# KØMMANDER

## CV/GATE MOTION CONTROLLER

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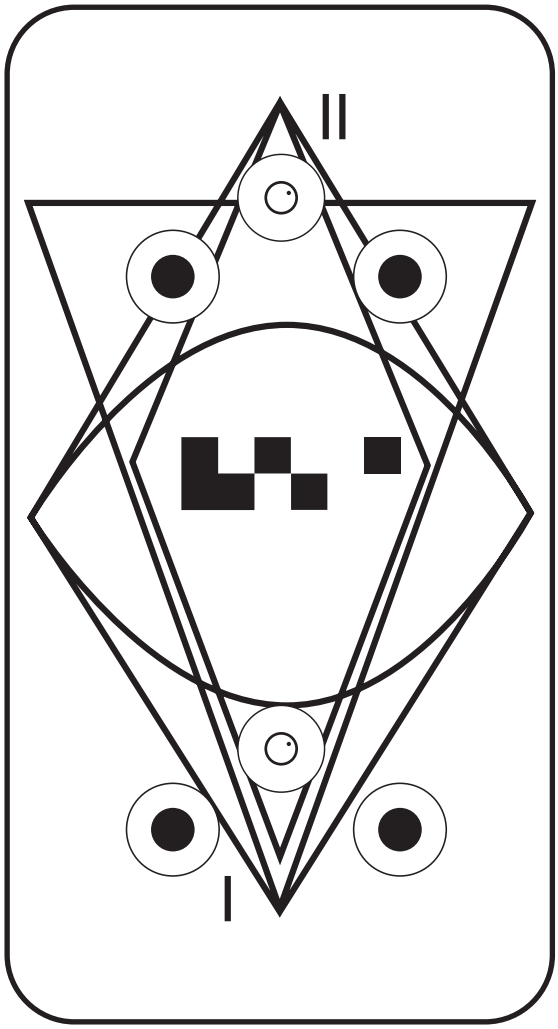
## USER MANUAL

The KOMMANDER is a CV/Gate motion controller. It gives you dynamic access to any of your CV/Gate controllable instruments. Instead of turning knobs and pushing buttons, the KOMMANDER allows you to control your instruments by moving your hand, or foot...
The KOMMANDER offers two sensors with two voltage outputs each, so you are able to control up to four parameters at the same time.




## Connections & Controls

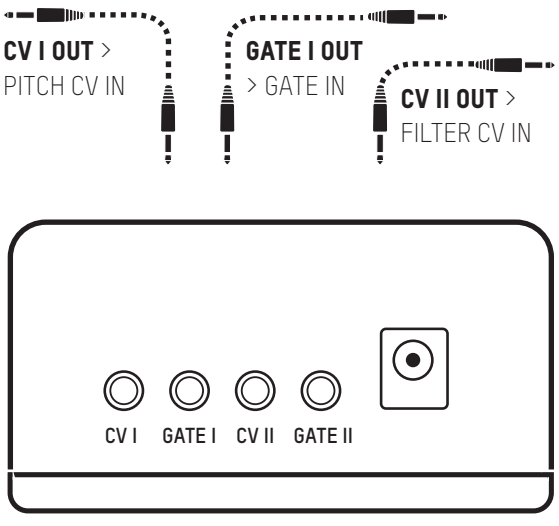
### (1) MOTION SENSORS

The KOMMANDER has two motion sensors, which have three LEDs each. The two outer ones emit infra red light, the one in the middle receives the light that is reflected. You might use different surface textures to reflect the light. It can be your hand, but also a shoe sole or a piece of paper etc. Different textures reflect light in a different way. Some work better than others. Fluted shoe soles sometimes just need a piece of duct tape to work well with the KOMMANDER. Just play around with it and you'll find your ideal setup!

### (2) CV/GATE

The KOMMANDER offers four Control Voltage (CV) outputs. These are positioned at the back of the unit. CV I and CV II outputs put out control voltage depending on the motion detected by the sensor. GATE I and GATE II will constantly put out the maximum voltage as soon as you move your hand above the sensor. Note: If you move your hand above Sensor I, it will affect CV I and GATE I. When you move your hand over Sensor II, CVII and GATE II will output a voltage.

**EXAMPLE CONNECTIONS**




## Getting Started

**1. POWER UP**

Power up the KOMMANDER with a "9V Boss Style" power supply (500 mA). The polarity of the tip has to be negative.

**2. CONNECT**

Connect the CV/Gate outs to the instrument you wish to control.

