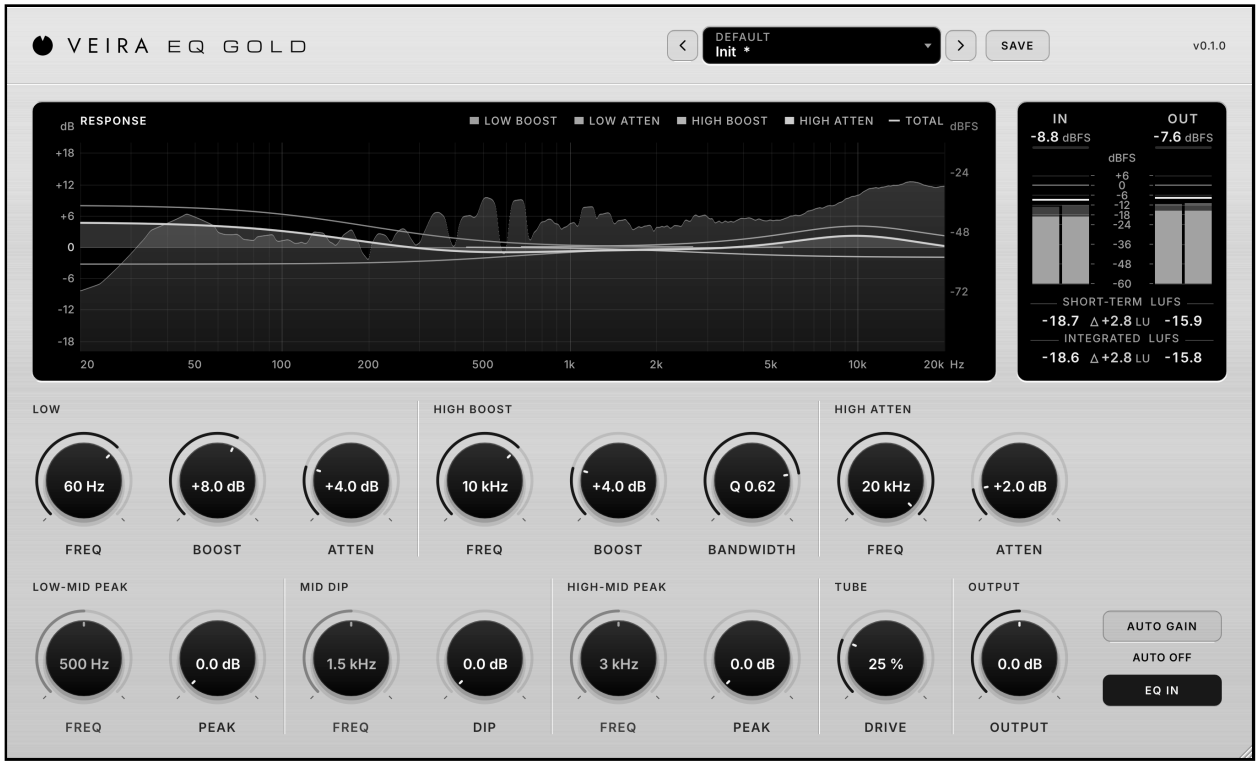
VEIRA

TUBE PROGRAM EQUALIZER

VEIRA EQ Gold

User Manual

The warm one of the four VEIRA colour EQs: a passive tube program EQ in the tradition of the classic program equalizers of the 1950s, with the low shelves you can boost and attenuate at once, a resonant high boost, a gentle high attenuation, a mid-range section and TUBE drive.



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Welcome

Thank you for choosing **VEIRA EQ Gold**. It is a tube program equalizer in the tradition of the classic passive program EQs of the 1950s: broad, flattering curves on stepped frequencies, made by a passive network and brought back up by a tube stage. It is the warm one of the four VEIRA colour EQs (White, Red, Gold and Blue).

Gold has the famous low section whose boost and attenuation you can use at the same time, for more weight underneath and less mud above it; a resonant high boost with its own bandwidth; a long, gentle high attenuation; and, below them, the mid-range section with two broad peaks and a dip. TUBE drives the output stage for warmth. It is quick to use, hard to make sound bad, and every move sounds like “more of the good part”.

What makes it different

- **The low-end trick.** BOOST and ATTEN on the same low frequency work together: more weight below it, a gentle dip above it.
- **The silky top.** HIGH BOOST with HIGH ATTEN keeps a high shine while taking the harshness off the very top.
- **Broad, musical curves** from the passive network, on stepped frequencies, with the mid-range section’s two peaks and dip below.
- TUBE **drive:** smooth, low-order harmonics, the 2nd leading, more on loud peaks than on quiet passages. At 0 % Gold is clean.
- **Analog shape to 20 kHz.** Gold works at four times the sample rate, so its high boosts keep their shape at the top of the range and the tube stage doesn’t alias.
- AUTO GAIN takes off the loudness the curve adds, so you compare tone, not level.

How this manual is organised. *Getting started* covers installing and activating. *The panel at a glance* names every part of the window. *How a program EQ works* is a short primer. *Controls* explains every section with drawings, including *The low-end trick*. *Displays* covers the curve screen and the meters. *Which colour EQ to choose* compares the four colour EQs. *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:

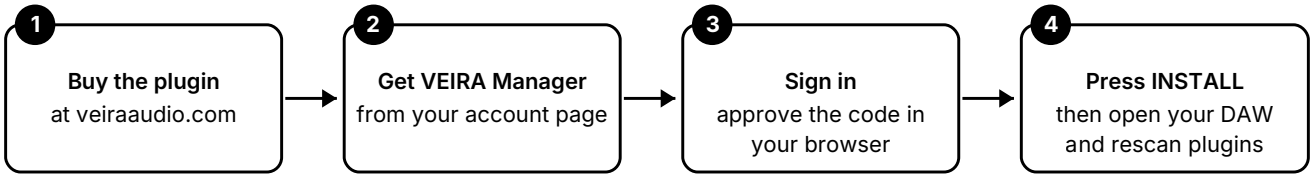


FIGURE 1 From purchase to first sound in four steps.

1. **Buy** VEIRA EQ Gold 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 EQ Gold 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 EQ Gold appears in your DAW under the manufacturer **VEIRA** (in Logic Pro: Audio Units ▸ VEIRA ▸ VEIRA EQ Gold).

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 EQ Gold 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.

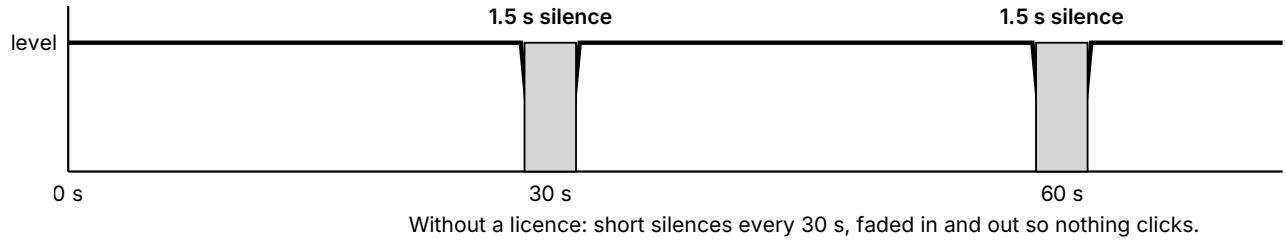


FIGURE 2 What an unlicensed copy does. With a valid licence the audio is never touched.

- **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 EQ Gold. 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 EQ Gold 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

