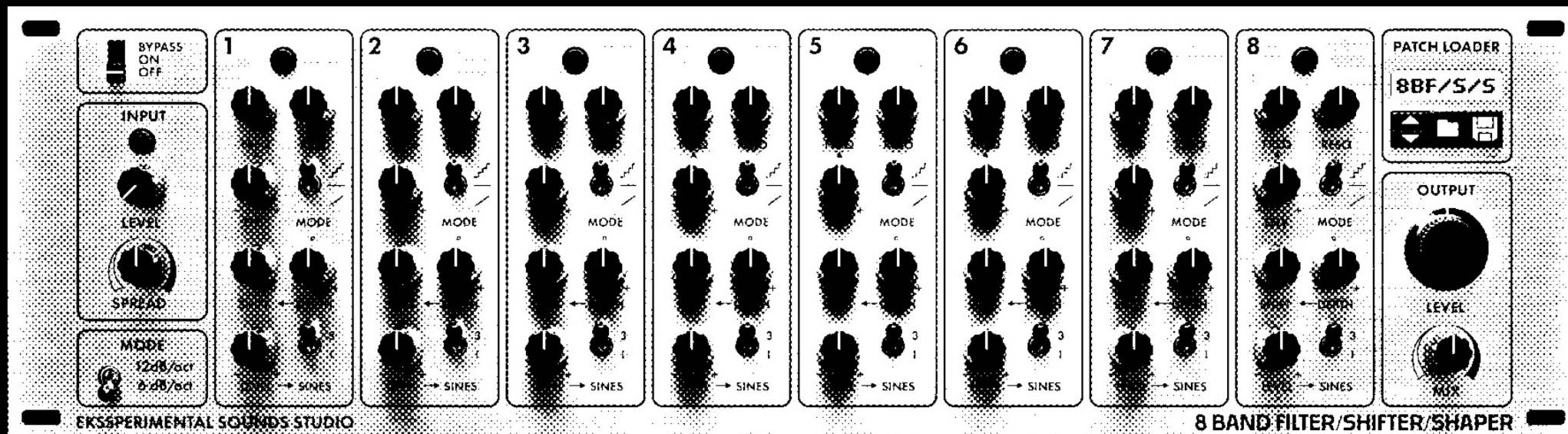


# 8 BAND FILTER/SHIFTER/SHAPER



Inspired by the free-spirited ethos of early synthesis pioneers, this Rack Extension invites you to sculpt and manipulate sound in ways that were once the exclusive domain of analog wizards.

8 Band F/S/S is not just a simple filter effect – it's a comprehensive toolset. Each of its 8 bands features a customizable bandpass filter with a choice between 6dB/Oct or 12dB/Oct slope, an envelope follower, a frequency shifter and a waveshaper, offering both single and triple sinewave shaping options.

The robust modulation capabilities are fueled by Reason's CV signal system, providing endless possibilities for dynamic control. Save and recall your sonic experiments with ease using the patch-saving functionality.

Designed for exploration, the "8 Band Filter/Shifter/Shaper" draws inspiration from West Coast modular synthesizers, echoing the aesthetics in a great looking GUI. It invites you to experiment with routing, pushing the boundaries of timbral possibilities reminiscent of Californian synthesis pioneers.

- \* 8 Dual Bandpass filter (6dB/Oct or 12dB/Oct)
- \* 8 Frequency Shifters for dynamic tonal shifts
- \* 8 Waveshapers with single and triple sinewave shaping options
- \* 8 Envelope Followers with CV output
- \* Spreading Functionality for panning odd and even bands in opposite directions
- \* Vast modulation possibilities with Reason's CV signal system
- \* Patch-saving functionality for easy recall
- \* 40+ patches

# INPUT FRONT



BYPASS  
ON  
OFF

## BYPASS/ON/OFF

Reasons standard switch for bypass, on and off modes.  
Bypass will pass the sound through uneffectect, off will turn the device off, killing the signal flow.

INPUT



LEVEL



SPREAD

## INPUT INDICATOR

Light will illuminate according to the amplitude of the signal after it has been passed through the input preamplifier.

