TONE ZONE

Intelligent Tonal Curve Corrector

User Manual

Orra Audio LLC

Version 1.1.0

www.orraaudio.com

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1. Introduction

Orra Tone Zone is an intelligent tonal curve corrector designed for the master bus. It combines three tools that traditionally require separate plugins into one cohesive workflow:

- **Target Curve System** — Factory genre presets and reference track learning define the ideal tonal shape for your mix.
- **Smooth Spectral Analysis** — A smoothed spectral display shows your mix's tonal curve overlaid on the target, with adjustable speed from glacial (mastering) to reactive (mixing).
- **Automatic Corrective EQ** — An intelligent EQ engine that continuously nudges your mix's spectrum toward the target curve.
- **Manual EQ Overlay** — A 6-band parametric EQ with per-band saturation for fine-tuning on top of the auto-correction.
- **Correction Range Handles** — Draggable frequency handles on the spectrum let you restrict correction to specific frequency ranges.

Think of it as: tonal curve visualization + automatic correction + manual parametric EQ + analog saturation + frequency range control, all in one plugin. See the target curve, see where your mix sits, let the engine correct the difference, then fine-tune by hand.

Who Is This For?

Tone Zone is designed for mixing and mastering engineers who want a faster way to shape their mix's tonal curve. Whether you're checking your mix against a genre reference, applying subtle automatic correction, or using the correction curve as a visual guide for manual EQ decisions, Tone Zone accelerates your workflow.

2. Installation & Activation

Installation

Tone Zone is available as VST3, AU, and AAX for macOS and VST3 and AAX for Windows.

macOS

Step 1. Download the macOS installer from orraaudio.com.

Step 2. Open the .pkg installer and follow the on-screen instructions.

Step 3. The installer will place the VST3, AU, and AAX plugins in the correct system locations.

Step 4. Restart your DAW and scan for new plugins.

Windows

Step 1. Download the Windows installer from orraaudio.com.

Step 2. Run the .exe installer and follow the on-screen instructions.

Step 3. The installer will place the VST3 and AAX plugins in the correct system locations.

Step 4. Restart your DAW and scan for new plugins.

Activation

Tone Zone requires a license key to operate. The plugin is free (pay-what-you-want), but you must complete the checkout process at orraaudio.com to receive your key.

Step 1. Open Tone Zone in your DAW. The activation screen will appear.

Step 2. Click "Get Orra Tone Zone (Free)" to visit the Orra Audio store, or click "Enter License Key" if you already have one.

Step 3. Complete the checkout (even at $0) to receive your license key via email.

Step 4. Paste your license key into the activation dialog and click Activate.

Your license works offline indefinitely once activated. You can activate on up to 3 machines. To move your license, deactivate from the License panel (click the Orra Audio logo) before activating on a new machine.

3. Quick Start Guide

Get up and running in 60 seconds:

Step 1. Insert Tone Zone on your master bus (last plugin in the chain, before your limiter).

Step 2. Select a target curve from the TARGET dropdown that matches your genre (e.g., "Modern Pop").

Step 3. Play your mix. The blue curve shows your mix's tonal shape; the green zone shows the target.

Step 4. Turn up the CORRECTION knob to engage automatic tonal correction. Start at 30-50%.

Step 5. Adjust CEILING to control how aggressively the correction can push. Start at 30%.

Step 6. Use the 6 draggable EQ nodes for manual fine-tuning on top of the auto-correction.

Step 7. Drag the gold range handles on the left/right edges of the spectrum to restrict correction to a specific frequency range if needed.

> ***Tip:*** *The blue curve shows your mix AFTER correction. As you increase the Correction amount, watch the blue curve move closer to the target zone. This is your real-time visual feedback.*

4. Interface Overview

Header Bar

- **Plugin Name** — Top left. Click the Orra Audio logo (bottom right) to access license info and social links.
- **A / B / C / D Buttons + STORE** — Store and recall up to four different settings for quick comparison. Click STORE to save the current state to the active slot.
- **TARGET Dropdown** — Select from 24 genre-specific target curves derived from real reference masters.
- **LEARN Button** — Click to open a file chooser and analyze a reference track. Generates a custom target curve.
- **LIBRARY Button** — Browse and load previously saved reference curves from your curve library.
- **Reference in Target Dropdown** — When a reference track is loaded, it appears as an entry in the TARGET dropdown. Small save (S) and clear (x) buttons appear next to the dropdown. Selecting any factory preset automatically clears the reference.
- **BYP Button** — Internal bypass. Disables all processing while keeping the analysis curve live.
- **AUTO Button** — Toggles the auto-correction engine on/off. When off, the plugin runs at zero latency.
- **? Button** — Toggle hint text visibility on/off (bottom-left of controls area).

