INDEPENDENT AUDIO SOFTWARE

LYNCH Studio 22

Let a small amplifier tell the story.



Normal and Vibrato channels give two ways into this original combo response. Shape separate volumes and two-band tone, then add the Vibrato channel's spring and optical tremolo when the performance asks for movement.

Complete colour user guide · version 0.4.0 · Apple Silicon Mac AU · macOS 12+

Contents

Start with the part 3

Inside the sound 3

Quick Start 4

Sound and approach 4

This Model 4

Controls 4

Sounds 4

Cabinet & Mics 5

Pedals 5

Tape Echo 5

Recording Rack 5

Levels And Limits 6

Performance 6

Ui And Guide 7

Auto Wah 7

Match — One Shot 7

Tuner, Return Ducking And Warm Limiting 7

Install and choose the right host slot 8

Trial and permanent licensing 8

Save, recall and automate 9

Troubleshooting and support 9

About this guide 9

Start with the part

Normal and Vibrato channels give two ways into this original combo response. Shape separate volumes and two-band tone, then add the Vibrato channel's spring and optical tremolo when the performance asks for movement.

01 / Insert this Audio Unit as an audio effect. Feed it a clean recorded instrument or live input. Start with Init, play, and adjust Input Calibration for your instrument before shaping the amp. Output Trim controls listening level after the sound-producing stages.

02 / The matched cabinet is enabled in Init. Cabinet & Mics opens its speaker and microphone controls below the amplifier. Pedalboard and Tape Echo open the corresponding effects; the amplifier controls stay accessible. Amp Detail contains the model's additional original switches.

03 / Normal and Vibrato inputs have independent volumes and two-band tone controls.

04 / Insert this Audio Unit as an audio effect.

Inside the sound

This Model

Normal and Vibrato inputs have independent volumes and two-band tone controls.

Quick Start

Insert this Audio Unit as an audio effect.

Controls

Drag knobs vertically; Shift makes fine adjustments.

Sounds

Starting Points selects complete factory sounds.

Cabinet & Mics

Matched Cabinet selects the model's intended enclosure.

Pedals

The board has a master enable and separate pedal enable switches.

Quick Start

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Sound and approach

Lynch Studio 22 — User Guide Version 0.2.4

This Model

Normal and Vibrato inputs have independent volumes and two-band tone controls. The Vibrato channel adds spring reverb and optical amplitude tremolo. Amp Detail holds their footswitches. There is no physical amp master; Output Trim is a recording utility.

Controls

Drag knobs vertically; Shift makes fine adjustments. Sliders follow the pointer. Mouse wheel and keyboard arrows also edit values. Home/End reach the ends of the range. Double-click or right-click Reset to Default restores one parameter. Simply hovering does not change audio.

Click ? to enable per-control explanations. Inactive controls are dimmed and their values retained. All sound controls are Audio Unit parameters. Use Logic's automation lanes, or Logic Pro > Control Surfaces > Controller Assignments to assign MIDI hardware. This audio-effect AU does not advertise an internal MIDI Learn receiver.

Sounds

Starting Points selects complete factory sounds. The arrows move through them. Factory changes retain Input Calibration and Output Trim, except Init which resets everything. Save writes a complete User sound; User opens one for this product. A sound file for another amplifier is rejected. User sounds restore the saved trims too.

Cabinet & Mics

Matched Cabinet selects the model's intended enclosure. Other cabinet choices are recording alternatives. Microphone A is always present when the cabinet is on; enable B to blend two voices. Position moves from speaker center to edge; Distance and Angle alter the modeled recording position. Blend balances A/B. Alignment compensates modeled relative arrival timing; Polarity reverses microphone B. Room adds a restrained algorithmic ambience.

These speaker and microphone voices are original algorithmic models, not measured impulse responses or licensed cabinet captures. The dynamic/ribbon/condenser labels describe reference families and do not imply endorsement. Cabinet bypass is useful when feeding a separate cabinet process.

Pedals

The board has a master enable and separate pedal enable switches. Choose a pedal name to edit it. Wah Position can be assigned to an expression pedal through Logic. Compressor controls sensitivity and output; Drive controls amount, tone and level; Fuzz adds its own amount, volume and a Lynch bias adjustment. Phaser provides rate and depth. Chorus mode uses Intensity; Vibrato mode uses separate Rate and Depth. Modulation Placement selects the front of the amp or the studio path after its cabinet.

Tape Echo

Single Head and Three Head are distinct machine voices. Only Three Head exposes head combinations and its spring amount. Time and Division refer to head 3; heads 1 and 2 use one-third and two-thirds of that duration. Completed bypass clears the echo tail after a fade. Sync follows host tempo; Division selects its musical duration. Without valid host tempo the engine uses its documented fallback. Time is available with Sync off. Repeats changes feedback; Mix reaches fully wet for send use. Bass/Treble shape the echo. Tape Drive, Age and Wow/Flutter add coloration and motion; Duck reduces echo while the input plays. Before Amp drives echo through the amp; Studio After Cabinet keeps repeats downstream. This is not a claim of a modeled physical effects loop.

Recording Rack

Recording opens an optional studio chain after the amplifier cabinet and microphones. The complete rack is OFF in Init; turn Recording Rack ON to hear it. Module switches retain their settings while bypassed. The original amplifier controls remain available above the rack.

