



fVerb

Multi-Mode Reverb

Plugin

Product Manual

Build 1.0

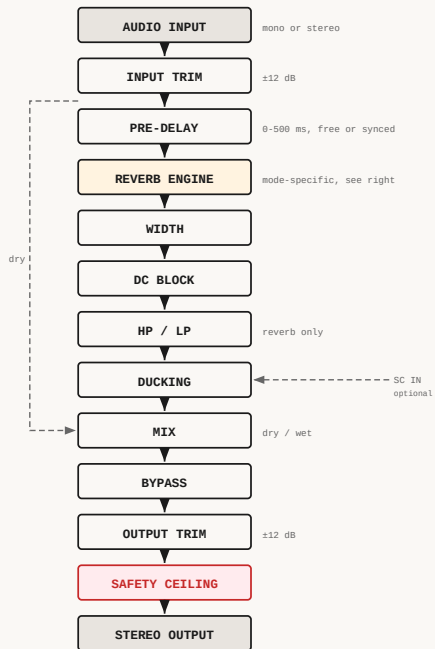
by flakebelly
fboxaudio.com

fVerb - SIGNAL FLOW

ROOM · HALL · PLATE · SPRING · CHAMBER · SHIMMER · NONLINEAR · LO-FI

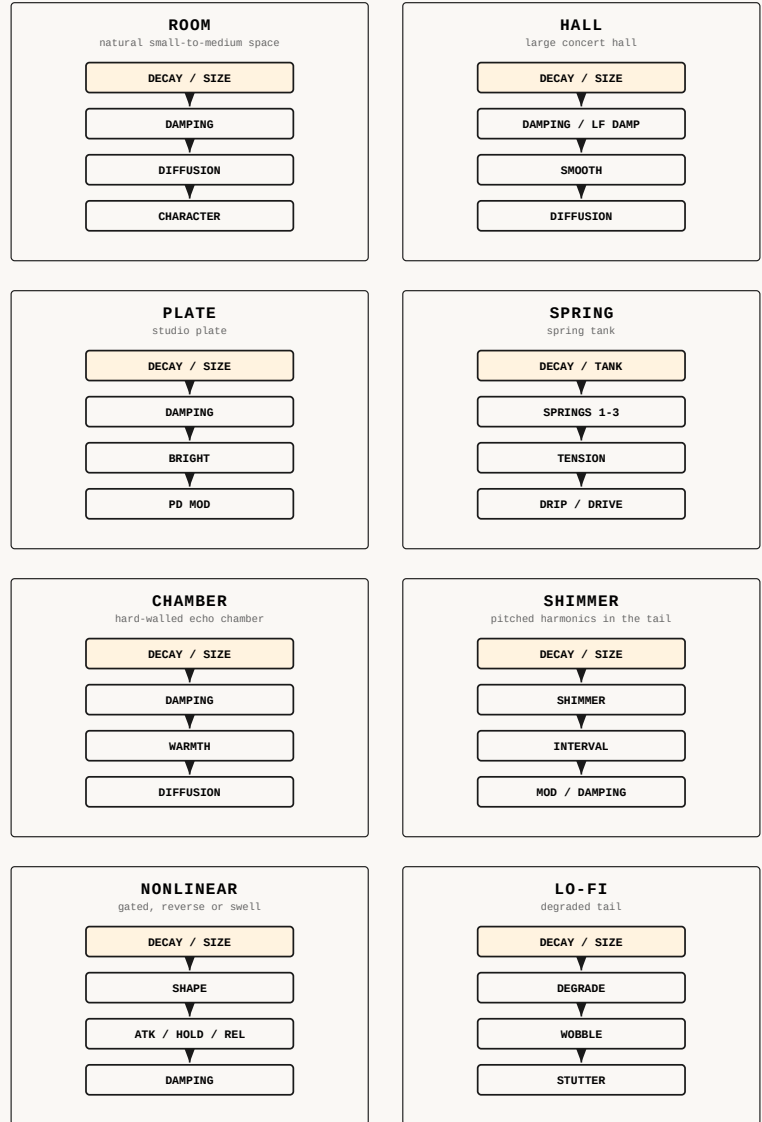
COMMON SIGNAL PATH

shared by all eight modes



MODE ENGINES

each replaces the reverb engine above



LEGEND

- I/O point (audio in, stereo out)
- Standard stage
- Reverb engine / character stage
- Safety ceiling
- Signal flow
- Dry path and sidechain

NOTES

1. Every mode shares the same outer path. Only the reverb engine in the middle changes with the mode.
2. Pre-delay, HP, LP and ducking all act on the reverb only. The dry signal is never filtered or ducked.
3. Each mode keeps its own independent settings, including its own trims and its own mix.
4. Ducking listens to fVerb's own input unless a sidechain is connected. SC IN lights when one is.
5. Bypass keeps both trims in circuit, so levels do not jump.
6. Every instance has its own analogue character, set by its serial number.

