



MOD-FX

OWNER'S MANUAL

Thirteen analog effect modules across two rack pages, a modulator rack of LFOs, envelope followers and randomisers, and a sequencer on every page — in a rack you build yourself. Nothing is wired until you wire it.

Contents

MOD-FX OWNER'S MANUAL

01	Getting started	3	09	Signal Chop	11	17	The modulators	19
02	Global controls	4	10	The second page	12	18	The envelope follower	20
03	Ring Mod	5	11	Driver	13	19	The randomiser	21
04	Wave Folder	6	12	Comb	14	20	The sequencer	22
05	Feedback Engine	7	13	Voice Box	15	21	Presets	23
06	Noise	8	14	Time Machine	16	22	Specifications	24
07	Analog Filter	9	15	Volt-Verb	17			
08	Motion Field	10	16	Pitch Delay	18			

■ Four bands, top to bottom — on both pages

01

Header

Presets, randomise, reset, undo — and the master in the corner

02

Effect modules

Thirteen of them, racked in whatever order you like

03

Modulators

Eight cells — LFO, follower or randomiser, three outputs each

04

Sequencer

Eight steps, drawn onto any parameter you choose

Getting started

INSTALL, AUTHORISE, BUILD

■ Installing

Run the installer that came with your download. It puts the plugin and the factory presets where they belong. If your host was open, rescan or restart it.

■ Authorising

Paste the key from your purchase email and press **AUTHORIZE**. That is a one-off, online check — after it, MOD-FX works offline. One key covers **two machines**.

■ Building the rack

Press the **+** at the start of a row and the picker opens — every module as a picture, with a line on what it does. Double-click one to add it: the first module is fed by the rack's input automatically, and each one after is cabled on from the end of the chain.

The round **arrow on the case edge** flips to the second page — two pages, one signal path.

■ Changing the order

Drag a module sideways to reorder the chain — the rack always reads in signal order. Double-click its faceplate to remove it. The chain heals around it either way.

■ Modulation

Every fader has a small **MOD** jack under it; most knobs and both gates have their own. Patch any modulator output into one and it starts moving. One input takes up to **four** cables at once.

Right-click a patched input to set how hard each cable pushes — and pull a bar past the centre to push the other way.

A cable's colour says what feeds it — the full key is on the back page.

■ Where your presets live

🍏 ~/Library/Synth Palace/
MOD-FX/Presets/

🖥️ %APPDATA%\Synth Palace\
MOD-FX\Presets\

Ordinary folders on disk. Copy that folder to back up your whole library.

STARTING OVER

RESET clears everything — parameters, cables and sequencer. **RANDOMISE** builds a fresh patch to react to. Right-click either to choose what it touches — and **UNDO** takes any of it back.

Global controls

THE HEADER

HEADER



1 RANDOMISE — Builds a whole new patch for you. Right-click chooses what it can touch.

2 PREVIOUS — Step back through the presets.

3 PRESET WINDOW — The loaded preset. Click to open the browser.

4 NEXT — Step forward through the presets.

5 RESET — Back to a blank slate. Right-click chooses what it wipes.

6 UNDO / REDO — Steps back through your last 25 moves — knob turns, cables, everything — and forward again.

■ The output corner

Bottom right of the case — the same three on both pages.



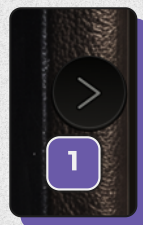
1 VINTAGE — Ages the whole rack — drifting faders and unstable tuning.

2 MASTER — Output level.

3 MONO / STEREO — Output mode.

■ The page arrow

On the wood itself — right edge on page one, left edge on page two, always centred.



1 PAGE — Flips the case to its other side.

THE RACK IS THE SIGNAL PATH

The rack always reads in chain order — what you see is the order the sound runs through. Drag a module sideways to change it.

