

Desert Moon Audio

PALETTE

MULTI-EFFECT UNIT

Four rearrangeable modules. Twenty algorithms.



Palette is four effect modules in series, each holding five algorithms. You choose one algorithm per module, set two knobs, and drag the modules into whatever order the sound wants.

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BEFORE ANYTHING ELSE

Nothing in Palette is destructive and nothing needs setting up. Load it, step through the presets with the arrow keys on the preset bar, and stop when something sounds interesting. The rest of this manual explains what you just heard.

1.1 What Gets Installed

Palette builds and installs in two formats. Your host will see whichever of them it supports. Palette is a plugin only — there is no standalone application.

macOS

FORMAT	WHERE IT GOES
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Audio Unit	~/Library/Audio/Plug-Ins/Components/Palette.component
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VST3	~/Library/Audio/Plug-Ins/VST3/Palette.vst3
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Windows

FORMAT	WHERE IT GOES
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VST3	C:\Program Files\Common Files\VST3\Palette.vst3
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The plugin appears under the manufacturer **Desert Moon Audio**. In Logic Pro that means *Audio Units* → *Desert Moon Audio* → *Palette*.

AUDIO UNIT IS MACOS ONLY

There is no AU format on Windows — that is Apple's plugin standard, not a limitation of Palette. On Windows use VST3, which every major Windows host supports.

1.2 First Launch

Hosts that validate plugins — Logic among them — will scan Palette the first time they see it. That happens once and takes a few seconds.

Palette is a stereo effect. It will also run on a mono track, in which case the modules that generate width, such as **Hall** and **Double**, still produce a stereo image from a mono source.

1.3 Where Your Presets Live

Presets you save go to:

PLATFORM	FOLDER
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macOS	~/Library/Application Support/Desert Moon Audio/Palette/Presets
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Windows	%APPDATA%\Desert Moon Audio\Palette\Presets
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They are ordinary .pltpreset files. Copy them between machines, keep them in version control, or hand them to someone else — the folder is created the first time you save and not before.

2.1 Five Minutes In

Step through the presets. The ◀ and ▶ keys at the left of the preset bar walk the whole list. Twenty-one factory patches ship with the plugin, and they are the fastest tour of what the twenty algorithms sound like.

Pick an algorithm. Each module lists its five algorithms down the left. Click one. The lamp beside it lights and the knobs below re-label themselves to whatever that algorithm needs.

Turn Amount. The lower knob in every strip is **Amount** — the single control that says how much of that effect you want. It is the knob to reach for first, every time.

Switch a module off. The **ON** bar at the foot of each strip takes that module out of the chain without disturbing anything else. It glows while lit.

Compare and step back. The **A/B** key holds two working states — set something up, flip, try it another way, flip back and pick the winner. The **undo** and **redo** keys next to it step through every edit, one gesture at a time, including module drags.



The preset bar. Step through with the arrows, click the name to open the full list. Then A/B to compare two settings, undo and redo, save with the disk key, and put back your edits with the circular arrow.

2.2 Typing Exact Values

Every readout under a knob is editable. Click it, type a number, and press return. This is the quickest way to set a delay to exactly 375 ms or a shifter to exactly +7 semitones rather than hunting for it with the mouse.

2.3 Resizing

Drag the bottom-right corner. The panel holds its proportions and every part of it — knobs, lettering, meters, readouts — scales together.

A DOT BESIDE THE PRESET NAME

Once you move any control — or drag a module to a new position — a small red dot appears next to the preset name. It means "this preset, plus edits". The circular-arrow key discards those edits and puts the preset back as saved.

2.4 A/B and Undo

The lettered key on the preset bar holds two working states, **A** and **B**. Click it and everything — knobs, algorithms, module order — flips to the other slot; your edits stay in the one you left. The first flip copies A into B, so nothing jumps until the two sides actually differ. A/B is a listening tool: it is deliberately not saved with the session.

Undo and **redo** sit beside it. One knob drag is one step, however long the gesture; a module drag or an A/B flip is one step too. The keys grey out when there is nothing left in that direction, and history starts fresh with each session.

Four modules in series, in the order they appear on screen, left to right. What makes Palette worth rearranging is that the order is yours to choose — a filter before a drive is a different instrument from a drive before a filter.

3.1 The Chain

Signal enters at the left, passes through each module in turn, and leaves at the right. Modules that are switched off are stepped over. The panel always shows the real routing: the strips are laid out in signal order, so what you see is what the audio does.

