NOISE REAP

Paradox V2

User Manual

Technical Information

- Width 8hp
- Depth 28mm
- Current draw 35mA @ +12V
- Current draw 35mA @ -12V

Inputs

1V Linked

+/-10V range. Standard 1V per octave **exponential** response. Changes the pitch of both oscillators simultaneously.

1V

+/-10V range. Standard 1V per octave **exponential** response. Changes the pitch of a single oscillator.

exFM (external frequency modulation)

+/-10V range. AC coupled **linear** response. Modulates the pitch of the top oscillator.

SYNC

+/-10V range. External input to perform a syncing function of the top oscillator. Gate signals can be used to stall the core and effectively turn off the top VCO.

PWM (pulse width modulation)

+/-3V range. Changes the duty cycle of the pulse wave output. Signals outside approx +/-3V will cause the pulse to become so narrow that it disappears and flatlines. Effectively turning off the bottom VCO.

Outputs

TRIANGLE

10.8Vpeak-to-peak. Waveshape containing even harmonics.

SAWTOOTH

12.2Vpp. Waveshape containing odd harmonics.

PULSE

11.3Vpp. Waveshape containing odd and even harmonics.

OUT

11Vpp. Contains an equal mix of the top oscillators sawtooth output and the bottom oscillators pulse output.

Controls

FREQ

The coarse frequency control has a range of 18Hz - 14KHz. Through the use of CV, the range of the voices goes fully sub and supersonic.

TUNE

Fine frequency control. Used for precision tuning/detuning. Has a range of about 3 semitones.

SELF MOD

Self modulation sends a portion of the triangle output *back into its own core*. This changes the shape and harmonic content of the top oscillators outputs (both tri and saw).

FM AMT

Attenuator for the amount of linear frequency modulation routed from top to bottom. This will create new and complex tones out of the bottom oscillator.

SYNC

ON/ON switch. When switched *to the right*, it syncs the tuning of the top oscillator to the bottom. The bottom oscillator sends a *hidden* triangle wave signal to do the modulating. This has a different effect than if you patch the pulse output into the external sync input.

When switched *to the left*, the external sync input is the sync source. With nothing patched, this is the same as turning sync off.

Patch Ideas

Pseudo Resonance Filter Effect

SELF MOD and FM AMT at minimum. Adjust the bottom FREQ knob to about 9 o'clock. Engage the SYNC switch. Now listen to OSC A's triangle output and sweep its FREQ control from min to max. Now try that again with SELF MOD at about 3 o'clock.

Super Fat Monosynth Voice

Tune the bottom oscillator an octave below the top one. Listen to OUT and control both voices simultaneously with the 1V LINKED input. Use SELF MOD to slightly detune the top oscillator and create a “wide” sound as the oscillators move slightly in and out of phase with each other.

Standalone Noisebox A

Engage the SYNC switch and max out SELF MOD and FM AMT. Listen to the SAWTOOTH output. Now wiggle the main freq knobs for instant noisebox style nonsense. Back off the SELF MOD and FM AMT knobs for variation.

Standalone Noisebox B

Patch the PULSE output into exFM. Max out FM AMT and DON'T engage the sync switch. Listen to the TRIANGLE output. Take it from there; things get even crazier than Noisebox A.

Standalone Noisebox C

Patch the PULSE output into the top 1V input. Patch the TRIANGLE output into the bottom 1V input. Control the whole mess with 1V LINKED. Noisebox C gets even crazier than noisebox B.