Spectrum Display

The central display is the heart of Tone Zone. It shows multiple overlaid curves on a logarithmic frequency axis (20Hz–20kHz) with a dB scale:

- **Green Zone (TARGET)** — The target tonal curve for your selected genre, shown as a filled region with tolerance bands.
- **Blue Line (MIX)** — Your mix's current tonal curve. This shows the OUTPUT spectrum (after correction and EQ), so you can see it moving toward the target as you adjust settings.
- **Orange Line (CORRECTION)** — What the auto-correction engine is doing. Positive = boost, negative = cut. This is your visual guide for what the plugin thinks needs fixing.
- **Purple Line (MANUAL EQ)** — The combined response of your 6 manual EQ bands.
- **EQ Nodes (1–6)** — Draggable circles for each manual EQ band. Drag vertically for gain, horizontally for frequency. Scroll wheel to adjust Q. Double-click to reset gain to 0dB.

- **Gold Range Handles** — Two vertical dashed lines with grip indicators at the left and right edges of the spectrum. Drag these inward to restrict auto-correction to a specific frequency range. Areas outside the range are shaded dark.

Controls Row

Four knobs below the spectrum display, plus the Orra Audio logo on the right. Hover over any control to see a detailed usage tip in the bottom-left corner of the controls row.

- **CORRECTION** — How much auto-correction to apply (0–100%).
- **SPEED** — How fast the analyzer and correction adapt (0% = glacial/mastering, 100% = reactive/mixing).
- **CEILING** — Maximum correction per band (1–12 dB). Safety limiter for the auto-correction.
- **OUTPUT** — Final output level trim (±12 dB).
- **Hint Text** — The bottom-left area displays context-sensitive tips when you hover over any knob or button. These tips explain what each control does and how to get the best results.

5. Controls Reference

Correction (0–100%)

Controls the overall strength of automatic tonal correction. At 0%, the plugin is in analysis-only mode — you see the curves but no processing occurs (besides manual EQ). At 100%, the engine applies the full computed correction toward the target curve.

> ***Tip:*** *Start at 0% and slowly increase while listening. Even 20–30% can make a meaningful difference on a well-mixed track. Higher values (60–100%) are useful as a diagnostic tool to see what the correction engine wants to do, then dial back for the final setting.*

Speed (0–100%)

Controls how fast both the analyzer and correction engine adapt to changes in the audio. This is a single control that drives two things simultaneously:

- **Analyzer speed** — How quickly the tonal curve display (blue line) responds. At 0%, the analyzer uses very slow time constants (2s attack, 5s release) showing the overall tonal shape. At 100%, it responds in ~200ms, fast enough to track staccato bass hits and momentary energy.
- **Correction speed** — How quickly the correction engine adjusts its EQ. At 0%, corrections smooth over 500ms. At 100%, corrections are near-instant (~2ms).

> ***Tip:*** *For mastering, keep Speed at 0–30%. For mixing or when working with sparse/staccato material (e.g., trap bass, plucked instruments), increase Speed so the analyzer tracks the actual energy rather than showing a slow average that may miss transient content.*

Ceiling (0–100%)

Sets the maximum correction the auto-EQ can apply per band. Maps from ±1 dB (0%) to ±12 dB (100%). This is your safety control — it prevents the correction from making extreme changes.

- 0–20%: Very gentle (±1–3 dB). For subtle mastering polish.
- 30–50%: Moderate (±4–6 dB). Good all-around setting.
- 60–100%: Aggressive (±7–12 dB). For diagnostic use or mixes that need significant correction.

> ***Tip:*** *The correction applies cuts at full strength but boosts at 50% strength. This asymmetry prevents the engine from aggressively boosting absent frequencies while still effectively taming peaks and resonances.*

Output (±12 dB)

Final output level trim. Use this to compensate for any perceived loudness changes from the correction or manual EQ. The auto-correction aims to be level-neutral, but significant tonal changes and EQ boosts can affect perceived loudness.

