Voice of Saturn Sequencer Operating Manual

- For support, please visit CuriousInventor.com/forums
- Full schematics, assembly instructions are at: CuriousInventor.com/kits/voice_of_saturn_sequencer

What is a sequencer? A Sequencer is a tool used to "play" other instruments. It outputs a Control Voltage and Gate signal that can be used by other synths, drum machines, etc., to create sound. It does not create any sound on its own. Check out http://en.wikipedia.org/wiki/CV/Gate for more information.

Features: This sequencer has 10 steps that output a control voltage from 0V to about 7.5V (battery – 1.5V). It also has a gate output, S-trig'd gate output, clock I/O, and reset jack to shorten the sequence.

Hold Switch: While the Clock is OFF, toggling this will advance one step.

Inputs / Outputs:

CV Out: Control Voltage output. For each active step (step switch is "up"), this jack outputs a voltage set by that step's knob. The voltage ranges from 0V to about 7.5V (battery – 1.5V.

> **Hz/Volt (Yamaha), Volts/ Octave (Roland): Neither!** The output is just voltage, so the range of pitches you will get when you plug this into a synth depends on that synth. You'll get just short of 3 octaves with Yamaha implementations, and well over 5 octaves with Roland implementations. When plugged into the VoS Synth, you will get non-linear chaos.

Gate Out: This signal is generally used to trigger VCA's on a synth (often to start a note sounding), while the control voltage affects the pitch. The Gate output is off until an "on" event happens, then it steps up to about 7.5V. The voltage steps down again half way through the step, so two on steps in a row will trigger (on kits shipped before 8/10/09, only the first note in a group of "on" steps would trigger)**.**

S-trig Out: This is somewhat of the opposite of the Gate Output voltage. When connected to an appropriate device (some Moog, Korg), it goes from N.C. (not connected) to ground when a switch is "on."

Clock I/O: When the Clock is ON ("up"), a square wave comes out of this jack. When the Clock swith is OFF, an external clock singal can be plugged into this jack to drive the sequencer. In this way, you could sync two sequencers by setting the Clock switch to off on one of them, and connecting their two Clock I/O jacks. **Warning:** Connecting two sequencers with Clock I/O's in the ON position will break things.

Reset: Connect a wire between this jack and one of the **step jacks** to shorten the sequence. You can also connect an external device (another sequencer's clock, for instance) to this jack to reset the sequence to step 1 externally.