# THONK SYNTH T16 VMX

***VMX*** combines a four-channel mixer, dual VCA, and two-stage cascading VCA in to just 4HP, suitable for both audio and CV signals. Three mixer channels feature individual level controls with up to 1x gain, plus CV control over the main ***MIX*** output. An additional VCA is internally routed as a fourth mixer channel, cascading the two VCAs, or can be used independently by patching from its output.




### LEVEL CONTROLS
Individual level controls for inputs ***A***, ***B*** & ***C***, up to 1x gain.

### INVERT SWITCH
This switch allows you to invert the polarity of channel ***C***.

### VCA INPUT
Signal input to the fourth channel / independent VCA.

### VCA CV
CV control of the signal at ***VCA OUT***.
0V = VCA fully closed.
+5V = VCA fully open.
***CV*** is normalled to +5V, meaning that with nothing patched into here, the VCA is fully open.

### MIX INPUTS
Inputs ***A***, ***B*** & ***C***

### VCA OUTPUT
Signal output of the independent VCA. With nothing patched here, this signal is fed into the mix section as a fourth input. Patching a cable here disconnects it from the main mix.

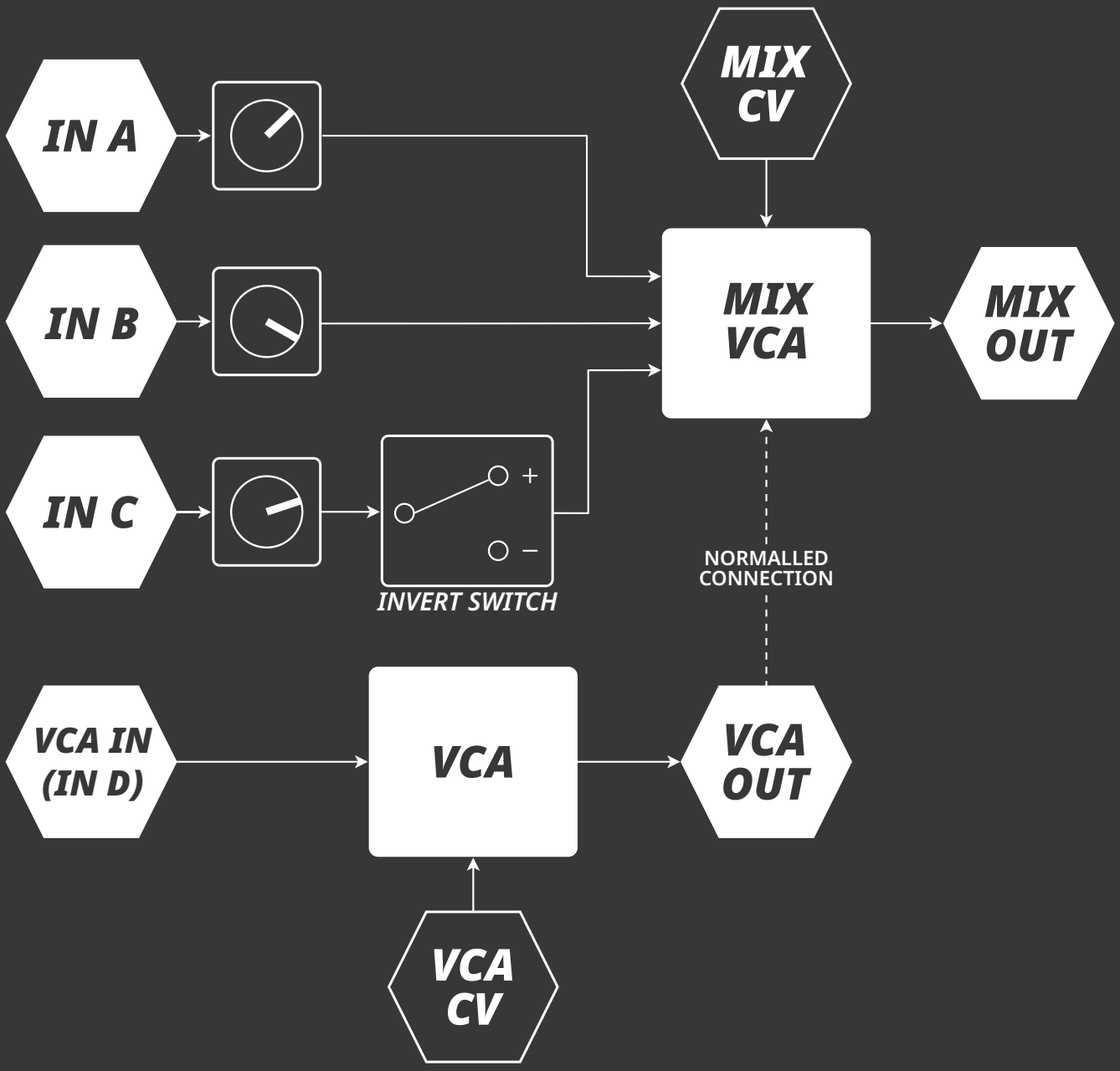
### MIX CV
CV control of the overall output level.
0V = VCA fully closed.
+5V = VCA fully open.
***MIX CV*** is normalled to +5V, meaning that with nothing patched into here, the VCA is fully open with the module acting as a simple mixer.

### MIX OUTPUT
The combined output of inputs ***A***, ***B*** and ***C***, plus the internally routed ***VCA*** signal. ***MIX CV*** controls the level of this output.

### SPECS
**Width** 4HP
**Depth** 34mm (inc. power connector)
**+12V** 20mA
**-12V** 20mA
**+5V** 0mA

### MODULE INSTALLATION
1. Ensure your Eurorack system is powered off.
2. Locate the red stripe on the included power cable, and plug the 10-pin connector onto the power connector on the back of the module, making sure the red stripe lines up with the "**RED**" text on the back of the module.
3. Plug the other 16-pin end of the power cable into your busboard, double checking that the orientation is correct.
4. Screw the module into the rails using the included mounting screws.
5. Turn on your Eurorack system and start mixing!

## SIGNAL FLOW


IN A
IN B
IN C
MIX CV
MIX VCA
MIX OUT
+
–
INVERT SWITCH
NORMALLED CONNECTION
VCA IN (IN D)
VCA
VCA OUT
VCA CV