

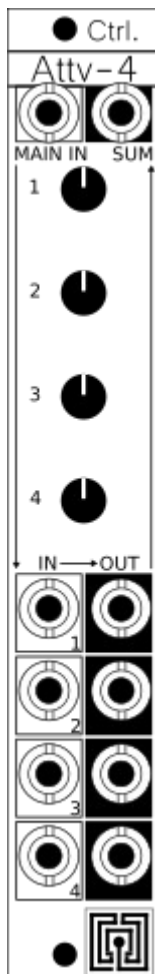


LARIX ELEKTRO

CONTROLE ATTV-4

WHAT'S THAT THING ?

This is a bank of 4 Attenuverters. That can be used as a **4 input mixer**, and/or as a **1 to 4 signal dispatcher**.



KNOBS:

1-2-3-4:

Attenuverter value for each circuits.
(amplification and inversion)

JACKS I/O:

CLK : Bottom IN and OUT: The 4 circuits.
(associated with the corresponding knob)

MAIN IN : Signal input that goes to all 4 circuits.

SUM : The outputs of the 4 circuits are mixed here.

Technical specifications:

+12V : 28mA

-12V : 28mA

(5V is not used)

8HP, 35mm deep (Approx.) with PSU connector

Installation:

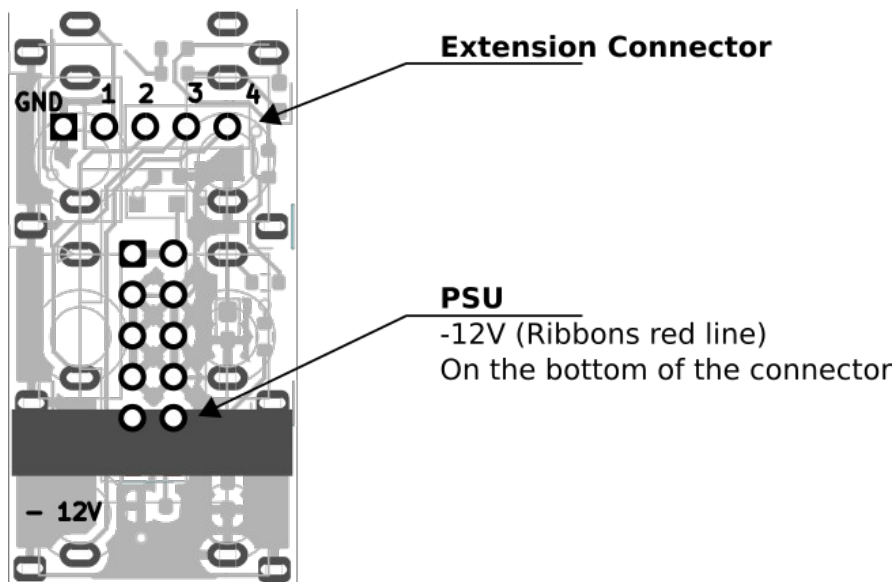
At first, ensure that there is enough power to supply the module.

Beware of the orientation: the red strip on the ribbon cable should match the white line on the module, and on the PSU board (-12V).

Connect the PSU ribbon into the PSU connector, the small connector (2x5 pin) into the module, and the large one (2x8 pin) into the PSU Board.

It is better to have a **well-insulated box** because parasites can be added to the signal of the modules. If you are not familiar with electronics, prefer commercial boxes. This is especially true for power supplies: a poorly designed power supply can damage the modules.

To avoid various problems, electromagnetic, but not only, **complete the empty spaces with blind front panels** (Blank panels). For more informations about the use of the Extension Connector: see below.



Extension Connector:

This is a 5 PINS connector.

Each of these pin is directly connected to the corresponding attenuverter circuit output.

