VEIRA

PLATE REVERB

VEIRA Reverb Red

User Manual

The plate of the four VEIRA colour reverbs: the classic studio steel plate. Bright, dense and immediate, with the damper's 1-to-10 DAMP scale, TENSION and BRIGHTNESS, for vocals and snare above all.



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Welcome

Thank you for choosing **VEIRA Reverb Red**. It is a model of the classic studio steel plate: a large sheet of steel hung in a frame, set ringing by a driver and heard through pickups, with a damper pad that sets how long it rings. A plate doesn't sound like a room. It is bright, dense from the very first moment and smooth, with a shimmering top that sits behind a voice or a snare without blurring it. It is the red one of the four VEIRA colour reverbs (White, Red, Gold and Blue), and it is painted like VEIRA Comp Red, Limiter Red, EQ Red and Gate Red.

What makes it different

- **It models what makes a plate a plate.** Bending waves on steel travel faster the higher they are, so every reflection reaches the pickups as a falling chirp; the plate is dense from its first millisecond (measured: fully dense 10–15 ms after the first arrival, at every setting), with no "room" echoes.
- **The damper, as on the real thing.** DAMP runs from 1 (the pad pressed close: about half a second) to 10 (let ring: about five and a half), and the read-out under it gives the real reverb time.
- **The plate's own tone.** Thin lows, a bright, falling top and a little presence: BRIGHTNESS sets the top, TENSION how far down the chirp goes, SIZE how many modes the plate has.
- **Made for a mix.** Pre-delay in milliseconds or as a note value at the song's tempo, LOW CUT on the plate only, DUCK to keep it out of the way while you sing, and LOCK to keep MIX at 100 % on an aux.
- **Clean at the edges.** No latency. At MIX 0 % the output is the input, bit for bit. Changing any control while you play doesn't click, and when the music stops the plate ends in true digital silence.

How this manual is organised. *Getting started* covers installing and activating. *The panel at a glance* names every part of the window. *How a plate reverb works* is a short primer. *Controls* and *Displays* explain every knob, button and graph with drawings. *Inserts and aux sends* covers routing, *Which colour reverb to choose* compares the four, and *Presets*, *Recipes*, *Specifications* and *Troubleshooting* close the manual.

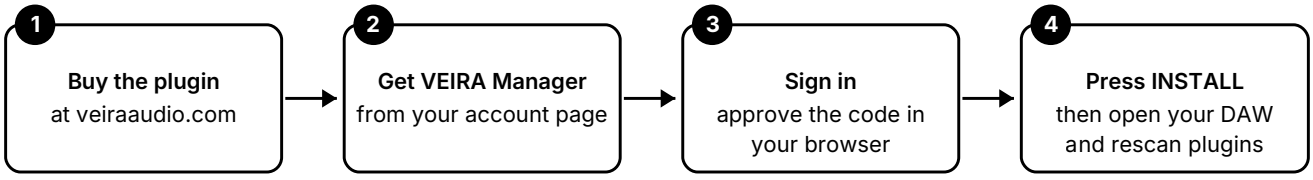
Getting started

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 Reverb Red 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 Reverb Red 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 Reverb Red appears in your DAW under the manufacturer **VEIRA** (in Logic Pro: Audio Units ▸ VEIRA ▸ VEIRA Reverb Red).

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 Reverb Red 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.

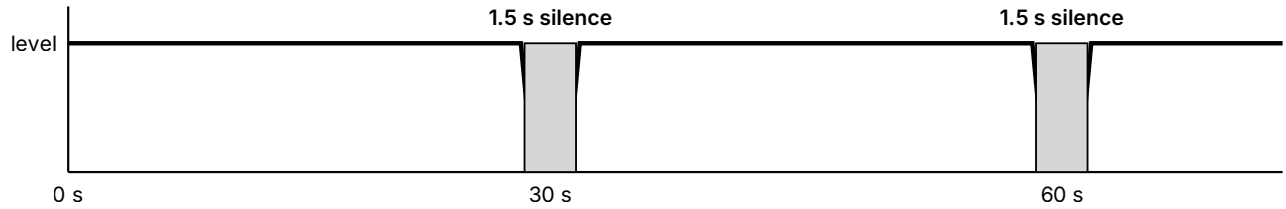


FIGURE 2 What an unlicensed copy does. With a valid licence the audio is never touched.

- **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 Reverb Red. 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 Reverb Red 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



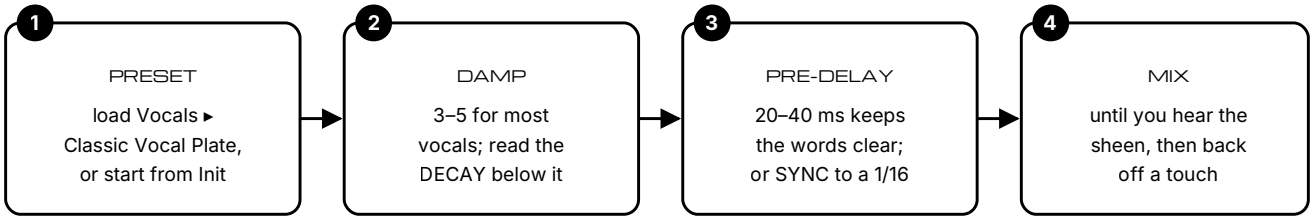
FIGURE 3 VEIRA Reverb Red, the lacquered red unit, with its default plate on a vocal with snare hits (MIX at 35 %), a moment after the music stopped: the DECAY display shows the measured tail falling along the designed one.

	Part	What it does
1	Preset browser	Steps through and saves presets. See *Presets*.
2	DECAY display	The designed decay of the lows, mids and highs, and the measured tail.
3	TAIL SPECTRUM	The plate's own sound across frequency, with the reverb time over it.
4	Meter bridge	IN and OUT meters with short-term and integrated loudness.
5	DAMP	The damper: how long the plate rings, 1 to 10.
6	DECAY read-out	The mid-band reverb time DAMP gives, in seconds.
7	PRE-DELAY	The gap before the plate, in milliseconds.
8	NOTE	The gap as a note value, with SYNC on.
9	SYNC	The pre-delay follows the song's tempo.
10	SIZE	The plate's size.

	Part	What it does
11	TENSION	How tightly the plate is stretched.
12	BRIGHTNESS	The plate's top.
13	LOW CUT	A high-pass filter on the plate.
14	MOD	Slow movement of the plate's paths.
15	WIDTH	The plate's stereo width.
16	DUCK	The plate dips while you play.
17	MIX	The dry sound against the plate.
18	OUTPUT	The final level.
19	LOCK	Presets leave MIX where it is.

The window has the two displays at the top left and the meter bridge at the right. The large DAMP knob sits at the lower left under the caption DAMPER; the other controls are in groups under the captions PRE-DELAY, PLATE and TONE (top) and MOTION, DUCKING and OUTPUT (bottom).

Quick start: a vocal plate in four moves



On an aux instead: set MIX to 100 % and switch on LOCK (see Inserts and aux sends).

FIGURE 4 The quickest way to a plate on a vocal. *Default* ▸ *Init* is a neutral start: DAMP 4.5 (2.37 s), 10 ms of pre-delay, SIZE, TENSION and BRIGHTNESS at 50 %, LOW CUT 100 Hz and MIX 25 %.

Using the controls

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

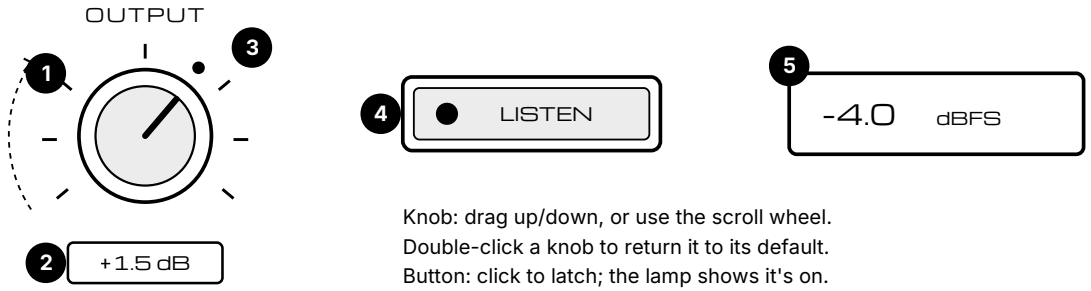


FIGURE 5 The parts you'll find on every VEIRA panel (the labels are examples).

