

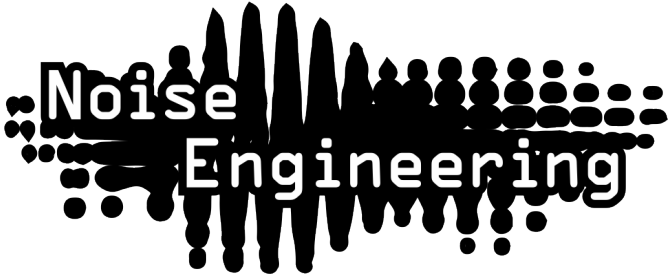
Noise Engineering

Vice Virga

8-input, 8-output sequential/addressable switch with manual, trigger, and CV control, plus three grouping options, multiple switching directions, and randomization.

Overview

Type	Sequential switch
Size	8 HP
Depth	.8 inches
Power	2x5 Eurorack
+12 mA	40
-12 mA	20
+5 mA	0



Vice Virga is an 8-input, 8-output sequential/addressable switch with a plethora of features and extensive patchability. Vice Virga can be configured as a single 8-channel switch, two 4-channel switches, or four 2-channel switches. Equal parts automated patch arranger and performance tool, Vice Virga has loads of switching control options. Whether you want to chain sequencers, swap outputs on an oscillator, remix a trigger pattern, or mix up every connection in a patch just to see what happens, Vice Virga can do it!

Etymology

Vice – from Latin: “Alternately”

Virga – from Latin: “Switch”

“Alternating Switch”

Power

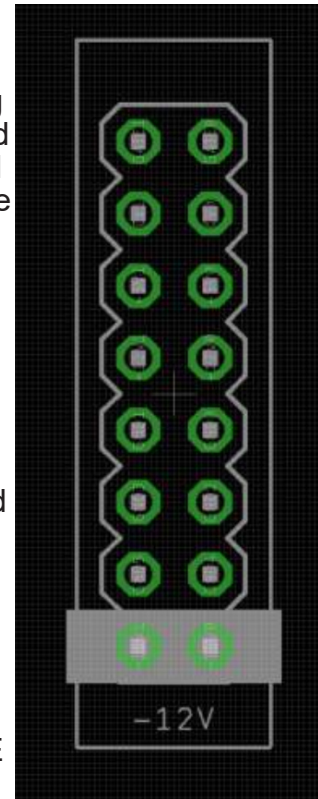
To power your Noise Engineering module, turn off your case. Plug one end of your ribbon cable into your power board so that the red stripe on the ribbon cable is aligned to the side that says -12v and each pin on the power header is plugged into the connector on the ribbon. Make sure no pins are overhanging the connector! If they are, unplug it and realign.

Line up the red stripe on the ribbon cable so that it matches the white stripe and/or -12v indication on the board and plug in the connector.

Screw your module into your case BEFORE powering on the module. You risk bumping the module's PCB against something metallic and damaging it if it's not properly secured when powered on.

You should be good to go if you followed these instructions. Now go make some noise!

A final note. Some modules have other headers -- they may have a different number of pins or may say NOT POWER. In general, unless a manual tells you otherwise, DO NOT CONNECT THOSE TO POWER.



Warranty

Noise Engineering backs all our products with a product warranty: we guarantee our products to be free from manufacturing defects (materials or workmanship) for one year from the date a new module is purchased from Noise Engineering or an authorized retailer (receipt or invoice required). The cost of shipping to Noise Engineering is paid by the user. Modules requiring warranty repair will either be repaired or replaced at Noise Engineering's discretion. If you believe you have a product that has a defect that is out of warranty, please contact us and we will work with you.

This warranty does not cover damage due to improper handling, storage, use, or abuse, modifications, or improper power or other voltage application.

All returns must be coordinated through Noise Engineering; returns without a Return Authorization will be refused and returned to sender.

Please contact us for the current rate and more information for repairs for modules that are not covered by our warranty.

Interface

Reset: Resets VV to step 1, or the value set by the offset CV/encoder.

Adv (button): Advances a step each time it's pressed, following the Adv and Beh settings.

Offset: Manual offset control. Each encoder click moves up or down one step, no matter the mode. Tapping the encoder resets the offset. Offset changes where VV resets to when Reset is pressed/triggered.

Grp (Group): Changes the switch grouping.

- **8:** A single 8-input, 8-output switch.
- **4:** Two 4-input, 4-output switches.
- **2:** Four 2-input, 2-output switches.

Beh (Behavior): Changes switch-routing behavior.

- **Seq:** VV advances outputs sequentially following the selected Adv direction each time Advance is pressed/triggered. When VV is reset, the input/output routing is initialized: In 1 goes to Out 1, In 2 goes to Out 2, etc., respecting any offset.
- **1>1?:** VV advances outputs randomly, respecting the Grp setting, and only allowing inputs to be routed to a single output. The Offset encoder/CV offsets the randomized routing. When VV is reset, the input/output routing is initialized: In 1 goes to Out 1, In 2 goes to Out 2, etc., respecting any offset.
- **1>x?:** VV advances outputs randomly, respecting the Grp setting but allowing inputs to route to any number of outputs (including 0). The Offset encoder/CV offsets the randomized routing. When VV is reset, the input/output routing is initialized: In 1 goes to Out 1, In 2 goes to Out 2, etc., respecting any offset.

Adv (switch): Changes the direction VV advances in Seq mode when triggers are received at the Advance jack, or the Adv button is pressed.

- **Fwd (Forward):** VV advances from top to bottom.
- **Rev (Reverse):** VV advances from bottom to top.
- **Pen (Pendulum):** VV advances from top to bottom to top again.

