

# ADDAC Systems – ADDAC-506 SignalFlow

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- [Manual PDF](#)

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[ADDAC506 VC Stochastic Function Generator & Expansion Manual \(PDF\)](#)

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## Creative Uses for the ADDAC506 VC Stochastic Function Generator

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The ADDAC506 offers a rich palette of random, envelope, and function generator features ideal for sound design, generative composition, and experimental patching. Here are some creative techniques and module-pairing ideas to unlock its full sonic potential:

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### 1. Generative Melodic Sequencing

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- **How:** Use the random or envelope outputs to generate stepped or smooth control voltages for pitch information.
- **With:**
  - **Quantizer Module** (e.g., Tiptop Audio Quantizer, Intellijel Scales)
    - to lock CV to musical scales.
  - **Sample & Hold Module** – sample the CV at rhythmic intervals for pseudo-melodic riffs.
  - **Result:** Evolving and non-repetitive melodic lines with a controllable degree of chance.

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## 2. Organic Rhythmic Textures

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- **How:** Patch separate envelopes with randomized rise/fall times to modulate VCAs or lowpass gates across different percussive sounds.
- **With:**
  - **VCA/LPGs** (e.g., Make Noise Optomix, Mutable Instruments Veils)
  - **Percussion Voices** (e.g., Noise Engineering Basimilus Iteritas Alter)
- **Result:** Ever-changing, organic rhythms reminiscent of acoustic performance.

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## 3. Self-Modulating Systems

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- **How:** Feed the end-of-rise (EOR) or end-of-fall (EOF) gate outputs into the trigger/gate inputs of other envelopes or even back into the ADDAC506 itself. Or, use EOR/EOF to clock step sequencers or logic modules.
- **With:**
  - **Sequential Switches** (e.g., Doepfer A-151)
  - **Logic Modules** (e.g., Mutable Instruments Kinks, Doepfer A-166)
- **Result:** Complex, self-evolving modulation or rhythm structures.

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## 4. Morphing LFO/Envelope Banking

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- **How:** Lock some channels for fixed shapes and keep others randomized. Morph between outputs using a crossfader, morphing mixer, or matrix mixer.
- **With:**
  - **Matrix Mixer** (e.g., Befaco Muxlicer, Doepfer A-138m)
  - **CV-Controlled Crossfader** (e.g., Xaoc Devices Warna II)
- **Result:** Dynamic modulation sources with ever-changing or evolving behaviors—great for drone and ambient music.

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## 5. Randomized Parameter Modulation

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- **How:** Use the expansion's random CV outputs to control less obvious parameters:
  - Filter cutoff
  - Wavefolder depth
  - Effects send levels
  - Wet/dry mix of a reverb
- **With:**
  - **VC-EQ/Filter** (e.g., Intellijel Polaris)
  - **VC-Effect Processor** (e.g., Mutable Instruments Clouds)
- **Result:** Textural complexity and unpredictability with controllable boundaries.

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## 6. Animated Sequencer Steps

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- **How:** Use envelopes with assigned randomization to modulate sequencer step lengths, gate probability, or clock division.
- **With:**
  - **Eurorack Sequencer** (e.g., Make Noise René, Arturia Keystep Pro CV outputs)
  - **Clock Modulator** (e.g., 4ms Rotating Clock Divider, Mutable Instruments Branches)
- **Result:** Non-linear, shifting grooves and polymetric sequences.

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## 7. Chaotic Polyphonic Sources

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- **How:** Treat all four envelopes as independent voices for quad-polyphonic randomness or unity.
- **With:**
  - **Polyphonic Oscillator** (e.g., Expert Sleepers Disting, Qu-Bit Chord v2)
  - **Quad LPG or VCA** (e.g., Intellijel Quad VCA)
- **Result:** Evolving polyphonic soundscapes, drone swells, or complex percussive interplay.

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## 8. Envelope Follower with a Twist

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- **How:** In SLEW mode, use external audio, CV, or gates as input to create complex tracking envelopes, then randomize timing for audio-reactive generativity.
- **With:**
- **Audio Input Interface** (e.g., Mutable Instruments Ears)
- **Any External Audio/CV**
- **Result:** Dynamic modulation derived from live or sampled audio, then rendered unpredictable and evolving.

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## 9. Voltammetry: Feedback Patch

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- **How:** Patch the output (average or sum) back into input channels, possibly through attenuverters or VCAs.
- **With:**
- **Attenuator/Polarizer** (e.g., Happy Nerding 3x MIA, Mutable Instruments Shades)
- **Result:** Feedback-driven chaos, self-modulating waves, evolving generative modulations.

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## 10. Light Show and Visual CV

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- **How:** Send amplitude/polarity LED outputs or CV outputs to a video synthesizer or LZX module for audiovisual performance.
- **With:**
- **LZX Industries Video Synth Modules**
- **Result:** Sync audio modulations with generative visuals.

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The ADDAC506 is a generative artist's dream. Its ability to randomize within defined limits, lock settings per channel, and provide flexible gating options will inspire deep exploration in your patches. Try combining it with modules from Mutable

Instruments, Make Noise, Tiptop Audio, or your favorite utilities  
for infinite sonic adventures.

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