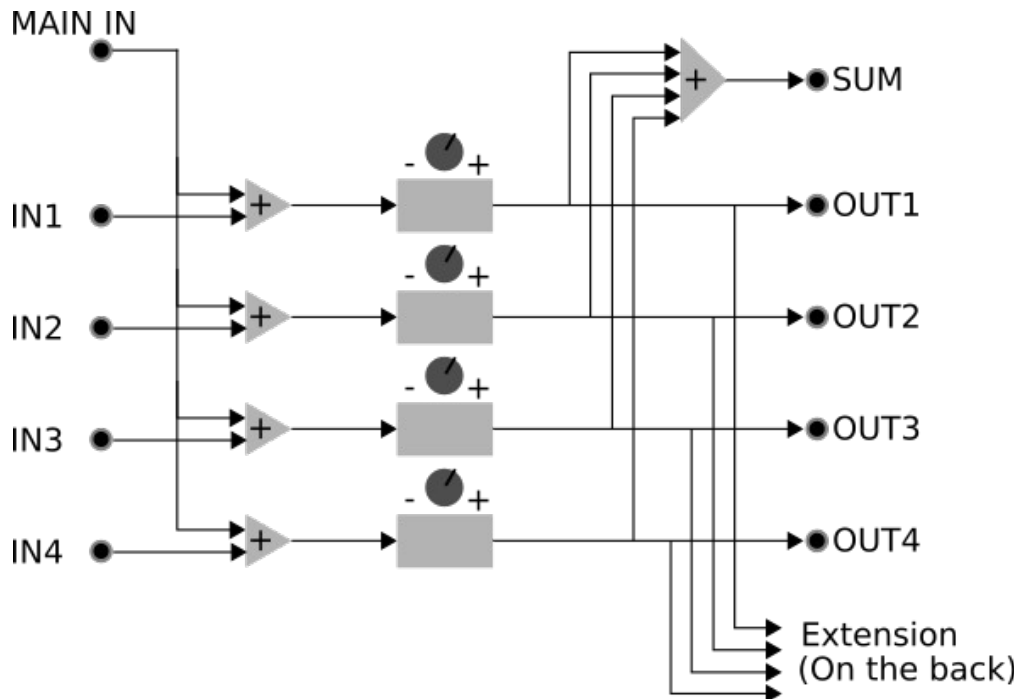
On all **Larix-Elektro** modules, all CV inputs have a parallele input on the back of the module. This is on this connectore you can connect the **Attv-4**. It allows to adjust the CV value of the module.

The wires to connect each together are provided with the **AttV-4**.

The fifth pin is the ground. This pin is not necessary, but in case of, it means that the ground is available here.

For DIY, if you need to isolate the wires, you can connect the ground here

Technical explanation :



The basis:

Once again a bank of boring Attenuverters !!!

Firstly, what is an Attenuverter:

It's a way to modify the amplitude of a signal, like an attenuator.

But with one more feature: inverter ! With the same knob.

It means that at center position of the knob, output is 0 (nothing).

On the right, it progressively increase the amplitude.

And on the left, it will increase the amplitude too, but reversed.

In fact, at first, it's attempt to be an extension for others modules:

Most have CV in module without any pots to adjust the value. This module exist firstly to add an attenuverting adjustment of the CV input. So you have 4 attenuverter circuits !

But it looks interesting to add some features:

- A **SUM** output, that simply...sum (!) all 4 inputs. So the Attv-4 is also a mixer.

With the attenuverter capability, it allows to add, or soustract signals.

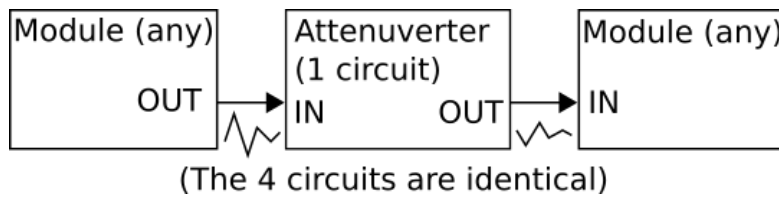
- A **MAIN-IN**, that adds a common input for the 4 circuits. It means that it's possible to generate 4 CV controles with only one CV IN

Usefull to morph between 2 settings for example.

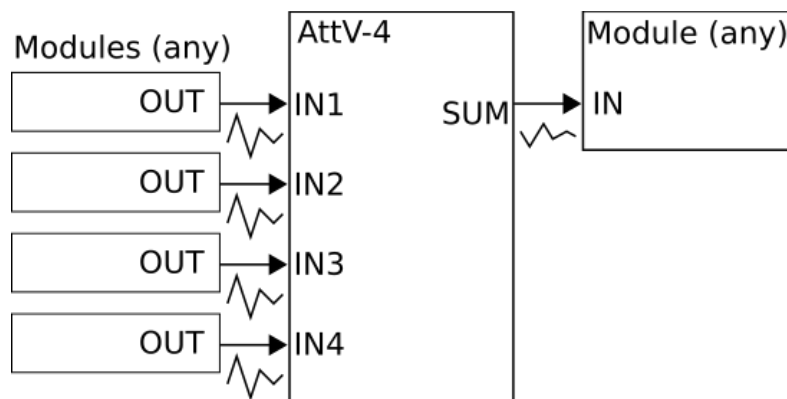
Use cases:

