USER MANUAL

UNVEIL AI

AI-Assisted Mixing Plugin for AU, VST3 & Standalone

Version 1.1.2 · macOS · Unveil

unveilmusic.app

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1. Welcome to Unveil AI

Unveil AI is an AI-assisted mixing plugin that listens to every track and bus in your session, builds a mix plan, and continuously balances gain, EQ, dynamics, and tonal character across the whole project. Unlike a traditional insert effect, Unveil AI is designed to be placed on **every track, every group bus, and the master bus** in a session — the instances communicate with each other in real time, with one instance acting as the central "brain" for the whole mix.

This manual documents every screen, tab, knob, and control exactly as they behave in version 1.1.2, including default values and ranges, so you can use it as both an onboarding walkthrough and a reference you come back to.

How the plugin is organized

Three concepts run through the entire plugin:

- **Instances.** You insert one copy of Unveil AI per track, per group bus, and on the master bus. Every instance is aware of the whole session.
- **Roles.** Each instance is told what it is — Master, Group Bus, or Track (and, for tracks, a specific instrument role like Lead Vocal or Kick) — during a short onboarding flow the first time it's inserted.
- **The master instance.** Exactly one instance per session — the one marked **SET AS MASTER** — shows the full Orbital View (the "solar system" of track orbs, insight cards, and the master rack). Every other instance shows a small compact window with just a role indicator and a **SETUP** button.

> **Where did the full interface go?** If you've inserted Unveil AI on a track and only see a tiny 240×134 window, that's expected — that's a Track or Group Bus instance. Open the one instance on your master bus channel to see the full interface described in this manual.

2. System Requirements & Installation

Platform	macOS, Apple Silicon or Intel
Formats	Audio Unit (AU), VST3, Standalone application
Manufacturer	Unveil
Bundle identifier	app.unveilmusic.plugin

Installing the plugin

1. Download `UnveilAI-<version>.pkg` from unveilmusic.app.
2. Double-click the installer and follow the prompts. The installer places the AU and VST3 bundles directly into the standard system plug-in folders (`/Library/Audio/Plug-Ins/Components` and `/Library/Audio/Plug-Ins/VST3`) so every DAW on the machine can find them without further configuration.
3. The installer package is signed with a Developer ID and notarized by Apple, so macOS Gatekeeper will let it run without extra security prompts.
4. Open or restart your DAW and re-scan plug-ins if it doesn't pick up new installs automatically.

> If your DAW shows the plugin but marks it as failing validation, remove any older Unveil AI bundle from the plug-in folders first, then reinstall — DAWs can sometimes cache a stale scan against an older bundle with the same identifier.

3. Licensing & Activation

Every instance of Unveil AI requires an activated license. There is no separate offline trial mode built into the installer — trial and paid users both receive a license key from unveilmusic.app, and the same activation screen handles both.

Activating your license

The first time you open the plugin's full interface without a valid license on this machine, an activation card appears over the window:

1. Enter your license key (format `UVLA-XXXX-XXXX-XXXX`) into the field and click **ACTIVATE**.
2. If you don't have a key yet, click **GET FREE TRIAL** or **BUY LICENSE** to open unveilmusic.app in your browser.
3. On success, the card closes immediately and the plugin unlocks fully. On failure, a message explains why (invalid key, expired/revoked key, no internet connection, or the per-license device limit has been reached).

How activation works day-to-day

- Your license is tied to this specific machine. Activating on a new computer uses one of your license's available device slots.
- Once activated, the plugin checks in with the license server roughly once every 24 hours in the background — this is silent and doesn't interrupt your session.
- If your machine is offline, an already-activated license keeps working for up to **7 days** on its last successful check-in before it needs to reconnect.
- If a license is revoked or expires, the plugin returns to unlicensed mode and the activation card reappears the next time you open the interface.

> **Unlicensed / demo mode.** Without an activated license, Unveil AI still runs so you can evaluate the interface, but the audio output periodically includes a brief noise interruption as a reminder to activate. Activating a license removes this immediately.

4. Getting Started: Onboarding

The first time you insert an instance of Unveil AI — or whenever you click **SETUP** on a compact instance — a short onboarding flow asks what this instance is for. It opens the editor at a larger working size while it's on screen, then returns to the normal size once you finish.