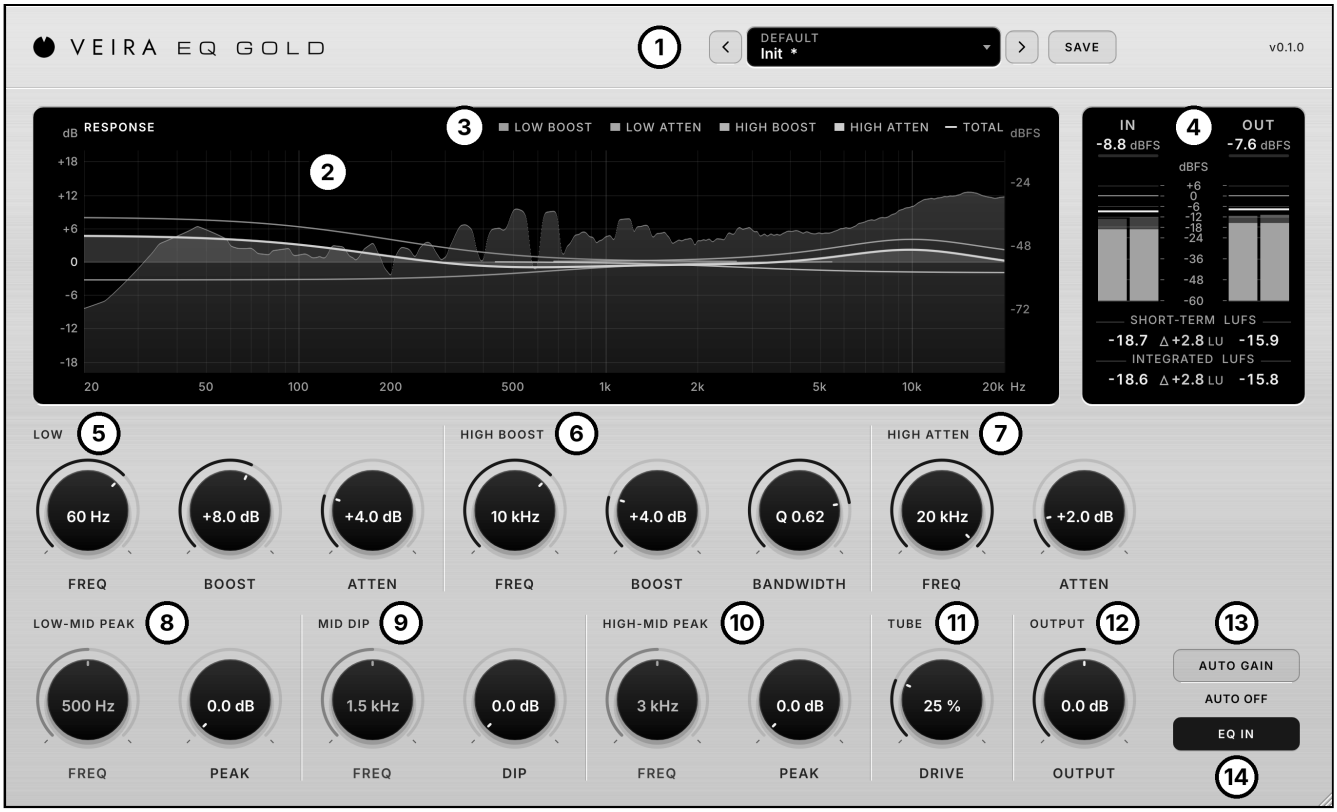


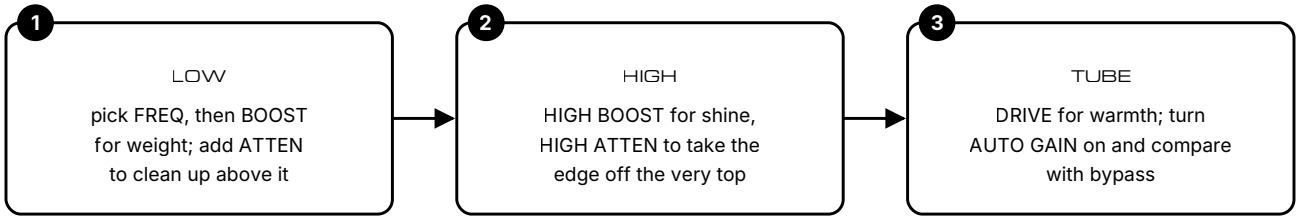
FIGURE 3 VEIRA EQ Gold, the brushed champagne-gold unit, on a pop mix: the low-end trick at 60 Hz (BOOST +8 dB, ATTEN 4 dB), a broad HIGH BOOST at 10 kHz, a little HIGH ATTEN at 20 kHz and TUBE at 25 %. The mid-range section is flat, so its frequency knobs are dimmed.

	Part	What it does
1	Preset browser	Steps through and saves presets. See *Presets*.
2	Curve screen (RESPONSE)	The total curve, each section's own curve and the output's spectrum.
3	Legend	Names the sections that are doing something, and TOTAL.
4	Meter bridge	Input and output level and loudness.
5	LOW	FREQ, BOOST and ATTEN: the program EQ's low section.
6	HIGH BOOST	FREQ, BOOST and BANDWIDTH: a resonant high boost.
7	HIGH ATTEN	FREQ and ATTEN: a long, gentle high cut.
8	LOW-MID PEAK	FREQ and PEAK: a broad lift from 200 Hz to 1 kHz.
9	MID DIP	FREQ and DIP: a broad cut from 200 Hz to 7 kHz.
10	HIGH-MID PEAK	FREQ and PEAK: a broad lift from 1.5 to 5 kHz.
11	TUBE	DRIVE: how hard the tube output stage is pushed.

	Part	What it does
12	OUTPUT	The final level.
13	AUTO GAIN and its read-out	Takes off the loudness the curve adds or removes.
14	EQ IN	The equalizer in or out, to compare.

The program EQ sits on top (LOW, HIGH BOOST, HIGH ATTEN) and the mid-range unit under it (LOW-MID PEAK, MID DIP, HIGH-MID PEAK), as the two were racked together, with TUBE and OUTPUT at the end of the chain.

Quick start: warmth in three moves



Or start from a factory preset: each was level-matched on its material, so comparing is fair.

FIGURE 4 The quickest way in. *Default* ▸ *Init* is a clean start: every gain at 0, TUBE at 0 %: the output is the input.

Using the controls

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

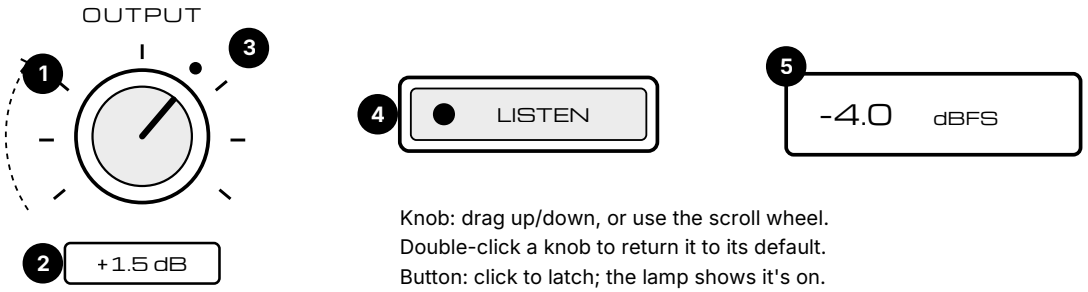


FIGURE 5 The parts you'll find on every VEIRA panel (the labels are examples).

- 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 EQ Gold's panel the parts look a little different from the drawing above:

- **Knobs show their value in the middle** (60 Hz, +8.0 dB, Q 0.62, 25 %): the knobs are black, and a ring printed in dark bronze on the paint around each one (in print, the dark arc) shows how far it is turned. The control's name is printed under the knob. Drag, use the wheel, or double-click for the default.
- **Frequency knobs click.** Every FREQ knob moves in steps between its positions (see *Stepped frequencies*). A frequency knob whose section is at 0 dB is dimmed, still readable: the section is doing nothing, so its frequency doesn't matter yet.
- **Gains read as amounts.** BOOST and PEAK read how much they lift, ATTEN and DIP how much they take away, all from 0 up: ATTEN at +4.0 dB takes 4 dB off.
- **Type a value:** right-click a knob (Control-click on a Mac), type the new value and press Return. BANDWIDTH takes a Q (**0.9**). Press Escape or click elsewhere to leave it unchanged.
- **Buttons have no lamps:** AUTO GAIN and EQ IN fill with dark bronze with pale lettering when they are on (in print, a dark button); when they are off they are shallow wells in the paint with dark lettering.
- **Resize the window:** drag its bottom-right corner (the small diagonal lines). It scales from 75 % to 200 % of its normal size (1360 × 820 points) and keeps its proportions. Your DAW saves the size with the session.
- **The face:** Gold is painted like VEIRA Limiter Gold: brushed champagne gold, with dark bronze print and black knobs. The curve screen, the meter bridge and the preset window are dark screens set into the paint. Every label on the paint stands at least 4.5:1 against it (the WCAG AA contrast for text).

How a program EQ works

If you already know EQ, skip to *What happens inside VEIRA EQ Gold*.

Every sound is a mix of frequencies: low ones you feel, middle ones that carry the tone and the words, high ones that bring detail and air. An equalizer turns chosen regions up or down. On the curve screen the horizontal axis is **frequency**, 20 Hz to 20 kHz, and the vertical axis is **gain**: above 0 dB is louder, below is quieter.