## LEVEL

The input level knob will scale the incomming signal down to -inf dB and is capable of an amplification of up to +12dB

## SPREAD

Turning the spread knob counter-clockwise will pan the odd bands (1,3,5,7) to the left and the even bands (2,4,6,8) to the right. Turning the spread knob clockwise will inverse this behaviour, turning odd bands to the right and even to the left.

MODE



12dB/oct  
6 dB/oct

## MODE

The mode switch selects the slope of all filters.  
Available modes are

6dB/Oct (1 pole)  
12dB/Oct (2 pole)

# INPUT BACK

INPUT



LEFT

RIGHT

## INPUT JACKS

Connecting only Left will pass audio like a mono signal internally to both left and right channels. Stereo will pass as stereo pair - however the stereo image might be altered by the usage of the spread knob!

GLOBAL



ENV  
FLW  
RATE

FREQ  
OFFSET



## ENV FLW RATE

The envelope follower rate can be adjusted from very fast to smooth with this trimmer. It will effect all internal envelope followers and also the of response time of the filters.

## FREQ OFFSET

All bands filter frequencies can be altered simultaneously by this control voltage jack.

# BAND FRONT

2



FREQ



RESO



ENV



MODE



SHIFT



DEPTH



LEVEL



SINES

## BAND #

Can be clicked to act as a mute/solo/normal switch

## INDICATOR LIGHT

Light will illuminate according to the amplitude of the signal going out of the band.

## FREQ / RESO

Set the center frequency for the filter.  
Resonance will boost the selected frequency.

## ENV

Envelope follower that follows the incoming signal can be used to modify the center frequency up or down (bipolar knob)

## MODE

The mode switch has three positions:  
**UP** (stepped mode) - frequency knob steps through specific frequency values of standard tuning notes  
**MIDDLE** (through) the filter is bypassed  
**DOWN** (smooth) frequency goes smoothly from 20Hz-15kHz

## SHIFT

Shift frequencies inharmonically in Hertz from 0.05 Hz - 5 kHz. Depth will scale the shift amount from -100 to +100 %

## SINES

The signal is sent to one of two waveshapers:



1 has a sine shaped curve. It will saturate the signal when depth is increased.



3 has a multiple sine shaped curve. It will fold the signal when depth is increased.

# BAND BACK

4

FREQ CV



SHIFT CV



E.F OUT



LEVEL CV



DIRECT IN



## FREQ CV

Control voltage input for the filter frequency

## SHIFT CV

Control voltage input for the Shift **DEPTH**

## E.F OUT CV

Control voltage output of the envelope follower placed **AFTER** the filter, **BEFORE** the shifter  
Trimmer sets the Threshold.

## LEVEL CV

Control voltage input for the **LEVEL** sent to the sines waveshaper

## DIRECT IN

**Bands 3-8** has a direct inputs, these goes directly to the filter of each band and does not pass through the input drive stage.

# OUTPUT

## PATCH LOADER

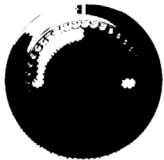
8BF/5/5



## PATCH LOADER

Use this mini browser to load and save patches.

## OUTPUT



LEVEL



MIX

## OUTPUT LEVEL

Volume of the output signal, ranging from -inf to +12 dB.

## OUTPUT MIX

Mix between the dry signal (after the input level stage) and the wet signal.