6. Target Curves

Tone Zone ships with 24 factory target curves, each derived from analyzing multiple professional masters on Spotify. These represent the average tonal curve of each genre — not any single track.

Category	Presets
Pop	Modern Pop
Hip-Hop	Hip-Hop / Trap, Boom Bap
R&B / Soul	R&B / Soul, Classic Soul
Latin / Afro	Afrobeats, Reggaeton
Electronic	House / UKG, Drum & Bass, Dubstep
Indie	Indie Pop, Indie Rock, Indie / Alternative
Rock	Modern Rock, Classic Rock, Hard Rock, Grunge
Acoustic	Country, Folk, Acoustic, Classical
Other	Lo-Fi, Podcast / Voice
Utility	Flat (no correction target)

Tip: *Target curves represent zones to aim for, not precise destinations. A well-mixed track should sit roughly within the target zone. Don't chase a perfect match — use it as a guide.*

7. Reference Track Learning

Beyond factory presets, you can generate a custom target curve from any reference track. This is ideal when you're mixing to match a specific song's tonal character.

Analyzing a Reference Track

Step 1. Click the LEARN button in the header bar.

Step 2. A file chooser will open. Select a WAV, AIFF, MP3, or FLAC file.

Step 3. The button will show "ANALYZING..." while the track is processed. This takes a few seconds.

Step 4. Once complete, the reference indicator appears (e.g., "REF: song.wav") and the green target zone updates to match the reference.

You can also drag and drop an audio file directly onto the spectrum display to start analysis.

The analysis processes the entire file (up to 3 minutes) through the same 40-band analyzer used for real-time display, then averages the results. Loud sections naturally dominate the average (linear power averaging), so the resulting curve represents the full, loud sections of the reference — exactly what you want.

Saving Reference Curves

After analyzing a reference track, you can save the resulting curve for future use:

Step 1. Click the S button next to the target dropdown.

Step 2. Enter a name for the curve (e.g., the artist or song name).

Step 3. Click Save. The curve is stored in your Orra Audio application data folder.

Loading Saved Curves

Step 1. Click the LIBRARY button in the header bar.

Step 2. A dialog shows all your saved curves. Click one to load it as the active target.

Step 3. Click Open Folder to reveal the curves directory in Finder/Explorer.

Saved curves are stored as .otzcurve files and persist across sessions and projects. You can share them with collaborators by copying the files.

Tip: *Build a library of reference curves from your favorite masters in each genre. Over time, this becomes your personalized set of tonal targets.*

8. Auto Correction Engine

The auto-correction engine is the core intelligence of Tone Zone. It continuously compares your mix's tonal curve to the target and generates a correction EQ that nudges the spectrum toward the desired shape.

How It Works

- The engine computes the error between each of the 40 analyzer bands and the target curve.
- The error is scaled by the Correction amount and clamped by the Ceiling.
- The resulting correction curve is applied via FFT-based spectral processing for smooth, transparent correction.
- The correction curve is displayed as the orange line in the spectrum display.

Intelligent Behavior

The correction engine includes several layers of intelligence to prevent artifacts and produce musically sensible results:

Spectral Density Gate

The engine detects how "full" the mix is at any moment by counting how many frequency bands have meaningful energy. During sparse sections (vocal-only bridges, acoustic intros), the correction automatically backs off to prevent overcorrection. During full sections (choruses, drops), it engages at full strength.

Section Transition Detection

When the spectral density changes rapidly (e.g., verse to chorus), the engine temporarily ducks the correction and lets the analyzer settle into the new section's tonal character before re-engaging. This prevents the audible EQ shift that other automatic correction tools suffer from during section transitions.

Per-Band Confidence Weighting

Bands with very little energy (where the arrangement simply doesn't have content) receive reduced correction. The engine won't try to boost bass that isn't there or add high-frequency content to a dark arrangement.

Asymmetric Correction

Cuts (reducing excess energy) apply at full strength, while boosts (adding energy where it's missing) apply at 50% strength. This reflects the reality that excess energy is usually a real problem worth fixing, while missing energy is often just the arrangement being sparse in that range.

Silence Handling

When playback stops, the analyzer gracefully fades to zero instead of trying to analyze silence. This prevents the correction from reacting to noise or creating artificial spikes during pauses.

9. Correction Range Handles

The spectrum display features two draggable gold handles at the left and right edges. These control the frequency range where auto-correction is active.