What fBox Is

fBox is a complete analogue mixing ecosystem - individual plugins, a universal rack processor, and a full 32-channel mixing console with built-in tape machine - built around a single idea: every piece of hardware that ever left a factory floor had its own personality, and your plugins should too.

Most plugin companies model hardware. They pick one unit, capture it as accurately as they can, and sell that one model to everyone. Your copy is identical to mine. The compressor on your kick is the same compressor on your vocal. It has always worked this way - and it is the reason in-the-box mixes sound in the box.

fBox is built on the opposite principle. Every plugin instance carries a unique serial-seeded analogue character, generated the moment it is created. Load three fComps in one session and you have three different compressors, each with its own voice. That serial is fixed to the instance forever - it never resets, and it travels with the session.

The choice is yours. Open a fresh instance whenever you like and it is a different unit with its own voice - or find one you love and keep it. Save it, recall it, and mix through it for as long as you like: the same character, every time. Learn how it sounds and it becomes an instrument you know. And a unit you keep is yours alone - its serial exists on no one else's machine, the same way a piece of hardware you buy is one specific unit and no other. Bought once, owned permanently, no subscription.

This is not emulation. This is character at the instance level.

What fVerb Is

fVerb is a multi-mode stereo reverb: eight different kinds of space in one box. Room is a natural small-to-medium space. Hall is a large concert hall. Plate is the classic studio sheet of metal. Spring is a spring tank with all its rattle. Chamber is a room with hard walls and a microphone at the far end. Shimmer adds pitched harmonics to the tail. Nonlinear cuts the tail off dead or runs it backwards. Lo-Fi is the tape machine that should have been serviced years ago.

It is not eight plugins sharing a front panel. Each mode is a complete reverb with its own controls and its own character, and each keeps its own independent settings, so switching mode never disturbs another mode's setup.

Every instance of fVerb generates a unique serial number that defines its hardware character - the specific set of manufacturing tolerances that make this unit sound like this unit and no other. No two instances sound exactly alike, just like no two real units do.

fVerb runs as a plugin inside your DAW, on a channel or bus in the fBox Console, in the dawless fBox Console Standalone, or in a slot in the fBox Rack. It registers as an effect, accepts mono or stereo input, produces stereo output, and every control except the Quality selector is automatable from your DAW. A sidechain input is available for ducking.

Getting Started

1. Insert fVerb on a track or a send. 2. Pick a mode - Room is the safest place to start, Plate is the most flattering. 3. Set Decay for how long the tail lasts and Size for how big the space is. 4. Set Mix for how much of it you hear. 5. A/B against Bypass.

Every mode loads with a sensible amount already dialled in, so you should hear something the moment it opens.

New to reverb?

A reverb is what a room does to a sound. The sound reaches your ears, then a fraction of a second later the first bounces off the nearby walls arrive, and after that thousands of later bounces pile up into a tail that fades away.

Decay sets how long that tail takes to die. Size sets how far apart the walls are. Pre-Delay sets the gap before any of it starts, which is what keeps a vocal clear. Damping decides how quickly the bright parts of the tail fade, because real rooms absorb top end faster than bottom.

The most common mistake is too much of it. Set Mix by ear against the dry track, then take a little off. If the source starts to sound distant when you did not want it to, you have gone too far.

Tip: *Pre-Delay is the control that keeps things audible. Even 20 to 40 ms of gap lets a vocal or a snare speak before the reverb arrives, so you can use far more tail than you would otherwise get away with.*

Reverb and depth

Reverb is how you place things front to back. The drier something is, the closer it sounds; the more reverb it has, the further away it goes. A lead vocal or a kick usually wants very little, while backing vocals, pads and anything meant to sit behind the song can take a lot more.

If a mix sounds flat, it is often because everything has the same amount. Try pushing the supporting parts back and pulling the lead forward, rather than reaching for volume.

Tip: *Pre-Delay is the other half of depth. A long pre-delay keeps something sounding close even when the tail is enormous, because the dry sound arrives first and on its own. That is how a lead vocal can have a huge reverb and still sound like it is in front of you.*

Sends and inserts

Where fVerb sits decides how you use Mix, and it is worth getting right before anything else.

On an ****insert**** across the track itself, fVerb is in the signal path and Mix is simply how much reverb you hear. 15-30% is usually plenty. This is the setting for one source that wants its own particular space.

On a ****send or aux**** - a Console bus, a Rack slot fed from a send, or a DAW aux track - set Mix to 100% and let the send level or the bus fader decide the amount. This is how one reverb is shared across several tracks, which is both cheaper on CPU and better for a mix, because everything sits in the same space.

Important: *If you leave Mix below 100% on a send, fVerb passes the dry signal through as well, so your track plays twice: once on its own channel and again through the reverb. It gets louder and moves forward, which is the opposite of what you wanted. The giveaway is turning the send up for more reverb and hearing the track get louder instead.*

Interface

The window holds the controls for the current mode, with the header above and meters down both sides. A resize button in the bottom-right corner offers three sizes: Small (75%), Medium (100%) and Large (150%).

