

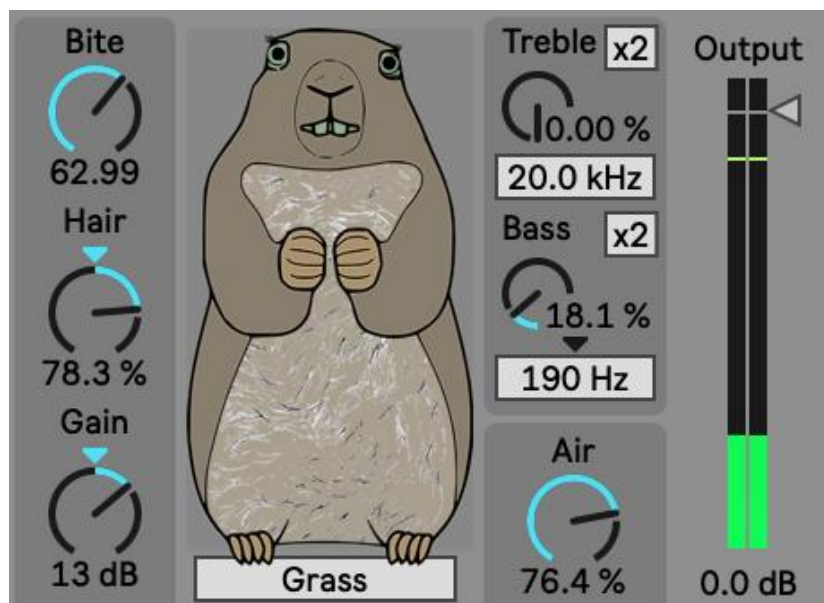
# The Marmot

## Overview

is an audio plugin that uses the tradition of the MXR type distortion circuit (inverting negative feedback loop). This has been finetuned to flexibly work with solo instruments like vocals & guitars to thick stereo signals like synths to even full mixes. High and low frequencies dramatically affect the distortion circuit so the parameters provided give you enough control to contour your sound in any way you wish. The six saturation curves all work differently with the parameters so

**Quick Start:** First, loop an audio selection so there is some consistency in the input. Set the Bite to 70% and then add positive gain, then negative. You can hear that the signal volume doesn't change dramatically and sonically very interesting things happen. Now turn up and down the Hair dial with the bite at 100% and the gain high enough to create saturation.

I hope this comes in handy. Enjoy!



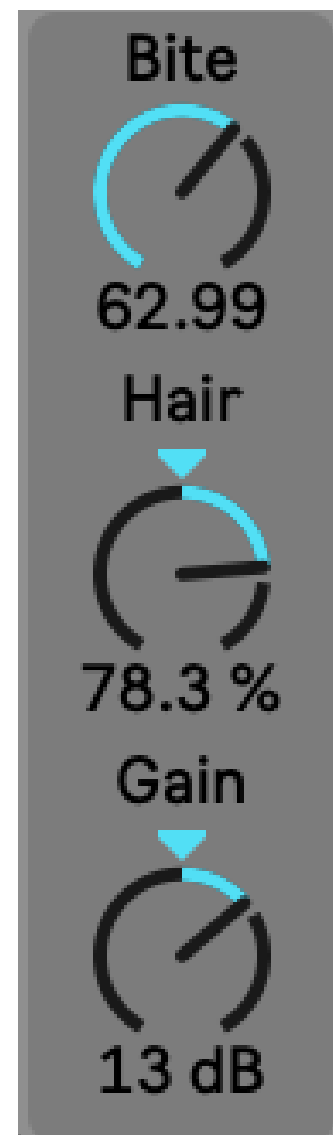
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## Section One: Saturation

**Bite** - This controls the amount of saturation and automatically blends out the original signal (after 4.0). This also changes the EQ characteristic of the sound as you turn the dial so listen carefully! The amount of saturation is controlled by not only this dial but the gain being feed into the plugin (see Gain dial) and the Hair parameter. All three contour the colour of the saturation. Bite is the 'master' of the three and loosely controls the amount of saturation but also remember that the EQ changes and a loose guide to this characteristic is that the bass gets rolled off and there is more midrange as the dial number increases.

