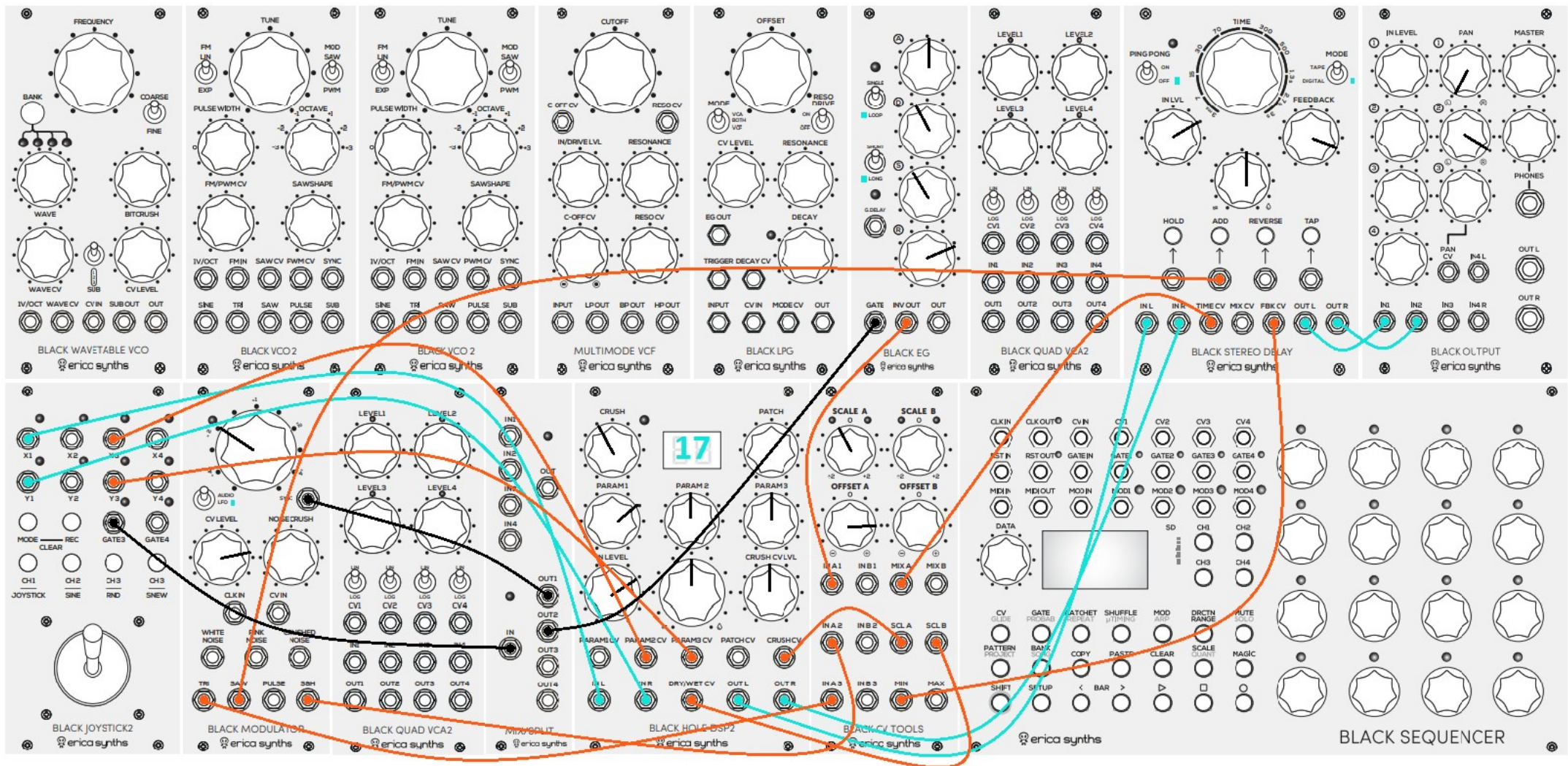


Acid Anthill

The circuit consists of 2 strongly modulated voices - a Black Wavetable VCO and a synchronized Black VCO2 chord. Signals of both the output and sub output of the Wavetable VCO voice are mixed in one of the Quad VCA's and sent to the Multimode VCF, then the Blackhole DSP and Output 4. The Black VCO signals are mixed in the second Quad VCA and sent to the Black LPG, then the Black Stereo Delay and outputs 1 and 2. The pitch of both voices is controlled by channel 1 of the Joystick in default mode: X-axis - Wavetable VCO1; Y-axis - Black VCO. Channel 3 of the Joystick in random mode modulates the Wavetable VCO wave CV and the Multimode VCF cutoff frequency. The Joystick Channel 3 gate output is connected to the SPLIT module and further distributed synchronizes triggers for the Black Modulator, Black LPG and Black Stereo Delay tap tempo. Black CV Tools play an essential role in this connection. S&H and TRI signals from the Black Modulator and the EG output of the Black LPG are connected to channel A as modulation sources. The Black LPG CV IN is modulated by SCL A; Black Hole DSP Parameters 1 & 2 are modulated by MIN and MIX and the CV IN of the Wavetable OSC by the MAX output of CV Tools. Finally, the decay of the Black LPG is modulated by the SAW output of the Black Modulator. Even crazier modulations can be achieved by modulating the Black VCO SAW & Pulse signals, as well as the resonance of the Multimode VCF.

