

# MODBOX

MODBOX is a compact, dual LFO and Sample and Hold output. The first LFO provides 3 phased outputs with three selectable waveforms and voltage controlled LFO rate. The second is a skewing saw-triangle-ramp LFO with voltage controlled rate and skew shape. Both LFO's can be synced to an external source where upon the rate controls the division and multiplication of the sync source. A sample and hold section is normalized to the white noise output for random voltage modulation or an external signal can be patched in for sampling. The S&H clock is normalized to the skew LFO and can be clocked via external sources as well.

**PR** 3 PHASE RATE CONTROL  
Use this control to change the **frequency of the 3-PHASE LFO**. If SYNC is on, this controls division (left of center) and multiplication (right of center) of the external sync rate.

**SR** SKEW RATE CONTROL  
Use this control to change the **frequency of the SKEW LFO**. If SYNC is on, this controls division (left of center) and multiplication (right of center) of the external sync rate.

**SS** SKEW SHAPE CONTROL  
This control affects the **shape of the SKEW LFO**. The shape is continuously variable between sawtooth, triangle and ramp waveforms.

**WS** 3 PHASE WAVE SELECT and SYNC BUTTON  
Button state saves between power cycles and serves two functions:

TAP to change the **waveform of the 3-PHASE LFO**. Select Sine, Triangle or Sawtooth.

HOLDING the button will cycle through **turning sync on** for either or both LFOs. Rate LED will turn RED/PURPLE when SYNC is on, respectively.

**W** 3-PHASE WAVE SELECT LED  
This LED indicated the currently selected waveform output for the 3-PHASE LFO.

**R1** 3-PHASE RATE/SYNC LED  
Indicates the RATE (blue) and sync status (red) of the 3-PHASE LFO. The RATE pulses will be purple when SYNC is active.

**R2** SKEW RATE/SYNC LED  
Indicates the RATE (blue) and sync status (red) of the SKEW LFO. The RATE pulses will be purple when SYNC is active.

**3Φ CV** 3-PHASE RATE CV INPUT  
This input is for **frequency modulating** the 3-PHASE LFO. Tracks 8-10 octaves.

**SK-R CV** SKEW RATE CV INPUT  
This input is for **frequency modulating** the SKEW LFO. Tracks 8-10 octaves.

**SHP CV** SKEW SHAPE CV INPUT  
Use this input is for **modulating the shape** of the SKEW LFO.

**S/H TRIG** SAMPLE and HOLD TRIGGER INPUT  
Clock/Trigger input to the Sample and Hold. With nothing patched into this jack, the sample timing is controlled via the SKEW LFO. Patch an external clock/trigger into this input to **control the sampling** of the source signal.

**SMPL IN** SAMPLE and HOLD SIGNAL INPUT  
External signal input to the Sample and Hold. With nothing patched into this jack, the white noise source is normalized to this input. This provides a random modulation output via the S/H output. Patch an external (or one of the internal LFOs) into this input to **create staircase/stepped modulation from the input material**.

**3Φ OUTS** 3-PHASE LFO OUTPUTS  
Outputs for 0, 120, 240 degrees of phase offset of the 3-PHASE LFO.

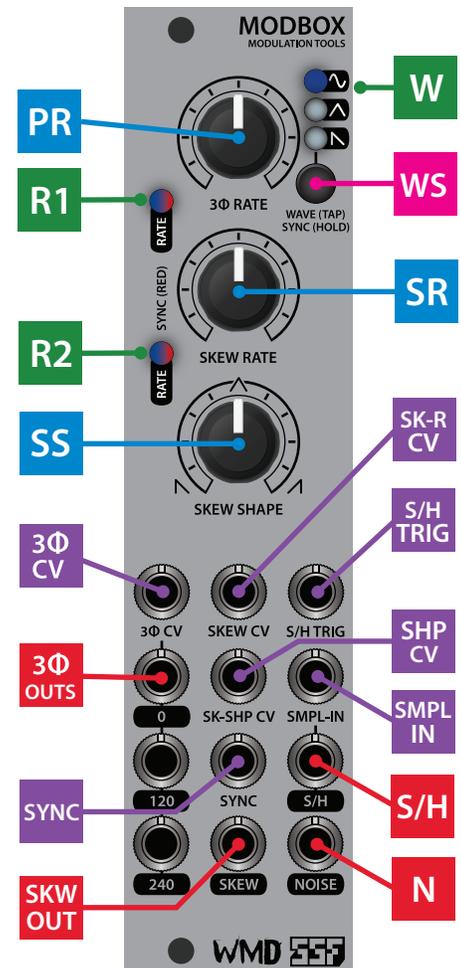
**SKW OUT** SKEW LFO OUTPUT

**S/H** SAMPLE and HOLD OUTPUT

**N** WHITE NOISE OUTPUT

## COLOR KEY LEGEND

<span style="color: blue;">■</span>	PANEL CONTROL
<span style="color: green;">■</span>	LED INDICATOR
<span style="color: purple;">■</span>	INPUT
<span style="color: red;">■</span>	OUTPUT
<span style="color: pink;">■</span>	MODE SELECTOR



SIZE: 6hp

CURRENT DRAW: -27mA, +75mA

DEPTH: 40mm



CONCEPT DESIGN by William Mathewson and Andrew Morelli.  
CODING by Mason Malvinni, Jim Matheson and Niko Raftis