VEIRA

STEREO DELAY

VEIRA Echo

User Manual

A modern stereo delay with repeats that land exactly in time, rhythm patterns inside every repeat, two LFOs and an envelope to move them, and a display that draws every echo where and when you'll hear it.



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Welcome

Thank you for choosing **VEIRA Echo**. It is a stereo delay for everything from a short slapback on a vocal to a dub spiral that feeds back on itself. Its repeats are clean and land exactly on the beat; around them you have tools to place them in the stereo field, give them a rhythm, darken and dirty them pass after pass, shift their pitch or play them backwards, and move all of it with two LFOs and an envelope follower.

What makes it different

- **You see every echo.** The ECHO display draws each repeat as a bar, left above the line and right below, as tall as it is loud and placed where it lands in time. The bars light up with what you're playing, and you can drag the time and the feedback right there.
- **Exactly in time.** A delay that isn't moving is read on whole samples, so every repeat is your sound itself, on the sample, with nothing dulling it pass after pass.
- **Rhythm inside the repeats.** Seven PATTERNs add small figures (dotted, triplet, gallop, bounce, stutter, ghost) inside every repeat, and SWING shuffles the repeats themselves.
- **Feedback you can push.** FEEDBACK goes to 110 % for self-oscillating dub sounds, and the repeats never pass 0 dBFS. FREEZE holds them as a loop; DUCK tucks them under your playing.
- **Character that works at any level.** DRIVE, DUCK and the envelope follow your track's own level, so they behave the same on a quiet track as on a loud one.
- **No latency.** At MIX 0 % the output is your input, bit for bit.
- **A clean, legible face.** Knobs with the value in their middle, text you can read at a glance, and a window you can scale from 75 % to 200 %.

How this manual is organised. *Getting started* covers installing and activating. *The panel at a glance* names every part of the window. *How a delay works* explains the idea and what happens inside VEIRA Echo. *Controls* takes each section of the panel in turn, with drawings of what it does to the repeats, and *Modulation* explains the LFOs and the envelope. *Displays* teaches you to read the ECHO and MOD displays and the meters. *Insert or send* shows the two ways to use a delay in a mix. *Presets* and *Recipes* get you working fast, and the last chapters hold the specifications and answers to common questions.

Getting started

What you need

macOS	macOS 11 Big Sur or later. Native on Apple silicon and Intel Macs (universal).
Windows	Windows 10 or 11, 64-bit.
Plugin formats	VST3 (macOS and Windows), Audio Units (macOS), and a standalone app. Pro Tools (AAX) versions arrive once they are signed for Pro Tools.
Hosts	Any DAW that loads VST3 or Audio Units: Logic Pro, Cubase, Nuendo, Ableton Live, Studio One, Reaper, FL Studio, Bitwig and others.
Account	A VEIRA account at veiraaudio.com, and the free **VEIRA Manager** app.
Internet	Needed to install and to refresh the licence. The plugin itself never goes online.

Install with VEIRA Manager

VEIRA plugins are not downloaded from the website one by one. You install them with **VEIRA Manager**, the free VEIRA app that installs, updates and activates everything you own. Its own manual covers it in full; the short version is:

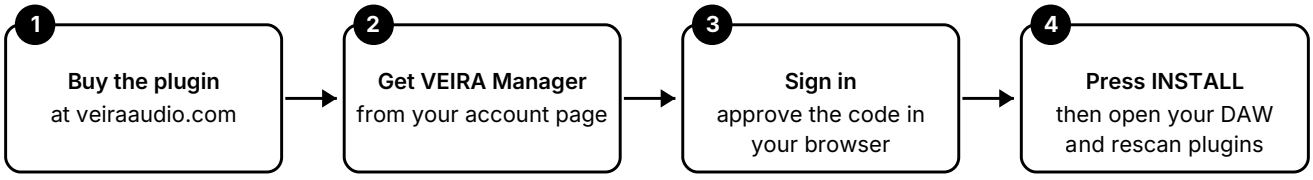


FIGURE 1 From purchase to first sound in four steps.

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

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 Echo 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.

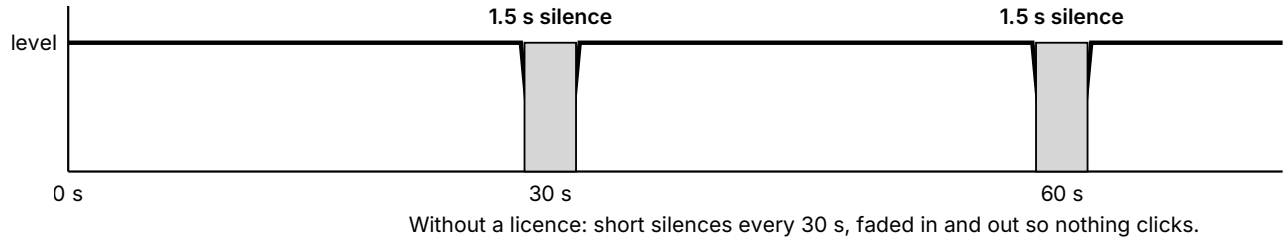


FIGURE 2 What an unlicensed copy does. With a valid licence the audio is never touched.

- **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 Echo. 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 Echo 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

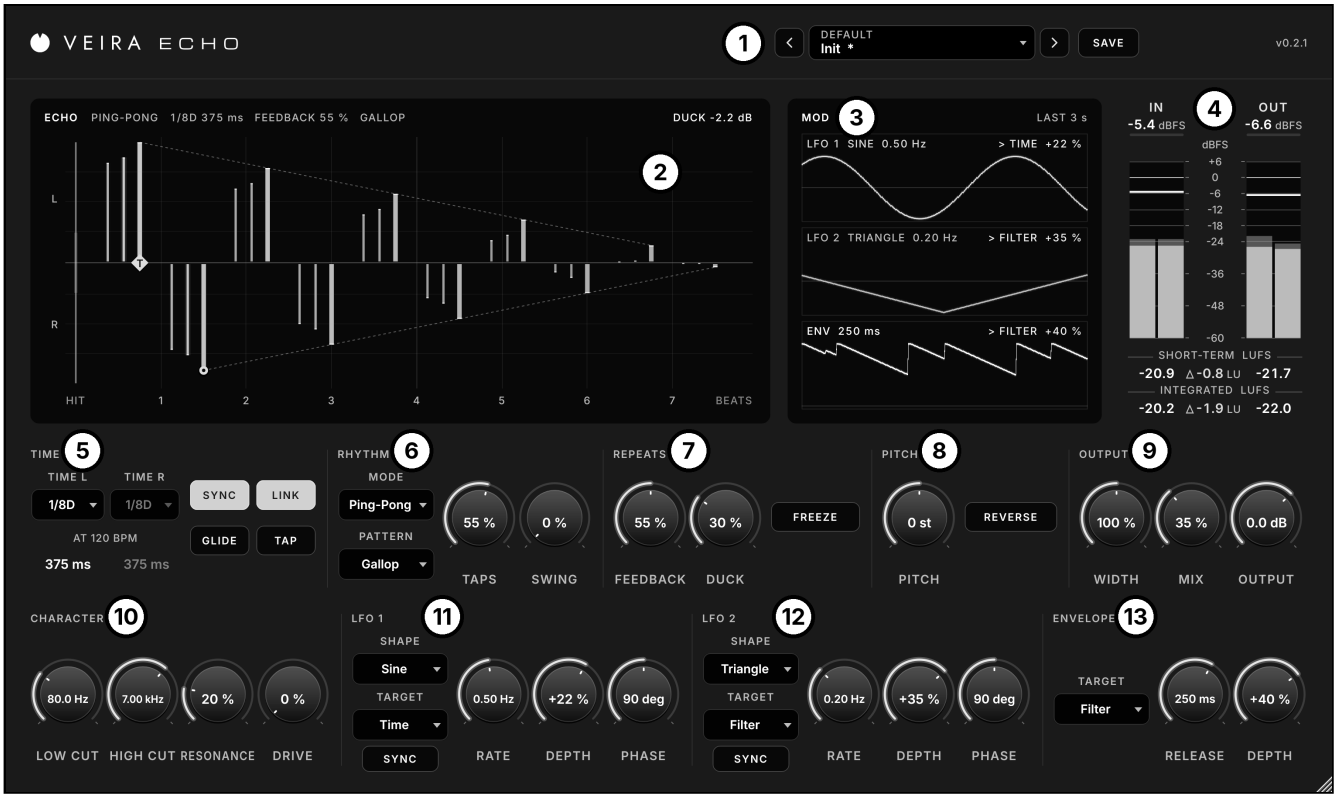


FIGURE 3 VEIRA Echo with a dotted-eighth ping-pong, the *Gallop* pattern, a little DUCK and both LFOs and the envelope at work.

The window has three areas: the **ECHO** and **MOD** displays and the **meter bridge** across the top, then two rows of controls, each divided into titled sections: TIME, RHYTHM, REPEATS, PITCH and OUTPUT in the first row, CHARACTER, LFO 1, LFO 2 and ENVELOPE in the second.

	Part	What it does
1	Preset browser	Steps through and saves presets. See *Presets*.
2	ECHO display	Every repeat of a hit, where and when you'll hear it. Drag its handles to set the time and the feedback.
3	MOD display	The last 3 seconds of LFO 1, LFO 2 and the envelope.
4	Meter bridge	Input and output level and loudness.
5	TIME	The delay of each side, as a note value or in ms, with SYNC, LINK, GLIDE and TAP.
6	RHYTHM	MODE (how the repeats move between the speakers), PATTERN, TAPS and SWING.
7	REPEATS	FEEDBACK, DUCK and FREEZE: how many repeats, and when you hear them.
8	PITCH	PITCH (each repeat shifted in semitones) and REVERSE.

	Part	What it does
9	OUTPUT	WIDTH of the repeats, MIX of dry and repeats, and the OUTPUT level.
10	CHARACTER	LOW CUT, HIGH CUT, RESONANCE and DRIVE, applied again on every repeat.
11	LFO 1	A low-frequency oscillator that moves one target.
12	LFO 2	A second LFO, identical to the first.
13	ENVELOPE	Moves a target by how loud you play.

Using the controls

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

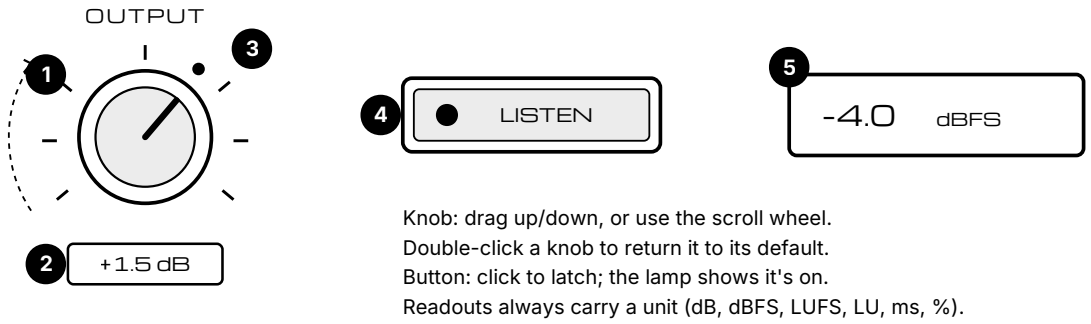


FIGURE 4 The parts you'll find on every VEIRA panel (the labels are examples).

