Altered State Machines — Eris

- Manual PDF

Manual PDF / Product Page

Using the Altered State Machines Eris to Create Melodic Components

From the provided manual, the module shown is:

- **Altered State Machines Eris**
- **4×4 matrix mixer**
- **DC-coupled**, so it can mix both **audio** and **CV**
- Up to **4× gain per channel**
- Includes an **Aux input/output**
- Aux is summed with **Output 1** and can be softly muted
- Rear switch for **unity or x2 gain** on Aux input

Because Eris is DC-coupled and has a true matrix architecture, it is especially useful for building **melodic control structures**, not just audio submixes. In a melodic Eurorack patch, Eris can act as a **CV router, pitch combiner, transposition hub, feedback mixer, or voice distributor**.

What Eris does musically

A 4×4 matrix mixer means:

- You have **4 inputs**
- You have **4 outputs**

- Each input can be sent to **any or all outputs**
- The amount sent is controlled by a knob at each crosspoint

So in melodic use, you can treat Eris as a way to combine and distribute:

- pitch CV
- envelopes
- LFOs
- sequencer rows
- offsets
- random voltages
- audio oscillators

This makes it useful for creating melody by **mixing pitch sources**, **sending related variations to multiple voices**, and **creating movement around a central tonal idea**.

Best melodic uses for Eris

1. Create harmonized pitch lines from one or more sequencers

If you patch pitch-related CV into several inputs, Eris can create multiple related melodic outputs.

Example patch

Inputs: - **Input A**: main pitch sequencer - **Input B**: slow offset CV or precision adder output - **Input C**: random stepped voltage - **Input D**: envelope or LFO for pitch animation

Outputs: - **Output 1**: main voice pitch - **Output 2**: second oscillator pitch - **Output 3**: bass voice pitch - **Output 4**: transposed lead or FM index control

Result

Each output becomes a different weighted combination of the same sources. That means:

- Voice 1 can play the basic melody
- Voice 2 can play a related intervallic variation
- Voice 3 can get a simplified or lower-register version
- Voice 4 can become a more animated melodic derivative

This is one of the strongest uses of Eris: **turning a few CV sources into a family of melodies**.

---

2. Build a modulation matrix for melodic motion

The manual explicitly says Eris can be used as a **modulation matrix**, and this is very important for melodic work.

Patch in modulation sources such as:

- a slow triangle LFO
- a stepped random source
- an envelope
- a sequencer lane

Then send them in different amounts to destinations like:

- oscillator 1 pitch
- oscillator 2 pitch
- filter cutoff
- wavefolder amount

Why this helps melody

Melody is not just note order. It also comes from:

- slight pitch drift
- phrase-based transposition

- varying brightness
- changing articulation

Eris lets one modulation source influence several melodic voices in different proportions. That creates **coherence**, which is often more musical than using unrelated modulation everywhere.

---

3. Use it as a pitch variation network

Since Eris is DC-coupled, one very practical use is **mixing pitch CV**. This lets you create:

- transpositions
- interval stacks
- octave shifts
- unstable melodic variants

Example

Inputs: - **A**: quantized melody - **B**: +1V offset - **C**: slow random CV - **D**: keyboard or pressure CV

Outputs: - **Out 1**: original melody - **Out 2**: melody + octave - **Out 3**: melody + small random deviation - **Out 4**: melody + performance control

If your downstream oscillators need accurate 1V/oct tracking, you'll usually want to send Eris outputs into a **quantizer** or carefully calibrate your scaling by ear, since matrix mixers are creative tools first and precision utilities second.

Still, for melodic composition, this is extremely powerful.

---

4. Generate chord-like structures across several voices

Eris can distribute one melodic CV source to several voices while adding different amounts of supporting voltages.

Patch concept

Inputs: - **A**: root melody - **B**: fixed interval offset - **C**: another interval offset - **D**: slow macro modulation

Outputs: - **1**: root - **2**: root + interval 1 - **3**: root + interval 2 - **4**: root + animated extension

Run each output into a separate quantizer channel or separate oscillators, and you get **parallel melodic structures** that can resemble chords, counterpoint, or clustered harmony.

This works especially well for: - triads spread across three oscillators - drone + melody combinations - canon-like pitch relations - evolving harmonic beds

---

5. Morph between melodic roles in performance

Because Eris has knobs at every routing point, it is highly playable.

You can perform melody changes by: - bringing one sequencer into several outputs - fading in random voltage to destabilize pitch - reducing one modulation path while increasing another - moving a bassline into a lead register structure

This is especially useful in live techno, ambient, and experimental patches where melody evolves by **mix balance** rather than by replacing sequences.

---

6. Use the Aux path as a melodic layer return or drone injection

The manual says:

- the **Aux input** is summed with **Output 1**
- then both are sent to the **Aux output**
- there is a **mute** for the Aux input

- Aux gain can be set to **unity or x2**

This suggests a few melodic uses.