## OUTPUT

MIX CV



AUDIO OUT



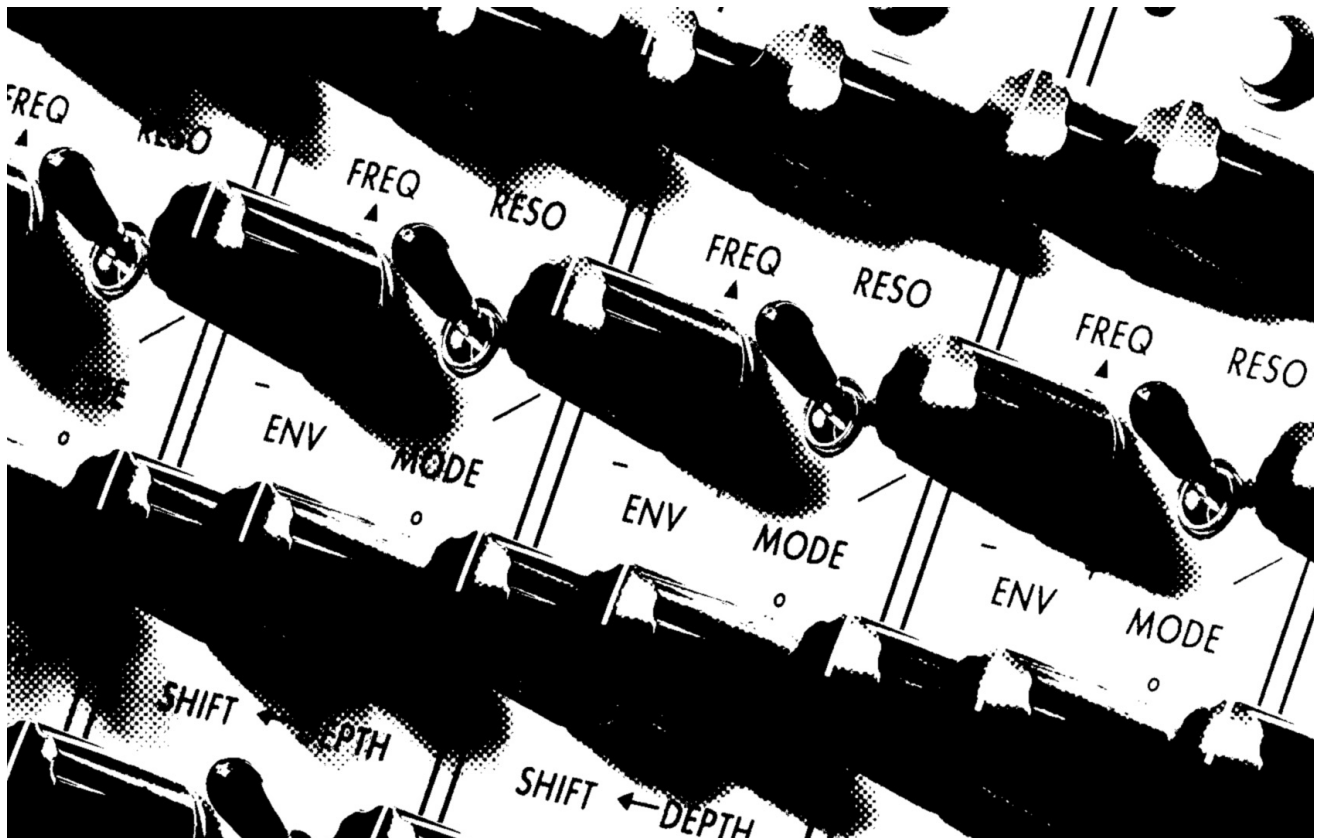
LEFT RIGHT

## MIX CV

Control voltage input for the mix parameter.

## AUDIO OUT

Stereo output jacks.



# GENERAL INFO



## Versatile multi-tool

The 8B F/S/S is a highly versatile effect unit. It can be utilized in numerous ways and offers great enjoyment when experimenting with various materials.

Try it on synths, drums, or noise. Experiment with super low-frequency material coupled with high resonance for 'pinging' effects. Incorporate it into an echo feedback loop.

Try patching envelope follower outputs to the next band's level for basic vocoder effects (a couple of examples are available in the Combinator folder in the included patch bank).