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

- **Knobs** show their value **in their middle** and their name under them, and a lit ring (blue on screen; in print, the lighter arc) shows how far each is turned. Drag, use the wheel, or double-click (or Alt/Option-click) for the default, as on every VEIRA knob.
- **Type a value:** right-click a knob (Control-click on a Mac). A field opens over the knob with the current value; type the new one and press Return. The number is enough: **55** for [FEEDBACK], **-7** for [PITCH]. For [LOW CUT] and [HIGH CUT], **2.5k** means 2.5 kHz and **Open** opens the high cut; for times, **1.5 s** means 1500 ms. Press Escape or click elsewhere to leave it unchanged.
- **Buttons** have no lamps: a button that is on ([SYNC], [LINK], [GLIDE], [FREEZE], [REVERSE] and each LFO's [SYNC]) is filled (orange on screen, with dark text; in print, the solid, lighter button against the dark ones). [TAP] is a plain button that never stays on.
- **Menus** are dark rounded windows with a small triangle at the right.
- **Resize the window:** drag its bottom-right corner (the small diagonal lines). It scales from 75 % to 200 % of its normal size and keeps its proportions, so the displays and the text stay sharp. Your DAW saves the size with the session.

How a delay works

If you already know delays, skip to *What happens inside VEIRA Echo*. If not, one page here will make every control obvious.

A delay records what you play and plays it back a moment later: that's one **repeat**, or echo. The moment is the delay **time**. Then it feeds part of that repeat back into itself, so it repeats again, a little quieter, and again, quieter still. How much goes back is the **feedback**. A low feedback gives one or two echoes; a high one gives a long trail that slowly fades.

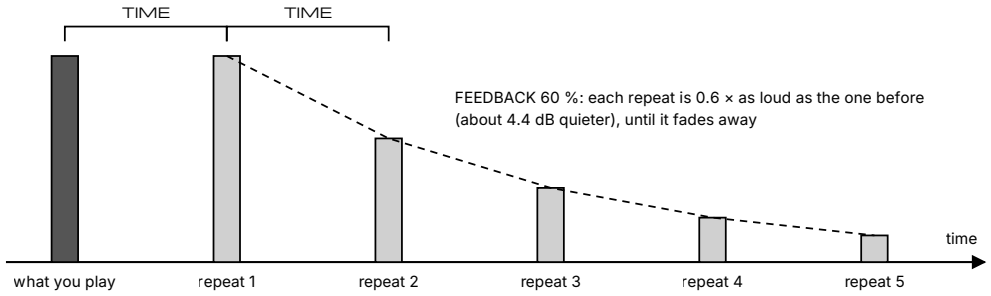
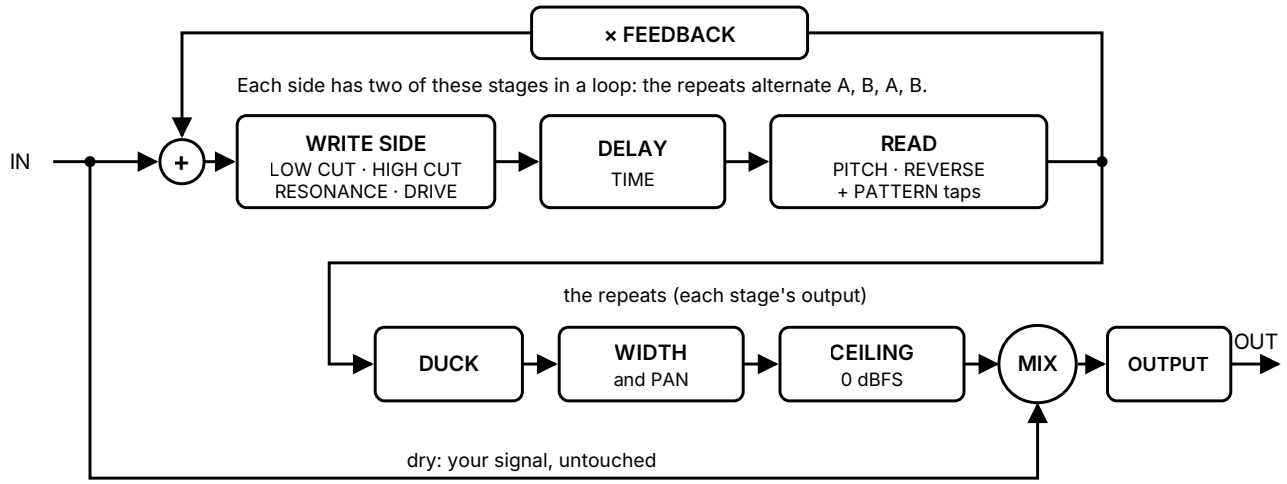


FIGURE 5 One hit and its repeats. TIME is the gap between them; FEEDBACK sets how much quieter each one is than the last.

Four ideas cover everything:

- **Time:** how far apart the repeats are. Very short times (under about 40 ms) thicken a sound rather than echo it; 80–140 ms is the classic "slapback"; note values like a quarter or a dotted eighth make the repeats part of the groove.
- **Feedback:** how many repeats you hear, and so how long the echo lasts.
- **Mix:** how loud the repeats are against your original (the **dry** signal).
- **Tone:** each repeat can be filtered and coloured. In VEIRA Echo this happens *inside* the loop, so every repeat gets a little darker or thinner or dirtier than the one before, like an old tape echo.

What happens inside VEIRA Echo



LFO 1, LFO 2 and the ENVELOPE can move TIME, FILTER, PITCH, PAN, MIX and FEEDBACK.

FIGURE 6 Signal flow. Your signal enters the loop, is filtered and driven on the write side, waits for TIME, and is read back (shifted in PITCH, reversed, with the PATTERN taps). Part of it goes round again by FEEDBACK. The repeats are ducked, widened, held under 0 dBFS and blended with the untouched dry signal by MIX.

Each side has **two delay stages** in a loop, A then B, then back to A. Every stage's output is one repeat, so the repeats alternate A, B, A, B. That's what lets the repeats bounce between the speakers (the A repeats on one side, the B repeats on the other) and lets SWING make every other repeat late.

- **The write side** is where the character lives: LOW CUT, HIGH CUT, RESONANCE and DRIVE. Every repeat passes through it again, so their effect builds pass after pass.
- **The read side** places the repeat in time and applies PITCH, REVERSE and the PATTERN taps. The pattern taps are heard but not fed back, so the little figure stays the same on every repeat.
- **After the loop**, DUCK turns the repeats down while you play, WIDTH and a moving PAN place them, and a ceiling makes sure that, whatever the settings, the repeats never pass 0 dBFS.
- MIX blends dry and repeats with an equal-power law. There is no latency: the dry signal is never delayed.

Controls

Menus. VEIRA Echo also has menu windows (MODE, PATTERN, the note values of TIME, and the SHAPE, TARGET and RATE menus of the modulation). Click one to open its list and choose. The small triangle at the right of the window marks it as a menu.

Controls that change place. A few controls swap with others depending on a switch: with SYNC on, TIME L and TIME R are note-value menus; with it off, they are knobs in ms. In each LFO, SYNC turns RATE from a knob in Hz into a note-value menu. A control that has no effect at the moment is drawn dimmed: TIME R while LINK is on, and TAPS while PATTERN is *Straight*.

TIME: how far apart

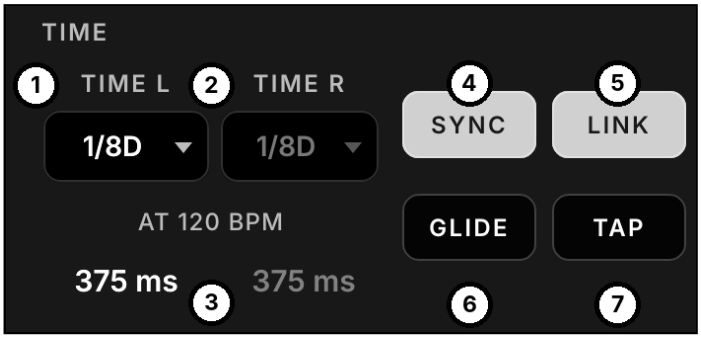


FIGURE 7 The TIME section with SYNC and LINK on: 1 TIME L, 2 TIME R (dimmed, following TIME L), 3 each side's time in ms at the song's tempo, 4 SYNC, 5 LINK, 6 GLIDE and 7 TAP.

Control	Range	Default	
TIME L (SYNC on)	1/64 to 1/1, with T and D	1/4	The left side's delay as a note value at the song's tempo.
TIME L (SYNC off)	1 ms to 4 s	400 ms	The left side's delay in milliseconds.
TIME R	as TIME L	1/4, 400 ms	The right side's delay, when LINK is off.
SYNC	on / off	on	Note values at the song's tempo, or free times in ms.
LINK	on / off	on	The right side takes the left side's time.
GLIDE	on / off	off	Time changes glide like tape instead of crossfading.
TAP	button		Tap two or more times to set the time.

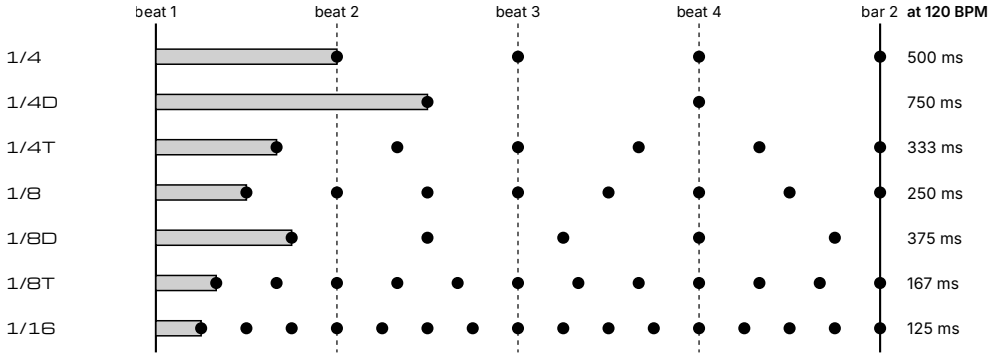
SYNC. With SYNC on 4 , TIME L and TIME R are menus of note values, and the delay follows your DAW's tempo: change the tempo and the repeats stay on the beat. Under the menus, VEIRA Echo shows what each note works out to in ms 3 , with the tempo it's using (AT 120 BPM). If your host doesn't send a tempo (some standalone uses), it uses 120 BPM. With SYNC off, the two controls are knobs in milliseconds, from 1 ms to 4 seconds.

LINK. With LINK on 5 , both sides use TIME L; TIME R is dimmed and shows the same value. Turn LINK off to give the right side its own time, for example a dotted eighth on the left against a quarter on the right. In PING-PONG and CROSS modes (see *RHYTHM*), TIME L is the gap before a repeat that lands on the left and TIME R the gap before one that lands on the right.

