Speakulator V2

User's Manual

Speaker Simulator/Mix aid for Pulsar/Scope

Version 2.0

Contents

Welcome!

Hello and welcome to the manual for the Speakulator V2 designed by Simon Ayton @ De-Vice'.

This device came about from the need to be able to check or A/B mixes through different speaker sizes so that the correct amount of bass or treble could be added to a mix which helps with translation to other systems.

The Speakulator can simulate many different speaker types from full-range to limited frequency response, multimedia speakers like the ones generally used with a standard MAC or PC system so throw out that 2nd, nasty little pair you've been mixing through!

There are three speaker types provided. Tinny, Multimedia and Studio as well as the new 'EQ compensation section' which allows you to tailor your monitor sound to compensate for your overly bright or dull mixes.

The "Studio" mode of operation allows total control of the high and low frequency response and can also simulate problems such as "boxiness" and "poor imaging" inherent in sub standard speaker designs. There is also a "mono" switch on the main switcher box which can be used for all speaker types to check your mixes for mono compatibility.

When the bypass switch is on, you will be hearing no Speakulator effect. What you will hear is your speaker system so remember that it won't make poor speakers sound better but instead to make your mixes better by letting you hear how your music will sound through different sounding speakers than yours. Who knows, You may even be surprised to hear flaws in your own speakers! Either way, the Speakulator will become a useful tool which you can use on every mix So, have fun and be sure to check out the other cool stuff from De-Vice'.

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Speakulator Layout

Click on an area

Tinny Mode

(Frequency range 4Khz-6Khz)

In Tinny mode you will see this view

This mode simulates very small, limited response speakers with a frequency range of 4Khz to 6Khz.

A good example of this simulation would be typical travel speakers used for walkmans.

Use this mode check compatibility in the "worse case" scenario.

Multimedia Mode

(Frequency range 1.5Khz-5Khz)

In Multimedia mode you will see this view.

The Multimedia mode simulates a typical, small, budget speaker system which you might find connected to a PC sound card and has a limited smooth frequency response range of 1500Hz to 5000Hz.

Use this mode to simulate a small, budget multimedia speaker setup

Studio Mode

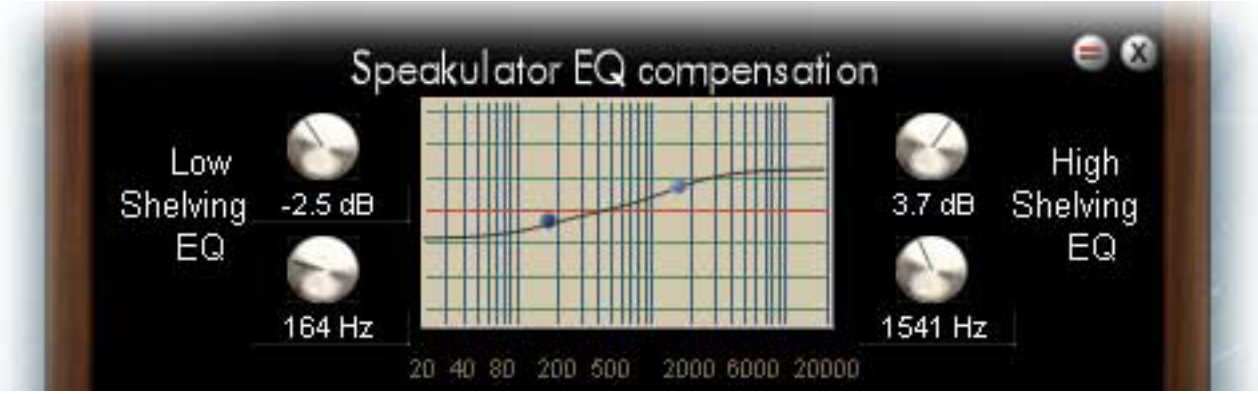
(Frequency range 0-24Khz)

In studio mode you can simulate many different speaker types.

You can adjust the low and high frequency response characteristics of the speakers
and also introduce problems like "boxiness" while the "poor imaging" button decreases stereo width
of the mix and simulates some phasing problems generally associated with lower quality speaker systems.
The small fader on the top right of the speaker surface lets you compensate for any drop in level
experienced with the different frequency settings.
Double clicking the fader will reset it to 0dB of gain

EQ compensation ON

(overlapping LOW and HIGH shelving EQs +-10dB)



EQ compensation acts like the 'TILT' control found on many studio monitors

Here you can adjust your overall **monitoring** EQ (not the **mix** EQ) to compensate for your overly bright or dull mixes you may have encountered when playing them on other speaker systems.
This is a very powerful feature which works by boosting or cutting the frequencies you hear when mixing.
here's the concept...

Practical example 1...You find that your mixes are too dull on other speaker systems.
Decreasing the 'High Shelving EQ' gain to say -3dB at 8khz for example will make you **increase** the level of these frequencies in your mixing by the same amount which means **your resulting mixes will generally sound brighter.**

Practical example 2...You find that your mixes have too much bass on other speaker systems.
Increasing the 'Low Shelving EQ' gain by, say 3dB at 150hz for example will make you **decrease** the level of these frequencies in your mixing by roughly the same amount which means **your mixes will be less boomy.**
You will need to experiment with your mixes to determine the optimum settings for you.
Once you have it right, SAVE YOUR PRESET!

IMPORTANT NOTE

EQ compensation can very drastically change the way you hear your mixes so use it carefully!

Bypass Mode

Bypass mode disables any speaker simulation (but not the EQ!).
You will be hearing your speakers.

As the name suggests, the bypass mode removes the speaker simulation
so you'll be hearing the characteristics of your speaker setup.
BUT IT DOES NOT BYPASS THE EQ COMPENSATION IF IT"S SWITCHED ON!

Remember that the Speakulator does **not** attempt to improve the quality of your speakers
but instead the translatability of your mixes by allowing you to hear how your mix might sound through
different speaker setups.
So the better your speakers are, the bigger the difference will be between each mode
and the more effective the simulation.

Mono button

The mono button allows you to check your mixes for mono compatibility in all modes.

Mono compatibility is still an important factor when mixing.

Turn on this button at some point during your mix to check if any of the crucial melody lines or heavily effected lead instruments such as voice don't become lost in the surrounding instruments.

Some Televisions and portable radios are still only using a single poor quality speaker so be sure to check this to make your music works on as many systems as possible.

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