



# DRWSAT76

## 3-BAND STEREO SATURATION & WIDTH PROCESSOR

[RACK EXTENSION]  
MANUAL



FX device by Turn2on Software



**DRWSAT76** is a 3-band stereo saturation and width processor that was inspired by the original classic hardware effect processor Drawmer™ 1976®, popular in the 1970's.

3 bands of independent saturation and width control have been designed to add a warm and bright sound, and a deep presence to your mix.

**Saturation** - gradual distortion of the signal, an effect that can change the sound of your mix and tracks, adding a subtle form of distortion that adds harmonics to your signal. Today, in the era of digital and sterile sounds, DRWSAT76 allows you to add this warm character in a natural way.

**3 Bands** of independent Saturation effects can help to bring out basslines, adding presence and grit without ruining balance by adding distortion to the top end frequencies. Or enhance the vocals without making the bottom sound muddy.

3 Bands of width processing creates the extra dimension of the mix from flat wall sound to a 3D experience. You can control Low, Mid and High bands by widening or monogizing them independently.

Each band includes Mute and Bypass buttons, that help to mute some frequency range of the signal, or bypass this band saturation & width processing.

Density adjust the distortion curve character for your taste and needs (from concave to convex). The Limiter routes the output signal to the hard clipping limiter, to keeps the level in check, with a fixed 0 dBFS.

Try out **DRWSAT76**, the easy-to-use 3 band Saturation & Width fx processor with configurable distortion curve, stereo image and two crossover filters with 6/12/24 db/Oct slope.



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FRONT PANEL

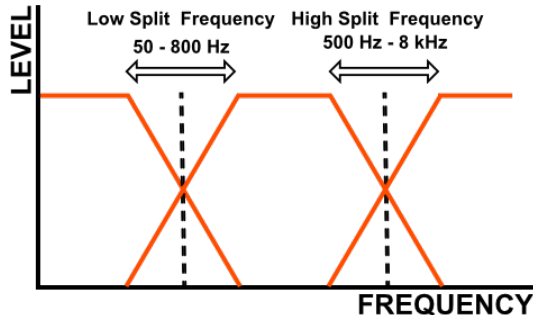
BYP/ON/OFF    LOW BAND    LOW CROSSOVER    HIGH CROSSOVER    HIGH BAND    I/O LED METER



CROSSOVER SLOPE    DENSITY    BAND LEVEL    SATURATE    ACTIVE FX

NAME	DESCRIPTION
<b>BANDS</b> (LOW, MID, HIGH)	Individual band sections (Low, Mid, High) with independent saturation, width, density and level control.
<b>LOW X-OVER</b>	Set the frequency point at which the split between low and mid bands occurs (50 .. 800 Hz)
<b>HIGH X-OVER</b>	Set the frequency point at which the split between mid and high bands occurs (0.5 .. 8 kHz)
<b>BAND MUTE</b>	Mutes the band signal, the signal of this band at the output will not be heard
<b>BAND BYP</b>	Bypassing the band signal, processed by Saturation & Width effects. Only the dry signal of this band will be heard
<b>BAND SOLO</b>	Solos the band signal, only the signal of this band at the output will be heard
<b>SATURATE</b>	Sets the amount of drive (gradual distortion) from subtle to an extreme level, adding harmonic distortion to the band signal
<b>DENSITY</b>	Adjust the distortion curve character (from concave to convex)
<b>WIDTH</b>	Adjust the stereo width using Mid-Side matrix. It has no effect on the mono signal. The band width of the stereo image can be narrower or wider than the width of the incoming signal (from 0 up to 150%, at 100% width not affected)
<b>BAND LEVEL</b>	Band level control, offset changes to the overall balance (between low, mid & high bands)
<b>X-SLOPE</b>	Crossover roll-off (slope). Higher values give more separation between the bands. Values: 6, 12 or 24 dB/Oct
<b>ROUTE MODE</b>	Switch between the default "Linear" and "Parallel" (each band includes dry/wet control) modes
<b>INPUT</b>	Controls the gain level of the incoming unprocessed (dry) signal
<b>OUTPUT</b>	Controls the gain level of the processed (wet) signal
<b>MONO</b>	Set output signal are to be played in mono. Help to test L/R channels stereo image width.
<b>LIMITER</b>	Routes the output signal to the hard clipping limiter, to keep level in check, with fixed 0 dBFS
<b>I/O METER</b>	LED meters for the Input (unprocessed) and Output (processed) signal levels

**ACTIVE FX**    Switches the effect between Active and Soft-Bypass modes. Variation of effect bypass with fade in and fade out that excludes loud peaks when you enable or disable the effect



**DRWSAT76** is an intuitive as possible: input control at the left side of the panel. After this, the stereo signal is split into 3 identical bands with Saturation and Width. Each band processed separately at different frequencies without affecting the other, with the crossover frequency controls. The audio is summed back into a stereo signal again before the output (located at the right side of the panel).

