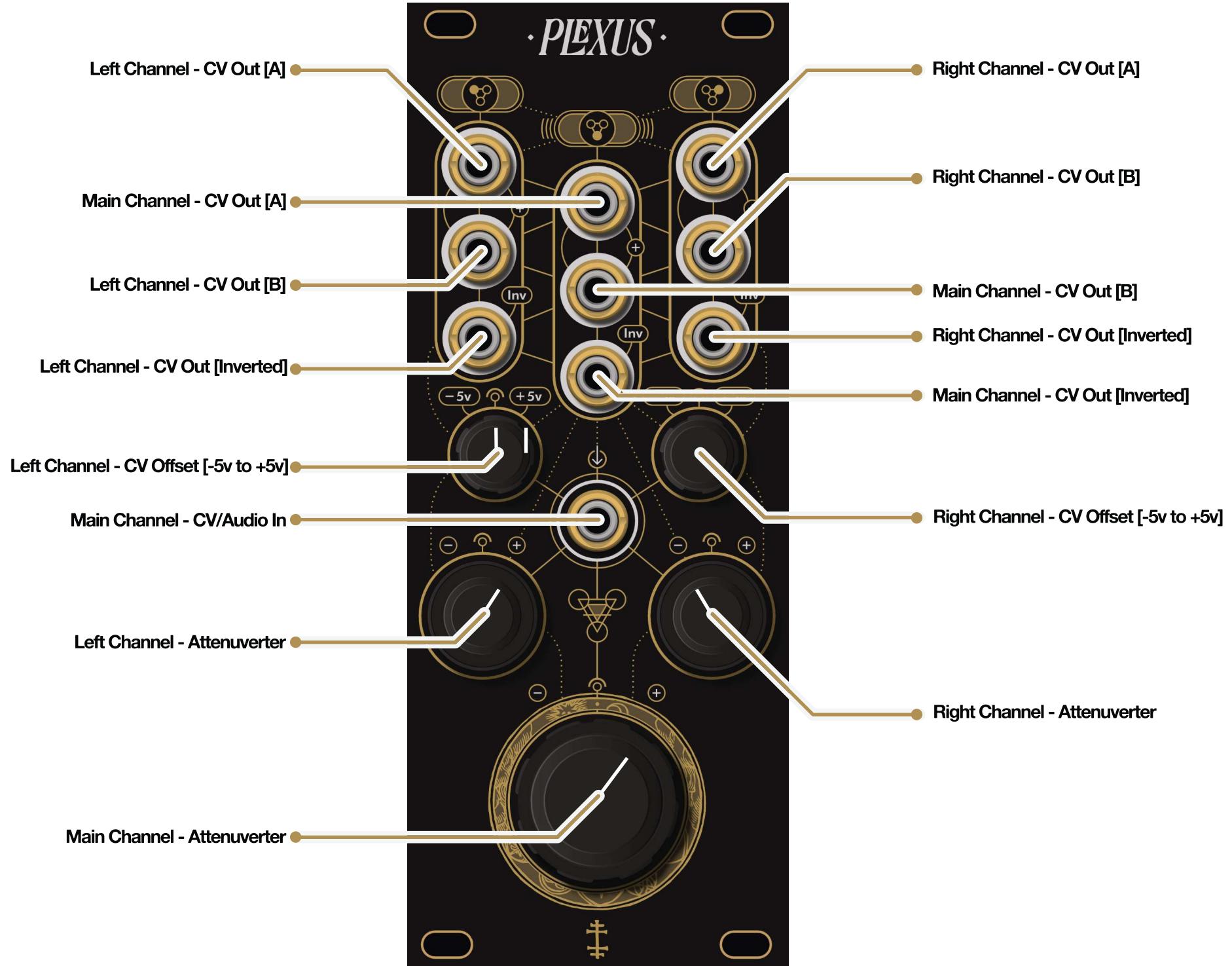


# •PLEXUS•

Three Channel Voltage Manipulator

## USER MANUAL



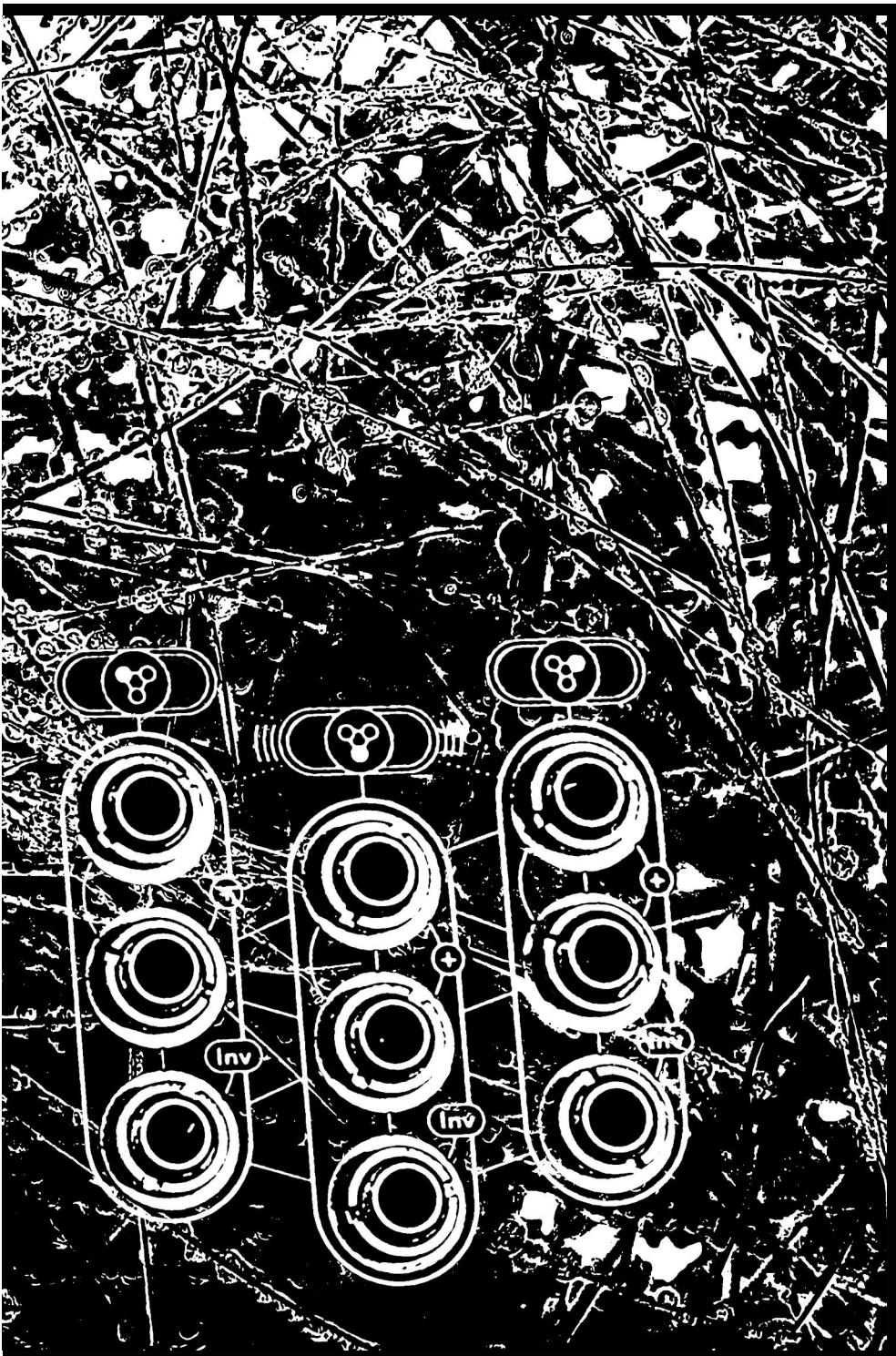


**Plexus** is a 10HP Eurorack three channel voltage manipulator. It processes one input into nine related voltages, useful for macro control and creating variations of a signal.