3.2 The Dry Tap

A copy of the incoming signal is taken before anything happens to it. That copy is what **Mix** blends against and what **Bypass** returns. Two useful consequences follow, and both are deliberate:

- **Input feeds the modules only.** Turn it up and the drive digs in, the fuzz gets nastier, the compressor grabs harder — but the dry signal and the bypassed signal stay exactly where they were. Input is a "how hard do you hit the effects" control, not a second volume.
- **Bypass sits outside Mix and Output.** A bypassed Palette is your input untouched, not your input at whatever level the Output knob happens to be on.

BYPASS

Palette declares its bypass to the host, so your DAW's own bypass button drives the plugin's rather than the two disagreeing about whether it is running. Bypassed, Palette returns your input sample for sample.

3.3 Reordering

Grab a module by its coloured title bar and drag it sideways. The other modules shuffle out of the way as you pass over them, so where it will land is never a surprise. Release and the chain re-routes.

All twenty-four possible orders are available, and the order is saved with your session and with your presets. Dragging is the only way to set it — there is no automation lane for the chain order, so a host cannot re-route the chain underneath you mid-take.

ORDER MATTERS MOST WITH THESE

Put **Texture** first and its filter decides what the drive is fed. Put **Space** before **Tone** and the drive chews on the reverb tail rather than the other way round. Neither is more correct — they are different instruments.



- 1 **Bypass and Sync** — bypass takes the whole plugin out of circuit; sync locks times to the host tempo. Each lamp lights when its switch is engaged.
- 2 **Preset bar** — step, pick, A/B, undo and redo, save and revert.
- 3 **Drift, Mix, Input, Output** — the global controls.
- 4 **Meters** — input on the left, output on the right, so you can see what Palette did to the level.
- 5 **Algorithm list** — five per module, one lit.
- 6 **Knobs** — shape above, Amount below.
- 7 **ON** — the module's own switch.

4.1 The Global Controls

CONTROL	RANGE
Drift	0 – 100 %
Mix	0 – 100 %
Input	–24 – +12 dB
Output	–24 – +12 dB
Bypass, Sync	On / off



Bone caps mark the controls that belong to the whole unit, not to one module.

Mix blends the processed chain against the untouched input. At 0 % you hear only the dry signal, whatever the modules are doing. **Drift** is the global instability control — see §12.1. **Sync**, the switch under Bypass, locks delay times and modulation rates to musical divisions of the host tempo; with no tempo from the host it has no effect.

4.2 Meters

Stereo peak meters with a peak-hold bar that falls away after a moment. The scale is in decibels, not amplitude, so a quiet passage still reads somewhere useful instead of collapsing into the bottom pixel.

Every module works the same way. Learn one strip and you have learned all four.

5.1 Choosing an Algorithm

Click any of the five names. The lamp beside it lights, and the switch is crossfaded — you can change algorithm with audio running and hear no click.

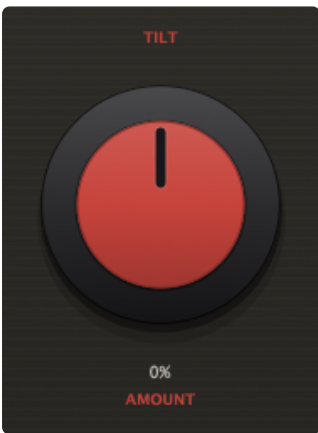
5.2 The Two Knobs

The lower knob is always **Amount**. The upper knob is the algorithm's *shape* control, and it re-labels itself to whatever that algorithm actually does: **Rate** under Vibrato, **Decay** under Hall, **Pitch** under Shifter, **Time** under Tape.

The readout follows too. Hall reads in seconds, Tape in milliseconds, Shifter in semitones. You are never left converting a percentage in your head.

On **Texture** the upper knob is **Mode**, and it selects within the loaded algorithm rather than setting a quantity — lowpass, tilt or highpass under Filter; bits, rate or fold under Crush. Its secondary is **Character**.

5.3 The Secondary Layer



Click the caption to flip the knob to its other function.

Every knob carries two controls. **Click its caption** and the knob flips to the second one; click again to flip back. The caption changes colour so you can see which layer you are on.

Knob	Primary	Secondary
Upper	Shape	Sensitivity / Drift / Feedback
Lower	Amount	Effect Vol

Effect Vol trims that module's output from -24 to +12 dB. It is how you stop a fuzz from being twice as loud as everything else in the chain.



