ALM-007

`Boss Bow Tie'

- Operation Manual -

Introduction

'Boss Bow Tie' is an 8 way bidirectional voltage controlled switch. An input 'I/O' signal is mapped to an output 'I/O' via a corresponding control voltage. As bidirectional, this can be either 1 of up to 8 inputs into a single output or a single input into 1 of up to 8 outputs. The control input features both an attenuverter and offset to precisely select which of the 8 I/O's are available to be 'switched'. A normalized 'Gate' input enables and disables the switch allowing for rhythmic and other effects.

The module is intended primarily for flexible routing of CV signals. Though audio signals will work - audible clicks can sometimes be apparent when switching I/O's.
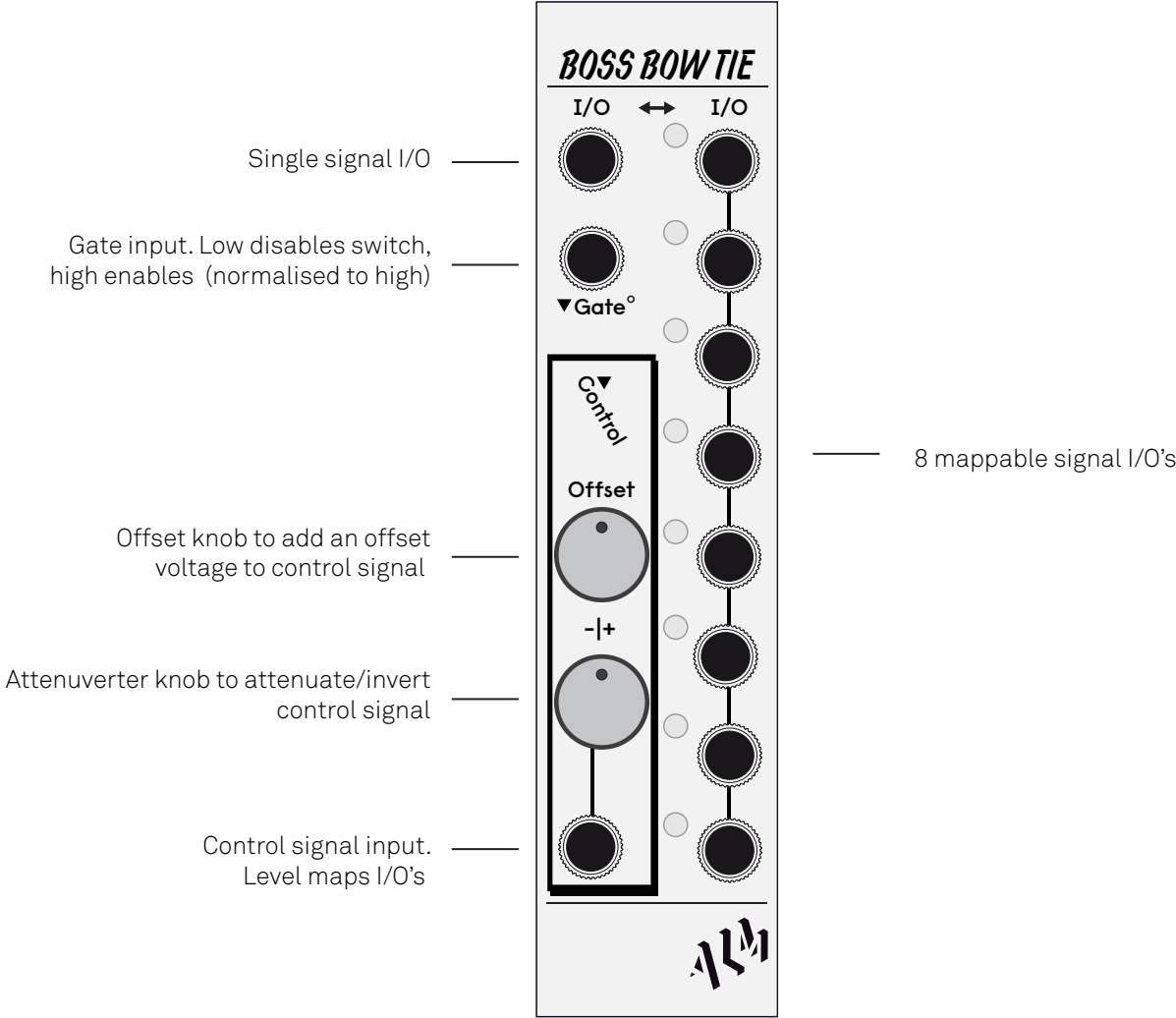
- 8 way bidirectional voltage controlled switch.
- 1 input into any 1 of up to 8 outputs -or- 1 of up to 8 inputs into a single output.
- Attenuverter and Offset controls for control voltage input
- Normalized 'Gate' input to enable/disable switch.
- Fast switching up to audio rates.
- Reverse polarity protection.
- Skiff friendly.
- Designed and Made in the UK.