Ring Mod

EFFECT MODULE

A ring modulator built from the CS-80 circuit rather than the textbook one — so it thickens and moves the sound instead of turning it to metal.



- 1 SPEED** — Carrier pitch. Snaps to note divisions; the very top is the free-running SCREAM zone.
- 2 DEPTH** — How much ring mod you hear. At zero the dry signal passes clean.
- 3 WOBBLE** — Detunes a second carrier and adds flutter. More as you push up.
- 4 MOD INPUTS** — One CV input under each fader.
- 5 SHAPE** — The carrier: sine, saw, square or noise.
- 6 MORPH** — Blends between two carrier shapes, so you are not stuck with one.
- 7 SYNC** — Hz, Triplet, Straight or Dotted — how SPEED reads the grid.
- 8 KNOB MODS** — CV for SHAPE here, and for MORPH on the right.
- 9 READOUT** — Shows the value of whatever you touch.

Wave Folder

EFFECT MODULE

Instead of clipping a signal that gets too loud, it folds it back on itself, adding harmonics that were never in the original.



- 1 FOLD** — Drive into the folder. The more it folds, the more harmonics you get.
- 2 SYMMETRY** — Offsets the wave so each half folds at a different point.
- 3 MIX** — Dry against folded.
- 4 MOD INPUTS** — One CV input under each fader.
- 5 SOFT / HARD** — Rounded folds, or sharp and bright ones.
- 6 SCOPE** — Live view of the folding curve.
- 7 READOUT** — Shows the value of whatever you touch.

Feedback Engine

EFFECT MODULE

Four delay models in one loop. All the character lives inside the feedback path, so it builds with every repeat, just like real hardware.



- 1 RATE** — Delay time, as a note division or free.
- 2 AMOUNT** — How loud the echoes are.
- 3 FEEDBACK** — How many repeats. Push it and the circuit starts to saturate.
- 4 MODE** — Digital, Tape, BBD or Reverse.
- 5 MOD INPUTS** — One CV input under each fader.
- 6 LOOP GATE** — CV input for the LOOP button — a gate or a module lead can hold it for you.
- 7 LOOP** — Freezes the delay line and loops it.
- 8 SYNC** — Straight, Triplet, Hz or Dotted.
- 9 AGE** — One knob for worn tape: crush, hiss, wow and flutter.
- 10 READOUT** — Shows the value of whatever you touch.

Noise

EFFECT MODULE

Five noise colours with an analog front end. It follows your playing rather than hissing at a fixed level, so it sits behind the signal.



- 1 GAIN** — Level of the noise. It follows the incoming signal, so it ducks between notes.
- 2 MOD INPUT** — CV for GAIN.
- 3 COLOUR** — Blue, Pink, Brown, Red or White, bottom to top. The dot beside the fader lights the chosen colour.
- 4 MOD INPUT** — CV for COLOUR. Sequence it to switch colour per step.

● Analog Filter + +

EFFECT MODULE

Four filter circuits modelled side-by-side with the real synths. Model D, SEM, P5 and Juno — each keeps its own saturation, resonance ceiling and bass response.



- 1 **CUTOFF** — Filter frequency.
- 2 **RESONANCE** — Emphasis at the cutoff. Most models self-oscillate at the top.
- 3 **DRIVE** — Pushes the filter into its own saturation.
- 4 **MOD INPUTS** — One CV input under each fader.
- 5 **MODE SCREEN** — Click to change the filter model: Model D, SEM, P5 or Juno. Each is a different circuit, not a preset.
- 6 **MODEL SWITCH** — The chosen model's own extra — the SEM morphs from low-pass to high-pass here.
- 7 **READOUT** — Shows the value of whatever you touch.

Motion Field

EFFECT MODULE

A rotating delay crossed with a granular cloud. Ranges from gentle widening all the way to complete dissolution.



