Ocean Swift Synthesis PI2525

Operational Manual

2 Osc synthesizer producing the familiar and famous trance and dance sound of the early millennium still very popular today with a special twist - the inclusion of the renowned Sonic Core Minimax filter.

Controls

Osc 1
Wave: Sine, triangle, saw up, saw down, pulse, noise, supersaw, feedback.
Coarse: Offsets the incoming midi notes by increments of 1 semitone.
Fine: Offsets the incoming midi notes by increments of 100 cents.
Env: The amount of modulation applied to the osc's pitch by the Pitch/Mod Env.
LFO: The amount of modulation applied to the osc's pitch by the Pitch/Sweep LFO.
PW: The pulse width of the osc when the pulse is selected by the Wave knob.
PWM: Modulation range for the osc's width when the pulse is selected by the Wave knob.
PW Rate: The rate at which the PWM modulates the pulse width. The modulation source is a dedicated free running sine lfo.
XMod: Amount of frequency modulation applied to osc1 by osc2. The fm signal always comes from osc2's sine output regardless of osc2's set shape. Thus, you can for example mix a saw from osc2 with a fm texture from osc1.
Xmod Env: When this button is on the modulation signal is first passed through an amp controlled by the Pitch/Mod Env before being applied to osc1.

Supersaw: These controls are only active when the osc is set to the supersaw shape.
Mix: Controls the mix between the original saw and the detuned saws.
Detune: Controls the overall detune ratio between the detuned saws.
Feedback: These controls are only active when the osc is set to the feedback shape.
Harmonic: Static control of the base delay time of the feedback effect.
Feedback: The resonating quality of the effect,
Sweep: Amount of modulation applied to the Harmonic by the Pitch / Sweep LFO.

Noise:
These controls are only active when the osc is set to the noise shape.
Cut: Controls the cutoff point of the noise filter. The color of the noise.
Res: The resonating quality of the noise.
Sweep: Amount of modulation applied to the Cut by the Pitch / Sweep LFO.

Osc2:
Wave: sine, triangle, saw up, saw down, pulse, white
Coarse: Offsets the incoming midi notes by increments of 1 semitone.
Fine: Offsets the incoming midi notes by increments of 100 cents.
Env: The amount of modulation applied to the osc's pitch by the Pitch/Mod Env.
LFO: The amount of modulation applied to the osc's pitch by the Pitch/Sweep LFO.
PW: The pulse width of the osc when the pulse is selected by the Wave knob.
PWM: Modulation range for the osc's width when the pulse is selected by the Wave knob.
PW Rate: The rate at which the PWM modulates the pulse width. The modulation source is a dedicated free running sine lfo.
Sync: Button to turn on and off osc sync. When on osc2 retriggers for every new cycle of osc1. If osc1 and osc2 are set too far apart in range your sound will break and can even go silent. Also, when osc2 is in sync mode, make sure the x-mod on osc1 is turned down or your sound will break.
AT: Channel aftertouch control over the pitch of osc2. No aftertouch is at the center position. Positive knob values scale the modulation applied to the cutoff in relation to the incoming aftertouch values. Negative knob values invert the incoming aftertouch values.

Filter:
Cut: The cutoff point of the filter.
Res: The resonance quality of the filter.
Env: The amount of modulation applied to the filter from the Filter Envelope.
LFO: The amount of modulation applied to the filter from the Filter LFO.
KBT: Keyboard note tracking of the filter. On Center position no tracking occurs.
AT: Channel aftertouch control over the filter cutoff. No aftertouch is at the center position. Positive knob values scale the modulation applied to the cutoff in relation to the incoming aftertouch values. Negative knob values invert the incoming aftertouch values.

Filter Envelope:
ADSR Envelope: Envelope with attack, decay, sustain and release controls.
Slope: The slope of the decay and release of the envelope.
Vel: Velocity control over the overall envelope range. No velocity control is at the center position. Positive values scale the velocity control in relation to the incoming velocity values. Negative values invert the incoming velocity values.
D Rand: The amount of random modulation applied to the decay of the filter's envelope.

Filter LFO:
Wave: The waveform of the LFO. The wave is a choice between a sine, square, saw up, saw down, triangle, and random - 6 shapes in total.
Rate The speed of the lfo when not in sync mode. From 0.01 to 400hz.
Div: The speed of the lfo when in sync mode. Measure divisions based on the device's BPM setting. Provided are 19 divisions: 64bar, 32bar, 16bar, 8bar, 4bar, 2bar, 1bar, 1/2p, 1/2, 1/2t, 1/4p, 1/4. 1/4t, 1/8p, 1/8, 1/8t, 1/16p, 1/16, 1/32.
Phase: The starting phase of the lfo. Noticeable when the LFO is in retrigger mode.
Mild: Tames the lfo's waveform. In general only useful when the Random waveform is selected in order to avoid clicks (smooth the steps).
Sync: Turns sync mode on and off.
Retrig: Retriggers the osc to start at the point specified by the phase knob with each new midi gate.

When in sync mode, the divider will let you set really long times, up to 64 bars. Take into consideration that the Scope system can not go lower than 0.01hz. Very low bpms coupled with long division times can result in the LFO not going slow enough to be in sync with your tempo.