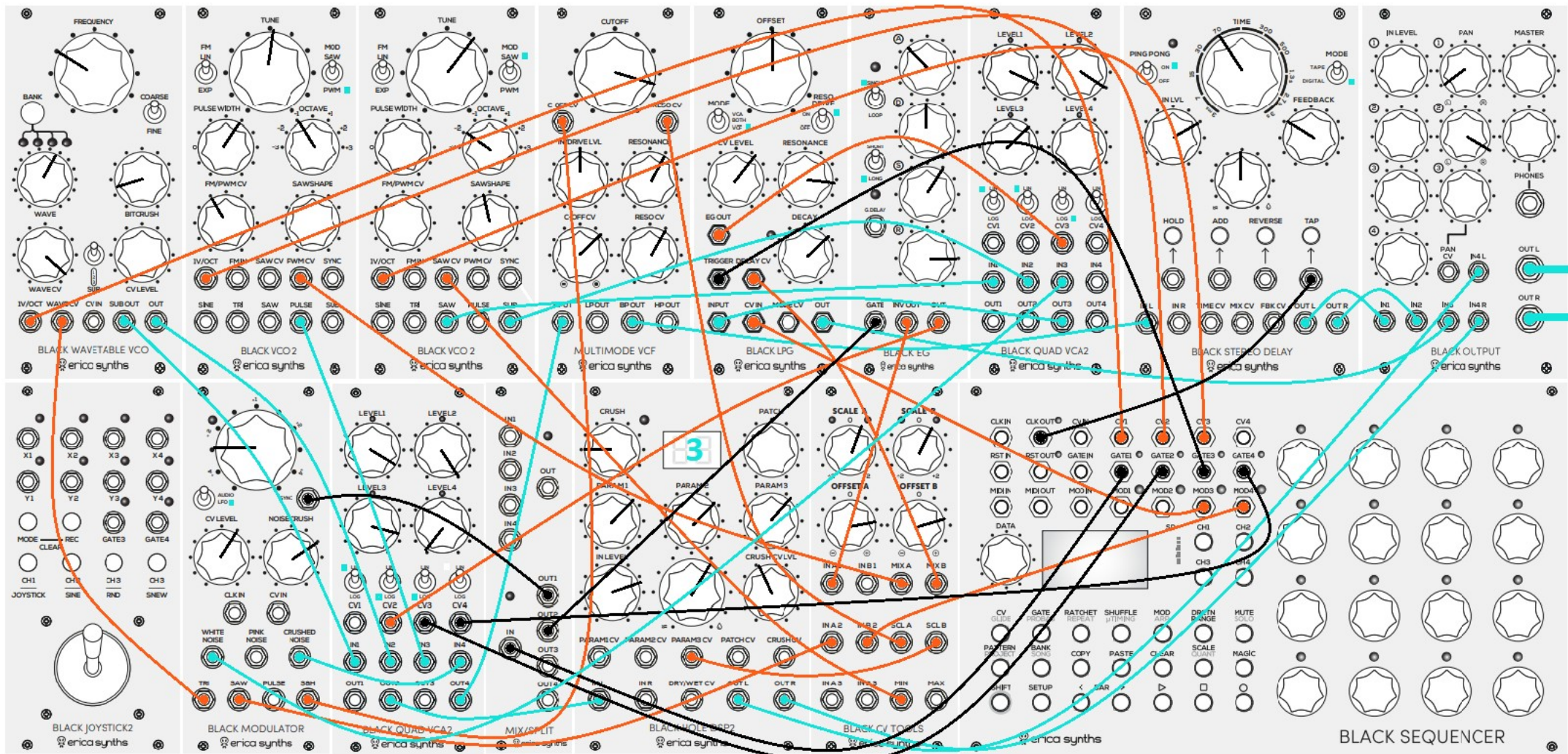
— audio
— cv
— trigs & gates



Black Hole 17

The circuit is based on the Black Hole DSP2 patch 17 "Havoc Chorus", which is fed with signals from channel one of the Joystick in SINE mode and modulated and triggered with channel 3 in RND mode. By turning the Havoc Chorus feedback setting (Parameter1) to self-resonate and modulating the rate (param2) and width (param3) with Joystick manipulations, we obtain metallic sound effects. In addition, DSP2 CRUSH and DRY/WET levels are modulated from the CV TOOLS SCL outputs (Black EG and Black Modulator S&H + TRI as modulation sources, both triggered from the Joystick RND channel Gate output). The DSP2 signal is further connected to the Black Stereo Delay whose TIME and Feedback levels are modulated with signals from the CV Tools Mix A and MIN outputs.