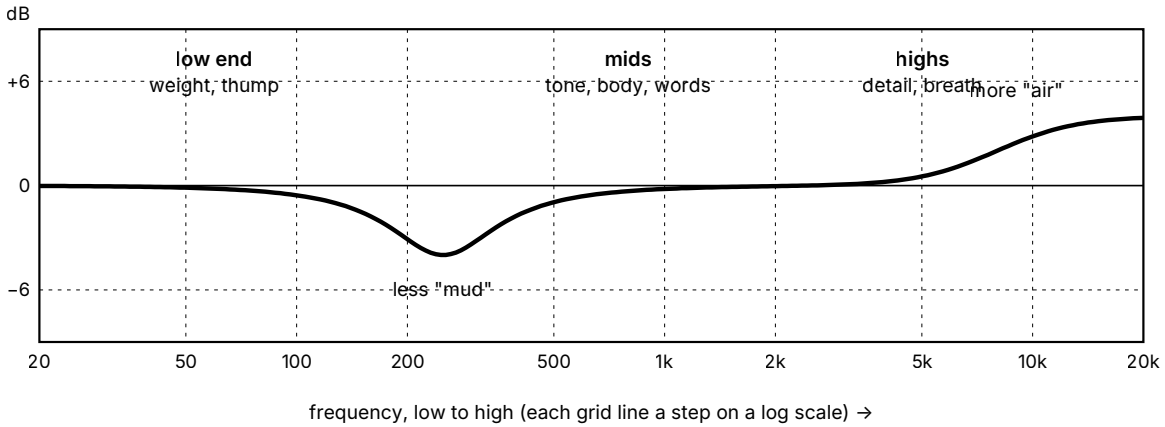


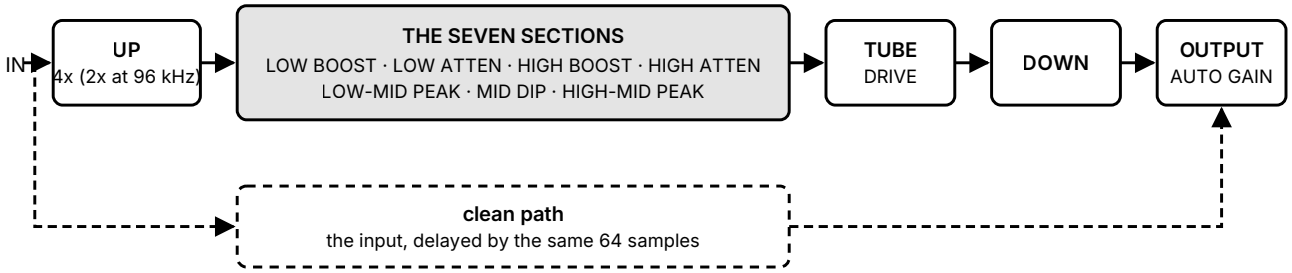
FIGURE 6 An EQ curve reads like a map of the spectrum: low frequencies on the left, high on the right, louder above the 0 dB line, quieter below.

A modern parametric EQ lets you put a band anywhere, at any width. A **program EQ** is different: it was built to shape whole programmes (a mix, a master, a broadcast) with a few broad, gentle curves on fixed frequencies. Its **passive** network of coils, capacitors and resistors can only take level away, so it shapes the sound by attenuating, and a **tube amplifier** after it brings the level back up. That gives the curves their character: broad, smooth and hard to make sound unnatural, and the tube adds a little warmth on the way out.

Three habits suit Gold:

- **Think in regions, not frequencies.** Pick the step nearest what you want and judge by ear; the curves are broad enough that the exact frequency rarely matters.
- **Boost freely, but compare at equal loudness.** Gold's boosts flatter. AUTO GAIN (or the meter bridge's Δ) keeps the comparison honest.
- **Combine opposite moves.** Boost and attenuation on the same end of the spectrum don't cancel: they make new shapes (*The low-end trick*, *The silky top*).

What happens inside VEIRA EQ Gold



While everything is flat and TUBE is at 0 %, you hear the clean path; touching anything fades over 20 ms between the two.

FIGURE 7 Signal flow. The signal is taken up to four times its rate, through the seven sections and the tube, and back down; [OUTPUT] and [AUTO GAIN] set the final level.

- **Oversampled.** Gold works at four times the sample rate (twice at 88.2 and 96 kHz, as it is at 176.4 and 192 kHz). That lets its curves keep their analog shape right up to 20 kHz and keeps the tube's harmonics from folding back as aliasing. It costs a small latency: **64 samples** at 44.1 to 96 kHz (1.3 ms at 48 kHz), none at 176.4 and 192 kHz, always the same and reported to your DAW.
- **The seven sections** are the passive network's curves: first-order shelves for the low boost and attenuation and for the high attenuation, a resonant peak for the high boost, and broad peaks and a dip for the mid-range section.
- **Clean when flat.** With every gain at 0 and [TUBE] at 0 %, you hear the clean path: the input, delayed by the same 64 samples, bit for bit. Touching anything crossfades over 20 ms between the two paths, which are aligned in time.
- **Click-free steps.** When you turn a stepped frequency knob, the curve glides to the new frequency (at most an octave per 40 ms), so switching never clicks.

Controls

LOW: FREQ, BOOST and ATTEN

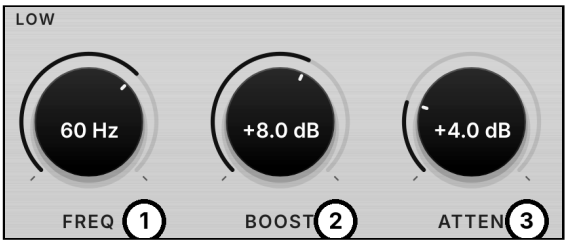


FIGURE 8 The LOW section: 1 FREQ at 60 Hz, 2 BOOST at +8.0 dB and 3 ATTEN at 4.0 dB.

Control	Range	Default	What it does
FREQ	20, 30, 60, 100 Hz	60 Hz	Where the low section works, for both BOOST and ATTEN.
BOOST	0 to 13.5 dB	0.0 dB	A broad shelf that lifts the lows; nearly full at the frequency on the dial.
ATTEN	0 to 17.5 dB	0.0 dB	A shelf that takes the lows away, reaching much higher than the boost.

The two low shelves are first-order curves: very gentle slopes that spread over several octaves. BOOST lifts everything below its frequency, and at full boost is still 3 dB up at five to seven times the frequency on the dial (300 Hz for 60 Hz). ATTEN reaches higher still: at full attenuation it is still 3 dB down at about thirteen times the dial (800 Hz for 60 Hz).

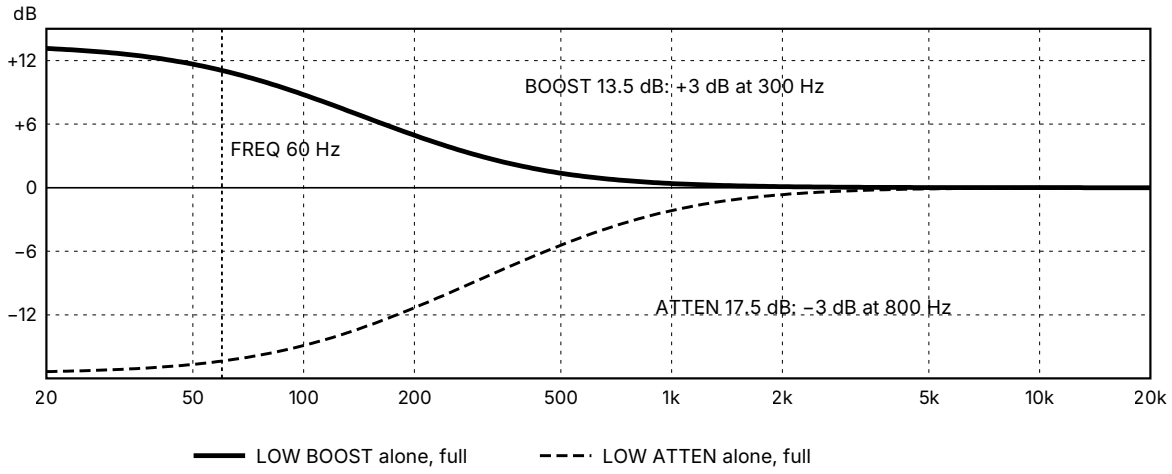


FIGURE 9 The two low shelves alone, at full depth, with FREQ at 60 Hz. The attenuation (dashed) reaches much further up than the boost.

- **20 and 30 Hz** are for the sub: weight you feel more than hear, in a master or a kick.
- **60 Hz** is the body of a kick and a bass guitar.
- **100 Hz** reaches into the warmth of the low mids: thicker, rounder.

The low-end trick

Because the attenuation reaches higher than the boost, using both at once doesn't cancel. Below the frequency the boost wins, and you get more weight; a little above it, where the attenuation is still working but the boost has faded, you get a gentle dip that clears the mud. More bottom, less boom: the famous trick of the classic program EQs.

