Loudness pro

AI Mastering Limiter

USER GUIDE

SSG

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INTRODUCTION

Loudness Pro was designed from the ground up with a singular vision in mind: giving you the most intuitive way to achieve louder, cleaner, and punchier masters.

This meant reimagining the fundamental components of a modern loudness chain. All with the goal of making loudness maximizing more powerful, more transparent, and sonically pristine.

We started with the two most critical tools in any loudness chain - clipping and limiting. Each one has its own unique strengths, but each one also comes with its own compromises.

Clipping can sound incredible on transients, helping your music feel louder, tighter, and more aggressive. But when pushed too far, it can easily create harshness and audible distortion - especially on sustained notes and more tonal material.

Limiting, on the other hand, is often smoother and more transparent than clipping. But it can also suppress transients, reducing the punch, weight, and impact that make a master feel exciting.

After years of painstaking research & development, we built and trained a new type of AI model. One that actively understands how to balance the strengths of clipping and limiting in real time based on the anatomy of our ears.

This gives you the benefits of both clipping and limiting, without the fundamental drawbacks of each.

We can’t wait to hear the amazing music you make with it!

SYSTEM REQUIREMENTS

Please visit https://ssg-audio.com/system-requirements for the latest operating system and DAW requirements.

OVERVIEW

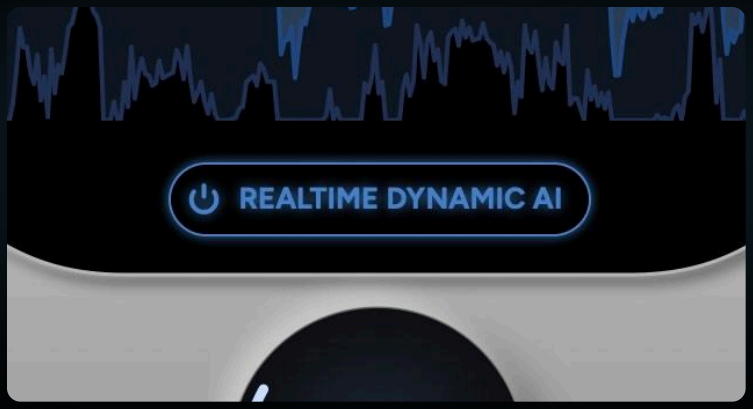


Loudness Pro features a streamlined loudness chain built around 2 core processing sections:

1. Variable Knee Clipper
2. Adaptive Master Limiter

The central Loudness control adjusts the overall amount of loudness processing being applied.

REALTIME DYNAMIC AI

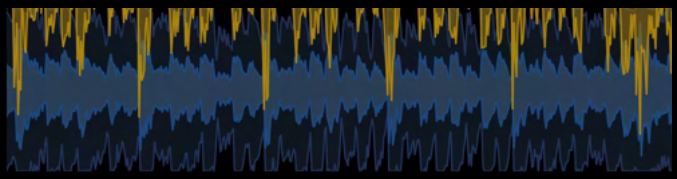


When **Realtime Dynamic AI** is engaged - the AI is actively controlling not just the clipper/limiter balance, but every internal parameter of both of them to ensure they are optimized at all times.

This means the AI is adjusting the settings thousands of times per second, at audio rate.

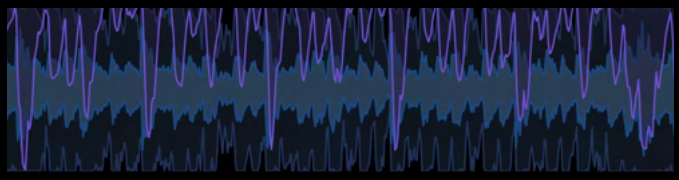
Because this is far more precise than is humanly possible (even to automate) - it leads to much cleaner results, much faster. Learn more about Realtime Dynamic AI in Loudness Pro on the next page.

REALTIME DYNAMIC AI



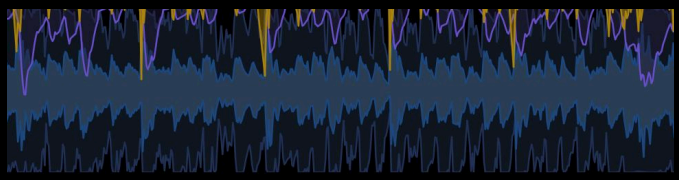
Clipping

While a well tuned clipper sounds great on transients, it can easily lead to audible distortion on sustained notes, making the audio overly harsh and crunchy.



Limiting

A limiter on the other hand sounds much better in such cases, but has the disadvantage of suppressing transients, robbing the audio of its punch and weight.