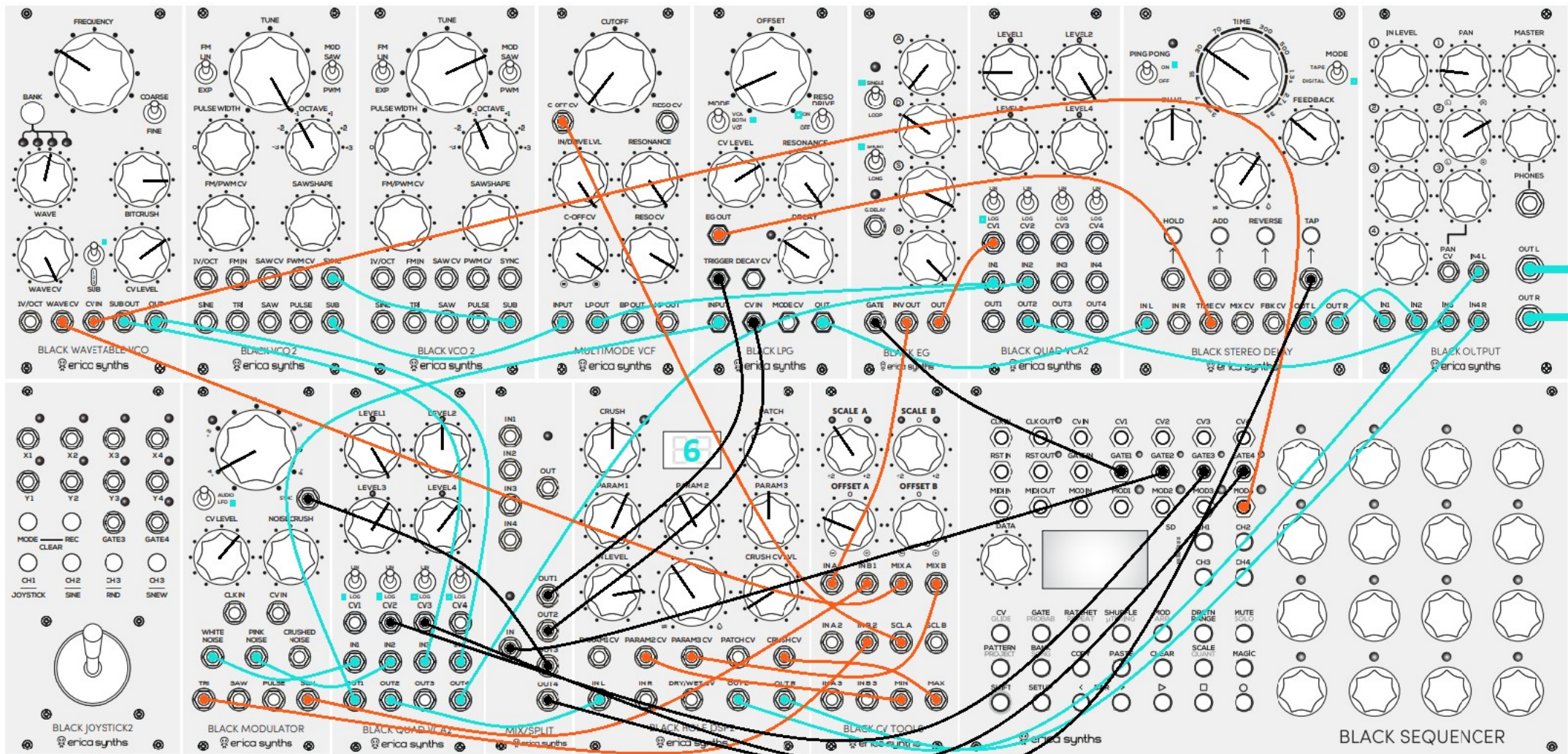
- audio
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Black Quartet

All four Black Sequencer channels play four voices - 3 oscillators + Crushed Noise as a percussive element. Channel 1 for a pad sound from the Wavetable VCO through the VCA and the Black Hole DSP2 to output channel 4. The gate output of Sequencer CH1 is the main trigger for modulation sources - the Black EG and the Black Modulator. The VCA level of the Wavetable VCO signal is modulated by the Black EG. The Sequencer Channel 2 for a lead synth sound (pulse with modulation) from first Black VCO2 through the VCA, Multimode VCF and Black Stereo Delay to output channels 1 and 2. The VCA level of the Black VCO signal is modulated by the CH2 gate signal of the sequencer; the VCF cutoff frequency is modulated by the S&H signal from the Black Modulator and the Resonance level is modulated by the CV TOOLS SCL A signal (Black EG and Black Modulator SAW signals as modulation sources). The Sequencer channel 3 creates a bassline from the second Black VCO2 through the VCA and Black LPG to output channel 3. The VCA mixes SAW and SUB signals from VCO as well as white noise from Black Modulator, whose level is modulated by the Black LPG signal. The LPG is triggered and modulated by the CH3 Gate of the sequencer and MOD signals. Channel 4 of the sequencer creates hi-hat percussion from the Crushed Noise signal of the Black Modulator, which is mixed with a solo synth sound from the Black VCO2 in the VCA and further also passes through the Multimode VCF to Stereo delay and output channels 1 and 2.