Header

Control	What it does
Serial number	The unit's serial, shown at the far left. This is the identity of the analogue character you are hearing (see Analogue Character).
Unit	Opens the unit menu - roll a new unit, save or recall one, and pin a default (see Units and Patch Cards).
fVerb title	Centre of the header.
Quality	Eco, Studio or Master (see Quality).
Mode	Room, Hall, Plate, Spring, Chamber, Shimmer, Nonlinear or Lo-Fi. The panel changes to match.
Reset Engine	Clears any fault and resets the internal DSP without changing your control values.
Fault indicator	A red RESET appears beside Reset Engine if fVerb has caught a problem and reset itself. Click Reset Engine to clear it.
Help	Opens the in-app manual.

The two control rows

The top row is the current mode's own character - Decay, Size, Damping, Width, Mix and whatever else that mode has. The bottom row holds the controls shared by every mode: the HP and LP filters, Pre-Delay and its Sync, the ducking section with its own Sync, and a cluster of three buttons - Reset, Save Patch Card and Load Patch Card.

Switching mode swaps the top row for that mode's controls and leaves the bottom row where it is.

A small blue SC IN indicator appears at the bottom of the DUCK group whenever an external sidechain is connected and feeding the detector.

Signal Flow

Everything from the pre-delay to the ducking happens on the reverb only. The dry signal you hear at Mix below 100% is untouched apart from Input Trim.

#	Stage	Notes
1	Audio input	Mono or stereo accepted
2	Input trim	-12 to +12 dB, applied to both paths
3	Pre-delay	0 to 500 ms, free or tempo-synced. Reverb only
4	Reverb engine	The mode's own space, and its main character
5	Width	Stereo width of the reverb
6	DC block	Removes any offset the engine introduced
7	HP / LP filters	Shape the reverb only, never the dry signal
8	Ducking	Pulls the reverb down, never the dry signal
9	Mix	Blends the reverb against the dry signal
10	Bypass	Soft bypass; the trims stay in circuit
11	Noise floor	This unit's own, always present
12	Output trim	-12 to +12 dB
13	Safety ceiling	Always active
14	Stereo output	

Where the modes differ

Mode	Key elements
Room	Early reflections, Character balance, Diffusion, Damping
Hall	Long decay, separate LF Damping, Smooth movement, Diffusion
Plate	Dense and bright from the first instant, Brightness, PD Mod
Spring	Drip, Drive, one to three springs, Tension
Chamber	Warmth, Diffusion, hard-walled room character
Shimmer	Pitched feedback, Shimmer amount, six intervals
Nonlinear	Envelope-shaped: Gate, Reverse or Swell, with syncable Hold
Lo-Fi	Degrade, Wobble, Stutter, accumulating through the tail

Note: HP, LP and ducking all act on the reverb only. That is why you can filter a tail hard without dulling the source, and why ducking never touches the thing that triggered it.

Shared Controls

These sit in the bottom row and work the same in every mode.

Input

Range: -12 to +12 dB. Default: 0 dB. Level into the reverb. It changes how hard the space is driven without changing the dry signal you hear at Mix below 100%.

Output

Range: -12 to +12 dB. Default: 0 dB. Final level, always active.

Bypass

Default: Off. Mutes the reverb. This is a soft bypass: the trims stay in circuit, so levels do not jump. For a completely untouched signal, use your host's own bypass.

Mix

Range: 0 to 100%. The balance between the dry signal and the reverb. Defaults differ per mode. See Sends and inserts above for how to set it.

Pre-Delay

Range: 0 to 500 ms. The gap between the dry sound and the start of the reverb. Small amounts keep the source clear; larger amounts push the space away from the sound and make it a separate event.

Sync

Locks Pre-Delay to your DAW tempo. Turn it on and pick a note value from the list beside it: 1/1 down to 1/16, each with dotted and triplet versions, fifteen in all. The Pre-Delay knob is ignored while Sync is on.

HP

Range: 20 Hz to 1.2 kHz. Default: 20 Hz. A high-pass filter on the reverb only, and the single most useful control here: at 150-250 Hz the tail stops muddying the low end while the dry signal stays full.

LP

Range: 600 Hz to 20 kHz. Default: 20 kHz. A low-pass filter on the reverb only. Bring it down to push the space further back, or to take the hiss off a bright tail.

Tip: HP and LP are the difference between a reverb that sits in a mix and one that fights it. Start with HP around 200 Hz on almost anything.

Headroom

fVerb keeps a safety ceiling on its output so no setting can blow up your monitors. It can still get very loud inside that ceiling: watch the output meter and use Output to manage your headroom.

Sidechain Ducking

Ducking pulls the reverb down while something is playing and lets it back up in the gaps, so the tail never covers the thing that made it. It is the single most useful thing you can do to a busy vocal reverb.

Duck

Range: 0 to 100%. Default: 0%. How far the reverb is pulled down. At 0% ducking is off entirely.

D.Atk

Range: 1 to 200 ms. Default: 5 ms. How fast the reverb gets out of the way.

