# Kommutator

Kommutator is a desktop patch panel / socket converter for different modular systems formats.

Convert different connector types and play with CVs from different systems in one setup!

Kommutator's lines are isolated — use neighboring lines to route CV and audio simultaneously.

2 central lines are pre-wired signal buses. You can connect any lines to the bus by switching the small red switch at the end of the line.

Kommutator is a patch panel — use pin-patches to interconnect different lines and make as many passive signal splitters as you like.

Kommutator comes in two versions — Kommutator and Kommutator-lite. The difference is only in furniture used (and weight added). Kommutator has custom-made banana jacks and Soma pins, Kommutator-lite comes with generic banana jacks and screw pins. There is no difference in functionality between those versions.

### Features

- 20 independent conversion lines
- 2 signal busses
- dedicated ground bus



## **Basic principles**

Kommutator allows you to convert different connection types and play with CVs of different systems in one setup. Lines are cross-isolated, so you can use neighboring lines to route CV and audio.

Kommutator has pre-wired connection lines, as shown below.

Kommutator can also be a patch-panel. You can use pin-patches to multiply or interconnect different lines.

Here you can see how pre-wired routes look like when all the switches are in on positions. The whole Kommutator looks like 2 giant adapters now.



Each Eurorack socket is connected to others in its corresponding line via the tip, except those marked as "4".

"-\_\_" marks the ground bus lines. Their Eurorack sockets are connected via sleeves.

When the switch on the ground bus is on, its ground signal is routed to every Eurorack socket on the Kommutator.

There is no difference between pre-wired lines. They all act exactly the same, excluding "4" lines: those are for cross-system grounds interconnection.

Kommutator also has two buses - these are the horizontal connections in the middle. You can connect a line to the bus by turning its switch to on.

#### Warning!

There are no buffers or other alternating elements in the Kommutator. Please, carefully check the specifications of your systems before patching anything - you can easily burn your stuff out.

#### How to use the Kommutator

- patch your Eurorack system with your Buchla system.
- patch your Soma system with your Serge system.
- patch it all together.
- explore some new sounds.
- create a composition with these sounds.
- add an old analogue oscilloscope to the patch.
- create some lissajous figures.
- design a device that controls light in accordance with a CV input.
- patch the breadboard to Kommutator
- reach enlightenment.

#### How not to use the Kommutator

- do not use Kommutator under the water
- we recommend not to use Kommutator for high voltage
- do not disassemble the Kommutator (there is just no reason to do that)

- carefully check all the voltage requirements over all your systems. Kommutator is a simple passive tool and no protection means are implemented. With the flexibility comes the user's expertise requirement.