

# FLANGER BOX OPERATION MANUAL



BY SYNTHESCIENCE



## Flanger Box Operation Manual

First of all congratulations and thank you for choosing the Flanger 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

We could think about the Flanger as a more dramatic effect than Chorus.

The key to that is the addition of the feedback function that when pushed hard will add a more pronounced swirl with a metallic edge to the modulation effect that goes nicely with harmonically rich sounds, however the user is encouraged to use it in whatever form it may find useful. Apart from the typical Flanger sound, this unit could do (if programmed to it) nice Chorus and Comb filter sounds too.

A selection of five different waveforms are available to this unit, the first two Sine and triangular will work for the typical Flanger/Chorus modulation sound and The other tree Saw, Square and Random are more suitable for rhythmically oriented modulations. Furthermore a Phase adjust function is included to provide if required, a more expansive sound. Also included is a "Wave invert" function to add some more flexibility to your modulations.

Please notice that the Flanger 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 Flanger Box is fully automatable and has the ability to store 64 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 Flanger Box may be operated in four different ways:**

**Circular type controls** – The grey knobs like Rate, Mod, Delay-Ms, Feed, Phase-R and Mix.

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

**Toggle controls** – On/Off switch, Sync switch, Wave Invert and Wave selector switch

**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 Flanger 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 Flanger 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 T:32 (very slow) to TX16 (very fast).

Here's 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)

**Mod** - Controls the Modulation depth or intensity of the Flanger effect from 0 (none) to 10 (full modulation). Set this to 0 if you want a doubling effect.(when modulation is set higher than 5 with sine or triangular wave selected, you may notice that the modulation beat is doubled, for example if set to 60bpm it may sound like its set at 120bpms. This is due to how the sine and triangular waveform amplitudes behaves in the effects core. A nice side effect to that are the thick sounds obtained. It is intentional and makes part of the effects character, however it is less noticeable if you set the modulation knob below 5)

**Delay Ms** - This control sets the delay time of the effect in milliseconds, values range from 3 to 10ms. Shorter values dials in to a more Flanger oriented sound and higher values (like 6.5ms or above) approaches a more Chorused sound (dependable from the values set by the Feed knob)

**Feed** - Feedback control is directly related to the typical Flanger sound and is selectable in positive and negative values,(positive or negative values affect the sound colour in a different manner each). Set this at center position if you aim for a more "Chorused" sound.

**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)

**Phase-R** – The Phase-R knob adjusts the phase relationship of the modulation signal of the right channel Flanger stage against the left channel Flanger 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 Flanger Box in a mono track you won’t be able to notice this function at all.

**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 Flanger units and are the ones best suited to achieve the classic Flanged sound. The other three (Saw, Square and Random) are more pronounced waveforms and have a totally different effect in the overall Flanger sound. (For example it can turn the Flanger unit into a more "Rhythmical" kind of effect).

**Wave invert** - Clicking this switch inverts the modulation waveform phase (And the overall Flanger 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 Flanger Box plugin as shown in the below box.)*

Flanger Box Midi Controller List	
10	Effect on/off
11	Rate
12	Hertz/Bpm display selector
13	Modulation
14	Manual 3-16 ms
15	Feedback
16	Phase-R (spread function)
17	Mix
18	Waveform selector
19	Waveform invert switch

## **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.

