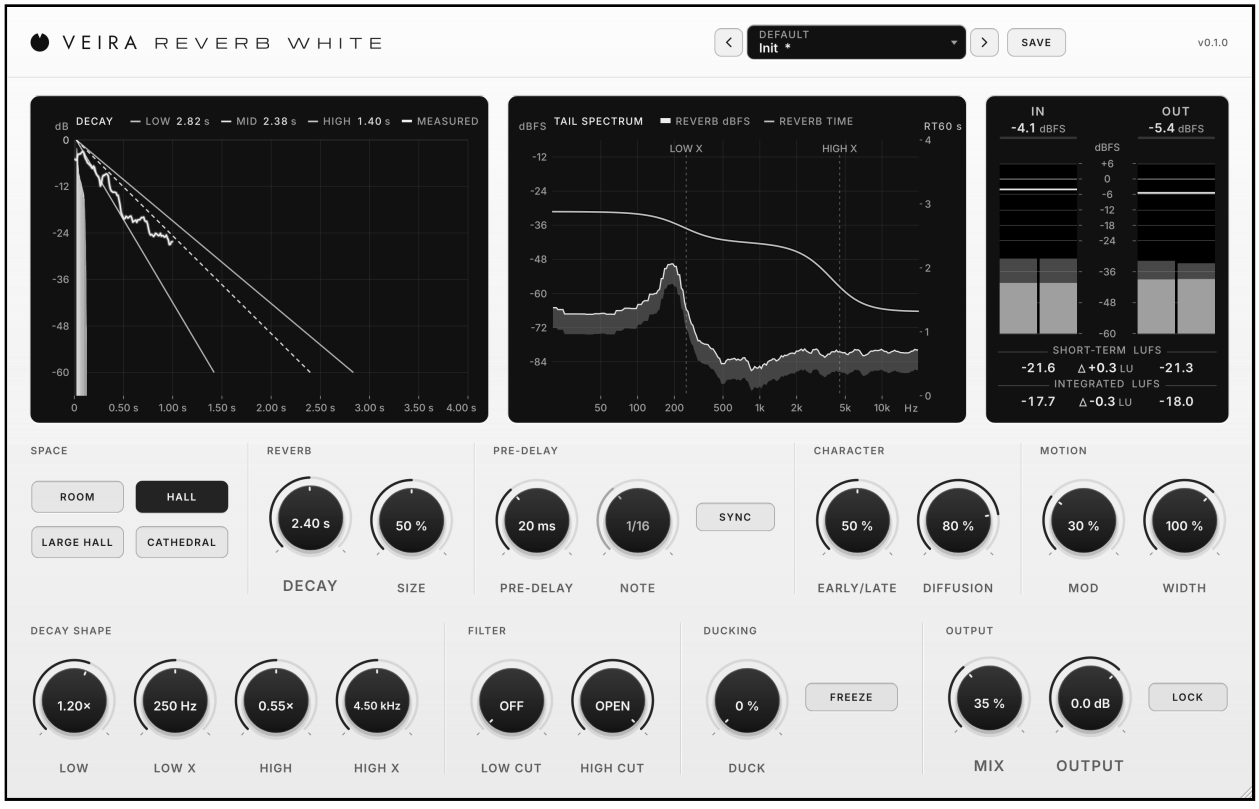
VEIRA

REVERB

VEIRA Reverb White

User Manual

The pristine one of the four VEIRA colour reverbs: a modern algorithmic hall and room. Four spaces from ROOM to CATHEDRAL, a DECAY from 0.2 to 20 s that you shape per band, tempo-synced pre-delay, ducking and FREEZE.



Contents

Welcome 3
Getting started 4
What you need 4
Install with VEIRA Manager 4
Activation and the licence 5
Formats and where the files go 5
The panel at a glance 6
Quick start: a vocal hall in four moves 7
Using the controls 7
How reverb works 9
Early reflections and the tail 10
The reverb time: RT60 10
Different times for the lows and the highs 11
What happens inside VEIRA Reverb White 12
Controls 14
SPACE and REVERB: the space, DECAY and SIZE 14
PRE-DELAY: PRE-DELAY, NOTE and SYNC 15
CHARACTER: EARLY/LATE and DIFFUSION 16
MOTION: MOD and WIDTH 17
DECAY SHAPE: LOW, LOW X, HIGH and HIGH X 18
FILTER: LOW CUT and HIGH CUT 19
DUCKING: DUCK and FREEZE 20
OUTPUT: MIX, LOCK and OUTPUT 22
Displays 23
DECAY 23
TAIL SPECTRUM 24
Meter bridge (IN | OUT) 25
Inserts and aux sends 28
Which colour reverb to choose 29
Presets 30
The preset browser 30
The preset menu 30
Saving your own presets 30
Presets in your DAW 31
The factory folders 31
Recipes 32
A lead vocal that sits in a hall 32
A drum room for a dry kit 32
Strings and orchestral parts 32
A long ambient swell under a guitar 32
A frozen pad 32
Dialogue in a real-sounding place 32
Specifications 34
Troubleshooting and questions 36

Welcome

Thank you for choosing **VEIRA Reverb White**. It is a modern algorithmic reverb: halls and rooms that are huge, clean and lush, with dense, colourless early reflections and a smooth tail that moves just enough never to ring. You choose a space (ROOM, HALL, LARGE HALL or CATHEDRAL), set how long it rings with DECAY, and shape how the lows and the highs die away against the mids with LOW and HIGH. It is the pristine one of the four VEIRA colour reverbs (White, Red, Gold and Blue), and it is painted like VEIRA Comp White, Limiter White, EQ White and Gate White.

What makes it different

- **A decay you design per band.** DECAY sets the reverb time in the mids; LOW and HIGH multiply it below and above their own crossovers (LOW X, HIGH X). Measured against the design from 125 Hz to 8 kHz, the reverb time is within 3.4 % in every space.
- **No ringing, no colour.** The tail's paths move slowly and never repeat, the early reflections are dense and even, and the two sides are independent, so the tail is wide and smooth (its left and right are uncorrelated for a centred source).
- **Four real spaces.** Each space has its own early reflections, its own paths and its own movement; SIZE scales it within its type, and every space comes back at about the same level.
- **Made for a mix.** Pre-delay in milliseconds or as a note value at the song's tempo, DUCK to keep the reverb out of the way while you play, FREEZE to hold a tail for ever, 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 tail 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 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.

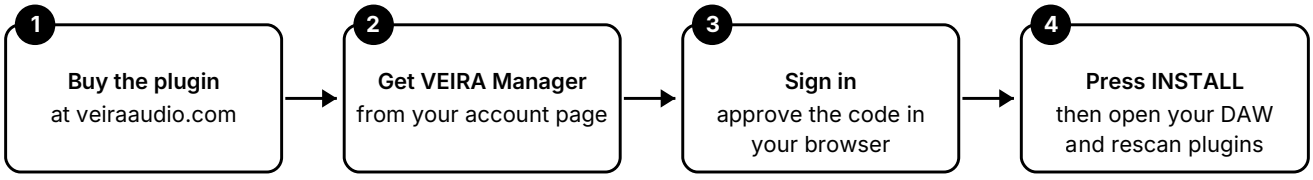
Getting started

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.

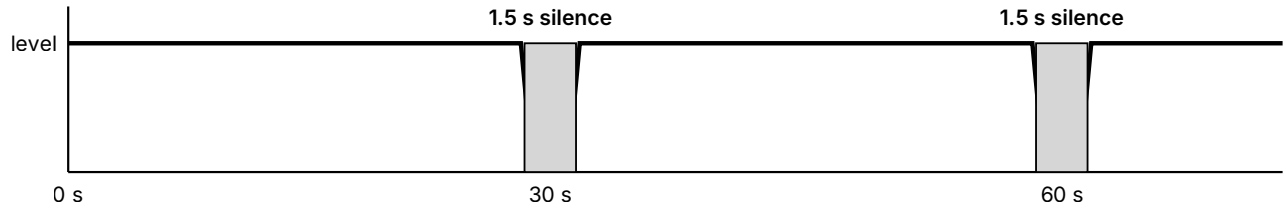
1. **Buy** VEIRA Reverb White at **veiraaudio.com**. It's a one-time purchase: you own it for good, with free updates.
2. **Download VEIRA Manager** from your account page (or veiraaudio.com/manager) and install it.
3. **Sign in.** VEIRA Manager shows a short code and opens your browser; confirm the code there. Your password is never typed into the app.
4. Find VEIRA Reverb White 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 White appears in your DAW under the manufacturer **VEIRA** (in Logic Pro: Audio Units ▸ VEIRA ▸ VEIRA Reverb White).

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 White still loads and works, but **its sound fades out for 1.5 seconds every 30 seconds**, and a strip along the bottom of its window says why (for example, *NOT ACTIVATED ON THIS COMPUTER. SIGN IN WITH VEIRA MANAGER.*). Clicking the strip opens your account page.