- 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 Reverb Red's panel the parts look a little different from the drawing above:

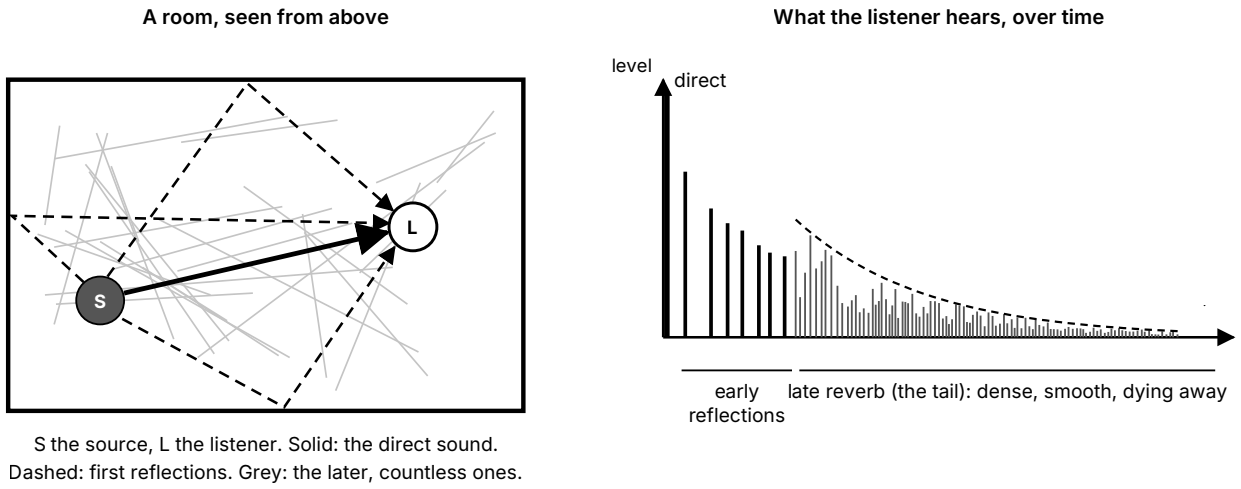
- **Knobs show their value in the middle** (4.5, 10 ms, 50 %, 100 Hz): the knobs are black, and a ring printed in cream on the paint around each one (in print, the light arc) shows how far it is turned. The control's name is printed under the knob. DAMP, the one you touch most, is the big one; MIX and OUTPUT have larger labels.
- **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: **6** for DAMP 6, **35** for 35 ms, **off** for LOW CUT. Press Escape or click elsewhere to leave it unchanged.
- **Buttons have no lamps:** SYNC and LOCK fill with cream with red lettering when they are on (in print, a light button); off, they are outlined wells in the paint with cream lettering. While SYNC is off, NOTE is dimmed; while it is on, PRE-DELAY is.
- **Resize the window:** drag its bottom-right corner. It scales from 75 % to 200 % of its normal size (1480 × 940 points) and keeps its proportions. Your DAW saves the size with the session.
- **The face:** deep lacquered red with cream print and black knobs; the displays and the meter bridge are dark screens set into the paint. Every label on the paint stands at least 4.5:1 against it (WCAG AA).

How a plate reverb works

If you already know plates, skip to *What happens inside VEIRA Reverb Red*. If not, these pages make every control obvious.

Reverb in a room

Sound in a room bounces off the walls, the floor and the ceiling. The first few bounces arrive as distinct echoes; after a few tens of milliseconds there are so many that they merge into a smooth wash that slowly dies away. That wash is **reverberation**.



S the source, L the listener. Solid: the direct sound. Dashed: first reflections. Grey: the later, countless ones.

A reverb recreates the right-hand picture: the gap, the first distinct echoes, then a dense tail that dies away.

FIGURE 6 Reverb in a room. Every path but the direct one is a reflection; together they make the reverb.

Two numbers describe it. The **reverb time**, or **RT60**, is the time the tail takes to fall by 60 dB. The **pre-delay** is the gap before the reverb starts.

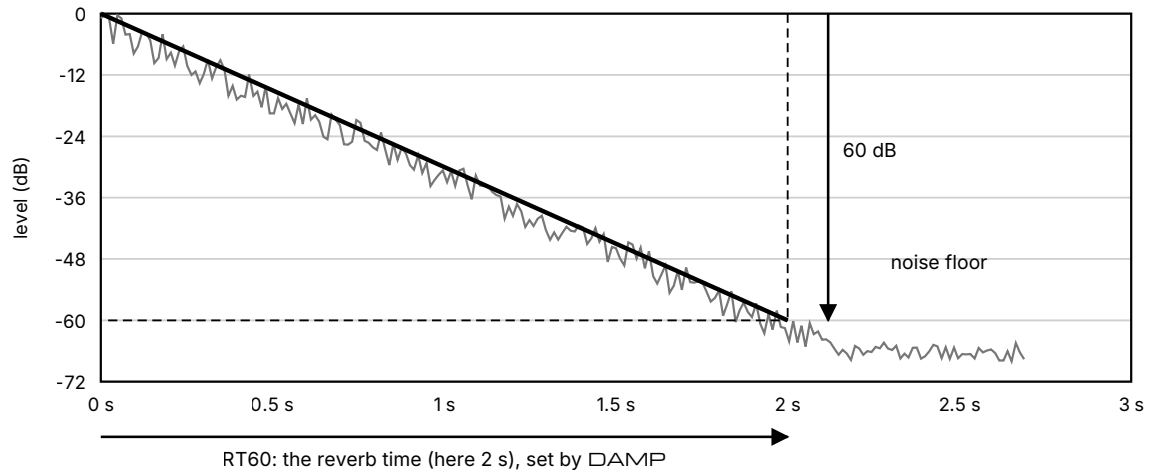


FIGURE 7 On a decibel scale a natural decay is a straight line; the reverb time is the time it takes to fall 60 dB. On Reverb Red, DAMP sets it, and the read-out under the knob gives it in seconds.

In a mix the music around the reverb covers its last 20–30 dB, so a 2.4 s plate often *sounds* about a second long on a busy track, and its full length only at the end of a phrase or in a break. Set DAMP by ear, in the mix.

The studio plate

A **plate** is an artificial reverb from the days before digital ones: a thin sheet of steel, a couple of metres across, hung by its corners on springs inside a wooden frame. A small speaker-like **driver** in the middle shakes it; two **pickups** (contact microphones) on the plate pick up the ringing; a felt **damper pad** beside it, moved closer or further away, sets how long it rings. It is played like an echo chamber: a send from the console in, the pickups back.

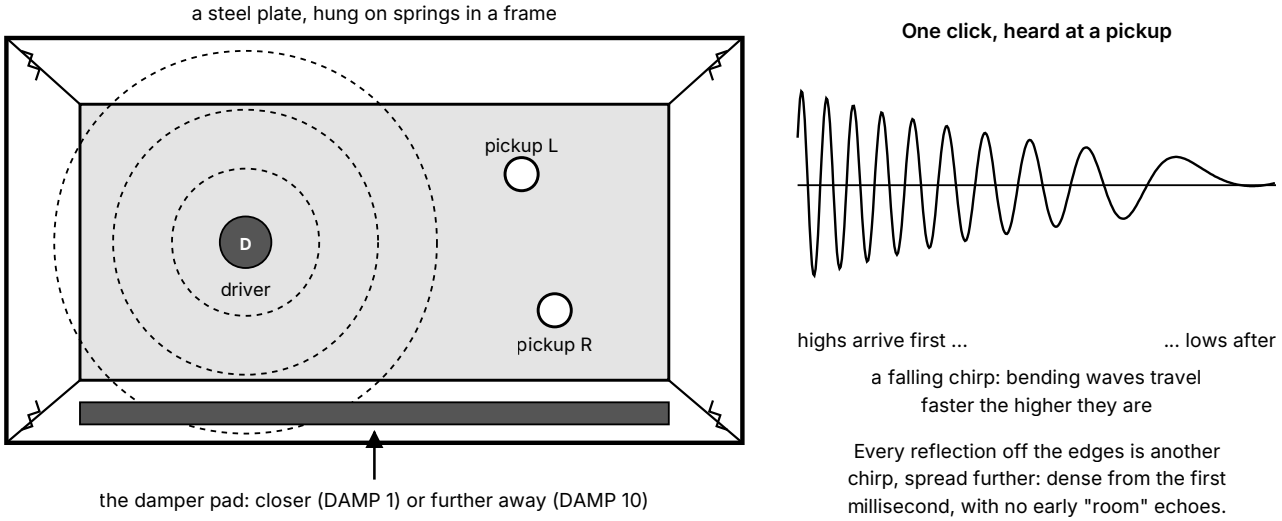
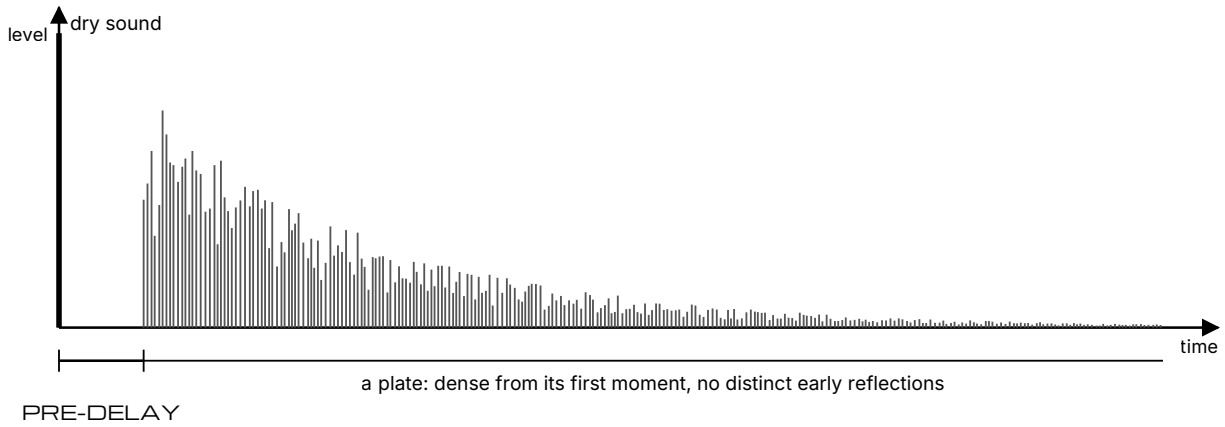


