INDEPENDENT AUDIO SOFTWARE

LYNCH Broke Synth

A simple voice with room to change.



Start with Bass, Keys, Pad, Lead or Poly, then choose an oscillator colour and follow the melody. Custom Shape opens a resonant filter, amplitude envelope and vibrato without taking away the familiar Tone, Dirt and Space controls.

Complete colour user guide · version 0.5.0 · Apple Silicon Mac AU · macOS 12+

Contents

Start with the part 4

Inside the sound 4

Quick Start 5

Five Characters 5

Controls 5

Technical / Scope 5

Wave / Shape 6

Shape Panel 6

Classic / Custom On 6

Oscillator 6

Filter 6

Envelope 7

Vibrato 7

Shape Panel 0.2.1 7

Guide Window 7

Factory Starting Points 7

Hardware Edition 8

Tube Limiter 8

Init And Preset Readability 8

Presets 8

Playing / Automation 9

Editor 9

Automation / Presets 9

Install and choose the right host slot 9

Trial and permanent licensing 9

Save, recall and automate 10

Troubleshooting and support 10

About this guide 11

Start with the part

Start with Bass, Keys, Pad, Lead or Poly, then choose an oscillator colour and follow the melody. Custom Shape opens a resonant filter, amplitude envelope and vibrato without taking away the familiar Tone, Dirt and Space controls.

01 / Bass and Lead are monophonic; Keys and Pad are polyphonic. Original band-limited saw/pulse oscillators, triangle and sine/sub tones. Mono note priority is highest held note on release. Tone controls the overall low-pass color; in Classic, Ring shapes attack/release and sustain feel. Shape… opens the resonant filter, amplitude ADSR and vibrato.

02 / Start with the first factory sound and a moderate input or MIDI velocity. Turn Tone for brightness, Dirt for worn warmth and Space for a short colored room plus slapback. Space is a master for both effects, with gentle wet ducking under new attacks. The default output leaves headroom; use Output to match the surrounding mix. This series is meant for intimate, imperfect, musical lo-fi character.

03 / Init resets to a clean starting sound.

04 / Bass / Keys / Pad / Lead / Poly Poly is a warm polyphonic dual-voice character.

Inside the sound

Init And Preset Readability

Init resets to a clean starting sound.

Five Characters

Bass / Keys / Pad / Lead / Poly Poly is a warm polyphonic dual-voice character.

Quick Start

Bass and Lead are monophonic; Keys and Pad are polyphonic.

Controls

Tone: dark to bright low-pass color.

Presets

68 curated starting points include eight Custom Shape sounds.

Playing / Automation

All sound and drum pattern parameters are exposed to host automation.

Quick Start

Bass and Lead are monophonic; Keys and Pad are polyphonic. Original band-limited saw/pulse oscillators, triangle and sine/sub tones. Mono note priority is highest held note on release. Tone controls the overall low-pass color; in Classic, Ring shapes attack/release and sustain feel. Shape… opens the resonant filter, amplitude ADSR and vibrato.

Start with the first factory sound and a moderate input or MIDI velocity. Turn Tone for brightness, Dirt for worn warmth and Space for a short colored room plus slapback. Space is a master for both effects, with gentle wet ducking under new attacks. The default output leaves headroom; use Output to match the surrounding mix. This series is meant for intimate, imperfect, musical lo-fi character.

Five Characters

Bass / Keys / Pad / Lead / Poly Poly is a warm polyphonic dual-voice character. Wave and Shape remain available to shape it further.

Controls

Tone: dark to bright low-pass color. Dirt: tape-style, biased transistor saturation; four-times oversampled through windowed-sinc conversion filters. This is an original algorithm, not a hardware emulation. Space: a 91/117 ms colored slapback (slight Motion modulation), short diffused room and gentle auto-duck. Fully down removes wet output. Stored tails remain internal until Reset/preset loading; turning Space up can reveal them. Motion / Spin: gentle pitch or stereo movement, depending on the instrument. Zero is steady. Ring / Body: note ringing/damping or amplifier low-mid weight. Output: final dB level. The peak display measures recent rendered output, not input; lower Output if your mix clips. Mute / Bypass: clearly marked status. Amp bypass is a latency-aligned unity path; instrument mute fades the entire output.