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

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

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

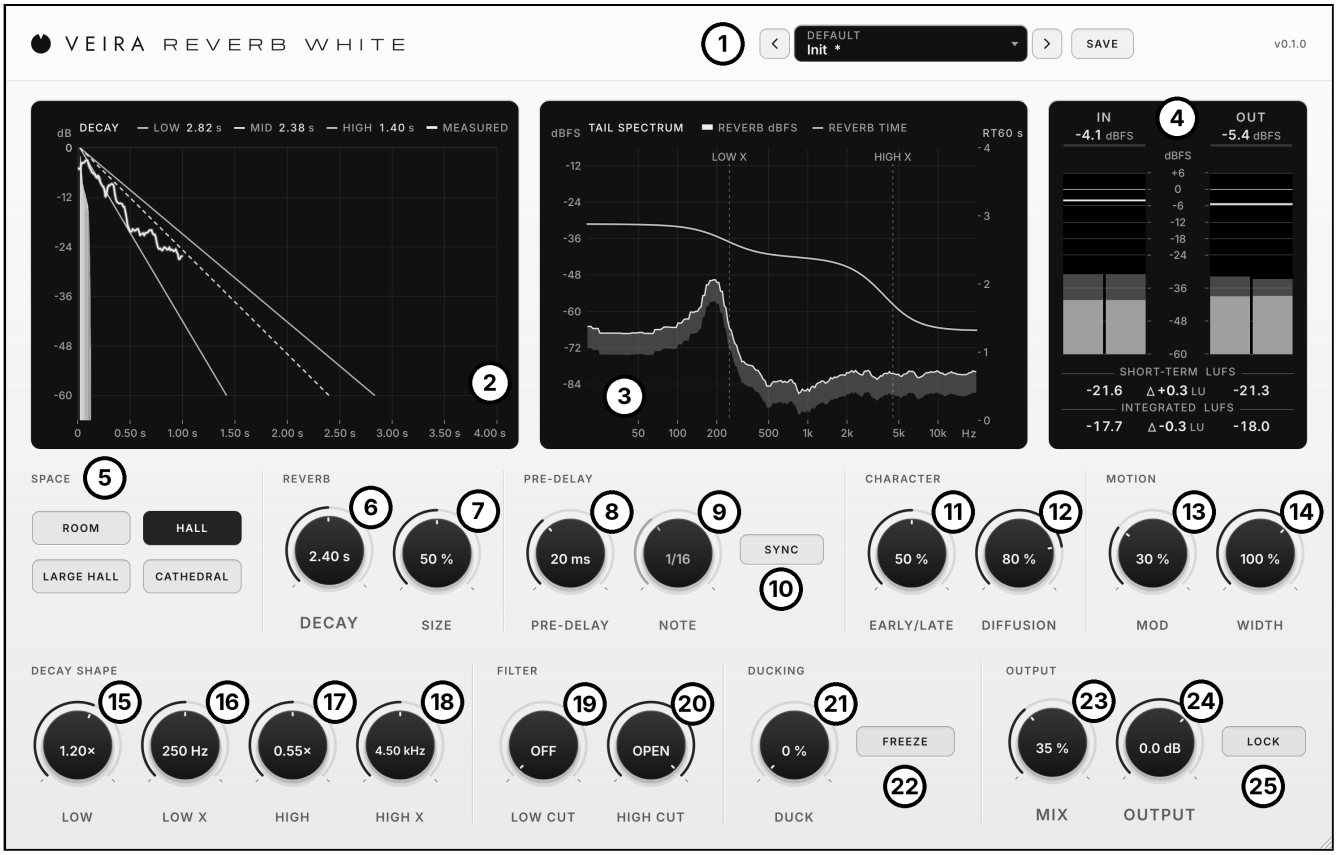


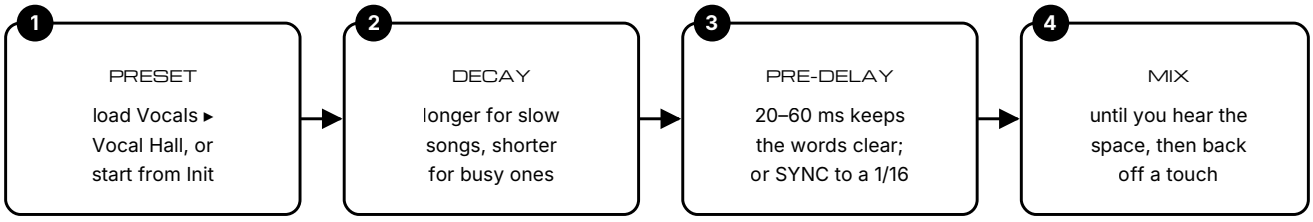
FIGURE 3 VEIRA Reverb White, the pearl unit, with its default hall on a vocal with snare hits (MIX at 35 %), a moment after the music stopped: the DECAY display shows the measured tail falling along the designed one.

	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 reverb'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	SPACE	ROOM, HALL, LARGE HALL or CATHEDRAL.
6	DECAY	The reverb time in the mids.
7	SIZE	The size of the space within its type.
8	PRE-DELAY	The gap before the reverb, in milliseconds.
9	NOTE	The gap as a note value, with SYNC on.
10	SYNC	The pre-delay follows the song's tempo.

	Part	What it does
11	EARLY/LATE	The early reflections against the tail.
12	DIFFUSION	How fast the reflections thicken.
13	MOD	Slow movement of the tail.
14	WIDTH	The reverb's stereo width.
15	LOW	The lows' reverb time, as a multiple of DECAY.
16	LOW X	Where LOW starts.
17	HIGH	The highs' reverb time, as a multiple of DECAY.
18	HIGH X	Where HIGH starts.
19	LOW CUT	A high-pass filter on the reverb.
20	HIGH CUT	A low-pass filter on the reverb.
21	DUCK	The reverb dips while you play.
22	FREEZE	Holds the reverb as it is.
23	MIX	The dry sound against the reverb.
24	OUTPUT	The final level.
25	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 controls sit in two rows under the captions SPACE, REVERB, PRE-DELAY, CHARACTER and MOTION (top), and DECAY SHAPE, FILTER, DUCKING and OUTPUT (bottom).

Quick start: a vocal hall 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 vocal reverb. *Default ▸ Init* is a neutral start: a HALL at 2.40 s with 20 ms of pre-delay, LOW 1.20× below 250 Hz, HIGH 0.55× above 4.50 kHz and MIX 30 %.

Using the controls

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

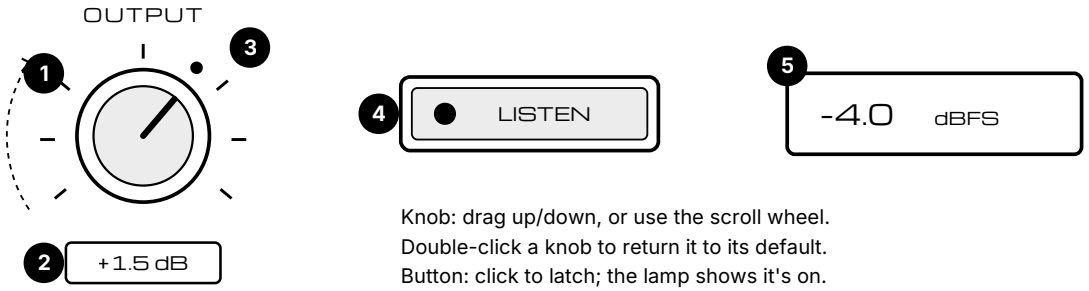


FIGURE 5 The parts you'll find on every VEIRA panel (the labels are examples).

- 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).

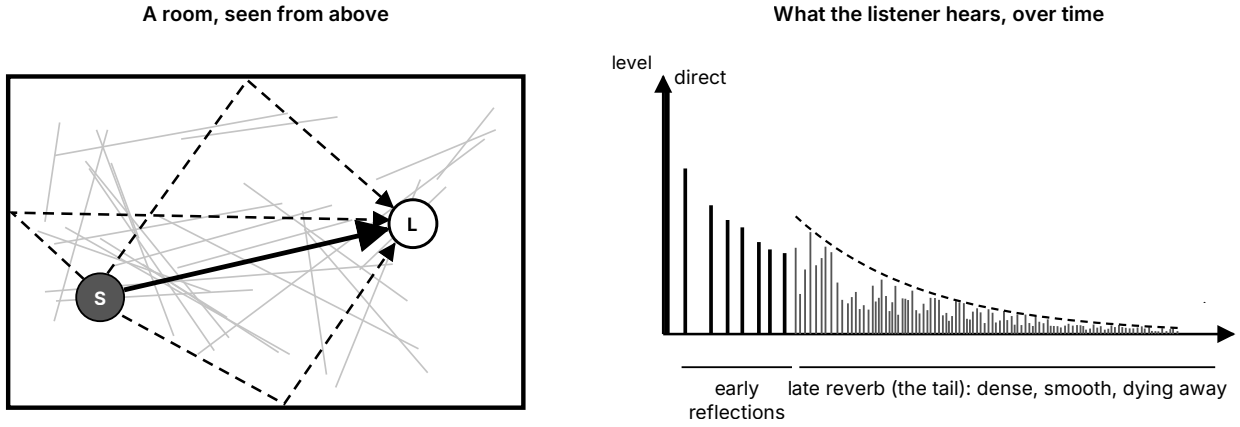
On VEIRA Reverb White's panel the parts look a little different from the drawing above:

- **Knobs show their value in the middle** (2.40 s, 20 ms, 1.20×, 4.50 kHz): the knobs are black on the pearl paint, and a ring printed in charcoal around each one (in print, the dark arc) shows how far it is turned. The control's name is printed under the knob. DECAY, the one you touch most, has the larger label; MIX and OUTPUT too.
- **Type a value:** right-click a knob (Control-click on a Mac). A field opens over it with the current value; type the new one and press Return. The number is enough: **3.5** for a 3.5 s DECAY, **4k** for 4 kHz, **off** for LOW CUT, **open** for HIGH CUT. Press Escape or click elsewhere to leave it unchanged.
- **Buttons have no lamps:** the selected SPACE, and SYNC, FREEZE and LOCK when they are on, fill with charcoal with pale lettering (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 (1480 × 940 points) and keeps its proportions. Your DAW saves the size with the session.

How reverb works

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

Sound in a room doesn't only travel straight from the source to your ears. It also bounces off the walls, the floor and the ceiling, and off every object in between, and each bounce arrives a little later and a little quieter than the one before. The first few bounces are distinct; 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**, and it tells your ears how big the space is, what it's made of and how far away the sound is.



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

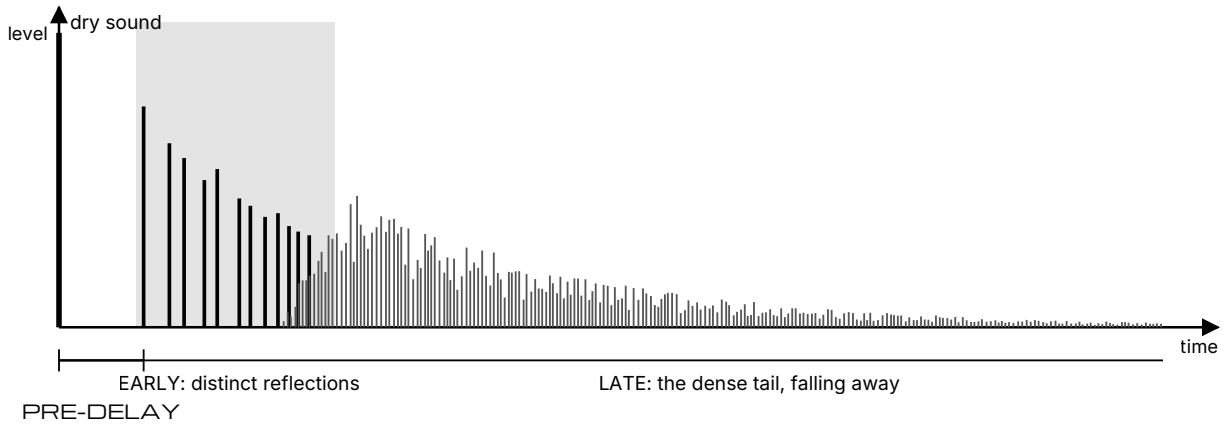
A reverb recreates the right-hand picture: the gap, the first distinct echoes, then a dense tail that dies away.