Pitch / Mod Envelope:
Envelope that serves both as a pitch modulation source for Osc1 and as the fm envelope when the fm is in Env mode.
AD Envelope: Envelope with controls for attack and decay.
Slope: The slope of the decay of the envelope.
Vel: Velocity control over the overall envelope range. No velocity control is at the center position. Positive values scale the velocity control in relation to the incoming velocity values. Negative values invert the incoming velocity values.
D Rand: The amount of random modulation applied to the decay of the filter's envelope.

Pitch / Sweep LFO:
Wave: The waveform of the LFO. The wave is a choice between a sine, square, saw up, saw down, triangle, and random - 6 shapes in total.
Rate: The speed of the lfo when not in sync mode. From 0.01 to 400hz.
Div: The speed of the lfo when in sync mode. Measure divisions based on the device's BPM setting. Provided are 19 divisions: 64bar, 32bar, 16bar, 8bar, 4bar, 2bar, 1bar, 1/2p, 1/2, 1/2t, 1/4p, 1/4. 1/4t, 1/8p, 1/8, 1/8t, 1/16p, 1/16, 1/32.
Phase: The starting phase of the lfo. Noticeable when the LFO is in retrigger mode.
Mild: Tames the lfo's waveform. In general only useful when the Random waveform is selected in order to avoid clicks (smooth the steps).
Sync: Turns sync mode on and off.
Retrig: Retriggers the osc to start at the point specified by the phase knob with each new midi gate.

When in sync mode, the divider will let you set really long times, up to 64 bars. Take into consideration that the Scope system can not go lower than 0.01hz. Very low bpms coupled with long division times can result in the LFO not going slow enough to be in sync with your tempo.

Amp Envelope:
ADSR Envelope: Amplifier envelope with attack, decay, sustain and release.
Slope: The slope of the attack, decay and release of the envelope.
Vel: Velocity control over the overall envelope range. No velocity control is at the center position. Positive values scale the velocity control in relation to the incoming velocity

values.
Negative values invert the incoming velocity values.
D Rand: The amount of random modulation applied to the decay of the amp envelope.

Osc Mix:
Mix: Crossfade mix between osc one and osc two.
Ring: Crossfade mix between the osc section output and ring modulation.
HP Track: Highpass filter with the cutoff set to track the frequency of the incoming midi notes. Especially useful on some supersaw and feedback osc scenarios as well as other situations where thinner yet cleaner sounds are appropriate.

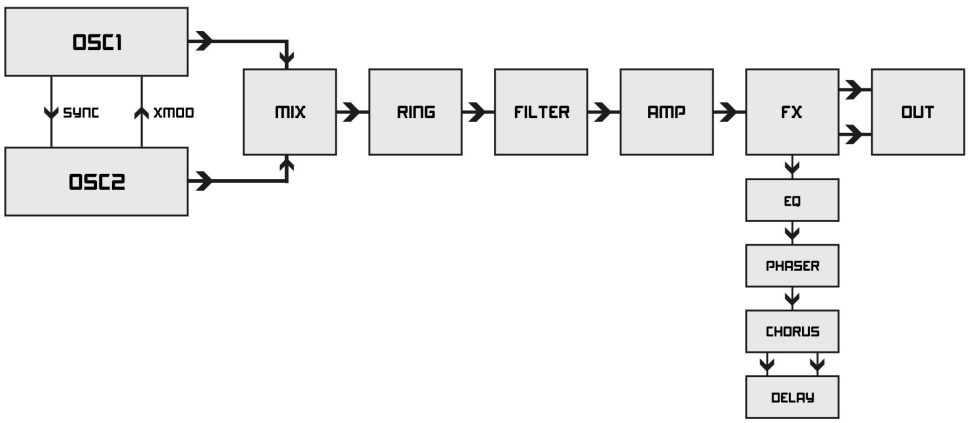
Main Controls:

Midi: Sets the midi channel for the synth.
BPM: Sets the BPM for the synth. This is the tempo from which all the LFO divisions and the delay division will divide from.
Bend: Range setting for the incoming pitch bend wheel controller message up to a range of two octaves.

Main Controls:
Tune: Offsets the incoming midi notes by increments of 1 semitone for BOTH oscs.
Porta: Turns portamento on and off.
Time: Glide time when portamento is turned on.
Out: The overall gain of the synth. Center position is 0db gain. This knob is not saved in presets so adjust accordingly if some presets feel too soft or too loud as you are browsing a bank.

Effects:
EQ: Low and high damp EQ.
Phaser: Controls for rate, depth, feedback, offset, shift and wet.
Chorus: Controls for rate, depth, shift and wet.
Stereo Delay: Syncable stereo delay with separate time and division controls for the left and right channels. Feedback and feedback damping is provided as well as the option for standard left-right operation or cross feedback. The signaL can be mixed with the dry signal.
Punch: Gives the attack transients of the sound an extra boost and smoothens the dynamics of the overall sound. Most useful with short and stab type sounds.

Audio Signal Flow Chart



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