ALBERS

Drone synth

Contents:-

Layout.
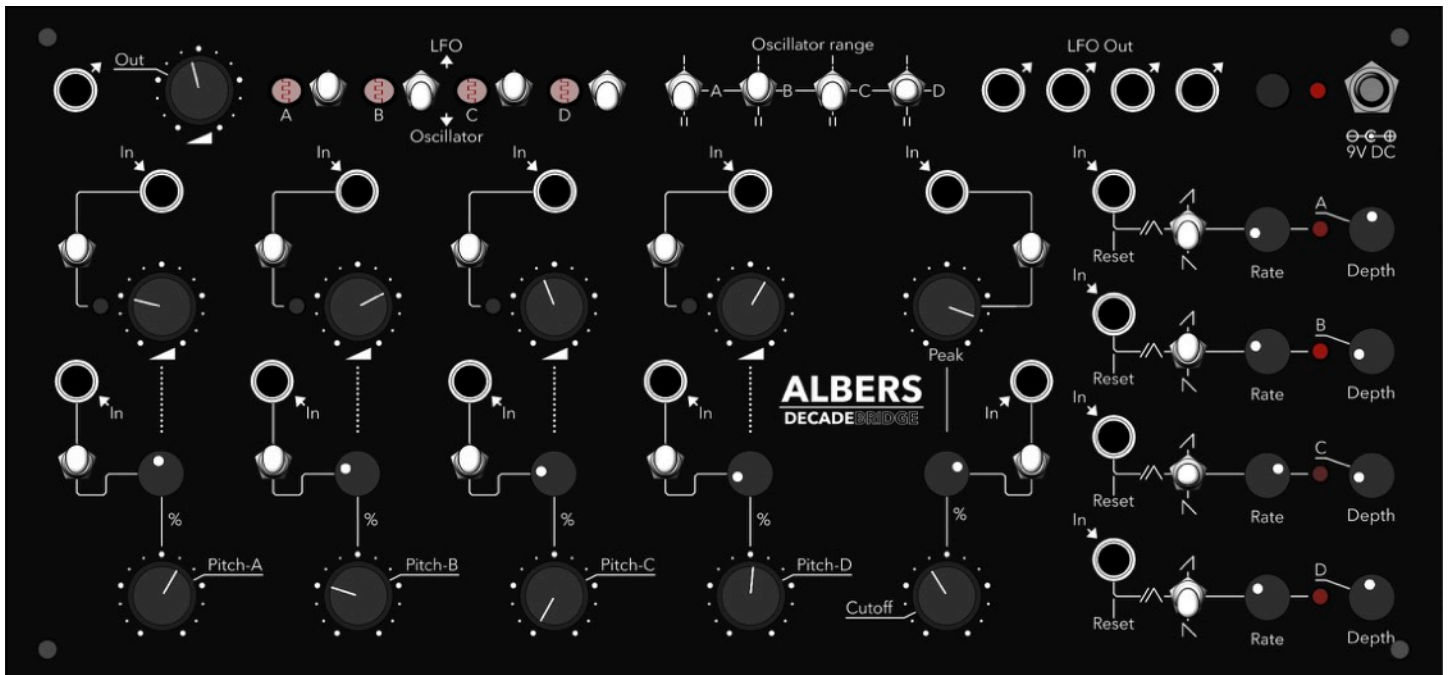
ALBERS is a 4 oscillator drone synth that can produce a wide range of sounds. The 4 oscillators are mixed together before being sent to the low pass filter and then to the output.
Each oscillator has it's own LFO, to control oscillator pitch, an LDR and a, 3 way range switch. The 4 LDRs can be switched to control the rate of the LFO or the oscillator pitch.
Each LFO features 3 waveforms. Ramp up, Triangle (half speed) and Ramp down.

Albers runs off a 9 volt battery. A battery clip is included. We do not supply wall adaptors with our products to keep the cost as low as possible. If you would like to run Albers off of a wall adaptor please ensure it is a 9V DC centre positive adaptor.

DO NOT USE A CENTER NEGATIVE ADAPTOR AS THIS WILL DAMAGE THE SYNTH. IF YOU DO RUN INTO PROBLEMS PLEASE GET IN TOUCH AS IT IS POSSIBLE THE SYNTH COULD BE FIXED OR REPLACEMENT PARTS SENT TO YOU TO EASILY FIX IT YOURSELF.

support@decadebridge.com

Oscillators.

