

## OVERVIEW

Pigra 2.0 is a versatile delay plugin that offers a range of delay effects, from basic to creatively modulated sounds. Whether you're looking to create traditional delay effects or explore unique modulations like pitch shifting, diffusion, or panning, Pigra 2.0 provides the tools you need. It features seamless parameter changes, allowing for fluid transitions and evolving soundscapes that are perfect for both sound design and live performance.

For descriptions of what each control does simply open Ableton Live's Help View and hover over a control.

## KEY FEATURES

### Delays

Pigra 2.0 offers a selection of delay modes that cater to both traditional and experimental needs. You can choose between:

- ms/d1d2 Mode: A basic, non-synced mode with simple delay time adjustments.
- ms/CD Mode: Allows for a center and depth configuration, adding more variation to the delay.
- Sync/d1d2 Mode: Syncs your delays to the project BPM, providing time-based precision with two distinct delay channels.
- Sync/CD Mode: Combines syncing with center-depth calculation for more complex delay variations.



With the option to adjust delay times independently for each channel, you have complete control over the rhythm and tonal qualities of your delays.

## Pitch Modulation

Pigra 2.0 gives you the ability to manipulate pitch within your delays. Shift pitch up or down by up to  $\pm 2$  octaves, adding dramatic transformations to your sound. Features include:

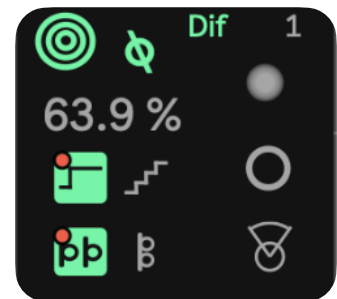
- Discrete Pitch Shifts: Move pitch in specific steps for a more controlled effect.
- Continuous Pitch Shifting: Modulate pitch freely for evolving, dynamic tonal changes.
- Pitch LFO: Use the LFO to control pitch depth and speed, allowing for subtle or intense modulation.



## Feedback Diffusion

The feedback section lets you shape how the delay repeats interact with one another, allowing you to create intricate, evolving textures. Key features include:

- Feedback Inversion: Reverse the direction of feedback for more experimental results.
- Feedback Amount: Adjust the intensity of the feedback to control the decay of the sound.
- Diffusion: Apply reverb-like characteristics to your delays for a more textured sound. The diffusion amount and spread control how broad or focused the diffusion effect is.

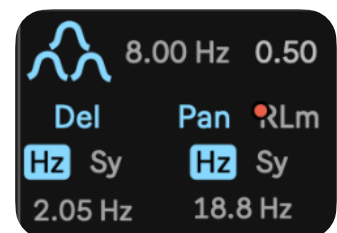


By using serial or parallel configurations for your feedback paths, you can create more complex interactions between your delays.

## Bubble Mode

Bubble Mode adds a unique modulation effect, changing the way both the delay and panning evolve over time. You can adjust:

- Delay Modulation: Modulate the delay time using a sine or noise wave for dynamic sound shifts.
- Panning Modulation: Introduce subtle or dramatic panning changes with adjustable speed.
- LRMix Mode: Increases efficiency when using serial feedback, allowing you to create more complex delay and panning effects.



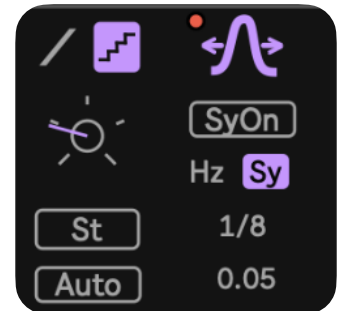
This feature is ideal for creating movement in your sound, with subtle, yet powerful modulation effects.

## Stretch Mode

Stretch Mode lets you manipulate the playback speed of your delays, creating unusual, syncopated rhythmic effects. Options include:

- Manual or Auto Mode: Choose between automatic sync or manual control over playback speed.
- Linear or Step Mode: Adjust the speed of the stretch effect in a continuous or stepped fashion for varying levels of impact.
- Pitch Multiplication: Stretching the delay also influences the pitch, creating unique harmonic effects.