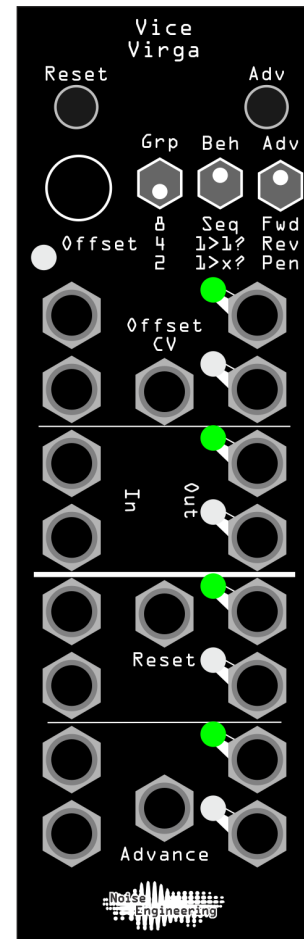
Inputs 1-8: Switch inputs. Suitable for CV, gates/triggers, and audio.

Outputs 1-8: Switch outputs. Suitable for CV, gates/triggers, and audio.

Offset CV: CV input for offset. Offset changes where VV resets to when Reset is pressed/triggered.

Reset: Trigger input for Reset. Resets VV to step 1, or the value set by the offset CV/encoder.

Advance: Advances the switch, following the Adv and Beh settings.



Patch Tutorial

Patch 1: Rhythmic audio

Patch a module with multiple outputs (like an oscillator with multiple waveforms, or a filter with multiple filter outs) to the top inputs on Vice Virga. Patch Out 1 to your monitor, and set Grp to the appropriate setting for the number of inputs you have (for instance, if you have 2 outputs on your filter, set Grp to 2; if you have 4 outputs on your oscillator, set Grp to 4, etc).

Patch a trigger pattern to Adv, and VV will rhythmically swap between your sounds.

Patch 2: Trigger remix

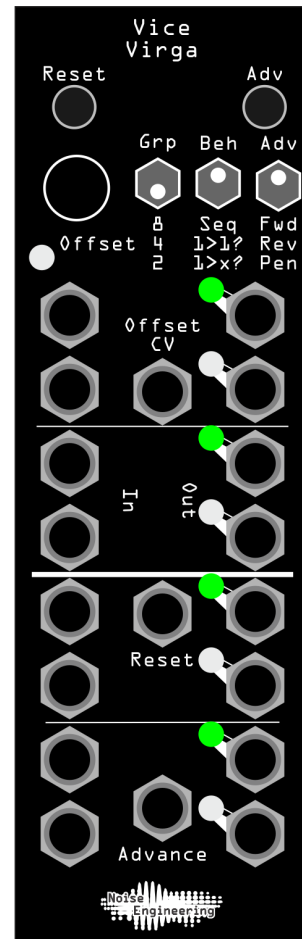
Patch 8 trigger sequences into the Vice Virga's inputs. Patch outputs 1, 3, 5, and 7 to some drums. Set Grp to 2. Use the Adv button or the encoder to swap between patterns, and try out 1>x? mode to completely randomize your drums with each advance.

Patch another trigger sequence or a clock divider to Advance to automate pattern swapping.

Patch 3: Extended sequencer

Patch a multi-output sequencer like Mimetic Digitalis, or multiple individual sequencers, to Vice Virga's top four inputs. Set Grp to 4. Patch Out 1 to your sequencer destination. Patch a clock divider to Adv; set the division to match the number of steps in each sequencer (for example, if using Mimetic Digitalis, set your divider to /16). Your sequence will now be as long as the combined length of all sequencers used.

Find more patches in the Vice Virga patchbook.



Input and output voltages

VV's CV input has a 0v to +5v range; voltages outside this range will be clamped to 0 or 5V.

Trigger inputs trigger around +3.5v.

The main inputs and outputs can be used with any type of signal from -10v to +10v.

Design Notes

Vice Virga has existed, in some form or another, longer than Noise Engineering.

The first prototype was designed around the time of the conception of Ataraxic Translatron, at the suggestion of NE friend Skyler King, aka Kittyspit. Sequential switches have been a modular synthesis staple for over 50 years, and we thought it would be fun to put our own spin on one.

Once the basic VV featureset had been ironed out, we built a prototype. The first one was built back in the days when this was just a hobby that Stephen had when he locked himself away in a spare room in the house (okay he still does that part but now he does it for more hours per day and there are a bunch of us yammering at each other on Slack the whole time). That first one languished for literally years until we dusted it off and said hey, let's do something with this! This was in the days before we had Markus, our Chief of Destruction, so we sent it off to our pal Jon for test. He found a massive design issue though...and it once again languished while other things just seemed to always take priority.

Eventually we pulled it out again, dusted it back off, and said hey, this should be an easy fix! Some hot air later and we had a redesign. And it was, again, awesome, but another small but important issue was found in testing. This one was more nefarious and a real pain. Parts were added. Parts were removed. Measurements were taken. Many measurements were taken. So many measurements. A few tears may have been shed. And then!

Finally! We had a final prototype in early 2020. We were so excited we told people about it a little later that year. Unfortunately, 2020 had other plans for us: we announced Vice Virga with great fanfare, but were unable to actually manufacture it until September of 2021.

Vice Virga is a simple module under the hood but is complex in what it can do. It was a challenge, a process, and an enigma for us in many ways, but we're very proud of how it turned out. It seems like every time we patch it up, we find a new and interesting use for it. It's got quite a story; we think it's pretty cool, and we hope you'll enjoy yours, too.

Special Thanks

Skyler King, aka Kittyspit

Jon Barbieri

Everyone who kept asking and hoping for it for all this time.