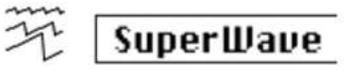
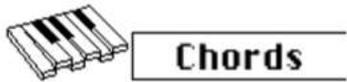
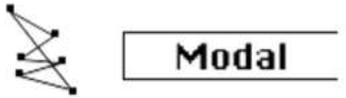


#	Oscillator Type	Description	Wave	Timbre	Shape
1		This oscillator emulates square and the sawtooth.	Morph: Continuous morph from a square to a sawtooth to two sawtooths. Acts on Waveform symmetry.	Sym: Morphs between square (pulse width), or phasing between the two copies of a sawtooth wave. There is no effect when Wave is at 50 (sawtooth).	Sub: Adds a sine wave sub-oscillator
2		This is a digital waveform animator that creates copies of a waveform and detunes them. Detuning them creates a very fat, lush sound.	Wave: Selection of the waveform to be multiplied: Saw, Square, Triangle and Sinus	Detune: Sets the detuning amount.	Volume: Sets the amplitude of the detuned waves.
3		256 samples form a cycle of the wave. Each wave table stores 32 cycles. When you move the Timbre knob, you move through these cycles.	Table: The Wave knob enables you to select a wave from the 16 waves stored in the table.	Position: Allows you to browse the 32 cycles.	Chorus: Activates a chorus, which adds a chorus effect to the wavetable.
4			Content: When turning the wave knob you morph through different tables of harmonic amplitudes and switch between these. Higher values provide tones with richer harmonic content.	Sculpting: When turning the timbre knob you morph between a sine and a triangle wave. A harmonic derived from a sine wave will sound different from a harmonic built from a triangle wave.	Chorus: Adds chorus to the oscillator sound, making it wider.

Info distilled from [manual](#) by Mark Mosher. Get a copy of this and see more articles here <https://ModulateThis.com/category/synth-micro-freak/>.

5	 <div style="border: 1px solid black; padding: 2px; display: inline-block;">KarplusStr</div>	<p>Karplus Oscillator. In physical modeling, an exciter creates vibrations in a resonator. The exciter can either be a bow or a strike. The resonator can emulate many different instrument shapes. https://mutable-instruments.net/modules/plaits/manual/</p>	<p>Bow: Set the amount of Bow that is applied on top of the strike.</p>	<p>Position: This controls where and how hard the resonator is struck; it has no effect on the bowed part of the sound</p>	<p>Decay: Sets the amount of resonance by controlling the decay of the resonator.</p>
6	 <div style="border: 1px solid black; padding: 2px; display: inline-block;">U.Analog</div> <p>Open-source Plaits oscillator by Mutable Instruments</p>	<p>An emulation of the classic synthesis waveforms triangle, sawtooth and square wave.</p>	<p>Shape: Morphs through a variable square, from narrow pulse to full square to hard sync formants.</p>	<p>Detune: Sets the detuning between the two waves.</p>	<p>Wave: Morphs through a variable saw, from triangle to saw with an increasingly wide notch.</p>
7	 <div style="border: 1px solid black; padding: 2px; display: inline-block;">Waveshaper</div> <p>Open-source Plaits oscillator by Mutable Instruments</p>	<p>A combination of a waveshaper and a wavefolder. A waveshaper acts on the rise and the fall stage of a wave. It can make the rise time of a triangle wave steeper, turning that triangle into a falling Saw wave. It can also change the curve of the rise and fall stages. Each of these changes will affect the number and the amplitude of the harmonics that the Oscillator produces</p>	<p>Wave: Sets the waveshaper waveform.</p>	<p>Amount: Sets wavefolder amount.</p>	<p>Asym: Sets waveform asymmetry</p>
8	 <div style="border: 1px solid black; padding: 2px; display: inline-block;">Two Op. FM</div> <p>Open-source Plaits oscillator by Mutable Instruments</p>	<p>Two operator FM synth model</p>	<p>Ratio: Sets the frequency ratio between the oscillators.</p>	<p>Amount: Sets the modulation index.</p>	<p>Shape: Sets a feedback amount, in the form of operator 2 modulating its own phase.</p>
9	 <div style="border: 1px solid black; padding: 2px; display: inline-block;">Formant</div> <p>Open-source Plaits oscillator by Mutable Instruments</p>	<p>Granular Formant where the particles are rearranged into formants and filtered waveforms.</p>	<p>Interval: Sets the frequency ratio between formants one and two.</p>	<p>Formant: Sets the formant frequency.</p>	<p>Shape: Sets formant width and shape. Controls the shape of the window where sum of two synched</p>

					sine oscillators is multiplied.
10	 <p>Open-source Plaits oscillator by Mutable Instruments</p>	In Chords mode, the Digital Oscillator is transformed into a four-voice oscillator capable of playing chords. It's possible to modulate the chord.	Type: Chord Selection: <ul style="list-style-type: none"> • Octave • 5th • sus4 • m(inor) • m(inor)7 • m(inor)9 • m(inor)11 • 6th and 9th added • M(ajor)9 • M(ajor)7 • M(ajor) 	Inv/Transp: Changes the inversion and the frequency range of the chord	Waveform: Sets the waveform. The first half of the knob goes through a selection of "stringmachine like" raw waveforms (different combinations of the organ and string "drawbars"); the second half of the knob scans a small wavetable containing 16 waveforms.
11	 <p>Open-source Plaits oscillator by Mutable Instruments</p>	Inspired by late '70s Texas Instruments began to research speech synthesis.	Type: The wave knob will first scan through formants (from 0 to around 100), then through libraries of colors, numbers, letters, and words.	Timbre: The timbre knob will act on the speech itself. It shifts the formants up or down.	Word: The shape knob will scan through subsets of words; the contents of the subset will depend on the library that was selected with wave knob.
12	 <p>Open-source Plaits oscillator by Mutable Instruments</p>	A modal resonator imitates how sound is amplified in the things that surround us.	Inharm: amount of inharmonicity, or material selection.	Timbre: excitation brightness and dust density.	Decay: damping, decay time (energy absorption).