A. Bring in a drone or second melodic line

Patch: - Main melodic mix on Output 1 - Drone oscillator, sub voice, or effect return into Aux input - Use Aux mute to softly bring the extra layer in and out

This is excellent for: - introducing a fifth or octave drone - adding reverb-returned melody - dropping in a secondary motif without clicks

B. Feedback-based melodic coloration

If you have an effect that emphasizes pitch, like: - delay - resonator - shimmer reverb - tuned feedback path

you can send Eris output to that effect and return it to the Aux input. Since Aux is summed with Output 1, this creates a **melodically reinforcing return path**.

C. Percussive melodic accent

The manual mentions using Aux to mix a kick with the main signal, but for melodic work you could instead use it for: - plucked voice accents - a bass reinforcement line - a manually introduced counter-melody

The clickless mute makes this ideal for performance.

---

7. Create cybernetic feedback melodies

The manual specifically mentions use in a **cybernetic feedback circuit**.

In melodic terms, this can mean:

- sending a pitch-related or audio signal through effects
- returning it into Eris

- cross-mixing it with modulation or oscillators
- allowing the system to influence itself

Melodic applications

- self-evolving semi-tonal loops
- unstable resonant melodies
- pitch-fed-back filtered sine structures
- recursive transpositions

If you use feedback with pitch CV, be careful. Small changes can become extreme quickly. But with controlled amounts, Eris can create **organic, evolving melodic systems** that sound less programmed than a typical sequencer patch.

---

8. Multi-voice distribution from one melodic source

One of the simplest but strongest uses:

- Send one sequencer into Input A
- Route it to all four outputs in different amounts
- Add one or two other CV sources across the matrix
- Feed outputs to four oscillators, or to oscillator pitch plus timbral destinations

This turns a single melody into: - lead - harmony - bass - ornament

That is a very “musician-friendly” use of Eris in a compact system.

Practical melodic patch recipes

Patch 1: Four related melodies from one sequence

Inputs - A: main sequencer CV - B: stepped random - C: slow triangle LFO - D: manual offset voltage

Outputs - 1: lead voice pitch - 2: bass voice pitch - 3: pluck voice pitch - 4: modulation to wavefolder or filter

How to set it - Send A strongly to outputs 1, 2, 3 - Add a little B to outputs 2 and 3 - Add C to output 3 only - Add D to output 1 for live transposition

Musical result A coherent melodic ecosystem: one recognizable line, one variation, one animated ornament.

Patch 2: Matrix-generated harmony

Inputs - A: quantized root melody - B: offset representing a harmonic interval - C: another interval offset - D: envelope or phrase CV

Outputs - 1: root - 2: third/fifth-related line - 3: higher extension - 4: expressive transposition

Tip Use quantizers after Eris if you want the harmonic relationships to stay locked to a scale.

Patch 3: Live melodic performance hub

Inputs - A: sequencer row 1 - B: sequencer row 2 - C: pressure or joystick CV - D: random source

Outputs - 1: lead pitch - 2: bass pitch - 3: filter contour CV - 4: FM or wavefold amount

Performance method Use the matrix knobs like a mixing desk for composition: - fade from row 1 into row 2 - inject pressure into pitch - add random only at phrase endings - create breakdowns by stripping outputs back to one source

---

Patch 4: Aux-based melodic overlay

Main path - Build your central melodic voice at Output 1

Aux path - Send a second oscillator, drone, or effected return to Aux input - Take Aux output as your final melodic sum - Use mute switch for clean entry/exit

Result A second musical layer appears and disappears smoothly, ideal for: - choruses - breakdown transitions - ambient widening - lead reinforcement

---

Strengths of Eris for melody

- **DC-coupled**, so it works with pitch and modulation CV
- **4×4 matrix format** encourages related, structured variation
- **Gain up to 4x** can amplify weak control sources
- **Aux path** adds a performable melodic layer or return
- Good for both **precise composition** and **experimental generative patching**

Things to watch out for

1. Pitch precision

Matrix mixers can be used for pitch CV, but if you need exact tonal intervals, you may want: - a quantizer after the outputs - carefully tuned offsets - testing by ear with your oscillators

2. Gain staging

Since each channel can amplify up to 4x, it is easy to push CV or audio beyond expected ranges. That can be useful, but be intentional.

3. Feedback caution

For cybernetic/feedback patches, start with low levels. Melodic feedback can become noisy or unstable very fast.

Conclusion

Even though Eris is presented as a matrix mixer, it is very well suited to **melodic patch design** in Eurorack. Its biggest strength is not simply mixing signals, but creating **families of related control voltages and audio layers**. That makes it valuable for:

- harmonized voices
- melodic variation
- transposition systems
- modulation matrices
- live melodic performance mixing
- feedback-based generative melody

If you pair it with sequencers, quantizers, oscillators, and effects, Eris can become the central “relationship builder” that turns a few simple sources into rich melodic structures.

Generated With Eurorack Processor