Step 1 — Role

Three cards describe what this instance is being used for:

Role	Tag	What it means
Master Bus	MIX BUS	The final stereo output. Unveil reads every track and bus feeding it and balances the whole mix. Choosing this finishes onboarding immediately and makes this instance the session's master analysis/mix engine.
Group Bus	SUB-MIX	A sub-mix such as Drums or Vocals. Tracks routed here are balanced together, then fed to the master. Continues to the Bus Name step.
Track	SOURCE	A single source like a vocal, kick, or guitar. Unveil sets its mixing role and starting module defaults from what you pick. Continues to the Source step.

Step 2a — Bus Name (Group Bus path)

Pick one of eight bus types. Clicking a card finishes onboarding immediately.

Bus	For tracks like
Drums	Kick, Snare, Hi-Hats, Overheads
Percussion	Shakers, Congas, Claps
Bass	Bass, 808, Sub
Vocals	Lead, Background Vocals, Ad-libs
Guitars	Electric, Acoustic
Keys	Piano, Keys, Organ
Synths	Lead, Pad, Arp
FX	Reverb Returns, Delay Returns, Risers

Step 2b — Source (Track path)

Pick the instrument role that best matches this track. Each card shows a short description and a frequency-range indicator for where that role typically sits. Roles are grouped into eight categories:

```
VOCALS — Lead Vocal, Background Vocals, Ad-libs
DRUMS — Full Drum Kit, Kick, Snare, Hi-Hats, Toms, Cymbals/OH, Percussion
BASS — Bass, 808
GUITARS — Electric Guitar, Acoustic Guitar
KEYS — Piano, Keys, Organ
SYNTHS — Synth Lead, Synth Pad
ORCHESTRAL — Strings, Brass, Woodwinds
OTHER — Sampler/Loop, FX/Transition, Ambience, Other
```

Choosing a role continues to the Route step.

Step 3 — Route (Track path only)

Choose where this track's signal goes: click **DIRECT TO MASTER** to send it straight to the master bus, or pick one of the eight bus cards to route it through a group bus first. Either choice finishes onboarding.

> You aren't locked into this choice. You can re-route any track at any time by dragging a connection from its orb onto a bus orb in the Orbital View — see "Sidechain & Routing Links" in the next chapter. Route just sets the track's starting routing.

Changing your answers later

Every compact (non-master) instance has a **SETUP** button that reopens this flow at any time, so you can change a track's role or starting route without removing and reinserting the plugin.

5. The Orbital View

The full Orbital View appears only on the instance marked **SET AS MASTER**. It's the hub for the whole session: a central master orb surrounded by one orb per track and bus, plus insight cards summarizing the AI's analysis.

Header controls

Control	What it does
ORBITAL / METERS	Switches between the orbit view and the full-screen analyzer (Chapter 7).
Preset name + dropdown	Shows the current preset; click to open it.
PRESETS	Opens the presets menu — see below.
1x / 2x / 4x	Oversampling quality. This is the same control as the master rack's ENGINE → QUALITY knob (Eco/Normal/High) — the two stay in sync.
IMPORT REF	Loads a reference track to compare your mix against.
FORCE / AUTO EQ	AUTO EQ toggles automatic EQ moves on or off (lit orange = on); FORCE overrides its normal gating.
SET AS MASTER	Marks this instance as the session's master analysis engine. The first instance promoted to master automatically bumps its Quality from Eco to Normal.
BYPASS	A full bypass of the entire processing chain, for A/B comparison against the unprocessed signal.
ANALYZE	Starts the AI listening pass that builds the Mix Plan (Chapter 6).
Status line	Reads, left to right: CPU / gain reduction / peak / LUFS / confidence (or "status: LOCKED" once confidence passes 90% during analysis) / track count.
LIGHT / DARK	Theme toggle; the button always shows the mode you'll switch *to*.

The orbit itself

- **Master orb** — center of the view; click it to open the master rack (Chapter 8).
- **Track orbs** — one per track. Orb size reflects hierarchy (bus orbs largest, top-level tracks medium, tracks nested under a bus smallest), and color cycles through a 10-color palette by session position. The number below an orb is its current planned gain change in dB, or "MUTED."
- **Red dot** on an orb flags a quality issue on that track.