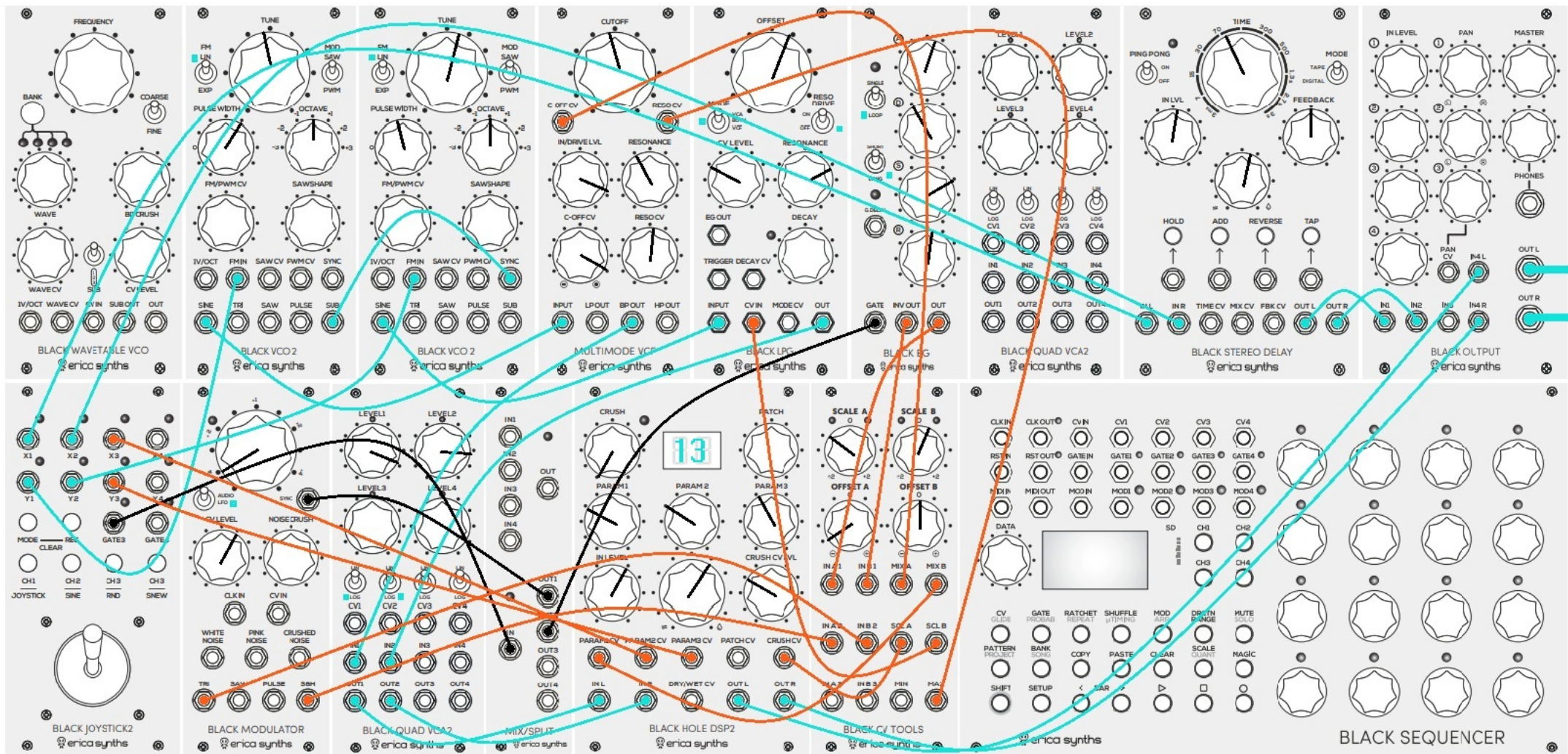
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Groove Box

The Potential of the Black System's sequencer, sound synthesis, modulation options, and effects processors can also be used for creating an advanced drum machine patch. The kick (sequencer channel 1) comes from synced Black VCO's through the Multimode VCF & VCA to output channel 3. The VCA level and Cutoff frequency of the VCF are modulated by the Black EG, triggered from the CH1 gate output of the sequencer. The second tunable percussive element (triggered by the CH4 gate of the sequencer) comes from the Wavetable VCO through the VCA and then mixed with the Kick sound. For glitchy sound character, the CV IN level of the Wavetable VCO is modulated by the MOD level of Sequencer CH4 and the WAVE CV level is modulated by the Black EG INV OUT signal. The Hi-hat sound comes from the Black Modulator White Noise through the Black LPG to the Stereo Delay and Output channel 3. Sequencer CH2 gate signal through the SPLIT module triggers the LPG, Black Modulator, and TAP Tempo of the Stereo Delay. The TIME CV level of the Delay is modulated by the EG OUT of the LPG. Pink Noise through the VCA (triggered by the gate signal of sequencer Channel 3) and the Black Hole DSP to the Output mixer channel four are used as a snare sound. The DSP parameters are modulated by CV TOOLS (Black Modulator and EG as modulation sources).

