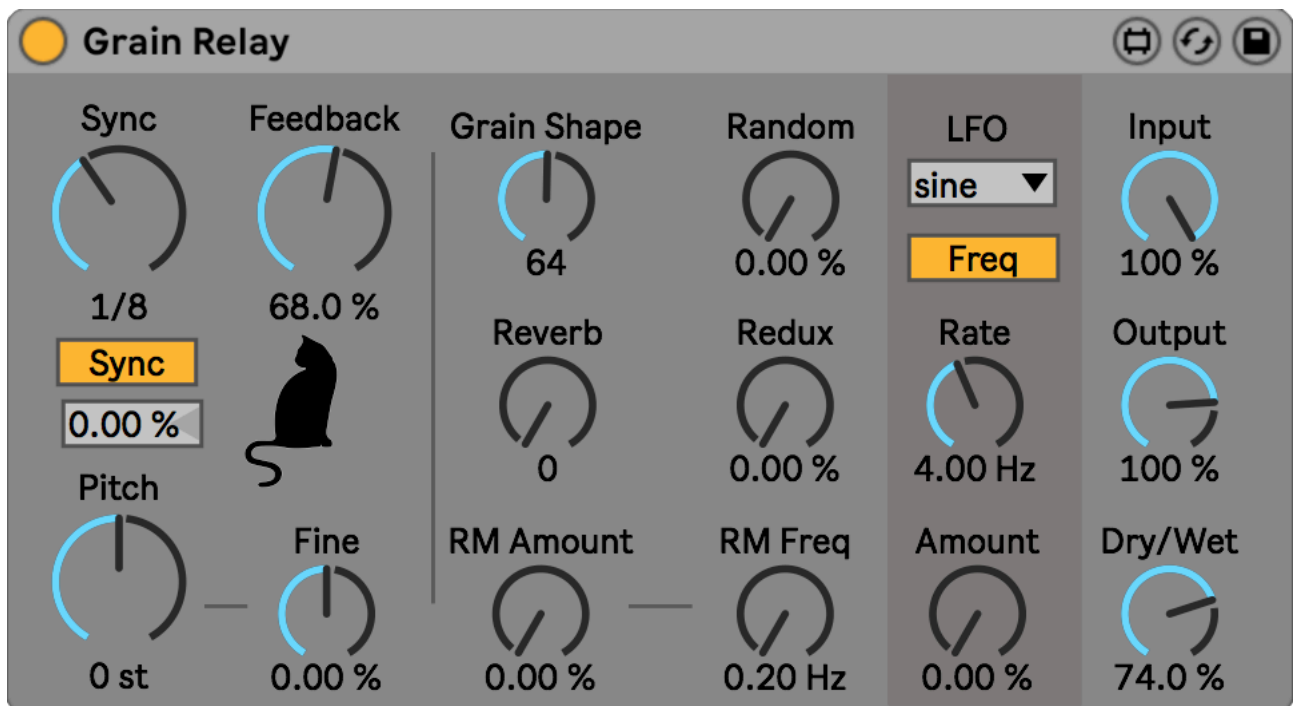


Grain Relay by Max for Cats

Multi-Dimensional Grain Delay

Grain Relay is a unique granular-style delay/pitch shifter that can transform your music into multi-facetted dimensions.



The Rate, either labelled **Sync** or **Free** depending on if the switch below is set to Sync or Time, defines the length of the delayed signal either in beat divisions between 1/48 and 4 bars (Sync), or between 0 ms and 2.5 s (Free). The synced delay rate can be offset between +/- 33,3%.

Feedback defines how much of the delayed signal is fed back to the input of the delay. The higher the feedback, the more repetitions of the delayed time you will hear. So it's best to be cautious with higher percentages.

With the **Pitch** parameter, the delayed signal can be pitched up or down in semitones (+/-24), creating interesting effects. **Fine** lets you fine-tune the pitch between -100 and 100%.

An important parameter for the pitch shifter is the **Grain Shape**, which allows you to define how the sound is being affected by the pitch shifter. Amongst other things, it changes the grain size of the granular delay. If set to zero, the LFO won't affect it.

Random creates a slight offset between the left and right channel and creates a random panning effect.

Reverb adds a spacial dimension to it while **redux** and ring modulation (RM) let you add additional overtones to the signal. **Redux** is a downsampling effect that sets the distance of samples at the input. At 0%, every sample reaches the output.

RM Amount allows you to dial in ring modulation from 0 to 100%, while **RM Freq** lets you choose the frequency of it between 0.2 Hz and 10 kHz.

A versatile LFO lets you modulate the pitch of the delay with eight different waveforms and intensity. When the switch is set to Freq, the **Rate** can be adjusted between 0 and 40 Hz, when set to Sync, between 1/48 and 16 bars, the LFO **Amount** from 0 to 100%.

At the right side of Grain Relay, the gain staging can be adjusted by levelling the **Input** and **Output** and the **Dry/Wet** balance.