FIGURE 8 A studio plate. The ripples from the driver run out to the edges and back, again and again, and the pickups hear all of them at once.

Three things make a plate sound like a plate and not like a room:

- **It is dense at once.** A room has distinct early reflections off its walls. A plate has none: its ripples bounce off four close edges so fast that the sound is a dense wash from the first millisecond.
- **Every reflection is a chirp.** Bending waves on steel travel **faster the higher they are**. A click on the plate reaches the pickups highs first, lows after: a little falling “zip”. Every reflection is another such chirp, spread further each time. That’s the plate’s shimmer.
- **Its modes are even.** A room’s resonances crowd together towards the top; a plate’s are spread evenly across the whole range, so it is smooth and never sounds like a box. It has its own tone: thin lows, a bright top that falls away, a little presence.

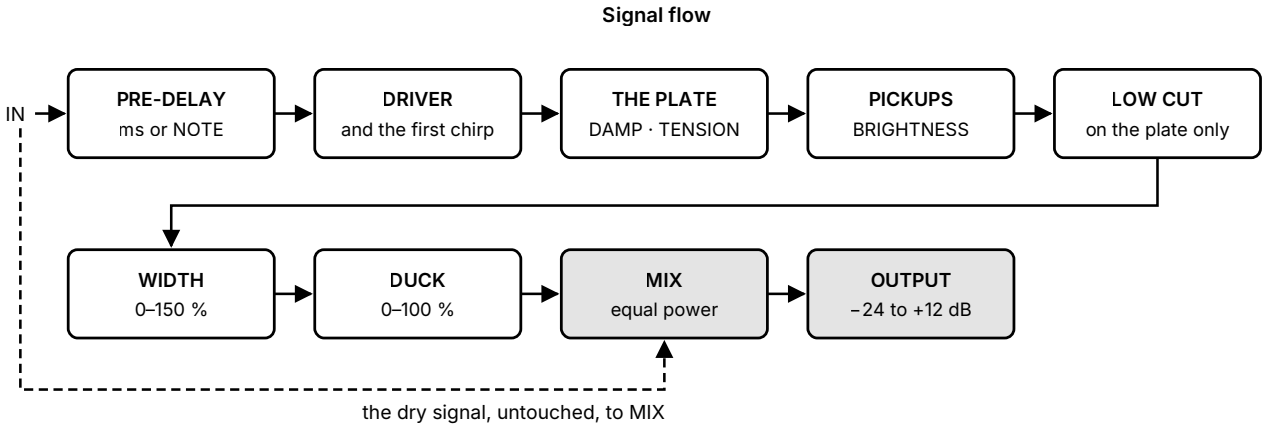


A room (see above) has distinct first reflections; a plate goes straight into the dense tail.

FIGURE 9 A plate's echogram: after the pre-delay, the tail starts dense at once.

That is why plates suit vocals and snare so well: the reverb is right there behind the sound, bright and smooth, without the sense of a room around it.

What happens inside VEIRA Reverb Red



The dry path is never processed: at MIX 0 % the output is the input, bit for bit. There is no latency.

FIGURE 10 Signal flow. The pre-delayed input drives the plate; the pickups' output is filtered, widened and ducked before MIX.

1. **Pre-delay.** The input is delayed by PRE-DELAY, or by NOTE at the song's tempo.
2. **The driver** sets the plate moving, each side mostly its own, and the first chirp begins: the highs reach the pickups first. Both sides are processed the same way, so a mono source never sounds hollow.
3. **The plate** is sixteen paths (waveguides) that scatter into each other. Along every path the waves disperse (the chirp, set by TENSION), and on each pass they lose exactly what DAMP and BRIGHTNESS ask, band by band. A larger SIZE means longer paths and more modes.
4. **The pickups** hear every path at several points, plus the direct wave from the driver, through the plate's response: thin lows (about −4 dB under 190 Hz), a little presence (+2.5 dB at 3.6 kHz), BRIGHTNESS's tilt and a roll-off at 17 kHz.

5. **LOW CUT, WIDTH and DUCK** shape the plate only; **MIX and OUTPUT** blend it with the untouched dry signal.

Controls

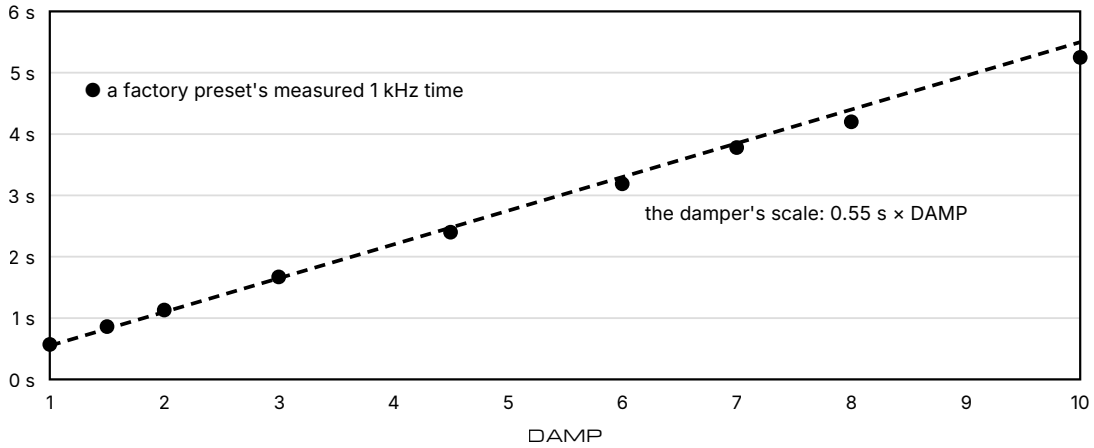
DAMPER: DAMP



FIGURE 11 1 DAMP and 2 its DECAY read-out.

Control	Range	Default	What it does
DAMP	1 to 10	4.5	The damper: 1 rings for about half a second, 10 for about five and a half.
DECAY read-out		2.37 s	The mid-band reverb time this DAMP gives (with the other settings).

On a studio plate, the damper is a felt pad that a motor moves towards or away from the steel: pressed close, it soaks up the vibration and the plate stops quickly; pulled away, the plate rings. Its scale ran from 1 to 10, and DAMP keeps it. The scale reads roughly as **seconds over two**: DAMP 2 is about a second, 4 about two, 10 about five and a half.



The read-out under the knob gives the real mid-band time, plate losses included (DECAY 2.37 s at DAMP 4.5, BRIGHTNESS 50 %).

FIGURE 12 DAMP against the reverb time. The dashed line is the damper's scale; the dots are factory presets, measured through the plugin at 1 kHz.

Under the knob, DECAY gives the real reverb time in the mids for the current settings, so you don't have to guess: the plate's own losses at the top (BRIGHTNESS) shorten it a little. The damper works most in the low mids, as a real pad does; at the top the plate's own losses take over.

