

WOOTT

Dynamic Hype Enhancer

INTRODUCTION

Inspired by the infamous **OTT** effect, WOOTT provides a powerful kind of special sauce. The OTT phenomenon started life as a preset for a famous multiband dynamics processor. It was quickly embraced by the EDM community for its ability to bring out subtle details in electronic sounds and amplify them to their extreme limits.

Using this plugin, synth sounds can be drastically transformed. Particularly filter movements and phasing effects can be brought to the foreground, creating very distinctive, lively wows and growls out of otherwise very normal bass and lead sounds. But there are many more interesting use cases for the effect, such as:

- brushing up dull and dusty old breakbeat samples
- amplifying room ambiance details which would normally be lost in the mix
- blowing timid instruments up to huge proportions.

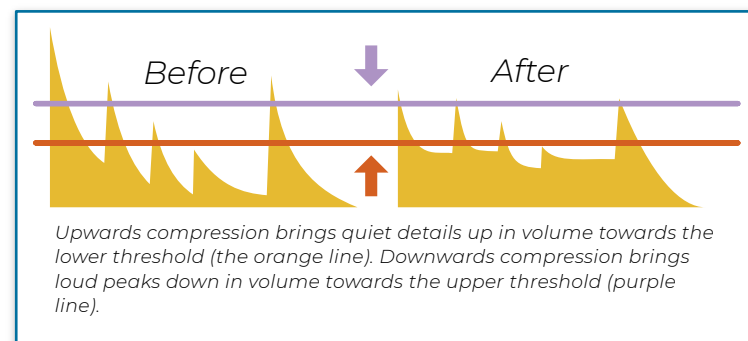
UP AND DOWN

The magic ingredient of the effect is the combination of conventional compression and **upwards compression**.

Upwards compression is a feature not found on many conventional compressors. Regular -downwards- compressors reduce loud peaks crossing a set threshold. Upwards compression on the other hand deals with the most quiet sounds. Instead of an upper threshold, upwards compressors set a bottom threshold. Any time the sound goes below this lower bound, the signal gets amplified.

This means that an upwards compressor can be used to bring out little details in your sound, such as ghost notes in drums, tiny reverb tails, resample noise and subtle filter movements in your neuro bass leads.

WOOTT uses both simultaneously, processing all incoming sounds using upwards *and* downwards compression to create a very compact sound. This can be a destructive tool which utterly murders dynamics. However, when applied effectively it adds lots of character and attitude to your sound.



THE BLACK HOLE

The three columns in the center panel are your *low*, *mid* and *high* bands. Each band has its own upwards compressor block (the one with the vivid color, at the bottom) and downwards compressor block (the one with the dull color, at the top). Between both compressor blocks is an empty space: **this is your black hole**.

Due to the upwards and downwards gravity of the compressors, all incoming sound levels are constantly being pulled towards the black hole. Your compression ratios determine how far sound is allowed to escape from the black hole.

At high compression settings sound can't stray at all and everything is compressed into the tight vacuum of the black hole.

COMPRESSION RATIOS

These dials control the compression ratios for downwards (↓) and upwards (↑) compression. When turned fully down the compressor is set to 1:1, which means the compressor is disabled. At their maximum the ratio is set to 1:100, which is virtually the same as infinity.

Downwards compression ratios are what you're probably used to from other compressors. Upwards compression ratios determine how far below the minimum threshold sound is allowed to go. A ratio of 1:4 means that for every 4dB the signal falls below the lower limit, it will be amplified by +3dB.

The 50% settings of the knobs are the ratios of the original OTT compression preset.

LOW CUT

This removes some of the lowest frequencies in the subbass range before going into the compressors. This can take away inaudible rumble and free up headroom for more useful frequencies; resulting in tighter and more compact bass.

OUTPUT GAIN

Lets you set the output balance of the processed sound. This can be set independently for each band. Output gain is applied after the compressors and limiter.

Note: individual bands are available in multi-out compatible hosts without this output gain applied.

SLOW - FAST

These knobs adjust the envelope follower's attack and release settings. The actual settings are different for each band, to match the typical characteristics of the frequency content.

At 50% the timing settings match the original OTT's attack and release times. Slower speeds preserve transients better, faster speeds smoothen transients more.

RMS

This toggle lets you switch between RMS measuring and peak sensing.

Generally you should leave it on RMS for most types of sound, because peak sensing may get unruly due to the dynamic nature of upwards compression.

LIMITER

The limiter sets a hard upper gain threshold for each individual band (there are actually three limiters). It makes sure that volume levels do not cross this threshold. This also means that one or two bands can be running into the limiter, while the other(s) go through unaffected if they're still below their respective thresholds.

