

Manual

TESSLAPRO

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1 Introduction

1.1. License

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1.2. Installation

Requirements:

- Windows XP, SSE1 or SSE2 support
- Tested and known to work in many VST compatible hosts

Put the “TesslaPRO.dll” file contained in this archive in the VST Plug-In folder of your host.

1.3. Overarching topics

Warning: Lower your listening volume while operating the Plug-In to avoid hearing damage or damage of speakers or any other equipment.

Usage tips:

- Use the 'OUT' knob to level the outgoing audio and for handy A/B comparisons
- Level your audio input to the plugin to around 0dbFS to perform easy and best inside the plug
- Use <ctrl> + mouse left click on a knob or switch to restore default position
- Use <shift> + mouse left click on a knob to fine adjust values
- Use this plugin as an insert effect in any mono or stereo channel of your VST host

1.4. Credits

Visual concept by Patrick Barca, www.suxesiv.ch – thanks again, mate!

Many thanks to Christian Budde for his famous Plug-In analyzer.

2 Reference

2.1. Overview

'TeslaPRO' – transient aware signal saturator.

At a glance:

- transformer style signal saturation
- smooth transient polishing and increased RMS leveling
- transient aware signal saturation
- switchable subbass enhancements
- subtle and nice audio coloration enhancements

Plug-in specification:

- PC / VST compatible
- SSE and Assembler optimized sound engine
- state-of-the-art digital signal processing
- minimum latency processing
- harmonic enhancements with low artefacts (aliasing)
- plugin integration is done with Synthmaker software
- performance crucial parts are written in assembler
- completely SSE optimized

2.2. Quick reference



From left to right:

BASS – increase or decrease the bass response

DRIVE – alters the gain amount of the signal into the processor

BOOST – adds further 12dB gain

TRANSIENTS – turning clockwise lets transients pass through

POWER – plug-in on/off

OUT – output level

2.3. Basic operation and advice

Use this plugin as an insert effect in any stereo or mono channel of your VST host. It can be operated both as a mono or as a stereo plugin.

Assure the POWER switch is in 'on' position (red lightning). If it's grey click on it until it's red lightning. This toggles the overall plugin operation (on/off).

Level your incoming audio so the grey needle of the VU style metering in the middle of the plugin hits clearly the right most (red) area. Dial in amounts of the 'DRIVE' knob to apply further saturation effect to your audio if wanted.

Use the 'OUT' knob to adjust the overall output volume as needed and for handy A/B testing at equal volume levels.

2.4. Finding the 'sweet spot'

TesslaPRO performs best as a subtle audio effect applied here and there in a whole mix situation. Don't expect all your mixing problems to be solved by just some magic on the stereo bus – there is no such 'holy grail' in audio processing.

Turn up your selected audio channels volume that way it basically performs around 0dBFS. The 'VU' type meter in the plugin is adjusted to support you that way: Increase volume so the needle hits clearly the red marked section of the meter.

Increase DRIVE as needed until the unit performs audible distortion. If you already notice distortion then lower slightly the DRIVE – the plug-in is now in its sweet spot.

Tip: Use this type of setting to perform TesslaPRO on several audio channels in your whole mix to improve slightly the overall sonic image and density.

Tip: Use the BOOST switch to level up the incoming audio volume if needed.

2.5. Advanced usage / Transient processing

Like real analog gear this plugin introduces subtle signal alteration just by inserting it right into the signal chain, e.g. frequency and phase response as well as a harmonic fingerprint.

Depending on your monitoring situation and listening experience you can probably identify some of these rather subtle effects by carefully A/B testing at equal RMS volume levels.

Tip: Use the OUT knob on the right side to adjust the overall output and use the 'on/off' output switch for convenient A/B testing.

To take full advantage of this plug-in you can use the TRANSIENT dial to alter the saturation processing on the audio signal transient information.

Turning this knob straight to the left means that all signal information gets processed. Turning the knob clockwise then lets more and more transient information passing (unaltered) by the saturator.

Tip: The red 'VU' meter needle indicates if there is transient information passing through. If all transients get saturated the needle stays to the left. This is also the case if there is no transient information available at all in the actual audio signal.

2.6. Subbass enhancements

The core algorithm of 'TesslaPRO' performs a sweet bass enhancement which is adjustable due to the BASS dial. It does not only perform equalizing but saturation and dynamic processing as well.

2.7. TesslaPRO as an artistic effect

Don't hesitate to use TesslaPRO as an artistic effect while driven heavy on appropriate tracks. Good examples of such applications might be drum group smashing, saturating bass tracks or smoothing digital synth lines.

Enjoy finest analog style signal saturation!

2.8. Further information

See my blog at <http://varietyofsound.wordpress.com> for some additional information and updates on this plug-in.

Peace,
bootsy