- 1 PAN** — How wide the rotor swings across the stereo field.
- 2 VOICES** — Up to eight. At zero the module passes straight through.
- 3 OVERLAP** — From hard chopping to a smooth smear.
- 4 RATE** — Rotor speed.
- 5 MOD INPUTS** — One CV input under each fader.
- 6 VOICE SCREEN** — The rotor, live: which voices are open and where they sit.
- 7 RATE MODE** — Hz, Triplet, Straight or Dotted.
- 8 SIZE** — Length of each grain.
- 9 GRANULES** — Level of the granular cloud, which has its own reverb.
- 10 OCTAVES** — Pitch of the grains.
- 11 READOUT** — Shows the value of whatever you touch.

Signal Chop

EFFECT MODULE

A tape machine you can grab hold of. Change the speed, shift the octave, or splice a few seconds and loop it.



- 1 SPEED** — Tape speed. Slower is lower, exactly like real tape.
- 2 CHOP** — Length of the chop taken from the loop.
- 3 OCTAVE** — Octave shift, -2 to +2.
- 4 MOD INPUTS** — Speed, Octave and Chop Rate.
- 5 MIX** — Dry against wet.
- 6 SPEED (CHOP)** — Playback speed of the loop.
- 7 SPLICE** — Hold to grab up to four seconds. Let go and it loops.
- 8 SPLICE GATE** — CV for SPLICE — a gate or a module lead can hold the button for you.
- 9 MIX CV** — CV for MIX, on the left of the same row.
- 10 CHOP CV** — CV for CHOP, on the right.

The second page

NEW IN 1.5

Press the arrow on the case edge and the case turns over. The second page is simply more rack — same header, its own modulator row and sequencer — and any module can sit on either page. The chain runs through both as one signal path.

- **New in 1.5**
- **Six new modules** — Driver, Comb, Voice Box, Time Machine, Volt-Verb and Pitch Delay. They work anywhere in the rack, on either page.
- **The modulator rack** — every cell can be an LFO, an envelope follower or a randomiser.
- **The module picker** — press + and pick a module from pictures.
- **Undo and redo** — in the header, up to 25 steps.
- **Module leads** — a module's MOD jack can also feed another module.
- **Depth panels** — right-click a patched input to set how hard each cable pushes.



Driver

EFFECT MODULE

A distortion pedal and a five-band pre-amp in one box. CLIP, OVERDRIVE and FUZZ are three different circuits — and every band of the pre-amp remembers its own gain.



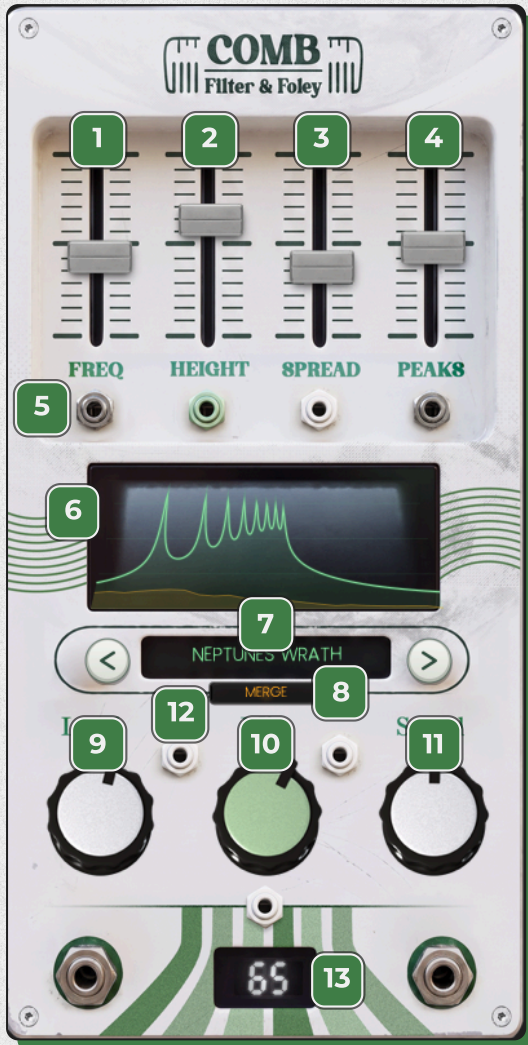
- 1 MODE** — CLIP, OVERDRIVE or FUZZ — three different circuits.
- 2 DRIVE** — How hard you push into the distortion.
- 3 CRUSH** — A bitcrusher after the distortion. At zero it is out of the path.
- 4 MOD INPUTS** — One CV input under each fader.
- 5 VU** — Stereo meter of what leaves the module, with a clip lamp underneath.

