

VST3 · AU · Version 1.0 · Mzane Electric

MZ-limiter

Professional lookahead brickwall limiter with clear metering and musical styles

A clean, musical brickwall limiter for tracks, groups, and the mix bus. Set Ceiling, drive with Input, watch the live waveform and gain reduction, and use Styles and factory presets as starting points for transparent control or louder density.

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MZ-limiter interface

1. Welcome

MZ-limiter by Mzane Electric is a lookahead brickwall limiter—the ceiling companion to MZ-equalizer and MZ-compressor. Insert it where peaks need a hard stop, watch the waveform and gain-reduction display, and set Ceiling so the output never goes above your target. Raise Input to push into the limiter, choose a Style for character, and use Lookahead so peaks are caught cleanly. True Peak mode helps when you care about inter-sample peaks. Always A/B with Bypass so loudness stays fair.

This guide covers installation, the interface, control reference, and practical mixing guidance for mix engineers and musicians.

Key features

- Input drive into the limiter (–24 to +24 dB)
- Ceiling from –12 to 0 dB with fine control near 0 dB
- Release and Lookahead for clean peak catching
- Stereo Link for a stable image
- Styles: Transparent, Punch, Loud, and Soft Clip
- True Peak mode for safer delivery ceilings
- Live bipolar waveform (In / Out / Both) with Slow or Fast scroll
- Separate gain-reduction lane with peak hold and colour zones
- Draggable Ceiling guides on an absolute dB scale
- Factory presets for mix bus, master-safe, vocals, drums, and more

What you will need

- A DAW that loads VST3 (and AU on macOS).
- MZ-limiter installed from your official Mzane Electric download.
- Audio on the track or bus where you insert the plugin.

2. Installation

After purchase (or a trial download), get the package from your Mzane Electric account or product page on www.mzanelectric.com. Always install from the official download.

macOS

- Unzip the download. You will typically find both a **.vst3** and a **.component** (AU).
- VST3: copy into /Library/Audio/Plug-Ins/VST3/ (or your user Library VST3 folder) as **MZLimiter.vst3**.
- AU: copy into /Library/Audio/Plug-Ins/Components/ (or your user Library Components folder) as **MZLimiter.component**.
- Logic Pro and GarageBand use AU; many other DAWs use VST3.

Windows

- Unzip the Windows package.
- Copy **MZLimiter.vst3** into C:\Program Files\Common Files\VST3\.

Restart your DAW or rescan plugins. If macOS asks for permission the first time, allow it and try again.

Tip: If the UI does not update after an install, remove the plugin from the track and insert it again.

3. Activation & Trial

MZ-limiter is activated through your Mzane Electric account. Without an active trial or full license, audio processing is disabled.

- Open the plugin in your DAW.
- If it is not yet activated, the activation window will appear. You can also click **License** at any time.
- Sign in or create your Mzane Electric account.
- Start a free trial, or unlock the full version after you have purchased.
- If you already bought MZ-limiter with the same account, full access should unlock automatically.

Purchase on www.mzanelectric.com. After buying, download from your customer library, install, then activate in the plugin with the same account. For help, email info@mzanelectric.com.

4. Interface overview

The main workspace is the waveform display: a centred signal scope above a separate gain-reduction (GR) lane, with In/Out meters on the right. Across the top you will find Preset, Style, License, Bypass, and Expand. Click the IN/OUT badge to choose which signal you see; click SLOW/FAST to change how much history the scope shows. Drag the amber Ceiling lines on the waveform to set Ceiling (they stay on an absolute level scale so they do not drift when the wave zooms). The knobs below control Input, Ceiling, Release, Lookahead, and Link. True Peak sits above the knobs with the GR readout.



Figure — MZ-limiter interface.

Regions at a glance

Area	What you see
Preset	Factory starting points for mix bus, master-safe delivery, loud density, punch, vocals, drums, and soft-clip colour.
Style	Transparent, Punch, Loud, or Soft Clip — sets limiting character without rewriting your knob settings.
License	Activate or manage your Mzane Electric license / trial.
Bypass	Turns limiting off for a dry A/B check. The display shows the logo and Bypass.

