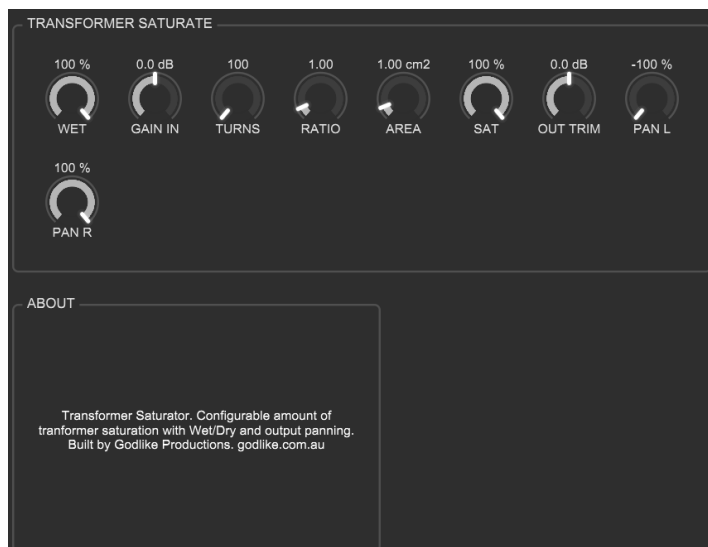


Instruction Manual

Transformer Saturator



Godlike Productions



Creating Art from Technology

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Caution

Ensure you have backed up all algorithms and other data of your H9000 prior to use of this product. You use these algorithms, chains, presets, sessions and/or other content entirely at your own risk and to all extents allowable under the law of Western Australia, Godlike Productions is not liable for loss of damage, direct, consequential or otherwise.



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Getting Started

This manual is for a custom algorithm for the Eventide H9000 available at <https://godlike.com.au/index.php?id=420>. The Transformer Saturator algorithm can be downloaded either as an algorithm that you can import from a USB drive (FAT32 formatted) onto your H9000 from the front panel, via Emote, or that can be uploaded via VSIG 3.3.3 or later.

There will also be a copy of this manual in PDF format. If you lose your copy of the files, please contact us at <https://godlike.com.au/index.php?id=contact> and we will be happy to send you another copy, or re download the algorithm from the link above. This manual will be available within the zip file.

Installation and Activation

Method 1 - Install from USB

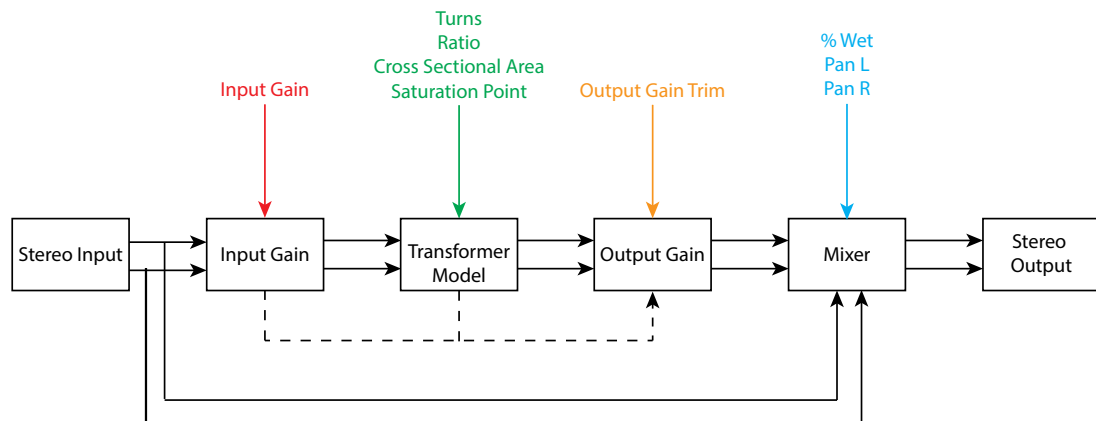
- Unzip the Algorithm and any presets. Copy Transformer Saturator_1978848886.9ka as well as the .9kp files to your USB drive and insert into your H9000.
- Long press the front panel Save/Import button; the Load Options screen will appear.
- Use the cursor up/down buttons or the wheel to navigate to Algorithms and press the Enter Key.
- Use the cursor up/down keys or wheel to select the Transformer Saturator algorithm and then press the SELECT Key.
- If you do not wish to load presets, then you can use this algorithm as is. If you wish to use the presets, you will need to repeat this procedure until this algorithm appears as algorithm 10164. If you have installed to 10164, copies at lower numbers can be safely deleted using Emote (see below).
- Open the .9kf files from your USB drive using the same procedure.