Albers' 4 oscillators are identical.
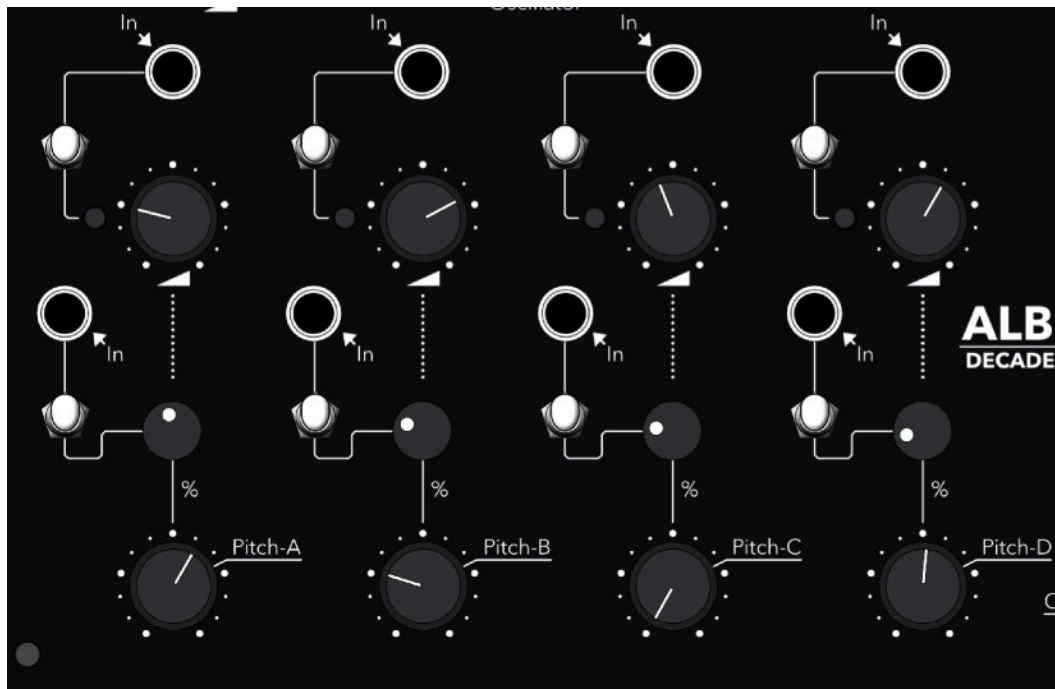
Each oscillator has a few simple controls to create the foundation of your sounds.

From the top down:-

VCA In - At the top of each oscillator section you will find a jack socket for connecting a 3.5 mm mono cable. Connect a signal here to control the volume of the oscillator. Each oscillator has it's own VCA.

Volume switch - Below and to the left of the VCA input you will find a toggle switch. In the up position the oscillator will send a constant signal through to the Low Pass Filter. In the down position the volume of the oscillator is controlled using the VCA input.

Volume - The knob with the triangle underneath controls the oscillator's volume.

Pitch In - This jack socket connects an external signal (CV, Instrument, Synth, Contact mic) to the oscillator's pitch. If the signal is at 0 volts or below the oscillator will mute.

Pitch switch - The switch directly below the Pitch In jack routes the input signal to the oscillator. When in the up position the oscillator's pitch is static and is set using the Pitch knob. When in the down position the signal at pitch In is sent to control the oscillator's pitch.

Pitch In Amount - The small knob to the right of the pitch switch attenuates the signal sent to the oscillator's pitch from Pitch In.