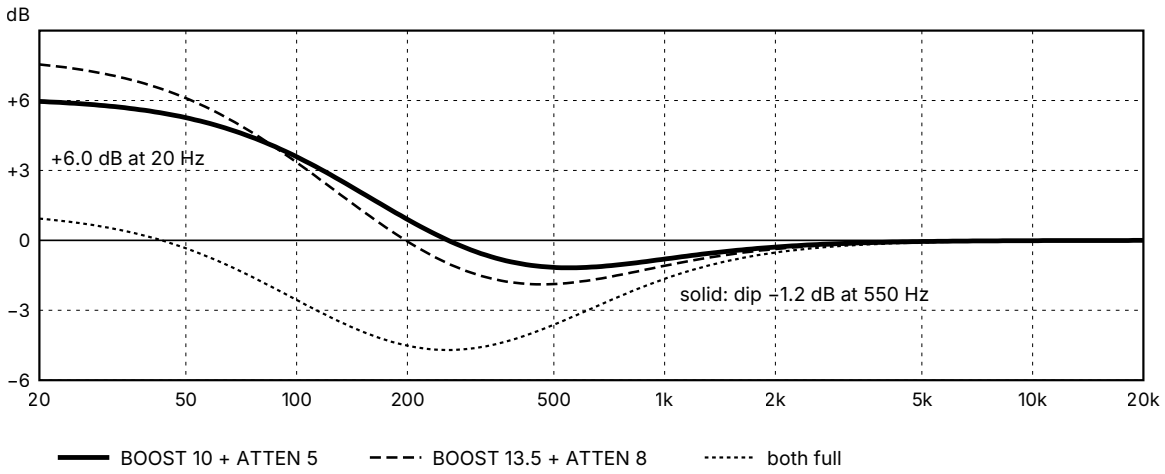


FIGURE 10 The low-end trick at 60 Hz, as Gold plays it. BOOST 10 dB with ATTEN 5 dB: +6.0 dB at 20 Hz and a −1.2 dB dip at 550 Hz. With both at full the boost still wins at the very bottom, and the dip deepens to −4.7 dB.

In the passive network the boost and the attenuation share one loop, so a strong boost takes some depth out of the attenuation; that is part of the sound and Gold does the same. Measured at 60 Hz:

BOOST + ATTEN	At 20 Hz	At 60 Hz	The dip above
10 + 5 dB	+6.0 dB	+5.0 dB	−1.2 dB at 550 Hz
13.5 + 8 dB	+7.6 dB	+5.5 dB	−1.9 dB at 464 Hz
13.5 + 17.5 dB	+0.9 dB		−4.7 dB at 258 Hz

At 100 Hz the dip sits between 0.5 and 1.3 kHz. Descriptions of the trick vary (some put the dip lower); Gold's curves follow published corner-frequency measurements of the passive network, so you may find it a little higher than you expect. Use your ears and the curve screen.

> **Tip:** start with BOOST about twice ATTEN (8 and 4 dB). Listen to the low mids clear as you raise ATTEN, and stop before the bass loses its body. *Bass* ▸ *Bass Trick* and *Mastering* ▸ *Low-End Trick* are ready-made.

HIGH BOOST: FREQ, BOOST and BANDWIDTH

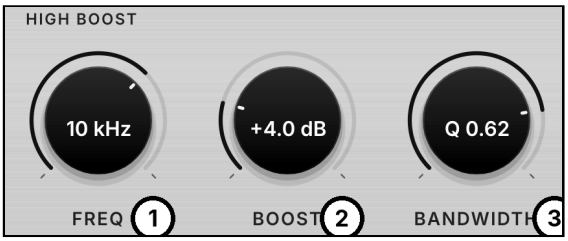
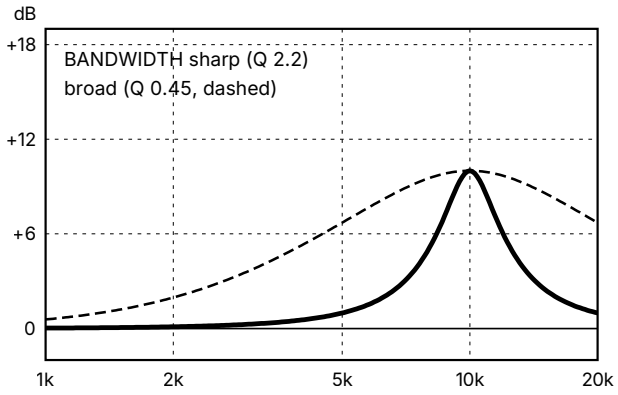


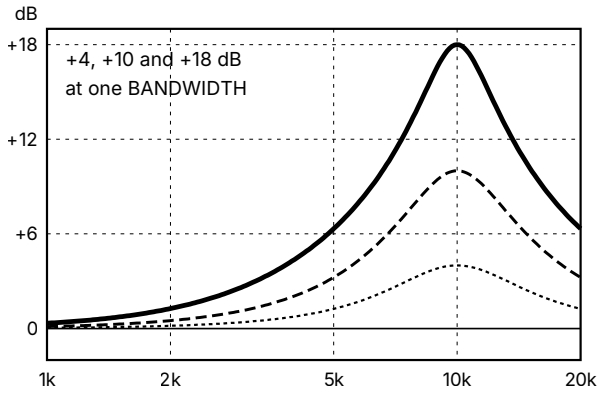
FIGURE 11 The HIGH BOOST section: 1 FREQ at 10 kHz, 2 BOOST at +4.0 dB and 3 BANDWIDTH reading Q 0.62.

Control	Range	Default	What it does
FREQ	3, 4, 5, 8, 10, 12, 16 kHz	10 kHz	The centre of the boost.
BOOST	0 to 18 dB	0.0 dB	How much it lifts.
BANDWIDTH	Q 2.2 (sharp) to Q 0.45 (broad)	Q 0.99	How wide the boost is; the knob reads the Q.

HIGH BOOST is a resonant peak, like the coil-and-capacitor circuit it comes from. Turn BANDWIDTH left for a sharp, focused peak (Q 2.2, about a quarter of an octave wide 3 dB under the top of an 18 dB boost) and right for a broad, open one (Q 0.45, over an octave). Like the hardware, it narrows as you boost more.



BOOST +10 dB at 10 kHz



the more you boost, the narrower it gets

FIGURE 12 Left: BANDWIDTH sharp and broad. Right: the same BANDWIDTH at three amounts of BOOST: the more it lifts, the narrower it gets.

- **3–5 kHz:** presence and bite, for a vocal or a guitar that should speak.
- **8–12 kHz:** shine and openness: cymbals, the breath of a voice, a mix's top.
- **16 kHz** with a broad bandwidth: "air", a lift you feel more than hear.

HIGH ATTEN: FREQ and ATTEN

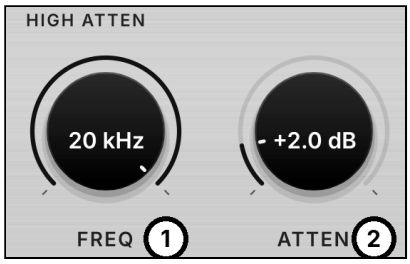


FIGURE 13 The HIGH ATTEN section: 1 FREQ at 20 kHz and 2 ATTEN at 2.0 dB.

Control	Range	Default	What it does
FREQ	5, 10, 20 kHz	10 kHz	Where the attenuation is aimed.
ATTEN	0 to 16 dB	0.0 dB	How much of the top it takes away.

HIGH ATTEN is a long, gentle shelf that starts well below its frequency: at full attenuation it is already 3 dB down at 600 Hz, 1.5 kHz or 2.5 kHz for the 5, 10 and 20 kHz positions. So small amounts soften a whole top end, and large ones make it dark and vintage.

The silky top

Used with HIGH BOOST, HIGH ATTEN keeps the shine of the peak while taking the harshness off above and around it: the boost's resonance stays, the edge goes. This is the classic silky top for vocals, strings and masters.

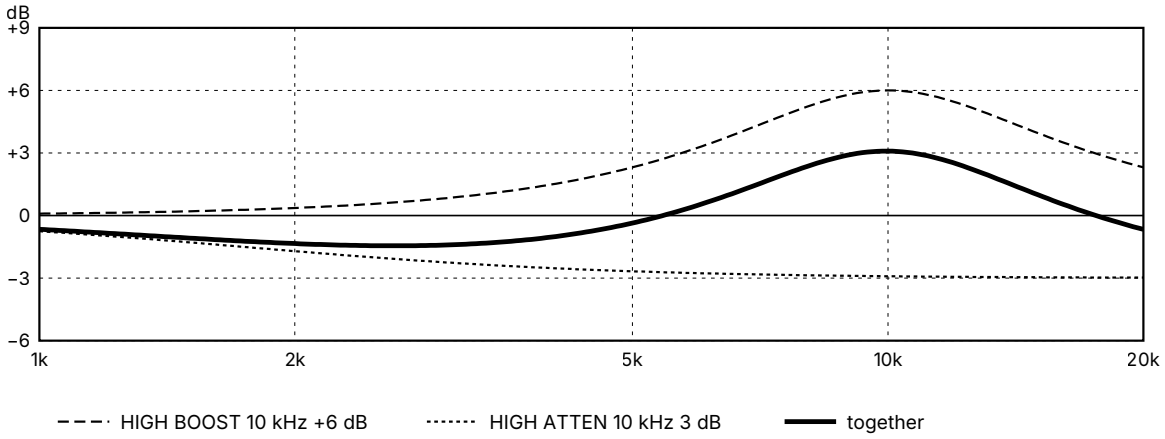


FIGURE 14 *Vocals ▸ Silky Female Top*: HIGH BOOST 10 kHz +6 dB with HIGH ATTEN 10 kHz 3 dB. The peak stays; the slope above it and the upper mids beneath it come down a little.