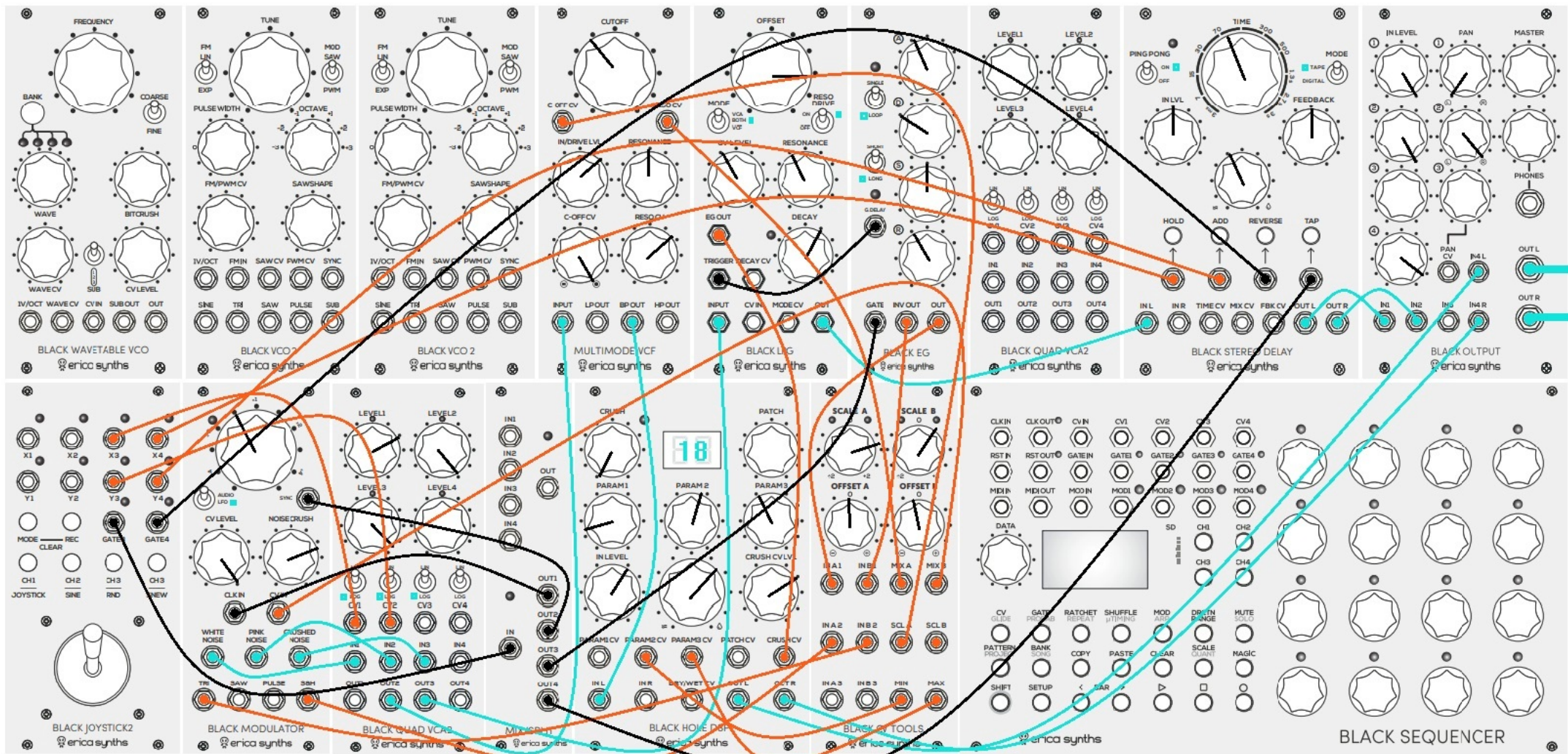
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Joystick Drones