- **1–2.5:** a short, tight plate: a snare's crack, a dry vocal's air, dialogue (*Tight Snare Plate* 1.8, *Announcer Plate* 1.5).
- **3–5:** the classic vocal and snare plate (*Classic Vocal Plate* 4, *Snare Plate* 3).
- **6–8:** ballads, slow songs, strings, choir (*Ballad Plate* 6, *Choir Plate* 8).
- **9–10:** long washes and pads (*Synth Pad Plate* 9, *Endless Plate* 10).

DAMP glides to a new setting over about a quarter of a second, so you can move it while the plate rings without a click.

PRE-DELAY: PRE-DELAY, NOTE and SYNC



FIGURE 13 1 PRE-DELAY, 2 NOTE (dimmed while SYNC is off) and 3 SYNC.

Control	Range	Default	What it does
PRE-DELAY	0 to 500 ms	10 ms	The gap before the plate (with SYNC off).
NOTE	1/64 to 1/2, with triplets (T) and dotted (D) values	1/16	The gap as a note value at the song's tempo (with SYNC on).

Control	Range	Default	What it does
SYNC	on / off	off	Switches between PRE-DELAY and NOTE.

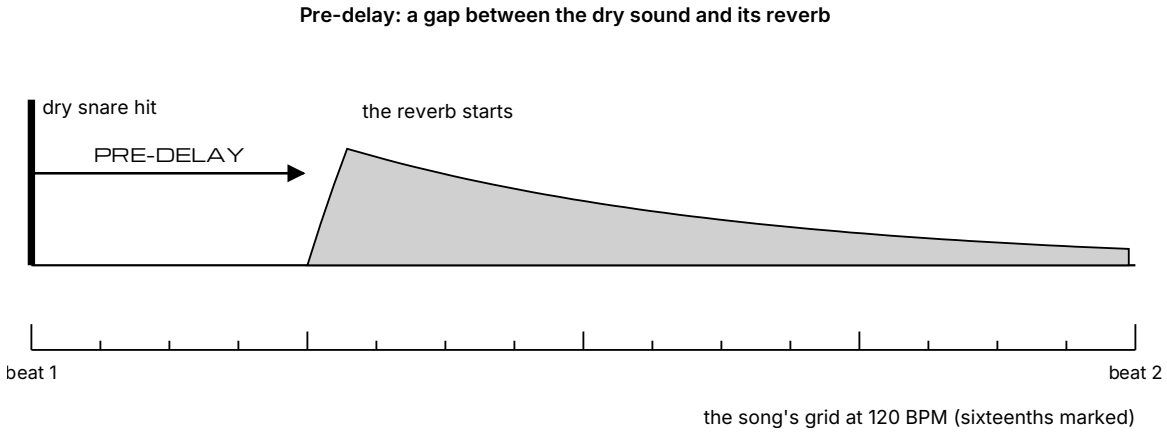


FIGURE 14 Pre-delay keeps the start of each sound clear of the plate. With SYNC, the gap is a note value at your DAW's tempo.

A plate has no natural pre-delay: it starts the moment the driver moves. A short gap keeps the attack of each word or hit clear of it, and makes the plate feel set back behind the sound.

- **0–10 ms:** the plate sticks to the sound: snares, drums, percussion (*Big 80s Snare* uses 0 ms).
- **15–40 ms:** vocals and lead instruments: the consonants stay clear (*Classic Vocal Plate* 25 ms).
- **50–120 ms:** a clear gap before a long plate: ballads and lead lines (*Ballad Plate* 60 ms).

SYNC. With SYNC on, the gap is NOTE, a note value at your DAW's tempo: from a sixty-fourth to a half note, with triplets (T) and dotted values (D), up to 2 s. A sixteenth (the default) at 120 BPM is 125 ms. *Synced Vocal Plate* and *Synced Plate Wash* use it. A new time crossfades from the old one over 20 ms, so you can move it while the music plays.

PLATE: SIZE and TENSION

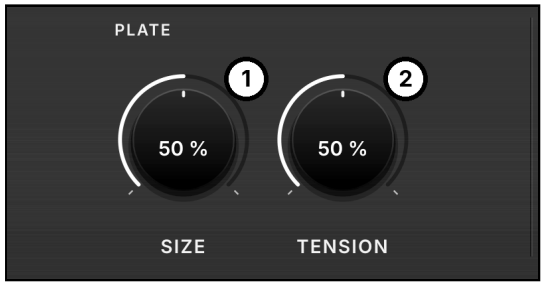


FIGURE 15 1 SIZE and 2 TENSION.

Control	Range	Default	What it does
SIZE	0 to 100 %	50 %	The plate's size, from 1/1.5 to 1.5 times.

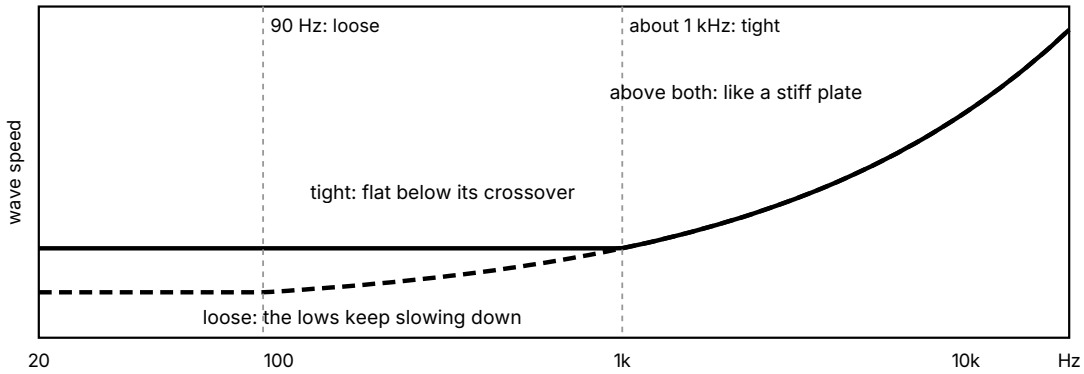
Control	Range	Default	What it does
TENSION	0 to 100 %	50 %	How tightly the plate is stretched.

SIZE

SIZE sets the size of the plate. A **larger** plate has more modes, so its tail is smoother and builds a little more slowly; a **smaller** one is tighter and brighter, with fewer modes, and at the very smallest you can begin to hear single ones ring, as on a small real plate (*Creative* ▸ *Metal Box* and *Boing Plate* use SIZE 0 % on purpose). SIZE doesn't change the reverb time: that's DAMP. It glides, so you can move it while the plate rings.

TENSION

A plate is stretched in its frame like a drum skin. Under tension, it behaves like a **membrane** in the lows (every frequency travels at the same speed: no chirp) and like a **stiff plate** above a crossover (the higher, the faster: the chirp). TENSION moves that crossover, from about 90 Hz on a loose plate to about 1 kHz on a tight one.



Where the speed still changes, each frequency arrives at its own time: that is the chirp. A loose plate chirps down into the lows (the "boing" of a slack plate); a tight one stays focused below about 1 kHz.

FIGURE 16 The speed of the plate's waves across frequency, loose (dashed) and tight (solid). The TAIL SPECTRUM marks the crossover as TENSION.

- **Loose (0–30 %):** the chirp reaches down into the lows: a singing, slightly springy "boing" on low notes and drums (*Surf Plate* 10 %, *Tom Plate* 30 %; *Boing Plate* at 0 %).
- **Medium (40–60 %):** the classic plate.
- **Tight (65–100 %):** the lows stay focused and clean; only the top shimmers. Good for snares and bright, modern vocals (*Tight Snare Plate* 70 %, *Tight Steel* 100 %).

TONE: BRIGHTNESS and LOW CUT

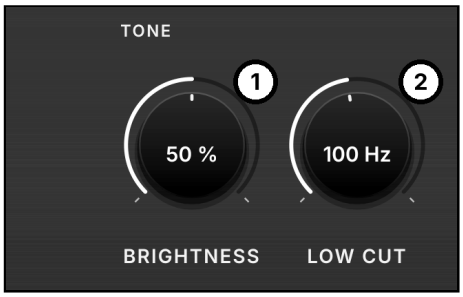


FIGURE 17 1 BRIGHTNESS and 2 LOW CUT.