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

A reverb plugin recreates the right-hand picture. Four ideas cover almost everything:

- **Pre-delay:** the short gap between the dry sound and the first reflections. In a big hall it is the time the sound takes to reach the first wall and come back.
- **Early reflections:** the first, distinct bounces, in the first 50–100 ms. They tell the ear the size and shape of the room.
- **The late reverb, or tail:** the dense wash after them. Its length is the reverb time.
- **Tone:** how the lows and the highs decay against the mids. In real spaces the highs die sooner (the air and soft surfaces absorb them), and big halls let the lows ring a little longer: warmth.

Early reflections and the tail



Pre-delay, then the early field (shaded), then the late field. In VEIRA Reverb White, EARLY/LATE balances the two.

FIGURE 7 An echogram: the level of each reflection against time. The dry sound is the tall line at the left.

The early reflections carry the room's *shape*: a small room's arrive quickly and close together, a cathedral's late and spread wide. The tail carries its *size and material*: how long it rings and how it darkens. The ear hears them differently: lots of early reflections with little tail sounds close and roomy; a long tail with few early reflections sounds distant and smooth. EARLY/LATE on VEIRA Reverb White moves between the two.

The reverb time: RT60

The length of a reverb is measured as the time its level takes to fall by **60 dB**: the **RT60**, or reverb time. DECAY sets it.

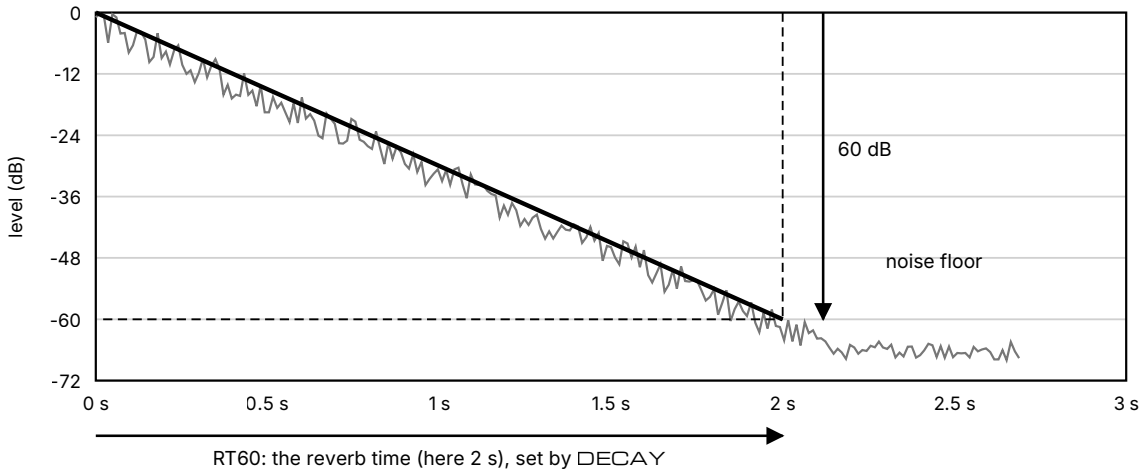
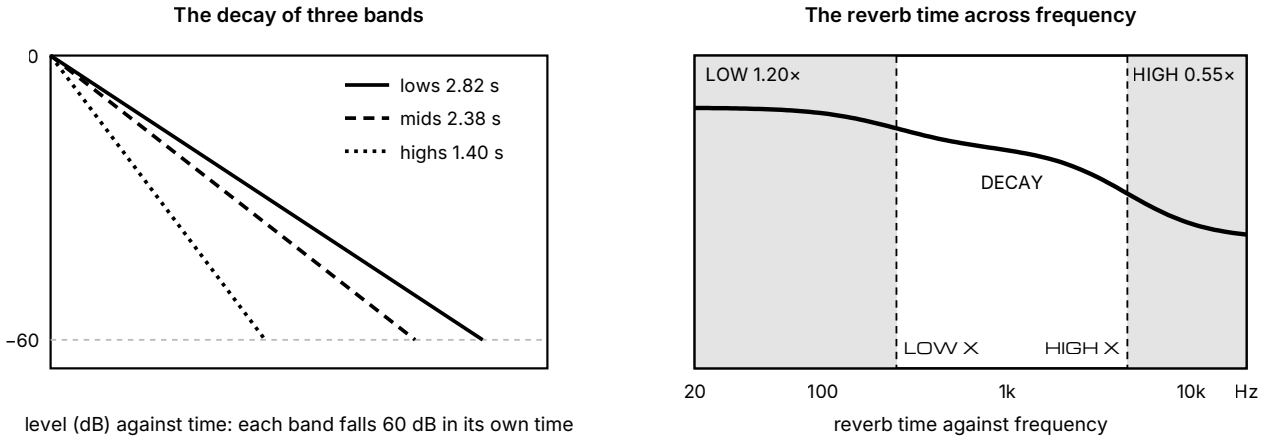


FIGURE 8 On a decibel scale, a natural decay is a straight line. Its slope is the reverb time: here it falls 60 dB in 2 s.

Sixty decibels is roughly the fall from a loud sound to silence. In a mix you seldom hear all of it: the music around the reverb covers the last 20–30 dB, so a 2 s reverb often *sounds* about a second long on a busy track and its full length only at the end of a song or in a break. Choose DECAY with that in mind: by ear, in the mix, rather than soloed.

Different times for the lows and the highs

Real spaces don't decay at the same rate at every frequency. VEIRA Reverb White gives the lows and the highs their own reverb times, as multiples of DECAY.

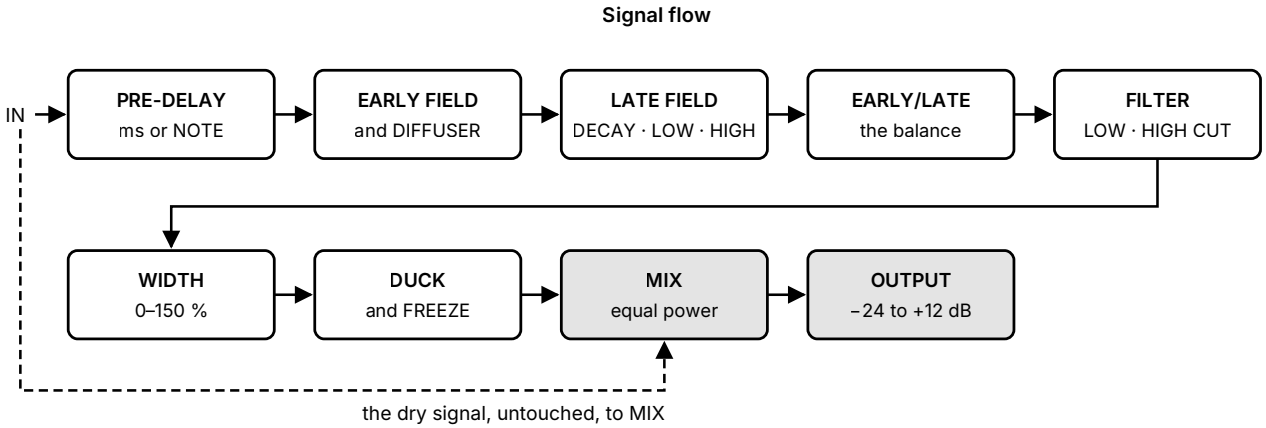


The default hall: LOW 1.20× below 250 Hz, HIGH 0.55× above 4.50 kHz. The DECAY display shows the left-hand picture live.

FIGURE 9 Left: the lows ring longer than the mids, the highs die sooner. Right: the same as a reverb time across frequency; the shaded bands are where LOW and HIGH take over.

- **Highs that die sooner** (HIGH under 1×) sound natural: real air and surfaces soak up the top. The lower HIGH, the darker the tail.
- **Lows that ring longer** (LOW over 1×) sound warm and big, as in a concert hall; too much and the tail gets muddy.
- **The reverse** (LOW under 1×, HIGH over 1×) sounds thin, bright and glassy: an effect, not a room (*Creative ▸ Glass Air*).

What happens inside VEIRA Reverb White



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

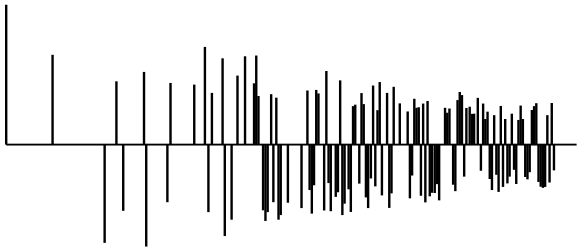
FIGURE 10 Signal flow. The reverb is built from the pre-delayed input: an early field and a late field side by side, balanced by [EARLY/LATE], then filtered, widened and ducked before [MIX].

Step by step:

1. **Pre-delay.** The input is delayed by [PRE-DELAY], or by [NOTE] at the song's tempo.
2. **The early field.** A pattern of reflections per side, sparse at first and then denser and denser (as a room's reflections do: their number grows with the square of time), up to 3,000 per second. The later ones are darker, as walls absorb the top, and each is smeared into a tiny cluster. The left and right patterns are independent, so the reverb is wide from its first moment. Each [SPACE] has its own pattern.
3. **The diffuser** spreads the sound over many paths before the tail: in a hall, 4,096 paths in the first 40 ms or so. [DIFFUSION] sets how fast.
4. **The late field:** sixteen delay lines that feed back through a mixing matrix. On each pass through a line, the sound loses exactly what [DECAY], [LOW] and [HIGH] ask for that line's length, so every frequency dies away in its designed time. Each line's length wanders slowly ([MOD]).
5. **EARLY/LATE, FILTER, WIDTH, DUCK and FREEZE** shape the reverb only.
6. **MIX and OUTPUT.** The reverb is blended with the untouched dry signal.