- **Connection lines** between orbs show permanent track→bus routing, plus any sidechain links you've created. Masking-conflict data isn't drawn as lines on the orbit — see the CONFLICTS stage in the master rack, or the Masking Conflicts card below, for that.

Sidechain & routing links

Right-click and drag from one orb to another to create a sidechain link — a cyan line labeled "SC" appears, and the orb you dragged *from* becomes the sidechain source for the orb you dragged *to*. Drop a link on the center orb, or drag it off any orb, to clear it. Links are saved with your session.

A sidechain link feeds the destination track's processing in two ways:

- **Compressor and Gate** (in the DYN tab) use the source track's signal as the detector instead of self-detecting — useful for ducking a bed under a vocal, or keying a gate off a kick.
- **Smart Unmasking** uses the source track's real measured spectrum as its competitor curve, overriding its usual role-based guess. The Unmask display shows `SC: <track name>` when a link is active.

Insight cards

Five cards along the bottom of the Orbital View summarize the AI's analysis. Click any to open its detail list: **MASKING CONFLICTS**, **QUALITY ISSUES**, **GAIN RANGE**, **EQ MOVES**, **REASONS**. Full detail on what each card shows is in Chapter 6.

Presets menu

My Presets lets you export/import an entire session's settings, save the current state as a named preset, recall any saved preset, and delete presets you no longer need.

Factory Presets ships 37 presets across nine categories — each one sets the target tonal curve, AI amount and character, master LUFS target, limiter ceiling, headroom, mask strength, quality, lookahead, and per-track processing style in one click:

```
Streaming & Loudness (6) · Hip-Hop/Trap (6) · Pop (5) · EDM/Club (5) · Rock/Band (5) ·
Lo-Fi/Chill (4) · R&B/Soul (3) · Voice/Podcast (3) · Utility & CPU (4)
```

6. Analyze & the Mix Plan

Click **ANALYZE** to have Unveil AI listen to your mix and build a plan. A progress ring shows "ANALYZING… Listening to the mix and forming a plan." Confidence climbs as analysis frames accumulate — it typically reaches 100% after about 10 seconds, and the system reports itself "locked" once confidence passes 90%. The plan reveals itself once confidence exceeds 85% (after at least 2 seconds) or after 9 seconds unconditionally, whichever happens first.

Reading the Mix Plan

One line appears per track, in the form `<track>: <move> – <move> – …`, where each move is a planned gain change (only shown past ±0.3 dB), an EQ band count, a pitch-correction amount (only shown past ±1 cent), a saturation flag, or a mute. A trailing line summarizes the master target, tonal match percentage, and character percentage.

Click **ACCEPT** to close the overlay — the AI's decisions are already active the moment analysis finishes, so accepting doesn't apply anything new, it simply dismisses the summary. **RE-ANALYZE** restarts listening from zero.

The five insight cards in detail

Masking Conflicts

One line per conflicting pair: `<track A> <-> <track B> in <band>`. Bands are: sub, low, low-mid, mid, hi-mid, presence, brilliance, air.

Quality Issues

Every track is checked against ten possible flags: `clipping, muddiness, harshness, phase_issues, sibilance, low_end_rumble, excessive_reverb, thin_mix, overcompressed, frequency_masking`. Clicking a flagged issue jumps you straight to the relevant tab: clipping → CLIP, muddiness/harshness/low_end_rumble/thin_mix → graphic EQ, phase_issues → WIDTH, sibilance → DE-ESS, excessive_reverb → REVERB, overcompressed → COMPRESSOR, frequency_masking → graphic EQ.

Gain Range

The minimum-to-maximum planned gain move across every track.

EQ Moves

Per band: `<track>: <freq> Hz <action>`, where action is HPF, LPF, or a signed dB value.

Reasons

A plain-language explanation per track: a gain rationale, a role-aware EQ rationale (for example, a vocal might read "rumble HPF 75Hz; boxiness cut 380Hz; presence +2.8kHz; air +10kHz"), and — where relevant — a masking note explaining which track was cut and which one won a given conflict.