The Tone strip.

5.4 ON

The bar at the foot of each strip switches that module in and out. It is smoothed, so switching mid-note fades rather than clicks, and a reverb that is switched off keeps its tail rather than having it cut away.

TONE

Gain staging, saturation and dynamics

Everything that changes how hard the signal is driven. The shape knob is **Tilt** throughout — dark below centre, bright above — except on Resonate, where it moves the resonant peak.

DRIVE

TILT · SENSITIVITY

Asymmetric soft clipping, four-times oversampled. Amount pushes it from a warm preamp into full overdrive. The asymmetry grows with Amount, so it stays clean-ish at low settings and picks up the even-order harmonics of a valve stage as you lean on it.

PREAMP

TILT · SENSITIVITY

Console preamp: gentle compression, tilt EQ and light saturation on one knob. The transparent end of the module — reach for this on a vocal or a full mix rather than on a guitar. Soft knee, channel-linked, so it never pulls the stereo image about.

FUZZ

TILT · SENSITIVITY

Vintage-voiced and dynamic: it cleans up when you back off instead of sitting at one fixed wall of gain. The low end is thinned before the clipper, as every classic fuzz circuit does, because bass hitting a hard nonlinearity turns into mud no output EQ can unpick.

RESONATE

FREQ · DRIVE

A high-Q bandpass inside a saturating feedback loop. Backed off it is a vocal, wah-like colour; pushed, it sustains and begins to sing on the filter's own frequency. The nonlinearity lives inside the loop, so it can be taken to the edge of oscillation without running away.

SWELL

TILT · SENSITIVITY

Removes the attack of every note and replaces it with a fade in. It compares a fast envelope against a slow one rather than triggering from a threshold, so it works identically on one note, a chord, or a whole mix, and nothing has to be "detected". Amount sets the swell time, from 8 ms to 1.2 seconds.

MOTION

Modulation, doubling and pitch

Anything that moves. The shape knob is a rate for three of these, a time for Double, and a pitch interval for Shifter — and it says so under the knob.

DOUBLE

TIME · SPREAD

Double tracking, from tight ADT through to slapback. Two delayed voices, one per side, at deliberately different times and with independent slow pitch wander — that disagreement is the whole effect, because two identical copies just sound like one louder copy. Added alongside the dry, not blended against it.

VIBRATO

RATE · DRIFT

Pitch modulation from a clean sine through to tape-style random warble. The secondary knob morphs the modulator itself: sine, triangle, then a slew-limited random walk. The two channels wander independently at the tape end, which is what makes it sound wide rather than mono.

PHASER

RATE · FEEDBACK

Two to twelve allpass stages, brought in gradually as Amount rises rather than switched in — adding a whole stage at once moves every notch and is plainly audible as a jolt. Low settings give the wide, watery swirl of a four-stage box; high settings the tighter, resonant pulse of the bigger ones.

TREMOLO

RATE · SHAPE

Amplitude modulation from optical shimmer to hard square-wave chop. It modulates *downward* from unity only, so raising the depth does not change the average loudness — which is exactly what you want when balancing. The last quarter of the Shape knob spreads the channels into antiphase and turns it into an auto-panner.

SHIFTER

PITCH · GRIT

Pitch shifting an octave either way, with a detent at unison so the centre of the knob is findable. A two-head delay-line design, like the old rack harmonisers: fixed low latency, and graceful on chords where the frequency-domain alternatives are not. Grit adds lo-fi colour to the shifted voice only.

SPACE Delay, reverb and everything between

Amount here is a single macro for repeats and blend together: low is one slap, high is a wash. The Drift secondary controls how much the delay lines wander, which is what stops long tails ringing metallically.

BUCKET

TIME · DRIFT

Bucket-brigade delay: dark, soft and a little unstable. The character of a BBD is in what it loses, so every repeat is darker, thinner and grainier than the one before — the losses are in the feedback path, where they compound. The clock drifts too, so the pitch never sits perfectly still.

TAPE

TIME · DRIFT

Tape echo: brighter and more forward than the bucket-brigade. Tape compresses and saturates rather than losing treble, so repeats stay present and smear together instead of fading into the dark. Wow and flutter run at rates two orders of magnitude apart — together they sound like a transport, either alone sounds like an LFO.

HALL

DECAY · DRIFT

A feedback delay network, from a small echo chamber to very long clouds. Decay moves size and length together on one musical curve, because real rooms do not have a long tail and a small size. Longer settings get darker, as a big room does.

