

# DDMF NoLimits Manual

Thank you for using DDMF NoLimits lookahead limiter! The interface has been designed such that most things are probably self-explanatory. Nevertheless we recommend to look at this manual at least once...



## Installation:

Run the installer you got along with this manual. On Windows, please specify the 32 and/or 64 bit VST plugin directory where you'd like the plugin installed. On Mac, all plugin directories are at a fixed, system-wide location, so just choose the plugin types you'd like to have installed and the rest will be taken care of. After installation, the plugin should appear in your digital audio workstation of choice.

## Usage:

A limiter keeps the audio signal below a certain threshold by automatically bringing the level down when this threshold would be exceeded by your material. The nice thing is that you gain "headroom" that way: if you keep everything below, say, -3 dB, you can afterwards increase your overall level by 3 dB without going above 0 dB (which would cause digital clipping during rendering to .wav, .mp3, ... files). The NoLimits limiter lets you do both things in one step: turning the "Thr"-knob to decrease the threshold from -0.1 dB down to a minimum of -20 dB while at the same time having the "AutoGain" button pressed will

automatically make use of the new headroom: the signal will get noticeably louder. This can be a “dangerous” way of using a limiter, though, since the human ears will usually find louder levels more pleasing. As during the process of gain reduction the audio signal will be more and more squashed (and even distorted, at extreme threshold settings), it is often advisable to switch off AutoGain and first turn the threshold knob until you reach a point where the negative effects become obvious. Then, push back a little and only THEN use AutoGain. This way you judge the effect of the limiter at constant sound levels, as your audience will do as well.

The left voltage meter (with “GR” written on it) will show you how much the gain of the signal has to be reduced at any given time to stay below the chosen threshold. The “Peak” voltage meter shows the peak amplitude of your audio signal AFTER being processed by the plugin. Finally, the “RMS left” and “RMS right” labels indicate the current root mean square signal in the left and the right channel, respectively. Again, a word of caution is in order: these days the tendency is to make everything as loud as possible, often severely compromising the dynamics. Usually it is sufficient to reach single digit RMS levels in order to be competitive in terms of loudness. Once you reach -9 dB or higher please listen carefully whether that extra decibel is really necessary!

NoLimits can be used in simple or advanced mode. By clicking the “Advanced” button you can switch between the two modes. In advanced mode, additional knobs are available to fine-tune the limiting algorithm: the look-ahead time window can be changed, as well as the attack and the release time. Finally, the output ceiling can be adjusted as well.

The look-ahead time determines how far “in the future” NoLimits can detect transient peaks. Shorter times can lead to higher loudness but ultimately also to higher distortion. Apart from transient-detection, NoLimits consists of an almost-brickwall compressor that reacts slower than the transient-detection stage to avoid distortion for smoother changing signals. The attack and release times of this compressor stage can be adjusted with the “Attack” and “Release” knob. Shorter attack times lead to less loudness and less distortion, with the release time it's precisely the other way round. Play with attack, release and threshold until you've found a setting that's loud enough while still sonically pleasing.

With NoLimits you have the option to dither your signal after the limiting process. This is necessary if the limiter is the last element in your effect chain (as it is usually the case when mastering) and you want to render to a format that has lower bit depth than the 32 bit that NoLimits is using internally. Often your host application will have a dithering option as well, but just to be on the safe side, a state-of-the-art dithering algorithm has been included in NoLimits.

*Demo restrictions: about every 30 seconds the audio level drops for a second.*