When set to 0% the limiter is very loose and allows band-levels to cross the 0dB barrier. When dialing the limiter in, it moves the thresholds for each band down to just above each band's individual downwards compression threshold.

In practice, you use the limiter to guarantee a certain amount of headroom to play with and to reduce peaks created by the upwards compressors. At the same time, the limiter will reduce transients and other peaky bits of your sound. If you feel your sound is becoming too flat you should dial the limiter back down until the groove comes back.

SQUASH

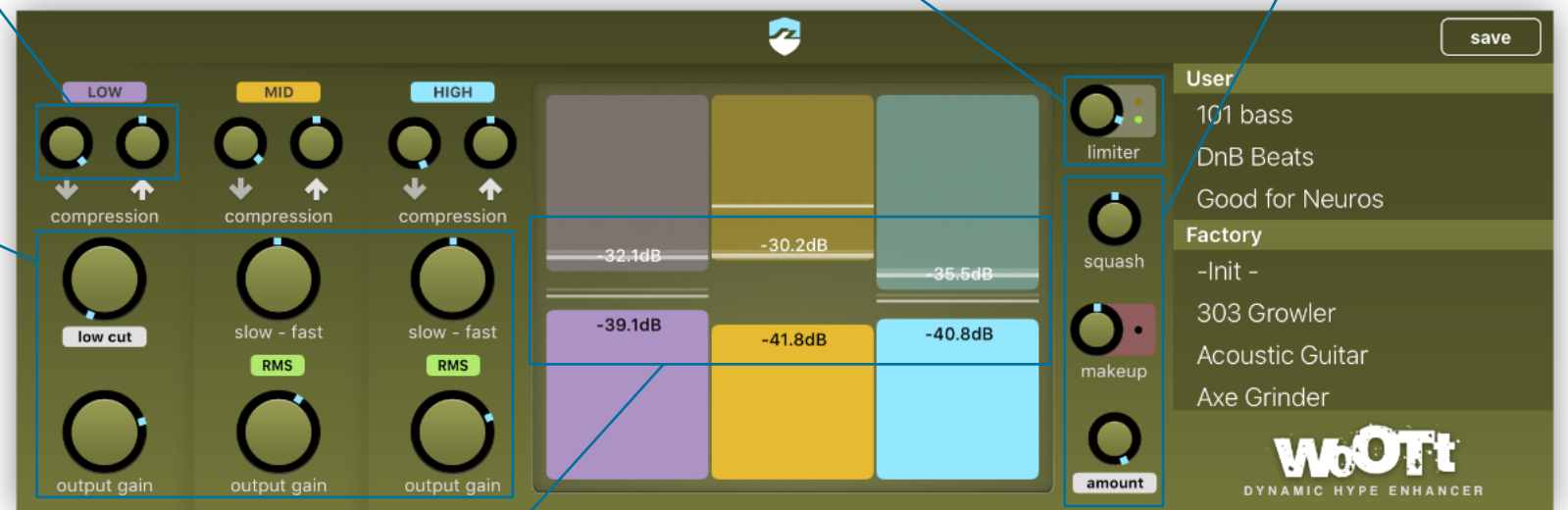
This feature lets you set the combined compression strength of all bands. It makes the **'black hole'** between the upwards and downwards compressors wider or narrower. If you make it wider, your sound will get a bit more room to breathe because the thresholds for the compressors are moved a bit further away from each other. In the other direction, you will compress the sound to more an extreme extent.

MAKEUP

The makeup gain lets you amplify (or attenuate) the outgoing signal after the three bands have been mixed together. You can use the clipping warning LED next to the knob to help you find the maximum gain which doesn't overload.

AMOUNT

This very much like a dry/wet knob, except the dry signal is processed by a few allpass filters to prevent phase cancellation between the dry and the wet signal.



BLACK HOLE / COMPRESSION THRESHOLDS

The central panel of the user interface shows the current compression thresholds of each of the six compressors in a visual way. The top row represents the downwards compressors for the low, mid and high bands. These compressors bring the volume of the louder parts of your signal down.

The bottom row shows the thresholds for the upwards compressors. When the signal dips below this threshold the volume of this band is brought up towards threshold level.

If the signal is in the black hole between the upwards and downwards thresholds it is left untouched. Hence, if you reduce the squash amount to make the black hole bigger, you'll actually reduce the combined effect of all 6 compressors.

GOOD TO KNOW

- Multiband splitting and reconstruction introduces phase shifts. Because of this you may get phase cancellations when using WOOTT as a send effect. Insert effect is preferred.
- Upwards compression is unforgiving on material with artifacts such as (zipper-)noise and aliasing. You'll hear every blemish!
- You can remove user presets with a swipe to the left.
- The crossover frequencies between the bands are at 88.3Hz and 2.5KHz
- Multi-channel output is available in compatible hosts

