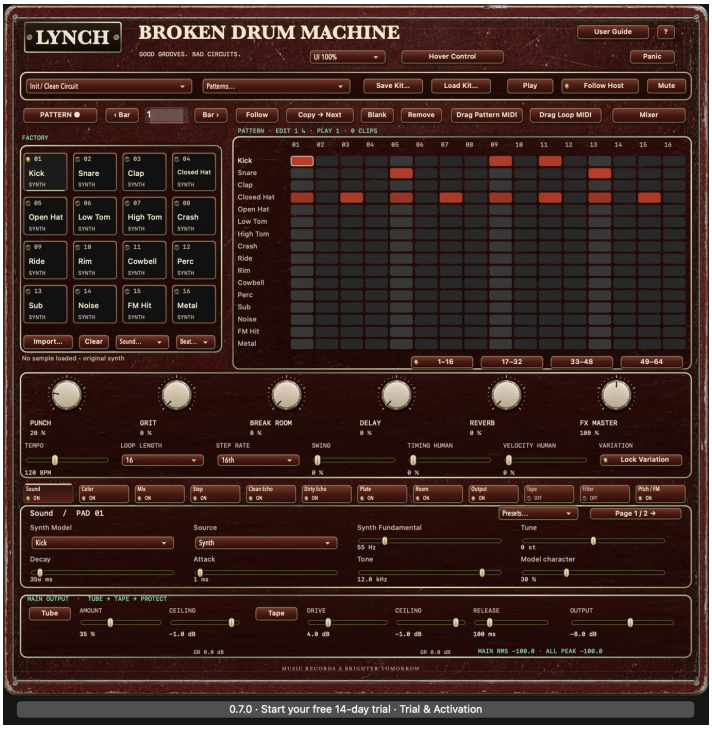
INDEPENDENT AUDIO SOFTWARE

Broken Drum Machine

Make the beat a living part.



Build a rhythm across sixteen pads, then let velocity layers, alternate hits and controlled damage give it movement. Arrange bar-addressed clips, balance the shared mixer and place clean or character echoes around the groove.

Complete colour user guide · version 0.7.0 · Apple Silicon Mac AU · macOS 12+

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Start with the part

Build a rhythm across sixteen pads, then let velocity layers, alternate hits and controlled damage give it movement. Arrange bar-addressed clips, balance the shared mixer and place clean or character echoes around the groove.

01 / Choose a kit, choose a pattern, enable Play and start Logic. Follow Host uses Logic's tempo and transport. Turn Follow Host off to run the internal clock, then press Play. Pads always audition when clicked, regardless of the sequencer transport. MIDI notes 36–51 trigger the default pads on any channel. These are one-shot sounds; note-off does not cut them.

02 / PATTERN loops the original base pattern.

03 / Follow moves the editable grid to the current playing bar.

04 / Drag Pattern MIDI exports the displayed pattern.

Inside the sound

Song, Mixer And Main Output

PATTERN loops the original base pattern.

Quick Start

Choose a kit, choose a pattern, enable Play and start Logic.

Your Sound Library

16 distinct sampled kits / 256 sound slots / 2,048 prepared 48 kHz WAVs.

Import / Save

Import accepts mono or stereo WAV, AIFF and CAF one-shots up to ten seconds.

Beat Grid

Four pages of sixteen steps make a 64-step pattern.

Groove

Swing alternates long and short steps.

Quick Start

Choose a kit, choose a pattern, enable Play and start Logic. Follow Host uses Logic's tempo and transport. Turn Follow Host off to run the internal clock, then press Play. Pads always audition when clicked, regardless of the sequencer transport. MIDI notes 36–51 trigger the default pads on any channel. These are one-shot sounds; note-off does not cut them.

Sound and approach

Broken Drum Machine 0.5.0

Your Sound Library

16 distinct sampled kits / 256 sound slots / 2,048 prepared 48 kHz WAVs. Recorded acoustic drums use CC0 source performances from the Versilian Community Sample Library; electronic recordings use Michael Fischer's CC0 TR-808 set. Additional electronic voices use original Lynch synthesis. Each slot has four velocity variants and two native or processed alternate hits. Native recorded velocity/alternate takes are used where available; processed variants are not new recorded performances. Sources, edits and licenses are supplied. These are not exclusive Lynch recordings.