7. Meters

Click **METERS** next to ORBITAL for the full-screen analyzer. Eight modes are available via the mode-tab row, in order: **RTA, 3D Peaks, Waterfall, Spectrograph, Transfer, Loudness, Stereo, Dynamics.**

Shared controls across every mode

- A per-mode option control whose label and choices change by mode — see the table below.
- **PRE / POST** — read the signal before or after this instance's own processing.
- **PEAK** — a peak-hold overlay, available only in RTA mode.
- **LIVE / FROZEN** — pause or resume the display.
- Seven readout cards: **PITCH, PEAK BIN, PEAK LEVEL, SHORT-TERM, TRUE PEAK, CREST, CORRELATION.** Correlation turns red when negative; true peak turns red/orange above -1 dBTP.

Mode	Option control	Choices
RTA	RESOLUTION	1/3 to 1/48 octave, default 1/24
3D Peaks	RESOLUTION	1/6 to 1/48 octave, default 1/24
Waterfall	TIME	0.8s / 1.6s / 2.4s, default 1.6s
Spectrograph	SPEED	1x / 2x / 4x, default 2x
Transfer	SMOOTH	1/3 to 1/24, default 1/12
Loudness	TARGET	-14 / -16 / -18 / -23 LUFS, default -14
Stereo	VIEW	Dots / Lines, default Dots
Dynamics	WINDOW	5s / 10s / 30s, default 10s

Mode reference

RTA — live frequency balance with a dotted target-curve overlay. Finer resolutions resolve individual harmonic peaks; coarser settings give a smoother envelope.

3D Peaks — stacks recent spectrum frames into a pseudo-3D "mountain range" so you can watch peaks build and decay over time.

Waterfall — the spectrum as a receding time-history.

Spectrograph — a scrolling frequency-vs-time heatmap; brightness indicates level. Useful for spotting sustained tones, transients, and steady-state noise.

Transfer — compares the pre-chain signal against the processed output. The coherence strip along the top shows, per frequency, how closely input and output still resemble each other: green means highly coherent, red means they've diverged (heavy dynamics or EQ at that frequency). This uses a genuine pre-chain

capture, time-aligned against the output by the plugin's own reported latency, and a true coherence estimator.

Loudness — 30 seconds of loudness history against a dashed target line, plus three meters: M (momentary), S (short-term), I (integrated).

Stereo — a vectorscope plus phase correlation (red = out of phase, green = mono-compatible), balance, and width readouts.

Dynamics — peak and RMS traces over your chosen time window with the gap between them shaded (crest factor), plus a level histogram.

8. The Master Rack

Click the master orb to open it. There are seven outer stage rings and eight tabs — the AI ring fans out into two tabs, AI MIX and CONFLICTS, which share one ring. Scroll down, or click outside the orb, to close it.

GAIN

`INPUT TRIM` -24…+24 dB, default 0. `HEADROOM` 0…24 dB, default 12. `AUTO-GAIN` 0…100%, default 100%. Per-track bars compare raw input peak against post-auto-gain output peak against a dashed target line at -headroom dBFS; bars turn red when hot.

AI MIX

`AI AMOUNT` 0…100%, default 100%. `CHARACTER` 0…100%, default 30%. `DRIVE` 0…100%, default 32%. The graph compares a 24-band dashed target curve against the solid curve actually being applied.

CONFLICTS

`SENSITIVITY` 0…100%, default 50%. `MAX CUT` 0…12 dB, default 6 dB. The third knob, AI AMOUNT, is the same parameter as the AI MIX tab's AI AMOUNT — moving one moves the other.

LOUD

`TARGET` -24…-6 LUFS, default -14. `HEADROOM` -24…0 dB (shared with the GAIN stage's HEADROOM). `OUTPUT` -12…+12 dB, default 0.

LIMIT

`CEILING` -3.0…0.0 dBTP, default -1.0. `RELEASE` 5…1000 ms, log-skewed. `LOOKAHEAD` 0…10 ms (shared with the ENGINE tab's lookahead knob). This is a true inter-sample-peak limiter, decoupled from the headroom target so it acts purely as a final safety stage.

TONE

`TILT`, `LOW`, `AIR` — all -6…+6 dB, default 0. The LOW shelf corner is fixed at 150 Hz, AIR at 10 kHz. TILT is folded additively into Low/Air: tilting up raises Air and lowers Low by half the tilt amount each, and vice versa.