Pitch - This knob sets the pitch of the oscillator.
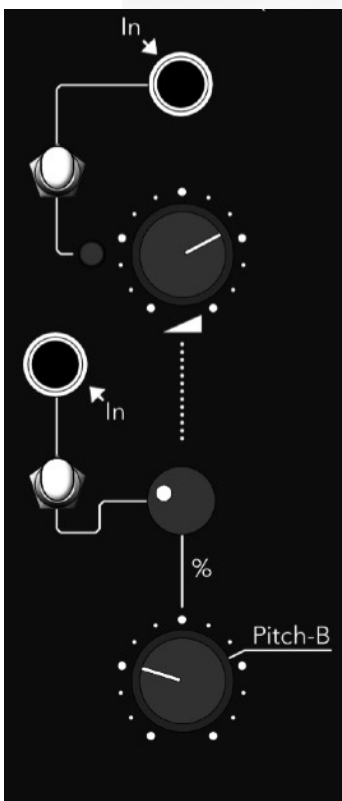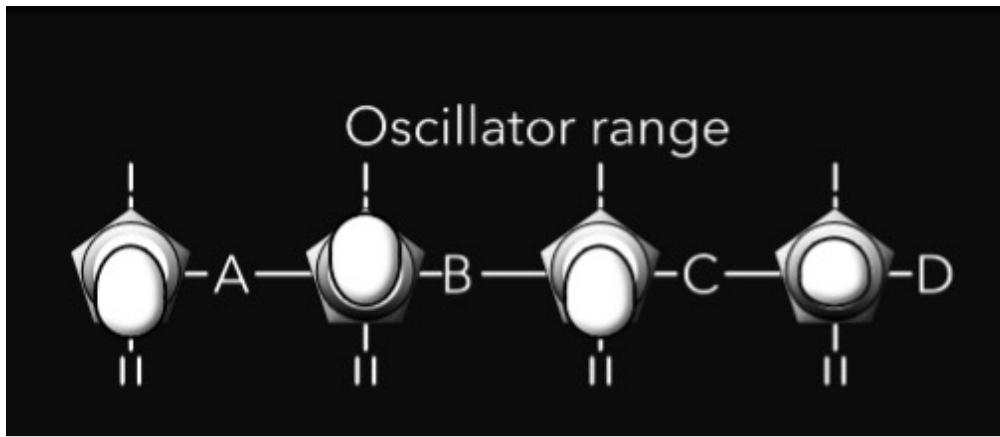
Oscillator Range.

Each oscillator has a 3 way toggle switch to the control the range of the oscillator's pitch. When set to the middle the oscillator's pitch will be at it's highest. When set in the up position (I), the oscillator will start at a lower frequency. When in the down position (II), the oscillator will start at it's lowest frequency.
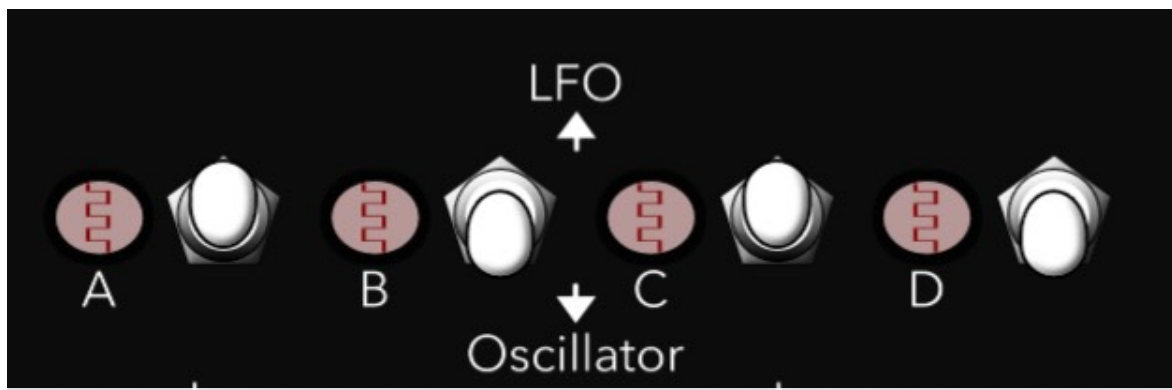

Light Dependant Resistors.

Albers has 4 light dependant resistors (LDRs). These utilise light to affect the sound of the synth. The 4 LDRs can be routed to 2 different destinations or turned off completely. With the switch in the middle position the LDRs are not connected to anything. In the up position the LDR is routed to the LFOs rate. In the down position the LDR is connected to the oscillator's pitch.

Filter.