All factory kits select Sample, so changing kits changes the prepared audio you actually hear. Each pair within a style has separate prepared samples. Init remains a clean Synth starting point. The top Kit browser replaces all pads. The small Sound… browser below the pads changes only the selected pad: choose a style, kit and sound, then audition the pad. Its sample name shows the selected source. Other samples, beat, mix and routing stay as they are.

Synth / Sample / Layer

Select a pad and open Sound. Synth runs an original drum model; Sample plays its loaded WAV; Layer mixes both. Sample blend is the sample share in Layer mode. Synth Model, Synth Fundamental and Character controls are available in Synth and Layer. Use Sound… to change a Sample sound. Tune affects both. Attack fades the start. Decay controls the synth's decay and the maximum sample playback duration; increase it to retain long imported tails. Sound page 2 contains sample trim, reverse, choke group, MIDI note and velocity response. Start and End are percentages of each hit; a short fade reduces edge clicks. Four library velocity layers respond to MIDI/step velocity and two alternate hits rotate automatically.

Import / Save

Import accepts mono or stereo WAV, AIFF and CAF one-shots up to ten seconds. It converts to 48 kHz and retains stereo. Import selects Sample and raises Decay to ten seconds. Clear removes this pad's sample and returns it to Synth. Imported audio and the entire pattern are embedded in Logic's plugin state and in saved User kits. You can delete the original imported file after saving successfully. Save Kit creates a new file under your Application Support/LynchPlugins/BrokenDrums/Kits folder; existing files are preserved. Load Kit restores the complete state. Whole-kit factory selection replaces all sixteen sample assignments and sound settings. Save your kit first. Factory selection keeps your pattern, transport, groove, output, mute/solo, pad MIDI mapping, lengths and output routing.

Beat Grid

Four pages of sixteen steps make a 64-step pattern. Pattern length sets the global loop; Mix contains each pad's shorter track length for polymeters. Click to toggle a hit. Option-click makes a ghost hit. Drag paints hits or clears them. Shift-click or right-click selects a step without changing it. Open Step to set velocity, chance, ratchets, pitch and micro-shift. Pattern menus change the beat only. Beat… variations add ghosts, hat repeats or broken chance; Clear Pad erases only the selected track. Step edits are stored with the project, rather than exposed as separate automation parameters.

Groove

Swing alternates long and short steps. Timing and velocity humanize add reproducible variation. Lock repeats chance and humanization decisions each global loop; unlocked variation evolves per loop. Alternate sample hits still rotate with Lock on. Seed chooses the variation. Step and pad shifts are milliseconds and their combined timing is limited to 40% of a step, including humanization. The first hit cannot precede starting playback. Use 8th, 16th or 32nd rate. A host seek resets voices and realigns the pattern to Logic's beat grid.

Color / Mix

Drive, Broken, Crush, Tape, Tube and Transient give each pad its own character. Color can be bypassed globally or per pad. Tone and High-pass remain sound-shaping controls when Color is bypassed. Mute, Solo, pan and level act per pad. Closed and Open Hat share choke group 1; four choke groups are available. Up to 32 voices play with short fades when stolen or choked.

Spaces

Clean Echo and Character Echo offer separate send, time, feedback, filters, ducking, release and stereo width. Next Page reveals sync, rhythmic division, enable and character. Plate and Room offer their own send, decay, predelay, filters, ducking, release and width. Each pad has separate Echo and Reverb sends. The Echo and Reverb macros set normal return levels. Break the Room adds a driven Room return even when Reverb is zero; Room Drive controls its dirt. Double-click Color, Clean Echo, Dirty Echo, Plate or Room tabs to bypass that module. Output page 2 has global Color, Sequencer and Spaces enables.

Sound And Approach

This first instrument needs musical evaluation on your own speakers and sessions. It is not a hardware emulation or a claim of commercial certification. Live sampling and sample slicing are not included.