LOW-MID PEAK, MID DIP and HIGH-MID PEAK

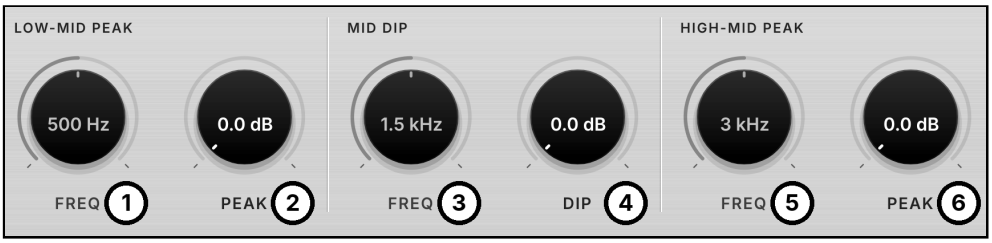


FIGURE 15 The mid-range section: LOW-MID PEAK 1 FREQ and 2 PEAK, MID DIP 3 FREQ and 4 DIP, HIGH-MID PEAK 5 FREQ and 6 PEAK. All three are flat here, so their frequency knobs are dimmed.

Control	Range	Default	What it does
LOW-MID PEAK FREQ	200, 300, 500, 700 Hz, 1 kHz	500 Hz	Where the low-mid lift is.
LOW-MID PEAK PEAK	0 to 10 dB	0.0 dB	A broad lift: body and warmth.
MID DIP FREQ	200, 300, 500, 700 Hz, 1, 1.5, 2, 3, 4, 5, 7 kHz	1.5 kHz	Where the dip is.
MID DIP DIP	0 to 10 dB	0.0 dB	A broad cut: box, honk, mud or harshness out.
HIGH-MID PEAK FREQ	1.5, 2, 3, 4, 5 kHz	3 kHz	Where the high-mid lift is.
HIGH-MID PEAK PEAK	0 to 10 dB	0.0 dB	A broad lift: presence and bite.

The mid-range section is the companion unit that was racked under the program EQ: two broad peaks and a dip, made by inductors. The peaks are about an octave and a half wide (Q 1.0) and the dip a little wider (Q 0.7), so they shape the midrange rather than pick at it.

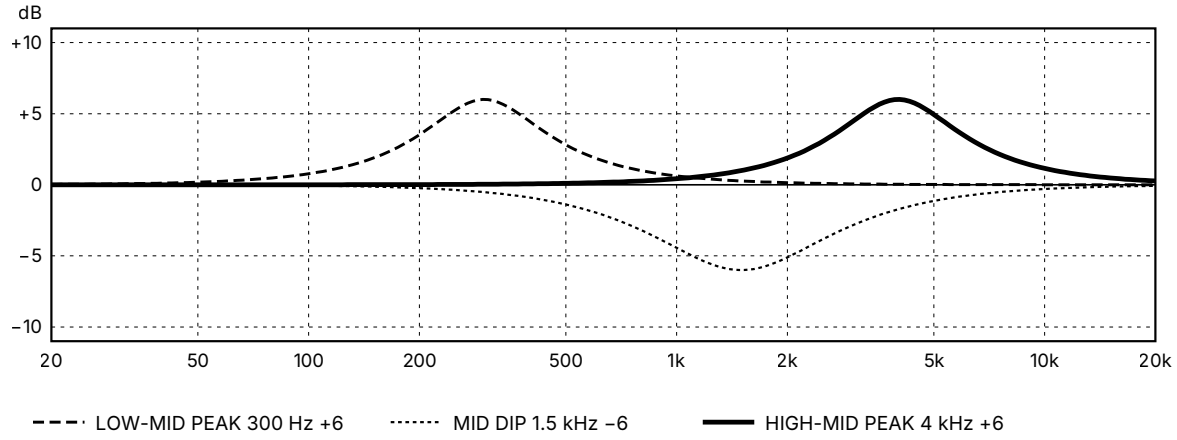
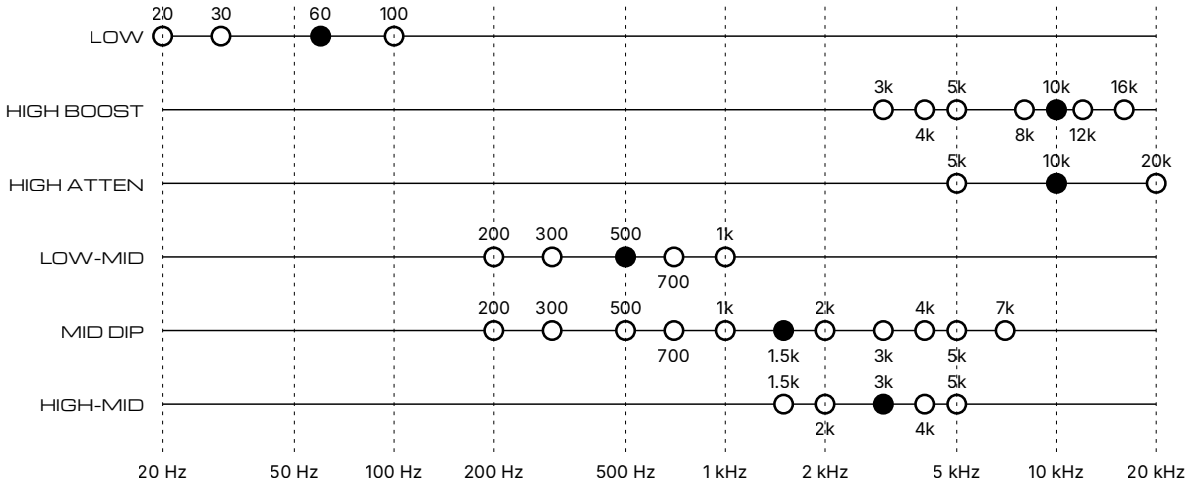


FIGURE 16 The three mid sections, each at 6 dB.

- MID DIP is the one you will use most: 300–500 Hz for mud and box, 700 Hz–1 kHz for honk, 3–5 kHz for harshness.
- LOW-MID PEAK adds body to a thin voice, a snare or a guitar (200–300 Hz).
- HIGH-MID PEAK brings a vocal, a bass's growl or a guitar forward (2–4 kHz).

Stepped frequencies

Every frequency knob of Gold clicks between fixed positions, as on the hardware. The positions are chosen so that each one is a musically different place; in between there is nothing a broad curve would do differently.



Every frequency knob of EQ Gold clicks between these positions. Filled: Init's position.

FIGURE 17 Every position of every FREQ knob, on one frequency scale.

When you change position while the music plays, the curve glides to the new frequency instead of jumping, so stepping never clicks.

TUBE

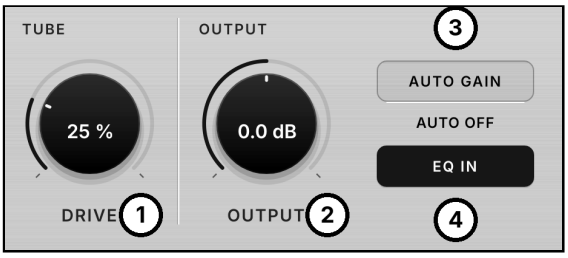
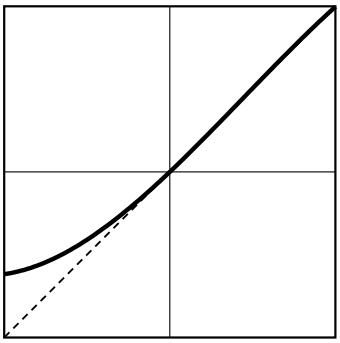


FIGURE 18 1 TUBE DRIVE at 25 %, 2 OUTPUT at 0.0 dB, 3 AUTO GAIN with its read-out (AUTO OFF), 4 EQ IN (on).

Control	Range	Default	What it does
DRIVE	0 to 100 %	0 %	How hard the tube output stage is pushed. 0 % is clean.

The passive network loses level, and in the hardware a tube amplifier brings it back. TUBE pushes that stage harder: the waveform's peaks round off a little on one side before the other, which adds smooth, low-order harmonics, the 2nd leading. Louder passages get more of it than quiet ones, so it thickens the loud moments and leaves a quiet passage at its level.