- 6 GAIN** — The pre-amp: cut or boost the chosen band by up to 40 dB. Every band keeps its own setting.
- 7 FREQ BAND** — Which band GAIN is working on — LOWS up to HIGHS.
- 8 GAIN MOD** — CV here moves the chosen band's gain.
- 9 BAND MOD** — CV here sweeps WHICH band is chosen — patch both and you have a moving EQ.
- 10 READOUT** — Shows the value of whatever you touch.

Comb

EFFECT MODULE

A comb filter with twenty-two field recordings built in. Play a recording next to your signal, or merge it into the comb and let it ring the filter.



- 1 FREQ** — Where the comb sits, 40 Hz to 1.2 kHz. The bank also listens, and re-tunes towards the recording it is fed.
- 2 HEIGHT** — How tall the resonant peaks stand.
- 3 SPREAD** — The spacing between peaks. Exactly 1.00 is a true comb.
- 4 PEAKS** — How many peaks ring, up to sixteen.
- 5 MOD INPUTS** — One CV input under each fader.
- 6 SCREEN** — Green is the comb's own response; amber, behind it, is the recording's live spectrum.
- 7 SOURCE** — Twenty-two recordings, stepped with the arrows. Playback pauses with your transport and picks up where it stood.

- 8 MERGE** — Sends the recording through the comb. Off, the two play side by side.
- 9 LEVEL / EXCITE** — The recording's volume. Merged, it becomes how hard the recording rings the comb — the caption changes with it.
- 10 MIX** — The comb's dry/wet on whatever passes through the module.
- 11 SPEED** — Playback speed of the recording, 0.25× to 4×.
- 12 KNOB MODS** — CV inputs, one per knob.
- 13 READOUT** — Shows the value of whatever you touch.

Voice Box

EFFECT MODULE

A robot voice. It listens to your signal, copies the shape of the sound, and speaks it back with a voice you build yourself.



1 HOP — How often the voice re-reads its mouth shape: 10 ms flows, 500 ms staggers.

2 PITCH — Snapped to useful intervals: -12, -7, -5, 0, +5, +7, +12 semitones.

3 FORMANT — The size of the throat, without changing the pitch.

4 MIX — Dry against spoken.

5 MOD INPUTS — One CV input under each fader.

6 FACE — A robot head that shows what the voice is doing: the mouth moves with the sound, the pupils follow the pitch, the antenna flashes as it listens.

7 FREQ — The voice engine's own sample rate, 44.1k down to 8k — turn it down and the voice pixelates.

8 VOICE — NOISE whispers, BUZZ sings, AUTO switches by itself.

9 WAVE — The voice's cords: sine, tri, pulse or square.

10 KNOB MODS — CV inputs, one per knob.

11 READOUT — Shows the value of whatever you touch.

Time Machine

EFFECT MODULE

Half-speed playback and a sampler on one transport. Slow everything down — or record up to five minutes and replay any slice of it, at any octave.