Note values, dotted and triplet

The menus offer 18 values: **1/64, 1/32T, 1/32, 1/16T, 1/32D, 1/16, 1/8T, 1/16D, 1/8, 1/4T, 1/8D, 1/4, 1/2T, 1/4D, 1/2, 1/1T, 1/2D** and **1/1**. 1/4 is a quarter note (one beat in 4/4), 1/8 an eighth, 1/1 a whole bar.

- **D (dotted)** is one and a half times the plain note. A dotted eighth (1/8D) is three sixteenths, the classic rolling guitar and vocal delay: its repeats fall *between* the eighth notes you play.
- **T (triplet)** is two-thirds of the plain note: three triplets fit where two plain notes would. Triplet repeats give a lilting, swung feel against straight playing.



Grey bar: one delay TIME. Dots: where the repeats land against the beats. The first column is the hit.
D (dotted) = 1.5 × the plain note. T (triplet) = 2/3 × the plain note: three fit where two would.

FIGURE 8 Where the repeats land over one bar at 120 BPM. Plain notes land on the grid; dotted notes fall between the beats and come back onto them every few repeats; triplets divide the beats into threes.

To work out a time yourself: one beat (a quarter note) lasts 60 000 ÷ BPM ms. At 120 BPM that's 500 ms; an eighth is 250 ms, a dotted eighth 375 ms, a quarter triplet 333 ms.

TAP. Click TAP 7 in time with the music, two times or more. VEIRA Echo averages the gaps between your last taps (up to five) and sets TIME L to that, switching SYNC off so the time you tapped stays exactly as tapped. Pause for more than two seconds and the next tap starts a new count. With LINK off, only TIME L changes.

GLIDE. When the time changes (you turn the knob, choose another note, or automation moves it), VEIRA Echo normally **crossfades** from the old delay to the new one in 50 ms: the repeats jump cleanly to the new time, with no zipper noise and no pitch change. With GLIDE on 6 , the delay instead **glides** to the new time like the tape speed of an old echo unit, so the repeats already on their way bend in pitch: down when the time gets longer, up when it gets shorter (at most to half or one and a half times the speed).

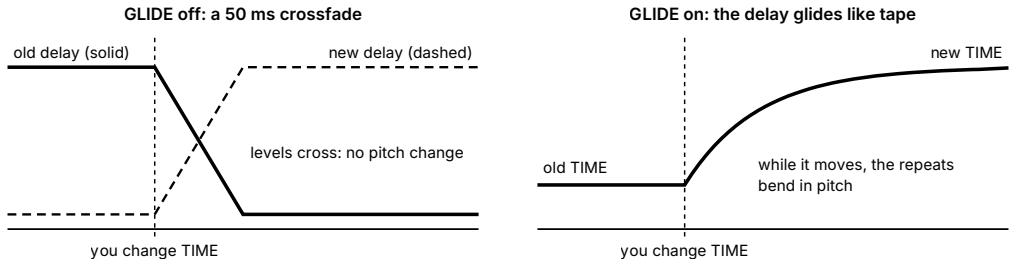


FIGURE 9 Changing TIME. Left: the old repeats fade out as the new ones fade in. Right: the delay itself slides to the new time, bending the pitch on the way.

Tip: GLIDE plus a slow, hand-turned TIME change is the classic tape-echo "warp". Automate TIME (or drag the ECHO display's handle) with GLIDE on for sirens and pitch dives on dub throws.

RHYTHM: where the repeats go

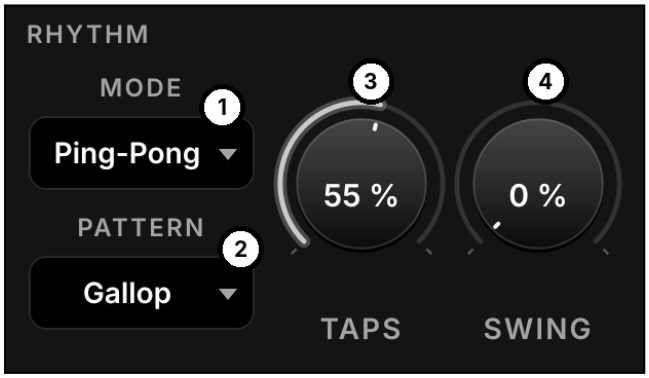


FIGURE 10 The RHYTHM section: 1 MODE, 2 PATTERN, 3 TAPS (dimmed while the pattern is *Straight*) and 4 SWING.

Control	Range	Default	
MODE	Stereo, Ping-Pong, Cross	Stereo	How the repeats move between the speakers.
PATTERN	Straight, Dotted, Triplet, Gallop, Bounce, Stutter, Ghost	Straight	Extra taps inside every repeat.
TAPS	0 to 100 %	70 %	How loud the pattern's taps are.
SWING	0 to 100 %	0 %	Every other repeat comes late, up to a triplet shuffle.

MODE

- **Stereo.** Each side repeats on its own side: what you play on the left echoes on the left, every TIME L; what's on the right echoes on the right, every TIME R. A mono source in the middle echoes in the middle. Your stereo image stays exactly as it was.
- **Ping-Pong.** Left and right are summed, and the repeats bounce: the first lands on the left after TIME L, the next on the right after TIME R, then left again, and so on. Wherever the source sits, its echoes alternate across the speakers.

- **Cross.** The repeats bounce as in Ping-Pong, but a stereo source keeps its image: what's on the left *starts* on the left and then crosses to the right; what's on the right starts on the right and crosses to the left. Use it on stereo keys, pads, guitars and mixes that you want to bounce without collapsing them to mono.

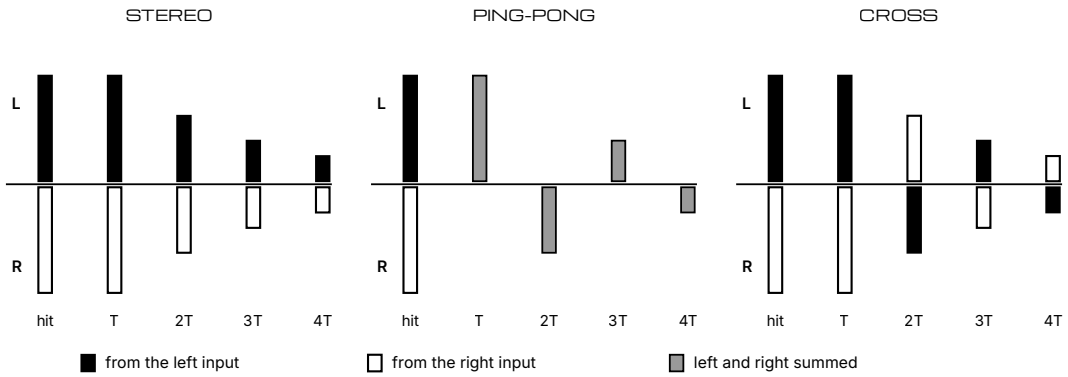


FIGURE 11 The first four repeats of a stereo hit in each MODE (T = one TIME; L above the line, R below). Stereo: each side echoes on its own side. Ping-Pong: the sides are summed and the repeats alternate. Cross: they alternate, but the left input starts left and the right input starts right.

Switching MODE fades the repeats out for 30 ms, switches, and fades them back in, so it never clicks.

PATTERN and TAPS

A pattern adds up to four extra **taps** inside every repeat, so each repeat plays a little rhythmic figure instead of a single echo. The taps are placed as fractions of the time between repeats, so they follow TIME, SYNC and the tempo automatically. They are heard but not fed back: the figure is the same on every repeat and simply gets quieter with it.

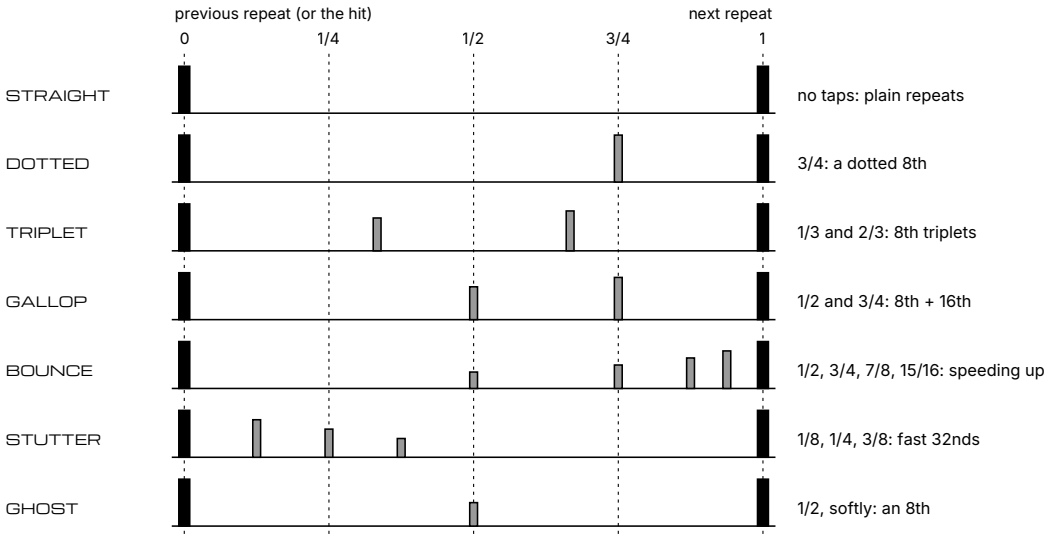


FIGURE 12 The seven patterns, between one repeat and the next (black). The grey taps are drawn at their position and relative level; TAPS scales all of them. With a 1/4 TIME, 1/2 is an eighth note and 1/4 a sixteenth.

- **Straight:** no taps; plain repeats. TAPS is dimmed.
- **Dotted:** one full-level tap three-quarters of the way, a dotted-eighth figure inside a quarter-note repeat.
- **Triplet:** two taps at a third and two-thirds: each repeat rolls in triplets.

- **Gallop:** taps at a half and three-quarters: the “da-da-dum” of a galloping rhythm.
- **Bounce:** four taps getting closer and louder (at 1/2, 3/4, 7/8 and 15/16), like a dropped ball speeding into the next repeat.
- **Stutter:** three quick taps right after each repeat (at 1/8, 1/4 and 3/8), fading as they go: a stuttering, chopped echo.
- **Ghost:** one soft tap halfway, like a ghost note between the repeats.

TAPS sets how loud the taps are, from 0 % (silent) to 100 % (their full level). The ECHO display draws the taps as thinner bars between the repeats.

SWING

SWING makes every other repeat come late: the first, third and fifth repeats move later and the ones between stay on the grid. At 100 % the delays alternate in a 2:1 ratio, a full triplet shuffle; at lower settings the shuffle is lighter. Use it with eighth or sixteenth-note times to make straight repeats groove with swung music.