STEREO / WIDTH

`WIDTH` 0…200%, default 100%. `MONO BASS` (crossover) 20…500 Hz, log-skewed, default 120 Hz. `BALANCE` -100…+100, default 0.

ENGINE

`QUALITY` — Eco / Normal / High, default Normal (shared with the header's 1x/2x/4x pills). `OUT LATENCY` 0…50 ms. `LOOKAHEAD` shared with the LIMIT stage. A per-track CPU bar graph and a split latency bar (output latency vs. lookahead) round out the display.

9. The Track Rack

Click any track orb to open its rack. The ring has up to nine tabs, in this order: **INFO, VOCAL, DYN, EQ, TIME, SAT, PITCH, FX, WIDTH.** VOCAL only appears on vocal-related tracks (Lead Vocal, Background Vocals, Ad-libs, or a bus whose name contains "voc"/"vox") — every other track has the remaining eight tabs.

Every compact (mini) view has its own **Advanced** button that opens a dedicated full-screen editor — this is consistent across every processor in the plugin.

INFO

`MANUAL TRIM` -12…+12 dB, default 0, plus `INPUT AUTO-GAIN` (a binary on/off gain-rider, despite its slider appearance) and the track's SOLO/MUTE buttons, which stay visible across every tab, not just INFO. Eleven live readouts: LUFS, True Pk, Peak, Crest, Transient, Width, Correl, BPM, Key, EQ, Gain. Full-screen adds a 30-second loudness graph with a smoothed short-term trace, raw momentary behind it, and a dashed target line at -16 LUFS.

10. Vocal Tools

Five sub-tabs under VOCAL: **TUNE, DYNAMICS, EQ, SPACE, FX.**

TUNE

Compact: `CORRECTION` 0–100%, default 65%. `SPEED` 0–200 ms, default 120 ms. The dial reads the detected note plus a signed cents offset. Full-screen adds: **KEY** (Auto plus all 12 chromatic notes), **SCALE** (Chromatic, Major, Minor, Dorian), **VIBRATO** shape (Sine, Triangle, Square, Random), plus `FINE` (±50 cents), `FORMANT` (±12 semitones), and `VIB DEPTH` (0–50).

DYNAMICS

A combined compressor + de-esser overview. The compressor offers 8 character models used throughout the plugin: **Opto+FET, VCA+FET, Vox Bus, Tube+FET, FET, Smooth, API 2500, SSL G-Bus.** The two compact knobs shown here are gate threshold/range ahead of the compressor; the compressor itself shows a draggable mini transfer curve and gain-reduction meter in the compact view — full THRESHOLD/RATIO/ATTACK/RELEASE/KNEE/MAKEUP controls (ranges -60…0 dB / 1…20:1 / 0…200 ms / 10…2000 ms / 0…12 dB / ±12 dB) are in the full-screen editor. De-Ess is shown here too (`DEESS %` and `DEESS Hz`), but has its own dedicated full-screen editor reached from DYN → DE-ESS.

EQ

The same shared component as the main per-track EQ (Chapter 12) — not a simplified vocal-only version.

SPACE

Reverb and delay, sharing state with the standalone TIME tab. Six knobs: `SIZE` (0.1–10 s, default 2.0 s), `PRE-DLY` (0–150 ms, default 25 ms), `DAMP` (0–100%, default 35%), `REV MIX` (0–100%, default 30%), `DLY TIME` (0–2000 ms, default 300 ms), `DLY MIX` (0–100%, default 20%).

FX

Chorus, tremolo and phaser, sharing state with the standalone FX tab. Eight knobs: `CHR RATE` (0.05–5 Hz, default 1), `CHR DEPTH` (0–100%, default 0), `CHR MIX` (0–100%, default 30%), `TREM RATE` (0.1–10 Hz, default 5), `TREM DEPTH` (0–100%, default 0), `PHA RATE` (0.05–5 Hz, default 0.5), `PHA DEPTH` (0–100%, default 0), `PHA MIX` (0–100%, default 30%).

11. Dynamics Processing (DYN)

The DYN tab's processor list depends on the track's role:

- **Vocal tracks** get 7 processors: COMP, DE-ESS, TRANSIENT, EXPANDER, LIMITER, NOISE RED, MULTI.
- **Non-vocal tracks** get the same 6 processors, minus DE-ESS.
- **Gate-eligible tracks** (kick, snare, drums, percussion, background vocal, guitar) also get a **GATE** stage before COMP.

