

## Ocean Swift Synthesis - Ocean Core



The essence of the Ocean Storm synth in a compact design with a sharper focus towards basslines and lead sounds. Provides a fast and accessible synthesis platform with a hot output and big sound.

### Osc 1:

**Wave:** sine, triangle, saw up, saw down, pulse, input.

**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 Mod Env.

**LFO:** The amount of modulation applied to the osc's pitch by the Pitch 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.  
**Retrig:** When turned on the osc starting phase will retrigger with each new midi note.

#### Osc 2:

**Wave:** sine, triangle, saw up, saw down, pulse, input.  
**Coarse:** Offsets the incoming midi notes by increments of 1 semitone.  
**Fine:** Offsets the incoming midi notes by increments of 100 cents.  
**LFO:** The amount of modulation applied to the osc's pitch by the Pitch 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:** Three way button controlling the sync mode of osc2. When set to off the osc phase is free running and does not retrigger. When set to retrigger the osc starting phase will retrigger with each new midi note. When set to sync osc2 retriggers for every new cycle of osc1. In sync mode if osc1 and osc2 are set too far apart in range your sound will break and can even go silent.

#### FM Section:

**FM Amount:** Amount of frequency modulation applied to osc2 by osc1. The fm signal always comes from osc1's sine output regardless of osc1's set shape. Thus, you can for example mix a saw from osc1 with a fm texture from osc2.  
**FM Sharp:** Changes the fm mode from direct to dc filtered.  
**FM Env:** When this button is on the fm signal is first passed through an amp controlled by the mod envelope before being applied to osc2.

#### FM / OSC 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.

#### Pitch 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.

**Sync:** Turns sync mode on and off.

**Retrig:** Retrigger the osc to start at the point specified by the phase knob with each new midi gate.

#### Mix Section:

**Mix:** Crossfade mix between osc1 and osc2.

**Ring:** Crossfade mix between the osc section output and ring modulation.

#### Filters:

**Type:** Choice of 6 filter types. 24db LP, 24db BP, 24db HP, 12db LP, 12db BP, 12db HP

**Cut:** The cutoff point of the filter.

**Q:** The resonance quality of the filter.

**Drive:** Mild distortion on the filter output.

**Env:** The amount of modulation applied to the filter from its ADSR Envelope.

**LFO:** The amount of modulation applied to the filter from its LFO.

**KBT:** Keyboard note tracking of the filter. On Center position no tracking occurs.

**ADSR Envelope:** Each filter has its own envelope with attack, decay, sustain and release.

**Slope:** The slope of the decay and release of the envelope.

**D Mod:** The amount of random modulation applied to the decay of the filter's 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.

**Filter LFO:** A dedicated LFO modulating the cutoff point with the same controls as the Pitch LFO (see above).

#### Amp:

**ADSR Envelope:** Amplifier envelope with attack, decay, sustain and release.

**Slope:** The slope of the decay and release of the envelope.

**D Mod:** The amount of random modulation applied to the decay of the amp 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.

#### 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 will divide from and the base tempo for the trancegate and delay dividers to divide from.

**Tune:** Offsets the incoming midi notes by increments of 1 semitone for BOTH oscs.

**Unison:** When set to more than 1, activates unison. For each value above 1 another voice is added to the unison count. Remember: these count as polyphony voices!

**Detune:** The amount of detune between each unison voice.

**Portamento:** Turns portamento on and off.

**Time:** Glide time when portamento is turned on.

**Main 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.

**Credits:**

**Circuit Design:** Yaron Eshkar

**Gui Design:** Fernando Abreu

**Web:**

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