

Burnish Vocal Chain

User guide · version 1.1.0



What it is

A lead-vocal chain in one window: tune, clean, shape, compress, color, double, place and ride, with its own scope on every one of the eight stages. Drop a reference record and a fully local analysis proposes settings that sit your voice the way that record sits, and says why, stage by stage. Track mode runs the whole chain at 0.1 ms. VST3, AU and AAX for Windows and macOS.

Eight stages run in one window, in signal order. IN is trim, high-pass, gate, breath control and a noise floor. TUNE has a Classic path, the hard-tune sound at 0.1 ms, and a Natural path that corrects without moving your vowels, with key, scale, speed, humanize, throat and a note keyboard that sets which notes are legal targets. SHAPE is five bands plus a per-band adaptive de-harsh that cuts resonant excess rather than brightness, and a program-adaptive split-band de-esser. COMP is FET into Opto. COLOR is tape, tube and present character with an air shelf. DOUBLE is a detune-decorrelated doubler that folds down to mono under 3 dB. SPACE is delay and reverb, both ducked from the vocal. LEVEL is a feedforward BS.1770 short-term loudness rider, converging within ± 0.5 LU, then a safety limiter.

Drop a reference record on the REFERENCE well: an acapella, or a full mix, which is isolated first and labeled reduced confidence. The analysis extracts a 40-band K-weighted tonal curve, dynamics density, a sibilance profile, a space estimate and a tune style, fits interpretable rules, and shows each stage what it did and why. Match Amount scales the whole fit from 0 to 150 percent. It is offline, background and fully local; nothing leaves the machine.

The screen is the take. The bright line is your voice after correction, the faint steel line under it is the pitch you sang, and the lanes are the legal notes, named down the right edge, with gain reduction and short-term loudness above the trace. Mint sparks mark de-essed esses, the line splits magenta while the doubler runs, and the halo dims as the compressors work. Each station tile carries a small meter of that stage's work; select one and the deck's six knobs relight as that stage's main controls, with its own scope on the glass. Every deck value and every continuous value on the Design screen can be typed in its own unit: Hz, dB, milliseconds, seconds, cents, ratios or percent.

TRACK runs zero-lookahead dynamics on the Classic path at 0.1 ms total, four samples at 48 kHz, so a singer hears the finished chain in the headphones. MIX runs full quality and reports its latency exactly; the header names the mode and the figure at all times, 12.5 ms with the Natural path. Sixty-six factory chains each carry a measured target profile, so loading one arms Adapt to my voice, and twelve Learn chains isolate a single stage each. 131 parameters, add-only. BYPASS is latency-aligned true bypass and MATCH A/B is loudness-matched, and both are click-free, as is every stage toggle and the Track to Mix change.

Burnish Vocal Chain is a lead-vocal chain: mono or stereo in, stereo out, with polyphonic material out of scope by design. The reference proposes settings so your voice sits the way the record sits; nothing can make one voice sound identical to another, and Burnish will not pretend otherwise.

Built and used at a working recording studio. Support: support@vitricaudio.com

Key features

- Eight stages in one window: tune, clean, shape, compress, color, double, space and ride
- A scope on every station, and every lit element maps to a measured signal quantity
- Track mode runs the whole chain at 0.1 ms total, four samples at 48 kHz, zero lookahead
- Drop a reference record: a fully local analysis proposes settings and explains each stage
- 66 factory chains carry measured target profiles, so a chain re-fits to your own voice
- Exact typed values in Hz, dB, ms, cents, ratios or percent on the deck and every page

Working the plate

PLAY gives you six knobs and six moves: TUNE, CLEAN, TONE, BODY, SPACE and LEVEL. Each scales its part of the chain around the current settings, and 12 o'clock is neutral. DESIGN turns the same six knobs into the selected stage's main controls, and the engraving under them relights to say so. Pick a stage on the screen's rail, in signal order from IN to LEVEL; its remaining controls appear on the glass, its own scope shows what it is doing to your voice, and a knob with dark engraving is asleep for that stage. Double-click a rail key to bypass that stage, always click-free.

The bright white line on the stage is your voice after correction, the faint steel line under it is the pitch you sang, and the lanes are the legal notes, named along the right edge. Mint sparks mark de-essed esses, the line splits magenta when the doubler runs, and the halo dims as the compressors work. Each rail key carries a small meter of that stage's work, so the whole chain can be read at a glance.

Click a deck value or a continuous value on the Design screen to type it. Return commits, Escape cancels, and values accept the displayed unit, including Hz, kHz, dB, milliseconds, seconds, cents, ratios and percent. Invalid or out-of-range text stays in the field for correction and leaves the parameter unchanged. Arrow keys step on the control's grid and Shift uses fine steps; changing views, stations or pages cancels

an unfinished draft. STORED marks manual settings that are held while a stage runs automatically, so they can be prepared in advance.

BYPASS is latency-aligned true bypass and MATCH A/B is the loudness-matched comparison; B and M reach them from the keyboard. The header always shows the truth: Track 0.1 ms, Mix as configured, 12.5 ms with the Natural tune path. Mode switches never click.

Typical uses

- **Tracking a lead vocal.** Track mode at 0.1 ms on the Classic path, so the singer hears the tuned, compressed, placed chain in the headphones with no perceptible delay and keeps what they heard.
- **Mixing to a reference.** Drop the record the artist brought in, read the per-stage reasoning, set Match Amount, then finish by ear with every stage still visible.
- **A chain that adapts per singer.** All 66 factory chains carry a measured target profile, so loading one arms Adapt to my voice and the same chain sits a different voice differently.
- **Learning what each stage does.** The 12 Learn chains switch on one stage each with its scope lit, so the de-harsh or the rider can be heard alone before it joins the chain.