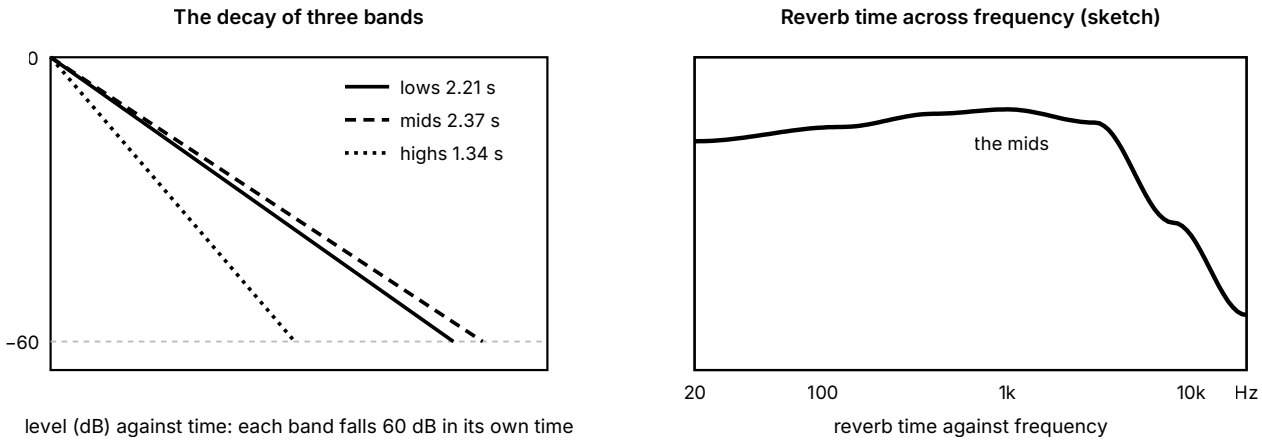
Control	Range	Default	What it does
BRIGHTNESS	0 to 100 %	50 %	The plate's top: its losses at high frequencies and the pickups' tilt.
LOW CUT	OFF, 21 Hz to 1 kHz	100 Hz	A 12 dB/oct high-pass on the plate only.

BRIGHTNESS

BRIGHTNESS sets the plate's top in two ways at once, as the state of a real plate does:

- **How long the highs ring.** A plate loses its highs faster than its mids. BRIGHTNESS sets how much faster: at DAMP 4.5, the reverb time at 8 kHz runs from about 0.6 of the mids' (0 %) to about 0.95 (100 %).
- **The pickups' tilt:** a high shelf at 7 kHz, from −6 dB (0 %) to +3 dB (100 %).

Turn it **up** for the shimmer of a new, bright plate (*Bright Pop Plate* 75 %, *Shine Plate* 80 %); **down** for a darker, older plate that sits further back (*Dark Drum Plate* 25 %, *Dark Plate* 0 %).



The default plate, as the DECAY display reads it: 2.21 s at 125 Hz, 2.37 s at 1 kHz, 1.34 s at 8 kHz.

FIGURE 18 The plate's decay per band. The damper works most in the low mids, so the lows end a little sooner than the mids; above a few kHz the plate's own losses take over, and BRIGHTNESS decides how fast.

LOW CUT

LOW CUT takes the lows out of the plate (never out of the dry sound). A plate already has thin lows, so the default 100 Hz is gentle; raise it to 150–220 Hz on vocals and snare, so the plate adds sheen and no mud, and to 300–600 Hz for a plate that adds only air (*Shine Plate*, 600 Hz). Fully left it reads OFF. The TAIL SPECTRUM shades the band it cuts.

MOTION: MOD and WIDTH

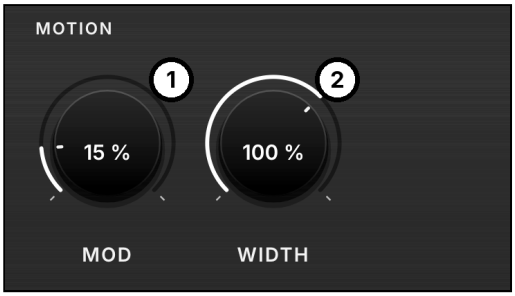


FIGURE 19 1 MOD and 2 WIDTH.

Control	Range	Default	What it does
MOD	0 to 100 %	15 %	Slow movement of the plate's paths.
WIDTH	0 to 150 %	100 %	0 % mono, 100 % as it is, 150 % wider.

MOD. A real plate doesn't move: its modes are fixed. On long, sustained notes, a few of them can then ring a little. A touch of MOD (10–20 %) moves the plate's paths slowly, so sustained notes stay smooth, without any audible movement; more (40–100 %) gives a lusher, gently moving plate for pads and dream sequences (*Endless Plate* 100 %). At 0 % the plate is as still as the real thing (*Metal Box*, *Tight Steel*).

WIDTH sets the plate's stereo width. At **100 %** the two pickups are as they are: on a centred source the plate's left and right are uncorrelated across the range (measured: within ±0.02), more correlated in the deep lows of a tight plate, as in a real one. **0 %** makes it mono; **up to 150 %** spreads it wider than the speakers. The level stays the same at every setting.

DUCKING: DUCK

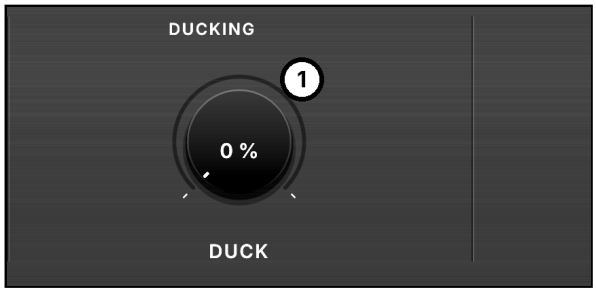


FIGURE 20 1 DUCK.

Control	Range	Default	What it does
DUCK	0 to 100 %	0 %	The plate dips (up to 24 dB) while you play and blooms back in the gaps.

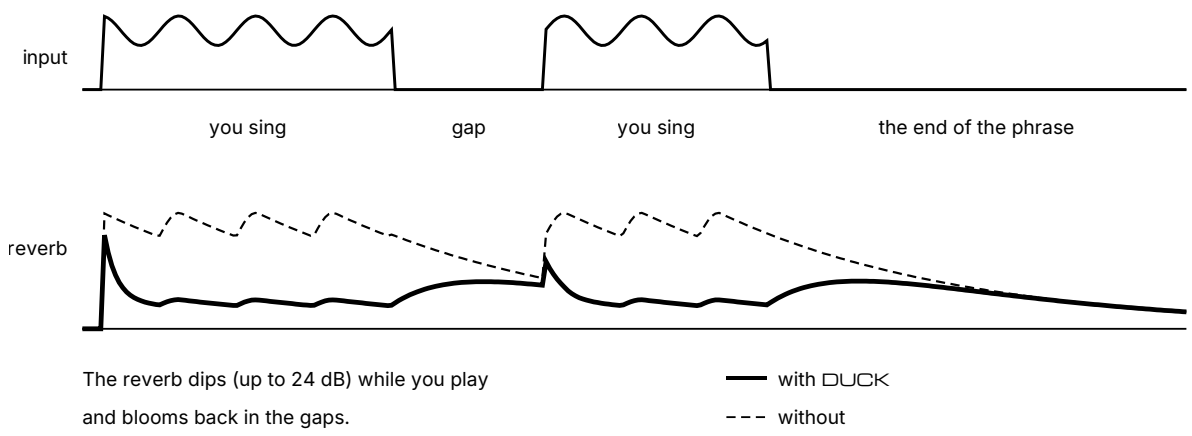


FIGURE 21 DUCK at work: the plate (solid) stays down while the phrase is sung and swells up when it ends.

A long plate on a lead vocal can wash over the words. DUCK turns the plate **down while the input plays** and lets it **bloom back in the gaps**: a big, bright plate and clear words. It listens to how near the input is to its own recent peak, not to a fixed threshold, so it works the same at any level, with nothing else to set. At 100 % it keeps the plate about 16 dB down while the source plays.

- **20–30 %:** a gentle clean-up (*Ballad Plate* 25 %).
- **45–60 %:** clearly ducked; the plate mostly lives between phrases (*Ducked Lead Plate* 55 %, *Lead Guitar Plate* 45 %, *Synced Plate Wash* 60 %).

The DECAY display shows the dip live.

OUTPUT: MIX, LOCK and OUTPUT

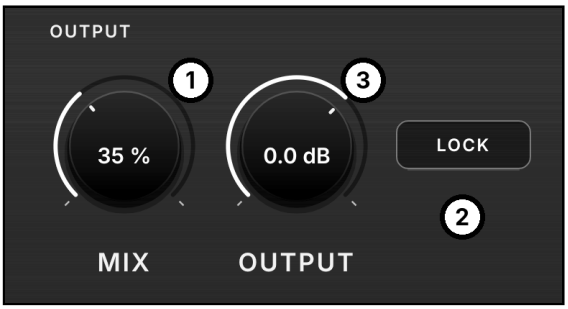


FIGURE 22 1 MIX, 2 LOCK and 3 OUTPUT.

