

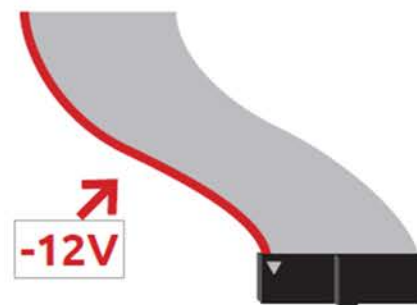
CHOPPING KINKY MANUAL



POWER

THANKS FOR PURCHASING A MODULE FROM BEFACO!
BEFORE YOU PLUG THIS MODULE IN...

1. **DISCONNECT YOUR CABINET FROM THE MAINS.**
2. **TRIPLE CHECK THE POWER CORD POLARITY.** The coloured line on the cable (pin number one) is the -12V rail.
3. If you plug the module backwards you might burn it out and unfortunately this is not covered by our warranty.
4. If you have any questions about this product please send them to:
befacosynth@gmail.com



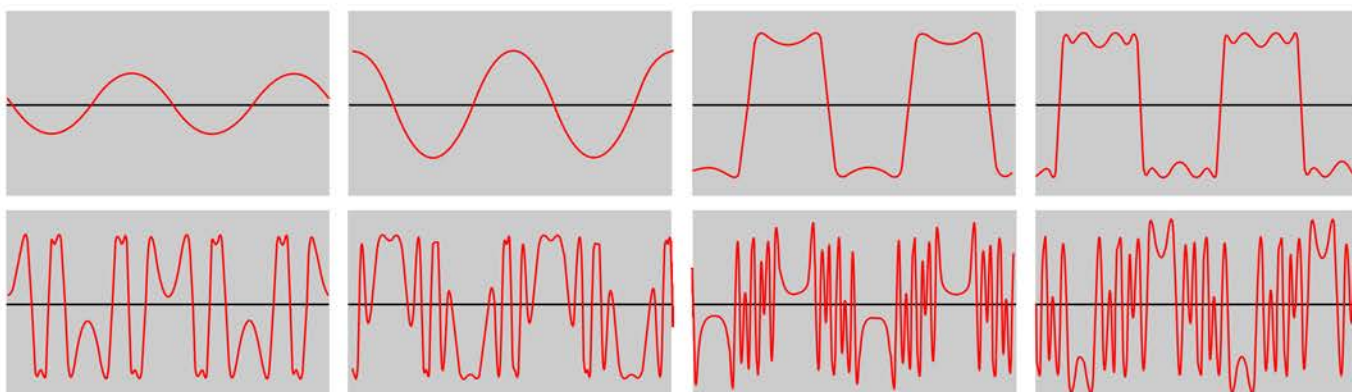
INTRO

THE CHOPPING KINKY IS A VOLTAGE CONTROLLABLE,
DUAL CHANNEL WAVEFOLDER

Each of the module's two channels has a unique wavefolding profile. At each input there are two CV inputs for controlling the level of waveshaping including one that passes through an attenuverter.

A wavefolder converts simple signals into richer and more dynamically changing ones. In contrast to a filter, wavefolding adds harmonic content to the waveform. It works by amplifying the waveform until it begins to saturate, then rather than clipping, the waveform gets folded back in on itself.

The CHOPPING KINKY is DC coupled allowing it to be used for both CV and audio duties; to generate harmonics on an audio signal or kinking LFOs and envelopes.



An example of how a sine wave gets folded several times when its amplitude is increased

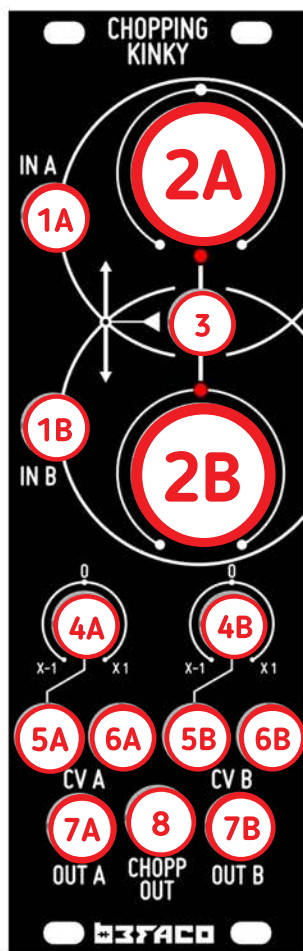
SPECS

EURORACK COMPATIBLE

- Current requirements: 65mA +12V / 55mA -12V
- 8HP
- 30mm depth (including connector).

REFERENCE

AN EXAMINATION AND DESCRIPTION OF THE VARIOUS FUNCTIONS OF THE MODULE



5 A/B. ATTENUVERTER INPUTS FOR CHANNEL CV CONTROL

Inputs to the CV control attenuverters for each channel.

6 A/B. CHANNEL CV CONTROL INPUTS

Another set of CV controls for each channel which are routed directly to the internal VCAs for both channels but bypass the attenuverter.

7 A/B. CHANNEL OUTPUTS

Outputs for channels A and B. This is the end of the signal chain after all waveshaping has occurred.

8. CHOPP OUT

This output will output either channel A or channel B depending on the internal switch and how it is being controlled (see the next page for more information).