Method 2 - Install from Emote

- Unzip the Algorithm and any Presets.
- In Emote, select Algorithm -> Import
- Navigate to the unzipped Transformer Saturator_1978848886.9ka file and press open.
- If you do not wish to load presets, then you can use this algorithm as is. If you wish to use the presets, you will need to repeat this procedure until this algorithm appears as algorithm 10164. As this algorithm uses chains, not presets, the our H9000 preset tool will not work at this time (December 2022). We will endeavour to update our tool to work with User Chains.
- You can safely delete lower numbered algorithms used to bump this to 10164 by right clicking on the lower numbered algorithm and selecting Delete. Continue doing this until the only copy of Transformer Saturator is the one loaded into slot 10164.
- To load the chains select Chains and then Open. Navigate to the .9kf chain files and press Open. Repeat for each chain.

Setting Things Up

The diagram below shows the signal flow of this algorithm.



Parameters

Parameter	Description	Range
Input Gain	The amount of gain adjustment prior to the transformer model. Adjustments here will be automatically compensated on the output of the transformer, so this control adjusts the signal level hitting the transformer, which may change the tone. To adjust the output volume, use the output gain trim control.	-96dB to 96dB Default: 0dB
Turns	The number of turns of wire in the transformer primary	100-20,000 Default: 100

Parameter	Description	Range
Ratio	<p>The ratio of turns of wire in the secondary compared to the primary. This controls the transformer gain, and impacts the corner frequency.</p> <p>Generally speaking a transformer has better low frequency response with more turns in the primary (or a larger core), however more turns will increase the capacitance and leakage induction of the primary, so will tend to limit high frequency performance. Large leakage inductions may also result on ringing from transients.</p> <p>This control also influences the automatic gain compensation. Turning this up won't increase the volume of the sound, only the tone.</p>	<p>0.1 - 10 Default: 1</p>
Area	This sets the cross sectional area of the transformer, and impacts saturation behaviour.	<p>0 to 10 cm² Default: 1 cm²</p>
Saturation	The point of saturation of the transformer.	<p>-100% to 100% Default: 100%</p>
Output Gain Trim	<p>This algorithm tries to automatically compensate for gain based on the input gain knob and the gain through the transformer (so that you can adjust the transformer model without changing the output level), however once the transformer starts to saturate this compensation becomes inaccurate. This trim control allows you to make gain adjustments on the output of the transformer independent of the automatic compensation.</p> <p>If you want more or less volume, this is the place to do it.</p>	<p>-24dB to 24dB Default: 0dB</p>
Wet	The Wet/Dry amount of the algorithm. This allows for parallel transformer compression.	<p>0-100% Default: 100%</p>
Pan L	Controls the stereo position of the left signal that has been through the transformer algorithm.	<p>-100% (Left) - 100% (Right) Default: -100%</p>
Pan R	<p>Controls the stereo position of the right signal that has been through the transformer algorithm.</p> <p>The pan controls allows you to reposition the saturated audio in relation to the input signal. The Dry signal cannot be panned and the left dry input will always appear at the left output (when not at 100% wet).</p>	<p>-100% (Left) - 100% (Right) Default: 100%</p>

Parameter	Description	Range
Ratio Compensation	Controls whether the transformer ratio control is included in the automatic output compensation. Turn this off if you wish to use Ratio as an amplifier.	On, Off Default: On

This algorithm provides emulation of transformer saturation for a stereo signal. It can act as an amplifier (for ratios larger than 1) and can provide similar compression that you would see on analog equipment when the transformer is overloaded (though without the same risk of breaking really cool gear).

For a demo of this algorithm visit <https://youtu.be/eXXZFjdpPW4>