



Summing Tube Amplifier Effects

Version 2.1

User Manual

<http://shop.audified.com/products/sta-plugins>

<http://services.audified.com/download/sta>

<http://services.audified.com/support>

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Introduction

Dear musician,

Thank you for purchasing AUDIFIED STA effects. These effects are unique combinations of a digital modulation, spectral enhancing or delay and of a modeled valve circuit. The dry signal and the wet signal are mixed by the AUDIFIED Summing Tube Amplifier (STA) creating subtle nonlinear distortion and vintage sound.

We hope that you will be pleased with its sound and that it will bring you new inspiration for your work.



Usage

The STA effects are primarily designed for using as insert effects as there is the tube summing process inside the plugin. You have an option to use STA effects as parallel send FX as well, but you need to activate the WET ONLY mode.

STA plugins are calibrated to -9dBFS by default, so you need to set the LEVEL IN properly to get the gain staging right and to hear the magic of tube saturation. While you are done with the proper LEVEL IN setting, you can compensate the overall level change by the LEVEL OUT parameter setting.

There is some low frequency noise in some tube modes. It is a natural result of the tube configuration we are using in STA. We are making our plugins as real as possible with all the natural analog feeling and side effects.

The Phase invert is also a natural result of the STA technology.

Installation

Windows: If the downloaded file is packed, unzip it. Run the installer and follow the on-screen instructions. You can select the destination path and the installed plug-in format during the process.

Mac: If the downloaded file is packed, unzip it. Mount the provided disk image and run the installer. You can select the installed plug-in format by clicking the Customize button.

Uninstallation

Windows: Navigate to the STA program folder in the Start menu and run the uninstaller.

Mac: Open the provided disk image and run the uninstaller.

STA Valve processing

STA - Summing Tube Amplifier - uses two signal paths, one is processed by modulation or spectral change and the other is not processed. These two signals are mixed on a vacuum tube.

The valve processing depends on the **Mode** selection, changing the tube circuit, affecting the tube working point and frequency response. The following modes are available:



- ▶ **P** – Presence – the higher amount of mid-high frequencies allows better cutting through the mix.
- ▶ **V** – Vintage – has smoother highs and more even harmonics.
- ▶ **B** – Brown – has almost flat response with only light high frequencies roll off and nice higher harmonics punch.
- ▶ **W** – White – has higher amount of higher frequencies and the ratio between the even and odd harmonics is balanced.
- ▶ **L** – LoFi – contains less low and high frequencies.

STA General Controls

Level In / Level Out – these controls should be set to 0 dB when the incoming signal has the proper level and loudness. The model of the non-linear analog circuit requires certain input level to affect the signal. Signals with the same peak level (as peak level is important in the digital systems) may have various loudness. So these gain controls may help to set the signal to the level when the non-linear circuit works in the optimum range, they are not intended to control the overall volume of the track.

Note: By default, the effect is calibrated to provide saturation at the level of -9 dBFS, corresponding 0 dBVU at the meters.

Wet only – mutes the dry signal before the STA circuit.

Saturation – drives the tube circuit into saturation. The higher values is set, the higher amount of the nonlinear distortion can be expected.

Sync – See [this section](#).

Mode (PVBWL buttons) – See [this section](#).

Meters – switches between meters at the input and output of the plugin.

Bypass – bypasses the effect, turning off its processing completely.

VU Meters Calibration

There is a difference between the maximum amplitude of a digital signal (0 dBFS) and the value where the analog non-linear processing starts to appear, indicated by 0 dB on the VU meters. This difference is very important in the world of digitally simulated analog devices. Setting this value is called **calibration**:



- There is a possibility to adjust calibration in all STA effects. An **individual** calibration setting can be adjusted for every instance of a STA plugin as well as **default** calibration is available for all STA plugins. This option is available in the services menu under the Calibration item. The calibration is set using a slider which enables to adjust the value of the calibration.
- When the **default** calibration setting is set for example to -18 dBFS, then every time any instance of any type of STA plugin is loaded, the calibration will be set to -18 dBFS. But there is still an option to manually set calibration to a different value for actual instance of any type of STA plugin. The actual setting information will be saved along with the host project. The default calibration setting is automatically saved as a XML file on the computer drive, specific for every user account.

VU Meter Clip

The VU meter LED indicates that the summed signal coming to the tube circuit is too loud and is overloading the tube. If the LED lights, turn the LEVEL IN down or set higher calibration setting value. Otherwise the internal hard-clipping of the signal occurs to protect the tube.

Services menu

- To access product updates, product version info and **AUDIFIED web site**, use the Services menu.

| |
|-------------------|
| Help |
| Check For Updates |
| Audified Web Site |
| About Plug-In |
| Calibration |
| Set UI Color |

GUI Color Adjustment

- The effects of STA series have a feature to adjust the display color to distinguish the plugins inserted in different tracks. This option is available in the services



menu under the Set UI color item. The color is set using HSB model which enables to adjust hue, color saturation and brightness independently. Press the COLOR OK button to leave the color setting dialog.