Area	What you see
Expand	Larger window when you want more space on the display.
Waveform (WAVE)	Centred bipolar scope of the signal. Use the IN/OUT badge to view input, output, or both.
SLOW / FAST	Scroll speed of the display. Slow shows a longer history; Fast is snappier.
GR lane	Gain reduction over time. Green is light, amber is working, red is heavy. Peak hold is shown as pk.
Ceil lines	Amber guides for Ceiling on an absolute dB scale. Drag them to set Ceiling.
CEIL mini curve	Small brickwall transfer view of the ceiling.
Meters	Input and output levels with a dB scale (green / yellow / red headroom zones).
True Peak	Estimates inter-sample peaks when limiting—useful for delivery and streaming ceilings.
TP badge	Shows when True Peak mode is on.

Drag knobs **vertically** to adjust values. Your DAW saves and recalls settings with the project.

5. Quick start

1. Insert MZ-limiter on the track, group, or mix bus that needs a hard ceiling.
2. Play audio. Load a Preset close to the job (for example Mix Bus or Master Safe), or start from Default.
3. Set Ceiling to your target (often about -1.0 to -0.3 dB for delivery; a little lower for extra safety).
4. Raise Input until the GR lane shows a few dB of reduction on the loudest peaks.
5. Adjust Release so recovery feels natural. Add a little Lookahead if peaks still poke through.
6. Leave True Peak on for masters and streams. Check with Bypass at matched listening level.

6. Controls reference

Drag knobs vertically to change values. Popup readouts appear while you adjust. You can also drag the amber Ceiling lines on the waveform. Style changes character only—it does not move the knobs. Use Preset when you want a full starting setup.

Control	Range	What it does
Input	-24 to $+24$ dB	Gain into the limiter. Raise to drive more limiting into the Ceiling.
Ceiling	-12 to 0 dB	Hard output limit. Drag Ceil lines on the display to set it. Fine control near 0 dB.
Release	10 to 1000 ms	How quickly gain reduction lets go. Too fast can pump; too slow can sound dull.
Lookahead	0 to 10 ms	Lets the limiter see peaks slightly early for cleaner catching (adds a little latency).
Link	0 to 100%	Stereo linking. Higher values keep left/right reduction more similar and the image steadier.
Style	Four modes	Transparent, Punch, Loud, Soft Clip — tilts timing and colour without changing knob positions.
True Peak	Off / On	Estimates inter-sample peaks when limiting. Prefer On for masters and streaming delivery.
Bypass	Off / On	Disables limiting for dry comparison.

Control	Range	What it does
Preset	Factory list	Loads a complete starting setup. Adjust to the song afterward.
Expand	On / Off	Larger window for detailed display work.
IN / OUT badge	Click	Wave view: input, output, or both overlaid.
SLOW / FAST badge	Click	Scroll speed of the waveform and GR history.

7. Ceiling, True Peak, and Lookahead

Ceiling is the hard stop. Everything after the limiter stays at or below this level. Set it for the job: a little under 0 dB for general safety, or a known delivery target (for example -1.0 dB True Peak for many streaming specs).

True Peak watches for peaks that can appear between samples after conversion or encoding. Leave it on when the limiter is the last dynamics stage before bounce or stream delivery.

Lookahead delays the audio slightly so the detector can react before the peak arrives. That usually means cleaner limiting and fewer overs, at the cost of a small amount of latency.

How to set a delivery ceiling

- Turn True Peak On.
- Set Ceiling to your target (often -1.0 dB or -0.5 dB True Peak, depending on the platform).
- Raise Input (or the level into the plugin) until GR moves only on the loudest moments.
- Use a little Lookahead (about 1–4 ms) if peaks still clip or sound crushed.
- A/B with Bypass. Aim for control without obvious pumping.

Example: mix bus glue without crushing

The mix is almost done. Occasional peaks poke up, and you want a polite ceiling without turning the limiter into a loudness maximizer.

- Insert MZ-limiter last on the mix bus (after EQ and bus compression if you use them).
- Load **Mix Bus** or start from Default with Style set to Transparent.
- Set Ceiling around -0.5 to -1.0 dB. Leave True Peak On.
- Raise Input only until GR shows about 1–3 dB on the loudest hits.
- Keep Release moderate. Add a little Lookahead if needed.
- A/B with Bypass. If the mix feels smaller, ease Input or raise Ceiling slightly.

Result: peaks stay under the ceiling, the mix stays open, and delivery has a safe margin.

Tip: Style does not move the knobs. Change Style to hear character; use Preset for a full reset.

