INDEPENDENT AUDIO SOFTWARE

LYNCH Electronic Drums

Start with the beat. Shape every hit.



Choose an original electronic kit and sketch an eight-pad rhythm, then refine each hit with sound selection, motion and detailed step lanes. Song patterns, pad balance and independent Tube/Tape stages keep rhythm and sound in the same workspace.

Complete colour user guide · version 0.3.0 · Apple Silicon Mac AU · macOS 12+

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Start with the part

Choose an original electronic kit and sketch an eight-pad rhythm, then refine each hit with sound selection, motion and detailed step lanes. Song patterns, pad balance and independent Tube/Tape stages keep rhythm and sound in the same workspace.

01 / Insert Electronic Drums as a software instrument. Choose a factory kit/pattern from Starting Points, then press PLAY even while Logic is stopped. HOST SYNC uses the host's beat while it advances; stopped-host preview continues at host BPM. With HOST SYNC off, BPM is your manual tempo. Click a pad to hear it and select its simple sixteen-step row. Click step numbers to enable or rest its hits. The Init button and host factory Init both load a clean source and simple beat; PLAY is off in the stored Init. The instrument does not start itself on insertion. Factory kit changes preserve your current Play, Host Sync, BPM and Song setting.

02 / A complete electronic drum instrument for crisp Nordic pop, soft intimate beats, large analog bodies, glittering digital percussion and damaged club textures.

03 / Insert Electronic Drums as a software instrument.

04 / Clean, Punch, Fat, Grain and Tape choose the source bank for pads set to Follow Kit.

Inside the sound

Electronic Pulse. Northern Soul.

A complete electronic drum instrument for crisp Nordic pop, soft intimate beats, large analog bodies, glittering digital percussion and damaged club textures.

Quick Start

Insert Electronic Drums as a software instrument.

The Sound Library

Clean, Punch, Fat, Grain and Tape choose the source bank for pads set to Follow Kit.

Factory Starting Points

Init plus256 distinct complete kit/pattern arrangements in eight groups: Nordic Pop, Electropop, Indie Electronic, Synth Pop, Alt RnB, Downtempo, Disco House and Leftfield.

Main Sound Controls

Tone moves the global brightness from a350Hz nominal low-pass cutoff to20kHz.

Pad Mixer

Mixer opens a compact eight-channel balance panel.

Quick Start

Insert Electronic Drums as a software instrument. Choose a factory kit/pattern from Starting Points, then press PLAY even while Logic is stopped. HOST SYNC uses the host's beat while it advances; stopped-host preview continues at host BPM. With HOST SYNC off, BPM is your manual tempo. Click a pad to hear it and select its simple sixteen-step row. Click step numbers to enable or rest its hits. The Init button and host factory Init both load a clean source and simple beat; PLAY is off in the stored Init. The instrument does not start itself on insertion. Factory kit changes preserve your current Play, Host Sync, BPM and Song setting.

Electronic Pulse. Northern Soul.

A complete electronic drum instrument for crisp Nordic pop, soft intimate beats, large analog bodies, glittering digital percussion and damaged club textures. This is a new instrument with its own original audio library and AU identity.

The Sound Library

160 newly synthesized original sound families, each with two velocity excitations and two alternating takes:640 48kHz mono samples. There are20 kick,20 snare,20 closed-hat,20 open-hat,20 clap and20 tom families,12 rims,12 percussion families, 8 FX and8 noise families. Any sound can go on any pad. Quiet hits have softer excitation; louder hits select the harder layer. Each pad advances its own two alternate takes. No commercial recordings or proprietary drum-machine samples are bundled.

Clean, Punch, Fat, Grain and Tape choose the source bank for pads set to Follow Kit. Explicit per-pad sounds override that bank. The160 entries are grouped by type; FX and Noise include laser/FM chirps, glitch objects, short washes and sweeps. Source themes range from Glacier Pop, Glasshouse and Linen Machine to Fjord Analog, Magnetic Crush, Broken Glass and Arctic Voltage. These are original recipes; they are not measured replicas of named hardware.

