

# Stretch Weaver

dual channel sidechaining machine



The Stretch Weaver has 2 separate channels that can interact with each other in various ways, mostly through sidechaining where a channel can trigger an action that will be applied to the other channel.

When you plug in only one source on the right channel, it will internally be routed to the left channel, so that you can use most of the modes in interesting ways even if only one input is being used.

### wet/dry:

Controls the level of the wet and dry signals for each channel individually. Unity gain is around noon position.

### left/right:

Adjusts the threshold at which the respective channel will trigger the effect applied to the other channel. (except in weave mode, where right adjusts grain length).

### control knob

Its function will depend on the selected mode.

### mix L+R ; sep L/R:

in the sep position, each channel is separate.  
in mix mode, both of the wet signals are mixed together and routed equally to both L and R outputs.

### bypass switch:

If you give it a short tap (<0.3sec) it acts in latching mode.  
If you press it for more than 0.3sec you are in momentary mode.  
It's a buffered bypass.

DC Power  
Supply

TRS  
Expression  
Input

bypass switch

## Description of the 8 modes:

	<b>left knob</b>	<b>ctrl knob</b>	<b>right knob</b>	<b>description</b>
<b>stretch</b>	left threshold	amount of time stretching	right threshold	Each channel can trigger the other to get time stretched. The louder the signal, the longer the stretch. The ctrl knob adjusts the max time stretching overall available.
<b>weave</b>	left threshold	amount of time stretching	size of stretched grains	Only the right channel is being stretched but the left knob will allow some of the left audio to get weaved in and processed on the left.
<b>repeat</b>	left threshold	repeat length	right threshold	Each channel can trigger the other to loop the last recorded sample.
<b>tape</b>	left threshold	tape speed (1/4 1/2 X2 X4)	right threshold	Each channel can change the speed at which the other channel is being played back.
<b>pitch</b>	left threshold	pitch shift from -1oct to +1oct	right threshold	Each channel can change the pitch of the other.
<b>glide</b>	left threshold	glide speed	right threshold	Each channel can trigger the other channel to glide from a very low, almost inaudible pitch up to unison.
<b>gate</b>	left threshold	gate speed	right threshold	Each channel goes through a gate that only opens when the other channel triggers it.
<b>ringmod</b>	left threshold	mix of both channels	right threshold	Each channel can ring modulate the other. When you turn up the ctrl knob the two incoming audio channels will start to get mixed together before being routed to both ringmod processes, so that each channel will increasingly be able to modulate itself.

### exp input:

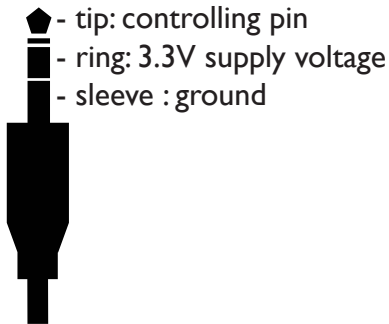
Can be used to externally take over the ctrl knob's function. When an expression pedal is connected, the the control knob can be used to define the max setting of the expression pedal.

Most commercially available expression pedals using a TRS plug should work. The value is not really critical, although I would not go lower than 10k.

Some examples are the Moog EP-2, Roland EV-5, and M-Audio EX-P.

You need to use 1/4 inch TRS (Stereo) plugs and cables. NO MONO PLUGS OR CABLES! These will short out the voltage regulators inside the pedal and damage it.

Here is how such a TRS plug looks like.



If you really know what you are doing you can actually use a control voltage instead of a resistance based controller. But you need to consider the connections and never exceed 3.3V. If you do you will damage the pedal. Use a TRS plug. No Mono plug. TRS, not MONO :)

If you have any doubt when deciding what to connect to the expression input please send me an email and I will verify that everything is safe.

### Power Supply:

The power supply needs to be 9V/120mA center negative like the commonly used guitar pedal power supplies:



Make sure the polarity of your power supply is correct or it will damage the pedal. Do NOT run at higher voltages.

As the pedal uses a digital processor operating at high frequencies, you may hear some noise if you use it together on the same power supply with other pedals (daisy chained) even when it is bypassed. The noise can bleed through the power supply into the other pedal's signal. This is normal for such devices. It might not be the case in your particular setup but if you notice that, I would suggest using an isolated power supply.

### Notes:

- When connecting different equipment, you might run into issues with hum caused by a ground loop. If that's case you may need to use a ground loop isolator (usually consisting of transformers)
- If the wet and dry signal of a channel are very similar (for ex. when the effect is not being triggered) you will hear some phasing between the 2 signals. This is caused by the processed signal being slightly phase shifted through the DSP compared to the analog dry signal. I could not really find a practical way to avoid this so I decided to just live with it, hope you will too.

Thanks !  
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