A four-voice patch for drones, sound textures and live improvisations with the Joystick. All 4 voices are controlled by the first 2 Joystick channels in SINE Mode: X1 and X2 are Joystick sine signals passed through the Stereo Delay, while Y1 and Y2 signals are connected to the FM INs of the Black VCO oscillators whose SIN signals are each connected to its own filter, mixed with the Quad VCA and finally connected to the Black Hole DSP. Channel 3 of the Joystick is in RND mode and modulates the Black Hole DSP PARAM 2 & 3, while the GATE output is connected to the SPLIT module and triggers the Black Modulator and EG. The CV Tools module allows for additional modulation of the filters (Cutoff Frequency and Resonance of the Multimode VCF by MIX A & MAX; CV IN of the LPG by SCLB) and the Black Hole DSP (PARAM1 by MIXB and CRUSH by SCLA). CV Tools modulation sources are the EG output and the Black Modulator S&H signal in channel A; EG INVOUT and the TRI signal of the Black Modulator in channel B.

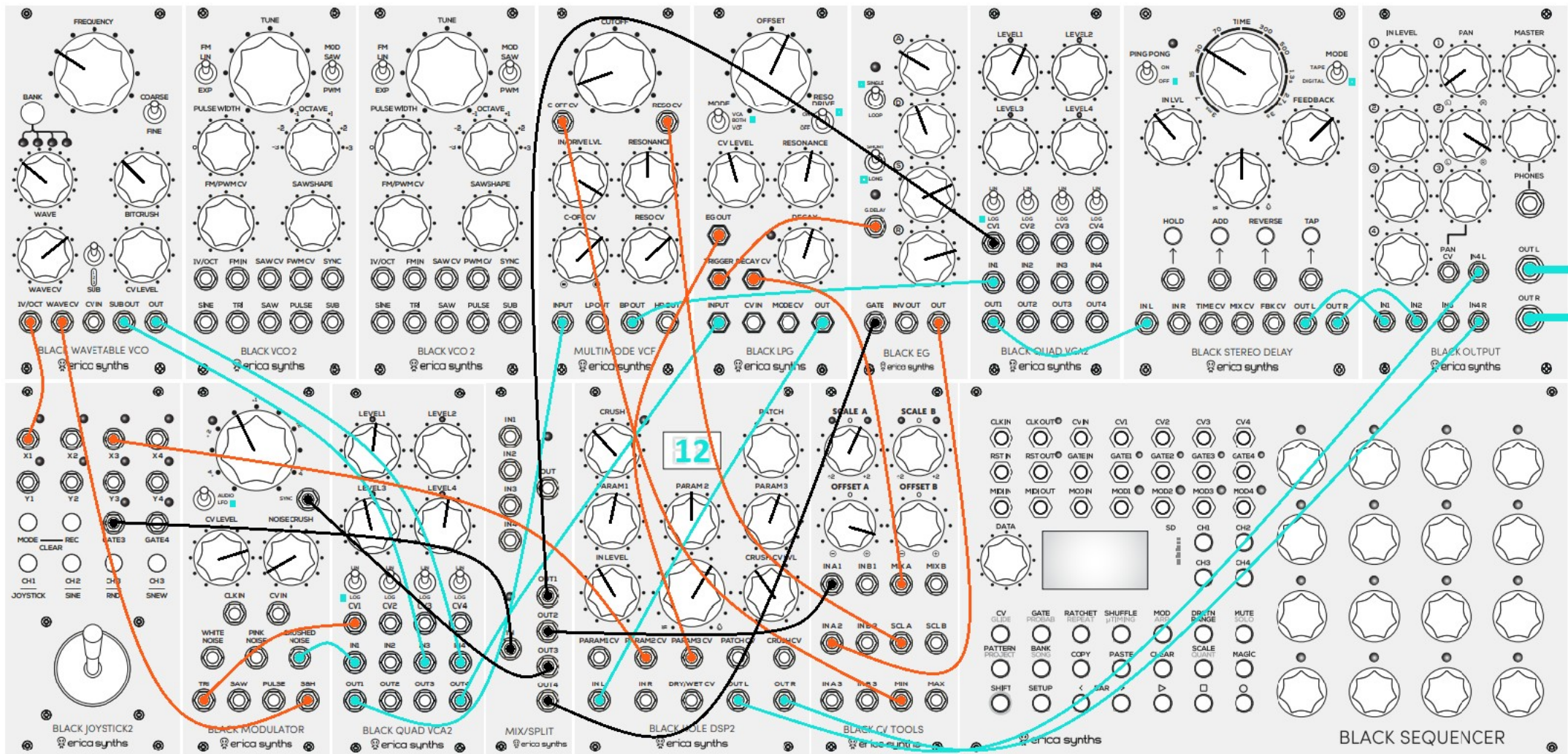




Noise Rhythms

In this experimental circuit for random rhythmic textures, all 3 Black System noise signals are used as sound sources. They are mixed into the Quad VCA and further split: WHITE NOISE & PINK NOISE are sent to the Multimode VCF and then to the Black Hole DSP while CRUSHED NOISE is connected to the Black LPF and then to the Black Stereo Delay. Tempo and rhythmic modulations of the noise signals are mainly controlled by a single Joystick channel in RND mode in the Quad VCA: the X axis controls the gate for WHITE NOISE and the Y axis - for PINK & CRUSHED NOISE. The GATE output of the Joystick splits and triggers the Black Modulator, Black EG and TAP tempo of the Stereo Delay. The second Joystick channel in RND mode (optional) controls the HOLD, ADD & REVERSE