Technical / Scope

Native Apple Silicon Audio Unit, macOS 12 or later. Broke Drums/Synth/Piano/Electric Piano/Organ are instruments; Broke Amp is an audio effect. Mono/stereo, 8–192 kHz float processing. Reported latency: 16 samples. Fixed-capacity MIDI/automation queue; no sample-file reads or voice allocation in the render path. Original sounds and processing, with no Goldbaby, commercial sample libraries or borrowed impulse responses. Isolated host validation cannot replace your own musical listening and a Logic session test. Avoid replacing components while recording; reopen Logic yourself when convenient. No Logic projects or host caches were changed by this build.

Wave / Shape

Wave selects Original, Sine, Triangle, Saw, Square, Pulse, Super Saw, FM, Bell, Organ, Vowel or Noise. Voice still chooses Bass / Keys / Pad / Lead and its envelope and mono/poly behavior. Shape changes the selected oscillator: harmonic balance, pulse width, detune width, FM index, bell damping, vowel position or noise balance. Shape has no effect on Original: old sounds stay exactly as they were. Switches crossfade over 25 ms; Shape is smoothed. Both new controls are saved, automatable and available to Logic's Controller Assignments. Old presets default to Original / Shape 50. Original sixteen factory sounds are preserved; 44 new starting points explore the new waves. These are original Lynch algorithms, not models of named commercial synths. FM, noise and saturation are creative colors; no alias-free claim.

Shape Panel

Open Shape… to reach Oscillator Wave and Color, Cutoff / Resonance, the amplitude ADSR and Vibrato. The small main panel keeps Tone / Dirt / Space / Output / Motion / Ring and its familiar Broke layout. The Shape panel follows the selected UI Size. All labels and help are English.

Classic / Custom On

Classic keeps the original Broke envelope and filtering. All 60 existing factory presets start in Classic; old 8- and 10-parameter presets restore Classic automatically. Wave and Color work in either mode. Editing Cutoff, Resonance, ADSR or Vibrato automatically enables Custom Shape. Click CUSTOM ON to return to Classic without losing the new settings. The main Shape ON… button lights when Custom Shape is active. Custom Shape is also a host parameter; host automation must enable it explicitly.

Oscillator

Wave selects the existing 12 colors. Color is the Wave-specific Shape parameter: harmonics, pulse width, detune, FM depth, bell decay, vowel or noise blend. Color is dimmed for Original, which keeps the role-based oscillator unchanged. This is the same saved parameter ID9 used in earlier releases.

Filter

Cutoff spans 20 Hz–20 kHz using a logarithmic slider, with a sample-rate-dependent upper limit inside the engine. Resonance emphasizes the cutoff. A 12 dB/oct state-variable low-pass runs independently on each voice, before its amplitude envelope. Resonance is bounded; this filter does not self-oscillate. Tone still controls the final overall brightness, so open Tone if you want to hear the full resonant edge.

Envelope

Attack: 0.5–3000 ms to swell to full amplitude. Decay: 10–5000 ms from full amplitude toward Sustain. Sustain: 0–100% held level; zero makes a pluck. Release: 5–6000 ms for about a 60 dB drop after key/pedal release. Sustain pedal holds the envelope. Release is smoothed and follows changes on released voices; the final near-silent tail can extend beyond the indicated time. These four sliders control amplitude, not filter modulation. Ring is dimmed in Custom Shape because ADSR replaces its amplitude function.