1- Attenuverters

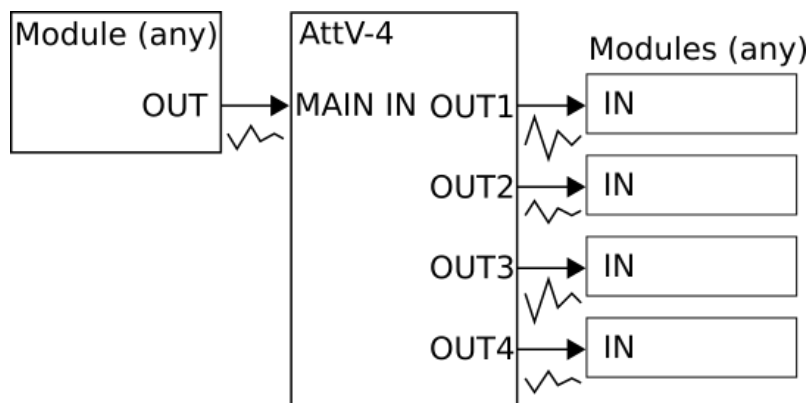
(4 independant circuits)



2- Summer /Mixer



3-Dispatcher



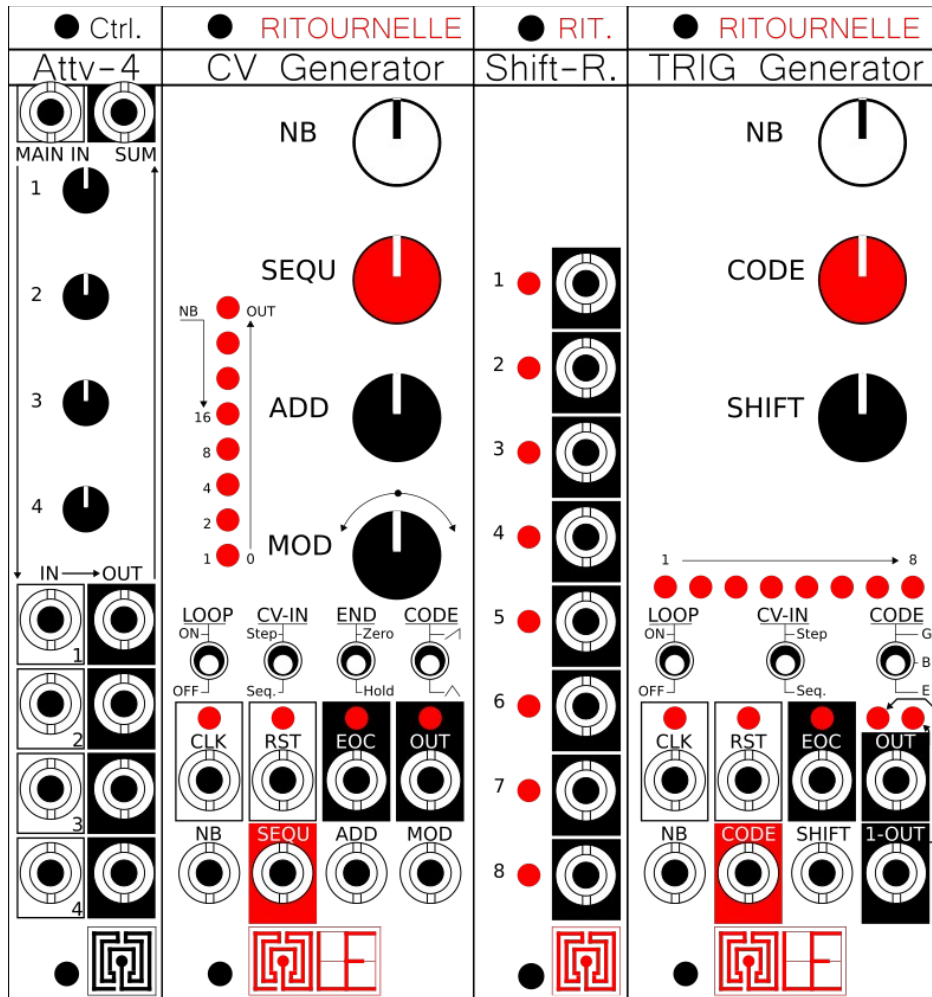
Technical considerations:

- Each individual output is the sum of the input and the **MAIN IN**.
- At max position, the signal is amplifier by 1,5 (approx.) into the individual output.
- Unlike the individual output, the sum output does not amplify the signal.

Extension connector: On the back, on the PCB, there is a 5 pins connector. It provides the same signal as the 4 individual output jacks.

FULL RANGE MODULES :

- CV Generator : CV sequence generator.
- TRIG Generator : TRIG sequence generator.
- Attv-4 : 4 attenuverter / Mixer / Dispatcher. Extension for other modules.
- Shift-R : Adds 8 Trig to the CV Generator.



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