functions of the Stereo Delay. CV Tools provide additional modulation of the filters (Cutoff Frequency and Resonance of the Multimode VCF by SCLA & MIXA; CV IN of the LPG by SCLB) and the Black Hole DSP (PARAM2&3 by MIN&MAX). CV Tools modulation sources are the EG output and the Black Modulator S&H signal in channel A; EG INVOUT and TRI signal of the Black Modulator in channel B. At the same time the CV IN of the Black Modulator is modulated by the MIXB signal of CV Tools and the Black LPF is triggered by the GDELAY signal of the Black EG.





Queen of drama

A patch for pseudo-orchestral style experimental soundtracks, sound textures, and effects that can be played with the Joystick. The patch sound consists of 2 main layers – a drone sound from the Wavetable VCO through the Black LPG and the Black Hole DSP to Output channel 4 and a hi-tuned percussion sound from the Crushed Noise output of the Black Modulator through the VCA, Multimode VCF, a second VCA and the Stereo Delay to Output channels 1&2. The Pitch of the Wavetable VCO is controlled by the Joystick in SINE mode, the rhythm of the percussion and modulations is controlled by Joystick channel 3 in RND mode, where the Gate output splits and triggers the VCA level of the percussion sounds, the Black EG, the Black Modulator. This is also used together with the Black EG as a modulation source in CV TOOLS. Frequency and Resonance of the Multimode VCF and Decay time of the Black LPG are modulated by MIN, MIX A, and SCL A signals from CV TOOLS. The LPG is triggered by the G DELAY output of the Black EG. The Noise Crush signal is additionally modulated by TRI signal of the Black Modulator in the first VCA. Parameter 2 of the Black Hole DSP is modulated by the X3 Output of the Joystick, but Parameter 3 is modulated by the EG OUT of the Black LPG.