Historical inspiration includes analog ringing bass drums, noise/shell snares, metallic oscillator hats, clap pulse bursts, pitched toms and digital hybrid FM percussion. A fast pitch attack and separate body decay are synthesis building blocks. Three kick themes use pulse-excited damped resonators, with a distinct fast attack jump and slow pitch sigh; four snare themes use two pulse/noise-excited shell resonators. These are original behavioral models, not a claim that a sample plays the actual circuit's continuously retriggering state. This sampler has24 voices and retriggers individual samples.

Factory Starting Points

Init plus256 distinct complete kit/pattern arrangements in eight groups: Nordic Pop, Electropop, Indie Electronic, Synth Pop, Alt RnB, Downtempo, Disco House and Leftfield. Each has a different complete eight-pad trigger arrangement, selected sounds, accents, per-step movement and a considered output treatment. Common musical kick/backbeat conventions are shared; these are not four drive settings of one underlying pattern. Use the arrows to browse, or select directly. Save writes a standard .aupreset. User loads your saved file. Sound, steps, pads, output stages and the sparse Song document travel with the host state.

Main Sound Controls

Tone moves the global brightness from a350Hz nominal low-pass cutoff to20kHz. It does not change sample tuning. Bright Init starts at100; use Pad Pitch for independent tuning. Tape mode has its own worn-speed coloration. Dirt adds oversampled asymmetric coloration. Space combines a short room and slap return; each pad has an independent Send into it. Motion adds subtle movement. Ring sets the common sample envelope decay; the per-pad Ring scales it. Output is manual level. SOUND ON/MUTED mutes this instrument; it is not an effect's dry bypass.

Pad Mixer

Mixer opens a compact eight-channel balance panel. Each pad has a Volume fader and Pan slider. These are the very same Level and Pan parameters used in Edit Pad: changes in either view, host automation and loaded presets update the other view. There is no extra gain stage or second set of mix settings. Double-click a control to reset it, or right-click for parameter reset and MIDI-assignment guidance. Click a pad name in Mixer to audition/select it. The main pads, Solo switches, sixteen-step row and Play remain accessible while Mixer is open. Close Mixer or Escape returns to the main sound controls. Mixer and Song occupy the same compact upper workspace; opening one closes the other.

Pad Edit

Edit Pad opens above the instrument. You can click any of the eight pads or HIT while editing, and PLAY is also available inside the panel. The small S switches can solo several pads together. Auto Preview auditions changed selections after a gesture while the pattern is stopped. Previous/Next Sound browse all160 sources plus Follow Kit. Previous/Next Pad change the edited pad.

Level and Pan balance each sound. Pitch is live semitone tuning; Start skips into the sample and Reverse starts at the other end for the next hit. Attack softens the transient. Ring scales the envelope. Room Send ranges0–200% under master Space. Drive is asymmetric antiderivative-antialiased saturation. Electronic Distortion is a separate destruction stage with clipping/folding and crushed sample holds. At zero both preserve the clean sample; full Distortion intentionally gets rough. Tone is a complementary up-to6dB

spectral tilt around1kHz. Separate12dB/oct High Pass and Low Pass remove lows/highs. HP at20Hz and LP at18kHz bypass their filter. These controls are smoothed and change already-ringing hits.

Humanize adds independent positive timing jitter up to12ms and up to±18% velocity variation at full. Variation adds random pitch in cents per hit. Zero is exact. Auto Pan gives tempo-synced stereo movement around Pan; Rate selects its cycle. Chance affects sequencer hits, not clicked or incoming MIDI hits. Random streams are deterministic per pad and reset with the instrument, so block partitioning does not decide the sound.

Ducking

All non-kick pads can choose Off, Kick, Snare or Kick+Snare. Duck depth reaches 48dB at full, with smooth short attack and independently set recovery. A source's actual pattern/MIDI/audition hit triggers its detector even when that source is hidden by Solo. Therefore a solo hat can still pump to the playing kick pattern. A disabled/rested/chance-skipped source step does not trigger. Snare cannot duck itself and Kick is exempt. The pad and its new room send duck together; already stored shared room tails continue naturally.