D.Rel

Range: 50 to 2000 ms. Default: 200 ms. How fast it comes back afterwards. Long releases hold it down through a phrase; short ones let it breathe between words.

D.Sync

Switches the trigger from the audio to your DAW tempo, so the reverb pumps on the beat rather than on the source. Pick a note value beside it.

Using the sidechain

Ducking listens to fVerb's own input unless you feed it something else. Route a different track to fVerb's sidechain input in your DAW and the reverb ducks to that instead, which is how you keep a tail out of the way of something it is not attached to. Setting it up varies by DAW - look for a sidechain or key input selector on the plugin window - and the blue SC IN indicator tells you when it has worked.

The usual reasons to bother: duck a long tail with the lead vocal so the reverb only fills the gaps between lines, even though the reverb belongs to something else entirely; duck a whole reverb bus with the kick so the low end stays clear on every hit; or duck a pad's reverb with the snare so the backbeat cuts through. In each case the thing triggering the duck is not the thing being reverbed, which is exactly what the sidechain is for.

Tip: *D.Rel sets the phrasing. Short releases let the reverb back in between words, long ones hold it down across a whole phrase. Start at 200 ms and lengthen until the tail returns where you want it.*

Note: *Ducking acts on the reverb only. The source is never touched, however hard you push it.*

The Eight Modes

Mode	Character	Decay range	Reach for it when
Room	Natural small-to-medium space	0.1 - 3 s	Something arrived too dry
Hall	Large, smooth, slow to build	0.5 - 15 s	It wants air, not a room
Plate	Dense and bright, no early reflections	0.3 - 10 s	Vocals and snares need flattering
Spring	Boing, drip and rattle	0.5 - 6 s	It should sound like an amplifier
Chamber	Warm hard-walled room	0.5 - 20 s	It should sound recorded somewhere
Shimmer	Pitched harmonics rising through the tail	0.5 - 15 s	You want weather, not a room
Nonlinear	Gated, reversed or swelling	0.3 - 5 s	The tail should not fade naturally
Lo-Fi	Degraded, wobbling, stuttering	0.3 - 8 s	It should sound found, not made

Each mode keeps its own independent settings, so switching mode never disturbs another mode's setup. Every mode also has its own Mix and its own trims, so switching recalls that mode's levels rather than carrying the current ones across.

Room Mode

A natural small-to-medium room, and the mode to reach for when you want a source placed somewhere rather than given an obvious effect.

Decay

Range: 0.1 to 3 s. Default: 0.8 s. How long the tail lasts. Short settings read as a tight room; the top of the range starts to sound like a proper space.

Size

Range: 0 to 100%. Default: 40%. How far apart the walls are. Small settings are boxy and close, large ones push the walls out.

Damping

Range: 0 to 100%. Default: 25%. How fast the bright part of the tail fades, and how much low end the room holds onto. Low is a hard, live room; high is carpet and curtains, with a little of the bottom absorbed too.

Diffusion

Range: 0 to 100%. Default: 60%. How smeared the reflections are. Low leaves individual echoes audible; high smooths them into a wash.

Character

Range: 0 to 100%. Default: 58%. The balance between the early reflections and the tail behind them. Low is dry and close - you hear the first bounces and little else, which is how you place a source without anyone noticing. High lets the room ring behind them. This is a small room, so high does not mean lush: it means you can hear the walls. Turn Size up with it if you want the ring to smooth out.

Width, Pre-Delay and Mix work exactly as described in Shared Controls. This mode's defaults are Width 70%, Pre-Delay 5 ms and Mix 18%.

Using Character

Character is what makes this mode worth having. Both halves of the sound are always present - it shifts the balance rather than switching between them - so two settings at the same Decay and Size sound like two different rooms.

Tip: For drums, Decay around 0.6 s with Character around 40 and Diffusion around 40% gives a room you can hear without losing the kit. For a vocal, push Character up to 90 and Diffusion to 70% or more. If it sounds boxy, that is Size - move it rather than reaching for EQ.

Hall Mode

A large concert hall. Long, smooth, slow to build and slow to leave. Strings, pads and ballad vocals - anything that wants air around it rather than a room behind it.

Decay

Range: 0.5 to 15 s. Default: 2.8 s. Past about 8 s this is ambient territory.

Size

Range: 0 to 100%. Default: 55%. How large the hall is, which changes the buildup as much as the tail length.

Damping

Range: 0 to 100%. Default: 25%. How quickly the top end fades from the tail.

LF Damp

Range: 0 to 100%. Default: 22%. The same thing for the bottom end. Raise it to stop a long tail building up mud.

Smooth

Range: 0 to 100%. Default: 30%. A slow movement that stops the tail standing still. Low can sound static on sustained material; high adds a gentle chorusing.

Diffusion

Range: 0 to 100%. Default: 70%. How smooth the buildup is.

Width, Pre-Delay and Mix work exactly as described in Shared Controls. This mode's defaults are Width 80%, Pre-Delay 18 ms and Mix 22%.