Level: every space and size comes back at about the same level, so changing [SPACE] or [SIZE] doesn't make the reverb jump louder or quieter. A longer [DECAY] still sounds a little louder (it keeps half of its natural rise), as it should.

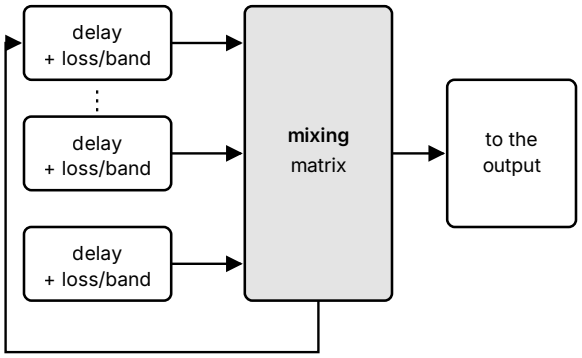
The early field: sparse, then denser



first reflections: few and distinct

their density grows with time², as in a room

The late field: 16 delay lines



every pass loses exactly what DECAY, LOW and HIGH ask

The two run side by side from the pre-delayed input; EARLY/LATE sets how much of each you hear.

FIGURE 11 The two halves of the reverb. Left: the early field's reflections, few at first and denser and denser. Right: the late field, sixteen delay lines that pass the sound round and round, each losing a little on every pass.

Controls

SPACE and REVERB: the space, DECAY and SIZE



FIGURE 12 1 SPACE, 2 DECAY and 3 SIZE.

Control	Range	Default	What it does
SPACE	ROOM, HALL, LARGE HALL, CATHEDRAL	HALL	The type of space: its early reflections, paths and movement.
DECAY	0.20 to 20.0 s	2.40 s	The reverb time (RT60) in the mids.
SIZE	0 to 100 %	50 %	The size of the space within its type.

SPACE

Each space is a different room, not just a different length:

- ROOM: a studio live room, close and natural, with dense reflections in the first 40 ms. For drums, guitars, dialogue and anything that should sound *in a room* rather than *in a hall*.
- HALL: a concert hall, smooth and wide with a gentle build. The all-rounder, and the default.
- LARGE HALL: a big hall, with a slower build and a longer reach. For ballads, strings and orchestral parts.
- CATHEDRAL: a vast stone space, its reflections arriving late and spread wide. For choirs, pads and long ambient tails.

How fast the reflections fill in differs with the space: measured, the reflections are fully dense 25 ms after the first one in the ROOM, 22.5 ms in the HALL, 50 ms in the LARGE HALL and 70 ms in the CATHEDRAL (with DIFFUSION at 80 %). DECAY is independent of the space: a 1 s CATHEDRAL or a 6 s ROOM are both possible, and both have their uses.

Changing SPACE while the music plays starts the new space and lets the old one fade out over 350 ms, so nothing clicks.

DECAY

DECAY is the **reverb time in the mids**: the time the tail takes to fall 60 dB. The lows and highs follow it, multiplied by LOW and HIGH. Typical settings:

- **0.3–0.8 s:** ambience and small rooms: a voice-over, a dry drum kit, a guitar that needs air but no tail.
- **1–2 s:** vocals and instruments in a pop or rock mix; snare halls.

- **2–3.5 s:** ballads, piano, strings, a lead vocal with space around it.
- **4–9 s:** cathedrals, pads, choirs, ambient guitar.
- **10–20 s:** effects and drones (*Creative* ▸ *Endless Pad* is 20 s).

> **Tip:** Set the reverb time to the song's tempo: a tail that has mostly died away by the next phrase or the next backbeat keeps the mix clear. On a busy song, shorter is almost always better than you think.

SIZE

SIZE scales the space within its type: the early reflections and the tail's paths grow or shrink together, from 1/1.5 to 1.5 times (in the ROOM, 1/1.6 to 1.6 times). A larger space has later, more spread reflections and a slower build; a smaller one is tighter and denser. SIZE doesn't change DECAY: a small space with a long decay sounds like a hard, ringing room (*Post & Film* ▸ *Stairwell*); a large one with a short decay sounds like a big, damped hall. SIZE glides, so you can move it while the music plays.

PRE-DELAY: PRE-DELAY, NOTE and SYNC

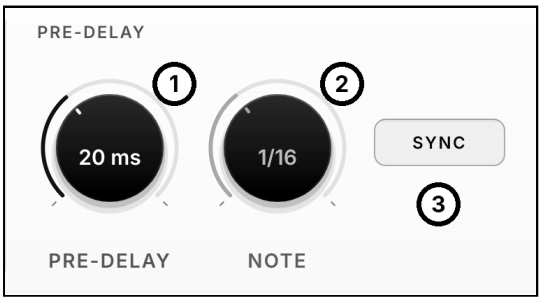


FIGURE 13 1 PRE-DELAY, 2 NOTE (dimmed while SYNC is off) and 3 SYNC.

Control	Range	Default	What it does
PRE-DELAY	0 to 500 ms	20 ms	The gap before the reverb (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).
SYNC	on / off	off	Switches between PRE-DELAY and NOTE.

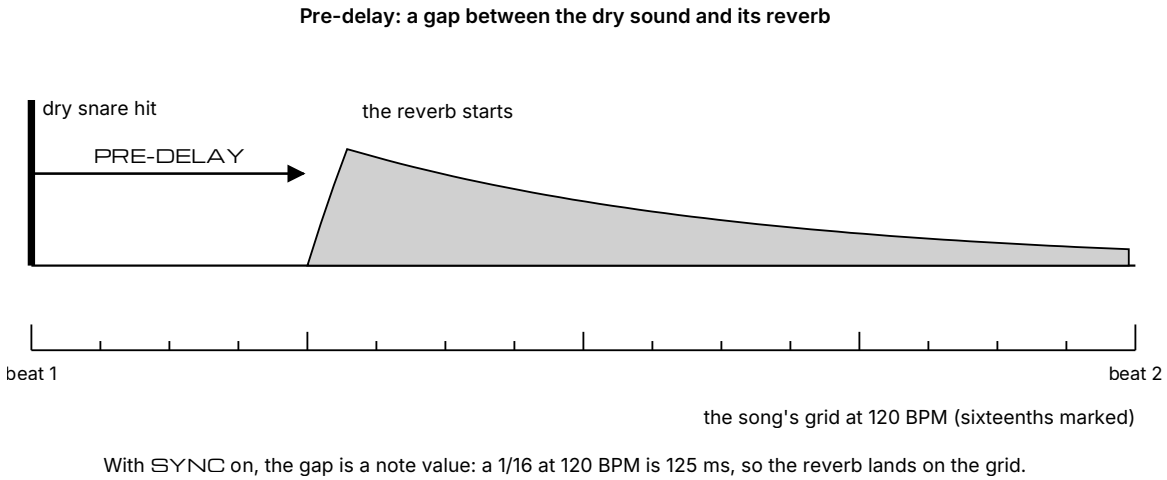


FIGURE 14 Pre-delay keeps the start of each sound clear of its reverb. With [SYNC], the gap is a note value at your DAW's tempo.

A short gap between the dry sound and its reverb does two things: it keeps the attack of each word or hit clear (the reverb starts *after* the consonant or the crack), and it makes the space sound bigger, because in a large hall the first reflection takes longer to come back.

- **0–10 ms:** the reverb sticks to the sound: drums, ambience, a natural room.
- **15–40 ms:** vocals and lead instruments: the words stay clear.
- **50–120 ms:** a clear slap before a big space; ballads and swells (*Creative* ▸ *Swell Space* uses 120 ms).

SYNC. With [SYNC] on, the gap is [NOTE], a note value at the tempo your DAW plays: 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; an eighth, 250 ms. Synced pre-delay puts the reverb's start on the song's grid, which makes it feel part of the groove (*Vocals* ▸ *Synced Room*, *Creative* ▸ *Synced Echo Space*).

A new time crossfades from the old one over 20 ms, so you can move [PRE-DELAY] while the music plays.

CHARACTER: EARLY/LATE and DIFFUSION

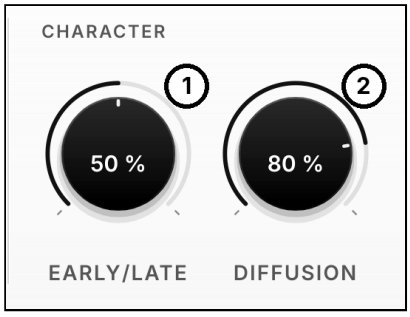


FIGURE 15 1 [EARLY/LATE] and 2 [DIFFUSION].

Control	Range	Default	What it does
[EARLY/LATE]	0 to 100 %	50 %	0 % the early reflections only, 50 % both in full, 100 % the tail only.

Control	Range	Default	What it does
DIFFUSION	0 to 100 %	80 %	How fast the reflections thicken.

EARLY/LATE

EARLY/LATE balances the two halves of the reverb (see *How reverb works*). At **50 %** both are there in full. Turn it **down** for more of the room's reflections and less tail: closer, more defined, more "in the room" (drum rooms, dialogue, *Post & Film*). Turn it **up** for more tail and fewer reflections: smoother and more distant (pads, ambient guitar, *Creative* ▸ *Endless Pad* at 100 %).

DIFFUSION

DIFFUSION sets how fast the early reflections thicken into the tail.

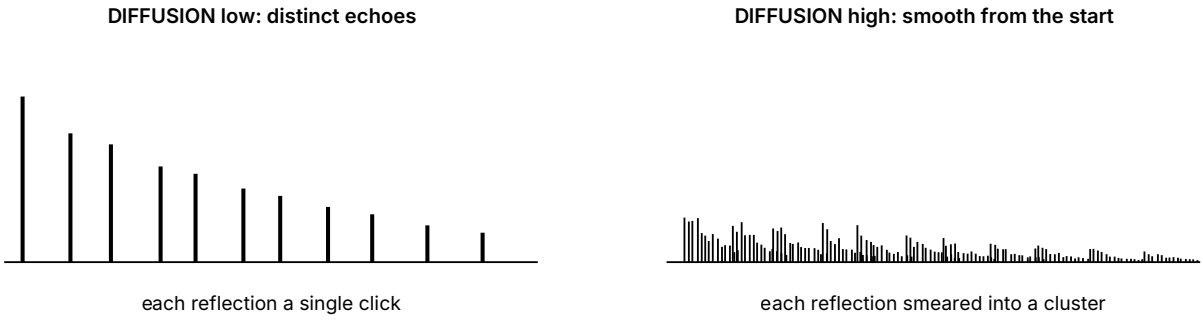


FIGURE 16 Low DIFFUSION keeps the first echoes distinct; high DIFFUSION smears them into a smooth wash from the start.