Control	Range	Default	What it does
MIX	0 to 100 %	25 %	The dry sound against the plate, equal power.
LOCK	on / off	off	Presets leave MIX where it is.

Control	Range	Default	What it does
OUTPUT	−24 to +12 dB	0.0 dB	The final level, after MIX.

MIX is an equal-power blend: the level stays steady as you turn it. At **0 %** the output is the input, bit for bit; at **100 %** it is the plate only, for an aux. On an insert, 15–35 % is the usual range.

LOCK keeps MIX where it is when you load a preset, and a preset doesn't show as edited (*) just because MIX differs. Use it on an aux at 100 %, or to try other plates at a blend you've set by ear. See *Inserts and aux sends*.

OUTPUT sets the final level. Most presets come out within 1.3 dB of the dry track; check the meter bridge's Δ reading before you compare with bypass.

Displays

DECAY

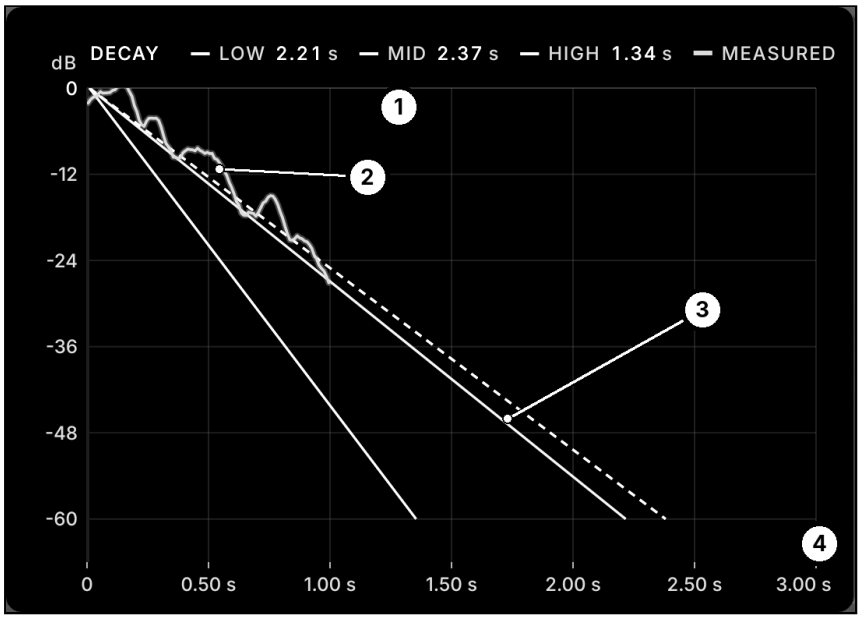


FIGURE 23 The DECAY display: 1 the legend, with the reverb time of each band, 2 the measured tail, 3 the designed decays, 4 the time scale.

The DECAY display shows the plate's decay from the end of the pre-delay down to −60 dB (0 at the top, −60 at the bottom), against time.

- 3 **The designed decay** of the lows (125 Hz; teal on screen), the mids (1 kHz; the dashed line) and the highs (8 kHz; amber on screen, in print the steepest line). Each falls 60 dB in its own reverb time; 1 the legend gives the three times. On a plate the lows and mids are close together and the highs are shorter.
- 2 **MEASURED** (red on screen; the wavy line): each time the input stops, the plate's real level from then on. On a final chord or a snare's last hit it follows the designed lines.
- DUCK's dip shows on the curves live.

The time scale 4 stretches with the longest band.

TAIL SPECTRUM

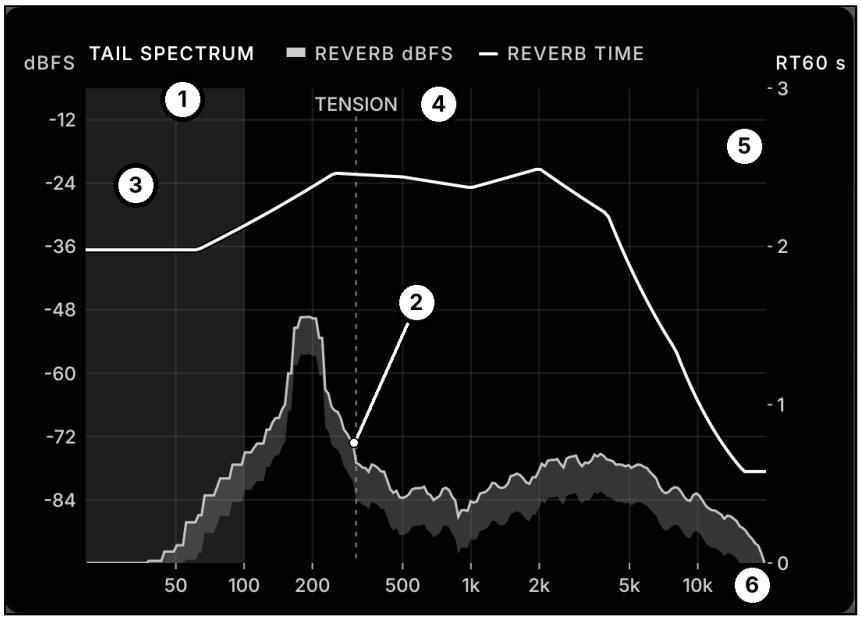


FIGURE 24 The TAIL SPECTRUM: 1 title and legend, 2 the plate's spectrum (dBFS), 3 the reverb time across frequency, 4 the TENSION crossover, 5 the RT60 scale, 6 the frequency scale. The shaded band at the left is what LOW CUT takes out.

- 2 **The plate's own sound** (as mixed), per sixth of an octave, in dBFS on the left scale: what the plate adds to your track, without the dry signal.
- 3 **The designed reverb time across frequency** (teal on screen; in print the smooth line), read on 5 the RT60 scale at the right, in seconds: lower in the deep lows (the damper), highest in the mids, falling at the top (BRIGHTNESS).
- 4 **TENSION** marks the crossover between the membrane-like lows and the dispersive plate above it. The band that LOW CUT removes is shaded.



FIGURE 25 A longer, brighter plate: DAMP 8.0 (DECAY 4.18 s), 40 ms of pre-delay, TENSION 25 %, BRIGHTNESS 72 %, LOW CUT 180 Hz, WIDTH 120 %, DUCK 35 % and MIX 30 % with LOCK on. The loose plate's crossover sits low, near 180 Hz on the TAIL SPECTRUM; the DECAY display reads 3.92 s in the lows, 4.18 s in the mids and 2.13 s in the highs.

Meter bridge (IN | OUT)

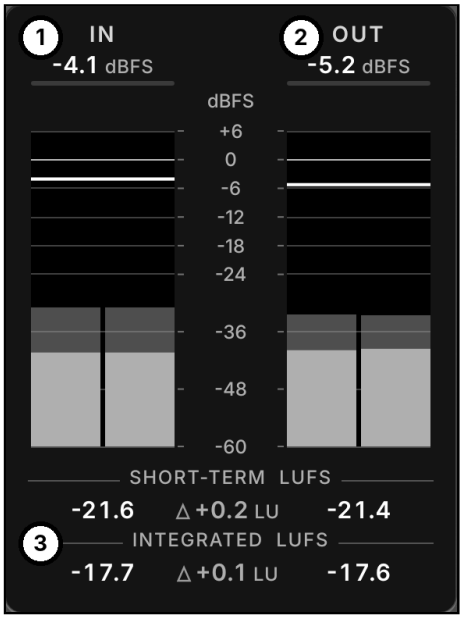


FIGURE 26 The meter bridge: 1 input and 2 output, 3 short-term and integrated loudness with the OUT − IN difference.

VEIRA Reverb Red uses the standard VEIRA meter bridge.

Reading the IN and OUT meters

The meter bridge measures what goes into VEIRA Reverb Red 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.