Character

LF Damp is what separates this from every other mode. A long hall tail holds its low end far longer than its top, which is what makes a real hall sound enormous and what turns a mix to mud. Raising it keeps the size without the build-up.

Tip: On strings, Decay 4 s with LF Damp around 30% and Smooth at 40% is lush without turning to soup. On a ballad vocal, Decay 2.5 s with Pre-Delay around 40 ms keeps the words in front. If a long setting builds in the low mids, reach for LF Damp before the HP filter.

Plate Mode

The classic studio plate: a large sheet of metal driven at one end and picked up at the other. Dense and bright from the very first instant, with no early reflections at all, which is exactly why it flatters vocals and snares. There is no room in this sound - it is a sheet ringing.

Decay

Range: 0.3 to 10 s. Default: 1.8 s.

Size

Range: 0 to 100%. Default: 50%. How large the plate is.

Damping

Range: 0 to 100%. Default: 15%. How fast the top comes off the tail.

Bright

Range: 0 to 100%. Default: 55%. The plate's own tone. Not the same as Damping: Bright sets how bright the plate starts, Damping sets how fast that leaves.

PD Mod

Range: 0 to 100%. Default: 8%. A slow movement on the pre-delay, which stops the plate sounding mechanical on sustained notes. Small amounts.

Width, Pre-Delay and Mix work exactly as described in Shared Controls. This mode's defaults are Width 80%, Pre-Delay 12 ms and Mix 22%.

Character

High Bright with high Damping gives an initial sparkle that fades quickly, which is the classic snare sound. Low Bright with low Damping gives a darker tail that hangs on. And because Plate has no early reflections, it never sounds boxy however small you set it - which is why it survives on sources where a room mode would not.

Tip: On a snare, Decay 1.2 s, Bright 70%, Damping 20% and Pre-Delay around 20 ms. On a vocal, Decay 2 s with Bright around 50% and the HP filter up at 250 Hz.

Spring Mode

A spring tank, with the boing, the drip and the rattle. Guitars, dub, surf and organ.

Decay

Range: 0.5 to 6 s. Default: 1.6 s.

Tank

Range: 0 to 100%. Default: 40%. The size of the tank, which sets the pitch of the springs as much as the tail length.

Drip

Range: 0 to 100%. Default: 20%. The splash a spring makes when hit hard. Low is a polite tank; high is the sound of kicking the amplifier.

Drive

Range: 0 to 100%. Default: 15%. How hard the springs are driven, adding warmth and grit.

Springs

1, 2 or 3. Default: 1. Each spring has its own voice: the first is short, bright and metallic - the guitar amp sound; the second is longer, darker and slower; the third sits between them. Adding springs thickens the sound and slows the buildup.

Tension

Range: 0 to 100%. Default: 50%. How tight the springs are. High is shorter and higher pitched, low is looser and deeper.

Damping, Width, Pre-Delay and Mix work as described in Shared Controls. This mode's defaults are Damping 30%, Width 80%, Pre-Delay 0 ms and Mix 25%.

Character

Drive is what makes this sound like hardware rather than a model. Even 30% thickens the tail, roughens the drip and stops it sounding polite. It is the first control to move if the mode sounds too clean.

Tip: One spring with Drip around 40% is the surf guitar sound. Three springs with low Tension and a long Decay is a dub tank.

Chamber Mode

An echo chamber: a room with hard walls, a speaker at one end and a microphone at the other. Warmer and slower than Plate, more intimate than Hall, and the most natural-sounding mode here. Vocals, drums, brass, anything that wants to sound like it was recorded somewhere real.

Decay

Range: 0.5 to 20 s. Default: 3 s. The longest range in the plugin.

Size

Range: 0 to 100%. Default: 60%. How large the chamber is.

Damping

Range: 0 to 100%. Default: 25%.

Warmth

Range: 0 to 100%. Default: 50%. What the walls are made of. Low is hard and reflective with more top end surviving; high is warm and absorbent, and holds the low end for longer.

Diffusion

Range: 0 to 100%. Default: 65%.

Width, Pre-Delay and Mix work exactly as described in Shared Controls. This mode's defaults are Width 80%, Pre-Delay 8 ms and Mix 18%.

Character

This mode goes to twenty seconds. At the top it stops being a room and becomes a drone, which is occasionally exactly what you want and worth knowing about before you get there by accident.

Tip: On a vocal, Decay 2 s with Warmth around 60% is the sound of a good room. On drums, Decay 1.5 s and Warmth low keeps the transients alive.

Shimmer Mode

A long tail with pitched harmonics rising through it. Part of the tail is pitch-shifted and fed back, so the pitched content builds with every pass and the tail slowly becomes a chord.

Decay

Range: 0.5 to 15 s. Default: 5 s.

Shimmer

Range: 0 to 100%. Default: 40%. How much pitched signal is fed back. Low is a subtle halo; high is a full choir.

Interval

Oct Up, Fifth Up, Fourth Up, Maj 3rd Up, Fifth Down or Oct Down. Default: Oct Up. The interval the tail rises or falls by. Octave up is the classic, fifth up is more musical on chords, and the downward intervals are darker and stranger.

