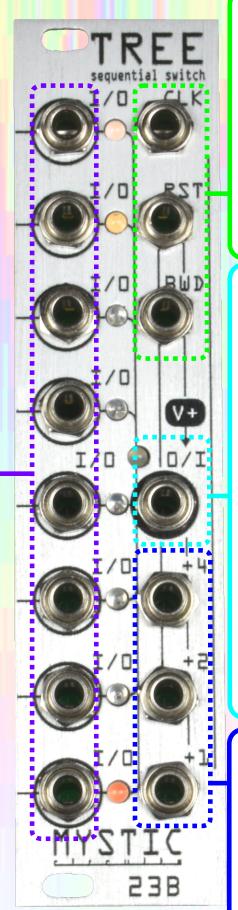
# TREE QUICK START GUIDE

#### COMPLEX SEQUENTIAL SWITCH:

A sequential switch with 8 positions that yields limitless paths between them, driving Tree with multiple clock sources can automatically create new sequences not easily made by hand. The clock, reset, and backwards inputs drive TREE like a normal sequential switch with control over the direction of the sequence, whereas the "shift" inputs perform binary addressing of the steps with all 6 clock inputs available for simultaneous use.

### SWITCHED INPUT/ OUTPUTS:

These jacks are bidirectional nodes that can act as either inputs or outputs depending on what is patched in. Only one of these nodes is active at a time, signified by the LED next to the jack being illuminated. This active node is connected to the common input/ output until the active step changes to another node at which point the previous node is disconnected. With nothing plugged into the common node, these jacks will all output gates.



### CLOCK RESET AND BACKWARDS INPUTS:

These gate inputs set the current position of the sequence. Clock will step the active switch down by one, reset will jump the active step to the top step immediately. When the backwards input is high, incoming clocks will instead step the active switch upwards.

## COMMON INPUT/ OUTPUT:

Also referred to as the "common node", whatever is connected to this jack will be connected to the active switch on the other side. This connection is bidirectional, so patching this jack to an input will switch between different outputs on the other side, while patching this jack to an output will switch between different inputs on the other side. The bipolar LED next to this jack indicates the current voltage level at this node, with green being positive and red being negative. Leave this jack unpacched to use TREE as a gate sequencer.

#### SHIFT INPUTS:

These inputs modify the current position of the sequence while they are on but return to the original position when they are off. When a gate is present at one of these inputs, the current step will shift by 4, 2, or 1 respectively. These shift inputs add together to enable binary addressing of all 8 sequence positions.