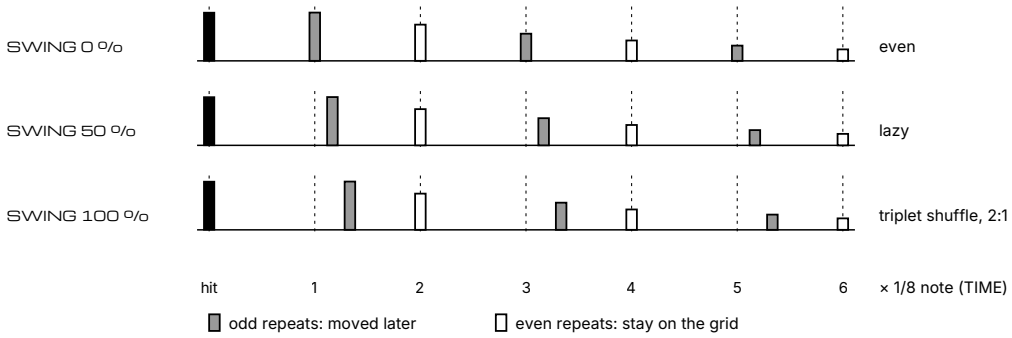


FIGURE 13 Six eighth-note repeats with SWING at 0, 50 and 100 %. The grey (odd) repeats move later; the white (even) ones stay on the beat grid.

REPEATS: how many, and when

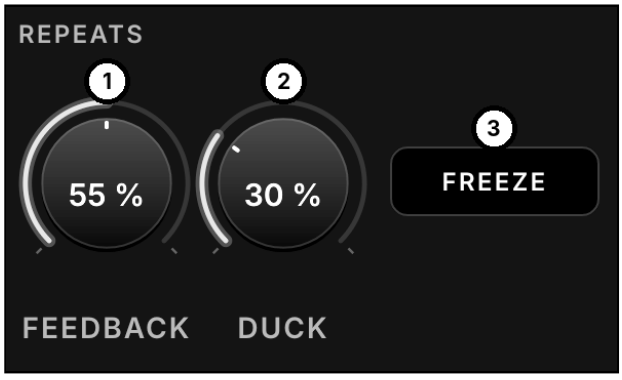


FIGURE 14 The REPEATS section: 1 FEEDBACK, 2 DUCK and 3 FREEZE.

Control	Range	Default	
FEEDBACK	0 to 110 %	35 %	How loud each repeat is against the one before.

Control	Range	Default	
DUCK	0 to 100 %	0 %	Turns the repeats down while you play (up to 30 dB).
FREEZE	on / off	off	Holds the repeats as they are and lets nothing new in.

FEEDBACK

FEEDBACK is how loud each repeat is against the one before. At 50 % each repeat is half as loud (6 dB down) as the last; at 25 %, a quarter (12 dB down). At 0 % you hear a single repeat: a slapback. The higher you go, the more repeats you hear and the longer the echo lasts.

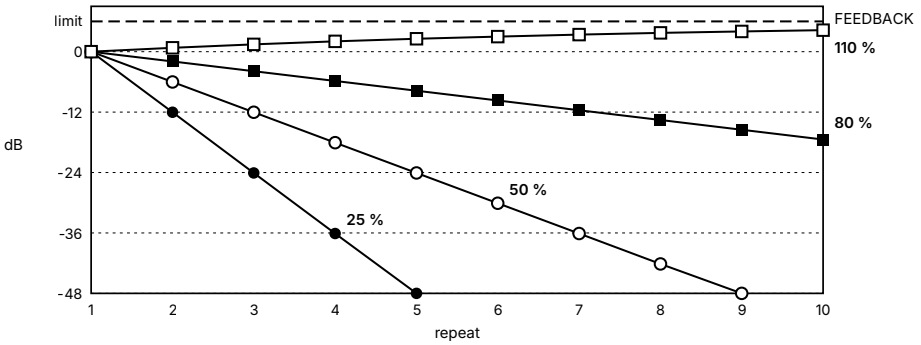


FIGURE 15 The level of the first ten repeats at four FEEDBACK settings. Under 100 % they fall in a straight line on a dB scale; at 110 % they build up until the soft limit holds them (its height depends on the level you play; drawn here as an example).

Over 100 % each repeat is louder than the last, so the echo builds up on its own instead of dying away: the classic self-oscillating dub sound. A soft limit inside the loop holds the build-up (it is transparent below −2 dBFS), and a ceiling after the loop keeps the repeats from ever passing 0 dBFS, whatever the settings. Bring FEEDBACK back under 100 % and the echo fades away again. Because the loop filters the repeats on every pass, a high FEEDBACK with HIGH CUT and DRIVE turns into a dark, distorted drone; a low LOW CUT lets it build up rumble, so keep it up.

> **Tip:** For dub throws, keep FEEDBACK around 60–80 % and ride it above 100 % for a few beats, then pull it back. The factory preset **Creative FX ▸ Dub Spiral** sits at 108 % for you to ride.

DUCK

DUCK turns the repeats down while you play and lets them come back up (“bloom”) in the gaps. A vocal stays clear while the singer sings, and the echo fills the space at the end of each line. At 100 % the repeats dip by up to 30 dB.

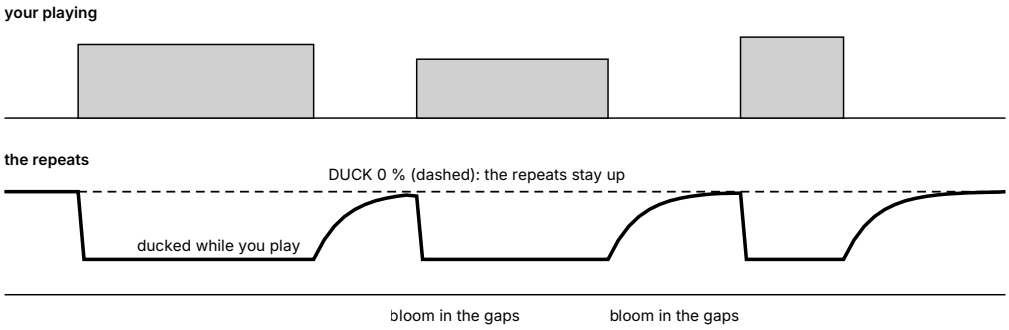


FIGURE 16 With DUCK, the repeats (solid line) dip within about 15 ms of each phrase and come back up over about 150 ms after it ends. The dashed line is the same echo without DUCK.

DUCK doesn't use a fixed threshold. It listens to your playing *relative to its own recent peak*, so the same setting ducks the same amount on a quiet track at −30 dBFS as on a loud one at −6 dBFS. You don't need to reset it when the level changes. The ECHO display shows how much it's taking off at the moment (DUCK -1.6 dB, for example), at its top right. Settings of 40–70 % suit most vocals and lead parts.

FREEZE

FREEZE holds the repeats as they are, for as long as it's on. Nothing new enters the loop, and nothing fades: it becomes a loop of whatever was in the echo at that moment. Play over it; turn FREEZE off and the repeats fade away with FEEDBACK as usual.

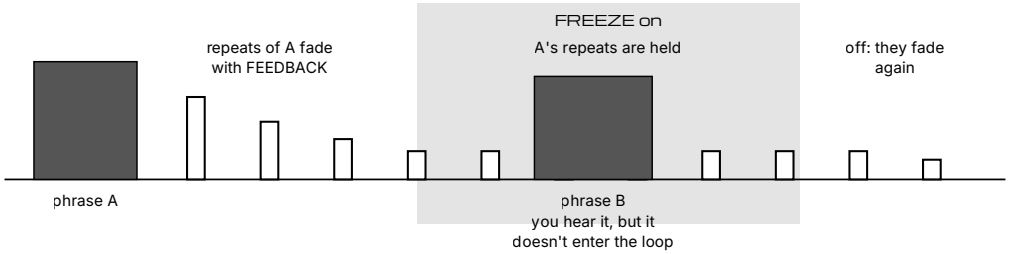


FIGURE 17 Phrase A is playing in the repeats when you switch FREEZE on (grey area): its repeats stop fading and hold. Phrase B, played meanwhile, is heard but doesn't enter the loop. When FREEZE goes off, A's repeats fade again.

While frozen, the loop's input fades out and its feedback goes to exactly 100 %, and the filters, DRIVE and PITCH step aside (all over 50 ms), so the held sound stays exactly as it was instead of getting darker, dirtier or higher on every pass. The time doesn't change while frozen, and the LFO and envelope stop moving TIME and PITCH. The ECHO display shows FROZEN and draws the held repeats in an icy blue (lighter than the usual amber bars).

> **Tip:** Load **Creative FX ▸ Freeze Loop Pad**, play a phrase, then press FREEZE: your phrase becomes a pad to play over. Its half-note TIME makes the held loop one bar long at any tempo.

PITCH and REVERSE

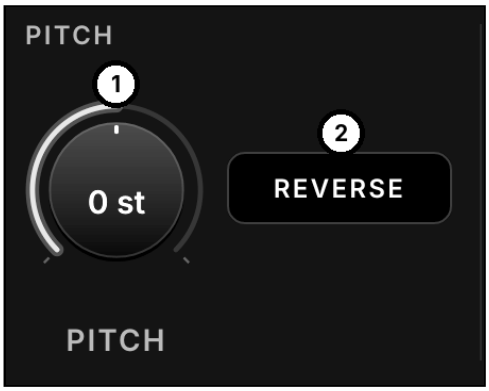


FIGURE 18 1 PITCH and 2 REVERSE.

Control	Range	Default	
PITCH	−12 to +12 st	0 st	Each repeat shifted by this many semitones from the one before.
REVERSE	on / off	off	Every repeat plays backwards.

PITCH shifts every repeat by a number of semitones **from the one before**, so the shift adds up: at +12 each repeat climbs another octave, at +7 another fifth (a rising chord of fifths), at −12 each falls an octave into a rumble. Each repeat still lands exactly in time. The ECHO display labels the repeats with their total shift (+7, +14, +21…).

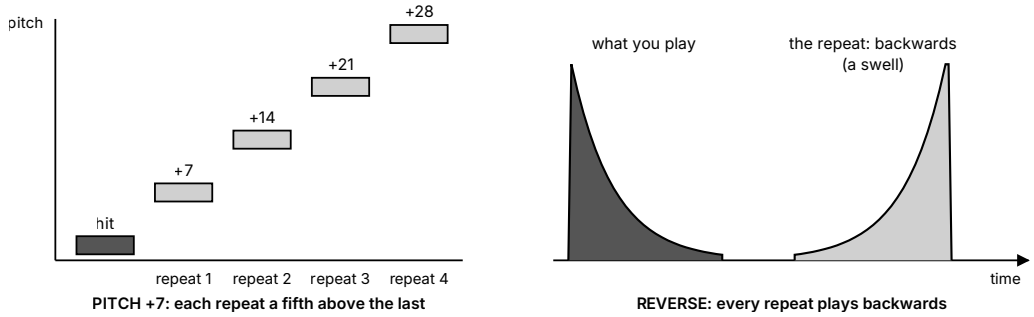


FIGURE 19 Left: PITCH +7 stacks a fifth on every repeat. Right: with REVERSE, each repeat is your phrase played backwards, so it swells in instead of decaying.

- Pitching up, VEIRA Echo filters the top of the sound away before it would fold back into harsh, inharmonic tones, so climbing octaves stay clean. HIGH CUT tames the top further.
- Held notes stay smooth through the shift instead of fluttering, also with a PATTERN (each tap is shifted on its own).
- A shifted repeat keeps its level within about 3 dB, so FEEDBACK sets the number of steps as usual.

