

# v3kt

## Read First!

Improper or unsafe installation can cause damage to property or people. Turn off your modular system before installing. Be sure to connect your v3kt to the correct pins on the distribution board, and to connect the power connector with the correct polarity. -12 is labeled on the PCB power connector. If you are unsure of the correct installation of this device, do not attempt installation, seek the help of a qualified technician.

## What the hell did I buy?

The v3kt is a 4 channel morphing vector mixer/distributor/panner.

Add vector synthesis, vector mixing, dynamic signal distribution, and quadraphonic panning of signals + CV sources to your synthesizer in just 6hp!

- Use LFOs, envelopes, sequencers, controllers, etc... to control the v3kt to generate unexpected patch animation from otherwise stale mixes.
- Upgrade your joystick/XY pad to a multi-function vector processor/controller!
- Combine various sources (synth voices, drum machines, radio, samples, spoken word, etc...) to create experimental morphing mixes.
- Create quadraphonic signal panning for surround performances.
- Distribute a signal to 4 separate effects (distortions, delays, filters, etc...) at modulated levels.
- Morph 4 oscillator waveform outputs to reproduce vintage vector synthesis techniques.
- Use as a CV re-distribution continuous logic center to re-imagine your existing CV sources.
- Utilize multiple inputs and outputs simultaneously in all modes to create complex, interactive patches.

**X/Y CV Calibration:** Hold this button while your two X/Y CV sources go from min to max voltages to auto-calibrate the v3kt to their range. For joysticks/pads, move the controller from it's minimum to maximum position on both axis. For LFOs/ envelopes, allow both inputs to cycle through their full range. If you are using a very slow CV source, you may wish to speed it up to speed up calibration. (cal is saved on power off)

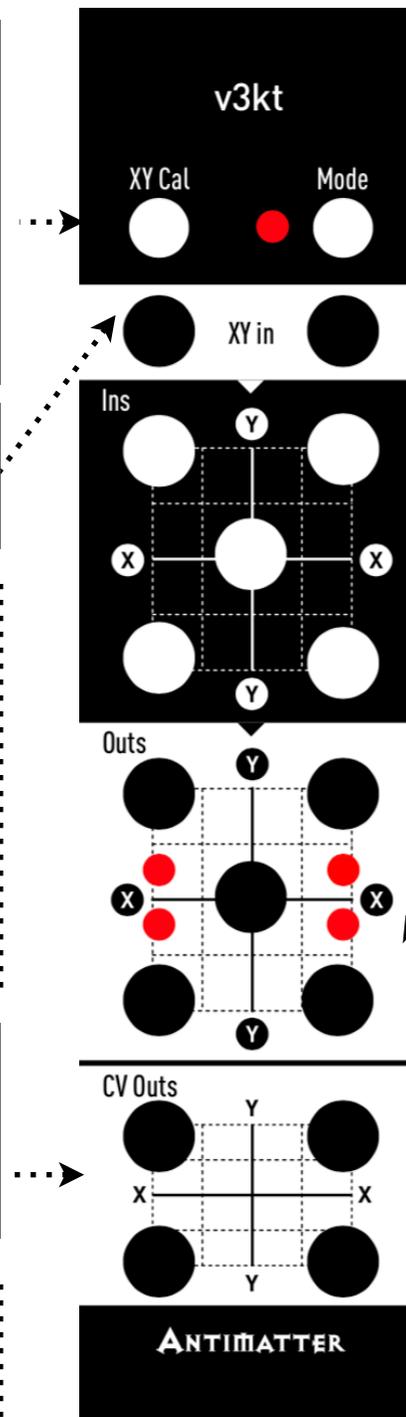
**X and Y CV Inputs:** Use any two CV sources to control the position of the v3kt's outputs/mix. -10 to +10 volt range.

[Patch] Vector mix : Input and calibrate XY inputs as detailed above. Insert any 4 audio sources (oscillators, samples, drum machines, spoken word, radio - get creative!) into the 4 corner input channels. Use the center output as the mix out.

Variations: Use with 4 oscillator waveforms to emulate vector synthesis. Use with 4 CV sources to turn the v3kt into a crazy squid of CV sources!

**CV outputs:** Dedicated 0-5 volt CV outs of control signals used for the 4 channels, use to control other aspects of your patch or use with external VCAs or a VC mixer to create a parallel vector mix or distribution/pan!

[Patch] Quad distribution: Input and calibrate XY inputs as detailed above. Insert one audio or CV source into the center input. Use the four outputs as your 4 distribution outs. Distribute to various processors/voices in your system!



**Mode:** Mode switch selects between two XY methods of plotting (selection is saved on power off). When in doubt, try both!

- XY plot Mode (LED off) = X CV input sets horizontal position, Y CV input sets vertical position.

- Radial Mode (LED on) = The X CV input rotates the output selection in a radial manner, and the Y CV input crossfades to the opposite position. If only X CV input is present on cal, it can morph between the 4 channels without a

**Inputs:** These are the signal inputs for the v3kt to process. Signals can be audio or CV! Insert source signals to 4 corner inputs to mix them to the center output channel, or insert a signal to the center input channel to distribute to the 4 corner output channels.

[Patch] Quadraphonic panning: Input and calibrate XY inputs as detailed above. Insert one audio source into the center input. Use the four outputs as your 4 pan outs.

**Outputs/LEDs:** These are the signal outputs. The 4 corner outs correspond to the corner inputs above. The center output is a sum of the 4 corner outs. The 4 LEDs indicate the position of the v3kt's operation in all modes.

Get experimental: All ins and outs are active in all modes, experiment re-patching various outs in your system, or using the CV outs with VCAs to create a second, parallel vector mix/pan patch!

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