

# MUTON



## SYNOPSIS

**MUTON** (pronounced *MUTE-ON*) is an 8 channel VCA and cascading summing mixer, with click-less mutes.

MUTON is an indispensable tool for performing live and creating a more complex and controllable patch environment. Many direct and mix output schemes are possible due to the cascading nature of the outputs.

## FEATURES:

DC-coupled VCAs for use with control voltages as well as audio signals

Discrete transistor circuitry that may be overdriven for a warm vintage sound. Audiophile grade signal path and output stages for hi fidelity signal processing.

Multiple mixing schemes and output configurations.

Pop-free mutes on every channel.

Please read the manual for Important operational details to fully understand and enjoy the **MUTON**.

### 1 CHANNEL INPUTS

Individual inputs for channels 1 through 8.

Accepts audio and control voltages (DC coupled).

10Vpp nominal signal level. Input may be overdriven beyond 10Vpp to produce a warm saturation at the output.

Channels may be used independently or to produce a summed mix - see below for details.

0 To 35kHz frequency response.

### 2 CONTROL VOLTAGE INPUTS

External control voltages may be used to actuate each channels VCA independently. CV is not necessary for normal unity gain output operation and these inputs can be left un-patched if amplitude modulation is not desired.

A control voltage, such as an envelope with an 8-10V peak will open the VCA completely for unity gain output. Lower voltage CV will also work with a reduction in output volume - in some situations such as mixing, lower volumes may be desired as to alleviate clipping.

Adjusting the volume on the fly can be accomplished in a number of ways.

-Using an external CV or audio attenuator

-Patching a positive DC offset module into the CV input and adjusting the offset (positive voltage only)

-Adjusting the output level of the source signal (audio or CV) if the external module is so equipped.

0 To 20kHz frequency response.

### 3 MUTES

Independent, click-less mutes on every channel.

Analog circuitry provides a fast, auto-fade in/out to remove pops and clicks from the output when a channel is muted or un-muted.

Mute is active when the respective button LED is on. When un-muted, the LED will turn off.

Muting a channel will also remove that channel's output from a summed mix.

All mutes default to being active (LED on) when case power is cycled.

### 4 OUTPUTS

Direct outputs for each channel's VCA and potential summing mix. Various combinations of direct outputs and mixes can be realized.

Mixes are possible by leaving the channel outputs un-patched and patching into the last used channel's output only. Please follow the patch examples below and on page 2 of this manual.

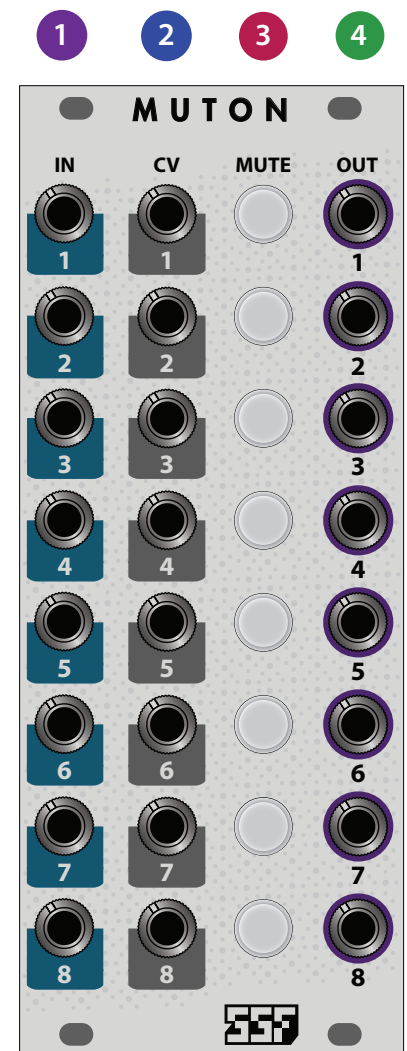
For example, patch some sounds into inputs 1-4. If you only patch from output 4, you will have a mix of channels 1-4 coming out of channel 4.

If you also then patch into channel 3, then channel 4 would be a direct output and channel 3 will have a mix of channels 1-3.

Now move the channel 3 output cable to channel 2. You now have a mix of channels 1 and 2 on output 2 and a mix of channels 3- and 4 on output 4.

Muting any channel in a mix, including the output channel will only mute that channel from the mix. To mute an entire mix, you can patch the output of the mix to an additional channel below.

Please see the patch examples on the following page for a better understanding.