Technical Specifications

- Supply: *+/-12V*
- Current Draw: *~50ma*
- Size: *6 HP*
- Depth: *32mm (including power header)*

Core Operation

Panel Layout

BOSS BOW TIE

Single signal I/O

Gate input. Low disables switch, high enables (normalised to high)

8 mappable signal I/O's

Offset knob to add an offset voltage to control signal

Attenuverter knob to attenuate/invert control signal

Control signal input. Level maps I/O's

I/O ↔ I/O

▼Gate°

Control ▼

Offset

-|+

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General Usage

'Boss Bow Tie' is an 8 way bidirectional voltage controlled switch. The switch connects the left 'I/O' to one of the right "I/O's allowing a signal to then flow in either direction. Which of the I/O's are 'connected' is dependent on a control voltage applied to the control input together with the offset and attenuverter setting.

The offset adds a voltage to the incoming control voltage. This, for example, is useful for moving a negative going LFO 'up' to cover the full switch range. The attenuverter both scales the incoming voltage and inverts (turning CCW).

The Gate input disables the switch. When patched, a low signal disables the switch whilst a high enables. It is normalized so the switch is always enabled when not patched.
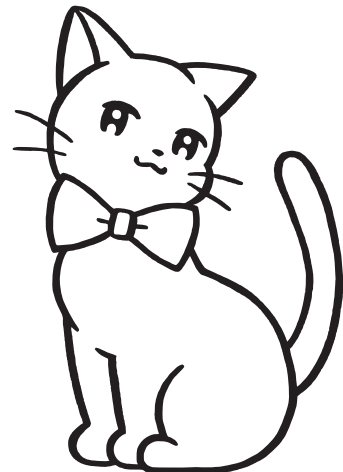
Patch Ideas

Voltage Controlled Transposition - Patch CV sequence to be transposed into Beast's Chalkboard top 'In'. Patch Thru output to Boss Bow Tie (BBT) top right I/O, patch Chalkboard top section output to 2nd BBT right I/O, patch lower section Beast output to 3rd BBT I/O. Set Chalkboard dials to required transposition octaves. Patch BBT left single I/O to Oscillator pitch input. Patch control signal (ie from LFO/other sequencer etc) to BBT control input. Adjust BBT Offset+Attenuverter to limit range of incoming control signal to first 3 I/O's.

Rhythmic sequencing - Patch constant gate (i.e '--' trigger from Pamela's workout) into left BBT I/O. Patch 16th trigger (i.e. '4' multiplier trigger from Pam - widened slightly) into BBT gate input. Patch right BBT I/O's into triggered drum modules/ patches (dupe outs via mults/cables etc). Patch random control signal to BBT control input. Adjust BBT Offset+Attenuverter to taste.

M185 style sequencing - This patch requires at least a dual channel sequencer - i.e for this example we use the Make Noise Brains and Pressure Points. Patch various Pam trigger multiplied outputs (i.e 1,2,3,4) to BBT right hand side. Dupe '1' trigger into sequencer clock. Patch left hand side I/O into envelope generator. Patch sequencer channel 1 pitch output to VCO (which goes to VCA controlled by envelope generator) . Patch channel 2 output to BBT control input and adjust BBT attenuverter so sequencer output range matches number of trigger inputs. Now channel 2 controls the step count for each sequencer stage. Patch can be further varied by changing duped trigger or duping I/O output instead. Experiment with different (or no) trigger values.

Glitchy Waveshape Sequencing - Patch various unique oscillator wave shape outputs to right hand side BBT I/O's. Patch left side BBT I/O to VCA etc. Patch control signal and adjust. Experiment. Run control signal at audio rates.

Limited Warranty

From the date of manufacture this device is guaranteed for a period of 2 years against any manufacturing or material defects. Any such defects will be repaired or replaced at the discretion of ALM. This does not apply to;

- Physical damage arising for mistreating (i,e dropping, submerging etc).
- Damage caused by incorrect power connections.
- Overexposure to heat or direct sunlight.
- Damage caused by inappropriate or mis-use.
- Use of incorrect or non official firmware

No responsibility is implied or accepted for harm to person or apparatus caused through operation of this product.

By using this product you agree to these terms.

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Support

For the latest news, additional info, downloads and firmware updates please visit the ALM website at http://busycircuits.com and follow @busycircuits on twitter.

Please send any questions or comments to info@busycircuits.com