Mod

Range: 0 to 100%. Default: 30%. Movement inside the tail.

Damping

Range: 0 to 100%. Default: 30%. The pitched content climbs on every pass, so damping is what stops it becoming shrill.

Size, Width, Pre-Delay and Mix work as described in Shared Controls. This mode's defaults are Size 50%, Width 90%, Pre-Delay 20 ms and Mix 22%.

Character

Changing Interval glides rather than jumping, so you can automate it and hear the tail bend into the new one. And because the pitch shift sits inside the feedback the effect compounds: the longer the decay, the further it climbs.

Tip: Oct Up with Shimmer at 30% and Decay 8 s under a pad is the shimmer everyone means. For something stranger, Oct Down with Shimmer high and Damping low. If it turns harsh, raise Damping first.

Nonlinear Mode

Reverb that does not fade the way a room does. The tail is shaped by an envelope instead: it holds flat and then stops dead, or builds backwards, or swells and falls away.

Decay

Range: 0.3 to 5 s. Default: 1.5 s. The underlying reverb behind the envelope.

Shape

Gate, Reverse or Swell. Default: Gate. Gate holds the tail flat then cuts it off hard. Reverse builds from nothing to full then cuts - the backwards sound. Swell rises quickly then falls away smoothly.

Attack

Range: 0.5 to 500 ms. Default: 0.5 ms. How fast the shape opens on a hit.

Hold

Range: 50 to 2000 ms. Default: 300 ms. How long the shape stays open - this sets the length of a gated tail, not Decay. It has its own Sync switch, so it can be locked to your DAW tempo.

Release

Range: 5 to 500 ms. Default: 20 ms. How fast it closes. Short is the abrupt classic; longer softens the cut.

Damping

Range: 0 to 100%. Default: 20%.

Size, Width, Pre-Delay and Mix work as described in Shared Controls. This mode's defaults are Size 50%, Width 70%, Pre-Delay 0 ms and Mix 40% - the highest Mix in the plugin, because this mode is an effect rather than a space.

Character

Hold, not Decay, is what people reach for first and get wrong. Decay sets the reverb underneath; Hold sets how long you hear it before the envelope shuts, so a three-second Decay with a 200 ms Hold gives you 200 ms of sound. In Gate the envelope retriggers on every new hit, restarting the hold; Reverse and Swell run their shape out before they start again.

Tip: For the classic gated snare, Shape Gate, Hold around 250 ms, Release 20 ms, Mix 40%. For reverse, use a longer Hold so you can hear it build. Swell with Hold at a second or more works well under sustained sources, where Gate sounds abrupt.

Lo-Fi Mode

A reverb that has been through something. Bit reduction, wobble and random stutter, for tails that sound recovered from old tape rather than recorded cleanly.

Decay

Range: 0.3 to 8 s. Default: 1.8 s.

Size

Range: 0 to 100%. Default: 40%.

Degrade

Range: 0 to 100%. Default: 20%. How broken the tail is.

Wobble

Range: 0 to 100%. Default: 20%. Pitch instability, from a slight drift to a stretched cassette.

Stutter

Range: 0 to 100%. Default: 0%. Random freezes in the tail - chunks of reverb stick and repeat at unpredictable moments. High settings freeze more often and for longer.

Damping

Range: 0 to 100%. Default: 25%.

Width, Pre-Delay and Mix work exactly as described in Shared Controls. This mode's defaults are Width 55%, Pre-Delay 0 ms and Mix 25%.

Character

The degradation happens inside the feedback path, so it accumulates on every pass. The start of the reverb stays relatively clean and the end falls apart, exactly like a copy of a copy - which is what makes the mode sound recovered rather than filtered. It also means Decay changes how broken it sounds: a long decay at 30% Degrade ends up far more destroyed than a short one at the same setting.

Tip: Degrade 30% with Wobble 25% is a convincing old tape machine. Stutter is best in small amounts - even 15% adds unpredictability without taking over.

Actions and Header Controls

Reset

Returns the current mode's controls to their defaults. Other modes, the shared controls, the Quality setting and the unit's serial are all kept.

Save Patch Card / Load Patch Card

Save Patch Card writes the whole unit - every setting across all eight modes, plus the serial - to a patch card file. Load Patch Card reads one back in and, if the card carries a serial, asks whether to recall that whole unit or just apply its settings (see Units and Patch Cards).

Header controls

Mode selects the reverb and the panel changes to match. Quality selects Eco, Studio or Master (see Quality). Reset Engine clears any fault and resets the DSP without changing your control values. The fault indicator beside it shows a red RESET if fVerb has caught a problem and reset itself.

Meters

Stereo input meters sit on the left (IL, IR) and stereo output meters on the right (OL, OR), showing the levels in real time. Click a meter to switch it between Peak and RMS - the label reads PK or RMS to show which mode it is in. Each meter toggles on its own.

Peak follows the instantaneous highest sample level, so it jumps with every transient and shows the true maximum the signal reaches. RMS shows the average energy over a short window, so it sits steadier and reads much closer to how loud the signal actually sounds - the classic VU-style reading.