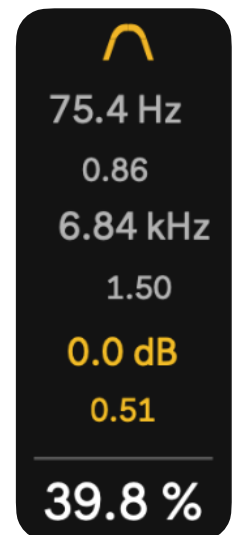
Auto mode syncs the stretch with your project's BPM, while manual mode gives you direct control to capture and adjust the playback position as needed.



## Additional Controls

Pigra 2.0 includes a set of tools to further shape your sound:

- Filter: Apply high-pass and low-pass filters to your delay signal, helping you to clean up or sculpt the tone.
- Drive: Add distortion to your delay for a more aggressive or saturated sound.
- Wet/Dry Mix: Control the balance between the processed (wet) and unprocessed (dry) signal for precise effect blending.



## Specification

- Maximum Delay Size: Up to 25 seconds (at 96kHz sample rate)
- CPU Efficiency: Diffusion switch to reduce CPU load when not in use, ensuring efficient performance even on large projects
- Stretch Speed Limitations: When stretch speed is set to 0, the delay length may exceed the maximum limit, potentially causing issues. In this case, no sync is applied to avoid clicks.
- Automation and MIDI Mapping: Automation and MIDI mapping marks may not always display correctly in some user interfaces. This issue is currently being investigated to ensure proper display in all DAWs.

## Getting Started

To get started with Pigra 2.0, simply insert it into your track's effect chain in Ableton Live. From there, you can begin adjusting the delay time, pitch, feedback, and modulation parameters to create your desired effect.

## Delay Modes:



Pigra 2.0 offers multiple delay modes, allowing for a variety of rhythmic and tonal effects.

Each mode includes two delay times (small and big circles) that can be adjusted separately.

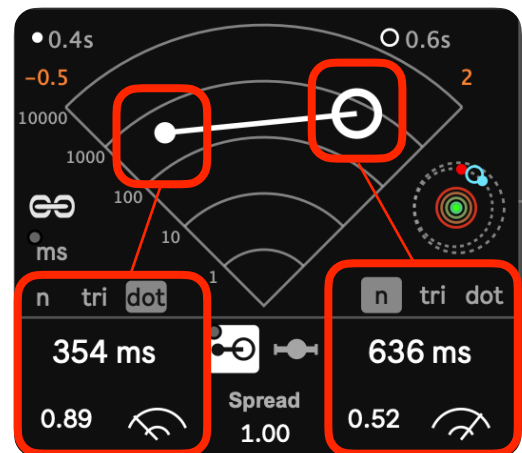
The controls on the left hand side are linked to the small circle, whilst the right controls the large.

You can dial in exact values with the mouse on keyboard or Push Encoders or simply click on the circle itself and drag it to the desired position.

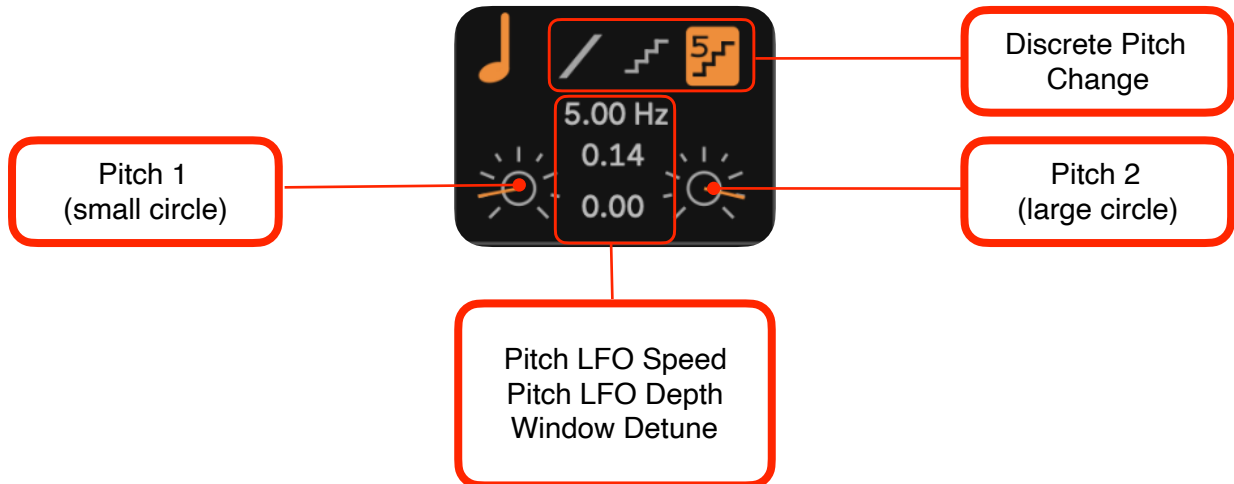
When switching on the Sync Unit Link option, the right hand side values are synced to the left hand side.