How to Use

- **Drag the left handle** to the right to exclude low frequencies from correction.
- **Drag the right handle** to the left to exclude high frequencies from correction.
- Frequencies outside the range are shaded dark and receive no auto-correction.
- The transition at each boundary uses a smooth 1/4-octave cosine crossfade to avoid abrupt cutoffs.

By default, both handles are at the extremes (20 Hz and 20 kHz), meaning the full spectrum is corrected. The handles are always visible as dashed gold lines with small grip indicators at the center.

When to Use Range Handles

- **Protect your low end** — If you've already dialed in your bass balance, drag the left handle to ~200 Hz to prevent the auto-correction from touching the sub and bass region.
- **Leave the mids alone** — If your vocal presence is perfect but the top and bottom need work, set the handles to exclude the 1–5 kHz range by using two instances of Tone Zone with complementary ranges.
- **Focus on problem areas** — If you know the issue is only in the low-mids (200–500 Hz), narrow the range to focus the correction engine's attention.

> ***Tip:*** *The range handles only affect auto-correction. Manual EQ bands always operate across the full spectrum regardless of handle positions.*

10. Manual EQ Bands

Tone Zone includes a 6-band fully parametric EQ that operates AFTER the auto-correction. This lets you make artistic choices on top of the corrected signal.

Band	Default Freq	Default Type	Purpose
1	80 Hz	Low Shelf	Sub/bass control
2	250 Hz	Bell	Low-mid warmth/mud
3	1 kHz	Bell	Midrange presence
4	3 kHz	Bell	Upper-mid clarity
5	8 kHz	Bell	Air/brightness
6	12 kHz	High Shelf	Top-end sheen

Interaction

- **Drag vertically** — Adjust gain (±12 dB)
- **Drag horizontally** — Adjust frequency (20 Hz – 20 kHz)
- **Scroll wheel** — Adjust Q (0.1 – 10.0)
- **Double-click** — Reset gain to 0 dB
- **Right-click** — Open saturation mode menu (see Section 11)
- **Shift + scroll wheel** — Fine Q adjustment (6x more precise)
- **Cmd/Ctrl + scroll wheel** — Coarse Q adjustment (3x faster)
- **Shift + drag** — Fine-tune frequency and gain positioning (0.2x sensitivity)

Each band supports three filter types: Bell, Low Shelf, and High Shelf. Bands 1 and 6 default to shelves; the rest default to bells. Filter type can be changed via the parameter host (DAW automation).

11. Per-Band Saturation

Each EQ band can be switched from standard EQ mode to one of three saturation modes. When in saturation mode, the gain knob becomes a drive control, and the band adds harmonic richness at the target frequency without increasing level.

To change a band's mode, **right-click the EQ node** in the spectrum display. A context menu appears with four options:

Mode	Character	Best For
EQ (default)	Standard parametric EQ	Traditional gain boost/cut
Tube	Warm, rich. Even harmonics (asymmetric waveshaper)	Low-mid warmth, vocal body, bass richness
VCA	Punchy, tight. Odd harmonics (symmetric tanh)	Presence, clarity, transient glue (SSL-style)
British	Thick, weighty. Mixed harmonics + HF rounding	Low-end weight, smoothing harsh highs (Neve-style)

How Saturation Mode Works

Saturation uses parallel processing: the original signal passes through untouched, while a bandpass-filtered copy is run through the saturator and mixed back in. This means:

- Overall level barely changes (the drive knob controls harmonic content, not volume).
- Only the targeted frequency region gets harmonics.
- Q controls saturation width (narrow = focused, wide = broad warmth).
- The gain knob controls drive (only positive values; negative does nothing in saturation mode).

Visual Indicators

When a band is in saturation mode, its node changes color:

- **Orange** — Tube mode
- **Steel Blue** — VCA mode
- **Copper** — British mode

A letter indicator (T, V, or B) appears below the node, and a bandpass-shaped filled region shows where saturation is being applied.

Tip: *Saturation on the master bus should be very subtle. Start with drive at 1–3 dB. You should feel the effect more than hear it — a sense of warmth, glue, or presence without obvious distortion.*

12. Recommended Workflow

This workflow, developed through extensive testing, gives the best results for mastering and final mix polish:

Phase 1: Set Your Target

Step 1. Choose a factory preset that matches your genre, OR analyze a reference track using the LEARN function.

Step 2. If using a reference, save the curve for future use (S button next to the target dropdown).

