INDEPENDENT AUDIO SOFTWARE

LYNCH Broke Drums

Build a pocket. Roughen the edges.



Choose among 288 sound families, sketch the eight-pad grid and shape each hit with pitch, filters, drive and distortion. Humanize, source ducking and an optional kick-rumble return turn a simple pattern into a part you can work around.

Complete colour user guide · version 0.8.0 · Apple Silicon Mac AU · macOS 12+

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Start with the part

Choose among 288 sound families, sketch the eight-pad grid and shape each hit with pitch, filters, drive and distortion. Humanize, source ducking and an optional kick-rumble return turn a simple pattern into a part you can work around.

01 / Broke Drums offers 288 selectable sound families, eight pads and 32 starting points. The 1,152 sample records contain two velocity bands and two alternate hits per family, with real CC0 acoustic/electronic recordings, original Lynch synthesis and documented processed variants. Select a pad to audition it and edit its 16-step row. Play also runs with the host stopped: Host Sync follows the moving host beat, and a stationary host uses a free-running clock at the host tempo. Turn Host Sync off to use manual BPM. MIDI notes: Kick 36, Snare 38, Closed Hat 42, Open Hat 46, Clap 39, Tom 45, Rim 37, Perc 50. Closed Hat chokes Open Hat. MIDI note-offs do not choke a drum one-shot.

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 / Pocket / Dust / Neon / Basement / Reel Reel slows and colors the existing Dust recordings with inherent saturation.

Inside the sound

Init And Preset Readability

Init resets to a clean starting sound.

Five Characters

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Tone: dark to bright low-pass color.

Presets

32 curated Starting Points, grouped by character.

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

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Five Characters

Pocket / Dust / Neon / Basement / Reel Reel slows and colors the existing Dust recordings with inherent saturation. This is a new kit character derived from the existing original sample bank, not a new recorded kit.

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 processing with original and documented CC0 sounds; no Goldbaby or commercial sample library audio. 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.

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.

Drag Midi

Drag MIDI exports the complete16-step/eight-row pattern as a one-bar Standard MIDI File at480ticks per quarter. Drag onto a Software Instrument track in the Logic arrangement. It follows the destination tempo; it does not set the Logic project tempo. Includes master Swing timing and sequencer accents with GM-style drum notes36/38/42/46/39/45/37/50 on MIDI channel10. Notes have30tick gates; Broke Drums plays one-shot samples. Export includes all stored rows regardless of Solo. Sounds, sample edits, effects and limiter remain in the plugin; MIDI contains note events. Disable Play for the exported region to avoid double triggering. Temporary export files are generated only when dragging/exporting, outside the audio thread. Actual Logic placement remains your manual drag action; no Logic project was operated by the tests.

Factory Starting Points

32 starting points, including sixteen new acoustic, hip-hop, house, techno and broken-object kits with per-pad sound/drive/ring/room sends and enabled Tube Limiter. Init remains a simple clean start. These are new parameter recipes; musical balance should be assessed on your own recordings.

Pad Performance / Destruction

Humanize0-100% varies each new hit's velocity up to +/-18% and adds a small positive random timing delay,0-12ms at full. MIDI, pads and sequencer use it;0 preserves the original hit. Start around10-35%. Timing is a musical offset after the incoming event, not anticipatory host scheduling. Pitch Variation0-50 cents adds a separate random pitch offset per hit. Try3-12 cents for subtle analog variation;50 approaches a half-semitone either way. Its amount can smoothly change a ringing hit. Manual Pitch remains independent. Broke Distortion0-100% is separate from Drive. It adds hard clipping and wavefolding with first-order antiderivative antialiasing; higher amounts introduce deliberately crushed, sample-held digital trash.0 preserves clean sound exactly.100 can be brutally loud/rough: set pad Level and final Output, or use the optional Tube Limiter. This is original sound design, not a hardware model or perfectly alias-free bit crusher. Auto Pan0-100% moves within the stereo range available around the pad's fixed Pan. Pan Rate selects2 Bars,1 Bar,1/2 Note,1/4 Note or1/8 Note.

A moving host beat anchors the phase when Sync is on. With the host stopped, movement continues at host tempo; with Sync off it uses manual BPM. Use a stereo instance to hear movement; mono summing cancels this pan law's left/right motion. Duck Source: Off / Kick / Snare / Kick + Snare. Solo mutes the other pads' audio and new room sends, while their actual hits keep triggering ducking. Leave source pattern steps enabled or send source MIDI notes; no source hits means no duck. Kick is always exempt. Snare never ducks itself, including in Kick + Snare mode. Source onset after Humanize triggers a smooth0.25ms attack and12ms hold, then recovery. Amount0-100% gives up to48dB attenuation, with12dB at50% and27dB at75%. Release25-1000ms sets the time for attenuation in dB to fall to37% after the hold; longer gives deeper pumping. Dry sound and new Room Sends duck; already stored shared reverb/slap tails remain. No external sidechain input is required. Try HH Solo, Source Kick, Amount75%, Release250ms, then PLAY with active Kick steps.

Hit Chance0-100% applies only to enabled sequencer steps.100 always plays the grid;0 skips the pad's sequenced hits. MIDI and manual audition always play. Drag MIDI exports the stored grid and Swing, without baking random timing, velocity or Hit Chance decisions. The pad sound settings still apply when that MIDI drives Broke Drums. Sound arrows beside the sound menu step through all288 choices plus Follow Kit, wrap at the ends and affect only the selected pad. Auto Preview auditions changes while Play is stopped. The header arrows still select the pad being edited. All72 new per-pad parameters support host automation and preset/project save. Init leaves the new effects off, Hit Chance at100%. Existing32 starting points retain their previous sound when the additions are neutral. Random streams are independent per pad and repeat after engine reset; they are not a learned human performance or stored random-generator timeline.

