

THE FILTERMATE OPERATION MANUAL



BY SYNTHESCIENCE



The Filtermate Operation Manual

First of all congratulations and thank you for choosing the The Filtermate 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 Filtermate plugin was built as a "Rhythmic Filter Module", as such it is designed for making automated or non automated filter processing to any given audio material that is fed into it with just the minimum of controllers. It can almost instantly animate your tracks in a way that could make it quite an indispensable tool in your virtual studio. Basically it consists on a Clock driver that animates an Lfo (Low frequency oscillator) which is coupled to a multimode filter and a mixer, a design very often found in the filter section of many vintage synthesizers (with some extra tweaks here and there), but this time as an independent plugin for you to tweak at your own will.

Please notice that The Filtermate 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 - R" function unnoticeable.

The Filtermate 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 Filtermate may be operated in four different ways:

Circular type controls – All the grey knobs (ten in total)

Vertical type controls – Factor selector

Toggle controls – Clock section - Sync switch, Lfo section – Invert switch

Mixer – Invert and Process switches

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

Description of Plugin stages and controllers.

The Filtermate architecture is divided into four distinct sections or stages, each of it affecting the plugins performance in the way we are going to describe next.



**The Clock section provides the timing
That moves the “LFO”
Its controllers are:**

Rate - Sets the modulation rate of the Filtermate from slow to fast
(Between 0.025 Hz to 10Hz or 1.5 to 600 Bpm)

Division - This sets the division factor of the Filtermate. Values are 0, 2, 4, and 8, meaning that if you point to any of these values the beat or feel of the modulation set by the rate knob will be divided according to the selected value. (0-unchanged, 2-divide by half, 4-divide by four, 8-divide by eight)

Sync switch – Syncs the beat of the Filtermate to the host set tempo

Factor – When Sync switch is on the Rate knob is bypassed 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

Bpm display - Shows the value of the selected rate in beats per minute, making easy for the user to dial in to the beat of the track.



**The LFO is a dedicated Low Frequency Oscillator
Which provides controllable modulation signals into
the Filter stage for those “Filter animated”
sequences, its controllers are:**

Wave – A selection of four different waveforms are available, such as: Sine, (this one provides a more “even” modulation), Saw, Square and S/H (short for sample and hold). These ones provide a more “peaked” modulation signal.

Invert switch – Inverts the phase of the Lfo waveform, (turns it upside down)

Quantize – Enables a controllable amount of “quantization” or “stepness” over the Lfo waveform. It works fine and is best noticeable when the “Sine” waveform is selected as the main waveform, (less noticeable on Saw and barely noticeable on Square and S/H)

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

Flt. Depth - Controls the amount of LFO modulation over the Filters cutoff point.



**The Filter section is a Multimode filter stage
With four distinct filter modes available.
Its controllers are:**

Cutoff - Sets the center frequency (frequencies that pass or are cut through the filter) that is applied to the filter, values range from low to high. (Notice that the Cutoff tonal behaviour is directly related to the selected filter mode)

Resonance – This knob emphasizes the frequencies around the cutoff point set by the Cutoff knob. As it is raised, more of the harmonics present in the signal are emphasized creating a more unusual, pronounced electronic sort of synthesizer tone.

Please be aware that when setting for high resonance values some frequencies are more emphasized than others (depending as we already stated from the position of the Cutoff knob) this phenomenon might lead to some (distorted) high volume peaks. (The use of a compressor or a limiter at the effects output might be a way to minimize this issue).

Flt. Mode - This controller selects the quality (and colour tone) of the filter effect, since this is a multimode filter, a selection of four different types is available such as. Low pass, Band pass, Band reject and High pass. (Notice that if Band reject is selected, the Resonance knob is automatically bypassed, which can be noticed in the resonance word becoming faint.)



**The Mixer” section of The Filtermate.
Where the balance of the dry and wet signals take place.
Its controllers are.**

Process – Switches the Filtermate on when highlighted in red or off when bypassed

Invert Switch – Inverts the Phase of the “Processed” against the “Dry” signal, prior to entering the “Mix” knob, this way providing an extra tonal flexibility to the overall mix (best noticeable when the Mix knob is set at middle values, a must try switch..)

Mix – This control sets the amount of the “processed” versus “dry” sound that passes on. Values range from 0 (only the dry or input signal is passed) to 10 (the full filtered or processed sound passes on). With Flt. Depth control at 0 and Mix control at fair values, it turns the Filtermate into a static (unmodulated) filter.



Level Meter indicators – The Filtermate features independent Led meters for displaying Input and Output signal levels for easy monitoring of what goes in and what goes out. To avoid unwanted clipping try to keep both levels below red either by regulating the Input source volume and Cutoff / Resonance and Mix knobs if and when needed.

(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 15 different midi controllers assigned to The Filtermate plugin as shown in the below box.)

The Filtermate midi controllers list	
Clock	
10	Rate (manual)
11	Rate division
12	Sync (to host)
13	Factor (sync mode)
Lfo	
14	Wave
15	Invert (wave)
16	Quantize
17	Phase - R
18	Filter mod. Depth
Filter	
19	Cutoff
20	Resonance
21	Filter mode
Mixer	
22	Process
23	Invert (processed signal)
24	Mix

4. Credits and Acknowledgement

Manual by Synthescience

Graphics and Programming by Synthescience

This plugin uses software modules by David Haupt and Lance Putnam.

Synthescience products are developed with SynthEdit development system

By Jeff McClintock.

Vst Plugin Technology by Steinberg Media Technologies AG.