## **features:**

- Center channel: offset or attenuverter
- Left and right channels: independent offsets and attenuverters derived from center channel signal
- 9 outputs total (3 per channel - 2 regular outs and one inverted)
- Voltage range: -5V to +5V (center), -10V to +10V (sides)
- DC coupled for audio and CV processing
- 2x Bipolar LED indicators per channel (Red = positive voltage, Blue = negative voltage)





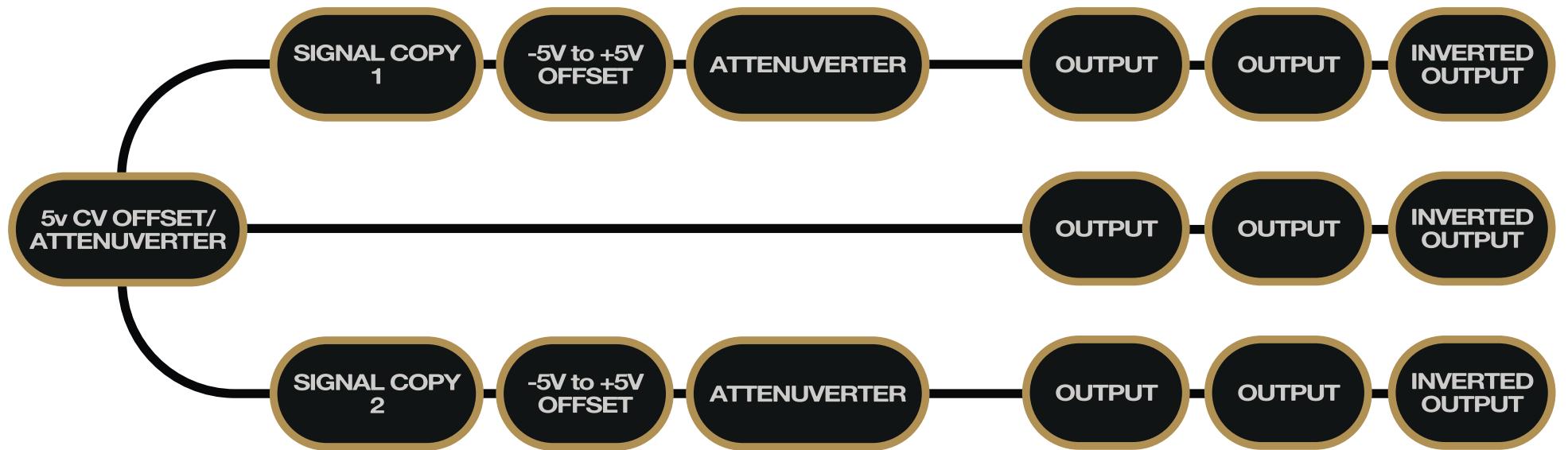
## ***uses:***

- Control multiple parameters of multiple modules at once
- Create buffered multiples with variations
- Voltage offsetting and scaling
- Attenuate one input with precision, with multiple varied outputs.