- **High (80–100 %):** smooth from the first moment. Right for vocals, pads, piano and strings, where single echoes would distract.
- **Medium (55–75 %):** a little definition in the reflections: rooms for drums and guitars, hard spaces (*Hallway*, *Stairwell*).
- **Low (under 40 %):** the first echoes stand out: a coloured, lo-fi box (*Creative* ▸ *Tiny Box* uses 30 %).

Turning DIFFUSION down never colours the tone: it changes only how quickly the reflections blur together.

MOTION: MOD and WIDTH

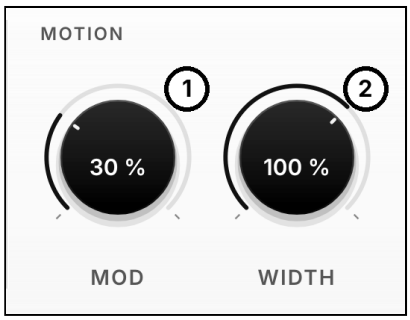


FIGURE 17 1 MOD and 2 WIDTH.

Control	Range	Default	What it does
MOD	0 to 100 %	30 %	Slow, never-repeating movement of the tail's paths.
WIDTH	0 to 150 %	100 %	0 % mono, 100 % as it is, 150 % wider.

MOD. A reverb built from fixed delays can let single frequencies ring on, with a faint metallic tone. MOD moves each path slowly with two unrelated slow oscillators, so the pattern never repeats and no frequency can build up. A little (15–30 %) makes the tail smoother without any audible movement; more (50–80 %) makes it lush and gently moving, lovely on pads and clean guitars; at 0 % the tail is perfectly still (the *Post & Film* rooms use 5–10 %, so dialogue spaces don't shimmer). Measured, the largest narrow peak in each space's tail stands within about 1.2 dB of an ideal, perfectly smooth decay.

WIDTH sets the reverb's stereo width. At **100 %** it is as the space makes it: on a centred voice, the left and right of the tail are uncorrelated (measured: within ±0.01), so it fills the stereo field. **0 %** makes the reverb mono, useful to keep a reverb in the centre behind a mono source, or to check mono compatibility; **up to 150 %** spreads it wider than the speakers. The reverb's level stays the same at every setting.

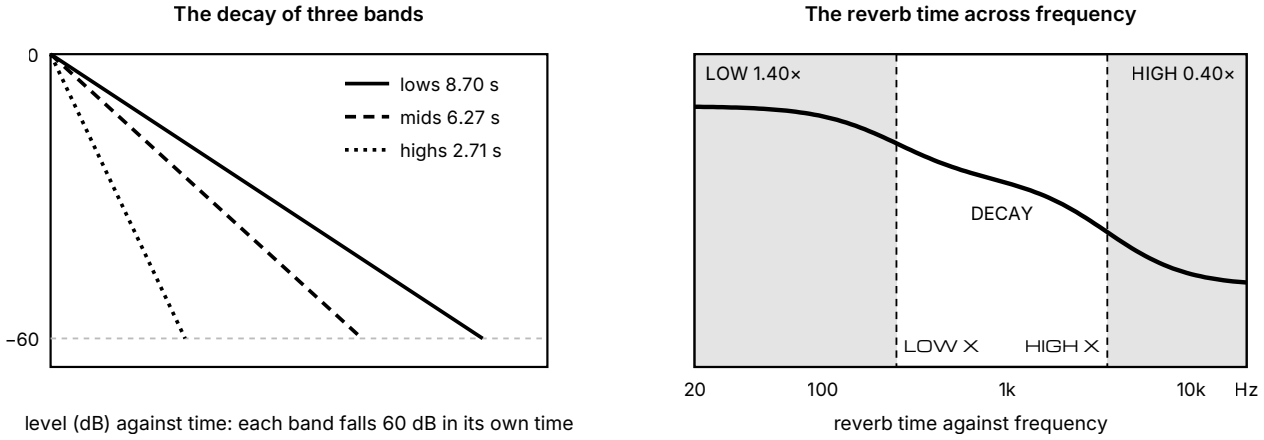
DECAY SHAPE: LOW, LOW X, HIGH and HIGH X



FIGURE 18 1 LOW with 2 its crossover LOW X; 3 HIGH with 4 its crossover HIGH X.

Control	Range	Default	What it does
LOW	0.25 to 2.50×	1.20×	The reverb time below LOW X, as a multiple of DECAY.
LOW X	50 Hz to 1 kHz	250 Hz	Where LOW starts.
HIGH	0.10 to 1.50×	0.55×	The reverb time above HIGH X, as a multiple of DECAY.
HIGH X	1 to 16 kHz	4.50 kHz	Where HIGH starts.

These four shape the tail's tone *over time*, which an EQ after the reverb can't: an EQ turns a band down by the same amount all the way through, while HIGH 0.5× makes the highs die away *twice as fast*, so the start of the tail is still bright and its end is dark, as in a real hall.



IEDRAL at DECAY 6.50 s, LOW 1.40× below 250 Hz, HIGH 0.40× above 3.50 kHz: the times at 125 Hz, 1 kHz and 8 kHz as the DECAY display read

FIGURE 19 Per-band decay. The read-outs on the DECAY display give the reverb time at 125 Hz, 1 kHz and 8 kHz, so you see the result of all four controls at once.

LOW and LOW X. Above 1× the lows ring longer than the mids: warm and big (concert halls, cathedrals: *Stone Cathedral* uses 1.30×). Under 1× they die sooner: lean and clear, which helps a busy mix (*Snare Hall*, 0.80×). LOW X sets where the lows start: 150–300 Hz for most material, lower to keep only the deep bass longer.

HIGH and HIGH X. Under 1× the highs die sooner: the natural loss of air, darker as you turn it down (0.40–0.60× for most rooms and halls; 0.20× for *Dark Abyss*). At 1× and over they ring as long as the mids, or longer: bright, glassy, unnatural, as an effect (*Glass Air* uses 1.40×). HIGH X sets where the highs start: 3–5 kHz for most material; lower it for a darker, more vintage tail.

Moving any of the four glides to the new decay over about a quarter of a second, so you can turn them while the reverb rings.

> **Tip:** If a vocal reverb sounds splashy on the “s” sounds, lower HIGH before reaching for HIGH CUT: the start of each word keeps its air and the tail stops hissing.

FILTER: LOW CUT and HIGH CUT

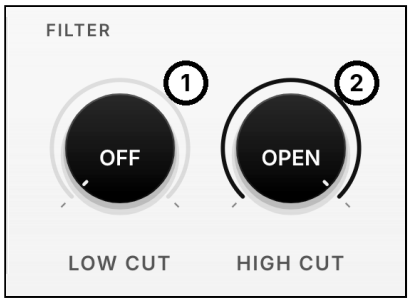


FIGURE 20 1 LOW CUT (here OFF) and 2 HIGH CUT (here OPEN).

Control	Range	Default	What it does
LOW CUT	OFF, 21 Hz to 1 kHz	OFF	A 12 dB/oct high-pass on the reverb only.
HIGH CUT	1 kHz to 19.5 kHz, OPEN	OPEN	A 12 dB/oct low-pass on the reverb only.

The two filters work on the reverb only; the dry sound is never filtered. Unlike LOW and HIGH, they act like an EQ on the return: the same cut all the way through the tail.

- **LOW CUT** is the single most useful mix move on a reverb: low end in a reverb is mostly mud. 100–250 Hz on vocals, guitars and keys; 60–120 Hz on full-range instruments and orchestral parts; 300–400 Hz for an airy mix-bus reverb (*Wide Air*).
- **HIGH CUT** darkens the whole return: 8–12 kHz takes the edge off; 4–7 kHz gives an older, softer sound.

Fully left LOW CUT reads OFF; fully right HIGH CUT reads OPEN. The TAIL SPECTRUM shades the bands they cut.

DUCKING: DUCK and FREEZE

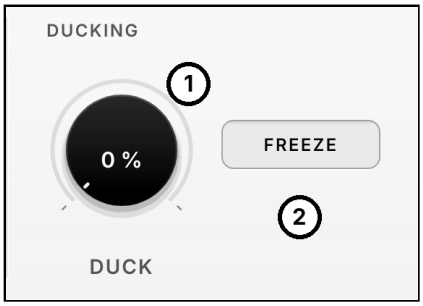


FIGURE 21 1 DUCK and 2 FREEZE.

Control	Range	Default	What it does
DUCK	0 to 100 %	0 %	The reverb dips (up to 24 dB) while you play and blooms back in the gaps.
FREEZE	on / off	off	Holds the reverb as it is, for as long as it is on.

DUCK

A long reverb under a vocal can blur the words. DUCK turns the reverb **down while the input plays** and lets it **bloom back in the gaps**, so you get a big space and clear words.

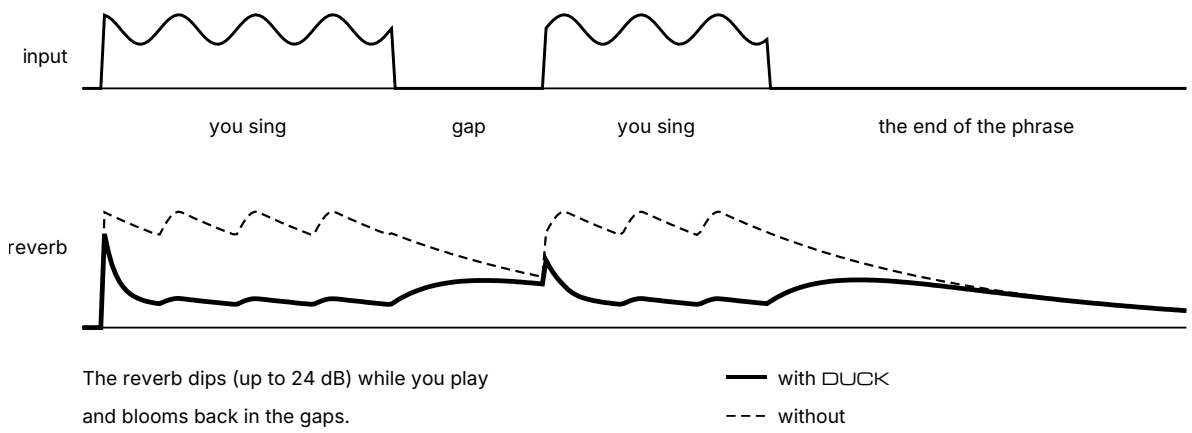


FIGURE 22 DUCK at work: the reverb (solid) stays down while the phrase is sung and swells up when it ends.