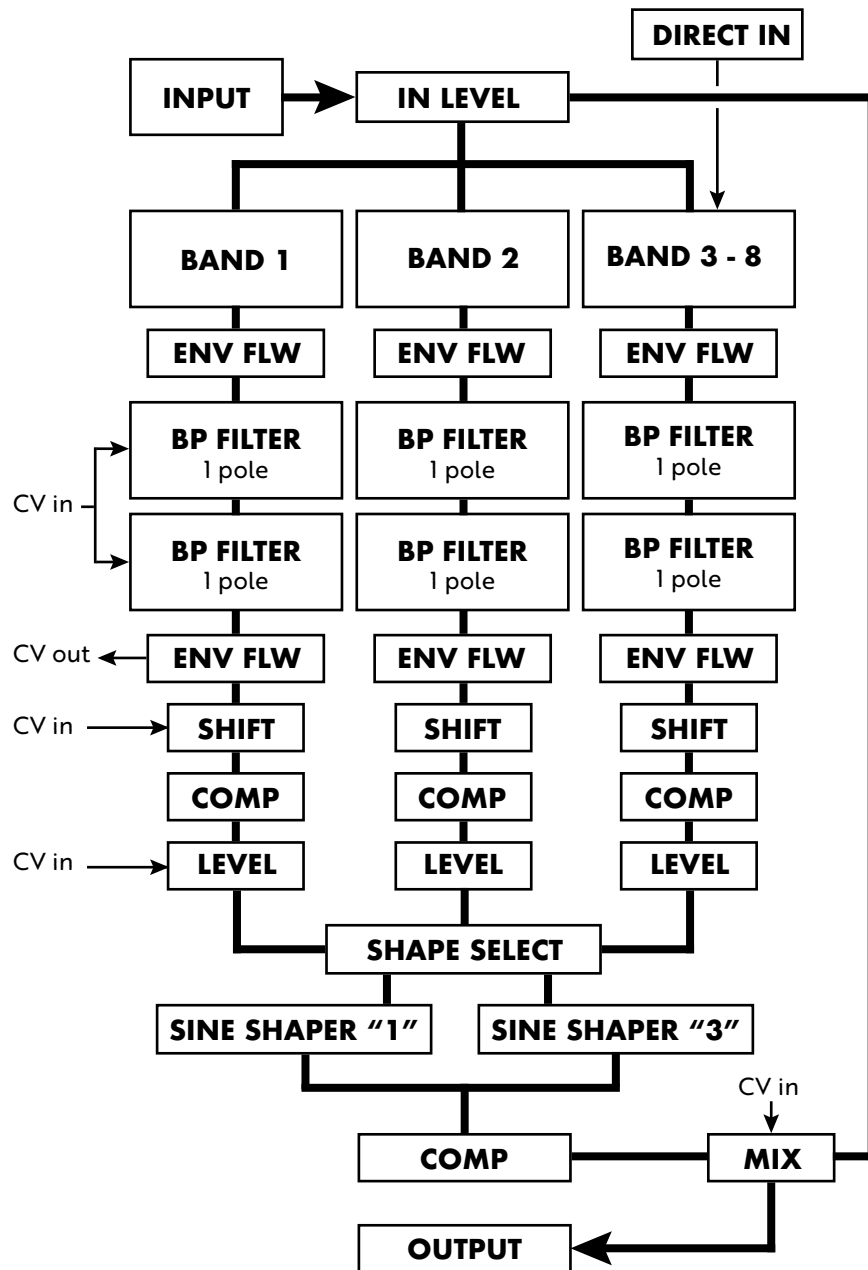
## Compression

Each band and the output summing mixer come equipped with an auto compressor designed to manage signals. Given that eight parallel signals can quickly accumulate volume, this feature proves incredibly useful. By bypassing the filters (filter mode switch in the middle position), you can utilize the waveshaper and compressor without any filtering.

## Input control

The degree of waveshaping and compression is determined by the signal level; increase the input for more exaggerated compression and waveshaping!

# SIGNAL FLOW



## THANK YOU FOR SUPPORTING EKSSPERIMENTAL SOUNDS STUDIO!

Experimental Sounds Studio is a one-man project fueled by a passion for experimental electronic sounds, both from new and old synthesizers and music gear. As a Reason user since 2001, it's truly a dream come true to finally have the opportunity to create my own synthesizers and effects for the Reason rack. I extend my gratitude to all of you who purchase my products; your support enables me to continue learning and developing more fun and inspiring devices for our beloved rack.

I hope you'll enjoy the 8 Band Filter/Shifter/Shaper!

Cheers,  
Erik Söderberg  
2024

Thanks to Mark Woolnough and MrFigg

