

# PHASER BOX OPERATION MANUAL



BY SYNTHESCIENCE



## Phaser Box Operation Manual

First of all congratulations and thank you for choosing the Phaser Box by Synthescience. We hope that you'll find this a useful plugin for your processing needs. To get the best from its features, please take some time to read this manual as it provides vital information about the plugins performance.

The Synthescience Team.

### 1. Introduction

The Phaser effect is one of the most recognizable effects used in electronic music, it started appearing in music for over than thirty years ago. Its luscious sweeping sound definitely adds interest and a somewhat hypnotic feel to the sound. It will sit very well on guitars, synthesizer pads and leads, even vocals. The Phaser Box plugin is built around a series of Low pass and High pass filters in cascade to provide that notched "phasey" sound, although a little bit different from the classic "All pass" filter design, it has a sound of his own and a pleasing one for sure. We've included a few more distinctive factors such as a selection of five different waveforms (Sine, Triangular, Saw, Square and Random) being the first two (Sine and Triangular) the most used in traditional phaser units for that smooth modulated sound, and the remaining three (Saw, Square, and Random) more suited if you wish to impart that "Rhythmical" feel to your modulations. More options like a "Wave invert" and a Phase adjust knob (think of it as a stereo spread) will certainly make it stand out from the crowd.

Please notice that the Phaser Box is intended to be used as a Stereo insert plugin, if however the plugin is inserted in a mono track it will be processed into only one side of the audio channels thus making the "Phase" adjust function unnoticeable.

The Phaser Box is fully automatable and has the ability to store 32 presets. It ships with a few already pre programmed ones that will show what its all about and may be the starting point to your individual creations.

**Installation procedure:** Unzip the file, then copy the DLL's into your VstPlugins folder.

## 2. Front Panel controls



The controllers in the Phaser Box may be operated in four different ways:

**Circular type controls** – The grey knobs like Rate, Width, Colour, Phase-R and Mix.

**Vertical type controls** – Beat Division (active when Sync switch is on)

**Toggle controls** – On/Off switch, Sync switch, Wave Invert, Wave selector switch (allowing five different values).

**Click controls** (only active while clicked) – The effects nameplate which shows additional information about the plugin (like plugin version and credits).

### Description of controls

**On** - Switches the effect on when highlighted in red or off when is not

**Rate** - Sets the modulation rate of the phaser effect from slow to fast (Between 0.017 Hz to 5 Hz or 1 to 300 Bpm)

**Led** - Reacts or blinks accordingly to the set rate velocity

**Sync switch** – Syncs the beat of the Phaser Box to the host set tempo

**Beat Division** – When Sync switch is on the Speed knob is replaced by this control which allows for the Host tempo to be divided or multiplied in values ranging from 1:32 (very slow) to 1X16 (very fast).

Here are the values that can be selected:

(T stands for Time) T:32, 16, 8, 7, 6, 5, 4, 3, 2, 1.5, 1 ; TX1.5, 2, 3, 4, 5, 6, 7, 8, 16

Here's a picture of the Beat Division display, notice the Sync switch on.



## Description of controls (continued)

**Width** - This adjusts the centre frequency of the phaser effect, at low settings it will provide a subtle phaser effect and at high settings a more pronounced phaser sound will be noticed. Values range from 0 (subtle) to 10 (deepened)

**Colour** - The colour control adds some resonance to the phaser sound making it even more pronounced. Values range from 0 (natural phaser sound) to 10 (more emphasized)

**Phase-R** – The Phase-R knob adjusts the phase relationship of the modulation signal of the right channel Phaser stage against the left channel Phaser stage, ranging from 0 to 180 degrees of phase difference. It provides a controllable “spread” over the effect. Use it sparingly if you wish the effect to be subtle or crank it up if want a more dramatic spread effect. It’s important to know that if you use the Phaser Box in a mono track you won’t be able to notice this function at all.

**Mix** - Adjusts the balance between the unprocessed and processed sound or in other words the dry/wet balance, ranging from 0 (only the dry signal is heard) to 10 (The dry and wet signals are mixed in equal proportions i.e. 50/50)

**Wave selector** - By clicking in the waveform box is possible to select 5 different modulation waveforms like: Sine, Triangular, Saw, Square and Random. The first two, Sine and Triangular are traditionally used ever since on phaser units and are the ones best suited to achieve the classic phased sound. The other three (Saw, Square and Random) are more pronounced waveforms and have a totally different effect in the overall phaser sound. (For example it can turn the phaser unit into a more "Rhythmical" kind of effect).

**Wave invert** - Clicking this switch inverts the modulation waveform phase (And the overall phaser sound too).

**(About Box)** - By clicking and holding the mouse arrow over the effect nameplate shows additional information about the plugin (like plugin version and credits).

### 3. Midi Controllers

*(There is a total of 10 different midi controllers assigned to The Phaser Box plugin as shown in the below box.)*

<b>Phaser Box Midi Controller List</b>
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<b>10 Effect on/off</b>
<b>11 Rate</b>
<b>12 Sync to Host sw</b>
<b>13 Beat division</b>
<b>14 Width</b>
<b>15 Colour</b>
<b>16 Phase-R (spread function)</b>
<b>17 Mix</b>
<b>18 Waveform selector</b>
<b>19 Waveform invert switch</b>

## **4. Credits and Acknowledgement**

Manual by Synthescience

Graphics and Programming by Synthescience

This plugin uses software modules by Lance Putnam.

Synthescience products are developed with SynthEdit development system

By Jeff McClintock.

Vst Plugin Technology by Steinberg Media Technologies AG.