**Hair** – In technical terms this parameter controls the slew of the distorted signal. The slew rate effects the tone of the distortion. The greater percentage, the 'bassier' and more coloured the sound. Going closer to zero creates more of a 'transparent' tone. 50% has been modified to be the sweet spot.

**Gain** - This controls the gain into the plugin. This parameter is gain matched so boosting or cutting this dial is compensated on the output stage... your welcome! This used with the other parameters can created a bright, full tone with lots of presence or and massive saturated one.



## Section Two: Equalizers

**Treble** – This dial is post the saturation circuit and boosts the high end of the frequency range above 5 kHz a maximum of 10 dB.

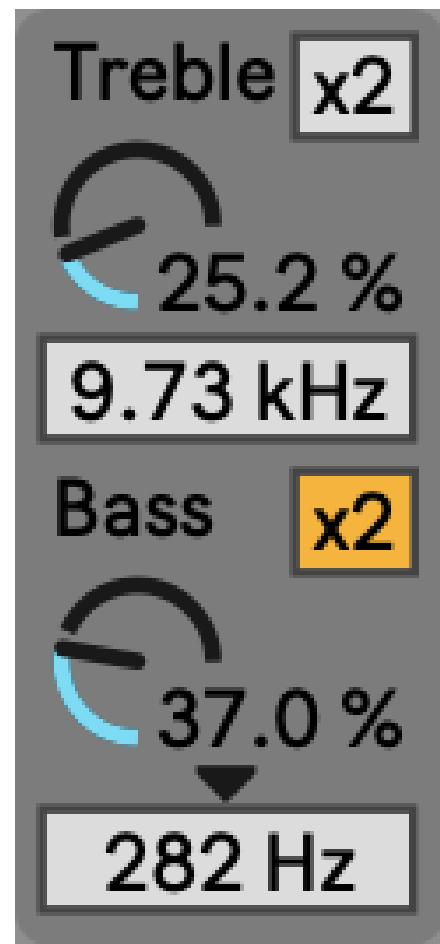
**x2** - This toggles between 2 shelf filter frequencies, 5500 kHz and 3500 kHz respectively. Engaging the x2 will lower the shelf adding more high frequencies to be amplified.

**20.0 kHz** – This controls the treble roll off frequency (1kHz to 20kHz) post the saturation circuit. This gives you the option of many eq shapes using both the boost and cut parameters together.

**Bass** - This dial is post the saturation circuit and boosts the low end of the frequency range below 200 Hz a maximum of 10 dB.

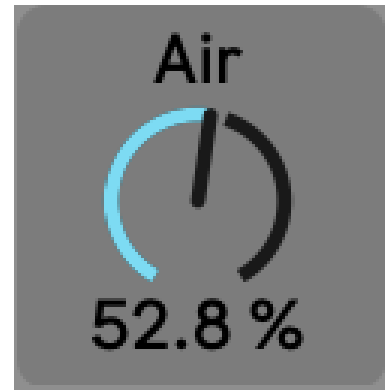
**190 Hz** - This controls the bass roll off frequency (20kHz to 1kHz) PRE the saturation circuit. This controls the amount of low end being sent into the saturation circuit so this will create large variations depending on the amount of saturation being created. The triangle resets the parameter back to its default of 190 Hz.

**x2** – When engaged this adds the clean signal below the designated frequency. This will add clean (non distorted) bass to the effect and the bass dial will gain up more of this as the dial turns up.



## Section Two: Equalizers (cont... )

**Air** - This control creates an air like quality to the saturation circuit (very high frequencies). This works in conjunction with the Bite/Hair dials but is effectively an EQ element. If the Bite/Hair/Gain parameters are not very active, neither will the Air parameter.



## Section Three: Saturation Options

**Saturation Algorithm** - This switches between six different saturation curves. They are listed in the following. The default setting is Grass and the dials are tuned for this curve. Each extra curve reacts differently to the dial settings so adjustment when toggling through these is required, some react differently to gain, etc...

- Grass – Tangent Function
- Flowers - Sigmoid Function
- Fruit – Parabolic Function
- Roots – Gudermann Function
- Pizza – Softsine Function
- Garbage - Tanh Variation