# SATURATION & WIDTH TIPS

## BEST LEVELS:

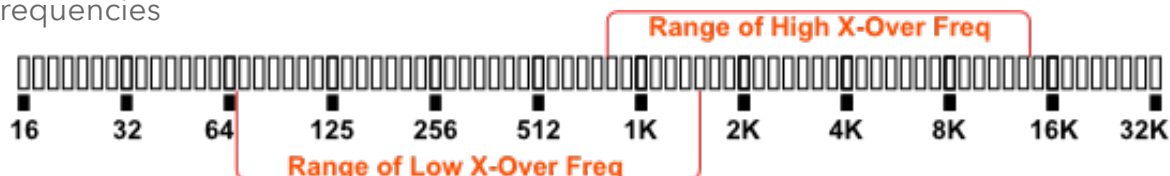
If you use more drive, the more saturation occurs.

Adjust the input level slightly rather than all three bands saturation controls to get the correct amount of distortion. Adjust the output level to compensate.

This should be done subtly once the three bands are close to correct in the first place.

## FREQUENCY THAT YOU NEED:

DRWSAT76 crossover filters splits the audio signal into three frequency bands. Set these bands range correctly. The diagram provides a general idea of some useful frequencies that will aid in setting the crossover frequencies



STEREO	Heavy Bass	Rhythm Sect	Presence	Sibilance	Brilliance/Air
DRUMS	Bass/Sn/Tom	Snare / Tom	Snare	Cymbal	
BASS GUITAR	Bottom	Body	Attk/Pick	String / Noise	
ACOUSTIC GUITAR	Bottom	Body	Brightness	String	
HORNS	Fulness	Body	Shrillness		
VOCALS	Thicken	Presence	Breath	Air	

**EARS:** Saturation can emulate old recordings, but be accurate, saturation can ruin the audio.

**SATURATION RULE:** Apply the saturation value until you can hear it, then back it off to make it more subtle.

**PERCUSSION:** Best to use saturation on drums. It can be used to "glue" the whole drum bus, injecting some punch, giving them depth, adding harmonics, while rogue transients and high end harshness using natural compression.

**BASSLINES:** Bring out the grit and dirt sound, fatten it out, make sine generated basslines sound more natural.

**SYNTHS:** brings digital and clean synths to life, sound warmer, more natural, closer to analog sound. Inject harmonics and grit.

**VOCALS:** Make vocals sing. Sound thin and dull, will warm and tame harsh sounding vocals.

**DONT STACK UP:** Don't add too much saturation to the mix with stacked track after another.

**WIDE OPEN:** Keeps Lows mono (anything below 100 Hz). Includes bass drums, bass guitar, percussion. Check any widened stereo signal for mono compatibility. Try to create a central image with the mid tones. Use the Mono switch to see how the stereo signal has been affected.

**MONOGIZING:** Always check your mix in mono. If the mix sounds good in stereo, it doesn't mean it will sound good when L/R channels are combined. Mono checks help to detect phase problems. Any problem elements that are out of phase will drop in level.

## REAR PANEL

**AUDIO INPUT/OUTPUT:**

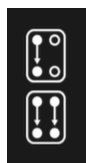
Mono or Stereo connections for audio signals.

**CV INPUTS**

Use these CV inputs to control the main parameters with external CV source curves

**DRY BAND LEVELS**

Use it to control dry signal level on PARALLEL routing mode.

**SIGNAL ROUTING ICONS**

This is a true stereo device



# DRWSAT76

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 Reason Studios Add-on Shop



## Turn2on

Rack Extension Developer

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Thanks to all beta-testers,

**Special thanks to**

- MrFigg (Cameron Jeffrey)
- Despondo (Philip Meadows)
- Challism (Challis McAfee)

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