

Aurora Hybrid Synthesizer

This document explains some of the more advanced features of Aurora Hybrid Synthesizer.



OSCILLATORS

Each oscillator has 8 available waveforms to choose from.

Sawtooth
Stepped
Square
Saw Oct
Organ
Bitredux
String
Distort

Besides the controls you often find on oscillators, like *Tune*, *Amp*, *Pan*. On Aurora we have a different control. *X-Mod*.

X-Mod affects each waveform in a different way:

<i>Sawtooth</i>	- Phase
<i>Stepped</i>	- Shape
<i>Square</i>	- Pulse Width
<i>Saw Oct</i>	- Shape
<i>Organ</i>	- Morph / From Sinewave to different organs
<i>Bitredux</i>	- Morph / Bit-reduced Saw, Sine, Triangle
<i>String</i>	- Shape
<i>Distort</i>	- Morph

Modulation:

Each oscillator also features their own *Modulation Matrix*. Therefore modulation settings made on *Oscillator 1* only affects that oscillator. That includes modulations to *Cutoff/Resonance*.

Sources available are:

- +	- Constant (Handy for adding even more control to an oscillator.)
<i>KBD</i>	- Key-follow
<i>Velo</i>	- Velocity
<i>Mwheel</i>	- Mod Wheel
<i>LFO1</i>	- Low Frequency Oscillator 1
<i>LFO2</i>	- Low Frequency Oscillator 2
<i>LFO3</i>	- Low Frequency Oscillator 3
<i>LFO4</i>	- Low Frequency Oscillator 4
<i>ADSR1</i>	- Envelope 1
<i>ADSR2</i>	- Envelope 2
<i>ADSR3</i>	- Envelope 3
<i>ADSR4</i>	- Envelope 4

Destinations available are:

<i>OFF</i>	- Offline, No modulation
<i>Amp</i>	- Oscillator Volume
<i>Pan</i>	- Oscillator Panning
<i>Pitch</i>	- Oscillator Pitch
<i>X-Mod</i>	- Oscillator X-Mod
<i>Cutoff</i>	- Oscillator Cutoff
<i>Reso</i>	- Oscillator Resonance

MASTER

Modulation:

The **Master section** features two (2) global *Modulation Matrices*. These affects all the oscillators simultaneously (OSC 1/2/3).

Sources available are:

- +	- Constant
<i>KBD</i>	- Key-follow
<i>Velo</i>	- Velocity
<i>Mwheel</i>	- Mod Wheel
<i>LFO1</i>	- Low Frequency Oscillator 1
<i>LFO2</i>	- Low Frequency Oscillator 2
<i>LFO3</i>	- Low Frequency Oscillator 3
<i>LFO4</i>	- Low Frequency Oscillator 4
<i>ADSR1</i>	- Envelope 1
<i>ADSR2</i>	- Envelope 2
<i>ADSR3</i>	- Envelope 3
<i>ADSR4</i>	- Envelope 4

Destinations available are:

<i>OFF</i>	- Offline, No modulation
<i>Amp</i>	- OSC 1/2/3 Volume
<i>Pan</i>	- OSC 1/2/3 Panning
<i>Pitch</i>	- OSC 1/2/3 Pitch
<i>X-Mod</i>	- OSC 1/2/3 X-Mod
<i>Cutoff</i>	- OSC 1/2/3 Cutoff
<i>Reso</i>	- OSC 1/2/3 Resonance

LFOs and Envelopes

In the **Mod Source** section we find all the modulation Envelope and LFO controls.

LFO (1/2/3/4) Controls are:

<i>A</i>	- LFO intensity Attack
<i>R</i>	- Rate
<i>P</i>	- Phase
<i>R</i>	- Retrig
<i>O</i>	- Offset (Offsets the rate of the LFO)
<i>WF</i>	- Waveform (Shape of the LFO)

ADSR (1/2/3/4) Controls are:

<i>A</i>	- Attack
<i>D</i>	- Decay
<i>S</i>	- Sustain
<i>R</i>	- Release

Flip the Rack

On the back of Aurora we have two controls.

Global Quality

Pitch Bend Range