Altered State Machines — Eris

- [Manual PDF](#)

[Eris 4 x 4 Matrix Mixer Manual PDF](#)

Using the Eris Matrix Mixer for Song Construction in Eurorack

Overview

The **Eris 4 x 4 Matrix Mixer** from Altered State Machines is a powerful utility for routing, blending, and shaping both audio and CV signals in a Eurorack setup. With four inputs and four outputs (plus auxiliary channels and soft vactrol-based muting), it provides unique creative opportunities beyond simple signal mixing. Since many modular enthusiasts can create short "loops" but struggle to arrange or evolve a patch into a full-length composition, the Eris offers a toolkit for **dynamic, hands-on arrangements** vital for performing or structuring full songs.

Strategies for Song Creation with the Eris 4 x 4 Matrix Mixer

1. Morphed Arrangements & Manual Performance

- **Scene Morphing:** Use the mixer to create "scenes" by routing your voices (kick, snare, bass, lead, pads, effects returns, etc.) to specific outputs. Morph between different mixes during performance by sweeping the input/output pots, allowing dramatic transitions or subtle developments.
- **Manual Breakdowns:** Drop elements in and out by lowering their send levels or muting them with the vactrol soft-mute on the aux

channel (ideal for breakdowns or transitional moments without clicks).

2. Effect Routing for Dynamic Texture

- **Send/Return Matrix:** Route output channels to effects (delays, reverbs, distortion, etc.) and return these processed signals to an input (like the Aux input). This enables classic dub-style effects sends, automated build-ups, or sudden effect "drops." Change what is sent to effects mid-song, evolving your sound palette live.
- **Feedback & Self-Patching:** Patch an output back into an input for controlled feedback, introducing evolving timbres, resonances, or even chaotic transitions, perfect for evolving sections in longer compositions.

3. Automated Movements and Generative Progression

- **Voltage Control with External Modulation:** Use CV sources (LFOs, envelopes, sequencers) patched into the four inputs or alongside audio signals for organic, ever-changing mixes and modulation routings. Animate which part of your system receives which modulation for generative arrangements—ideal for ambient or experimental full-length works.
- **Envelope Follower Crossfades:** Patch envelope followers from drums or other elements to control the Eris matrix, so the mix responds to playing, enabling dynamic shifts in arrangement (side-chained movement; ducking effects, etc.).

4. Song Section Transitions

- **Dedicated Output Muting:** Use the aux mute for fast, click-free transitions between song parts: bring in a bass drop, reduce effect returns, or introduce a solo instrument at the touch of a button.
- **Switching Arrangement Roles:** Since the mixer is not hardwired, what each output is "for" can change throughout the song. Outputs 2, 3, and 4 can toggle between being effects sends, sub-mix busses, or even dry audio sources at different times.

5. Live Recording & Multitracking

- **Multitrack Output:** Record all four outputs separately for multitrack mixing later— essential for arranging longer pieces or editing improvisations into cohesive songs in the DAW.

Example Patch Workflow for Song Arrangement

1. **Inputs:**
2. IN1: Kick drum
3. IN2: Bass
4. IN3: Lead synth

5. IN4: FX/Pad

6. **Outputs:**

7. OUT1: Main output (to PA or recorder)
8. OUT2: Send to delay/reverb
9. OUT3: Send to distortion

10. OUT4: Bus effects return or send

11. **Aux Use:**

12. Use AUX input for returning a key effects chain or a layered element you want to mute/unmute smoothly.

13. Switch AUX gain for boosts in energy during chorus/peak sections.

14. **Performance Flow:**

15. Use the matrix to phase elements in/out or push only certain channels to FX for breakdowns.
16. Manipulate sends live to increase or decrease complexity and energy, shaping a full song structure.

Creative Tips

- **Morphing Modulation:** Send LFOs through certain matrix channels to randomly animate which synth voices are being modulated, creating unpredictable song evolution.
- **Conditional Feedback:** Patch back from effect returns or outputs to inputs for self-oscillating textures, freeing your hands for big arrangement gestures elsewhere.
- **Song Section Macros:** Pre-set matrix pot positions for verses, choruses, drops, and bridge sections. Move swiftly between them for hands-on live performance arrangements.

Generated With Eurorack Processor