REVERSE plays every repeat backwards: each repeat is the phrase you played, reversed, in chunks as long as the delay time (at most 2 seconds). Notes swell in instead of fading out. The loop itself runs forwards, so the next repeat is the same phrase reversed again, not reversed back. Longer times reverse longer pieces: a quarter note reverses single notes, a half note or more reverses whole phrases. The ECHO display marks reversed repeats with small triangles pointing left.

Switching [PITCH] or [REVERSE] fades the repeats out for 30 ms and back in, so it never clicks.

CHARACTER: the tone of the repeats

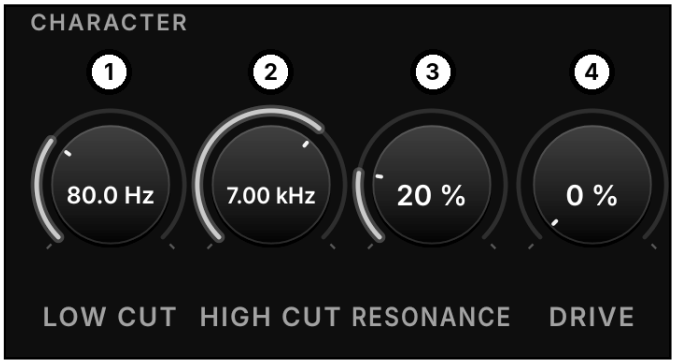


FIGURE 20 The CHARACTER section: 1 [LOW CUT], 2 [HIGH CUT], 3 [RESONANCE] and 4 [DRIVE].

Control	Range	Default	
[LOW CUT]	20 Hz to 2 kHz	80 Hz	A high-pass filter in the loop (12 dB/oct): each repeat gets thinner.
[HIGH CUT]	1 kHz to 20 kHz (Open)	12 kHz	A low-pass filter in the loop (12 dB/oct): each repeat gets darker.
[RESONANCE]	0 to 100 %	0 %	A peak at the [HIGH CUT] frequency: the repeats ring there.
[DRIVE]	0 to 100 %	0 %	Saturation in the loop that builds with every pass.

All four sit **inside the loop**, so every repeat goes through them again. A filter that takes off a little on the first repeat takes off twice as much by the second and three times by the third: later repeats fade into the background in a natural way, like an old tape or analogue echo.

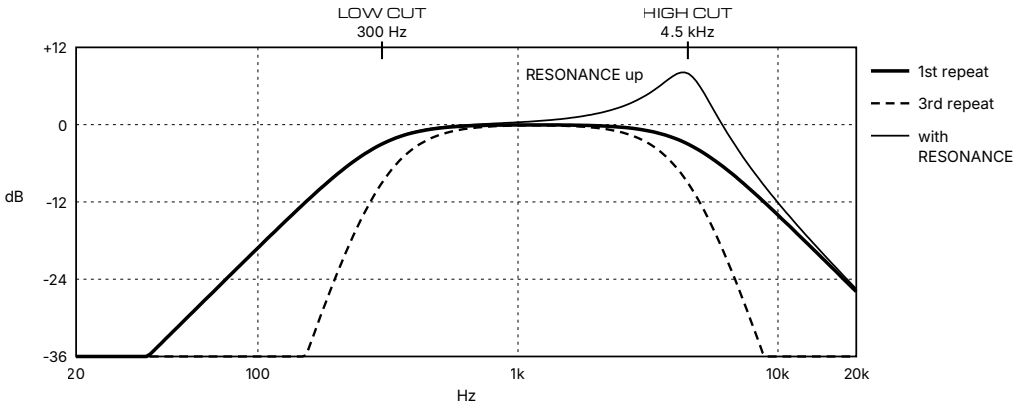


FIGURE 21 The loop's filters with [LOW CUT] 300 Hz and [HIGH CUT] 4.5 kHz. Solid: the first repeat. Dashed: the third, after three passes, narrower and darker. Thin: the first repeat with [RESONANCE] raised, peaking at the [HIGH CUT].

LOW CUT removes low frequencies from the repeats. The echo of a vocal or guitar rarely needs anything below 200–400 Hz, and taking it out keeps the low end of your mix clear. **HIGH CUT** removes high frequencies: around 3–6 kHz for a warm, tape-like echo that sits behind the dry sound, open (turned fully up; the knob reads [Open]) to keep the repeats as bright as the source.

RESONANCE adds a peak at the [HIGH CUT] frequency, so every repeat rings a little at that pitch and the echo takes on a vocal, "wah"-like tone, especially when the cutoff moves (with an LFO or the envelope on [FILTER]). The peak's size follows [FEEDBACK]: it can grow up to about +15.6 dB with a single repeat and less as [FEEDBACK] rises, so the ringing lasts at most about twice as long as the rest of the echo and never runs away on its own. At [FEEDBACK] 100 % and over there is no room for a peak and [RESONANCE] steps aside. The rest of the echo keeps exactly the [FEEDBACK] you set.

DRIVE saturates the repeats with up to 24 dB of drive, more on every pass: at low settings a little warmth and thickness, pushed further a gritty, broken-tape sound. It works against **your track's own level**, so a quiet track is driven as hard as a loud one, and the fading tail of the echo and soft passages stay clean. Combine it with a low [HIGH CUT] for dark, dirty dub repeats.

OUTPUT: width and blend

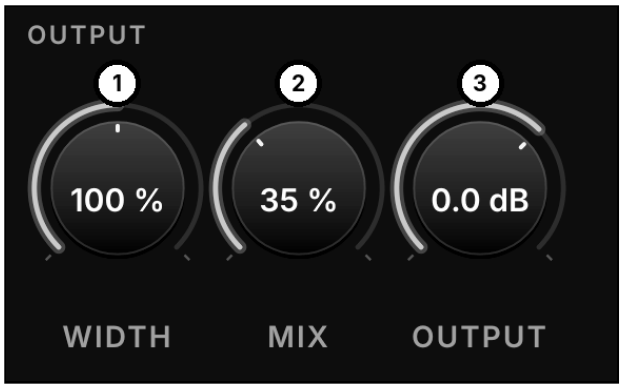


FIGURE 22 The OUTPUT section: 1 [WIDTH], 2 [MIX] and 3 [OUTPUT].

Control	Range	Default	
WIDTH	0 to 200 %	100 %	The stereo width of the repeats.
MIX	0 to 100 %	25 %	Dry against repeats.
OUTPUT	−24 to +12 dB	0.0 dB	The output level.

WIDTH sets the stereo width of the repeats only; the dry signal is never touched. At 0 % the repeats are mono, in the middle; at 100 % they are as the MODE makes them; up to 200 % they spread wider than the speakers.

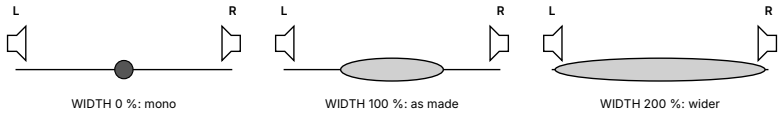


FIGURE 23 WIDTH narrows or widens the repeats between the speakers.

MIX blends dry and repeats with an equal-power law, so there's no dip in loudness halfway: at 0 % you hear your dry signal bit for bit, at 100 % only the repeats. On an insert 10–35 % is typical; on an aux, always 100 % (see *Insert or send*). **OUTPUT** sets the final level, after MIX: use it to match levels with bypass, reading the Δ on the meter bridge.

Modulation

Modulation moves controls for you, all the time: a slow wobble of the delay time gives the warm, chorused sound of tape; a sweep of the filter makes the echo breathe; the envelope makes the repeats react to how hard you play. VEIRA Echo has three sources (**LFO 1**, **LFO 2** and the **ENVELOPE**) and each moves one **target** by its **DEPTH**.

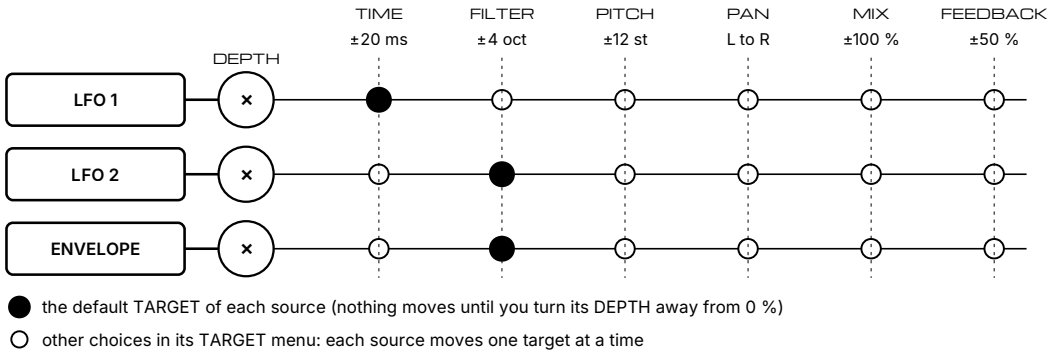


FIGURE 24 The routing. Each source moves the target chosen in its [TARGET] menu, by its [DEPTH], either way. Several sources may move the same target; their movements add up. The range under each target is what a [DEPTH] of 100 % reaches.

The targets

Target	What it moves	At DEPTH 100 %
Time	The delay time of the repeats: a chorus-like wobble, or tape wow	±20 ms
Filter	Both [LOW CUT] and [HIGH CUT] together: a sweep	±4 octaves
Pitch	The pitch of the repeats: vibrato	±12 semitones
Pan	The repeats move between the speakers	fully left to fully right
Mix	The blend of dry and repeats	±100 %
Feedback	The number of repeats	±50 %

DEPTH runs from −100 to +100 %; 0 % switches that source off. A negative depth moves the target the other way (for example the envelope with [FILTER] at −50 % makes louder playing *darker*). On [TIME] and [PITCH] the depth has a finer touch at small settings: 10–20 % gives a subtle tape-like movement, and the full ±20 ms or ±12 semitones arrive only at the end of the knob.

LFO 1 and LFO 2

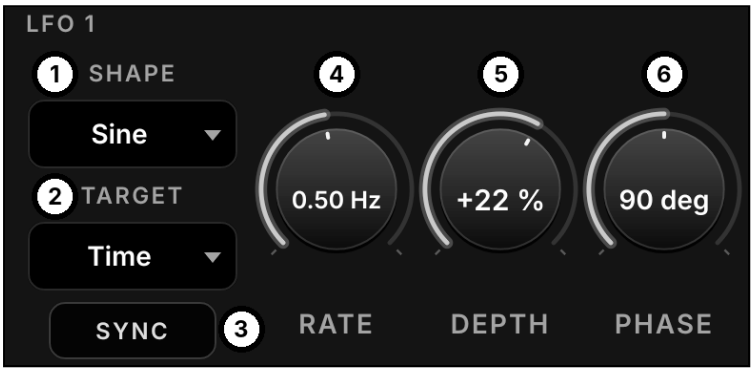


FIGURE 25 LFO 1: 1 SHAPE, 2 TARGET, 3 SYNC, 4 RATE, 5 DEPTH and 6 PHASE. LFO 2 has the same controls.