DE-ESS

Compact: `FREQUENCY` 1000–16000 Hz, log, default 6500 Hz. `AMOUNT` 0–100%, default 0%. `ATTACK` 0–10 ms, default 1.0 ms. `RELEASE` 0–200 ms, default 40 ms. Full-screen adds **MODE** (Split Band / Wide Band), `BANDWIDTH` (0.1–2 octaves, default 0.71), `THRESH` (-60–0 dB, default -35), and `LOOKAHEAD` (0–10 ms), with a real gain-reduction meter.

TRANSIENT

`ATTACK` and `SUSTAIN` (both -100…+100%), `LOOKAHEAD` (0–10 ms), `SENS` (0–100%). The hits-per- second readout is a real onset-rate measurement. Full-screen shades the attack and sustain zones directly on the waveform.

EXPANDER

`THRESH` -80–0 dB, default -45. `RATIO` 1–8:1, default 2.5:1. `RANGE` 0–40 dB, default 18.

LIMITER (per-track)

Distinct from the master LIMIT stage. `CEILING` -12–0 dB, default -1.0. `RELEASE` 1–500 ms, log-skewed, default 100 ms. Full-screen adds `INPUT` drive (0–18 dB, default 6), `CHARACTER` (0–100%, default 40%), and `LOOKAHEAD` (0–10 ms, default 0). The full-screen "ceiling" readout shows the live true-peak meter, not your ceiling setting.

NOISE RED

`AMOUNT` 0–100%, default 60%. `THRESH` (a multiplier), default 1.00x. `SMOOTHING` 0–100%, default 25%. The noise floor is estimated continuously and automatically on every analysis frame — ongoing suppression doesn't require pressing anything. **LEARN NOISE** nudges the profile with a single snapshot that the automatic tracker quickly blends back over, so use the AMOUNT/THRESH/SMOOTHING knobs to dial in reduction rather than relying on careful button timing.

MULTI (4-band multiband compressor)

Four bands with draggable crossover handles, default crossovers at 120 Hz, 800 Hz, and 6000 Hz. THRESH/RATIO/MAKEUP/MIX per selected band — a fresh track starts flat (0 dB threshold, 1:1 ratio) on every band. The crossover is a 4th-order Linkwitz-Riley design, giving in-phase outputs that sum flat at the crossover point.

GATE

Appears before COMP on gate-eligible tracks.

COMP

The same 8 character models as VOCAL → DYNAMICS. Compact: `THRESH` (-40–0 dB), `RATIO` (1–10:1), `MAKEUP` (0–12 dB), `ATK` (0–2000 ms), `REL` (0–2000 ms). Full-screen adds a cascaded second stage (S2 THR/RATIO/ATK/REL) and a draggable transfer curve.

12. EQ & Smart Unmasking

Two sub-tabs: **EQ** and **UNMASK.**

EQ

Numbered band handles sit over the live spectrum in the compact view. Band count goes up to 12 — add bands via **+BAND**, double-clicking empty space, or right-click → Add.

Full-screen mouse gestures:

- Drag a band to move it (hold Shift for fine adjustment)
- Scroll over a band to adjust Q
- Shift+Scroll over a cut-type band to adjust its slope
- Double-click a band to reset its gain to 0; double-click empty space to add a band there
- Delete/Backspace removes the selected band
- Right-click opens a context menu

Range options: ±6 / ±12 / ±18 / ±30 dB (default ±18). Spectrum source: PRE+POST / PRE / OFF (default PRE+POST). **AI CURVE** overlays the AI's own recommended curve as a dashed line.

Seven band types: Bell, Low Shelf, High Shelf, Low Cut, High Cut, Notch, Band Pass. Per-band fields: FREQ, GAIN, Q, SLOPE (cut types only), RANGE, THRESH, DYNAMIC, BYPASS, DELETE. **DYNAMIC** makes a band genuinely signal-reactive on bell/shelf bands: gain moves from its set value toward `gain + range` as a self-sidechain envelope on that band's own frequency region crosses THRESH.

