U-max sound engine parameters list and description

Section	Parameter	Parameter description
LFO's & Ramp	Vibrato	Set the amount of vibrato to the global pitch, controlled by the ModWheel. This LFO is key synced and has a triangle waveform
	LFO 2 speed	Set the rate of the LFO 2. The LFO 2 is free running and has a triangle waveform
	Vibrato speed	Set the rate of the vibrato
	Glide rate	Set the rate of the ramp
Oscillator 1	OSC 1 Saw ON	Switch the sawtooth wave ON or OFF
	OSC 1 Pulse ON	Switch the square wave ON or OFF
	OSC 1 PW	Set the ratio of the square wave. At 0 you have a 50/50 ratio bringing a perfect square wave
	LFO 2 -> OSC 1 PWM	Set the amount of modulation from the LFO 2 to the pulse width of the square wave
	Glide -> OSC 1 Frequency	Set the amount of glide. This setting is bipolar. You have no modulation at 64, a rising effect below 64 and a falling effect above 64
	Sub OSC ON	Turn the Sub oscillator ON or OFF
	Sub OSC Oct -2	Usually a Sub oscillator is one octave below the main oscillator frequency but with with setting you can set it to 2 octaves below
	Sub OSC Width	Change the Sub oscillator waveform from square to pulse 30%
Oscillator 2	OSC 2 ON	Switch the oscillator 2 ON or OFF
	OSC 2 Waveform	Change the waveform to sawtooth or square
	OSC 2 Frequency	This setting is bipolar, you can set the coarse frequency 2 octaves above or below oscillator 1, giving a 4 octaves range
	OSC 2 Detune	This setting is bipolar, you can slightly adjust the frequency about 1 semitone above or below the coarse frequency of oscillator 2
	Glide -> OSC 2 Sync offset	Set the amount of glide to the hardsync offset. This is the way to go to make the classic hardsync sound
	LFO 2 -> Sync offset	Set the amount of modulation from LFO 2 to the hardsync offset.
OSC 1 / OSC 2 Ring modulation	Ring Mod ON	Switch the ringmodulation ON or OFF. You have to switch ON oscillator 2 to hear the effect. The square wave of oscillator 1 is used
Noise	Noise Level	Set the level of the white noise source. Can be used as the only sound source if everything else is turned off….
Filter	Filter Frequency	Set the frequency of the filter
	Resonance / Width	Set the amount of resonance or bandwith depending on the filter you choose. Check the 'Filters' PDF file for more informations on the filters
	Filter ENV Depth	This setting is bipolar, it sets the amount of envelope modulation to the filter. At 64 you have no modulation, a negative modulation below 64 and a positive modulation above 64
	LFO 2 -> Filter frequency	Set the amount of modulation from LFO 2 to the filter frequency
Envelopes	Filter Attack	Set the time of the attack section of the filter envelope, check the filter frequency and filter envelope depth to hear the effect
	Filter Decay	Set the time of the decay section of the filter envelope, check the filter frequency and filter envelope depth to hear the effect
	Amplitude Attack	Set the time of the attack section of the amplitude envelope to go from zero to the maximum level when you hit a note (start at note ON)
	Amplitude Release	Set the time of the release section of the amplitude envelope to go from the actual level to zero when you release a note (start at note OFF)
Others	OSC 2 -> Filter modulation	Set the amount of modulation coming from the sine wave of oscillator 2 to the filter frequency. At full throttle you have a pure ringmodulation of the filter with oscillator 2
	Drive	Set the amount of post filter overdrive. You can go from slight clipping to totally distorted sound
Effects Section	Effect Dry / Wet Mix	Set the global mix of the effect section
	Chorus Mix	Set the chorus ON or OFF
	Chorus Rate	Set the speed of modulation
	Chorus Depth	Set the amount of modulation
	Chorus Delay	Set the delay between the portions of the chorus
	Chorus Feedback	Set the amount of reinjection, you can have an auto oscillating effect at full throttle
	Delay Mix	Set the delay ON or OFF
	Delay Time	Set the time between echoes
	Delay Feedback	Set the number of echoes, you can have a never ending delay at full throttle