- 1 **MIX** — Dry against half-speed.
- 2 **MODE** — How much slower: 1.5x, 2x or 4x.
- 3 **LOOP** — How much it plays before rejoining: a quarter bar up to four bars.
- 4 **MOD INPUTS** — One CV input under each fader.
- 5 **UP** — Plays the slowed audio an octave up.
- 6 **REV** — Runs the tape backwards.
- 7 **RNDM** — Flicks UP and REV at random moments. Nothing too crazy.
- 8 **REC** — Arms the sampler — it records while lit, up to five minutes. Arming again starts a new take.
- 9 **SCREEN** — The recording, with the playing slice bracketed.
- 10 **SCAN** — Where in the recording the slice sits.
- 11 **SIZE** — How long the slice is.
- 12 **MIX (SAMPLER)** — The slice's volume next to the live signal.
- 13 **PITCH** — Replays the slice up to two octaves up or down.
- 14 **SAMPLER MODS** — CV inputs, one in each corner.
- 15 **READOUT** — Shows the value of whatever you touch.

Volt-Verb

EFFECT MODULE

A reverb running on a failing power supply. Push the pad right and the power sags — the sound distorts, drops out and gets darker.

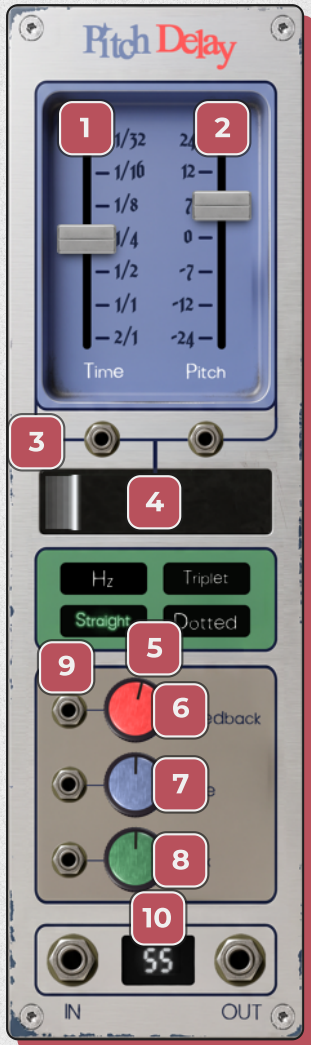


- 1 REVERB** — The reverb's dry/wet.
- 2 SIZE** — The room, small to huge.
- 3 MOTION** — Stirs the reverb — gentle chorus at the bottom, seasick at the top.
- 4 DAMP** — Makes the tail darker or brighter.
- 5 MOD INPUTS** — One CV input under each fader.
- 6 SCREEN & PAD** — The room, drawn live — and it is also a pad. Left to right is the AMOUNT: clean to destroyed, distortion and dropouts arriving together. Up and down tilts the tone. Double-click to come back to clean.
- 7 DECAY** — Tail length, 0.8 to 5 seconds.
- 8 DEGRADE** — How much of the damage you hear — the pad's own dry/wet.
- 9 KNOB MODS** — CV for DECAY here, DEGRADE on the right.
- 10 BULB** — Glows with the screen — when the power sags, so does the light.
- 11 READOUT** — Shows the value of whatever you touch.

Pitch Delay

EFFECT MODULE

A delay that re-pitches every repeat. Each echo passes through a pitch shifter on its way round, so repeats climb or fall in real musical intervals.