DUCK listens to how near the input is to its own recent peak, not to a fixed threshold, so it works the same on a quiet guitar and a loud vocal without any setting. At 100 % it dips up to 24 dB (measured: 11.9 dB down on average while the source plays).

- **15–35 %:** a gentle clean-up, hardly noticed as an effect (*Vocal Hall*, *Ballad Hall*).
- **45–60 %:** clearly ducked; the reverb mostly lives between phrases (*Ducked Vocal Wash*, *Lead Guitar Hall*).
- **100 %:** a swell effect: the reverb only appears in the gaps (*Creative* ▸ *Swell Space*).

The DECAY display shows DUCK's dip live.

FREEZE

FREEZE holds the reverb exactly as it is, for as long as it is on, and keeps **new sound out of it**: hold a chord, press FREEZE, and play over the frozen pad.

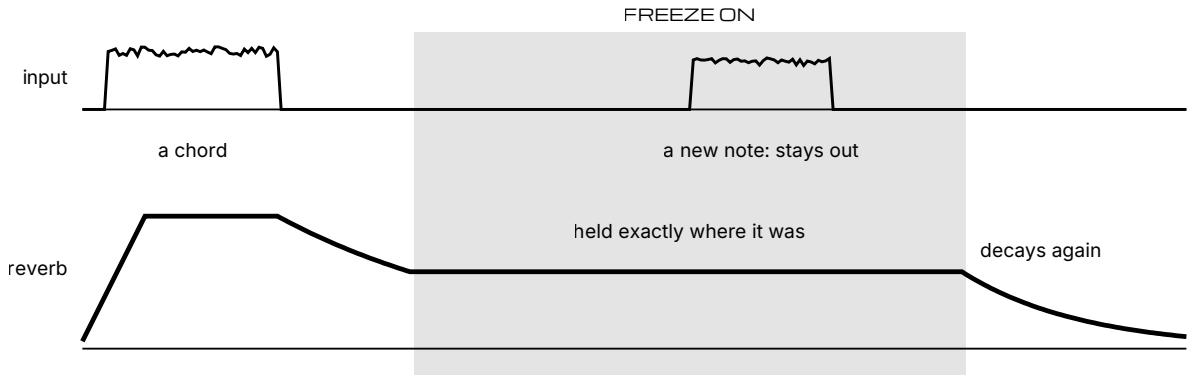


FIGURE 23 FREEZE holds the tail at its level (measured: within 0.05 dB over 15 s). New notes don't enter it. Released, the tail decays again in its own time.

- Press it at the moment the reverb sounds the way you want: right after a chord, or in the middle of a swell.

- MIX still decides how much of the frozen tail you hear against the dry signal. On an aux at 100 %, the frozen tail is the whole return.
- It fades in and out over 50 ms, so it never clicks; you can automate it in your DAW for drones and transitions.
- The DECAY display shows FROZEN while it is on.

OUTPUT: MIX, LOCK and OUTPUT

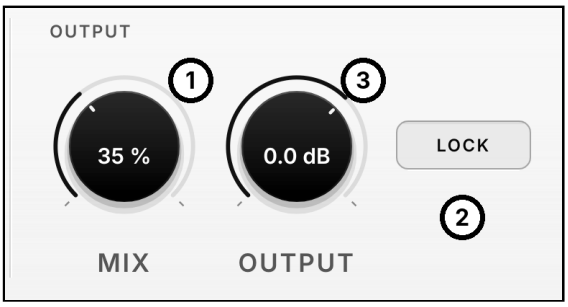


FIGURE 24 1 MIX, 2 LOCK and 3 OUTPUT.

Control	Range	Default	What it does
MIX	0 to 100 %	30 %	The dry sound against the reverb, equal power.
LOCK	on / off	off	Presets leave MIX where it is.
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 reverb 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 from its own. Switch it on on an aux at 100 %, or when you have balanced an insert by ear and want to try other spaces at the same blend. See *Inserts and aux sends*.

OUTPUT sets the final level. A reverb adds level, especially with a long DECAY; most presets come out within 1.7 dB of the dry track, but check the meter bridge's Δ reading before you compare with bypass.

Displays

DECAY

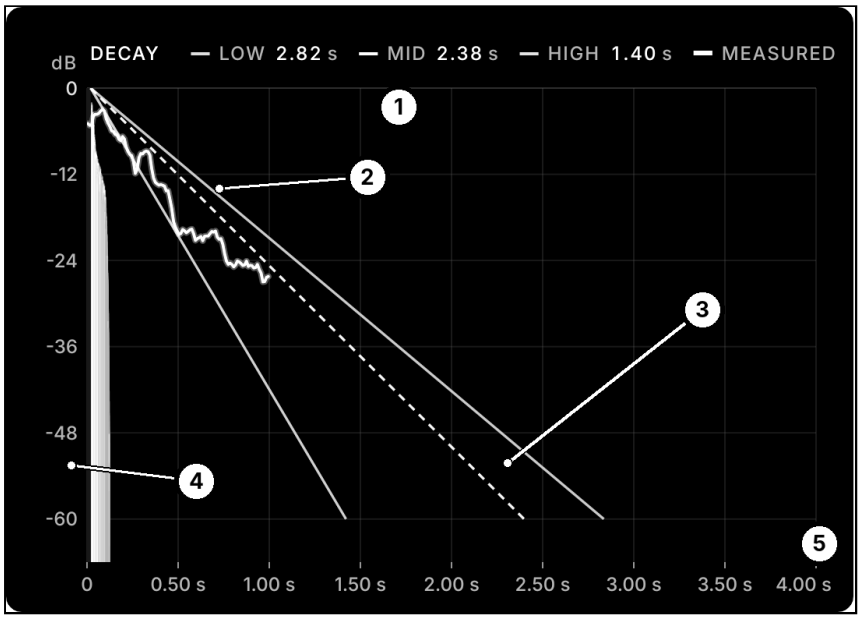


FIGURE 25 The DECAY display: 1 the legend, with the reverb time of each band, 2 the measured tail, 3 the designed decays, 4 the early reflections, 5 the time scale.

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

- 3 **The designed decay** of the lows (125 Hz; teal on screen, in print the longest line), 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, and 1 the legend gives the three times in seconds: the quickest way to read DECAY, LOW and HIGH together.
- 4 **The early reflections**, as thin stems at the left (their level follows EARLY/LATE).
- 2 **MEASURED** (silver on screen; the wavy line): each time the input stops, the reverb's real level from then on. On a long note or a final chord it should follow the designed lines; if it falls faster, the music has stopped before the reverb had built up fully.
- DUCK's dip shows on the curves live, and FROZEN appears in the title row while FREEZE is on.

The time scale 5 stretches with the longest band, so a 2 s and a 20 s reverb both fill the display.

TAIL SPECTRUM

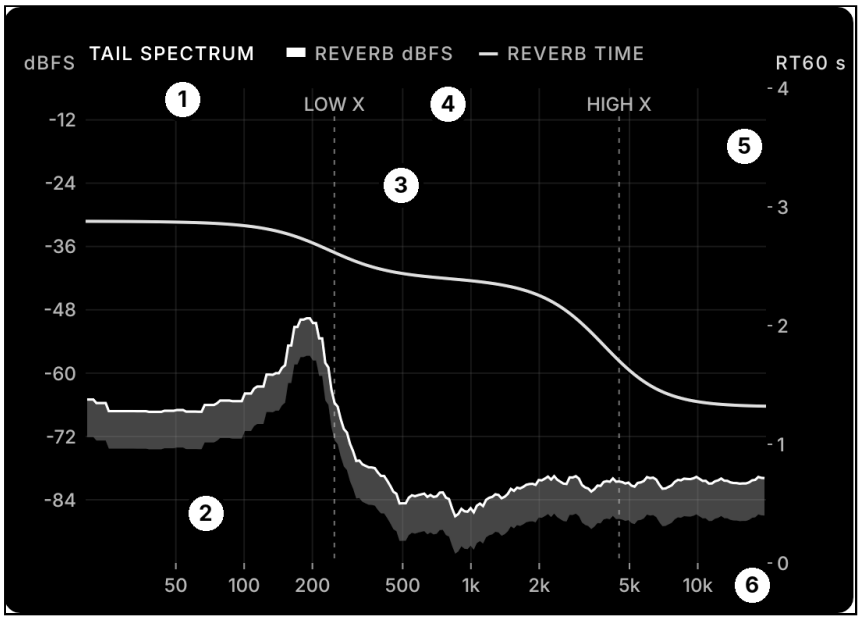


FIGURE 26 The TAIL SPECTRUM: 1 title and legend, 2 the reverb's spectrum (dBFS), 3 the reverb time across frequency, 4 the LOW X and HIGH X marks, 5 the RT60 scale, 6 the frequency scale.

- 2 **The reverb's own sound** (as mixed), per sixth of an octave, in dBFS on the left scale: what the reverb adds to your track, without the dry signal. A bump here is a frequency the reverb is piling up; it usually comes from the source (here the snare's body at about 200 Hz), and LOW CUT or LOW can calm it.
- 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. It is the right-hand picture of *Different times for the lows and the highs*, live.
- 4 **LOW X and HIGH X** are marked by thin dotted lines; the bands that LOW CUT and HIGH CUT take out are shaded.

