Comb



Description

Comb is an IIR peaking comb filter with control over cutoff frequency, resonance that can be driven into self oscillation, and a dampening filter in the feedback path.

An incredibly short, tuned delay line will alter the character of your input by imposing harmonic peaks on the source. Subtle settings can result in thickening timbres, reminiscent of phaser-like effects, while more extreme settings can create lustrous string sounds from white noise, or tear your waveform to shreds.

Explore new sonic territory with Comb.

- Comb filter
- Capable of self oscillation
- Feedback path dampening filter
- Infinite impulse response topology

Table of Contents

Installation/Specifications 4

Comb 5

General Functions Overview 6

Installation

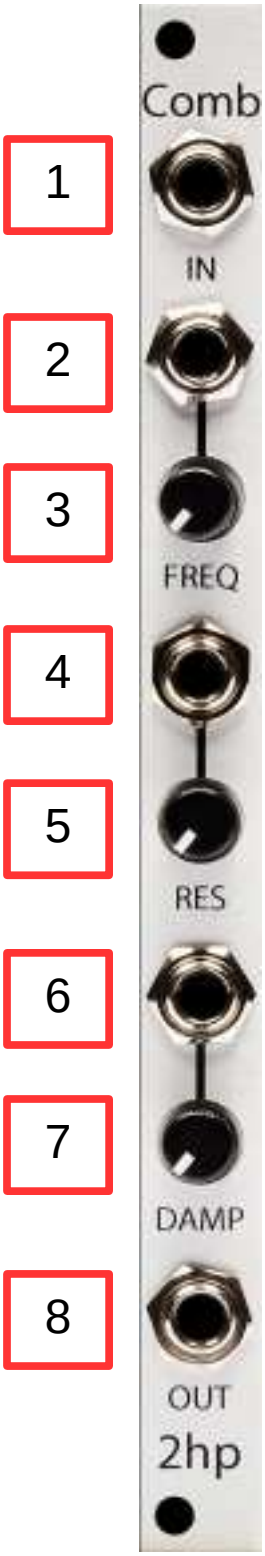
To install, locate 2 HP of space in your Eurorack case and confirm the positive 12 volts and negative 12 volts sides of the power distribution lines. Plug the connector into the power distribution board of your case, keeping in mind that the red band corresponds to negative 12 volts. In most systems, the negative 12 volt supply line is at the bottom. The power cable should be connected to the Comb with the red band facing the front of the module.

Specifications

Format: 2 HP Eurorack module

Depth: 47mm (Skiff Friendly)

Max Current: +12V = 87mA
-12V = 28mA


1
2
3
4
5
6
7
8
Comb
IN
FREQ
RES
DAMP
OUT
2hp

General Functions Overview

1. IN:
Audio input

Range: 10Vpp

2. FREQ CV INPUT:
Control voltage input for FREQ

Control voltage is added to the knob position

Range: ±5V

3. FREQ:
Sets cutoff frequency that is inversely proportional to delay time.

A cutoff frequency of 500Hz equals a delay time of 2ms.

4. RES CV INPUT:
Control voltage input for RES

Control voltage is added to the knob position

Range: ±5V

5. RES:
Sets the feedback amount of the delay line which controls the amplitude of the resonant peaks

6. DAMP CV INPUT:
Control voltage input for DAMP

Control voltage is added to the knob position

Range: ±5V

7. DAMP:
Sets the cutoff frequency of a 1-pole filter within the feedback path

If the knob is far left, dampening is fully applied and the filter will have a darker tone
If the knob is far right, no dampening is applied and the filter will have a brighter tone

8. OUT:
Audio output

Range: 10Vpp