Kick Bass And Rumble

The Kick pad has an additional bass/fattening control. Rumble opens its own panel: a tempo-synced eighth-note echo into a diffused low return, with Amount, Length, Duck, Recovery, Width, HP, LP and Drive. Dry kick stays intact. Low stereo content is centered below120Hz; Width affects the higher return. Rumble Solo hears only the return while kick hits still feed and duck it. Kick Solo includes its return. A stored factory Init has Rumble off. Most pop presets also leave it off.

Step Pitch / Velocity / Pan

The main page stays simple. Step Edit opens three selectable lanes for the chosen pad. Pitch offsets are±24 semitones and are captured per hit, added to Pad Pitch. Velocity0 is a rest;127 is maximum. Per-step Pan offsets add to Pad Pan and are bounded to the stereo range. Auto Pan and Humanize remain independent. Reset Lane resets only that lane; changes are saved/automatable with their pattern.

Song / Follow / Loop Export

Song stores sparse independent patterns against DAW bar numbers. Unassigned bars inherit the base pattern, so the song can follow a long arrangement without allocating every possible bar. Copy/Paste carries pattern, Swing and step lanes. Follow in the main view follows the currently playing bar; turn it off to edit a fixed bar while audio keeps following the DAW. Bar numbers are one-based. Song playback uses actual host beat, meter and transport; an unavailable clock uses the ordinary preview. Meter-change warnings require the explicit Align operation so existing edits are not silently shifted.

Drag MIDI on the main page exports the ordinary one-bar eight-pad grid. The Song panel's loop drag exports the host's current cycle when available, or your explicit bar range. Files contain tempo/meter, swing, notes, velocity, pitch bends and pan events. For independent pitch/pan, pads use separate MIDI channels with pitch-bend range messages. Logic/instruments can interpret those channels and controllers differently; keep Electronic Drums as the destination for the closest behavior. MIDI is the stored grid: random chance, humanize, sampled FX, room, rumble, output coloration and audio tails are not printed into MIDI.

Engine / Limitations

AU instrument: aumu/Ed01/LyPl; Apple-silicon macOS12 or later. The sampled source is48kHz/16-bit mono; output is mono or stereo at44.1/48/88.2/96/192kHz (and supported intermediate rates). Offline sources are synthesized at192kHz then properly low-pass-decimated. On upward transposition, prefiltered mip levels reduce aliasing; large pitch changes and intentional sample crushing still have audible tradeoffs. 24 overlapping voices use oldest-voice stealing. Global coloration has16 samples of declared latency. Tube/Tape have no lookahead. The host tail declaration is64s to cover the longest sample at−48 semitones, Tape's slower playback, human timing and room/rumble decay. Repeated triggering can keep producing new sound. Bank decoding/resampling runs at initialization, not inside the audio callback. Factory output/headroom is conservative, but combining many maximum pads/drive stages can require level adjustment. The source-bound benchmark on this Mac measured a normal factory rhythm at about14% of one core at48kHz and55% at192kHz.

An intentionally dense all-pad color/rumble stress reached roughly114% at192kHz, so that extreme is not reliable real time on this machine. Use44.1/48/96kHz or reduce dense coloration for more headroom; host/CPU/buffer conditions affect practical performance. Automated measurements do not replace final music listening, real Logic MIDI drag/automation checks or release signing.

Step Edit / Sixteen Lanes

Pitch, Velocity and Pan stay at the top of the lane menu. Below them: Rhythm: Chance, Ratchet, Timing. Envelope: Attack, Length. Tone: High Pass, Low Pass, Tone. Character: Drive, Distortion. Sample: Start, Reverse. Space: Send.

A dot beside a menu item means that lane differs from its neutral values for the selected pad. The menu checkmark shows the current lane. Other lane edits keep playing when you change the view. Every lane belongs to the ordinary pattern, or to its independent Song bar when Song is enabled. Pad controls are the common base sound; the lanes apply to individual triggered hits. Ringing hits retain the settings captured at their onset.