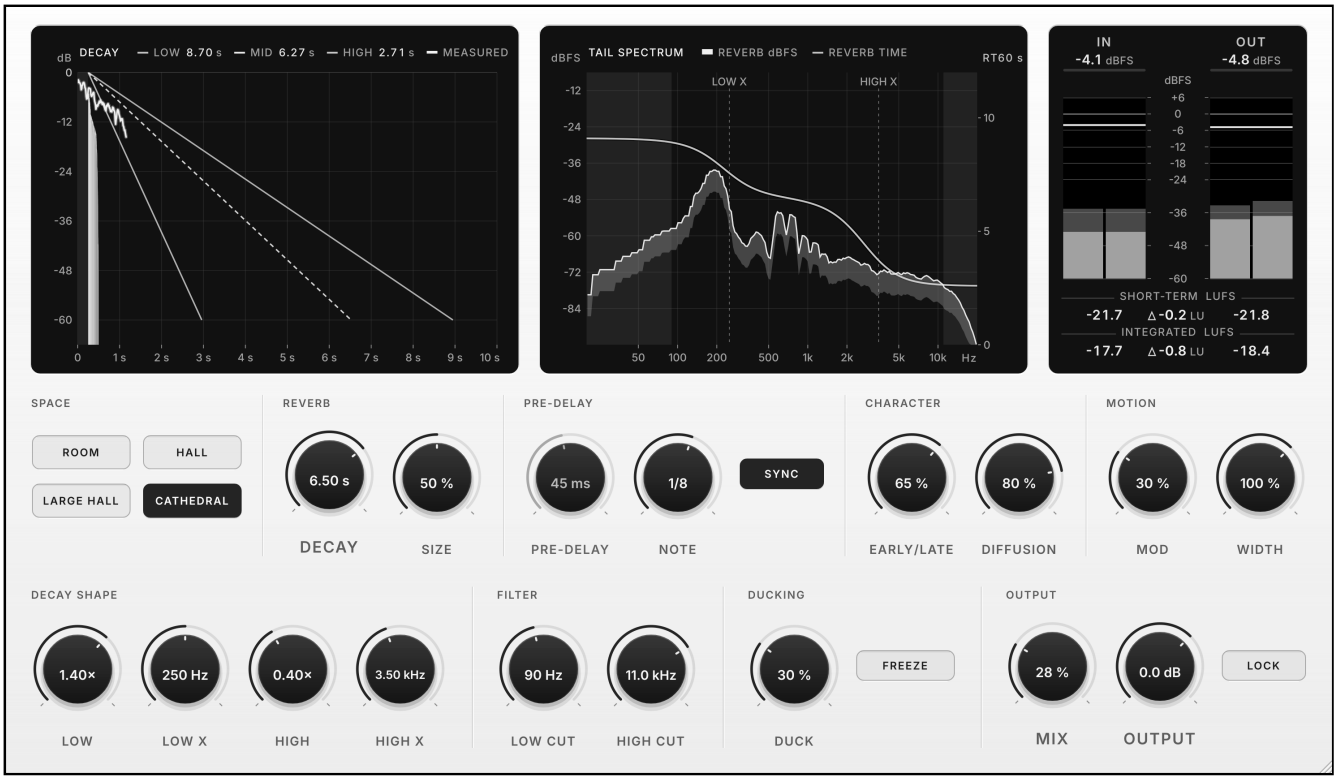


FIGURE 27 A CATHEDRAL at 6.50 s with LOW 1.40×, HIGH 0.40× above 3.50 kHz, the pre-delay synced to an eighth note, LOW CUT 90 Hz, HIGH CUT 11.0 kHz, EARLY/LATE 65 % and DUCK 30 %: the DECAY display reads 8.70 s in the lows, 6.27 s in the mids and 2.71 s in the highs, and the TAIL SPECTRUM shades both cut bands.

Meter bridge (IN | OUT)

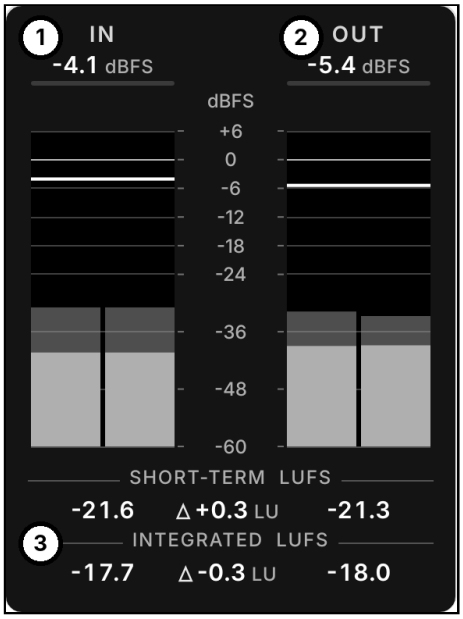


FIGURE 28 The meter bridge: 1 input and 2 output, 3 short-term and integrated loudness with the OUT − IN difference.

VEIRA Reverb White uses the standard VEIRA meter bridge.

Reading the IN and OUT meters

The meter bridge measures what goes into VEIRA Reverb White 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.

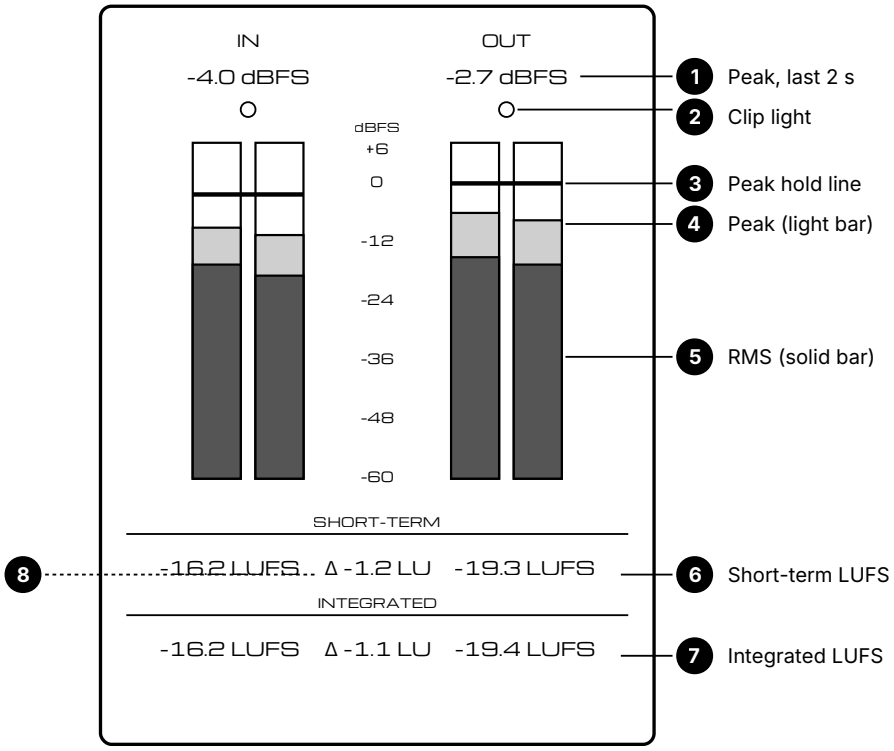


FIGURE 29 The meter bridge, left and right channel bars for input and output, with loudness below.

- 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 White 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 White is ready for both.

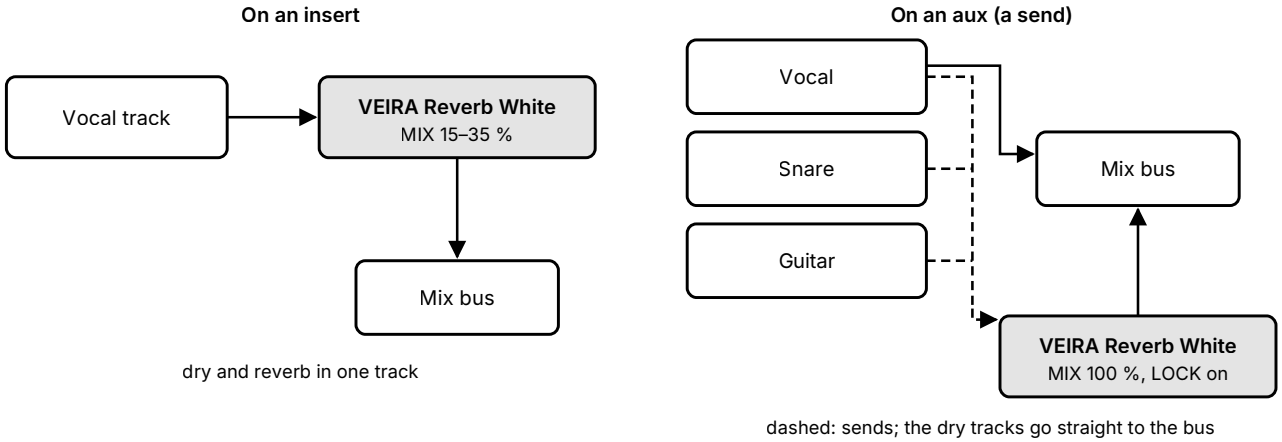


FIGURE 30 Left: on an insert, MIX blends the reverb into the track itself. Right: on an aux, several tracks send to one reverb at MIX 100 %; your DAW's send levels decide how much of each track goes in.

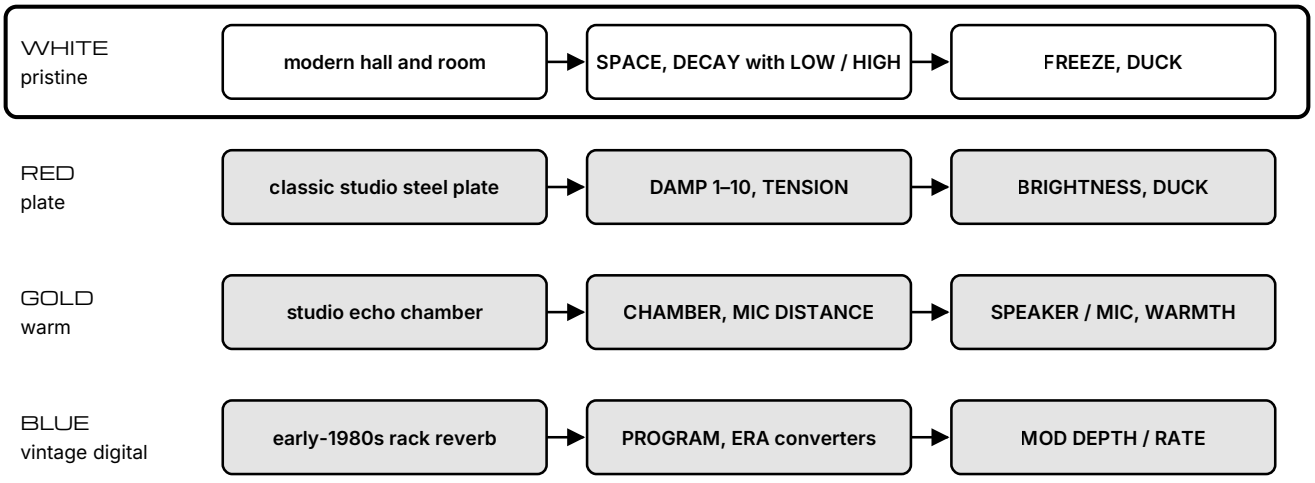
On an insert (the reverb straight on the track), MIX sets the balance. The vocal, drum, guitar and keys presets are made for this, at MIX 15–35 %. MIX is an equal-power blend: at 50 % the dry and the reverb are each 3 dB down, so the level stays steady as you turn it.