## ***specs:***

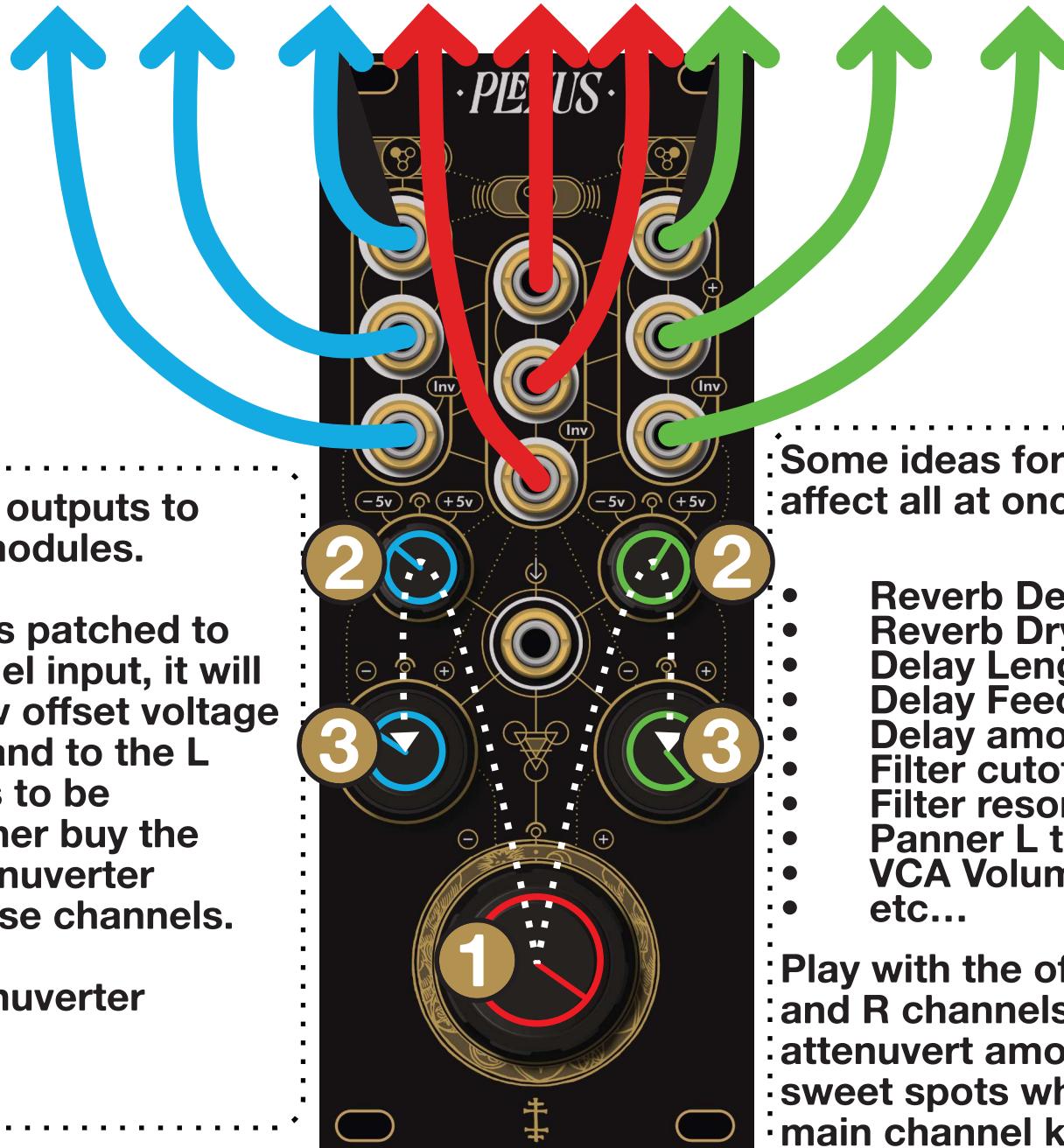
- Height: 3U (128.5mm)
- Width: 10hp (50.8mm)
- Depth from panel: 23mm
- Depth total (Including knobs and ribbon cable): 51mm
- +12v: 98mA
- -12v: 82 mA
- 5v: 0mA

# block chart:



## USE CASE #1 :

## MACRO CONTROLLER



Patch all of the outputs to various other modules.

When nothing is patched to the main channel input, it will output -5 to +5v offset voltage to its outputs, and to the L and R channels to be processed further by the Offset and Attenuverter controls on those channels.