UNMASK (Smart Unmasking)

Compact: `AMOUNT`, `SENSITIVITY`, `MAX CUT`. Full-screen adds `FOCUS` and `SPEED`.

1. **COMPETITOR** selects a role category (BG Vox, Syn Lead, Piano, Drums, Bass). Unveil scans every other active track in the session matching that category and takes the per-band maximum of their real, measured spectra as the competitor curve.
2. **Overriding with a sidechain link**: right-click-drag a link from another track's orb onto this one to use that specific track's real spectrum directly instead of the category match — the display then shows `SC: <its name>`.
3. AMOUNT/SENSITIVITY/MAX CUT/FOCUS/SPEED have a genuine, audible effect: when the competitor dominates a band this track also occupies, Unmask applies a real, smoothed peaking cut scaled by AMOUNT and gated by SENSITIVITY/MAX CUT, with FOCUS/SPEED shaping the cut's sharpness and smoothing speed.
4. The knobs read/write the master instance's shared settings — opening Unmask from any track shows the same AMOUNT/SENSITIVITY/MAX CUT/COMPETITOR values. What's unique per track is the carve result itself: each track computes its own cut against its own measured spectrum and its own sidechain link, if any.

13. Reverb & Delay (TIME)

Two sub-tabs: **REVERB** and **DELAY.**

REVERB

Compact: `AMOUNT, TYPE, SIZE, PRE-DLY, DAMP, DUCK.` TYPE offers 8 rooms: Plate, Hall, Room, Chamber, Ambience, Cathedral, Spring, Nonlin. DUCK is a genuine attack/release sidechain envelope that lowers reverb level while the dry source is active.

DELAY

Compact and full-screen share three knobs: `TIME, FDBK, MIX.` MODE offers 12 characters: Modern, Tape, Digital, Analog, Detune, Reverse, Rev Oct+, Rev Oct-, Rev Oct+/-, Sparkle, Swarm, Lo-Fi. COLOR offers 4 tones: Bright, Neutral, Dark, Studio.

A **SYNC** toggle (green = on, red = off) appears on both compact and full-screen views, with a tempo-division row (`1/16T, 1/16, 1/8T, 1/8, 1/4T, 1/4, 1/2, 1/1`) once engaged — TIME then follows the track's live BPM and chosen division instead of a manual millisecond value.

14. Saturation, Tape & Clip (SAT)

Three leaf tabs: **SAT, CLIP, TAPE.** CLIP is omitted on pad, strings, FX, keys, and guitar tracks.

SAT (harmonic saturation)

Compact: `DRIVE` (0–100%, default 35%), `TYPE`, `SUB` (0–100%, default 0%). Full-screen adds `GRIT` (0–100%, default 20%), `BIAS` (-100…+100%, default 0%), and `DARKNESS` (0–100%, default 0%). TYPE offers 10 character models: Tube, Tape, Transistor, Transformer, Fuzz, Ampex, Console, Pentode, Triode, HG-2.

TAPE

Compact: `AMOUNT, DRIVE, MODE, CHAR, WOW.` MODE offers 3 options — Tape, Vinyl, Console — a separate system from SAT's type list. In Tape mode, WOW/FLUTTER are genuine pitch-modulation and CHAR shades the saturation curve. In Vinyl mode, WOW becomes crackle density and CHAR becomes record "age." In Console mode, WOW becomes power-supply sag and CHAR becomes a Brit/American circuit blend. Full-screen adds `FLUTTER, HISS, HEAD BUMP, AIR` (all 0–100%).

CLIP (hard clipper)

Compact: `CEILING` (-24–0 dB, default -3.0 dB), `DRIVE` (0–100%, default 40%), `KNEE` (0–100%, default 30%). Full-screen adds `MIX` (0–100%, default 100%). A genuinely separate waveshaping stage from SAT, oversampled at 2x whenever Quality is Normal or higher, and skipped entirely when drive is near zero.

15. Pitch: Harmonizer & Granular

Two sub-tabs: **HARMONY** (vocal-role tracks only) and **GRANULAR.**

HARMONIZER

Two harmony voices. `KEY` (Auto or any of 12 chromatic notes), `SCALE` (Major, Minor, Dorian, Mixolydian), `VOICE 1` / `VOICE 2` (each -8…+8, default +2 and +4), `WIDTH`, `MIX`. Voice settings are counted in diatonic scale steps, not fixed semitones — the actual interval can vary slightly note to note so the harmony stays inside the chosen key.