Tip: Soft Clip adds colour near the ceiling—use when you want density with a bit of edge.

8. Mixing guidance

- Start with light GR on peaks (about 1–3 dB on a mix bus; a little more on a track is fine).
- If it pumps, slow Release or ease Input. If peaks still poke through, raise Lookahead or lower Ceiling slightly.
- Transparent is the clean default. Punch recovers faster. Loud is denser. Soft Clip adds colour near the ceiling.
- True Peak On for masters and streams. You can turn it off for creative track limiting if you prefer.
- Lookahead cleans peaks but adds latency—use when the track or bus can afford it.

- Link near 100% keeps the stereo image steady on buses and masters.
- Always A/B with Bypass. Limiting can make things sound louder and “better” in an unfair test.
- Fix big balance problems with EQ and compression before asking the limiter for large GR.
- On vocals or drums, catch spikes without chasing loudness—leave headroom for the mix bus.
- Master Safe preset is a conservative starting point when you need a reliable delivery ceiling.

9. Starting points for common jobs

These ranges are practical starting points—not rules. Where a factory preset is listed, load it, play the material in context, and refine by ear. Always finish with a Bypass check.

Mix bus (gentle)

Factory preset: **Mix Bus**

Catch occasional peaks without changing the mix character.

- Style: Transparent. True Peak: On.
- Ceiling about -0.5 to -1.0 dB.
- Input for about 1–3 dB GR on the loudest moments.
- Lookahead about 2–4 ms. Link near 100%.

Watch for: If the bus feels smaller or duller, you are limiting too much—ease Input first.

Master / delivery safe

Factory preset: **Master Safe**

Reliable True Peak ceiling for bounce or streaming.

- Style: Transparent. True Peak: On.
- Ceiling at your delivery target (often -1.0 dB TP).
- Only enough Input to stop overs—prefer light GR.
- Lookahead 3–5 ms if peaks are sharp.

Watch for: Do not use the limiter as your only loudness tool. Get level earlier in the chain.

Competitive loudness

Factory preset: **Loud**

More density into the ceiling when the job asks for it.

- Style: Loud (or Soft Clip for colour).
- Ceiling near -0.3 to -0.5 dB with True Peak On for delivery.
- Drive Input for several dB of GR on peaks.
- Tune Release so it does not pump with the groove.

Watch for: Loud limiting can flatten dynamics. Check on small speakers and against a reference.

Vocal peak catch

Factory preset: **Vocal Catch**

Stop shouty peaks without crushing the vocal.

- Style: Transparent. True Peak: On if this insert is late in the chain.
- Ceiling about -0.5 dB (or higher if the bus limiter will finish the job).

- Input so GR moves only on the loudest words.
- Release that recovers between phrases.

Watch for: If consonants get harsh, ease Input or try Soft Clip lightly instead of more GR.

Drum bus spikes

*Factory preset: **Drum Bus***

Control runaway hits while keeping punch.

- Style: Punch.
- Ceiling near -0.3 dB. A little Lookahead (about 1–2 ms).
- Input for a few dB GR on the biggest hits only.
- Faster Release so the kit recovers between hits.

Watch for: Too much GR makes drums small. Prefer catching spikes, not constantly riding the kit.

Soft-clip colour

*Factory preset: **Soft Clip***

Ceiling with a touch of edge and density.

- Style: Soft Clip.
- Drive Input into the Ceiling until you hear the colour you want.
- Keep an ear on distortion—back off if it gets fizzy.

Watch for: Use for character tracks or creative buses; prefer Transparent for clean masters.

Troubleshooting

Issue	What to try
No sound	Confirm activation (License). Check Bypass, mute, Level/Mix, and that audio is playing.
Plugin not found	Rescan plugins. Use AU in Logic/GarageBand; VST3 elsewhere. Verify install folders.
Activation problems	Sign in with the purchase account. Re-open License. Email info@mzanelectric.com .
macOS blocks plugin	Re-download the official release and install again. Allow permission if prompted.

Support & product info

Product	MZ-limiter
Format	VST3 + AU (macOS universal) · VST3 (Windows)
Manufacturer	Mzane Electric
Version	1.0
Website	www.mzanelectric.com
Support	info@mzanelectric.com

Thank you for using MZ-limiter. For product support, contact Mzane Electric.