PHATSAT
saturation fx
[RACK EXTENSION] v. 1.0
MANUAL
2018

FX device by Turn2on Software

Introducing **PHATSAT**, a variant of analogue tape-style distortion, known as a saturation effect.

Many people believe that tape saturation applied to music sounds very appealing.

Recording engineers understand that distortion, along with compression characteristics of saturation, can be useful as a mix tool. Saturation makes an audio signal sound more punchy. It also helps to 'glue' audio elements together and can make them sound bigger.

These days, saturation typically refers to analogue-style distortion effects.

The technology of saturation combines tape-style distortion with multiband compression and limiting. The PhatSat saturation effect can be used for warming up individual instrument tracks or applied to the whole mix to make it sound better. Saturation is very usable with any kind of sound source or instrument.

Try this PHATSAT Saturation Rack Extension in your Reason rack today!

THEORY OF SATURATION

Many musicians like to use analog-like warm saturation effects.

The term "saturation" comes from the level of magnetism of analog magnetic tape. When recording to tape, you could get distortion from the tape by adding more magnetism. When making recordings with this method, you could easily overload the signal. Every tape device had a magnetic capacity limit. When the limiter was overloaded, you got a characteristic called saturation.

There are two main types of saturation - tube saturation and tape saturation. Tape saturation adds a low and high level distortion to the signal, and is a great way to add punch to your kick and snare. It also works beautifully with vocals.

Saturation on guitars can work like a slight Boost/Over/Fuzz/Distortion. Using saturation on Bass is an alternative way to bass-amp or bass-compress the audio to warm up the track.

Now you should know that saturation effects use harmonic distortion, compression and limiting to alter the sound. The PHATSAT's drive also has individual distortion controls for Low and High frequencies.

Why did we call this saturation effect **PHATSAT?**

With the Density parameter you can run multiple stages of distortion to fatten the tone.

BYPASS - disable effect
ON - enable effect
OFF - mute incoming signal

MAIN PARAMETERS	
MAIN DRIVE	Level of drive/distortion (tape magnetism)
LOW DRIVE	Level of drive/distortion for Low frequencies
HIGH DRIVE	Level of drive/distortion for High frequencies
KILL HIGH	Kill High frequencies. Help to remove clips / add new colors to processed signal
DENSITY	Level of antisaturation or smoothness of saturation. **Negative values** (unsaturate): get a thinned out tone that drops out. **Positive values** (saturate): run multiple stages to fatten the tone
THRESHOLD	Audio level above which compression/limiting is applied.
BLENDER	Mix of incoming and processed signal

Soft Bypass / Input Otput Corrections	
ACT / SOFT BYP	Enable / Bypass PhatSat effect. Soft bypass variant
INPUT	Amp gain correction of the dry input level (unprocessed input signal) before it goes to the BLENDER (Dry/Wet) control
OUTPUT	Amp gain correction of the output level of the processed signal after it leaves the BLENDER (Dry/Wet) control

BACK SIDE PANEL

AUDIO INPUT/OUTPUT
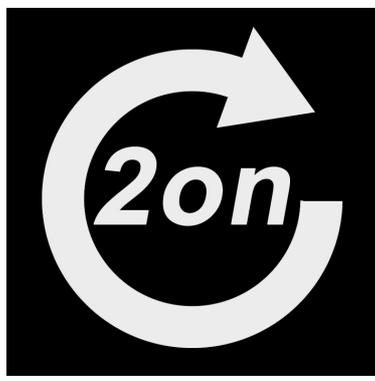Mono or Stereo connections for audio signals.

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

PHATSAT
Tape saturation effect

Turn2on

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