Phase 2: Diagnose with Full Correction

Step 3. Navigate to the loudest, fullest part of your mix (typically a final chorus).

Step 4. Turn Correction all the way to 100%.

Step 5. Turn Speed all the way to 100% for fast, reactive correction.

Step 6. Turn Ceiling all the way to 100% to see the full extent of what the engine wants to do.

Step 7. Study the orange correction curve. This is the engine's suggestion for what your mix needs.

> ***Tip:*** *The correction curve is essentially an expert second opinion on your mix's tonal curve. Pay attention to the shape: where is it boosting? Where is it cutting? These are the areas of your mix that deviate most from the target.*

Phase 3: Manual EQ Based on Correction Suggestions

Step 8. Using the correction curve as a guide, set your 6 manual EQ bands to address the major deviations.

Step 9. If the correction shows a cut at 300Hz, add a manual EQ cut there.

Step 10. If the correction shows a boost at 3kHz, add a manual EQ boost there.

Step 11. Consider using saturation modes where the correction suggests a boost — harmonic enhancement can achieve the same perceived brightness/warmth as a level boost, but more musically.

As you add manual EQ, the orange correction curve should become less extreme — you're taking over the work that the auto-correction was doing.

Phase 4: Dial Back the Auto-Correction

Step 12. Turn Ceiling down to 0–15% so the auto-correction can only apply ±1–2 dB per band.

Step 13. Reduce Correction to 20–40% for subtle ongoing tonal maintenance.

Step 14. Set Speed to 10–30% for smooth, mastering-appropriate response.

Step 15. If you only want correction in a specific range, drag the range handles to focus the correction.

Now the auto-correction is doing gentle, ongoing maintenance while your manual EQ handles the heavy lifting. The blue curve should sit comfortably within the target zone.

Phase 5: Final Check

Step 16. A/B/C/D compare using the slot buttons to verify the plugin is improving the mix.

Step 17. Check the Output knob — adjust if the overall level has shifted.

Step 18. Play through the full song to verify section transitions sound smooth.

13. A/B/C/D Comparison

The A, B, C, and D buttons in the header let you store and compare up to four different plugin states. The STORE button saves the current settings to the active slot.

- **Click STORE** — Saves the current settings to whichever slot (A/B/C/D) is currently active. If no slot is selected, STORE defaults to slot A.
- **Click any slot (A/B/C/D)** — Recalls the settings stored in that slot. Switching slots auto-saves the current state to the previously active slot before loading the new one.

Clicking the slot you are already on does nothing — this prevents accidentally reloading an old state and losing changes you have made since the last store.

Slot states include all settings: correction, speed, ceiling, output gain, target curve selection, custom reference curves, EQ band settings, and saturation modes. Everything is captured and recalled.

> ***Tip:*** *Use A/B/C/D to compare multiple correction strategies side by side. For example: A = corrected mix, B = minimal correction, C = manual EQ only, D = reference curve variant. This helps you verify the plugin is genuinely improving the mix rather than just changing it.*

14. Technical Specifications

Property	Value
Plugin Formats	VST3, AU, AAX
Platforms	macOS (Apple Silicon + Intel), Windows
Processing	Stereo (2-in / 2-out)
Analyzer	40 bands, 20 Hz – 20 kHz, log-spaced
Analyzer FFT	8192-point with Hann window
Analyzer Speed	User-adjustable: 200ms – 2000ms attack
Correction FFT	4096-point with 75% overlap
Correction Latency	4096 samples (~93ms at 44.1 kHz)
Correction Range	User-adjustable via drag handles (20 Hz – 20 kHz)
Manual EQ	6-band parametric (Bell / Low Shelf / High Shelf)
EQ Range	±12 dB gain, 20 Hz – 20 kHz, Q 0.1 – 10.0
Saturation Modes	Tube, VCA, British (per-band)
Sample Rates	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz
Target Presets	24 factory + unlimited custom
Zero-Latency Mode	Available via AUTO toggle

About Latency

The FFT-based correction engine introduces ~93ms of latency at 44.1 kHz. This is automatically compensated by your DAW's plugin delay compensation (PDC). This latency is standard for mastering plugins — comparable to iZotope Ozone, FabFilter Pro-Q (linear phase mode), and similar tools.

The latency is inherent to the FFT overlap-add processing method, which provides the smoothest, most transparent correction. It cannot be reduced without switching to a different processing approach.

