



# Petal

Max for Live Device | User Guide

Rainbow Circuit

Version 1.1 | Edited December 4, 2023

[www.rainbowcircuit.co](http://www.rainbowcircuit.co)

Petal is a Max for Live multi-tap delay that draws any sound into an ever-unfolding garden.

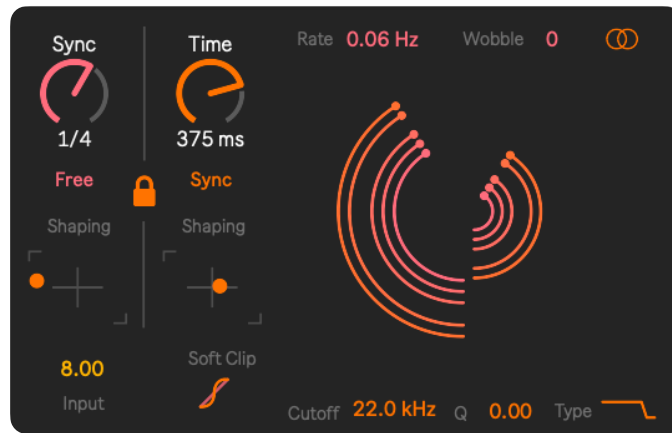
## Installation

Unzip the .amxd file and drop the file to the following:  
ableton/user library/presets/audio effect/max audio effect.

# Petal Overview

Petal is built upon an eight-tap delay. The tap delay times are configured as multiples of the value specified by the dial on the left-hand side. If the delay time is set to 50 milliseconds, tap 1 will introduce a delay of 50 milliseconds, tap 2 for 100 ms, tap 3 for 150 ms, and so on.

The XY **shaping pad** dynamically adjusts the shape of the delay time curve. The y-axis controls the delay time progression, ranging from linear (equidistant) to sigmoid (skewed delay times). The x-axis adjusts the delay time bias, moving it closer to either tap 1 or tap 8.



Delay times can be synchronized with the tempo of the live set (Sync) or set to a freely chosen time value (Free). It's possible to establish separate delay times and shaping pad positions for the left and right channels by unlocking the two channels using the lock icon.

## Pitch Shifting

Individual delay taps can be **activated or deactivated**, and they can also be **pitch-shifted** in semitones using the panel on the right-hand side. Tapping the dice icon generates randomized tap on/off and pitch-shifting combinations.

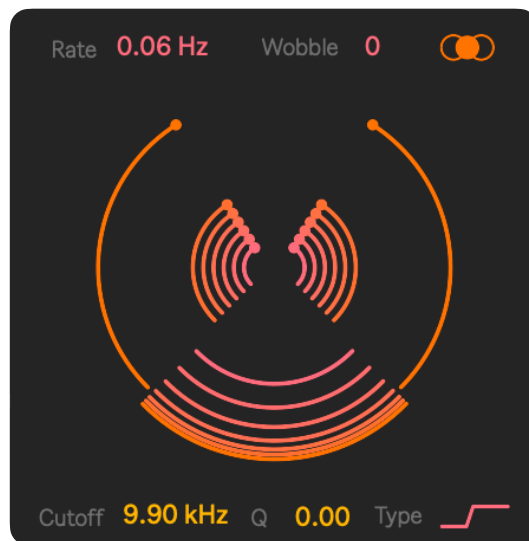


## Feedback

Petal's internal circuit integrates two distinct delays: one for the initial taps and pitch shifting, and a second for the primary feedback loop. As a result, any delay time modulation will influence the subsequent feedback loop. When the feedback level exceeds 99%, Petal enters into an infinite feedback loop — a protective limiter is placed at the end of the signal chain to prevent overblowing.

By default, the main feedback delay time aligns with the duration of tap 8, or a repetition of the delay pattern in its entirety. However, this can be altered by adjusting the **feedback size** parameter to correspond with a different tap time.

Several straightforward features are integrated to add character. A **state-variable filter** is positioned at the output for tonal adjustments. The **wobble** parameter modulates the delay time through a sinusoidal LFO. By enabling **soft clipping** at the input, a gentle saturation can be introduced to the incoming signal.



### New in version 1.1

A mid-side mode allows for a subtle delay shaping on stereo signals.

# Lastly

Thank you for purchasing Petal. If you have any questions, comments or just want to say hi, reach out to [hey@rainbowcircuit.co](mailto:hey@rainbowcircuit.co).

Rainbow Circuit is dedicated to creating instruments of our times. For more information, visit [www.rainbowcircuit.co](http://www.rainbowcircuit.co).

Developed by Takuma Matsui.