The sync unit options are:

- note : 1/128 - 4
- tri : 1/128t - 4t
- dot : 1/128d - 4d



## Pitch Controls



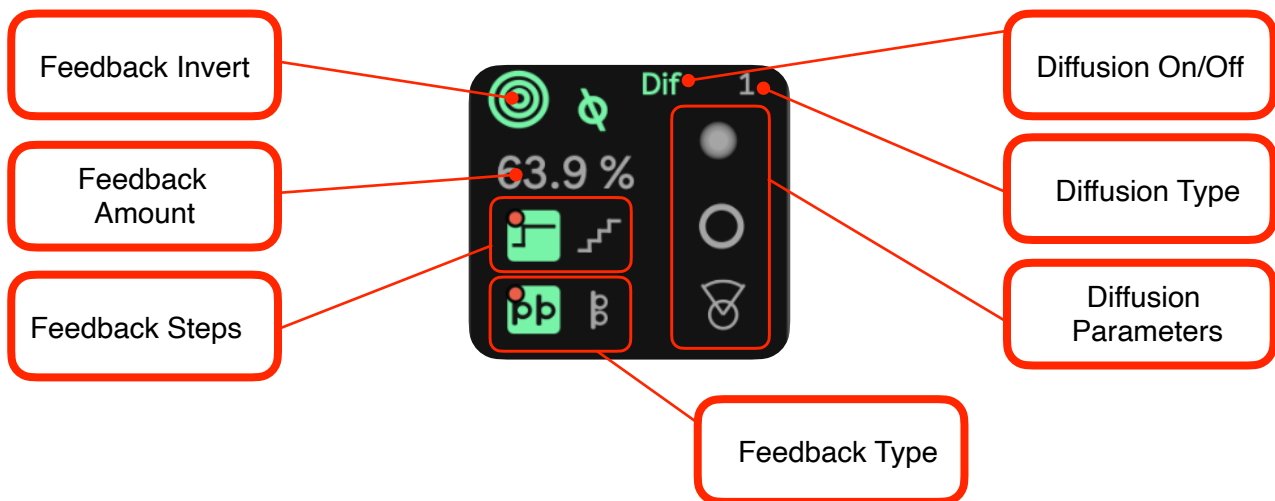
Pitch 1 & Pitch 2 Controls pitch for small and big delays.

- Pitch Range -4 to +4 (up to 2 octaves).
- Discrete Pitch Mode chooses between smooth or stepped pitch changes.
- Pitch LFO Modulates pitch over time for dynamic movement.
- Window Detune Fine-tunes pitch variation for a richer sound

Please Note:

It is difficult to sync when the pitch is negative and feedback is onestep.  
But, It will be easier to sync if you increase the window speed, turn on st\*p in stretch mode, and use sync mode.

## Feedback Diffusion



Feedback Diffusion creates a reverb-like effect by smoothing out delay repetitions.

### Feedback Parameters:

**Feedback Inversion:** Reverses delay polarity.

**Feedback Amount:** Controls the intensity of the feedback loop.

**Feedback Steps:** Determines whether pitch shifts are fed back into the delay.  
 When one step(left, shown) - Pitch up sound is not reproduced by feedback.  
 When steps(right) - Pitch up sound is reproduced by feedback.

### Feedback Type:

When parallel is selected as shown, the audio signal is processed by both the d1 (small circle) and d2 (large circle) delay at the same time.

When serial is selected then the audio will first pass through the d1 (small circle) and then d2 (large circle) so, it becomes more modulative, creating complex textures.

## Diffusion

You can turn the Diffusion on or off to conserve CPU where required, please be aware there may be a click when switched.