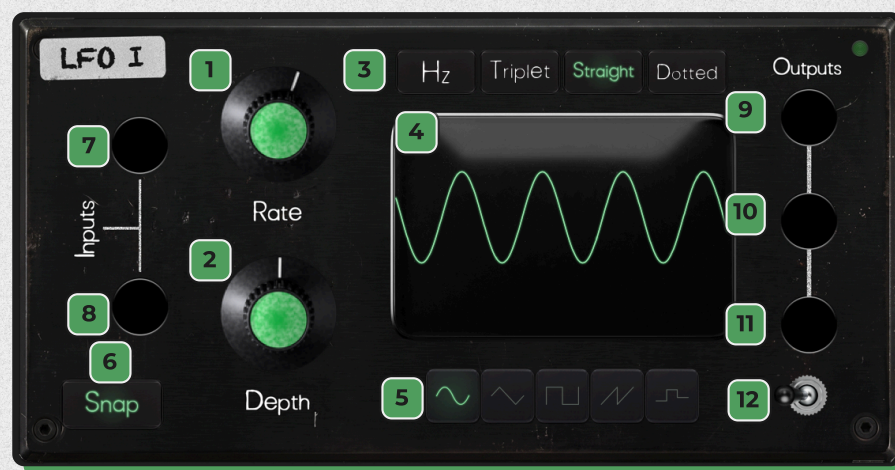


- 1 TIME** — Delay time — note divisions when synced, 60 ms to 1.5 s free.
- 2 PITCH** — What every repeat does again: ± 7 , ± 12 or ± 24 semitones, or straight.
- 3 MOD INPUTS** — One CV input under each fader.
- 4 TRANSPORT** — The delay clock, drawn live: the head sweeps the lane once per TIME, and each splice glows as it leaves.
- 5 SYNC** — Hz, Triplet, Straight or Dotted.
- 6 FB** — How many repeats survive.
- 7 SIZE** — How much audio each repeat carries, 0.3 to 3 seconds, snapped to your tempo.
- 8 MIX** — Dry against repeats.
- 9 KNOB MODS** — CV inputs, one per knob.
- 10 READOUT** — Shows the value of whatever you touch.

The modulators + + +

EIGHT CELLS, THREE KINDS

Four modulator cells sit under the modules on each page — eight in all. Press the + at the end of the row and choose what each cell should be: an **LFO**, an **envelope follower**, or a **randomiser**. Every cell has three outputs, and any output can reach any MOD jack on either page.



1 RATE — LFO speed, as a note division or free Hz.

2 DEPTH — How far it moves whatever it is patched into.

3 RATE MODE — Hz, Triplet, Straight or Dotted.

4 SCOPE — The LFO's output, live.

5 WAVE — Sine, tri, square, saw or S&H.

6 SNAP — Keeps the LFO in time with your project. Off, it free-runs.

7 RATE IN — Another modulator patched here changes this one's rate.

8 DEPTH IN — Another modulator patched here changes this one's depth.

9 OUT A — Patch to any MOD jack. All three outputs carry the same signal.

10 OUT B — Second copy of the output.

11 OUT C — Third copy of the output.

12 INVERT — Flips the wave upside down.

■ The envelope follower + + +

MODULATOR

Your playing as a mod source. The follower listens to the sound coming into the rack — or leaving it — and turns loudness into movement. Patch it anywhere you want a control to move with the music.



1 RISE — How fast the follower climbs when your signal gets louder.

2 FALL — How fast it lets go afterwards.

3 SENSITIVITY — ± 24 dB into the detector — for quiet sources or hot ones.

4 LOW CUT — The follower ignores everything below this frequency. Your audio is untouched — this only shapes what it reacts to.