Vibrato

Amount is 0–100 cents; 100 cents is one semitone. Speed is a free-running 0.1–12 Hz LFO, shared across voices. Vibrato is separate from Motion's worn pitch/space movement. MOD WHEEL is optional and initially off. When on, MIDI CC1 adds up to 50 cents per MIDI channel to Amount; CC121 resets that channel's wheel position. For a steady sound, set Amount and Motion to zero and leave MOD WHEEL off. Vibrato runs only with Custom Shape on.

Shape Panel 0.2.1

Shape opens inside the plugin editor, above the main controls. Close or Escape dismisses it. It scales with UI Size and cannot fall behind the host plugin window.

Guide Window

Guide opens a scrollable reading panel inside the plugin, in front of the controls and at the current UI scale. Close or Escape returns to your sound without changing any settings. Select and copy guide text if needed. Hover Control pauses while the guide covers the knobs and resumes after closing; its ON/OFF preference stays.

Factory Starting Points

68 starting points, including eight Custom Shape sounds with independent filter/envelope/vibrato and gentle Tube Limiter. Init remains a simple clean start. These are new parameter recipes; musical balance should be assessed on your own recordings.

Hardware Edition

Click the engraved LYNCH title to read about Lynch Audio Lab and Robin Lynch. About and Guide stay inside this plugin window; Close or Escape returns to your instrument without changing its sound. The three main macros, character choices, presets, automation and Tube Limiter keep their existing meaning. The recessed PRESET display opens the same factory menu; Save and User still use portable .aupreset files.

The lower C3–C5 keyboard auditions the instrument through ordinary MIDI notes. Drag between keys for a glissando and release to stop. Leaving the keys, changing focus or closing the editor releases the audition note. Your external MIDI keyboard, sustain pedal and host automation remain independent.

Tube Limiter

Optional final Tube Limiter with ON/OFF, Amount0–100% and actual gain-reduction history. Stereo-linked sample-peak attenuation, warm asymmetric tube-inspired saturation with first-order antiderivative antialiasing,5ms hold and adaptive release. Amount adds up to12dB drive. No automatic gain matching/makeup; trim Output manually. Steady enabled sample-peak target-1dBFS, not a true-peak guarantee. Activation crossfades25ms; transient peaks during that fade can exceed the target. OFF/Init/factory/legacy states retain the previous sound. Mute stays after the limiter. All new controls automate/save; assign MIDI through the host (sampler also supports its existing MIDI Learn). The graph shows limiter attenuation, not the amount of coloration.

Init And Preset Readability

Init resets to a clean starting sound. Factory IDs and saved presets are unchanged. The preset control uses the light Broke appearance, including in a dark host. Use Save/User or your host project to save the initialized sound. Instrument Init removes Dirt, Space and Motion, retains safe -9 dB output headroom and a playable envelope. Drums stops Play and starts from the basic original kit/pattern.

Presets

68 curated starting points include eight Custom Shape sounds. Arrows browse; edits display Custom / User Sound. Save writes a standard .aupreset; User accepts this plug-in’s identity. The host saves settings independently. Save an edit before choosing another complete sound.

Playing / Automation

All sound and drum pattern parameters are exposed to host automation. The native controls send begin/end gestures. Instruments support MIDI notes, velocity, sustain CC64, pitch bend (+/-2 semitones), volume CC7, expression CC11, Reset Controllers CC121, All Notes Off CC123 and All Sound Off CC120. Use the host's Controller Assignments for mapping a MIDI knob; this version has no internal MIDI Learn. Right-click a dial for Reset or mapping guidance. No separate host transport callback is used.

Editor

Hover is optional and initially off. With it on, move upward over a large knob to reach maximum before its upper edge; move down to reach zero before its lower edge. Shift gives fine control, and Escape switches Hover off. Focus loss, presets and menus close gestures. Normal drag and scroll also work; double-click restores the parameter default. ? enables the help reminder; standard tooltips describe controls. Guide opens this document. UI Size offers 75–150% with a screen fit limit; the host owns the surrounding window.