Song, Mixer And Main Output

PATTERN loops the original base pattern. SONG uses bar-addressed clips. Select a bar with the arrows or type its number, then edit the grid or choose a beat. The edited pattern starts at that bar and repeats until the next assigned clip. The dot marks an assigned clip; the arrow marks inheritance from an earlier clip. Copy then Next duplicates the clip to the next bar. Blank starts silence; Remove removes the assignment and restores inheritance. Global Length and each pad's track length apply to all clips. Your base Pattern remains separate.

Follow moves the editable grid to the current playing bar. Turn it off to edit another location. Pads and the step grid stay available. Song runs from Logic with Follow Host on, or from the internal 4/4 clock with Follow Host off. Play enables the sequencer. Up to 2,048 assigned clips can be placed across one million bar addresses. Song bar numbering currently assumes a constant time signature and beat zero as bar 1; songs with time-signature changes or shifted host origins need a future mapping extension.

Drag Pattern MIDI exports the displayed pattern. Drag Loop MIDI exports Song inside active host cycle locators; start host playback once so it can provide the range, then drag to Logic at the left locator. It creates a MIDI file rather than inserting a region automatically. Swing, chance, ratchets, velocity, shifts, pad mute/solo and pad MIDI note assignments are included. It uses the current tempo for millisecond shifts; tempo-map changes are not embedded. Per-step pitch, audio/effects and controller automation are not embedded. Turn the internal sequencer off when playing exported MIDI to avoid double hits. Export is limited to 4,096 bars and 16,384 quarter-note beats.

Mixer opens 16 shared channel strips in the lower editing area: Volume, Pan, Mute and Solo. Click a pad name to audition. Changes immediately share the same parameters as pad Mix; there is no second mixer state. Close Mixer to return to sound shaping. Pads, grid, transport and Main Output stay visible.

Main Output is always at the bottom. Output sets manual level before optional Tube then Tape then Protect. Tube Amount adds drive/limiting; Tube Ceiling sets its maximum sample level. Tape retains its Drive/Ceiling/Release behavior. Independent GR meters show each limiter's reduction. Main RMS

measures Main; All Peak includes all output buses. Tube and Tape process Main only, after delay/reverb; dry Group outputs retain existing output gain and protection. These are sample limiters, not certified true-peak limiters or measured hardware clones. Tube defaults off, preserving older sounds. No continuous automatic gain matching is added.

Song, edit bar and Follow save with project state and User kits. Factory sound changes retain the arrangement. Existing IDs 0–740 are intact; Song Mode and Tube On/Amount/Ceiling are appended at 741–744. Library recordings, pad synthesis and the existing Tape algorithm are retained.

Tape Limiter

All sixteen factory kits now use tube, tape and grit color per pad. Acoustic kits use lighter drive; cymbals use less grit; low drums keep controlled drive. Init and old saved kits keep their previous settings. Reload a factory kit for the new treatment. Sample files remain unchanged. The Tape button in Main Output enables an optional final Main stage after Output, both delays and both reverbs. The permanent bottom panel shows Drive, Ceiling and Release with limiter gain reduction. Ceiling also sets the tape saturation knee; lower it for earlier saturation, or raise Drive to reach sample limiting. Double-click Tape to bypass it. Four compact recipes: Soft Glue, Tape Punch, Hot Reels and Crushed Bus. Factory kits start with the final stage off. Per-pad color still works on separate Group outputs; Tape Limiter processes Main. This is original algorithmic tape-style saturation and stereo-linked sample limiting, not measured hardware or true peak. Heavy drive can add aliasing at the output sample rate. No extra latency is introduced.

Outputs / Protection

Main plus four stereo Group outputs are available. In Logic choose the multi-output instrument and add auxiliaries in the Mixer. Route in Mix sends the pad's dry signal to one bus; it is not duplicated on Main. Effects return to Main. Output and Mute control all five buses. Protection is a per-bus sample-peak ceiling with release, not a true-peak mastering limiter. Leave headroom for loud layered sounds. Sixteen samples of oversampling-filter latency are reported to the host.

Controls / Help

All controls use English. The ? button enables hover help. Drag sliders; double-click to restore the default. Parameter changes send host automation gestures. Kit/sample import and preset file operations run outside audio rendering. Panic stops the sequencer and clears voices and effects. The output meter and pad lights reflect actual rendering. Save your Logic project before closing it.

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.