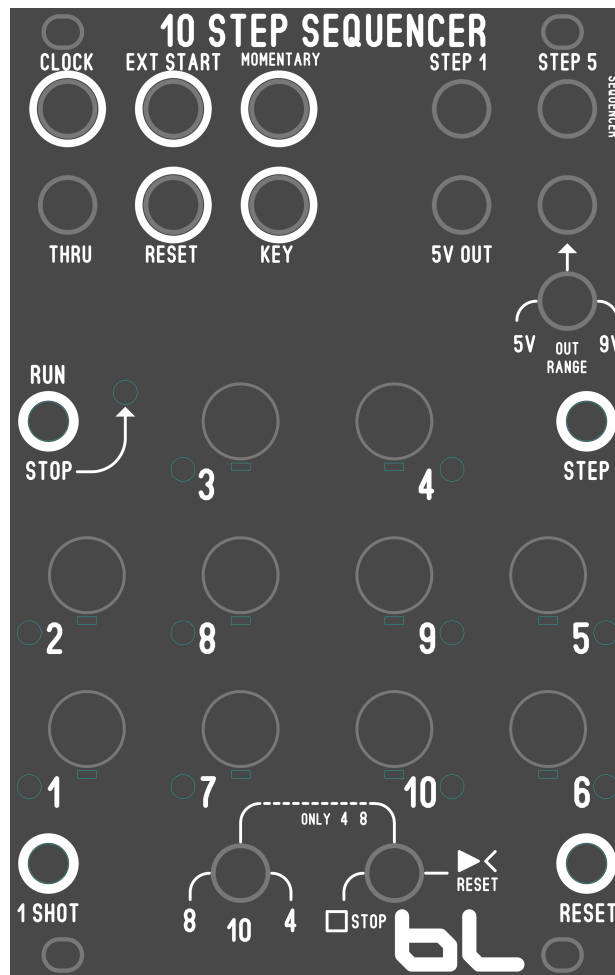# 10 STEP SEQUENCER

This is the reference manual for the Blue Lantern Modules 10 STEP Sequencer.

Let's make sure you got the right PDF, it looks like this.

I will explain all the jack inputs on the top.

-CLOCK input. This is an input that can take the following: Square, trigger, pulse, triangle, sine, saw, ramp, and noise signals. The best waveform would be a square or pulse wave.

-THRU output. This is a passive connection connected to the clock input jack. This is used to daisy chain your clock signal to more modules.

-EXT START. When the run/stop button is initiated, and the sequencer is at a stop. This will externally start the sequence. Use a Trigger type of signal. You can use a midi to cv gate signal for example, and LFO, or envelope generator on the right settings would work also. 1 Shot button located on the bottom is a manual 'EXT Start' trigger button.

-MOMENTARY input. When this input is 'HIGH', meaning +5v for example, the clock signal you have patched will step the sequence for the duration of the 'HIGH'. All of this effect is used when the

sequencer run/stop LED is 'ON' meaning the sequencer is stopped. You are momentarily letting it sequence with this 'MOMENTARY' input. You have to have a clock signal patched in.

-RESET input. This returns the step sequence back to step 1. Use a trigger signal.

-KEY input. This is a sum input, letting you modulate, or mix voltages with the sequencer output. You can for example use a midi to cv converter and use your keyboard to transpose the sequence. Signals on this input can be LFO, VCO, MIDI to CV, etc.

-STEP 1 output. This output goes 'HIGH' when it is on step #1. You can use this to trigger or activate another module every time the sequence lands on STEP 1.

-STEP 5 output. This output goes 'HIGH' when it is on step #5. You can use this to trigger or activate another module every time the sequence lands on STEP 5.

-5V OUT. This is the sequencer output that can be 0-5V depending on the knob position(s).

-5V or 9V out. This is the sequencer output that can be 0-5V or 0-9V depending on the knob position(s) and the toggle selector switch 'RANGE'.

BUTTONS

-RUN/STOP. There is a led to let you know when the stop is activated. This button will stop or run the sequence, according to the clock signal patched in the clock input jack.

-STEP Button. When the clock is stopped, this button will manually advance you forward counting up in the sequence.

-1SHOT button. This will manually start the sequence when it is on a stop state. This function is useful when you have the toggle switch mode set to 'STOP @'.

-RESET button. This button manually returns the sequence back to step #1.

Bottom Toggle switches.

8/10/4 Toggle Switch. This determines how many steps for the sequence. In the middle position is full 10 steps. Other modes are 4 step or 8 steps.

STOP or RESET AT Toggle Switch. This only works with 8 or 4 step sequencer mode. 10 step will not have any result with this toggle switch. You can have for example: sequence 4 steps, stop at step#5. Sequence 8 steps, stop at step#9. Reset on step #4 or reset on step #8.

When using the STOP mode. The sequencer will stop on the next step. 4 and STOP will result with stop on step#5. 8 and STOP will result with stop on step#9.

Why was this made?

The purpose of the module was to use this as an accent sequencer for the BLM APE Module. So this was meant to be a velocity kind of module to affect the dynamics of a vca. You can use this also as a melody sequencer to affect a vco's pitch.

The 0-9V range is meant to overdrive a VCA.

Trimmers:

20K Trimmer. This is used to adjust output 5V. This is located to the side, left.

20K Trimmer #2. This is used to adjust output 9V. This is located near the center.