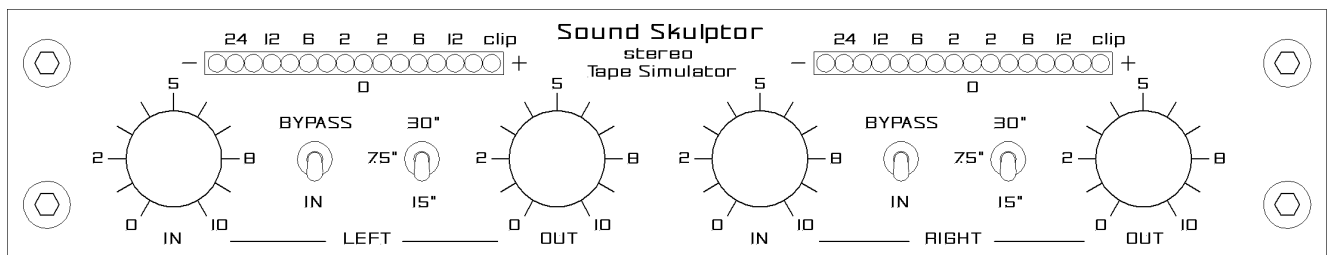




Stereo Tape Simulator



User manual



Introduction

Thank you for purchasing the Stereo Tape Simulator (STS). We hope that this tool will enrich your work technically and artistically.

Please note the security warnings below before you use this product.

Security

Like all electrical devices that are mains powered, the STS case must not be opened by an unqualified person.

The Stereo Tape Simulator is an electrical device that produces some heat. It must be installed in a ventilated area where the heat can be naturally removed.

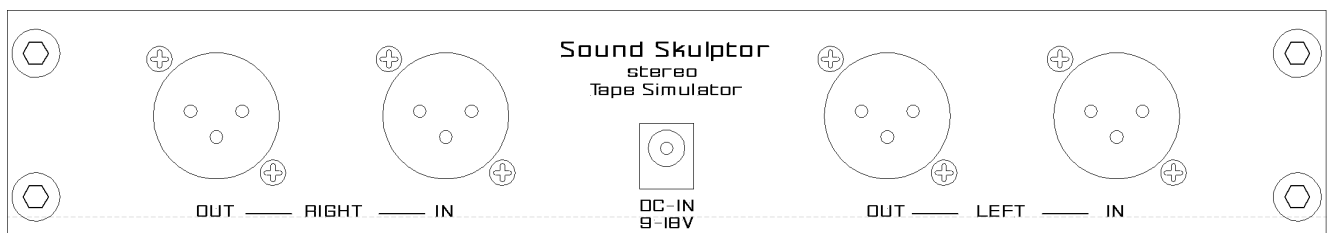
Like any electrical device, the STS must not be in contact with any kind of liquids. In case of incident (beer, rain or other) immediately disconnect the STS and have it cleaned/dried by a qualified person.

Installation

The STS must be installed in a ventilated area.

Warning: Avoid racking the STS next to a device that radiates electromagnetic fields, such as a device with a power transformer. The STS circuits are very sensitive and may get induced hum noise.

Connexions



Power supply:

Plug the supplied power adapter to the DC-IN connector. Positive is on the central pin.



The power adapter must be able to supply a voltage between 9 and 18 Volts with a power of 10 Watts.

Input – Output :

The input/output cables are XLR to be connected on the back of the STS. The connexion is standard: 1 = GND, 2 = Hot, 3 = Cold.

The signal levels are line levels.

Controls

Bypass switch:

It disconnects the effect when in high position. In that case, the input is directly connected to the output, passively.

30-7.5-15 switch:

It modifies the bandwidth and saturation threshold in the way a tape recorder rolling at 30, 15, 7.5 ips would do.

IN potentiometer:

It adjusts the input gain of the STS. The potentiometer action is directly visible on the peak-meter as well as on the effect intensity.

OUT potentiometer:

It adjusts the output level and allow compensating the level changes induced by the IN potentiometer. It has no effect on the simulation.

Peak-meter



Le peak meter is the tool that lets you calibrate the simulation and get repeatable results.

Take care not lighting the clip LED. It indicates that clipping is occurring in the input stage.



In use

The STS has several simultaneous effects on the sound.

Some distortion is produced at low frequencies by the magnetic material. It is mostly third harmonic and it has the effect of reinforcing the low end perception. It is present at fairly low levels and increases with signal amplitude.

The ultrasonic frequencies are filtered. This removes some harshness to the sound and brings roundness.

At high levels, a frequency dependent limiting effect is produced by the emphasis/de-emphasis circuits. Above +4dB, saturation appears affecting the high frequencies first. The result is a high frequency roll-off after de-emphasis on the level peaks.

On a stereo mix signal, the STS effect should be used with moderation, the vu-meter staying mostly in the green.

The speed switch modifies the frequency response:

- 7.5 ips: low frequencies are privileged
- 15 ips: balanced response
- 30 ips: tight low end and extended highs

On a channel signal it is possible to push the STS more. The effect is remarkable on percussive sounds which tolerate high modulation levels. The result is a very warm compression effect.