5 WET — Listen to the end of the rack instead of the incoming signal.

6 AVERAGE — A smoothed reading instead of a spiky peak one.

7 SCOPE — The follower's output, live.

8 AMOUNT — How hard it pushes, and which way — pull it left of centre and the follower ducks instead.

9 OUT A — Patch to any MOD jack. All three outputs carry the same signal.

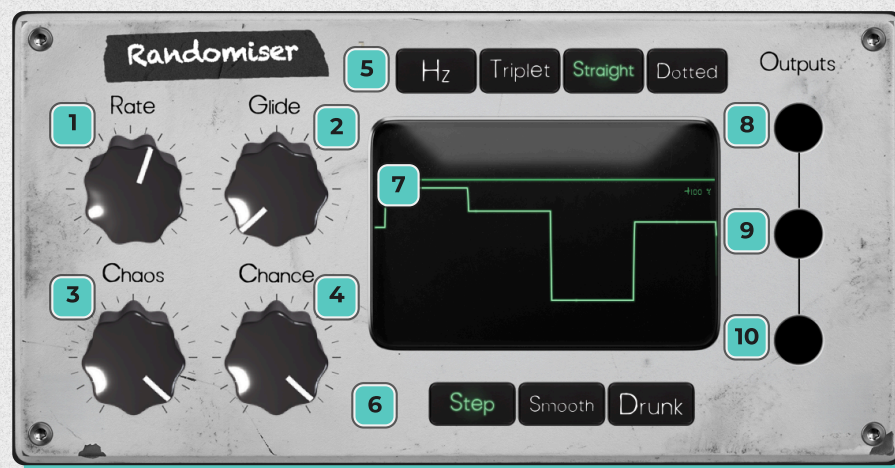
10 OUT B — Second copy of the output.

11 OUT C — Third copy of the output.

■ The randomiser + + +

MODULATOR

Rolls a new value on every tick, and moves to it in steps, glides or drunken wanders. It is never seeded, so two randomisers never agree — patches stay alive instead of looping.



- 1 RATE** — How often it rolls a new value, as a division or free Hz.
- 2 GLIDE** — Slew into each new value, up to a second.
- 3 CHAOS** — How far a roll can land from the last one.
- 4 CHANCE** — The odds a roll happens at all. Below 100% the timing turns human.

- 5 RATE MODE** — Hz, Triplet, Straight or Dotted.
- 6 MODE** — STEP jumps, SMOOTH glides, DRUNK wanders.
- 7 SCOPE & AMOUNT** — The output, live — and the horizontal line is the AMOUNT. Drag it; below centre the push flips.

- 8 OUT A** — Patch to any MOD jack. All three outputs carry the same signal.
- 9 OUT B** — Second copy of the output.
- 10 OUT C** — Third copy of the output.

The sequencer

EIGHT STEPS, ANY PARAMETER

Pick a module, pick one of its parameters, then draw eight steps. It sits at the foot of both pages; shown here in two halves.

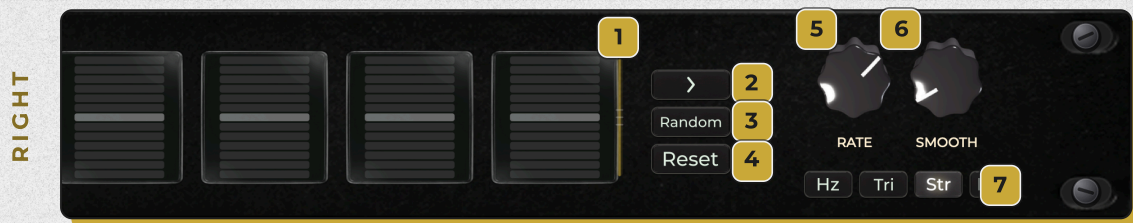


- 1 **MODULE** — The module you are editing.
- 2 **LANES** — Its parameters. Click one to draw that lane's eight steps.

- 3 **TABS** — Every module racked on this page.
- 4 **STEPS** — Drag up or down. Shift for fine, double-click to reset.

STEPS PUSH, THEY DO NOT SET

A step nudges the fader away from wherever you left it, so you can play the sequence by hand while it runs.



- 1 **LENGTH** — Drag the yellow end stop: two to eight steps play.
- 2 **DIRECTION** — Forward or reverse.
- 3 **RANDOM** — Scrambles the eight steps on screen.
- 4 **RESET** — Zeroes the eight steps on screen.

- 5 **RATE** — How fast this lane steps.
- 6 **SMOOTH** — Glide between steps. This one applies to the whole sequencer.
- 7 **RATE MODE** — Hz, Triplet, Straight or Dotted.