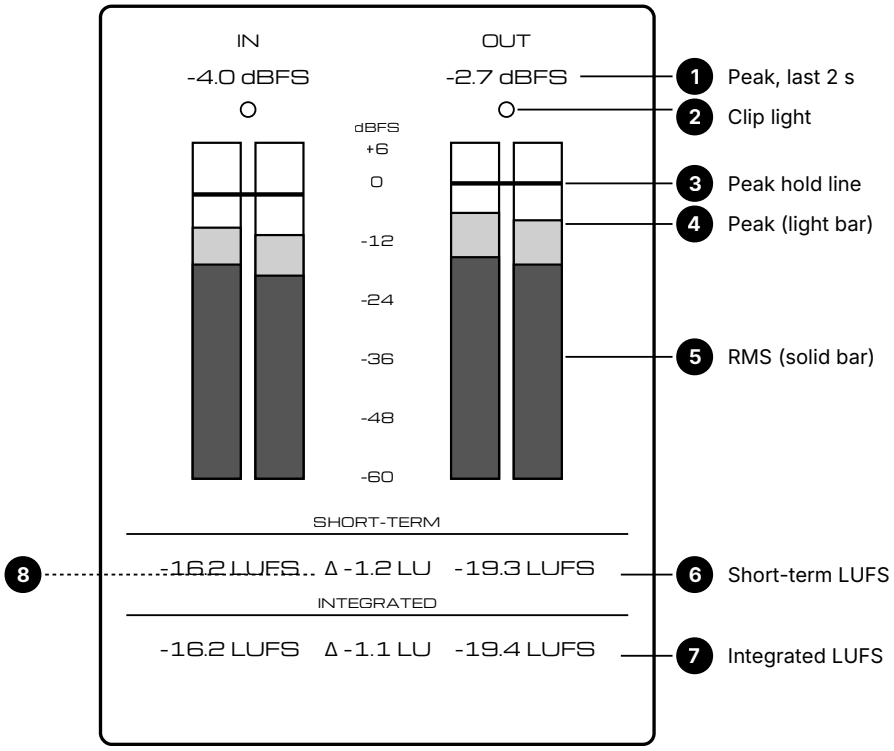


FIGURE 27 The meter bridge, left and right channel bars for input and output, with loudness below.

- 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 Reverb Red 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.

Inserts and aux sends

A reverb can sit on a track in two ways, and VEIRA Reverb Red is ready for both.

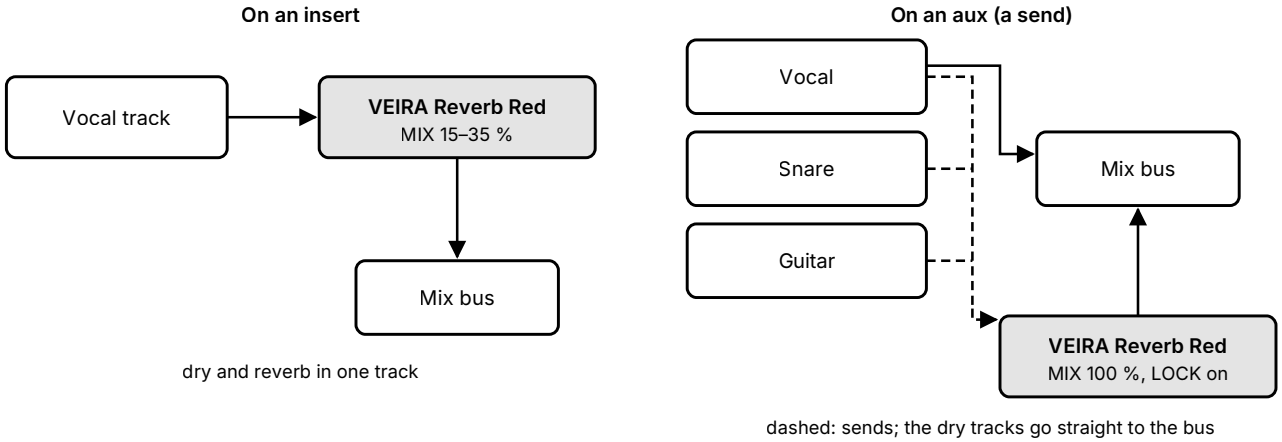


FIGURE 28 Left: on an insert, MIX blends the reverb into the track itself. Right: on an aux, several tracks send to one reverb at MIX 100 %; your DAW's send levels decide how much of each track goes in.

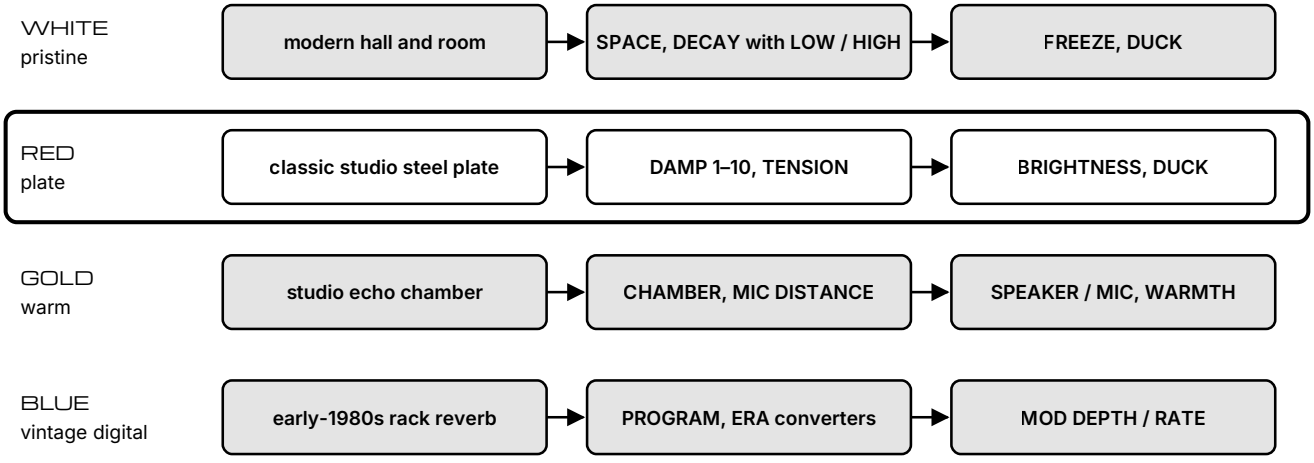
On an insert (the reverb straight on the track), MIX sets the balance. The vocal, drum, guitar and keys presets are made for this, at MIX 15–35 %. MIX is an equal-power blend: at 50 % the dry and the reverb are each 3 dB down, so the level stays steady as you turn it.

On an aux (a return track or FX channel that several tracks send to), set MIX to **100 %**, so the return carries only the reverb, and switch on LOCK. With LOCK on, loading a preset leaves MIX where it is, so you can step through presets on the aux without the dry signal coming back. The *Mix Bus* folder has ready-made aux returns at 100 %. One reverb on an aux puts several instruments in the same space, saves processing, and lets you EQ or compress the return on its own.

> **Tip:** On an aux, set your DAW's sends to *post-fader*, so the reverb follows the track's fader. A pre-fader send keeps the reverb at the same level when you pull the track down, which is useful only as an effect.

Which colour reverb to choose

VEIRA Reverb Red is one of four VEIRA colour reverbs, each painted like the colour compressor, limiter, EQ and gate of the same name. All four have tempo-synced pre-delay, WIDTH, an equal-power MIX with LOCK for aux returns, the same meter bridge with loudness, and a tail that ends in true digital silence. What differs is the space they make: a modern hall, a steel plate, an echo chamber or a vintage digital rack.



The framed row, in white boxes, is the reverb in your hands.

FIGURE 29 The four colour reverbs, side by side.

	Character	Choose it when
White	Pristine. A modern algorithmic hall and room: four SPACE types from ROOM to CATHEDRAL, DECAY from 0.2 to 20 s shaped per band (LOW and HIGH with their crossovers), EARLY/LATE, DIFFUSION, FREEZE and DUCK. Clean and colourless.	You want a natural, lush space that never rings or colours the sound: vocals, piano, strings, film, long ambient tails.
Red	Plate. The classic studio steel plate: dense from the first millisecond, bright and shimmering, with the damper's 1-to-10 DAMP scale, TENSION and BRIGHTNESS.	Vocals and snare above all: the bright, immediate sheen of the records made with a plate.
Gold	Warm. A studio echo chamber in the tradition of the great 1950s-60s studio echo chambers: four hard rooms (TILE, PLASTER, BRICK, VAULT), a speaker and a pair of microphones, MIC DISTANCE and the chain's analog WARMTH.	A real room's early reflections and low-mid warmth: vintage vocals, drums, guitars, anything that should sound recorded in a space.
Blue	Vintage digital. The sound of the classic early-1980s digital rack reverbs: five PROGRAMs, a random wander that makes the tail chorus (MOD DEPTH and MOD RATE), and ERA, the converters from clean late-80s to grainy 12-bit.	The lush, chorused halls and plates of 1980s records: ballads, snare, synths, electric piano, big lead guitars.

