Torus - User Manual

Firmware 0.0.2

Dictionary

- CV - control voltage

Hardware

- 16 HP
- 35 mm deep
- 100 mA +12V
- 40 mA -12V
- 0 mA 5V

Usage

torus is an overdub looper for harmonic playback. it offers four, 16-step pattern banks for sequencing as well as other sample manipulation techniques. it was designed to bring daw recording workflows (sample reversing, pitch shifting, sequencing, etc.) to eurorack cases.

Inputs:

Note: CV inputs do NOT have a circle graphics around their hex nuts

- **a, b, c, d -** buttons for choosing the current pattern. when combined with chain, these buttons can be used to sequence a pattern chain. individual chains can be support 16 steps and are kept in sync with torus's global clock.
- **chain -** button for chaining behaviors. chain + a, b, c, d can be used to sequence a pattern chain. chain + record can be used to record multiple patterns in series and then chain playback. chain + clear can be used to clear all recorded patterns. chain + tap can be used to reset the current pattern when it contains recordings.
- **mix -** knob and cv used to blend between the input signal and the recorded pattern.
- **record -** button and gate in for turning on and off recording. when a pattern is not recorded, record will turn on and in sync with the clock. when a pattern is recorded, record will immediately turn on and off overdubbing.
- **oct -** buttons for octave shifting pattern buffer playback. oct buttons can be used to clock divide/multiply an input clock signal.
- **reverse -** button and gate in for reversing buffer playback.
- **harm -** knob and cv for choosing harmonic pattern playback speeds. playback speeds include both integer clock multipliers and perfect intervals.
- **tap -** button for tapping in tempos for the internal clock. tap will repeat the current note when the current pattern contains recordings. combine with chain to reset the entire pattern when the current pattern contains recordings.
- **clear -** button and gate in for clearing the current pattern. combine with chain to clear all recorded patterns.
- **clock -** gate in for clock syncing. if the current buffer contains a recording and the system clock is following an external clock signal, the system clock will wait for the external clock signal to continue buffer playback. clearing the buffer recording will cause the system to return back to its internal clock.
- **in l and in r -** audio input, left will be converted to stereo if there is no right input.

Outputs:

Note: CV outputs have a circle graphic around their hex nuts

- **harm out -** gate output mapping to harmonic playback resets. this gate output will range from 1-16x the clock out frequency depending on the harm knob/cv value.
- **clock out -** gate output for the global clock. the output gate frequency will be 0.25-4x the input clock speed based on the oct button state.
- **reset -** gate output when the current pattern has reset.
- **out l and out r -** audio output

Additional Resources

https://github.com/rawyawmedia/eurorack/tree/main/firmware