Diffusion Amount Adjusts the density of the diffusion effect.

### Diffusion Types

Select to use modulated delay time(2) or not(1), 1 is smooth, 2 is more modulated.

**Diffusion Width & Spread:** Controls stereo imaging.

## Bubble



### Bubble Mode Controls:

**Bubble Random Depth:** Adjusts the intensity of delay and pan randomization.

**RL Mix:** Inverts left/right delays for added stereo movement.

**LFO Type:** Uses a sine (cosine) waveform to modulate the delay.

This feature is great for unpredictable, floating delay movements that feel organic.

## Stretch (Time Manipulation)



Pigra 2.0's stretch feature allows delay repetitions to slow down or speed up over time.

### Stretch Controls:

**Stretch On/Off:** Enables or disables time stretching.

**Stretch Speed** Adjusts playback speed (0 = stopped, 2 = double speed).

**Discrete Stretch Mode:** Locks stretch values to fixed amounts (e.g., 0, 0.5, 1, 1.5, 2).

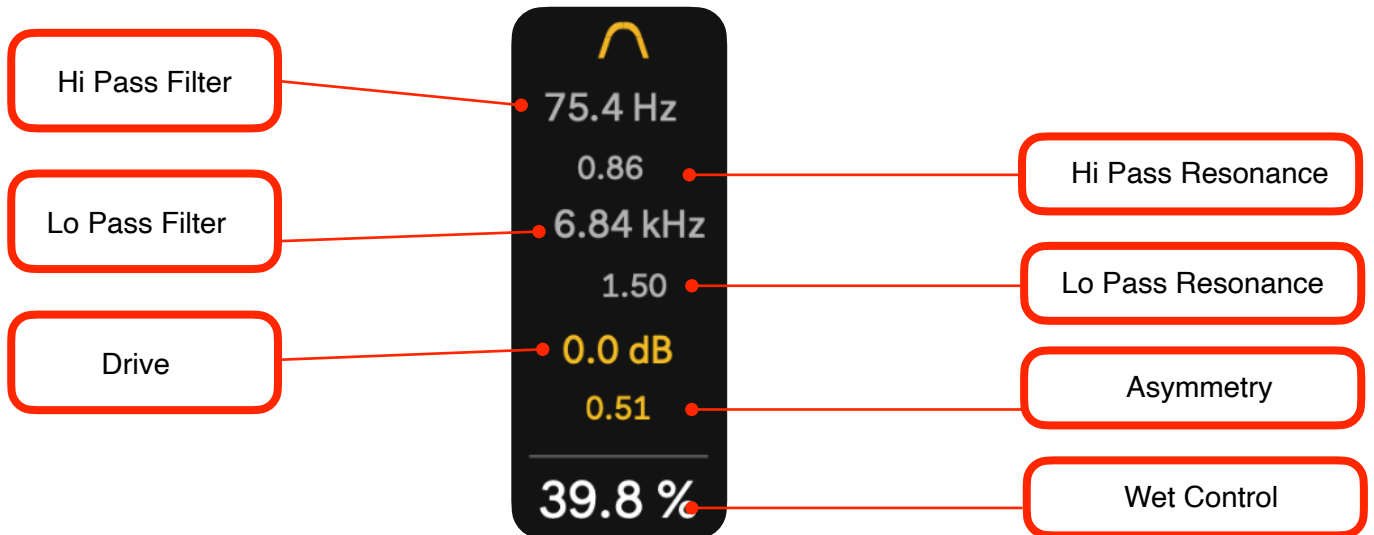
**Manual Mode:** Use the Grab Button to freeze and capture the current delay sound.

**Auto Mode:** Automatically resets playback position based on tempo sync.

This feature is ideal for creative sound design, including tape-stop effects and evolving delays



## Filter



## Filter Controls

**High-Pass (HP) & Low-Pass (LP):** Filters Adjust the frequency range of the delay.

**Filter Resonance (Q):** Controls sharpness of frequency cutoff.

## Drive & Saturation

**DriveDB:** Adds saturation to the delay signal.

**Asymmetry (Asym):** Adjusts distortion character for asymmetric clipping.

## Wet/Dry Balance

**Wet/Dry Mix:** Controls the balance between the processed signal and the dry input.