

USING THE SW

Our philosophy is that as far as it is possible, using the plug-in should be exactly like using the real amplifier. Easy and straightforward. Consequently, the sound is adjusted with a number of knobs on the front panel of the plug-in, and in most cases all knobs on the real amplifier are included in the plug-in. For Dynatube SW, however, we opted to exclude the Master Volume knob, as it has no effect on the sound of the amp. But all relevant knobs on the amplifier are simulated, as is their functionality. Not to mention their sumptuous original looks. In order to get the most accurate sound from the plug-in, the signal from your bass should go through a line box or a preamp before it goes into the SONIC CORE card. As with physical amps, you can use all your favorite stomp boxes and pedals with the plug-in, unless they are so powerful you risk burning your preamp.



There are two aspects in which the plug-ins differ from the original amplifiers. We have added a Distance knob and normalized the volume output, as specified below. Both are major improvements that make the plug-ins more useful and practical.

The Distance knob was added because we did not only simulate the sound of the amp and speakers, but also the way of working in a studio. The knob simulates the position of the microphone in front of the speaker cabinet. Just like in a studio, you can move the mike from near to far field and back - continuously. No pre-set positions, you just tweak the knob from minimum to maximum to adjust the mike. This gives you all the flexibility of a full-scale studio set-up:

- If the Distance knob is set at minimum, the microphone is positioned off-axis in near field. This gives a slight roll-off of the high frequencies.
- With the Distance knob set in the middle (12 o'clock), the microphone is positioned in near field straight in front of the speaker driver. This setting gives the most "uncolored" sound, with lots of high frequencies.
- When the Distance knob is set at its maximum, the microphone is positioned in the far field, about three meters away from the cabinet.

The volume knob on a real amplifier goes from "very quiet" to "really loud and distorted", which isn't very practical on a computer recording system. In order to solve this, we have normalized the volume controls so that the output volume is nearly the same for all volume settings. But the distortion behaves exactly like it does on the real amplifier!

INTRODUCTION

Dynatube SW is a bass amp simulation modeled on a Simms-Watts PA100. It's an uncomplicated amp, and a great short-cut to achieving a fat, dirty, outstanding bass sound, suitable for many genres of music. What's more, it takes user-friendly to a whole new level, as its forgiving sound covers up many little mistakes!

The Simms-Watts PA100 is rare, true vintage, built in the 70's. Originally, it was designed to be used as a PA amplifier, but today, most of its users are bass guitarists. There aren't very many of these quite unique amps around, though, and we are proud to be able to make it widely available through the Dynatube SW plug-in.



DESCRIPTION

Dynatube SW represents simplicity at its best, as close to plug-and-play as amplifiers come. All the user has to do is plug in the bass guitar, turn up the volume to get the desired amount of distortion and compression, and play. The result is a well-packaged sound, dirty yet smooth, with a fuzz-like vintage distortion at high volumes.

Inspired by the simplicity of the original amplifier, we deviated from our habit of fully modeling its every aspect. The original amp has four channels, which were identical when it was made back in the 70's. But after three decades of considerable wear and tear, the channels sound quite different. Through careful testing, we singled out the channel that gives the best sound, and modeled only that.



The original also includes a Master Volume knob, which really does not contribute to the sound at all. Consequently, we did not include it in the plug-in. Dynatube SW has the basic Bass, Treble and Volume controls, plus Presence, which adds high treble to the poweramp.

Just like the other Dynatube products, the SW has a Distance knob which continuously adjusts the position of the simulated microphone from near to far field. The ultimate speaker cabinet to use with this amp is a classic Ampeg 1x15", a simulation of which is included in the plug-in. The combination is unbeatable for studio users, giving a fat, big bass sound with lots of bottom, while removing any unwanted treble.

That being said, the cabinet contributes greatly to the sound of this, and any, bass guitar amplifier. We encourage those of you who have bought other Dynatube products to mix-and-match the bass amp plug-ins with different cabinets in the full product range, exploring the resulting difference in sound.

SPECIFICATION

The original Simms-Watts PA100 bass guitar amplifier the plug-in is based on has three ECC83C tubes in the preamp, and four EL34 tubes in the poweramp. Dynatube SW also features a simulation of an Ampeg 1x15" speaker cabinet, the sound of which was captured with a Sennheiser MD421 microphone.



Please note that the Master Volume knob is not included in the plug-in, and only one of the four channels was used in the modeling process.

Technology :	Patented physical modeling technology.
Sampling Rate :	44.1kHz & 48kHz (internal oversampling)
Resolution :	32 bit audio paths externally, 64 bit floating point internal audio paths.
Inputs/Outputs :	1 Input/1 Output. Possibility to bypass amplifier and/or speaker simulation for maximum flexibility.
MIDI :	Possibility to control all knobs via MIDI.
Latency :	Sample by sample.

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