- 1: Stage 1 Attenuverter
- 2: Offset
- 3:Attenuverter

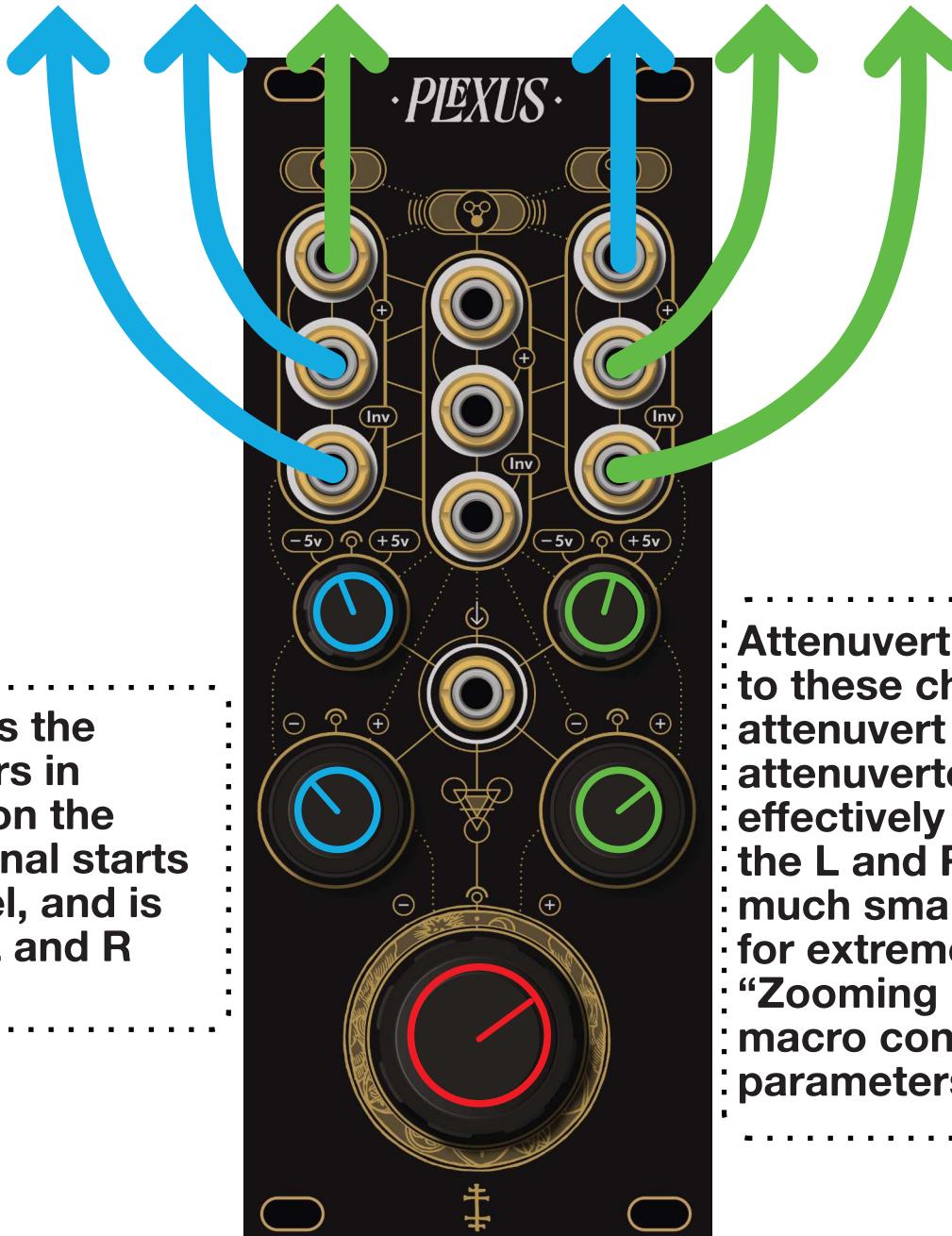
Some ideas for params to affect all at once:

- Reverb Decay
- Reverb Dry/Wet
- Delay Length
- Delay Feedback
- Delay amount
- Filter cutoff
- Filter resonance
- Panner L to R
- VCA Volume
- etc...

Play with the offsets on the L and R channels, as well as the attenuvert amount to find sweet spots when you turn the main channel knob.

## USE CASE #2:

## PRECISION 2 STAGE OFFSET GENERATOR

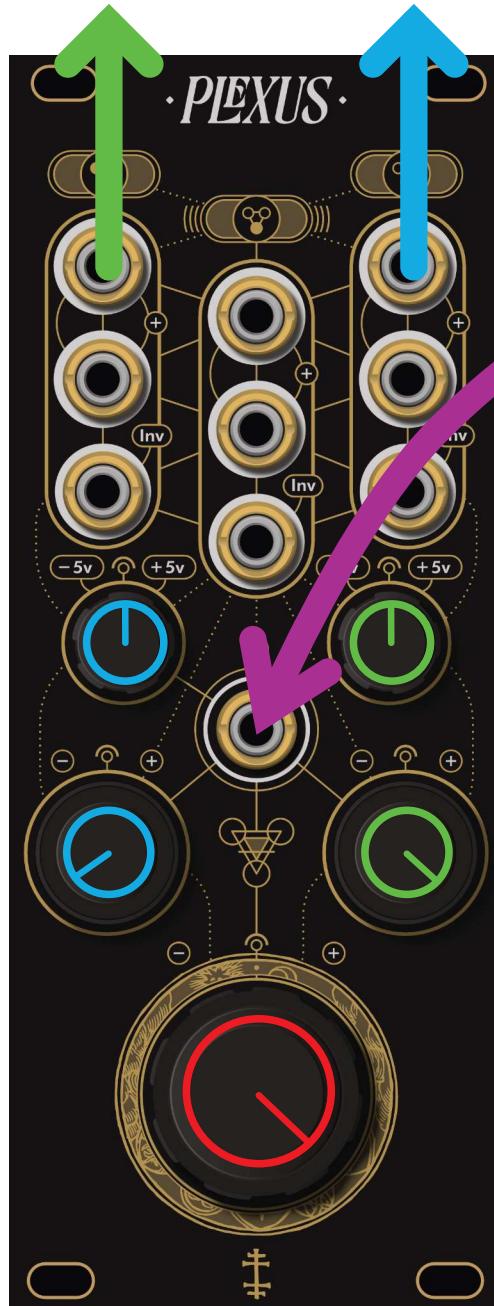


This use case utilizes the multiple attenuverters in sequence available on the Plexus. An offset signal starts at the center channel, and is then passed to the L and R channels.