Albers has a simple, 2 pole, low pass filter.
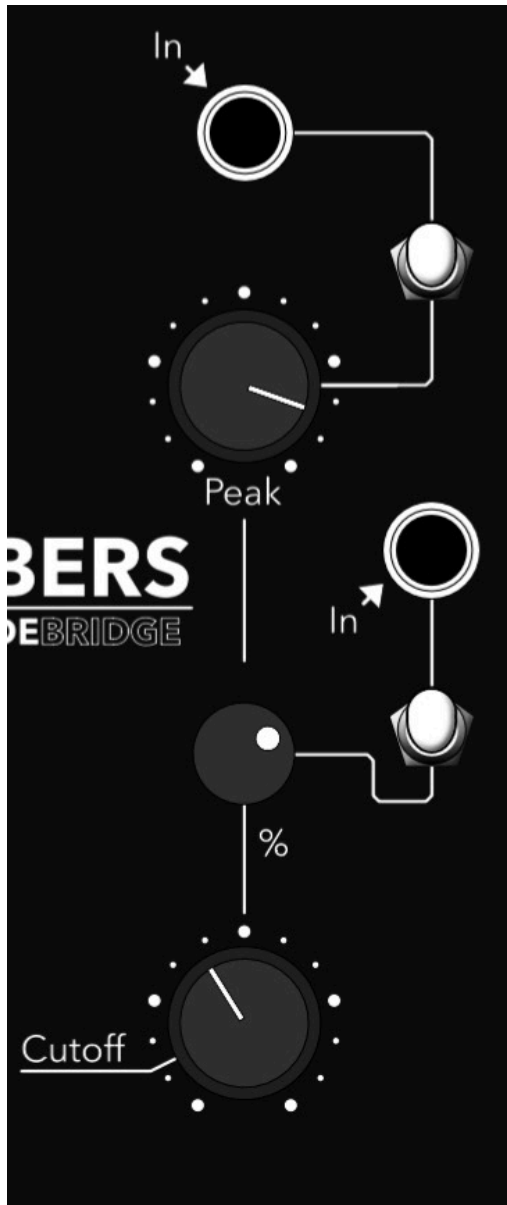
From the top down:-
Peak In - Connect a CV signal here to control the strength of the filters peak frequency.
Peak In Switch - This switch turns the Peak Input signal on and off. In the up position the signal at 'In' is disconnected. In the down position the signal at 'In' is sent to the filter's peak control.
Peak - This knob controls the gain of the frequency around the filter's cutoff point.
**Cutoff In** - Connect a CV signal here to control the filter's cutoff frequency.
Cutoff In Switch - This switch turns the Cutoff Input signal on and off. In the up position the signal at 'In' is disconnected. In the down position the signal at 'In' is sent to the filter's frequency/cutoff control.
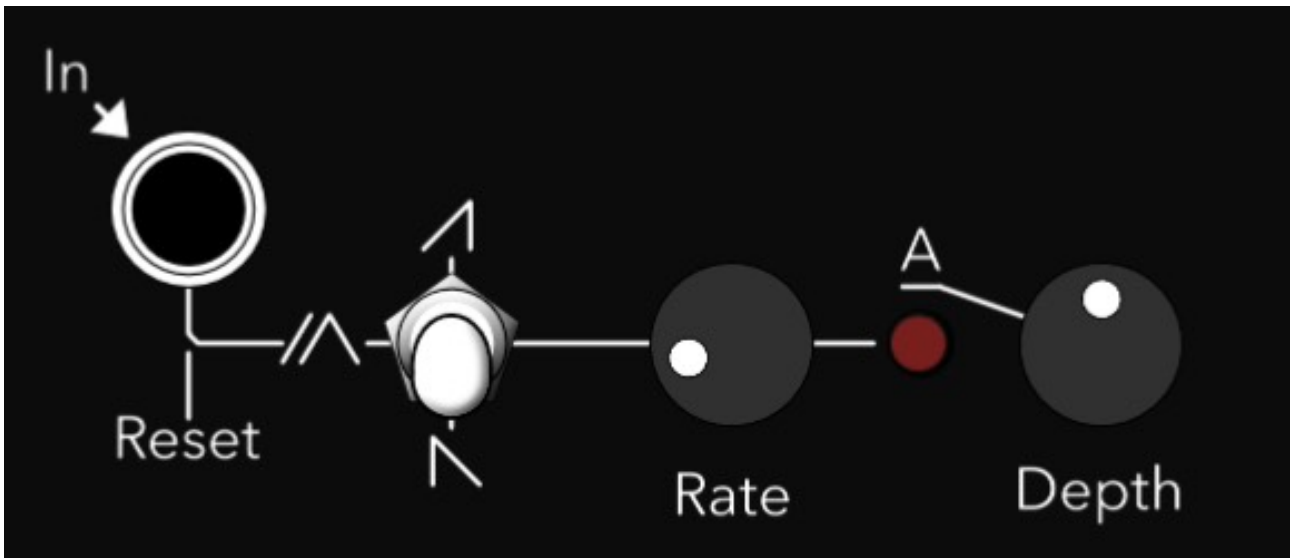**Cutoff Signal In Amount** - This knob controls the amount of the CV signal sent to the filter's cutoff.
Cutoff - Use this knob to set the filter's frequency/cutoff point.