Signal order is Desk, EQ, Compressor, Tape, optional Noise, then parallel Delay and Reverb returns. Desk, EQ, Compressor and Tape are prepared with gentle settings; Noise, Delay and Reverb start off. Output Trim remains last. This is a recording chain, not a claim of a physical effects loop inside the original amplifier.

Desk selects Tube or Transistor color. Drive controls coloration and Trim sets the level into the following stages. EQ has high/low-pass filters, low and high shelves, and a mid bell with adjustable Q. This recording EQ follows the speaker path and is separate from the amplifier's front tone controls.

Compressor selects Opto, VCA or FET response. Threshold and Ratio set the amount, Attack and Release set recovery behavior, and Makeup sets the output level manually. Compression Mix blends the compressed and dry signals. The gain-reduction bar and number show actual compression, not input level. Opto uses adaptive release influenced by the Release setting.

Tape selects Studio Reel or Cassette. Drive, Tone, Bias, Wow and Wear have separate controls. Speed changes with tape type: reel uses 7.5, 15 or 30 ips; cassette uses 0.9375, 1.875 or 3.75 ips. Wear changes the tape response independently of the optional noise switch. Noise is input-armed and has a separate Noise Floor; switching it off removes that added noise.

Delay and Reverb are parallel sends: Send sets how much dry signal enters each effect, Return sets its level alongside the dry signal, and each return has its own high/low-pass filters. They do not replace the dry path. Delay filtering also applies to its feedback, so repeats inherit the filtering. The reverb low-pass also informs its internal high-frequency damping. Delay offers free time or tempo sync, division and feedback. Mode selects Classic, Stereo, Ping Pong, Dual Rhythm (3:2), or Multi Tap. Stereo creates different repeat timing on the left and right; Ping Pong alternates sides; Dual Rhythm combines two related rhythmic times; Multi Tap creates a pattern of repeats. Width adjusts the stereo spread of the wet return without changing the dry path. Width is also available in Classic; Classic at 100% preserves the earlier delay behavior. The new modes combine both delay sides for mono output; Classic keeps its original mono behavior. Stereo width is heard only with stereo output.

New Init settings use Stereo at full width; older saved states and user presets retain the earlier Classic behavior. Reverb offers Plate, Spring and Room with Decay. These are original algorithmic effects, not sampled rooms or captured hardware.

Levels And Limits

The hardware amplifier controls affect their intended gain stages. Input Calibration, amp gain/master and Output Trim have different jobs. Level matching is an explicit optional control. Watch the output meter and leave headroom in the session.

These are original software implementations informed by published amplifier documentation. Exact equivalence to a particular physical unit, tube set, speaker or microphone requires physical reference measurements and listening. No claim of a 100% measured clone is made.

Performance

For a mono guitar or bass DI, choose Logic's Mono then Stereo version. True stereo runs two full amplifier paths and uses more CPU. Demanding sounds may benefit from Freeze or an offline bounce. A larger buffer can help scheduling, but cannot solve a sustained processing load above real time.

If a stereo effect is used before the amp, both amplifier paths stay active until Init or a host reset, preserving their stereo tails. Place modulation and echo after the cabinet to keep mono-DI processing lighter.

Ui And Guide

UI Size offers six sizes and fits within the display. The guide is integrated into this window: Close or Escape returns to the controls. It does not open behind Logic.

Auto Wah

Enable Pedalboard and Wah, then Auto Wah. Position sets the centre; Depth controls the sweep amount. Position 50% and Depth 100% give the full heel-to-toe sweep. Division sets the length of a complete sweep: 1/16, triplet, dotted and longer durations are available. One Bar means four quarter-note beats. The motion follows the playing host's beat. When stopped or no valid beat is available, it runs at the last valid tempo, initially 120 BPM. The pedal display uses the actual audio-engine position and tempo: HOST indicates a valid playing-host clock; FREE indicates the fallback clock. It holds when the host suspends rendering. Auto off preserves the existing manual wah sound. Old sessions and saved User sounds open with Auto off. All three new controls are host-automatable.

Match — One Shot

Manual Output is the default. Click Match and play five seconds of representative audio. It measures the entire audible chain and sets Output once; the trim then remains fixed. Maximum correction is ±12 dB per click within the Output range. Click Cancel Match to stop; parameter edits, reset, bypass or closing the editor also cancel. Insufficient audio times out after 20 seconds. RMS matching does not guarantee equal perceived loudness. The old Level Match (Legacy) host parameter is inactive.

Tuner, Return Ducking And Warm Limiting

Open the TUNER metal lid. The tuner reads the clean input before effects and the amplifier. Chromatic, Guitar, Drop D, DADGAD, Open G, Bass and Bass5 tunings; A reference430–450Hz. Tune/Mute silences the final output, including all effect tails. Closing the lid restores sound. Tuner/mute is a temporary editor action, never recalled in a sound preset.

Warm analog IN / OUT meters show measured levels, not separate L/R channels.

The amplifier collection Recording section now includes independent wet-return Delay and Reverb ducking. On stereo or mono-to-stereo instances the reverb is stereo; mono instances necessarily fold it to mono. Spaghetti's Vintage Mono also folds the finished rig; choose Cinema Stereo for width.

Warm Limiter is optional and off in Init/legacy sounds. It follows effect returns and Output Trim, before whole-plugin bypass. Amount adds tube-inspired color/drive, with linked sample-peak limiting. This is not a true-peak/intersample limiter. Broke Amp retains its existing final Tube Limiter; Broken Amp adds optional Warm Limiter beside Output Protection.

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 host and insert on an audio track, instrument audio output or bus.

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.