Control	Range	Default (LFO 1 / LFO 2)	
SHAPE	Sine, Triangle, Saw Up, Saw Down, Square, Random, Drift	Sine / Triangle	How the LFO moves.
TARGET	Time, Filter, Pitch, Pan, Mix, Feedback	Time / Filter	What it moves.
RATE (SYNC off)	0.02 to 20 Hz	0.50 Hz / 0.20 Hz	How fast it moves.
RATE (SYNC on)	8/1 to 1/32	1/4	One cycle as a note value.
SYNC	on / off	off	Rate in Hz, or as a note value at the song's tempo.
DEPTH	−100 to +100 %	0 %	How far it moves its target. 0 % is off.
PHASE	0 to 180 deg	90 deg	How far the right side runs ahead of the left.

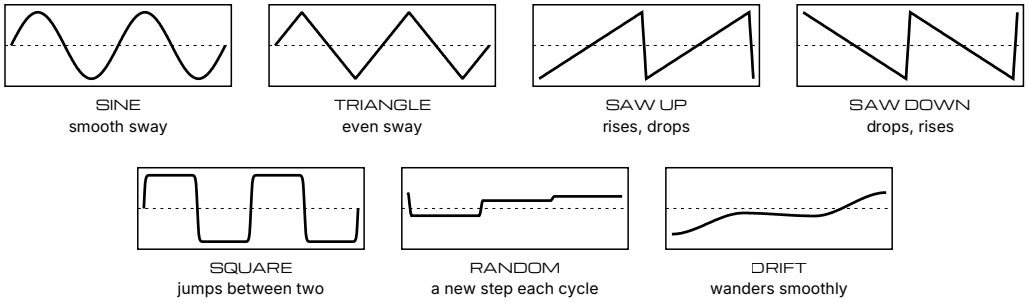


FIGURE 26 SHAPE: the movement the LFO repeats, cycle after cycle. Random and Drift are different on every cycle.

- **Sine** and **Triangle** sway smoothly back and forth: the natural choice for tape wow, chorus and filter sweeps.
- **Saw Up** and **Saw Down** ramp one way, then return quickly: a rising or falling sweep in time with the song.
- **Square** jumps between two values: on PAN the repeats hop from side to side; on TIME, between two delays.
- **Random** steps to a new value on every cycle: glitchy jumps of time, pitch or pan.
- **Drift** wanders smoothly from one random value to the next: the uneven wow of a worn tape machine.

Even the jumps of Square and Random are softened over a few milliseconds, so they never click.

RATE sets how fast the LFO cycles: 0.02 Hz is one cycle in 50 seconds, 20 Hz a fast flutter. With the LFO's SYNC on, RATE becomes a menu of note values from 8/1 (eight bars) to 1/32, including dotted and triplet values, and while your song plays the LFO locks to the song position, so a sweep starts at the same point of the bar on every playback.

PHASE offsets the right side's LFO against the left's. At 0 deg both sides move together; at 90 deg (the default) the right is a quarter of a cycle ahead; at 180 deg they move in opposite directions, which is the widest. In PING-PONG and CROSS, each repeat takes the movement of the side it plays on.

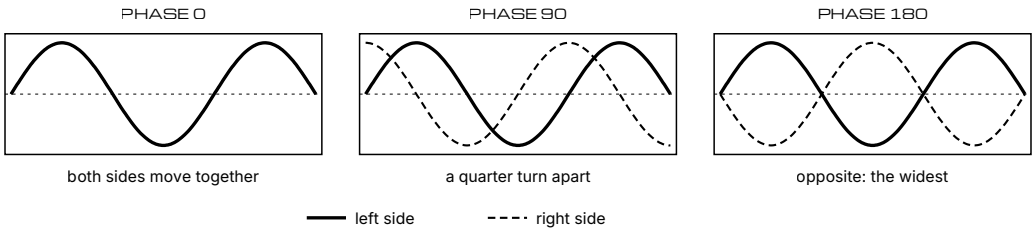


FIGURE 27 PHASE shifts the right side's LFO (dashed) against the left's (solid). On TIME or PITCH, a phase between the sides gives a wide, chorus-like spread; on PAN, 0 deg moves the whole echo together.

ENVELOPE

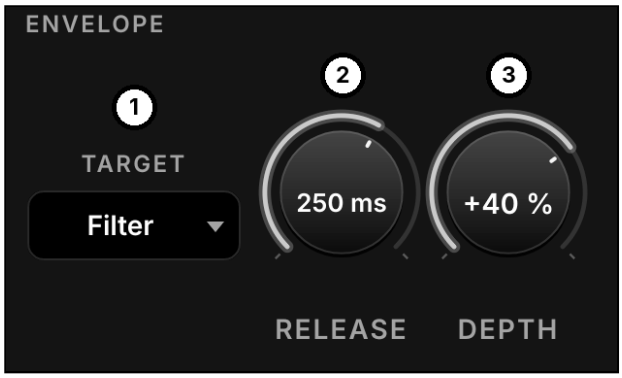


FIGURE 28 The ENVELOPE: 1 TARGET, 2 RELEASE and 3 DEPTH.

Control	Range	Default	
TARGET	Time, Filter, Pitch, Pan, Mix, Feedback	Filter	What the envelope moves.
RELEASE	10 ms to 2 s	250 ms	How quickly it falls back after you stop.
DEPTH	−100 to +100 %	0 %	How far it moves its target. 0 % is off.

The envelope follows **how loud you play**. It rises within a few milliseconds of each note and falls back at the speed set by RELEASE. Like DUCK, it measures your playing against its own recent peak, so it works the same at any level: you don't need to set a threshold.

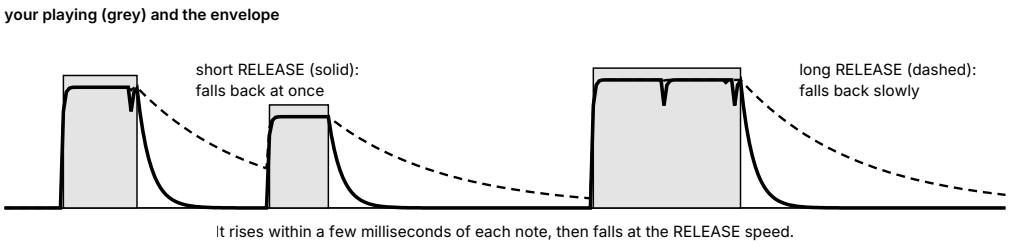


FIGURE 29 The envelope follows your playing up quickly and falls back at the RELEASE speed.

Unlike the LFOs, the envelope only moves its target one way from where you set it: up with a positive DEPTH, down with a negative one. Two settings worth knowing:

- FILTER**, positive** DEPTH**:** louder playing gives brighter repeats; soft playing, darker ones. The echo follows your dynamics.
- FEEDBACK**, negative** DEPTH**:** while you play, the feedback drops and the echo stays short and out of the way; when you stop, it rises and the repeats grow into the gap. A "smart" delay for vocals and solos.

MIX with a negative DEPTH works in a similar way to DUCK, but moves the blend rather than the level of the repeats.

Displays

ECHO display

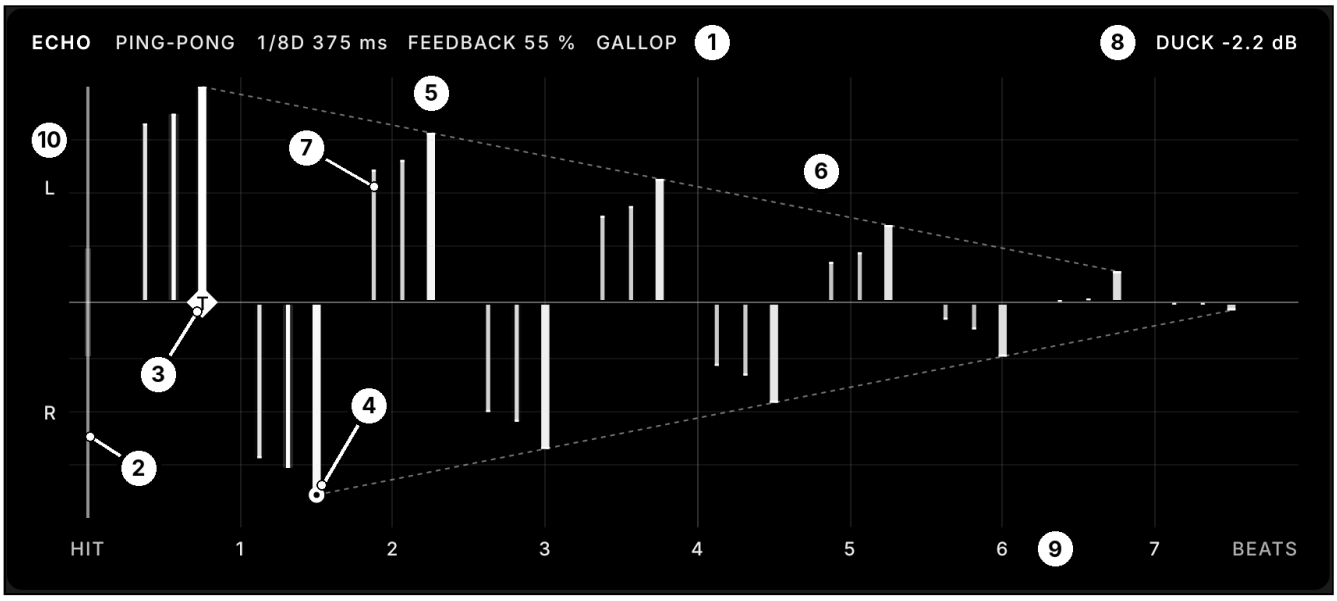


FIGURE 30 The ECHO display in PING-PONG with the *Gallop* pattern: 1 the settings line, 2 the hit, 3 the TIME handle (one, marked T, with LINK on), 4 the FEEDBACK handle, 5 a repeat, 6 the decay line, 7 a pattern tap (a thinner bar), 8 the live DUCK reading, 9 the time scale and 10 the sides.

The ECHO display shows what happens to a single hit: every repeat the current settings will produce, where and when you'll hear it.

- 10 **Sides:** the left side (L) is drawn above the centre line, the right side (R) below.
- 2 **The hit** is the bar at the left edge (HIT), time zero. It lights up with what you're playing now.
- 5 **Each repeat** is a bar placed at the moment it sounds, on the side it sounds, as tall as it is loud: the full height of a side is 0 dB (as loud as the hit), the centre line −48 dB. PATTERN taps are thinner bars between the repeats 7 . With HIGH CUT down, later repeats are drawn darker, as they sound.
- **The bars light up** with your playing: each repeat glows as brightly as what it is echoing at this moment, so you can watch the echoes of your own phrases travel across the display.
- 6 **The decay line** (dashed) joins the tops of each side's repeats: its slope is FEEDBACK.
- 7 **Pattern taps** are the thinner bars just before each repeat (here the *Gallop* figure). In CROSS, the repeats of the right input are drawn fainter than those of the left, so you can tell the two chains apart.
- 9 **The time scale** reads in beats with SYNC on (a brighter grid line every four beats, one bar in 4/4), or in ms and seconds with SYNC off. The display's span follows the length of the echo.
- 1 **The settings line** across the top sums up the echo: MODE, the time of each side (note and ms), FEEDBACK, the PATTERN and the SWING.
- **PITCH and REVERSE marks:** with PITCH, each repeat is labelled with its total shift (+12, +24…); with REVERSE, a small triangle pointing left sits at its top.