Full specification

- Eight stages in one window: IN, TUNE, SHAPE, COMP, COLOR, DOUBLE, SPACE, LEVEL
- Two views: PLAY (six macro knobs) and DESIGN (the selected station's own controls)
- Two modes: TRACK (zero-lookahead dynamics, Classic path) and MIX (full quality)
- Track mode latency: 0.1 ms total, 4 samples at 48 kHz
- Mix mode latency: reported exactly to the host, 12.5 ms with the Natural tune path
- IN: trim, high-pass, gate with lookahead in Mix mode, breath control, noise floor
- TUNE Classic: the hard-tune sound at 0.1 ms
- TUNE Natural: formant-preserving correction with Throat; sibilants are never shifted
- TUNE: key, scale, speed, humanize, and a note keyboard for the legal targets
- Tracker measured at zero octave errors across the test batteries
- SHAPE: five EQ bands, per-band enable, frequency, Q, gain and outer-band type
- SHAPE: per-band adaptive de-harsh that cuts resonant excess, not brightness
- SHAPE: program-adaptive split-band de-esser, with LISTEN to solo it
- COMP: FET into Opto, each with amount, speed and parallel blend
- COMP: a manual tier of threshold, ratio, attack and release under MANUAL
- COMP: AUTO attack and release cells show the timings SPEED is choosing
- COLOR: tape, tube and present character plus an air shelf
- DOUBLE: two or four detuned voices around the lead, mono fold-down under 3 dB
- SPACE: delay and reverb, both ducked from the vocal, with their own pages
- LEVEL: feedforward BS.1770 short-term loudness rider, ± 0.5 LU convergence
- LEVEL: safety limiter after the rider
- Reference analysis: acapella at full confidence, or a full mix isolated and labeled

- Extracted: 40-band K-weighted tonal curve, dynamics density, sibilance profile
- Extracted: space estimate with its own confidence label, and tune style
- Interpretable fits: every stage shows what it did and why
- Match Amount scales the whole fit from 0 to 150 percent
- Analysis is offline, background and fully local
- The stage spectrum: pitch trace on a note ladder, gain reduction and short-term loudness
- Per-stage scopes, and a meter of each stage's work on its station tile
- 66 factory chains, each carrying a measured target profile
- Adapt to my voice arms when a factory chain is loaded
- 12 Learn chains, each isolating one stage
- 131 parameters, add-only; state versioned from day one
- Exact typed values in Hz, dB, ms, seconds, cents, ratios and percent
- Keyboard: arrows step on the control's grid, Shift steps fine, Escape cancels a draft
- BYPASS is latency-aligned true bypass; MATCH A/B is loudness-matched
- Click-free stage toggles, view changes and Track to Mix switching (10 ms crossfade)
- Mono or stereo in, stereo out; a lead-vocal chain by design
- CPU at defaults: 1.9 percent of one core at 48 kHz / 128 on the reference machine
- A bypassed instance costs 0.2 percent of one core
- Passes pluginval at strictness level 5
- VST3, AU and AAX, Windows and macOS

Installation on Muse Hub

Muse Hub installs and updates this edition for you, and purchase, refunds and uninstall are handled there too. Once installed the plugin opens and runs directly from the Hub, with no further steps inside the plugin. On Windows the plugin installs as VST3 and AAX. On macOS the installer places VST3, AU and AAX builds in the standard system plugin folders. If the plugin does not appear in a host, rescan plugins and confirm the host is 64-bit.

Requirements: Windows 10 or later (64-bit) or macOS 11 or later, Intel or Apple Silicon. Settings and presets are the same as the edition sold at vitricaudio.com, so projects open in either edition.

Frequently asked questions

Does the reference make my vocal sound identical to the record?

No. The analysis proposes interpretable settings so your voice sits the way the record sits, and shows its reasoning per stage with confidence labels. You accept, adjust or discard, and Match Amount scales the whole fit from 0 to 150 percent.

Does reference analysis send audio anywhere?

No. Analysis is offline, background and fully local. Nothing leaves your machine.

Can I track through it?

Yes. Track mode runs zero-lookahead dynamics on the Classic tune path with 4 samples of total latency at 48 kHz, 0.1 ms, test-enforced under a 5 ms contract. Mix mode reports its latency exactly in the header.

What is the difference between the Classic and Natural tune paths?

Classic is the hard-tune sound and runs at 0.1 ms. Natural is formant-preserving correction with a Throat control, measured to hold F3 within about 4 percent at a forced +3 semitones in the test suite. Neither path shifts sibilants.

Can I use it on a group or a polyphonic part?

Burnish Vocal Chain is a lead-vocal chain: mono or stereo in, stereo out. Polyphonic material is out of scope by design.

How much CPU does it use?

1.9 percent of one core at defaults, 48 kHz and a 128-sample block, on the Apple Silicon reference machine in a Release build. A bypassed instance costs 0.2 percent, so chains on many tracks stay cheap.

Can I automate it without zipper noise?

Yes. Every stage toggle, view change and the Track to Mix switch crossfades over 10 ms, so nothing clicks while audio runs.

Which formats and DAWs does Burnish Vocal Chain support?

VST3, AU and AAX on Windows 10+ and macOS, Intel and Apple Silicon. That covers Pro Tools, Logic Pro, Ableton Live, Cubase, Studio One, FL Studio, REAPER and every other major host.

Support: support@vitricaudio.com · Product page: <https://vitricaudio.com/burnish> · Vitric Audio, Cleveland, Ohio. This guide describes Burnish Vocal Chain 1.1.0 as distributed on Muse Hub.