In v1.1, the AUTO toggle lets you disable the correction engine entirely for zero-latency operation. When AUTO is off, only the manual EQ and analysis curve run with no added latency.

15. FAQ & Troubleshooting

Q: The blue curve doesn't match the target zone. Is something wrong?

Not necessarily. The target zone represents the average tonal curve of professional masters in that genre. Your mix may have intentional deviations — that's your artistic choice. Use the target as a guide, not a rule. If the blue curve is way off, consider increasing Correction or making manual EQ adjustments.

Q: The correction seems to do nothing during quiet sections.

This is intentional. The spectral density gate detects when the mix is in a sparse section (intro, bridge, breakdown) and reduces correction. Target curves represent full mixes — applying them to a solo vocal would produce unmusical results. Correction engages fully when the spectrum is full.

Q: The bass correction is too aggressive on sparse/staccato material.

Increase the Speed knob. At low speeds, the analyzer uses very slow time constants that average over several seconds — staccato bass hits get smoothed out, making the analyzer think there's less bass than there actually is. Higher Speed values let the analyzer track momentary energy more accurately. You can also use the range handles to exclude the low-frequency region from correction entirely.

Q: I hear the EQ change during section transitions.

The transition detection system should minimize this. Try reducing the Speed knob (slower = smoother transitions). If the issue persists, the Ceiling knob limits how extreme the correction can be, which naturally reduces the audible impact of transitions.

Q: Can I use Tone Zone on individual tracks?

Tone Zone is designed for the master bus or mix bus, but it can work on subgroups (drums bus, vocal bus). The target curves are based on full-mix analysis, so they won't be as meaningful on individual tracks. For individual tracks, use the reference track learning feature with a reference that matches the instrument. You can also turn off the AUTO toggle for zero-latency operation, which is ideal for individual track use where you want the analysis and manual EQ without the correction engine's latency.

Q: How do I move my license to a new computer?

Click the Orra Audio logo (bottom right) to open the license panel. Click Deactivate to free up the activation slot, then activate on your new machine. You can have up to 3 simultaneous activations.

Q: The plugin adds ~93ms of latency. Is that a problem?

For master bus use, no. Your DAW compensates automatically via PDC. You should never notice the latency during playback. It only affects real-time monitoring if you're tracking through the master bus (which you shouldn't be doing anyway).

Q: What's the difference between the saturation types?

Tube adds warmth and body (even harmonics, like a vacuum tube). VCA adds punch and presence (odd harmonics, like an SSL console). British adds weight and smooths highs (mixed harmonics with HF rounding, like a Neve transformer). All three are designed for mastering-level subtlety.

Q: How do I resize the plugin window?

Drag the small grip icon in the bottom-right corner of the plugin window. The window maintains a fixed aspect ratio and can be resized between 800x520 and 1400x910 pixels.

Q: What does the BYP button do?

BYP is an internal bypass that disables all processing (auto-correction, manual EQ, and saturation) while keeping the analysis curve live. This lets you see the spectrum analysis of your unprocessed signal for comparison. It uses a smooth crossfade to avoid clicks when toggling. Unlike your DAW's bypass, the internal bypass keeps the plugin's analysis running so you can compare processed vs. unprocessed while still seeing the tonal curve.

Q: What does the AUTO button do?

AUTO toggles the auto-correction engine on or off. When AUTO is on (default), the FFT-based correction engine runs with its normal 4096-sample latency. When AUTO is off, the correction engine is disabled and the plugin runs at zero latency. The analysis curve and manual EQ still function. This is useful for individual tracks, live performance, or any situation where you need zero latency.

Q: Does the plugin remember my window size?

Yes. The plugin window size persists across sessions and projects. Once you resize the window to your preferred dimensions, it will open at that size every time.

16. Zero-Latency Mode (AUTO Toggle)

The AUTO button in the header bar controls whether the FFT-based auto-correction engine is active. This is the primary way to switch between corrected and zero-latency operation.

AUTO On (Default)

- The auto-correction engine runs normally with its 4096-sample FFT processing.
- Latency is ~93ms at 44.1 kHz (compensated by DAW PDC).
- The orange correction curve is active and visible.
- All features (analysis, correction, manual EQ, saturation) are available.

AUTO Off (Zero Latency)

- The auto-correction engine is completely disabled.
- The plugin runs at zero latency — no added samples of delay.
- The spectral analysis curve and manual EQ still function normally.
- The orange correction curve resets to flat (no correction is being applied).