- 8 **DUCK and FREEZE** show live at the top right: how many dB [DUCK] is taking off right now, or [FREEZE] while frozen. While frozen, the display also writes [FROZEN] in the plot and draws the bars in an icy blue instead of amber.

Handles. You can set the delay right on the display:

- 3 **The diamond** sits at the first repeat. Drag it left and right to change [TIME]; with [SYNC] on it snaps to the note values. With [LINK] on there is one diamond (marked T); with [LINK] off there are two, L above the line and R below.
- 4 **The round handle** sits on the second repeat. Drag it up and down to set [FEEDBACK] (up to 100 %; for more, use the knob).
- **Double-click** a handle to return it to its default.

Hover over a repeat to read it: the repeat's number (or *TAP IN REPEAT* for a pattern tap), its time after the hit, its level in dB, its side, and with [PITCH], its shift in semitones.

MOD display

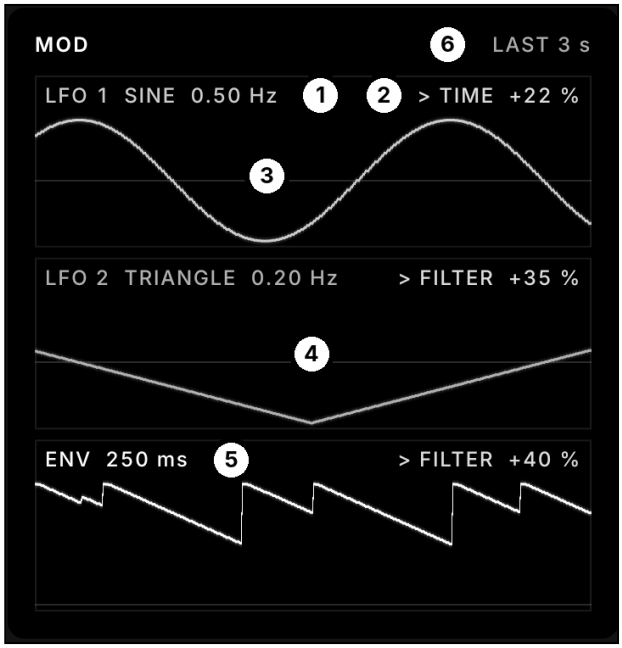


FIGURE 31 The MOD display: 1 a source's name, shape and rate, 2 its target and depth (at the right of the same line), 3 LFO 1's movement, 4 LFO 2's, 5 the envelope lane, 6 the time span.

The MOD display shows the last 3 seconds of the three modulation sources, newest at the right edge, in three lanes: **LFO 1** (top, amber on screen), **LFO 2** (middle, teal) and **ENV** (bottom, white). In print they are told apart by their position.

- 1 Each lane's title shows the source: for an LFO, its shape and rate ([LFO 1 SINE 0.30 Hz], or the note value with [SYNC]); for the envelope, its [RELEASE] ([ENV 250 ms]).

- 2 At the right of the title: where it goes and how much (> TIME +20 %), or OFF when its DEPTH is 0 %. A source that's off is drawn dimmed, but still moves, so you can see what it would do before you turn it up.
- 3 4 The LFO lanes swing around their centre line: above the line moves the target up, below moves it down (or the other way with a negative DEPTH).
- 5 The envelope lane rises from its floor line as you play.

Meter bridge (IN | OUT)

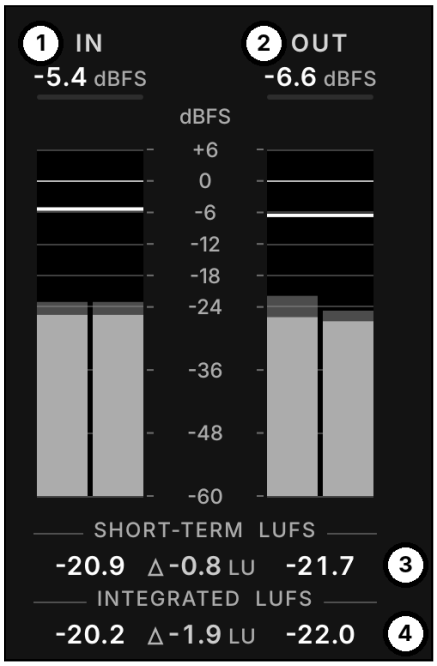


FIGURE 32 VEIRA Echo's meter bridge: 1 input, 2 output, 3 short-term and 4 integrated loudness, with the OUT − IN difference.

VEIRA Echo has the standard VEIRA meter bridge. Note that the output includes the repeats: with long tails, the output keeps moving after the input stops.

Reading the IN and OUT meters

The meter bridge measures what goes into VEIRA Echo 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.

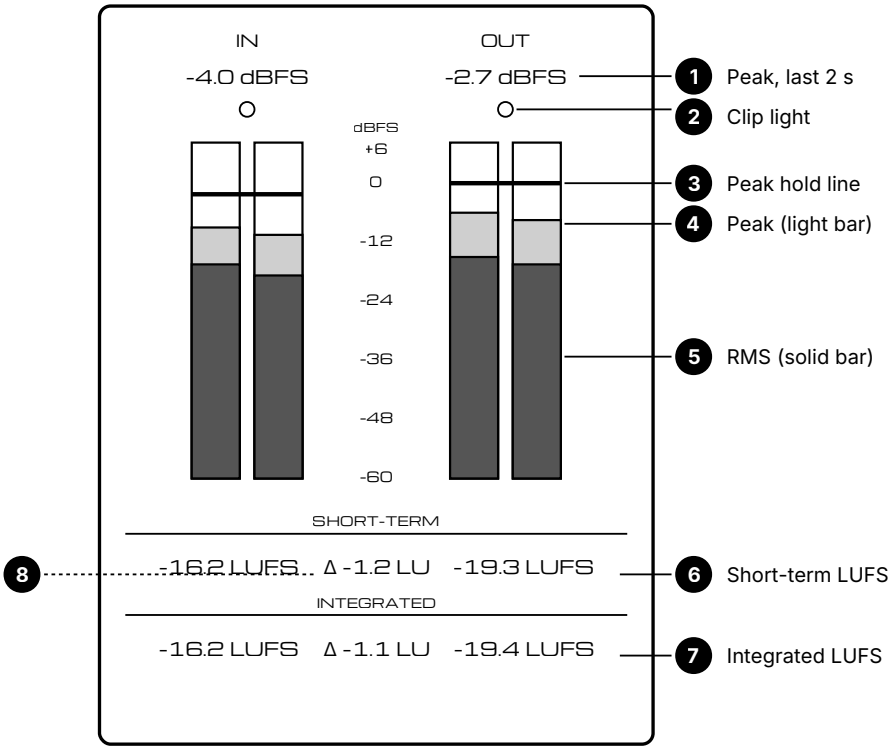


FIGURE 33 The meter bridge, left and right channel bars for input and output, with loudness below.

- 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 Echo 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.

Insert or send

There are two ways to put a delay into a mix, and VEIRA Echo works in both. The only setting that changes is MIX.

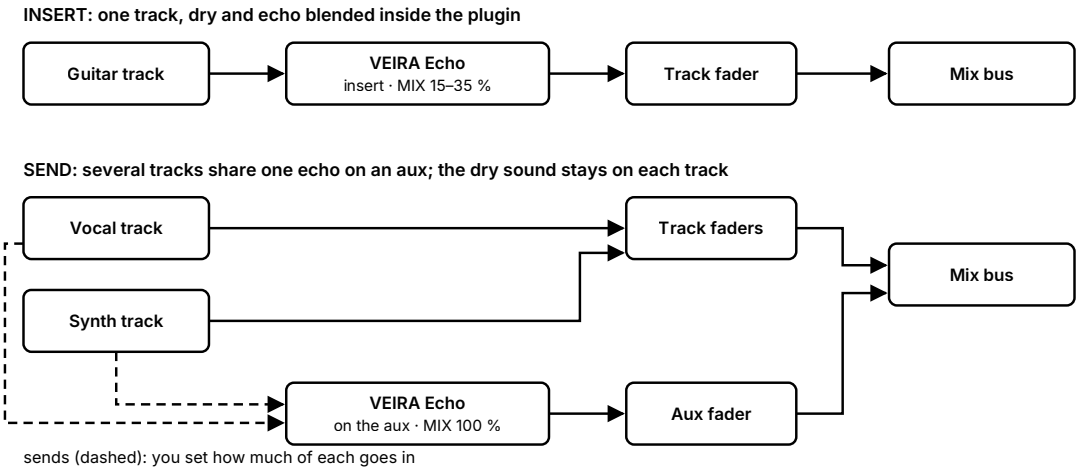


FIGURE 34 Top: on an insert, VEIRA Echo sits on the track and MIX blends dry and repeats. Bottom: on an aux, tracks send to it and it returns only the repeats (MIX 100 %); each track keeps its dry sound on its own fader.

On an insert

Put VEIRA Echo directly on the track. The plugin passes the dry sound through and adds the repeats: MIX sets how loud they are.

It's best for an echo that belongs to one part: a slapback on a vocal, a dotted eighth on a lead guitar, a stutter on a synth. Start with MIX around 15–30 % and adjust by ear. Most factory presets are made for inserts and are levelled to sound as loud as bypass.

On a send (aux)

Create an aux (effect, FX or return) track, put VEIRA Echo on it, and set MIX to **100 %**, so it returns only the repeats. Then send to it from any track, with the send knob setting how much echo each track gets.

1. Create a stereo aux track and insert VEIRA Echo on it.
2. Load a preset from the **Sends** folder (all at MIX 100 %), or set MIX to 100 % yourself. Below 100 %, the aux's dry part would add to the track's own dry sound.
3. On each track that should have echo, add a send to that aux. Post-fader sends are usual, so the echo follows the track's fader.
4. Raise the sends until the echo sits right; use the aux fader to change the echo of everything at once.

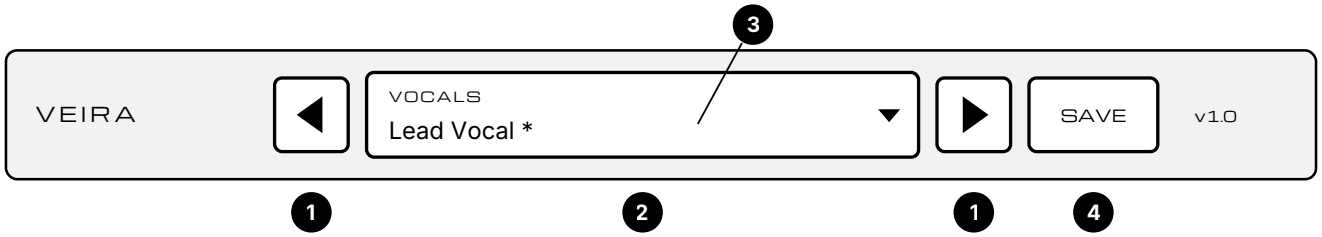
A send is best when several tracks share one echo (it puts them in the same space), or for **throws**: automate the send to echo just the last word of a line. The dry sound stays on the track, so you can EQ, compress or pan the echo separately on the aux. DUCK and the envelope listen to what arrives on the aux: the sum of the sends.