1 A/B. WAVEFOLDER CHANNEL INPUTS

Inputs (audio or CV) for the two wavefolder channels. Each channel has its own unique waveshaping profile.

2 A/B. MANUAL GAIN/SHAPE CONTROLS FOR WAVEFOLDER CHANNELS

Manual controls for the two waveshape channels.

3. CHOPP OUT CHANNEL SELECT GATE INPUT

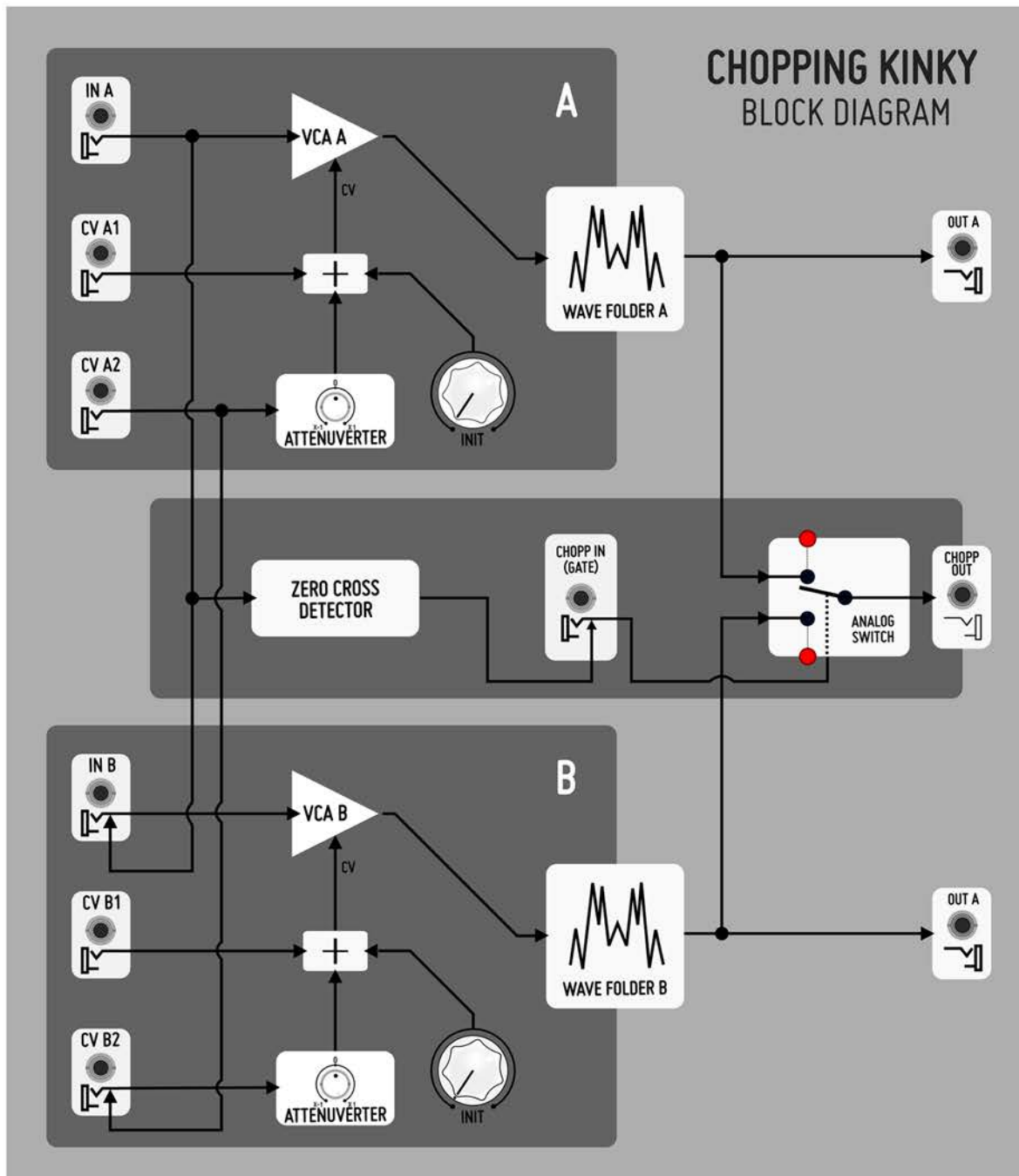
Gate input for CHOPP OUT channel select. When no gate is present CHOPP OUT uses a zero-crossing detector to automatically select channel either channel 1 or 2. A gate at the input will tell the internal analog switch to connect with channel A.

4 A/B. CHANNEL CV CONTROL ATTENUVERTER MANUAL CONTROL

Manual control for each channel's CV control attenuverter.

BLOCK
DIAGRAM

IMAGE SHOWING HOW THE VARIOUS PARTS OF THE
MODULE INTERACT



DESCRIPTION OF THE BLOCK DIAGRAM

In the block diagram above we can see the two separate wavesfolder channels with the CHOPP section between them.

Each wavesfolder has a signal input, IN, and two CV inputs, one of which passes through a attenuverter. The level of wavefolding for each channel is set by the CV inputs and the internal VCAs.

The outputs of each folder also feed to the CHOPP section's internal ANALOG SWITCH. The switch is connected to channel A when a gate is present at CHOPP IN or when the AC voltage of the channel is above zero. Otherwise it is connected to channel B.