TOOL-BOX

TOOL-BOX is a collection of six useful synthesizer utilities. This module includes a two input voltage summing section, a signal rectifier, bipolar comparator, analog OR (maximum), an inverter, and a voltage controlled toggle switch. TOOL-BOX provides the tools required for spicing up your patches as well as some of the typically overlooked utilities missing from most modular systems.

SUM IN
SUM INPUTS
These are the inputs to the SUM section. Apply a signal to the A and B inputs to add them together. Both audio and control voltages (CV) are accepted.

SUM OUT
SUM OUTPUT
This is the SUM output.

L1
SUM LED
This LED indicates the signal polarity of the SUM output. BLUE is positive, RED negative.

REC IN
RECTIFIER INPUT
Apply a signal with a negative polarity component to this input. The negative portions of the signal will be 'flipped' or rectified into the positive polarity region.

REC OUT
RECTIFIER OUTPUT
This is the output of the RECTIFIER

L2
RECTIFIER LED
Indicates the amplitude level of the original, positive, and rectified portions of the output.

CMP IN
COMPARATOR INPUTS
This section produces a positive pulse/gate when the input signal reaches the threshold of either of the inputs. A DC voltage can be applied with an offset generator (like the S.P.O.) to set a static threshold on either input and a dynamic voltage can be applied to the other input. If only one input is used, the default threshold is set to 0V. Two dynamic voltages can also be used for interesting pulse variations that occur whenever the two voltages match in value. The comparator output can be used to trigger the toggle switch contained within TOOL-BOX or used to gate other modules like envelope generators, drum synths, or as a clock source.

CMP OUT
COMPARATOR OUTPUT
This is the pulse output of the COMPARATOR.

L3
COMPARATOR LED
This LED indicates the pule/gate activity of the COMPARATOR.

OR IN
ANALOG OR INPUTS
ANALOG OR is also known as a voltage maximum. Two signals are applied to these inputs. The two inputs are processed so that only the current maximum values of the two signals passes to the output.

OR OUT
ANALOG OR OUTPUT
This is the output of the ANALOG OR.

L4
ANALOG OR LED
This LED indicates the output amplitude activity of the ANALOG OR.

INV IN
INVERT INPUT
Use this input to invert (flip the polarity) of a signal. All signals are accepted.

INV OUT
INVERT OUTPUT
This is the output of the INVERT section.

L5
INVERT LED
This LED indicates the output amplitude and polarity activity of the INVERTER.

SW IN
SWITCH INPUTS
Apply any type of signal to these inputs and use control voltages (CV) or the A/B SEL button to toggle between which input passes to the output.

SW OUT
SWITCH OUTPUT
This is the output of the SWITCH.

SW CV
SWITCH CV INPUT
Apply an approximately 0-5V (0V=A, 5V=B) control voltage to this input to toggle the SWITCH.

SW SEL
SWITCH A/B SELECT
Use this button to manually toggle the SWITCH.

L6
SWITCH POSITION LED
This LED indicates the current switch position.

L7
SWITCH SELECT LED
Indicates the status of the A/B SEL button and/or CV that is activating the SWITCH.

COLOR KEY LEGEND

- LED INDICATOR
- INPUT
- OUTPUT
- MODE SELECTOR