Low Frequency Oscillators.

Albers has 4 Low Frequency Oscillators. This are internally connected to each of Albers' oscillator pitches.
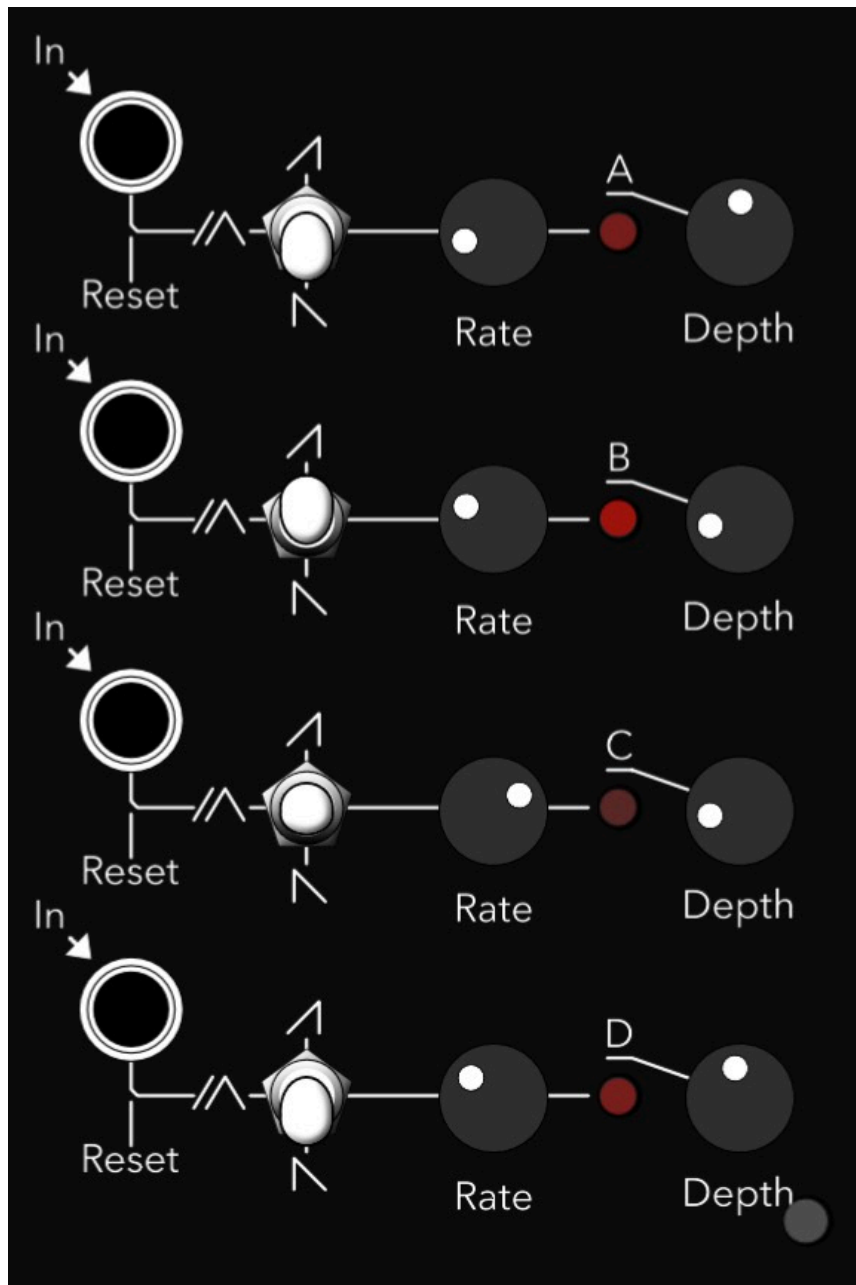
Each LFO has identical settings and operates in the same way.