The small red LED at the top of each meter lights when that side reaches full scale, and holds briefly so you catch it. The input meters read after Input Trim, so they show what the reverb is actually being fed.

Tip: Use Peak to watch headroom and make sure nothing is clipping. Use RMS to judge loudness and to balance one part against another by how loud they actually sound. Peak for safety, RMS for balance.

Automation

Every on-screen control in every mode is exposed to your DAW and can be written and read through its automation lanes like any other parameter, including the Mode selector itself. The Quality selector is the one exception - it is a CPU setting rather than a mix control, so it is deliberately kept out of the automation lanes. The complete state of all eight modes, including the serial, is saved with your session.

Recipes

Starting points, not rules. Every unit is a little different, so trust your ears and move from here.

Each recipe starts from defaults: pick the mode first, then hit Reset - Reset only clears the mode you are on. Then set only the controls listed; everything else stays where it is.

Note: HP, LP and the ducking controls are shared by every mode, and Reset does not clear them. Moving from one recipe to another, put them back to HP 20 Hz, LP 20 kHz and Duck 0% unless the recipe asks for otherwise.

Reverb on a send (any mode)

Mix 100, and set the amount with the send level or the bus fader instead. Dial Decay, HP and Duck as usual. This is how one reverb is shared across several tracks.

Reverb on an insert (any mode)

Mix 15-30, Pre-Dly 25, HP 200. One source, its own space, nothing shared.

Drums in a room (Room)

Decay 0.6, Size 35, Character 40, Diffusion 40, Mix 15, HP 180. A room you can hear without losing the kit.

Vocal ambience (Room)

Decay 1.0, Character 90, Diffusion 75, Mix 12, HP 220, Pre-Dly 25. Space without distance.

Strings hall (Hall)

Decay 4.0, LF Damp 30, Smooth 40, Mix 25, HP 150. Lush without turning to soup.

Ballad vocal hall (Hall)

Decay 2.5, Pre-Dly 40, LF Damp 25, Mix 18, HP 250. The words stay in front of the hall.

Snare plate (Plate)

Decay 1.2, Bright 70, Damping 20, Pre-Dly 20, Mix 25. Sparkle that leaves quickly.

Vocal plate (Plate)

Decay 2.0, Bright 50, Mix 18, HP 250. Flattering and never boxy.

Surf guitar (Spring)

Springs 1, Drip 40, Drive 25, Decay 1.8, Mix 30. Kick the amplifier.

Dub tank (Spring)

Springs 3, Tension 25, Decay 4.0, Drive 35, Mix 35, LP 6000. Deep, dark and rattling.

Real room vocal (Chamber)

Decay 2.0, Warmth 60, Size 55, Mix 16, HP 200. The sound of somewhere that exists.

Drone chamber (Chamber)

Decay 15, Warmth 70, Mix 45, HP 150. Stops being a room and becomes weather.

Classic shimmer (Shimmer)

Interval Oct Up, Shimmer 30, Decay 8.0, Damping 55, Mix 20. Put it under a pad and leave.

Dark shimmer (Shimmer)

Interval Oct Down, Shimmer 60, Decay 10, Damping 35, Mix 25. Stranger, heavier, downward.

Gated snare (Nonlinear)

Shape Gate, Hold 250, Release 20, Decay 1.5, Mix 40. 1983, on demand.

Backwards swell (Nonlinear)

Shape Reverse, Hold 600, Attack 5, Mix 45. Build from nothing, then cut.

Old tape room (Lo-Fi)

Degrade 30, Wobble 25, Decay 2.0, Mix 25, LP 7000. Recovered rather than recorded.

Broken machine (Lo-Fi)

Degrade 70, Wobble 50, Stutter 25, Decay 4.0, Mix 35. A long decay makes it far more broken.

Ducked vocal reverb (any mode)

Duck 20, D.Atk 5, D.Rel 250, Mix 30. The tail lives in the gaps between words instead of on top of them.

Two-reverb stereo

Two fVerb instances on a stereo pair, hard left and right, same mode and same settings. Each unit's own character makes the two sides differ slightly, which widens the image in a way a single stereo instance cannot.

Units and Patch Cards

fVerb's character lives in its serial number. There are two ways to keep and move your work: units (the character) and patch cards (the whole setup).

The unit menu

A unit is fVerb's character on its own - its serial and the analogue voice that serial produces, with no settings attached. The Unit button by the serial opens the menu:

Menu item	What it does
New Unit	Roll a fresh unit with a new serial and a new voice. Your settings stay put; only the personality changes.
Save Unit...	Save the current unit so you can recall it later. Saved units live in Documents/fBox Units/fVerb.
Load saved unit	Recall a unit you saved, or browse for a unit file.
Recall my pinned unit	Jump back to your pinned default - handy if you rolled a new one by mistake, or after unpinning.
Pin this unit as my default	Make this unit the one every new instance opens with. This is how you keep one unit for good.
Use a new unit each time	Go back to a fresh unit on each new instance. Your pinned unit is not deleted, just set aside.