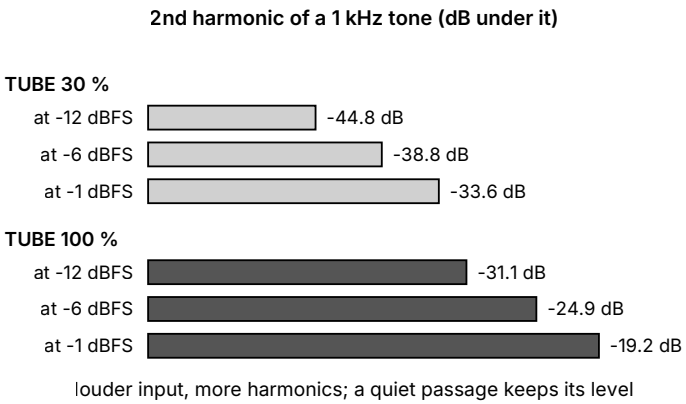


FIGURE 19 Left: the tube curve against a clean line. Right: the 2nd harmonic it adds to a 1 kHz tone at three levels, at 30 % and 100 % DRIVE (measured). The 3rd harmonic stays under −55 dB at 30 %.

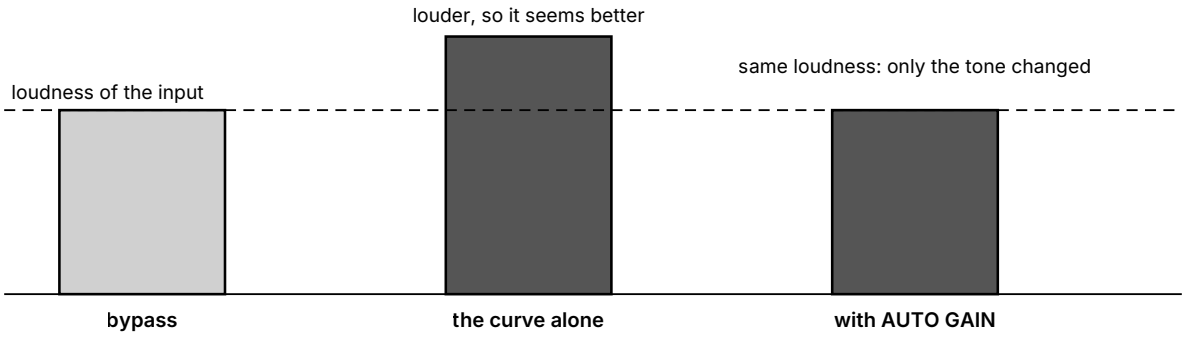
- **10–25 %:** warmth you feel more than hear. Most presets live here.
- **30–50 %:** audible glow and density on drums, bass and keys.
- **70–100 %:** saturated and thick: an effect (*Creative* ▸ *Big Tube Drive*).

Gold's tube stage runs at four times the sample rate on the oversampled signal, so a 15 kHz tone driven at 100 % leaves nothing above −88 dB where aliasing would fall. The tube works on the EQ's output, so a big low boost drives it more: watch TUBE when you add a lot of BOOST.

OUTPUT, AUTO GAIN and EQ IN

Control	Range	Default	What it does
OUTPUT	−12 to +12 dB	0.0 dB	The final level.
AUTO GAIN	on / off	off	Takes off the loudness the curve adds or removes.
EQ IN	in / out	in	The equalizer in or out; TUBE and OUTPUT stay.

AUTO GAIN



LOW BOOST +8 dB: on its own it adds loudness; AUTO GAIN takes exactly that back off.

FIGURE 20 A low boost makes the music louder. AUTO GAIN takes exactly that back off, so you compare tone, not level.

With AUTO GAIN on, Gold works out from the curve how much louder or quieter it makes music with a typical mix's spectrum, weighted like a loudness meter, and takes that back off. The read-out under the button shows what it is doing (AUTO +5.2 dB, or AUTO OFF). It reads the curve, not the music, so it never pumps; it glides over 20 ms as you turn a knob. Measured on pop and rock mixes, five curves that changed the loudness by −4.3 to +4.4 LU came out within 0.9 LU of the input. The factory presets don't need it: each preset's OUTPUT was set so its material comes out as loud as it went in.

EQ IN

EQ IN switches the equalizer in or out, gliding over 20 ms, so you can compare the curve with no curve. TUBE and OUTPUT stay, so you hear only what the EQ does. For a comparison with Gold completely out, use your DAW's bypass (which Gold delays by its 64 samples, so the track stays in time).

Displays

The curve screen (RESPONSE)

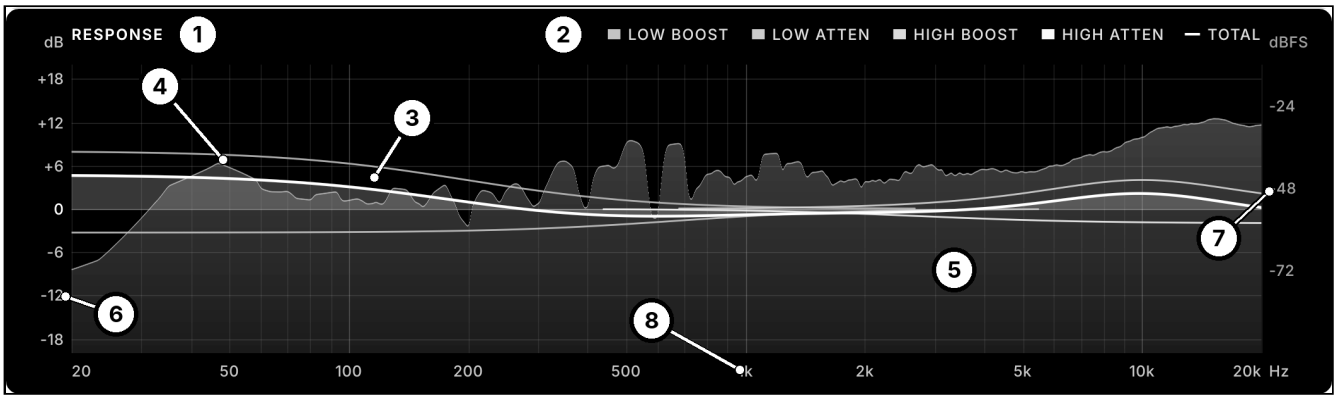


FIGURE 21 The curve screen: 1 RESPONSE, 2 the legend, 3 the total curve (gold), 4 one section's curve (LOW BOOST), 5 the output's spectrum, 6 the EQ's dB scale, 7 the analyser's dBFS scale, 8 the frequency scale.

The screen draws the response from 20 Hz to 20 kHz on a dB scale (6, left):

- 3 **The total curve** in gold, with a soft fill: what you hear. In print it is the thickest line.
- 4 **Each section** that is doing something, in its own colour: LOW BOOST, LOW ATTEN, LOW-MID, DIP, HIGH-MID, HIGH BOOST, HIGH ATTEN. 2 The legend names only the sections that are active, so it also tells you at a glance what is in use. In the low-end trick you see the boost and the attenuation side by side, and the total between them.
- 5 **The output's spectrum** in sixth octaves, behind the curves, on the analyser's dBFS scale (7, right), tilted 4.5 dB per octave so a balanced mix reads level.

Hover anywhere on the screen to read the curve's value at that frequency.

