

# Sugar Bytes Rack Extensions



## Pitch Delay Manual

Pitch Delay is a classic delay with an integrated filter, but gives you the additional option of modifying the pitch of the delay tails. The **Delay Left**, **Delay Right** and **Feedback** parameters are standard delay controls.

There are some special settings for the **Delay** parameters:

- **Free:** The delay time is set in milliseconds.
- **Sync:** The delay time is defined relative to your host tempo (bpm).
- **SyncTP:** The delay time is defined relative to your host tempo with triplet and dotted values.

The **Feedback** defines how much of the output signal is fed back into the input. Here you also have some extra options:

- “1/4” Allows the incoming signal to pass only once for the duration of a quarter note.
- “1/4--- ” Allows the incoming signal to alternate between passing and pausing for the duration of a quarter note and then pauses for three quarter notes.
- “1/4-” Allows the incoming signal to alternate between passing and pausing for the duration of a quarter note.

Option settings for eighth note and sixteenth note durations follow the same pattern.

The **Pitch** parameter adds a positive or negative pitch change to the delayed signal. Furthermore, you can add the filter to create special new Dub-style delay effects. There are several filter settings available so you can decide whether the **Pitch** and **Filter** work separately, together, or inversely.

For every Filter Type there is a low and high (**Q**) resonance setting.

The first menu entry **Pitch** has no filter and only modifies the pitch. A “+” in front of the menu entry indicates an additive cutoff modification, turning up the pitch controller also increases the filter frequency. A “-” in front of the menu entry will result in the filter frequency decreasing when turning up the pitch.

If the menu entry has no prefix then only the filter is active.

Note that the Pitch Delay algorithm starts working by turning the **Dry / Wet** parameter clockwise. This is a good parameter to automate in order to determine when the Filter Pattern will be active in your song.

The **Dry / Wet** control defines the mix between the original and the processed signal.

There are three options for defining mixing behavior:

- **Linear:** The mixing happens in a linear fashion —the center position provides 50% original and 50% processed signal.
- **Wet:** The processed signal is added to the input. This option is mostly used for reverbs and delays.
- **Equal:** The signals are mixed according to the equal power law: center position will result in about 70% original and 30% processed signal.

All five parameters can be modulated by using the CV input on the rear panel.