Use Cases for AUTO Off

- **Individual track EQ** — Use the analysis and manual EQ on individual tracks without introducing latency.
- **Live performance** — Zero latency is essential for real-time monitoring situations.
- **Quick A/B** — Toggle AUTO on and off to hear the difference the correction engine makes, independent of the manual EQ.

> ***Tip:*** *When AUTO is off, the Correction, Speed, and Ceiling knobs have no effect. The manual EQ bands and saturation modes continue to work at zero latency.*

17. Internal Bypass (BYP)

The BYP button provides an internal bypass that disables all processing while keeping the analysis curve live. When engaged, a smooth crossfade transitions between processed and dry signal to avoid clicks.

What BYP Disables

- Auto-correction engine
- Manual EQ bands
- Per-band saturation
- Output trim

What BYP Keeps Running

- Spectral analysis (the blue curve continues to update)
- Target curve display (the green zone remains visible)

Why Use Internal Bypass Instead of DAW Bypass?

When you bypass a plugin in your DAW, the plugin is completely deactivated — no analysis, no display, no visual feedback. With BYP, the analysis keeps running so you can see your unprocessed spectrum against the target curve. This is invaluable for before/after comparison: toggle BYP and watch where the blue curve sits relative to the target zone.

> ***Tip:*** *Use BYP during your final checks to confirm the plugin is genuinely improving your tonal curve. Watch the blue curve shift as you toggle — it should move closer to the target zone when BYP is off.*

18. Fine Control (Modifier Keys)

Tone Zone supports modifier keys for precise EQ adjustments. These work with the manual EQ band nodes in the spectrum display.

Q Adjustment (Scroll Wheel)

- **Scroll wheel** — Standard Q adjustment
- **Shift + scroll wheel** — Fine Q adjustment (6x more precise). Ideal for dialing in exact bandwidth.
- **Cmd/Ctrl + scroll wheel** — Coarse Q adjustment (3x faster). Useful for quickly sweeping through Q values.

Frequency and Gain (Drag)

- **Drag** — Standard frequency (horizontal) and gain (vertical) adjustment
- **Shift + drag** — Fine-tune frequency and gain positioning (0.2x sensitivity). Enables precise placement when you need to hit an exact frequency or gain value.

You can press or release Shift mid-drag and the sensitivity will change smoothly without any jumps. This lets you drag quickly to the rough area, then hold Shift to fine-tune the exact position.

Platform Notes

- **macOS** — Use Cmd as the modifier for coarse Q adjustment.
- **Windows** — Use Ctrl as the modifier for coarse Q adjustment.

Shift works the same on both platforms.

19. Toggleable Tooltips

Tone Zone displays context-sensitive hint text in the bottom-left corner of the controls area. When you hover over any knob, button, or interactive element, a brief description appears explaining what that control does and how to use it effectively.

The ? Button

Click the **?** button (located in the bottom-left of the controls area) to toggle hint text visibility on or off. When hints are off, the bottom-left area remains empty for a cleaner look.

Your tooltip preference persists across sessions — if you turn them off, they stay off next time you open the plugin.

> ***Tip:*** *If you are new to Tone Zone, keep tooltips on while you learn the interface. Once you are comfortable with all the controls, turn them off for a cleaner workspace.*

20. What's New in v1.1

Version 1.1 introduces several new features and improvements:

- **A/B/C/D Comparison** — Four comparison slots (up from two) with a dedicated STORE button.
- **Zero-Latency Mode (AUTO Toggle)** — Disable the correction engine for zero-latency operation. Analysis and manual EQ continue to function.
- **Internal Bypass (BYP)** — Bypass all processing with a smooth crossfade while keeping the analysis curve live for visual comparison.
- **Fine Control (Modifier Keys)** — Shift + scroll for fine Q, Cmd/Ctrl + scroll for coarse Q, Shift + drag for fine frequency/gain positioning.
- **Toggleable Tooltips** — The ? button lets you show or hide hint text for a cleaner interface.
- **Reference in Target Dropdown** — Loaded reference tracks now appear as entries in the TARGET dropdown with save (S) and clear (x) buttons.
- **LIBRARY Button** — The SAVED button has been renamed to LIBRARY for clarity.
- **Window Size Persistence** — The plugin remembers your preferred window size across sessions.