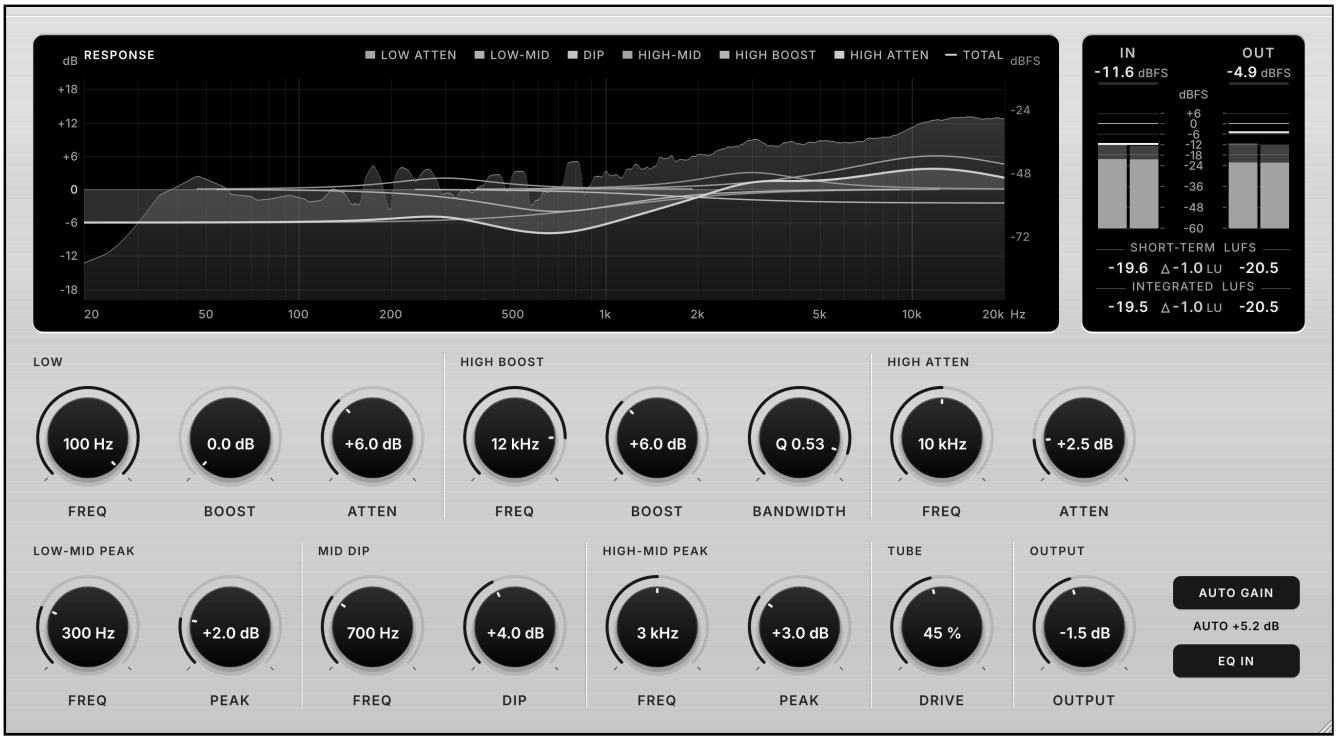


FIGURE 22 A rock mix through a busier curve: LOW ATTEN 6 dB at 100 Hz, LOW-MID PEAK +2 dB at 300 Hz, MID DIP 4 dB at 700 Hz, HIGH-MID PEAK +3 dB at 3 kHz, a broad HIGH BOOST +6 dB at 12 kHz, HIGH ATTEN 2.5 dB at 10 kHz and TUBE at 45 %. Every section shows in the legend; AUTO GAIN reads AUTO +5.2 dB.

Meter bridge (IN | OUT)

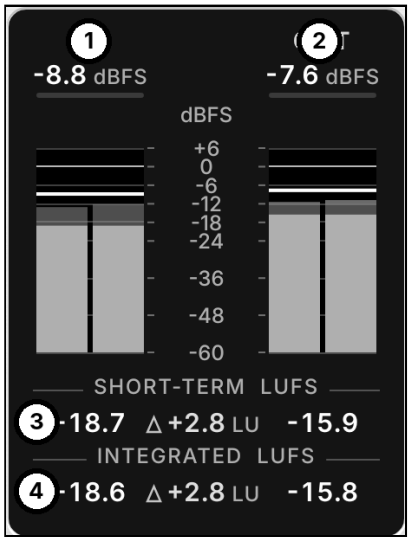


FIGURE 23 The meter bridge: 1 input and 2 output, 3 short-term and 4 integrated loudness, with the OUT − IN difference between them.

VEIRA EQ Gold uses the standard VEIRA meter bridge, with an input and an output column. Δ shows how much louder or quieter Gold made the music, in LU: use it, or AUTO GAIN, to compare at equal loudness.

Reading the IN and OUT meters

The meter bridge measures what goes into VEIRA EQ Gold 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.

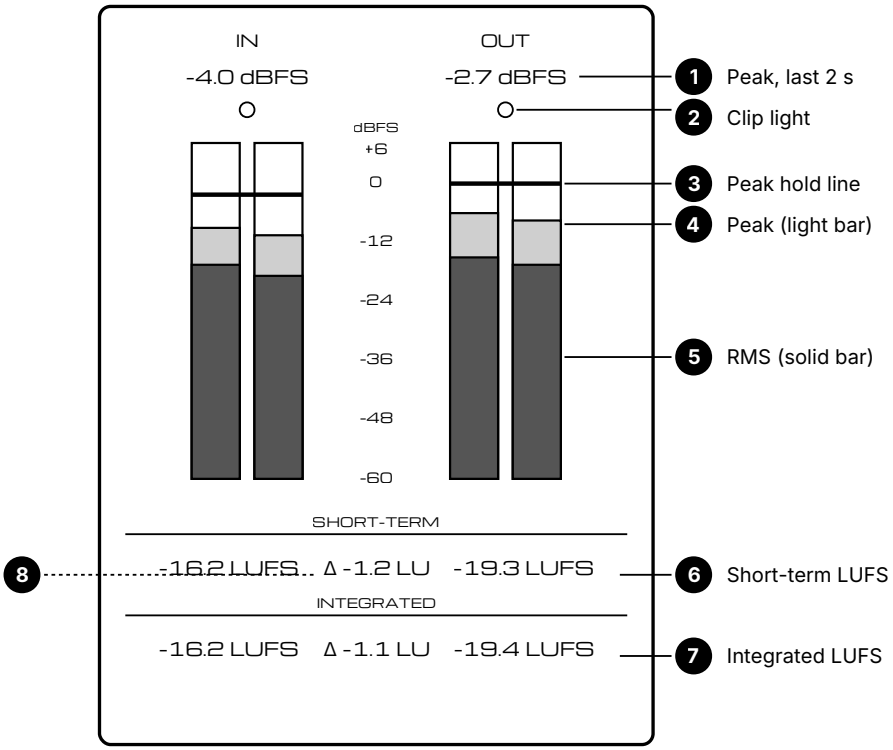


FIGURE 24 The meter bridge, left and right channel bars for input and output, with loudness below.

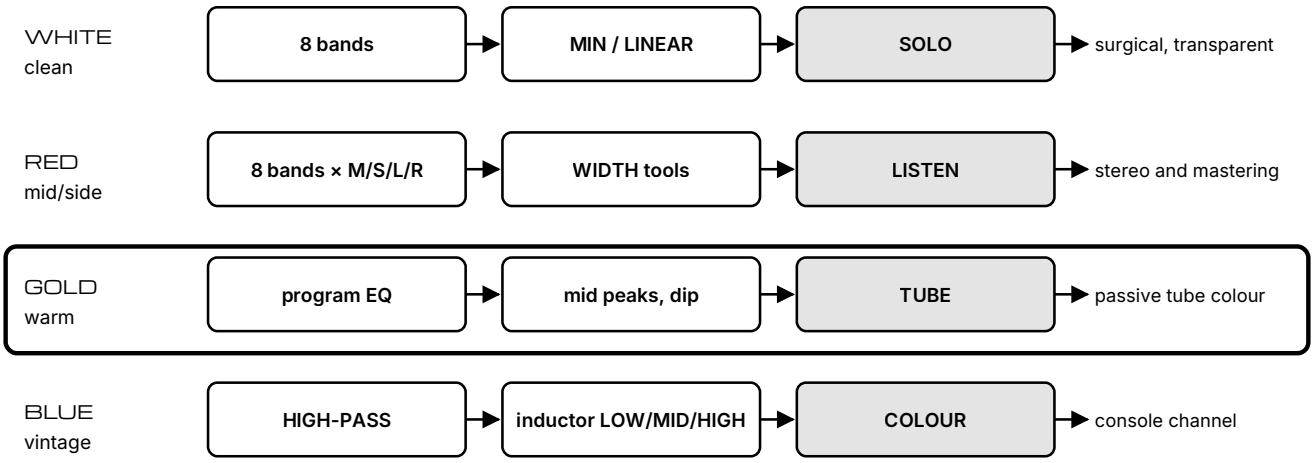
- 1 **Peak readout:** the highest sample peak of the last two seconds, in dBFS. It turns to a warning above 0 dBFS.
- 2 **Clip light:** lights on any sample at or over full scale. It stays lit until you click the meter.
- 3 **Hold line:** marks the recent peak on the bar.
- 4 **Peak bar** (the lighter 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 EQ Gold 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 EQ to choose

VEIRA EQ Gold is one of four VEIRA colour EQs, each painted like the colour limiter of the same name. All four draw their curve over the live spectrum, show the same meter bridge and keep their curves' analog shape up to 20 kHz. What differs is the kind of EQ, and how much of its own sound it adds.



Grey: what gives each colour its character. The framed row is the one in your hands.

FIGURE 25 The four colour EQs, side by side.