GRANULAR

Compact: `SIZE` (5–500 ms, default 80 ms), `PITCH` (±24 semitones, default 0), `SPRAY` (0–200 ms, default 40 ms), `MIX` (0–100%, default 50%). Full-screen adds `DENSITY` (2–64 grains/second, default 16) and `REVERSE` (0–100% probability that any given grain plays backward).

16. Creative Effects (FX)

Six sub-tabs, always in this order: **CHORUS, TREMOLO, PHASER, BITCRUSH, RING MOD, VOCODER.**

CHORUS

`RATE` (default 1.00 Hz), `DEPTH` (default 40%), `MIX` (default 35%). Full-screen adds `VOICES` (1–6, default 3) and `SPREAD` (default 60%). SPREAD spaces the voices' delay times further apart; the effect itself sums to mono internally.

TREMOLO

`RATE` (default 5.00 Hz), `DEPTH` (default 50%), `SHAPE` (Sine, Triangle, Square, Sample & Hold), `MIX` (default 100%). Full-screen adds `STEREO` (0–180°, an L/R phase offset).

PHASER

`RATE` (default 0.50 Hz), `DEPTH` (default 60%), `FEEDBACK` (default 40%). Full-screen adds `STAGES` (2–12, even numbers only — directly changes the number of cascaded allpass filters and the notch count) and `MIX`.

BITCRUSH

`BITS` (1–16, default 8), `DOWNSAMPLE` (1–50x, default 6x), `MIX.` Full-screen adds `JITTER`, which injects quantization dither rather than timing jitter.

RING MOD

`FREQ` (20–5000 Hz, default 440 Hz), `MIX` (default 40%), `LFO` (0–100% depth at a fixed ~0.24 Hz rate).

VOCODER

`BANDS` (4–32, default 16), `FORMANT` (default 0.0 st), `MIX` (default 50%), `CARRIER HZ` (40–800 Hz, default 110) and a carrier waveform selector (Saw/Pulse/Noise). Full-screen adds `ATTACK` (default 10 ms) and `RELEASE` (default 80 ms). The carrier is always internally generated — there's no external or sidechain carrier input.

17. Per-Track Stereo Width

Compact: `MID, SIDE` (both ±12 dB, default 0), `WIDTH` (0–200%, default 100%), plus a goniometer and a live `CORR` readout. Full-screen adds a genuine, independently processed 3-band width split — `LOW, MID BAND, HIGH` width (each 0–200%) — with two crossover knobs: `X-LOW` (20–2000 Hz, default 200 Hz) and `X-HIGH` (500–16000 Hz, default 4000 Hz).

18. Troubleshooting & FAQ

The interface is tiny and only shows a dropdown and a SETUP button.

That's expected for any Track or Group Bus instance. Open the instance on your master bus channel for the full interface.

Nothing happens when I click ACCEPT after analyzing.

ACCEPT simply closes the Mix Plan summary — the AI's decisions are already live the moment analysis finishes, so there's nothing further to apply.

I hear a brief noise burst every so often.

This means the plugin isn't currently licensed on this machine. Activate a license from the activation card (Chapter 3) to remove it.

My license says it needs to reconnect.

An activated license keeps working offline for up to 7 days since its last successful check-in. If you've been offline longer than that, connect to the internet and reopen the plugin to let it check in.

I dragged a sidechain link and nothing seems different.

Confirm the link landed on the destination orb (a cyan "SC" line should be visible) and that the destination track's COMPRESSOR, GATE, or UNMASK control is actually active — a link changes the detector/competitor source, it doesn't turn processing on by itself.

CPU usage is high with many instances open.

Lower Quality from High to Normal or Eco on the ENGINE tab (or via the header's 1x/2x/4x pills) — this is a session-wide setting shared by every instance, not a per-track one.

19. Support

For license issues, trial requests, or general support, visit **unveilmusic.app**. For purchase or trial activation specifically, use the **GET FREE TRIAL** / **BUY LICENSE** buttons on the activation card, or visit unveilmusic.app/trial and unveilmusic.app/buy directly.