Attenuverting the signal passet to these channels will attenuvert the already attenuverted -5v to +5v signal, effectively making the range of the L and R Attenuvert knobs much smaller. This can allow for extremely precise “Zooming in” of voltages for macro controlling sensitive parameters of other modules.

## USE CASE #3:

## MONO TO STEREO



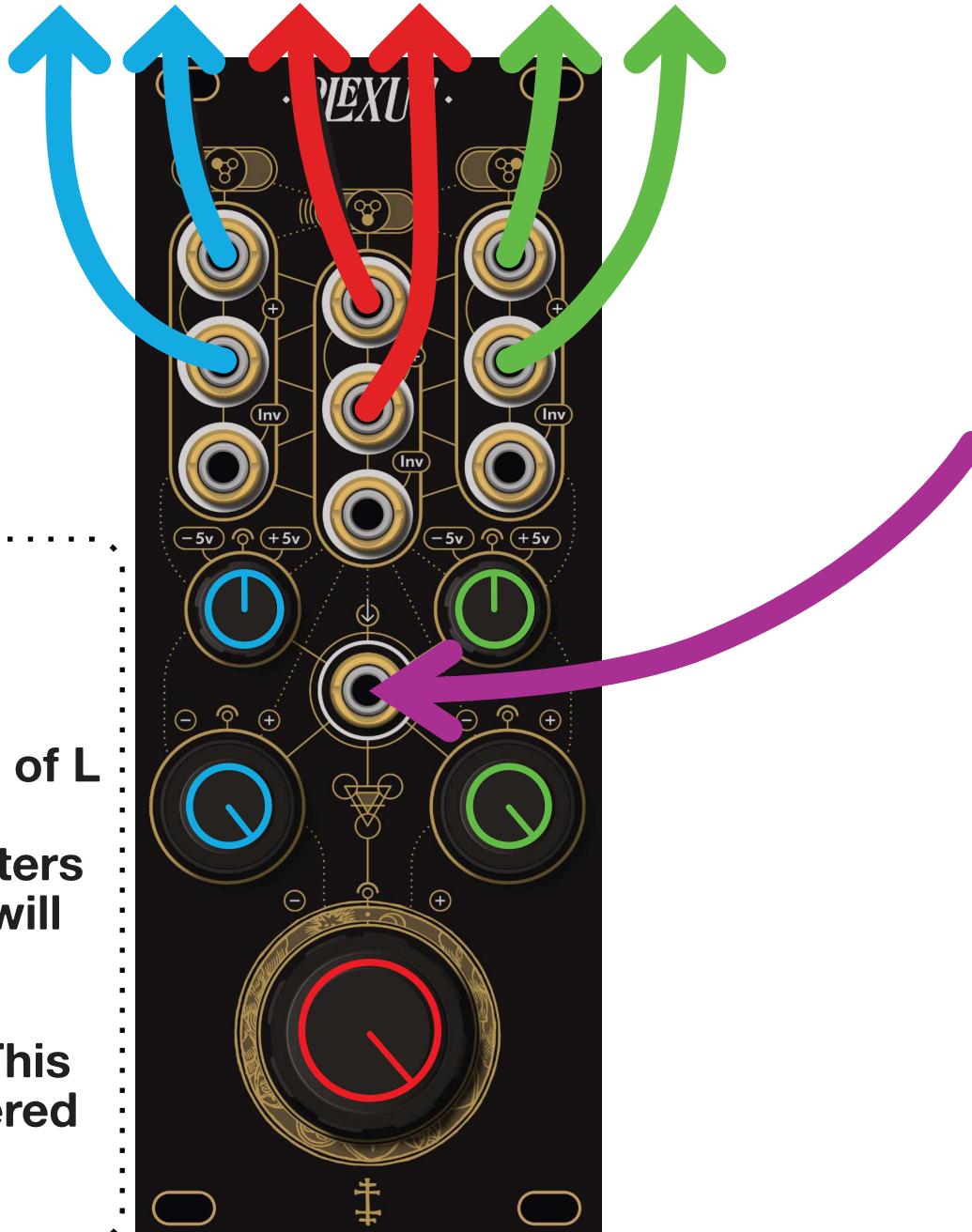
This use case utilizes the multiple outputs and the ability to invert voltages for output. Patching a mono signal to the input jack will send the signal to all outputs.