Chance multiplies Pad Hit Chance. Zero is silent, 100 follows the pad. Ratchet plays 1-4 hits inside the step. Timing moves a group by -45 to +45 percent of a sixteenth; negative is early. Step 1 is bounded by its pattern bar boundary. Swing and Humanize remain active. Seek/loop restarts do not create a burst of overdue repeats. Attack adds 0-50ms to Pad Attack. Length scales Pad Ring (100 percent neutral); it does not time-stretch sample data. High Pass removes additional low frequencies and Low Pass removes

additional high frequencies. Their neutral ends display PAD. Tone adds to Pad Tone. Drive and Distortion add to their pad amounts, bounded at 100. Start adds to the pad start, bounded at 95 percent. Reverse flips the pad playback direction for this hit. Send multiplies Pad Room Send: 100 follows the pad, 0 removes the hit's new room/slap feed. Master Space must be above zero for a wet return.

Copy Lane / Paste Lane transfers sixteen values for the same lane, between pads or these drum products. Existing clipboard content changes only when you press Copy. Reset Lane restores neutral values without erasing hit/rest positions. Variation supplies a restrained, reproducible starting shape. All = Step 1 fills the other fifteen positions with the first value of this lane; use it for a per-pattern setting on this pad.

MIDI drag exports hit/rest, pitch bend, velocity, pan, timing and repeat notes. Chance zero is omitted; intermediate probability exports the stored hit grid, rather than a recorded random performance. Audio-only envelope, filtering, drive, reverse, sample start and effect-send lanes remain in this instrument and its project/preset state. For all sound-lane movement, keep the internal sequencer playing or bounce audio. Exported MIDI triggers the base pad sound when the internal sequencer is stopped. MIDI alone cannot reproduce those sound treatments. Drag completion follows the existing playback handoff behavior.

All previous numeric AU parameter IDs remain stable in the two updated eight-pad instruments. Appended controls start neutral in legacy project and Song data. New factory rhythms are not required to hear these features: edit any stored pattern. Existing factory audio is retained when the new lanes are neutral.

Tube Tape Output

The permanent bottom output panel keeps Tube before Tape. Enable either, both or OFF. Tube gives warm stereo-linked sample-peak control with Amount. Tape adds its own Drive, Ceiling and Release and follows Tube when both are enabled. Stages are independent; more drive changes sound and level. The gain-reduction history shows control activity. Use Output manually; no automatic gain matching. Tape Ceiling describes sample peaks after control/enable transitions settle, not a certified reconstructed true-peak ceiling. Clean Init leaves both off.

Help / Automation / State

? toggles explanations for controls. Guide is an integrated frontmost surface; Close or Escape returns to the instrument. UI Size offers75/85/100/115/130/150%. Optional Hover allows click-free control; Escape disables it, Shift gives fine movement. All606 scalar controls are host parameters, including all step lanes. Use Logic's Controller Assignments/automation for MIDI knob control. Sound menus, mode/power switches and step masks are discrete; continuous values are smoothed. Song's sparse arrangement is saved as an additional document, not thousands of host parameters. State files are checked for finite/ranged/valid values before mutation. Other Lynch product state files have a different AU identity.

Original Audio And Technical References

All new source recordings are mathematically generated by this project. See the bundled SOUND-CATALOG.json and PROVENANCE. Reusable engine/UI/song/player code derives from the project's existing Techno Drums implementation; no former product is modified by this release. Primary historical context: Werner/Abel/Smith, DAFx2014, physically informed808 bass drum analysis: Roland, original909 history (analog drums and sampled cymbals): These references inform concepts; no external implementation or ROM audio is used.

Song now uses a compact upper workspace. All eight main pads, their Solo switches, the selected pad's sixteen steps and Play remain visible and clickable below it. Select a Song bar, click a pad and edit its main step row without closing Song. The selected bar is pinned when edited; Follow continues to use the existing follow/pinned behavior. Edit Pattern opens the detailed per-step lane editor.

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.