Each LFO has three waveforms set by the toggle switch. The LFO outputs a Triangle waveform with the switch in the middle position. In the up position the LFO produces a Ramp up waveform and in the down position a Ramp down waveform.

The Triangle waveform cycles at half the speed of the Ramp up and Ramp down waveforms.

The rate of the LFO is set with the Rate knob and the amount sent to the relative oscillator's pitch is set with the depth control.

The Reset In socket allows you to connect an external trigger/gate to reset the LFOs phase back to the start of the waveform. Different results can be had depending on the rate of the LFO and the rate of the reset trigger. Interesting results can also be had if connected the output from one of Albers' other LFOs to a 'Reset In' patch point.
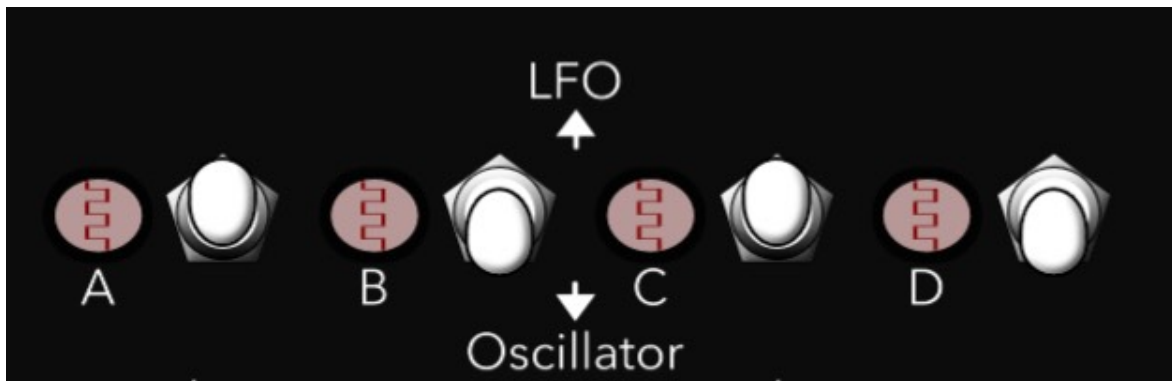
Light Dependant Resistors.

The rate of each LFO can also be controlled using Albers' LDRs as mentioned in the oscillator section. You can use a light source to control the LFO rate when the switch is in the up position.

LFO Outputs.

Each LFO has it's own output at the top of the synth. When a jack is connected to one of the outputs the internal connection to Albers' oscillator is broken.
The LFO signal can be used to control other parts of the synth or to connect to external gear, other modular/semimodular synths. The depth the signal is still controlled using the LFO's 'depth' knob but will still output a slight signal when 'depth' is completely anti-clockwise.
You will get a slightly different response to Albers' oscillator pitch if the LFOs are connected directly, within the synth or if you patch the output of an LFO into an oscillator's 'Pitch In'.
When using the LFOs with Albers' VCAs using a lower 'depth' setting will give you a better result.

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https://www.etsy.com/uk/shop/DecadeBridge

Instagram and YouTube
@decadebridge

Albers demos on YT:-

Albers - Stepped tone generator:-
https://youtu.be/QHkVchedOrU
Albers - CV in Pt 1:-
https://youtu.be/HnPHnbw4b2c
Albers - CV inputs Pt 2:-
https://youtu.be/9oYDLl3y7uQ

Demo compilations:-
https://youtu.be/FWw9uRzr2zc
https://youtu.be/2uHhpe7Hcyo
https://youtu.be/Our08J9uMDs
https://youtu.be/5zc2GQ1pRVg