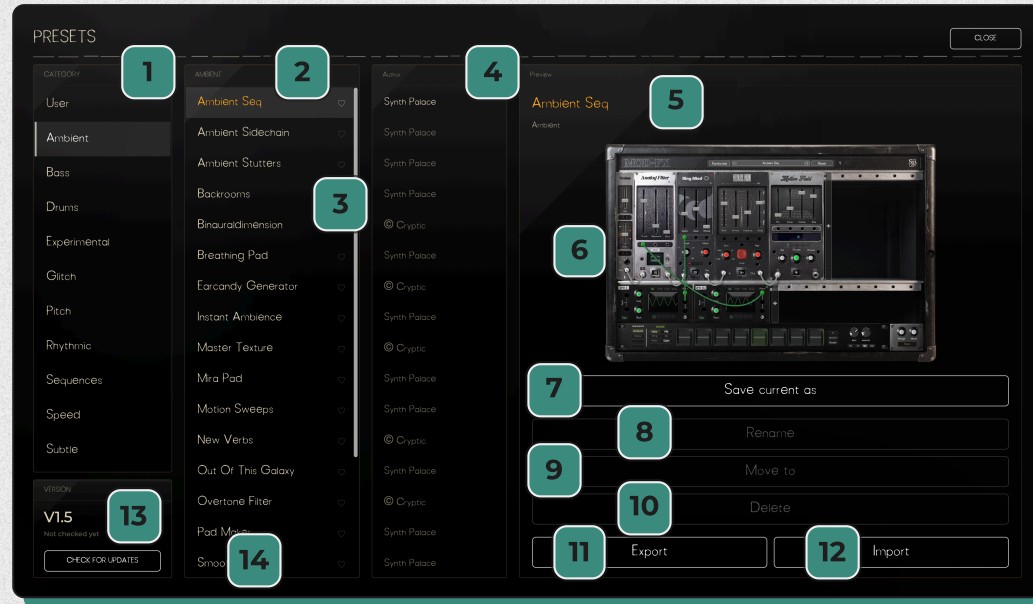
TWO PANELS, ONE SEQUENCER

Each page's panel shows only its own modules, but every lane lives in one engine — a lane keeps running whichever page you are looking at.

Presets

THE BROWSER

A preset holds everything — parameters, cables, the rack you built and the whole sequencer. Presets saved on version 1.0 load unchanged.



1 CATEGORY — Eleven of them. Click one to fill the next column.

2 PRESETS — One click loads. Double-click also closes.

3 FAVOURITE — The heart pins a preset you love.

4 AUTHOR — Who made each preset.

5 LOADED — What is loaded right now.

6 PREVIEW — A picture of the patch, so you can see what a preset looks like before you load it.

7 SAVE CURRENT AS — Saves the whole patch.

8 RENAME — Renames the selected preset.

9 MOVE TO — Moves it to another category.

10 DELETE — Deletes it, after asking.

11 EXPORT — Writes a bank file.

12 IMPORT — Reads a bank file back in.

13 VERSION — The build you are running.

14 CHECK FOR UPDATES — Looks for a newer one.

Specifications

AND SUPPORT

MOD-FX

What is inside

13

Effect modules

2

Rack pages

8

Modulators

8

Sequencer steps

■ The basics

- Stereo in, stereo out, any sample rate
- VST3, Audio Unit and standalone
- Two rack pages, one signal chain
- Rack, order and patch anything anywhere
- Presets import and export as bank files
- Version 1.0 sessions and presets load unchanged

■ Cable colours

A lead's colour says what is on the other end. Stacked module leads count up through the palette, so each one stays tellable apart.

- ┌ Audio
- LFO
- Envelope follower
- Randomiser
- Modulator into modulator
- Module lead — stacks 2, 3, 4

■ Support

support@synth-palace.com

Tell us your operating system and the version on the browser's VERSION plate, and we will get you sorted.

■ Send us your presets

Built something you are proud of? Submit it through the preset portal. We pay **\$5** for every preset we approve, and your name goes on it in the browser.

More information is in the **Preset Portal** folder in your download.

SYNTH PALACE