	Character	Choose it when
White	Clean, surgical. Eight bands of any type, minimum or linear phase, SOLO, AUTO GAIN.	You need precision and no colour: fixing resonances, hum, rumble; tone shaping you don't want to hear; transparent mastering.
Red	Mid/side. Eight bands, each on the stereo signal, its mid, its side, or one channel; BASS MONO, AIR, WIDTH and LISTEN.	The stereo picture is the job: a vocal in the centre, cymbals on the sides, mono low end, width on a master.
Gold	Warm. A passive tube program EQ with a mid-range section, in the tradition of the classic tube program EQs, and TUBE drive.	You want broad, flattering moves: weight in the lows without mud, a silky top, a little tube warmth.
Blue	Vintage. A 1970s British inductor console EQ: high-pass, resonant low shelf, mid bell, gradual high shelf, stepped frequencies, COLOUR.	You want the console sound: punchy lows, a forward mid, character you can hear on drums, bass, guitars and vocals.

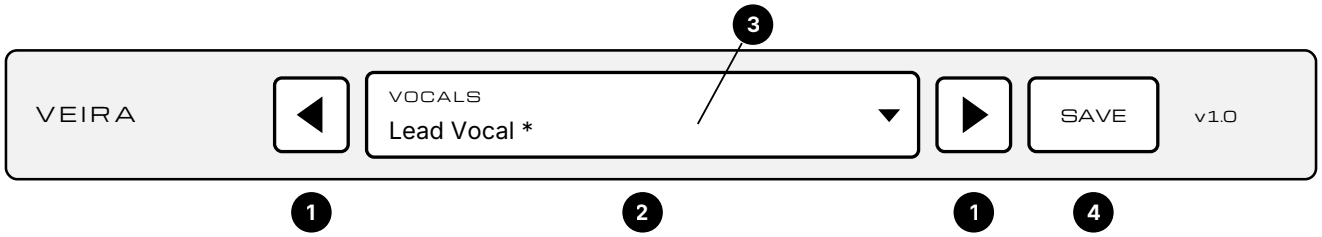
Gold is the warm one. It is for making good sources sound better rather than fixing bad ones: broad strokes, the low-end trick, a silky top and a touch of tube. For a precise fix, use White; for a punchier, more forward console sound, Blue.

Presets

VEIRA EQ Gold comes with **42 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 26 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 EQ Gold 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 EQ Gold/<Folder>/
Windows	%APPDATA%\VEIRA\VEIRA EQ Gold\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
Drums	Kick Weight, Snare Crack, Overhead Air, Room Thump, Drum Bus Glue
Bass	Bass Trick, Round DI, Growl, Synth Sub, Pick Bass Clarity
Guitars	Acoustic Sparkle, Strum Body, Electric Bite, Clean Chime
Keys	Piano Warmth, Bright Piano, Rhodes Glow, Pad Air
Vocals	Female Vocal Air, Vocal Presence, Warm Male Vocal, Silky Female Top, Pop Vocal Sheen, Radio Voice
Mix Bus	Mix Bus Sheen, Bus Warmth, Rock Bus, Mud Cleanup, Gentle Smile
Mastering	Master Air, Low-End Trick, Warm Master, Club Master Polish, Acoustic Master, Hip-Hop Weight, Rock Master
Creative	Telephone, Old Radio, Big Tube Drive, Extreme Trick, Air Lift

Levels matter for TUBE. The curves don't depend on level, but the tube does. The presets were set for tracks peaking at −8 dBFS, close drums and buses at −4 and premasters at −3: on hotter tracks TUBE colours more, on quieter ones less. Each preset's OUTPUT was fitted so its material comes out as loud as it went in (every preset within 0.05 dB, except *Creative* ▸ *Telephone*, 1 dB quieter with OUTPUT at its +12 dB limit), so switching presets changes the tone, not the level. AUTO GAIN is off in the presets.

Recipes

Step-by-step starting points. Compare each with EQ IN off, and with your DAW's bypass.

Weight without mud on a bass

1. Load **Bass ▸ Bass Trick**: LOW 60 Hz, BOOST +7 dB, ATTEN 4.5 dB, a 2 dB MID DIP at 700 Hz and +2 dB of HIGH-MID PEAK at 2 kHz.
2. Try FREQ at 30 Hz for a deeper, sub-heavy bass, or 100 Hz for a thicker one.
3. Raise ATTEN until the low mids clear; stop before the bass thins.

A silky vocal top

1. Load **Vocals ▸ Silky Female Top** (HIGH BOOST 10 kHz +6 dB, HIGH ATTEN 10 kHz 3 dB, TUBE 20 %).
2. For a brighter voice, move HIGH BOOST to 12 or 16 kHz and turn BANDWIDTH towards broad.
3. If the S sounds get louder, add a little more HIGH ATTEN or a de-esser after Gold.

A warm mix bus

1. Load **Mix Bus ▸ Bus Warmth** or **Mix Bus Sheen**.
2. Set TUBE by ear between 15 and 40 %: it sets how much density and glue you get.
3. Switch EQ IN off and on to check the curve alone, then compare with bypass for the tube.

The low-end trick on a master

1. Load **Mastering ▸ Low-End Trick**: LOW 30 Hz, BOOST +3 dB, ATTEN 2 dB, TUBE 10 %.
2. Check it on full-range monitors or good headphones: the change is below 60 Hz and a dip around the low mids.
3. For more weight on hip-hop or club material, try **Hip-Hop Weight** or **Club Master Polish**.

Clear a muddy mix

1. Load **Mix Bus ▸ Mud Cleanup**: MID DIP 3 dB at 300 Hz, LOW ATTEN 2 dB at 100 Hz and a broad 10 kHz lift.
2. Step MID DIP FREQ between 200 and 500 Hz to the cloudiest spot.

An old radio voice

1. Load **Creative ▸ Old Radio** or **Telephone**.
2. Raise TUBE for more distortion; step LOW-MID PEAK or HIGH-MID PEAK to move the honk.

Specifications

Type	Passive tube program equalizer with a mid-range section and a tube output stage, in the tradition of the classic program EQs
Channels	Mono and stereo
LOW	FREQ 20, 30, 60, 100 Hz (default 60); BOOST 0 to 13.5 dB; ATTEN 0 to 17.5 dB
HIGH BOOST	FREQ 3, 4, 5, 8, 10, 12, 16 kHz (default 10); BOOST 0 to 18 dB; BANDWIDTH Q 2.2 to 0.45 (default 0.99)
HIGH ATTEN	FREQ 5, 10, 20 kHz (default 10); ATTEN 0 to 16 dB
LOW-MID PEAK	FREQ 200, 300, 500, 700 Hz, 1 kHz (default 500 Hz); PEAK 0 to 10 dB
MID DIP	FREQ 200, 300, 500, 700 Hz, 1, 1.5, 2, 3, 4, 5, 7 kHz (default 1.5 kHz); DIP 0 to 10 dB
HIGH-MID PEAK	FREQ 1.5, 2, 3, 4, 5 kHz (default 3 kHz); PEAK 0 to 10 dB
TUBE	DRIVE 0 to 100 % (default 0 %, clean)
OUTPUT	−12 to +12 dB (default 0.0 dB)
AUTO GAIN, EQ IN	On / off (default off); in / out (default in)
Processing	4x oversampled (2x at 88.2 / 96 kHz, 1x at 176.4 / 192 kHz); curves within 0.022 dB of their analog shape from 20 Hz to 20 kHz
Latency	64 samples at 44.1 to 96 kHz (1.3 ms at 48 kHz); none at 176.4 and 192 kHz; constant and reported to the host; the DAW's bypass is delayed by the same amount
Flat	With every gain at 0 and TUBE at 0 %: the input, delayed, bit for bit
Display	Total curve and each active section over the output's spectrum (sixth octaves, tilted 4.5 dB/oct); hover read-out
Metering	IN and OUT meters: peak, RMS, short-term and integrated LUFS, OUT − IN in LU
Presets	42 factory presets in 9 folders, plus your own
Window	1360 × 820 points; resizable from 75 % to 200 %, saved with the session
Formats	VST3, Audio Units, standalone; AAX once signed
Plugin ID	Manufacturer Veir, plugin Vegd

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 EQ Gold 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**.

A frequency knob looks grey. Its section is at 0 dB, so it does nothing yet. Turn up the section's gain and the knob lights.

I boosted and attenuated the same low frequency and it cancelled out. It doesn't cancel: below the frequency the boost wins, above it there is a dip. Look at the curve screen: the total sits between the two section curves. If the effect is too subtle, raise BOOST.

The low end got louder but muddier. Add ATTEN at the same FREQ (the low-end trick), or a MID DIP at 300–500 Hz.

Everything sounds better with Gold in. Is it? Probably louder. Turn AUTO GAIN on, or watch the Δ on the meter bridge, and compare again.

I hear distortion on loud parts. TUBE is high, or a big low boost is driving it hard. Lower DRIVE, or lower the level going into Gold.

Does Gold add latency? 64 samples at 44.1 to 96 kHz (1.3 ms at 48 kHz), none at 176.4 and 192 kHz. It is always the same and your DAW compensates for it automatically.

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 EQ Gold · User Manual · Version 0.1.0

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

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