Presets

VEIRA Echo comes with **77 factory presets** in 14 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 35 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 Echo 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 Echo/<Folder>/
Windows	%APPDATA%\VEIRA\VEIRA Echo\Presets\<Folder>\

Copy these files to move your presets to another computer, or to back them up. Presets keep loading in future versions: any control added later simply starts at its default.

Presets in your DAW

The factory presets also appear in your DAW's own preset or program menu, named *Folder: Name* (for example *Vocals: Lead Vocal*). Whatever preset is selected is saved with your session and comes back when you reopen it, including the asterisk if you'd changed it.

The **Default ▸ Init** preset equals a fresh instance of the plugin: every control at its default.

The factory folders

Folder	Presets
Default	Init
Drums	Snare Slapback, Drum Eighth Echo, Dub Snare Throw, Hat Sixteenth Spread, Kit Short Ambience
Bass	Bass Eighth Pulse, Synth Bass Ping, Bass Upper Width, Dub Bass Echo
Guitar	Rockabilly Slapback, Dotted Eighth Lead, Quarter Note Solo, Tape Echo Guitar, Guitar Double Track, Ambient Guitar Wash, Rhythm Ping-Pong
Keyboards	Piano Quarter Echo, Electric Piano Ping, Synth Arp Ping-Pong, Pad Wide Wash, Synth Lead Throw
Strings	Legato Quarter Echo, Pizzicato Eighth Ping, Cello Warm Echo, String Ensemble Width
Brass	Brass Slap, Trumpet Solo Echo, Horn Stab Dotted, Trombone Dark Echo
Woodwinds	Sax Solo Quarter, Flute Dotted Ping, Clarinet Slap, Flute Ambient Echo
Vocals	Vocal Slapback, Male Vocal Slap, Eighth Note Throw, Quarter Note Throw, Dotted Eighth Ping, Ducked Lead Delay, Dark Tape Echo, Vocal Doubler, Backing Vocal Spread, Ballad Long Echo, Lo-Fi Phone Echo
Mix Bus	Bus Depth Quarter, Bus Eighth Glue, Bus Cross Width, Bus Short Ambience
Mastering	Master Ducked Depth, Master Air Echo, Master Wide Tail, Master Short Depth
Sends	Quarter Note Send, Dotted Eighth Send, Slapback Send, Ping-Pong Send, Dark Tape Send, Ducked Vocal Throw, Dub Echo Send, Snare Eighth Send, Long Ambient Send
Rhythmic	Gallop Guitar Echo, Triplet Keys Cascade, Bouncing Ball Synth, Stutter Vocal Chop, Ghost Eighths Drums, Swung Ping-Pong Beat, Dotted Pluck Pattern
Creative FX	Octave Shimmer Echo, Fifths Synth Ladder, Octave Down Echo, Reverse Echo Swell, Freeze Loop Pad, Dub Spiral, Glitch Stutter, Warped Tape Wobble

Levels and tempo. The **Sends** presets are at MIX 100 % for an aux; the rest are for inserts and are levelled to within about 0.35 dB of bypass (Creative FX 0.6 dB), peaking no higher than about −3 dBFS at typical studio levels. DRIVE, DUCK and the envelope follow your track's own level, so the presets behave the same on hotter or quieter tracks; only MIX may need a touch. Synced presets follow your song's tempo, so at a slower tempo their repeats are further apart and their tails longer. Every preset's echo dies away except **Dub Spiral**, which builds up by design.

Recipes

Step-by-step starting points. When you compare with bypass, set OUTPUT so the Δ INTEGRATED reading is near 0.0 LU.

A slapback on a vocal or guitar

1. Load **Vocals ▸ Vocal Slapback** (or **Guitar ▸ Rockabilly Slapback**).
2. With SYNC off, set TIME L between 80 and 140 ms: shorter sounds tighter, longer more like a room.
3. Keep FEEDBACK low (0–15 %) for one clear slap.
4. Set MIX to 15–30 %: the slap should thicken the part rather than be heard as an echo.
5. HIGH CUT around 5–6 kHz and LOW CUT around 150–200 Hz keep it behind the dry sound.

A dotted-eighth lead

1. Load **Guitar ▸ Dotted Eighth Lead**. Make sure your DAW's tempo matches the song: the time follows it.
2. Play eighth notes: the repeats fall between them and turn a single line into a rolling arpeggio.
3. Set FEEDBACK for the number of repeats (35–50 %), then MIX so the repeats sit just under the notes.
4. For a wider version, set MODE to *Ping-Pong*, or turn LINK off and set TIME R to 1/4 against the dotted eighth on the left.

A vocal delay that stays out of the way

1. Load **Vocals ▸ Ducked Lead Delay**.
2. Set DUCK first (40–70 %): watch the DUCK reading on the ECHO display dip while the singer sings.
3. Raise MIX until the repeats bloom clearly at the ends of lines but are hard to hear under the words.
4. For an echo that grows in the gaps, set the ENVELOPE TARGET to *Feedback* with a negative DEPTH (−30 to −60 %).

Throws on a send

1. Create an aux, insert VEIRA Echo and load **Sends ▸ Ducked Vocal Throw** (or **Quarter Note Send**).
2. Add a send from the vocal to the aux and leave it all the way down.
3. Automate the send up on the last word of a line, and back down after it: only that word is thrown into the echo.
4. Use FEEDBACK for how long the throw lasts and HIGH CUT for how far back it sits.

Tape echo

1. Load **Guitar ▸ Tape Echo Guitar** (or **Sends ▸ Dark Tape Send**).
2. HIGH CUT 3–4 kHz and DRIVE 20–40 % darken and dirty each repeat a little more.
3. LFO 1: SHAPE *Drift*, TARGET *Time*, RATE around 0.5–1 Hz, DEPTH 10–20 %, PHASE 0: the uneven wow of a tape machine.

4. Turn on GLIDE and move TIME by hand for the classic tape-speed bends.

Dub spiral

1. Insert VEIRA Echo on a snare or vocal send and load **Creative FX ▸ Dub Spiral** (or **Sends ▸ Dub Echo Send** for a version that dies away).
2. Send a hit into it. With FEEDBACK over 100 % the echo builds on its own, through the dark, drifting filter, while the ceiling keeps it below 0 dBFS.
3. Ride FEEDBACK live: above 100 % to build, below to let it fade. Sweep HIGH CUT for the classic filter moves.

A frozen pad

1. Load **Creative FX ▸ Freeze Loop Pad**.
2. Play a chord or a short phrase, and press FREEZE while it's still ringing in the repeats.
3. Play over the frozen loop: what you play now is heard dry but doesn't enter the loop, which stays exactly as it was.
4. Press FREEZE again to let it fade.

Specifications

Type	Stereo digital delay, two stages per side in a feedback loop
Channels	Mono, stereo, and mono in / stereo out
Latency	None. At MIX 0 % the output is the input, bit for bit. Repeats sample-exact at 44.1 to 192 kHz
TIME L, TIME R	1 ms to 4 s (default 400 ms); with SYNC, 1/64 to 1/1 with triplets and dotted values (default 1/4)
SYNC, LINK, GLIDE, TAP	Default on, on, off. Time changes crossfade in 50 ms, or glide. TAP averages the last taps (up to 5)
MODE	Stereo, Ping-Pong, Cross (default Stereo)
PATTERN	Straight, Dotted, Triplet, Gallop, Bounce, Stutter, Ghost (default Straight)
TAPS, SWING	0 to 100 % (default 70 %, 0 %); SWING 100 % = 2:1
FEEDBACK	0 to 110 % (default 35 %); repeats never above 0 dBFS
DUCK, FREEZE	0 to 100 %, up to 30 dB (default 0 %); on / off (default off)
PITCH, REVERSE	−12 to +12 semitones per repeat (default 0); on / off (default off)
LOW CUT	20 Hz to 2 kHz, 12 dB/oct (default 80 Hz)
HIGH CUT	1 kHz to 20 kHz, 12 dB/oct, or Open (default 12 kHz)
RESONANCE	0 to 100 % (default 0 %), on the HIGH CUT
DRIVE	0 to 100 % (default 0 %; up to 24 dB of drive)
WIDTH, MIX, OUTPUT	0 to 200 % (default 100 %); 0 to 100 %, equal power (default 25 %); −24 to +12 dB (default 0.0 dB)
LFO 1, LFO 2	SHAPE 7 shapes; RATE 0.02 to 20 Hz or 8/1 to 1/32 with SYNC; PHASE 0 to 180 deg (default 90); DEPTH −100 to +100 % (default 0). Defaults: LFO 1 Sine, 0.50 Hz, Time; LFO 2 Triangle, 0.20 Hz, Filter
ENVELOPE	TARGET (default Filter); RELEASE 10 ms to 2 s (default 250 ms); DEPTH −100 to +100 % (default 0)
Metering	IN and OUT meters (sample peak, RMS); short-term and integrated loudness per ITU-R BS. 1770-4 / EBU R 128
Presets	77 factory presets in 14 folders, plus your own
Window	1520 × 900 points; resizable from 75 % to 200 %, saved with the session
Formats	VST3, Audio Units, standalone; AAX once signed
Plugin ID	Manufacturer Veir, plugin Vech

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 Echo 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**.

The repeats aren't in time with my song. Check that SYNC is on: TAP switches it off. The line under the time menus shows the tempo VEIRA Echo is using (AT 120 BPM); if it doesn't match your song, check your DAW's tempo. Without a tempo from the host, it uses 120 BPM.

I can't hear any echo. Check MIX (0 % is dry only), DUCK (at a high setting, the repeats are hidden while you play: stop playing and listen) and HIGH CUT / LOW CUT (close together, they leave very little). If FREEZE is on, nothing new enters the echo.

The echo is too loud on my aux. Lower the aux fader or the sends, not MIX: on an aux it should stay at 100 %. See *Insert or send*.

The echo goes on forever. FEEDBACK is at or over 100 %, or FREEZE is on. Turn FEEDBACK down (under 100 % every echo dies away) or switch FREEZE off. Watch out for the envelope or an LFO aimed at *Feedback*: they add up to ±50 % to the knob's setting.

The tail gets cut off when I bounce or export. VEIRA Echo tells your DAW how long its tail is (up to a minute; a minute with FREEZE on or FEEDBACK at 100 % and over). Some DAWs ignore this in offline bounces; extend the bounce range past the end of the song, or bounce in real time.

I hear a short dip when I change MODE, PATTERN, PITCH or REVERSE. That's on purpose: VEIRA Echo fades the repeats out for 30 ms, switches, and fades them back in, so the switch never clicks. Automate those switches between phrases rather than in the middle of a note.

The repeats change pitch when I move TIME. GLIDE is on: time changes glide like tape and bend the pitch. Turn it off for clean jumps.

Does it work on a mono track? Yes. On a mono track with a stereo output (mono in / stereo out), the repeats can spread and bounce across the speakers. On a mono-only track, the left and right repeats are summed.

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 Echo · User Manual · Version 0.2.1

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

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