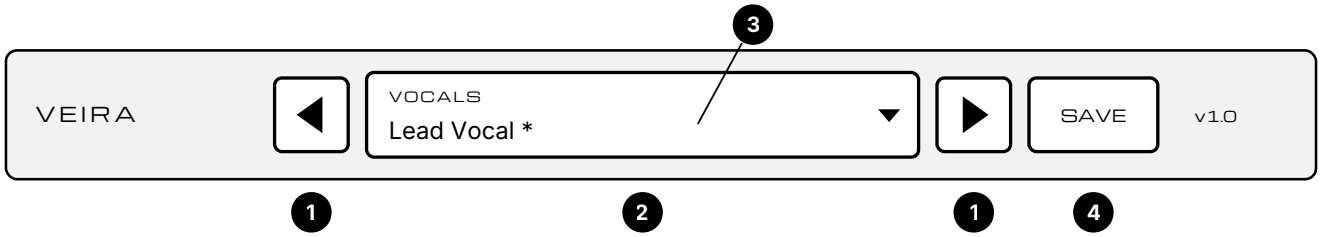
Red is the plate. Reach for it for vocals and snare first, and for anything that should have a bright, dense, smooth reverb right behind it without the sense of a room. For a natural hall or room, try White; for a real room's reflections and warmth, Gold; for the chorused sound of 1980s records, Blue.

Presets

VEIRA Reverb Red comes with **41 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 30 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 Reverb Red 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 Reverb Red/<Folder>/
Windows	%APPDATA%\VEIRA\VEIRA Reverb Red\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	Classic Vocal Plate, Ballad Plate, Bright Pop Plate, Short Vocal Plate, Ducked Lead Plate, Synced Vocal Plate
Drums	Snare Plate, Big 80s Snare, Tight Snare Plate, Kit Plate, Tom Plate, Dark Drum Plate
Guitars	Clean Guitar Plate, Acoustic Plate, Surf Plate, Lead Guitar Plate, Slide Plate
Keys & Synths	Piano Plate, Electric Piano Plate, Synth Pad Plate, Organ Plate, Bright Keys Plate
Strings & Orchestral	String Plate, Brass Plate, Choir Plate, Woodwind Plate
Post & Film	Announcer Plate, Dream Sequence, Metal Box, Sci-Fi Corridor, Radio Drama Plate
Creative	Endless Plate, Boing Plate, Tight Steel, Dark Plate, Synced Plate Wash
Mix Bus	Glue Plate, Vocal Bus Plate, Shine Plate, Aux Plate Return

Levels and MIX. A plate doesn't depend on your track's level: the presets sound the same on a quiet or a loud track. What matters is MIX. The presets are set for an **insert** (MIX 15–35 %; the creative ones up to 50 %), except the *Mix Bus* folder (7–15 %, and *Aux Plate Return* at 100 % for an aux). Measured through the plugin on matching material, every preset's 1 kHz reverb time is within 4 % of its design, and the insert presets change the loudness by at most 1.3 dB against the dry track (*Endless Plate* is the loudest), except the ducked wash and the aux return. On an aux, switch on LOCK and set MIX to 100 %.

Recipes

Step-by-step starting points. In each, set MIX last, in the mix, not soloed.

The classic vocal plate

1. Load **Vocals ▸ Classic Vocal Plate** (DAMP 4, 25 ms of pre-delay, BRIGHTNESS 55 %, LOW CUT 150 Hz, MIX 22 %).
2. Set DAMP to the song: read the DECAY under it. A ballad wants **Ballad Plate**; a fast song, **Short Vocal Plate**.
3. If the words blur, raise PRE-DELAY (40–60 ms) or DUCK (**Ducked Lead Plate**) before you lower MIX.

A snare that cracks and rings

1. On the snare (or a send from it), load **Drums ▸ Snare Plate** (DAMP 3, 5 ms, TENSION 60 %, BRIGHTNESS 65 %, LOW CUT 200 Hz).
2. For the big, long snare of 1980s records, load **Big 80s Snare** (DAMP 7, no pre-delay, WIDTH 130 %, MIX 35 %).
3. If the kick or toms smear into the plate, raise LOW CUT to 250–300 Hz.

A plate in time with the song

Load **Vocals ▸ Synced Vocal Plate** (a sixteenth of pre-delay) or **Creative ▸ Synced Plate Wash** (an eighth, with DUCK 60 %), and change NOTE to taste: the plate starts on the song's grid at any tempo.

Guitars: surf, clean and slide

Guitars ▸ Surf Plate (DAMP 6, TENSION 10 %) gives the loose, splashy plate of surf and twang; **Clean Guitar Plate** and **Slide Plate** suit clean electric and slide parts; **Lead Guitar Plate** ducks under the solo.

One plate for the whole band

1. On an aux, load **Mix Bus ▸ Aux Plate Return** (DAMP 4.5, 20 ms, MIX 100 %) and switch on LOCK.
2. Send vocals, snare and anything else that should share the plate. Use your DAW's send levels to set how much each track gets.
3. For a touch of sheen on the whole mix instead, insert **Shine Plate** (LOW CUT 600 Hz, MIX 7 %) on the mix bus.

Effects for post and sound design

Post & Film ▸ Metal Box and **Sci-Fi Corridor** use a tiny or loose plate for metal rooms; **Radio Drama Plate** and **Announcer Plate** put a voice in a short, bright space; **Creative ▸ Boing Plate** and **Tight Steel** make the plate itself the sound.

Specifications

Type	Plate reverb: a dispersive, damped steel plate model with driver and pickups
Channels	Mono, stereo, and mono in / stereo out
Latency	None
Transparency	MIX 0 % with OUTPUT 0 dB returns the input bit for bit
Accuracy	Reverb time per octave band (125 Hz–8 kHz) within 7.7 % of the design; 1 kHz within 0.7 % at 44.1, 96 and 192 kHz
Density	Fully dense 10–15 ms after the first arrival, at every SIZE and TENSION
Silence	The tail ends in true digital zeros once it has fallen under −140 dBFS
DAMP	1 to 10 (default 4.5: 2.37 s at the default settings)
PRE-DELAY	0 to 500 ms (default 10 ms)
NOTE / SYNC	1/64 to 1/2 with triplets and dotted values, up to 2 s (default 1/16); SYNC off
SIZE	0 to 100 %, 1/1.5 to 1.5 times (default 50 %)
TENSION	0 to 100 %, crossover about 90 Hz to 1 kHz (default 50 %)
BRIGHTNESS	0 to 100 % (default 50 %)
LOW CUT	OFF, 21 Hz to 1 kHz, 12 dB/oct, on the plate only (default 100 Hz)
MOD	0 to 100 % (default 15 %)
WIDTH	0 to 150 % (default 100 %)
DUCK	0 to 100 %, up to 24 dB (default 0 %)
MIX / LOCK	0 to 100 %, equal power (default 25 %) / on, off (default off)
OUTPUT	−24 to +12 dB (default 0.0 dB)
Metering	DECAY (designed decay per band, measured tail); TAIL SPECTRUM (1/6 octave, with the reverb time across frequency and the TENSION crossover); IN and OUT meters (peak, RMS); short-term and integrated loudness per ITU-R BS.1770-4 / EBU R 128
Presets	41 factory presets in 9 folders, plus your own
Window	1480 × 940 points; resizable from 75 % to 200 %, saved with the session
Formats	VST3, Audio Units, standalone; AAX once signed
Plugin ID	Manufacturer Veir, plugin Vrrd

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 Reverb Red 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**.

I can't hear the plate. Check MIX: at 0 % the output is the dry signal only. Check that DUCK isn't high on a track that never pauses. On an aux, check that the tracks' sends are up.

The plate is too bright or harsh. Lower BRIGHTNESS (25–40 %), and raise LOW CUT only if the problem is boom, not hiss. A shorter DAMP also tames a long, splashy top.

The plate makes the mix muddy. Raise LOW CUT (150–250 Hz) and shorten DAMP.

I hear a ringing or "boing" on low notes. That's a loose plate's chirp in the lows. Raise TENSION (60–80 %), and SIZE if it is very small.

The words of the vocal blur. Raise PRE-DELAY (30–60 ms) or DUCK (30–55 %), or lower MIX.

The plate came back with the dry signal on my aux after I changed preset. The preset set MIX to its own value. Set MIX to 100 % and switch on LOCK.

Why doesn't DAMP 4 give exactly 2 seconds? The damper's scale is a guide (about 0.55 s per step); the plate's own losses at the top shorten the mid-band time a little. The DECAY read-out under the knob always gives the real time.

Does VEIRA Reverb Red add latency? No. It adds no delay, and your DAW's bypass needs no compensation.

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 Reverb Red · User Manual · Version 0.1.0

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

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