SCATTER

TIME · DRIFT

A plain delay with an event scheduler on top that seizes grains of the buffer and plays them back at other speeds, sometimes backwards, sometimes several times over. Grain speeds are musical ratios rather than arbitrary values, so the glitches stay in tune with whatever they are chewing on.

REVERSE

LENGTH · SPEED

A read pointer travelling backwards through the buffer while the write pointer moves forward — the recent past, played in reverse. Length sets how far back it reaches; Speed sets the playback rate and therefore the pitch, with a detent at unity.

TEXTURE

Filtering, squashing and damage

The destructive end. Here the upper knob is **Mode**, which picks a variant within the loaded algorithm rather than setting an amount of anything, and its secondary is **Character**.

FILTER

AMOUNT · CHARACTER

A topology-preserving state variable filter in lowpass, tilt or highpass. Stable under fast modulation, which matters because Amount sweeps it. Every mode is transparent at Amount 0, so the knob always reads as intensity. Character is resonance, scaled by Amount so a wide-open filter never whistles.

SQUASH

AMOUNT · CHARACTER

A heavy-handed compressor running into overdrive. Ratios reach genuinely limiting territory — this is not a subtle box. Channel-linked, soft knee, and Character decides how much of the squashed signal gets driven.

WARBLE

AMOUNT · CHARACTER

Worn cassette: wow, flutter, bandwidth loss and dropouts. Character collapses the bandwidth and, past halfway, starts dropping the tape out altogether. The dropouts are ramped rather than switched — a cassette losing contact fades over a few milliseconds, and a hard gate would just click.

CRUSH

AMOUNT · CHARACTER

Bit reduction, sample-rate reduction and wavefolding. Deliberately *not* oversampled: the aliasing is the effect. A bitcrusher with the aliasing filtered out just sounds like a quiet distortion, and the inharmonic content folding back down the spectrum is the whole reason to reach for one.

STATIC

AMOUNT · CHARACTER

Radio interference: hiss, crackle, dropouts and carrier whistle, with the signal band-limited as though transmitted. Character narrows the band from a telephone to a barely-tuned shortwave.

NOISE FOLLOWS THE SIGNAL

Every noise source in Palette — tape hiss, radio static — is scaled by an envelope of the input, so it arrives with the material and decays with it. A real machine hisses whenever it is powered, but a plugin that adds a permanent noise floor to every silent passage of a mix is unusable.

10.1 Factory Presets

Twenty-one patches, grouped roughly from mix tools through to wreckage.

Init Everything at its default. The place to start from scratch.	Clean Slate All four modules off. A wire, ready to build on.
Vocal Glue Gentle preamp and a short room. Nothing in the way.	Drum Smash Squash doing the work, preamp adding weight.
Bus Warmth A touch of drive and squash across a bus.	Tape Slap Short tape echo behind a preamp.
Analog Echo Bucket-brigade repeats, dark and soft.	Cathedral A very long hall with slow movement under it.
Reverse Swell Attack removed, then thrown backwards.	Granular Wash Scatter and a long hall. Unpredictable by design.
Double Track Two voices, wide, with the original intact.	Phase Sweep Phaser over a drive, with tape behind it.
Chop Square tremolo, tempo-synced, into a short delay.	Octave Shimmer An octave up, feeding a long hall.
Fuzz Wall Fuzz at full tilt with a room behind it.	Singing Resonance Resonate near the edge of oscillation.
Lo-Fi Cassette Warble and bucket delay. Worn and unstable.	Bit Ruin Crush first in the chain, then everything else.
Broken Radio Fuzz through interference and dropouts.	Filtered Front Texture moved to the head of the chain.
Ambient Pad Long, slow and filtered. A bed rather than an effect.	

10.2 Your Own Presets

The disk key saves. Type a name; if it already exists you are asked before anything is replaced. Saved presets join the same list as the factory ones and the arrow keys step through both.

The *Preset menu* key opens the full list, a delete submenu for your own patches, and *Reveal preset folder* for when you want the files themselves.

WHAT A PRESET DOES NOT CARRY

Bypass is deliberately left out. A preset that arrives bypassed reads as a preset that does nothing.

Palette was voiced for mixing, not only for guitar. Three decisions run through every algorithm and are worth knowing when you place it.