Setting the attenuverter of the L or R channel to inverted will invert that signal, causing you to output an inverted signal on one side of the stereo field.

This is useful for a wide stereo effect, but be warned that this will cause phase issues if you mix the signal back down to mono. A way around this would be to keep both L and R signals non-inverted.

## USE CASE #4:

## 1:6 BUFFERED MULT



This use case is very simple but useful in a pinch.

Leave the offset knobs of L and R channels at 12 o'clock, and Attenuverters at full clockwise. This will ensure that all outputs other than the inverted outs will be identical. This will result in a 1:6 buffered mult.

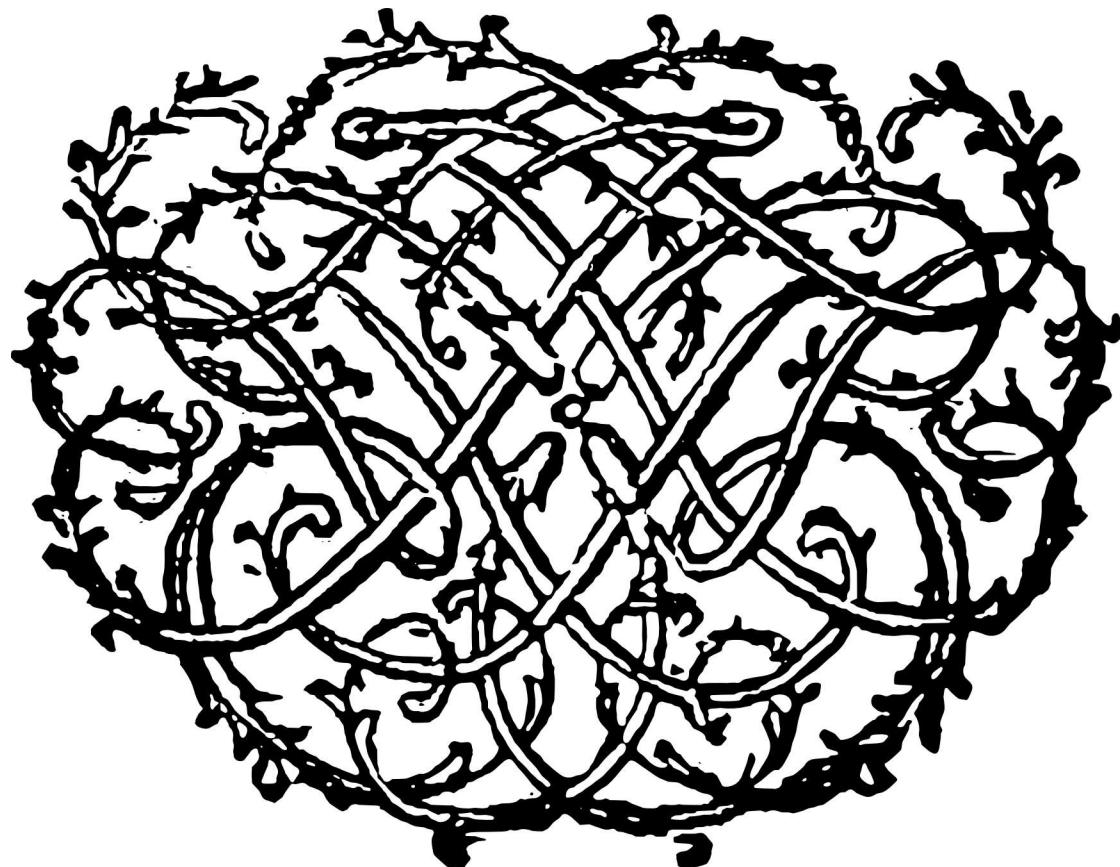
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