**3. PLAY**

Move your hand or something similar towards the sensors of the KOMMANDER and go nuts!

# Tips & Tricks

**CABLE WIDTH**

When you want to use all CV and Gate outputs at the same time, all 4 outputs in a row, we recommend using Doepfer cables. They fit beautifully, 100% guaranteed. We are aware that we are not giving you as a user many options here, but we really needed to make sure the outputs would all fit in the hand held enclosure we had planned... You win some, you lose some...

**CLEANING YOUR KOMMANDER**

Clean with a cloth and rubbing alcohol. We noticed by using a clean toothbrush you can clean up the sensor! We also recommend using a soft or medium one, not too hard.

**REFLECTIVE SURFACE**

Certain rough surfaces may not reflect the light emitted by the sensor. Play around a little bit to see what works best for you. A piece of duct tape over the sole of a shoe might already make a lot of difference!

**PSU RATING**

Make sure the power supply is rated for the line voltage of your country: 120 VAC for the USA, 220 VAC for Europe and most other countries.

# Warranty

KOMA Elektronik warrants its products to be free of defects in materials / workmanship and conforming to specifications at the time of shipment for a period of two years from the date of purchase. During the warranty period, any defective products will be repaired or replaced, at KOMA Elektronik's option, on a return-to-factory basis. This warranty covers defects that KOMA Elektronik determines are no fault of the user.

# Imprint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KOMA Elektronik GmbH
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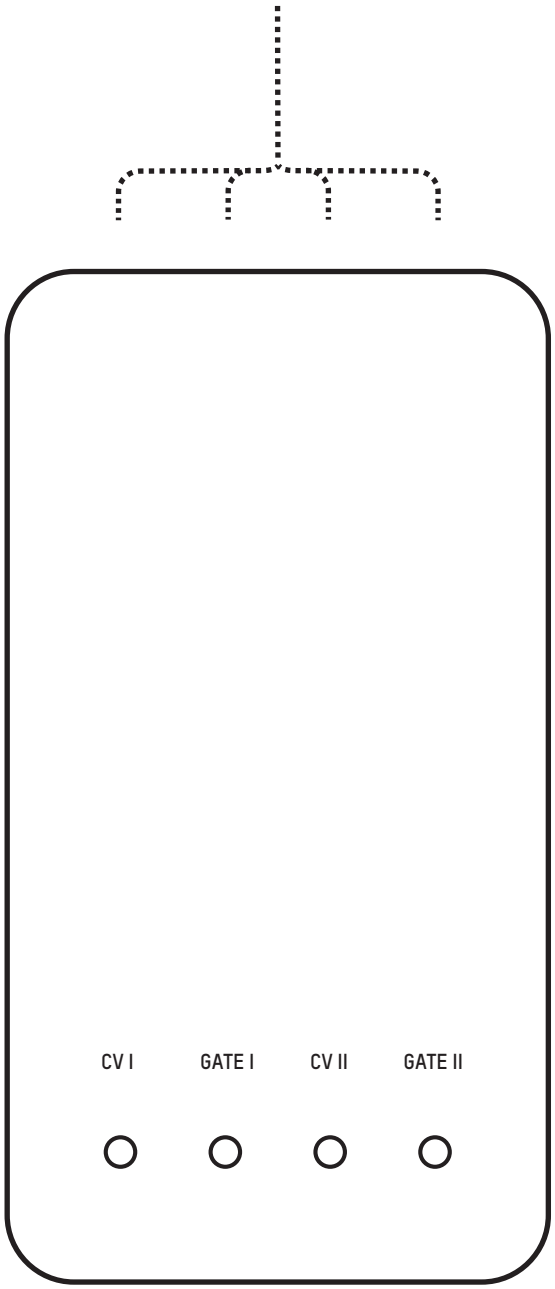
# Back Panel

**(3) TRIMMERS**

On the KOMMANDER's bottom panel you'll find four little holes. Inside are trimmers, which can be adjusted with a small standard screwdriver (philips or slotted). Each trimmer belongs to a CV or GATE output (see picture). The trimmers connected to the CV outputs allow you to attenuate its maximum voltage output, so you can set the range e.g. from 0V to 5V instead of 0V to 8V. Turn your screw driver to the right to increase the maximum CV output, turn it to the left to decrease the maximum output. The trimmers connected to the GATE outputs allow you to control the GATE's threshold. Turn the trimmer to the right to increase the threshold (it will be physically further away from the sensor), turn the trimmer to the left to decrease the threshold (it will be closer to the sensor).




Graphics by: www.rabadaun.com