Note: in AUDIFIED inTone and Steinberg Cubase, the color is set automatically according to the color of the processed track.

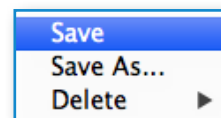
Presets



- To load a factory preset, use the Load menu.
- To load a preset you have previously saved, use the same menu, the user presets are listed under the factory presets.



- Parameters of the plug-in can be saved into presets. These are available from the second drop-down list in the lower part of the GUI.
- To save your preset, click the Store menu and choose **Save** (for updating existing preset) or **Save As...**. The preset will be stored after clicking the green target button.
- To delete a preset, click the appropriate item in the **Delete** list.



The Sync menu



AUDIFIED effects with the Tempo settings have tempo synchronized with the host application. The ratio between the host BPM tempo and the effect tempo depends on the note. For instance, synchronization to the quarter note sets the delay to repeat twice more often than synchronization to the half note. Click the SYNC button and select the note which is equivalent to one effect repeat.

Note: When SYNC is active, the TEMPO knob is disabled.

STA Delay



Tempo – Sets the tempo, or rate of repetition, for the delayed repetitions of the incoming signal. Alternatively, you can set the tempo using the Tap Button.

Decay – Sets the decay time of the delayed signal repetitions, or the amount of time it takes the delayed signal repetitions to fade from full to inaudible volume.

Intensity – adjusts the Phaser effect intensity and wet to dry signal ratio.

Tap – use this button to set the speed of the LFO by tapping into the rhythm. At least two clicks are required, but the more clicks the more accurate setting can be obtained.

Ping pong – Turning this parameter on alternates delayed sound between channels.

Stereo – When the PingPong mode is ON, then the Stereo parameter contracts or expands the stereo image of the effect. Rotating the control clockwise increases the stereo width, and rotating it counterclockwise decreases the stereo width and has values 0-100%.

When the PingPong mode is OFF, then the Stereo parameter works as a panorama control of the delayed signals. When the parameter is set to 12 o'clock, the delayed signals are placed in the center of the stereo field and the plugin display shows "c". When rotating the knob to the left, then the delayed signals are placed more to the left speaker and the display shows how much are delayed signals moved to the left speaker. The same applies for the right side.

HPF – Hi-pass filter for the delayed (wet) signal.

LPF – Low-pass filter for the delayed (wet) signal.

The general STA controls [are described here](#).

STA Chorus



Speed – adjusts the speed of the chorus effect. The LFO can be set from 0.1 to 10 Hz.

Width – adjusts the modulation width. When set to 0, a static comb filter can be obtained.

Intensity – adjusts the chorus effect intensity and wet to dry signal ratio.

Waveform – sets LFO waveform, the waveform can be smoothly changed from the sine to the triangle, from the triangle to the square and from the square back to the sine.

Tap – use this button to set the speed of the LFO by tapping into the rhythm. At least two clicks are required, but the more clicks the more accurate setting can be obtained.

The general STA controls [are described here](#).

STA Flanger



Speed – adjusts the speed of the Flanger effect. The LFO can be set from 0.1 to 10 Hz.

Width – adjusts the modulation width. When set to 0, a static comb filter can be obtained.

Intensity – adjusts the Flanger effect intensity and wet to dry signal ratio.

Waveform – sets LFO waveform, the waveform can be smoothly changed from the sine to the triangle, from the triangle to the square and from the square back to the sine.

Tap – use this button to set the speed of the LFO by tapping into the rhythm. At least two clicks are required, but the more clicks the more accurate setting can be obtained.

The general STA controls [are described here](#).

STA Phaser



Speed – adjusts the speed of the Phaser effect. The LFO can be set from 0.1 to 10 Hz.

Width – adjusts the modulation width. When set to 0, a static comb filter can be obtained.

Intensity – adjusts the Phaser effect intensity and wet to dry signal ratio.

Waveform – sets LFO waveform, the waveform can be smoothly changed from the sine to the triangle, from the triangle to the square and from the square back to the sine.

Mode (PVBWL buttons) – See [this section](#).

Tap – use this button to set the speed of the LFO by tapping into the rhythm. At least two clicks are required, but the more clicks the more accurate setting can be obtained.

The general STA controls [are described here](#).

STA Enhancer



Low Process – adjusts the amount of bass frequencies

High Process – adjusts the amount of high frequencies

The general STA controls [are described here](#).

STA Preamp



The general STA controls [are described here](#).

Conclusion

We believe that you can work with the STA Effects now. However, if there would be something unclear or if you would need an assistance, feel free to contact us at <http://services.audified.com/support>

Thanks for using AUDIFIED products.

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