Actively Adjusted with Realtime Dynamic AI

You can theoretically get the benefits of both clipping and limiting without the downsides. But this requires changing the balance of clipping and limiting faster than is humanly possible, as simply combining the two always comes with compromises when adjusted for an entire mix.

The AI in Loudness Pro makes these adjustments in real-time with absolute precision, actively controlling not just the clipper/limiter balance, but every parameter of both of them to ensure they are optimized thousands of times per second.

AUTO DITHER CONTROL (ADC), TRUE PEAK



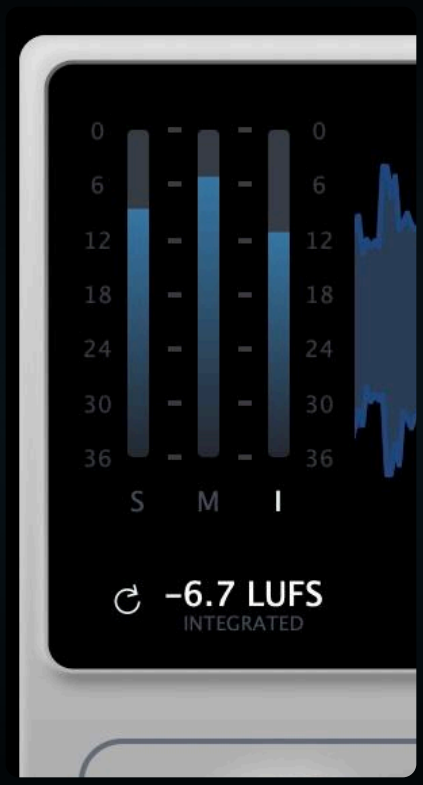
Loudness Pro features optional **Auto Dither Control** - the first automatic dithering algorithm that dynamically dithers only when it needs to, providing you with cleaner depth when exporting at standard 16-bit rates.

You can enable or disable this using the ADC button in the bottom right corner of the interface.



Loudness Pro features optional **True Peak** limiting, which prevents the output from producing inter-sample peaks. You can enable or disable True Peak limiting via the control on the right side of the interface.

LUFS METERS



Loudness Pro features Integrated (I), Momentary (M), and Short-term (S) standard LUFS measurements for the output of the plugin. You can use the Reset Button to clear the LUFS meter.

CLIPPER MANUAL CONTROLS



Contour
Apply spectral dynamics before clipping. When in AI mode, this parameter is automatically controlled by the AI.

Hardness
Adjust the knee to set anywhere between soft and hard clipping. When in AI mode, this parameter is automatically controlled by the AI.

LIMITER MANUAL CONTROLS

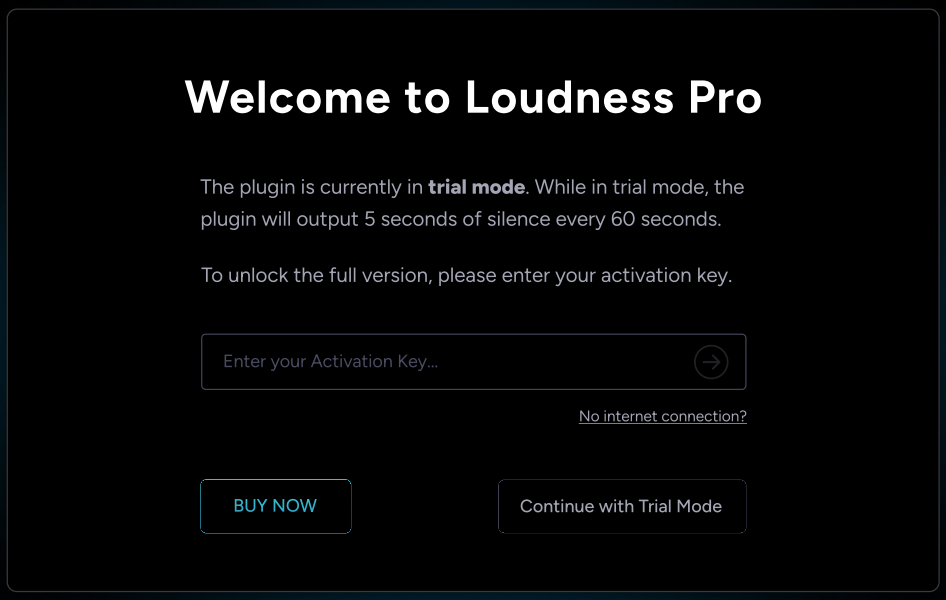


Release
Set the limiter recovery time. When in AI mode, this parameter is automatically controlled by the AI.

Ceiling
Set the maximum output level in dBFS.

ACTIVATION

A valid License Key is required to use Loudness Pro. If Loudness Pro is not activated, it will output 5 seconds of silence every 60 seconds. Entering a valid License Key will allow Loudness Pro to function properly.




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