## POWER CONSUMPTION

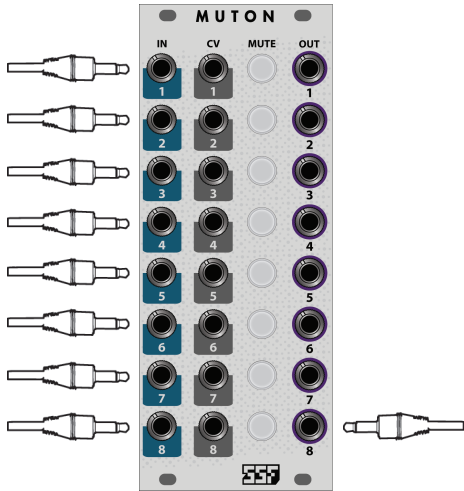
QUIESCENT: +82mA, -75mA

MAXIMUM: +84mA, -101mA

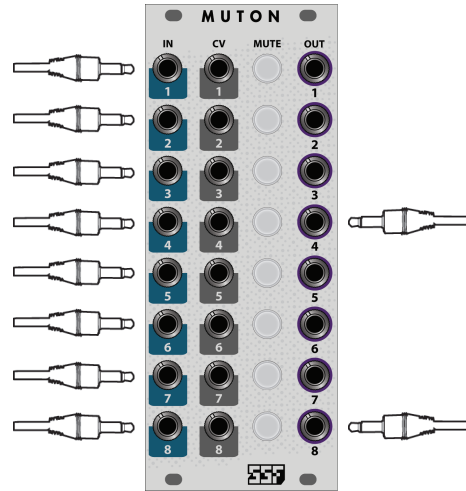
# MUTON

# PATCH EXAMPLES

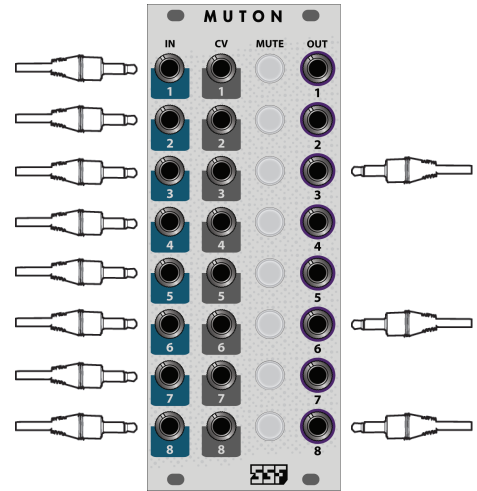
### 8 CHANNEL MIX



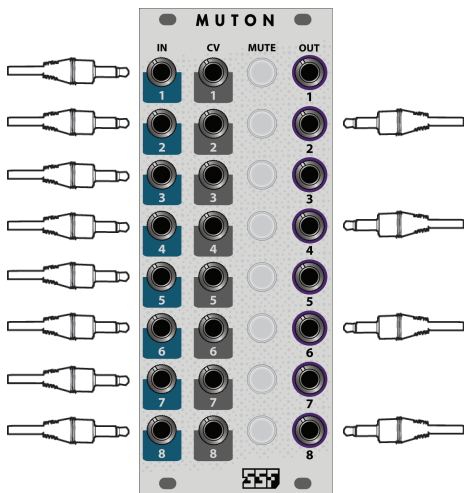
### TWO, 4 CHANNEL MIXES



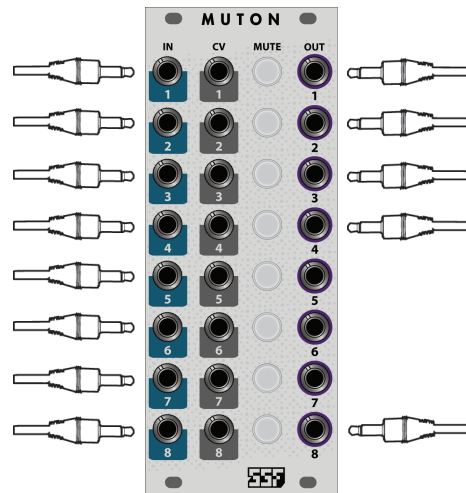
### TWO, 3 CHANNEL MIXES ONE, 2 CHANNEL MIX



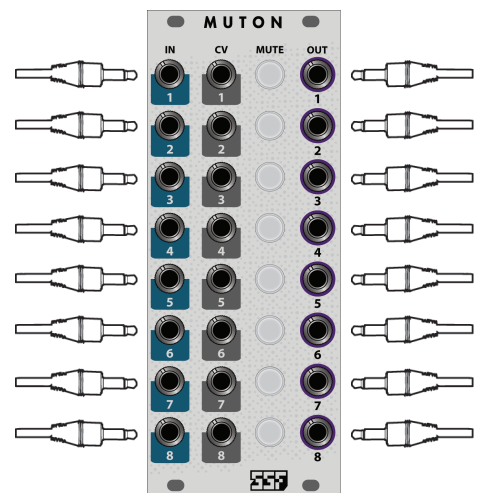
### FOUR, 2 CHANNEL MIXES



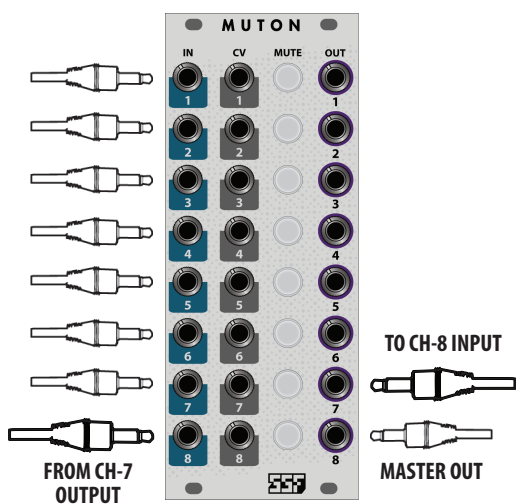
### FOUR, DIRECT OUTPUTS ONE, 4 CHANNEL MIX



### EIGHT, DIRECT OUTPUTS



### 7 CHANNEL MIX and MASTER MUTE



### 4 CHANNEL PRE/POST VCA

