

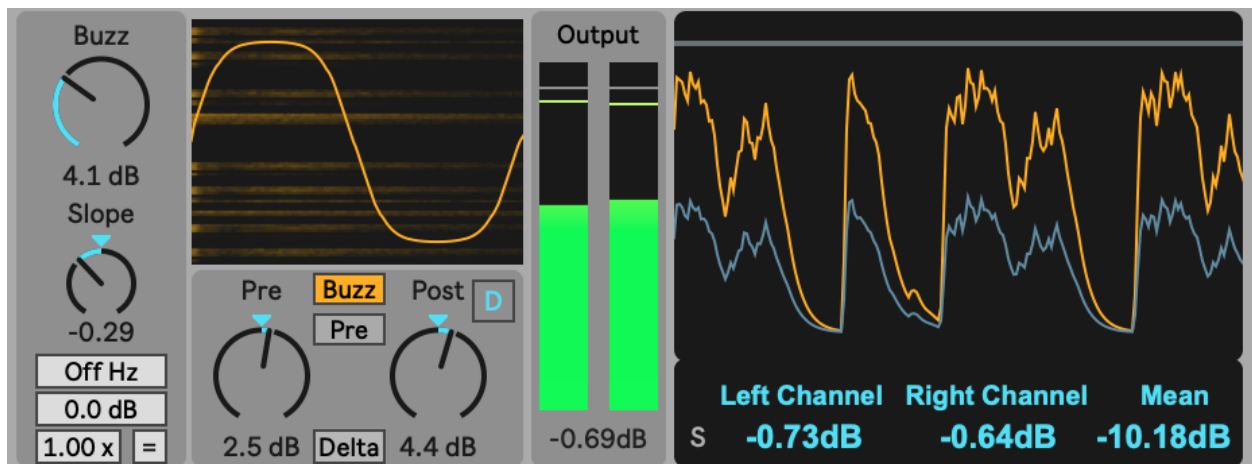
The Mulder

Overview

is an audio plugin that can be used as a clipping limiter or saturator. The algorithm is set by the amount of dB but also the amount of gain (signal) is fed into the plugin. You can see as the pre gain is fed into the plugin that the clipper slope changes.

Quick Start: Loop an audio clip that is playing close to 0 dB. Click on the D and see that the display is showing the clipper working on the signal. Click off (non orange) the Auto button. Turn the Buzz dial up to 6 dB. The orange signal should have its peaks clipped off and the signal should be close to flat on the gray 0dB line in the display. Click on the Auto to see the signal jump down 6 dB. The display should then clearly show how much transient shaping is happening to the signal. Now turn the post gain up 5.7 dB. This will mean that the clipper is maxing out .3 dB before zero. You should then see the left and right channel displays reading around -0.30 dB. It is important to note that as the slope dial goes in the negative and towards linear the 'clipping' function starts to break down and revert back to a no effected signal so the gain staging will change.

I hope this comes in handy. Enjoy!



Section One: Clipper Curve Controls

Buzz - This controls the amount clipping on the signal based in decibels. When the dial is set at 4 dB the curve created will only influence the last 4 dB of the signal leaving the rest of the signal unaffected.

Slope - This controls the curve of clipper. At zero the typical tanh curve is created. Moving from zero to +1 The tangent curve moves to a square for extreme hard clipping. Moving from zero to -1 the curve flattens out to linear. The slope is the same for both sides of the filter (see below).

Off / 500 Hz - This is the filter that controls if the clipper splits the signal into a bass/treble configuration. Off means the whole signal is controlled by the dials. Setting it to, say 250 Hz, means above this frequency the Buzz dial controls the amount of clipping and below the **0.50 x** controls the ratio of clipping (see below).

0 dB - This controls the gain of the bass frequencies when the filter is engaged.

0.50 x - Is the ratio of the Buzz dial be applied to the bass signal. 1x is the same as the Buzz dial. If it is set at .5 and the Buzz dial is set at 10 dB, the bass signal will be effected by 5 dB of clipping.

= / + / - - Represents the output of filter types.
= is both signals
+ is just the high pass signal (treble)
- is just the low pass signal (bass)



Section Two: Gain

Buzz - Is an auto gain control that compensates for the activation of the Buzz dial gain. When not engaged (non orange) the Buzz dial will gain up the signal to zero dB. This is when you just want the clipper to go to 0 dB. Engaging the auto gain makes you able to control the signal with the Post gain dial.

Pre – Similar in control to Buzz, this is an auto gain control to compensate for the pre gain.

Delta – Toggling this monitors what is being clipped from the signal. The more clipping, the stronger the signal in the delta. You can also see what is being taken out in the display on the right.

Pre - Is the gain control before going into the clipper.

Post - Is the gain control after all processing and is the final stage of the plugin.

D - The engages the monitoring of both the original signal (blue) and the clipped version (orange). This also starts the sonogram in the curve window for the delta signal. This is helpful to see what frequencies are being clipped.

S - This toggles between a faster and slower refresh time of the visual monitoring.