- **Every nonlinear stage is oversampled** — except Crush, where the aliasing is the point. Wide-band material aliases far more audibly than a guitar's limited spectrum.
- **Level detection is channel-linked.** Compressing or gating each side independently pulls the image toward whichever channel is louder, which is immediately audible on a mix.
- **Nothing generates sound from silence.**

11.1 Vocals

Preamp at a low Amount with Sensitivity set so the meter sits mid-scale. Add **Hall** at a short Decay and 15–20 % Amount. Keep Texture off. *Vocal Glue* is this patch.

11.2 Drums

Squash is the one to reach for. Its Mode sets the timing — fast and grabby at one end, slow and breathing at the other — and release time is what decides whether a compressor pumps musically or just chokes. For reverse-attack effects, **Swell** across a room mic is spectacular.

11.3 Guitars and Keys

The whole plugin, more or less. **Drive** into **Vibrato** into **Tape** is the classic order; putting **Texture** first instead gives you the filter deciding what the drive is fed.

11.4 Synths and Pads

Shifter at +12 semitones into a long **Hall** is the shimmer patch. **Scatter** on a sustained pad generates material you did not play.

11.5 Full Mixes

Use small amounts of one module. **Preamp** or **Bus Warmth** at low settings, or **Warble** with Amount under 20 % for a subtle instability that reads as tape rather than as an effect. Watch the output meter — the drive algorithms compensate their level, but Input does not.

MIX KNOB ON TIME-BASED EFFECTS

On a send, run Mix at 100 % and let the desk do the blending. On an insert, Mix is how you keep the dry signal in front — most of the Space algorithms already blend internally on Amount, so Mix is a second, coarser control over the whole chain.

Drift has a knob like any other control, but what it drives is spread across the whole plugin rather than sitting inside one module — so it gets a page of its own.

12.1 What It Does

The **Drift** knob in the header sets the depth; the movement itself is generated inside the plugin. Fourteen of the twenty algorithms respond to it — some gain movement that was not otherwise there, others have their own modulation scaled by it.

Drift is one generator with four decorrelated views, one per module: three sine partials at deliberately incommensurate rates plus a slow random walk, cycling over roughly seven to fourteen seconds. The rates are irrational multiples of each other, so the pattern never repeats — anything rational would loop on a fixed cycle, and a reverb that wobbles on a loop sounds like a machine rather than like worn tape.

ONE LIMITATION, STATED PLAINLY

Drift free-runs rather than locking to the transport. An offline bounce can therefore catch it at a different phase than a live pass. If you need a bounce to match a live pass exactly, leave Drift at zero.

13 Specifications

PALETTE

ITEM	DETAIL
Formats	VST3 on macOS and Windows; Audio Unit on macOS
Channels	mono→mono, stereo→stereo, mono→stereo. A stereo input is never folded to mono
Sample rates	Any. Verified 44.1 – 192 kHz
Block sizes	Any, including oversized blocks from the host
Latency	None reported. Oversampling adds a couple of samples, well under a millisecond
Modules	4, freely reorderable — 24 possible orders
Algorithms	20, five per module
Factory presets	21
Oversampling	4× on Drive, Fuzz, Squash; 2× on Preamp. None on Crush, by design
Bypass	Reported to the host; returns the input sample for sample
Chain order	Set by dragging only, not automatable. Saved with the session and with presets

13.1 Level Ranges

CONTROL	RANGE	DEFAULT
Amount	0 – 100 %	35 %
Shape	0 – 100 %	50 %
Effect Vol	–24 – +12 dB	0 dB
Drift	0 – 100 %	0 %
Mix	0 – 100 %	100 %
Input	–24 – +12 dB	0 dB
Output	–24 – +12 dB	0 dB

13.2 Troubleshooting

Palette does not appear in my host

Rescan the plugin folders — in Logic, the Audio Units cache sometimes holds an old entry. On Windows, check your host scans C:\Program Files\Common Files\VST3. Palette lists under **Desert Moon Audio**, not under its own name.

I cannot get a null against a dry track

Bypassed, Palette nulls exactly. With Tone running it will not: the oversampler adds a couple of samples that are not reported as latency — inaudible in use, but enough to stop a null test cancelling.

A preset sounds quieter or louder than the others

Check Input. It drives the effects but not the dry path, so at high Mix settings it changes the balance between the two.

Desert Moon Audio

Palette is a four-module multi-effect unit for macOS and Windows, in VST3 form, plus Audio Unit on macOS.

This manual describes version 1.0. The panel images throughout are renders of the plugin itself rather than illustrations of it, so what is printed here is what ships.