Per-Pad Filters

Every pad has independent High Pass and Low Pass, side by side in Edit.12dB/oct Butterworth filters run after Drive and Broke Distortion, before ducking, Pan and Room Send. High Pass removes bass/rumble; far left20Hz is OFF. Low Pass removes brightness; far right18kHz is OFF. Both cutoffs move smoothly on already ringing sounds and are saved/automatable. Master Tone still shapes the complete kit.

Kick Bass / Fat

Kick-only slider in Edit.0 is original;100 adds a broad12dB low shelf below140Hz for bass and body. It uses the kick's own sound and follows its Pitch. Before Drive/Broke Distortion and the two filters, so High Pass can remove the added bottom. Saved and automatable. Trim Level/Output or enable Tube Limiter when adding substantial bass.

Kick Rumble / Universal1/8

Open Kick in Edit, then RUMBLE. The integrated panel appears on top; opening it leaves the sound unchanged. Enable ON inside. Back to Kick or Escape returns to pad editing; Guide stays above either panel. ? hover help and UI Size apply. HIT KICK auditions directly; PLAY previews the stored pattern with the host stopped. Auto Preview follows its switch in Edit.

Rumble creates an eighth-note echo from Kick's actual sound, followed by diffusion and a short feedback room. Every Kick sound choice works through this same path; no sample classification, threshold or external sidechain. Feed follows the Kick's Bass/Fat, Drive, Broke Distortion, HP/LP and Level. It is separate from master Space and Kick Room Send. The dry kick is unchanged. Master Output and Tube Limiter affect both.

AMOUNT sets the return level. LENGTH0.2-6s shapes the echo/room feedback tail. DRIVE is independent soft saturation with first-order antiderivative antialiasing. HIGH PASS20-400Hz / LOW PASS80-4000Hz are24dB/oct filters on Rumble, after Drive. WIDTH0-200% spreads frequencies above120Hz;0 is mono and100 normal. A24dB/oct side filter keeps the deep bass mostly centered.

DUCK is triggered by actual Kick onset after Humanize and aligned to the16-sample dry latency. It ducks the complete return, preserving the feed/feedback so the tail can rise again.0 means no duck;100 reaches48dB. RECOVERY20-1000ms controls the rise after12ms hold. Echo timing remains1/8 at Host Sync/BPM; tempo changes crossfade the delay taps. Kick Solo includes Rumble; a Solo selection excluding Kick fades its feed and return. Mute silences the complete instrument. ON/OFF fades without altering dry Kick; Off clears the tail after fading.

Start: ON, Amount45%, Length1.8s, Duck85%, Recovery200ms, Width70%, HP30Hz, LP350Hz, Drive25%. For a darker floor lower LP; for a drier groove reduce Length. Leave headroom as Rumble adds energy. All9 new parameters save/automate; Init and factory defaults keep Rumble OFF. The host tail allowance is27s, and initial silence before the first echo keeps rendering while Rumble is pending.

Rumble Solo

Use SOLO ON in the Kick Rumble panel to audition only the Rumble return. Dry kick, other pads and the shared Space return are muted at the audition mix, while the kick still feeds and ducks Rumble. This works even if another pad has Solo enabled. Output and Tube Limiter remain active. Switch SOLO OFF to restore the normal mix. The switch is unavailable with Rumble OFF; Rumble OFF restores normal monitoring. Rumble Solo is saved and automatable; Init and factory sounds reset it Off. A visible RUMBLE SOLO label remains on the main editor while auditioning.

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.

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/legacy states retain the previous sound; new factory recipes may enable the limiter. 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

32 curated Starting Points, grouped by character. Arrows move through them. Editing parameters displays Custom / User Sound. Save writes a standard .aupreset file to a location you choose. User loads a preset from this same plugin and rejects other AU identities. Logic also saves all parameters in sessions and its normal plugin preset system. Drum factory changes preserve Play, Host Sync and manual BPM. Loading a complete User/host state restores them.

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.

Pad Editor

Select a pad, then Edit Pad. HIT and all eight pads remain playable inside Edit. Arrow buttons switch the pad being edited. Sound0 follows Kit; the other288 choices are grouped into sound categories. Each family retains two velocity bands and two alternate hits. The original32 synthesized families are retained; new choices use the existing CC0 acoustic/electronic library and original Lynch sources. Some choices are processed variants, not additional recording sessions. Source details and licenses are bundled in Samples/PROVENANCE.txt and Samples/Licenses. Auto Preview ON auditions a finished edit or sound change while Play is stopped; turn it off for silent editing. Each pad has independent Level, live Pitch, Pan, Attack, Ring, Room Send, High Pass, Low Pass, Drive, Broke Distortion, Start and Reverse. High Pass far left and Low Pass far right are Off. Drive adds antiderivative-antialiased asymmetric saturation before master coloration.

Upward tuning blends prepared octave-down sample levels to reduce high-frequency folding; it is a creative sampler, not a perfectly alias-free transposer. Sound, Start and Reverse apply to the next triggered hit. Other controls shape active hits. Ring100%, Drive0%, Start0%, ReverseOff and SoundFollow Kit preserve the original sample behavior. Small S buttons beside the main and Edit pads share the same

Solo state. Solo can isolate several pads together. It fades other pads' dry audio and new room sends; existing shared room/slap tails can decay. Solo does not change the stored pattern. Room Send0–200% is independent per pad, feeding the shared short-room/slap engine under master Space.0 gives no new effect send,100 preserves the previous send and200 doubles the send amplitude. The master return can still contain old tails. This version has one shared room/slap engine, not eight independent reverbs. Own sample-file import is not included; choose among the288 factory sound families.

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.