Automation / Presets

All 20 parameters are host-readable and writable. Continuous parameters support scheduled ramps, with short smoothing inside the engine. Custom Shape and MOD WHEEL are switches. Save / User and the host project store all 20 parameters. Existing IDs0–9 and factory IDs0–59 remain stable; the new IDs10–19 append to the list. Use Logic Controller Assignments to map any control; there is no internal MIDI Learn menu. Right-click sliders for Reset to Default and assignment guidance; double-click resets, Shift gives fine control. The native ? button and Guide remain available.

Install and choose the right host slot

Apple Silicon Mac, macOS 12 or later. Audio Unit only; no Intel Mac, Windows, VST3 or standalone application is included. Use an AU-compatible software-instrument host and send MIDI to the instrument track.

Save your session before installation. Use the verified current installer and follow its installation prompts, then restart the host if the newly installed AU is not listed. Select the product under Lynch Audio Lab in the appropriate slot.

Trial and permanent licensing

Download the trial installer shown on the product page; the same installer is used for trial and purchase. No card is needed for the trial.

Open the plug-in, click Trial & Activation at the bottom and press Start trial to begin its full 14 days. Installing, opening a preset or downloading a guide does not start a new trial. Each product has its own trial. There is no subscription, automatic charge or periodic noise burst.

For a permanent purchase, use the exact Buy link on the product page. Lemon Squeezy supplies a license key in the receipt. Connect this Mac to the internet, click Trial & Activation at the bottom, paste the receipt key for this exact product and choose Activate. A permanent license allows a maximum of three computers. After successful activation, work offline.

To free a Mac's activation, connect it to the internet, open Trial & Activation and choose Deactivate this Mac. This releases that computer without renewing or resetting trial dates. Presets, project settings and updates do not renew the trial and retain settings.

The login Keychain stores trial and license-key records separately from presets. If it is locked, unlock it normally and press Refresh in Trial & Activation. Keep the system date correct.

At expiry, audio effects return latency-aligned dry audio with normal reported latency; instruments are silent; MIDI tools stop output and release held notes. Presets and project settings remain. Purchase activation restores licensed processing rather than a new trial.

Save, recall and automate

Save the host project to retain the AU instance. Use the product-specific preset operations described in the control chapters for reusable sounds. Preset files, complete project state and controller assignments can have different scopes; do not treat them as interchangeable.

When using host automation, choose an exposed sound parameter, record a short test pass and replay from before the first change. Check module enables, routing and output level. Only use product-local MIDI Learn when this manual explicitly documents it; otherwise use the host's controller-assignment workflow.

Troubleshooting and support

If the AU is missing, save your session, install the current package and restart the AU-compatible host. Check the required macOS version and Apple Silicon architecture, then review the host's plug-in manager. Do not delete a working production project to troubleshoot an insert.

For no sound or no processing, first check the correct slot, track input/output, incoming audio or MIDI, bypass/mute, module enables, mix/return amounts and trial or activation status. Test a simple documented starting point before adding a complex chain.

If the sound is too loud or distorted, reduce drive or output and inspect later inserts and the host master. Sample-peak protection does not guarantee intersample peaks. Source clipping cannot be repaired simply by lowering a later trim.

For dropouts, reduce active polyphony, unison, long returns or dense processing where applicable, or use the host's freeze/bounce workflow. A larger buffer can help scheduling; it cannot cure sustained processing overload.

For activation trouble, check the internet connection and use the key for this exact product from the Lemon Squeezy receipt. For help, contact info@lynchaudiolab.com with product version, macOS version, AU host and a short description. Never send your private license key publicly.

About this guide

Lynch Audio Lab · Music records a brighter tomorrow. This guide describes the released Audio Unit package. The control chapters preserve the supplied public operating documentation, with current-operation addenda integrated and obsolete private-test release labels removed. Images show the real product interface; some original panel lettering may predate the current package version. Original TXT documentation remains available separately.

Original Lynch designs are not measured hardware replicas or equipment-maker endorsements. Listen in context, maintain headroom and check the final deliverable after downstream processing. Support: info@lynchaudiolab.com.