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 White 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 31 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.

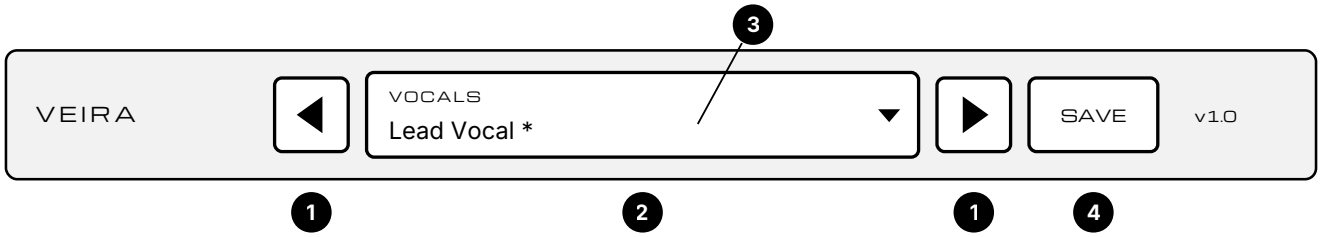
White is the pristine one. Reach for it when you want a natural, colourless space whose decay you can shape exactly: for vocals, piano, strings, film and long ambient tails, or whenever the job needs its FREEZE. For the bright, immediate sheen of a plate, try Red; for a real room's reflections and warmth, Gold; for the chorused sound of 1980s records, Blue.

Presets

VEIRA Reverb White comes with **46 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 32 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 White 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 White/<Folder>/
Windows	%APPDATA%\VEIRA\VEIRA Reverb White\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	Vocal Hall, Ballad Hall, Lead Ambience, Synced Room, Bright Pop Hall, Choir Cathedral, Ducked Vocal Wash
Drums	Drum Room, Snare Hall, Tight Kit Ambience, Tom Hall, Live Overheads Hall, Bright Short Room
Guitars	Acoustic Room, Clean Electric Hall, Ambient Swell, Lead Guitar Hall, Fingerstyle Air
Keys & Synths	Grand Piano Hall, Electric Piano Room, Pad Cathedral, Synth Lead Hall, Felt Piano Space
Strings & Orchestral	Concert Hall, Scoring Stage, Stone Cathedral, Chamber Strings, Epic Brass Hall
Post & Film	Small Office, Living Room, Stairwell, Hallway, Church Interior, Warehouse
Creative	Endless Pad, Swell Space, Dark Abyss, Glass Air, Synced Echo Space, Tiny Box
Mix Bus	Glue Room, Mix Hall, Wide Air, Subtle Ambience, Aux Hall Return

Levels and MIX. A reverb doesn't depend on your track's level the way a compressor does: 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 %), except the *Mix Bus* folder (7–15 %, and *Aux Hall Return* at 100 % for an aux). Measured through the plugin on matching material, every preset's 1 kHz reverb time is within 3 % of its design (except *Dark Abyss*, whose HIGH X at 1.5 kHz reaches into the 1 kHz band), and the insert presets change the loudness by at most 1.7 dB against the dry track (*Endless Pad*, at 20 s, is the loudest), except the ducked swell and the aux return. If you use a preset 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.

A lead vocal that sits in a hall

1. Load **Vocals ▸ Vocal Hall** (HALL, 2.20 s, 35 ms of pre-delay, LOW CUT 150 Hz, HIGH CUT 9.00 kHz, DUCK 20 %, MIX 22 %).
2. Set DECAY to the song: longer for a ballad (or load **Ballad Hall**), shorter for an uptempo song.
3. If the words blur, raise PRE-DELAY (40–60 ms) or DUCK (30–50 %) before you lower MIX.
4. If the "s" sounds splash, lower HIGH to 0.40×.

A drum room for a dry kit

1. Insert on the drum bus, or on an aux fed by the kit; load **Drums ▸ Drum Room** (ROOM, 0.70 s, no pre-delay, EARLY/LATE 35 %, WIDTH 120 %).
2. Turn EARLY/LATE down for more walls, up for more tail.
3. For a snare on its own send, try **Snare Hall**; LOW CUT keeps the kick out of the hall.

Strings and orchestral parts

1. On an aux, load **Strings & Orchestral ▸ Concert Hall** (LARGE HALL, 2.20 s, LOW 1.15× below 300 Hz), set MIX to 100 % and switch on LOCK.
2. Send each section to it: more for the instruments that should sound further back.
3. For a tighter film sound, try **Scoring Stage**; for slow strings and choir, **Stone Cathedral**.

A long ambient swell under a guitar

1. Load **Guitars ▸ Ambient Swell** (CATHEDRAL, 7 s, 80 ms of pre-delay, MOD 60 %, DUCK 35 %).
2. Raise DUCK until the notes you play stay clear and the space swells between them.
3. For a reverse-like bloom, try **Creative ▸ Swell Space** (DUCK 100 %).

A frozen pad

1. Load **Creative ▸ Endless Pad** (CATHEDRAL, 20 s, EARLY/LATE 100 %, MOD 80 %).
2. Play a chord. While it rings, press FREEZE: the chord holds for as long as FREEZE is on.
3. Play over it; nothing new enters the frozen tail. Release FREEZE to let it die away, or automate it in your DAW.

Dialogue in a real-sounding place

1. Load a room from **Post & Film**: *Small Office*, *Living Room*, *Hallway*, *Stairwell*, *Church Interior* or *Warehouse*.

2. Match the shot: SIZE for how big the room looks, EARLY/LATE down for a closer microphone, MIX up for a farther one.
3. Keep MOD low (5–10 %), so the room never shimmers.

Specifications

Type	Algorithmic reverb: early field and 16-line late field, decay designed per band
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 3.4 % of the design in every space; 1 kHz within 0.4 % at 44.1, 96 and 192 kHz
Silence	The tail ends in true digital zeros once it has fallen under −140 dBFS
SPACE	ROOM, HALL, LARGE HALL, CATHEDRAL (default HALL)
DECAY	0.20 to 20.0 s (default 2.40 s)
SIZE	0 to 100 % (default 50 %)
PRE-DELAY	0 to 500 ms (default 20 ms)
NOTE / SYNC	1/64 to 1/2 with triplets and dotted values, up to 2 s (default 1/16); SYNC off
EARLY/LATE	0 to 100 % (default 50 %)
DIFFUSION	0 to 100 % (default 80 %)
MOD	0 to 100 % (default 30 %)
WIDTH	0 to 150 % (default 100 %)
LOW / LOW X	0.25 to 2.50× (default 1.20×) / 50 Hz to 1 kHz (default 250 Hz)
HIGH / HIGH X	0.10 to 1.50× (default 0.55×) / 1 to 16 kHz (default 4.50 kHz)
LOW CUT	OFF, 21 Hz to 1 kHz, 12 dB/oct, on the reverb only (default OFF)
HIGH CUT	1 to 19.5 kHz, OPEN, 12 dB/oct, on the reverb only (default OPEN)
DUCK	0 to 100 %, up to 24 dB (default 0 %)
FREEZE	On / off (default off)
MIX / LOCK	0 to 100 %, equal power (default 30 %) / on, off (default off)
OUTPUT	−24 to +12 dB (default 0.0 dB)
Metering	DECAY (designed decay per band, early reflections, measured tail); TAIL SPECTRUM (1/6 octave, with the reverb time across frequency); IN and OUT meters (peak, RMS); short-term and integrated loudness per ITU-R BS.1770-4 / EBU R 128
Presets	46 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 `Vrwh`

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 White 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 reverb. Check MIX: at 0 % the output is the dry signal only. Check that DUCK isn't at 100 % on a track that never pauses, and that FREEZE is off (with FREEZE on, nothing new enters the reverb). On an aux, check that the tracks' sends are up.

The reverb muddies the mix. Raise LOW CUT (150–250 Hz), lower LOW under 1×, or shorten DECAY. A reverb almost always needs less low end and less length than it sounds like it does on its own.

The words of the vocal blur. Raise PRE-DELAY (30–60 ms) or DUCK (30–50 %), or lower MIX.

The reverb is harsh or splashy on cymbals and "s" sounds. Lower HIGH (0.35–0.50×) and HIGH X (3–4 kHz); then, if needed, HIGH CUT.

The reverb 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.

The pre-delay doesn't follow the tempo. Switch on SYNC. NOTE is dimmed while SYNC is off; PRE-DELAY is dimmed while it is on.

The meter shows the output louder than the input. A reverb adds energy, more so with a long DECAY and a high MIX. Lower OUTPUT by the meter bridge's Δ reading to compare fairly with bypass.

Does VEIRA Reverb White add latency? No. Nothing in it looks ahead, so it adds no delay, and your DAW's bypass needs no compensation.

Does it colour the sound? The dry signal, never: at MIX 0 % the output is the input, bit for bit. The reverb itself is designed to be colourless; for colour, see *Which colour reverb to choose*.

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 White · User Manual · Version 0.1.0

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

© 2026 VEIRA. Proudly made in the Dominican Republic. VST is a trademark of Steinberg Media Technologies GmbH. Audio Units, Logic Pro and macOS are trademarks of Apple Inc. Pro Tools and AAX are trademarks of Avid Technology, Inc. All other trademarks belong to their owners and are used only to describe compatibility.