

DDMF NoLimits2 manual

v1.0.0



Dear user, thank you for actually taking the time to read this manual! While we hope that this plugin's user interface is so well thought out that it gives you all the necessary clues in order to immediately start working with it, it certainly cannot hurt to have at least a look at what the various controls are actually doing and whether there might be one or two things that you have overlooked.

Installation: simply run the installer and the plugin should be copied automatically to all the folders for the formats (VST, VST3, AU or AAX) which you have selected during installation. For VST on Windows you will need to specify your desired VST plugin directory. NoLimits2 should now be available in your Digital Audio Workstation (DAW). Upon first loading an instance of it, a big button will appear that will complain about a missing license file. Please, if you haven't done so already, request your license file from <https://ddmf.eu/login>, it will then be sent to your inbox. Unzip the license file, click on that button with the message, and select your license .txt file. Your plugin is now registered.

Usage: NoLimits2 is a limiter plugin: it's purpose is to increase the loudness of your audio material while at the same time making sure it never exceeds a certain threshold/ceiling.

Let's start with the biggest knob: the **Gain** knob increases the level of your incoming audio by up to 30 dB before it hits the limiting stage. Next to it, you'll find the **Ceiling** knob: internally, the threshold is 0 dB, but if you dial in a ceiling value lower than that, the outgoing signal will be attenuated so that it will never pass that

ceiling. You can couple your ceiling value to automatically offset your gain value by holding the Shift key when turning the gain knob. This way you can often judge the sonic impact of the limiting algorithm more accurately without being impressed too much by the loudness gain (which always tends to sound better than a more quiet signal).

So far, so good. Let's go into the details some more: NoLimits2 has a selection of 4 different algorithms that all follow a different approach in achieving the desired goal of limiting your signal, and hence all sound differently. Those 4 algorithms can be selected via the **Type** knob. Here is a brief description of the types:

1. "Nice": a lookahead brickwall limiter with first a compression stage, then a second stage to take care of the remaining transients. Sounds clean but powerful and allows for huge gain increases before distorting.
2. "Push": the only non-lookahead mode: as such, it will cause no latency at all which makes it the perfect choice for limiting during recording/tracking. It also creates some nice harmonics and definitely has a character of its own.
3. "Punch": a colourful option, sounds very fresh and direct but tends to distort earlier than the other 3 (make sure to use a longer lookahead time for cleaner results at higher gain values). Will add that certain something to your master when used in moderation, or create a deliberately smashed sound for drums and the like.
4. "Soft": as the name implies, a rather smooth, non-brickwall lookahead limiter. This mode will generally sound a bit softer/smooth, but will also be slightly less loud than the other modes. Use it if you want the most gentle treatment!

Types "Nice", "Push" and "Soft" all make use of a compression stage in one way or another. For those types, the **Attack** and **Release** knobs are enabled, which let you shape the response before the signal hits the transient stage. Type 3 is using an entirely different algorithm, hence the Attack and Release knobs are greyed out for that mode. The same goes for the **Lookahead** knob in mode "Push": this is the only non-lookahead mode, so that knob is greyed out.

I think it is time to quickly mention what the lookahead algorithm actually does: it delays the signal by the set amount of microseconds and internally uses that time to peak into the future, so to say, in order to not be surprised by sudden changes in the dynamics. Think of it as the headlights in a car driving at night: with no headlights on, the next corner can sometimes come as a big surprise and cause you to make some drastic inputs on your steering wheel. The more your headlights can look ahead, the more you can anticipate what is coming and react in a much smoother way.

What is left? The **Link** knob lets you adjust how much the amount of limiting on the left and the right channel (if you have a stereo signal) are linked to each other. With Link set to 100 %, both channels will experience the same amount of gain reduction so that the stereo image is not distorted. With Link at 0 %, each channel will be gain-adjusted according to only its own levels, which will achieve greater loudness on each channel individually, but at the possible price of a moving stereo image if the levels in both channels are rather different.

The **Oversampling** knob can be used to internally oversample the audio signal by a given factor. This can be very helpful if your project sample rate is not very high (say, 44.1 kHz) but you want to make sure that there are no nasty side effects (aliasing) from possible harmonic generation due to the limiting algorithms (applies more to modes "Push" & "Punch"). Finally, the **Bypass** knob will, not very

surprisingly, bypass the limiter entirely so that you can make quick comparisons how your audio sounds with the whole thing switched off.

Metering: NoLimits2 features very detailed metering of the in- and outgoing signal as well as the applied gain reduction at any given time. The input, output and gain reduction levels are shown in the VU meters in the right part of the user interface, seperately for the left and the right channel, and in bright colours for peak and darker colours for RMS values. Below the meters, you have a section for LUFS metering, the current standard for audio level metering. NoLimits2 continuously calculates the "Momentary Short Term", "Maximum Momentary" and the "Integrated" LUFS values. The displayed values can be reset by a mouse click on any of the numbers (useful if you have switched mode, for instance, and want to start all over again with the Integrated loudness). Finally, True Peak Metering is also on board: in the lower right corner, the TP levels are displayed for the left and the right channel. True peaks are peaks that may occur "between" audio samples", and can be an issue because in digital/samples form your signal is entirely below the desired ceiling, but after conversion to the analog domain, there can still be a tiny bit of excess loudness that you have to counteract by lowering the Ceiling value accordingly. The TP values will show in red when exceeding 0 dB, and can also be reset by a mouse click.

That's all for now! Thanks for reading all the way through, and if there are any questions or suggestions left, please don't hesitate to contact support@ddmf.eu. Now, please enjoy your new tool, I'm sure you will achieve great results with it.