Patch cards

A patch card is a portable copy of the whole unit - its serial and every setting across all eight modes - written to a single file. Your unit is also saved with your session; a patch card is for carrying a unit between instances and projects. Save Patch Card writes the current unit to a patch card, a file you choose the home for. Load Patch Card reads one back in: if the card was saved on a different unit, it asks how to bring it in:

Option	What it does
Recall Unit	Bring back the exact unit the card was saved on - its character and all its settings, the box as it was saved.
Apply Settings Only	Keep your current unit and drop the saved settings on top. Same knobs, your machine.

A patch card carries its identity, so a card saved for a different fBox product is refused with a note.

Important: *In one line: a unit is the character; a patch card is the character plus every setting on top of it. Both save the serial, so the exact voice comes back with them.*

Quality

The Quality selector trades CPU against fidelity on the analogue path:

Tier	Use
Eco	Full analogue character at the lowest CPU. Great for tracking and dense sessions.
Studio	Higher-fidelity processing throughout. The default, and the sweet spot for most work.
Master	The highest quality, and the most CPU. For final mixes and mastering.

Tip: *Studio for normal work, Eco if your machine is struggling, Master for the final print.*

System Requirements

A note on memory

fVerb reserves its delay memory when the session opens, and how much depends on your session sample rate - not on the quality setting. Eco, Studio and Master all use the same amount.

Session rate	Per instance
44.1 / 48 kHz	34 MB
88.2 / 96 kHz	67 MB
176.4 / 192 kHz	134 MB

Eight instances at 96 kHz is a little over half a gigabyte; eight at 192 kHz is about one gigabyte. If you work at high sample rates with many reverbs, 16 GB is worth having.

The memory is reserved once and never changes while the plugin is loaded, which is what keeps fVerb free of allocation glitches during playback.

A note on CPU

The quality setting is the main thing that costs CPU. Eco is the lightest by a comfortable margin, Studio costs noticeably more, and Master more again. Eco is not a compromised mode - it is the same reverb, and on most material the difference is subtle. Reach for Master on exposed sources and mix buses, not on everything.

Spring is the heaviest of the eight modes, because all three springs run whether you have one selected or three. Shimmer is next, with its pitch shifting. Lo-Fi and Room are the lightest.

Decay length costs nothing at all. A fifteen-second hall does exactly the same amount of work as a half-second room - Decay sets how much of the signal feeds back, not how much processing happens.

The single biggest saving is not the quality tier: it is running one reverb on a send that several tracks share, rather than an instance on every track. Four sources through one fVerb costs a quarter of what four instances do, and usually sounds better, because everything sits in the same space.

Tip: Close editor windows you are not using, and freeze or bounce tracks (a DAW feature that temporarily renders a track to audio to save CPU) once you have committed to a sound. If you hear clicks or pops, increase your DAW's buffer size or drop to Eco.

What fVerb Writes To Your Computer

For transparency, here is everything fVerb writes and where. It writes nowhere else, and sends nothing anywhere unless you choose to.

Folder	Contents
Documents/fBox/Diagnostics	Plain-text diagnostic logs, a folder per product, kept so a crash can be worked out afterwards. Loaded inside the Console or the Rack, fVerb logs alongside that host.
Documents/fBox/Units/fVerb	Your saved units, so you can find, back up and share them.
AppData/Roaming/fBoxAudio (Windows)	Your licence, and a small settings file recording which unit you have pinned.

Patch cards go wherever you save them. The unit's own state lives in your session, not in a file of its own. Nothing is filed away somewhere you did not pick, and nothing is written to your Desktop.

When something goes wrong

Diagnostics are written automatically as fVerb runs and survive a crash or freeze. If you hit a problem, zip the whole Documents/fBox/Diagnostics folder and email it to support@fboxaudio.com - send the entire folder, since what else was running alongside fVerb often explains the problem. Tell us what you were doing, what you expected, and what happened. The logs are plain text; you are welcome to read them, but you do not need to.

Analogue Character

Every instance of fVerb generates a unique serial number, shown in the watermark. It defines the unit's hardware character throughout the signal path.

On real analogue hardware, no two units off the same line sound identical. Two plates never ring at quite the same pitches. The springs in one tank sit at a slightly different tension from the next. The early reflections land in their own pattern, the tail darkens at its own rate, and each unit has its own quiet self-noise underneath it all. Spring is the wildest of the eight - real spring tanks were notoriously inconsistent, and so are ours.

fVerb models these variations throughout. No single one is obvious in isolation. The cumulative effect is what gives each unit its voice - the same serial always produces the same unit, different serials produce different units, and the serial is saved with your session (DAW, Console, Standalone or Rack) and with any unit or patch card you keep.

Tip: *You cannot dial a unit's character to order any more than you can a real one - but you can learn it, and you can keep it. Find one you love, pin it, and it is the reverb you open every time. If you want two identical units, save a patch card from one and load it into the other with Recall Unit.*

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