

Altered State Machines – Eris

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[Manual PDF: Eris 4x4 Matrix Mixer by Altered State Machines](#)

Eris 4x4 Matrix Mixer Cheat Sheet

Overview

- **4x4 matrix mixer:** 4 inputs x 4 outputs, 12hp
 - **Mixes and routes audio or CV signals** (DC coupled)
 - Linear potentiometers control send level from any input to any output
 - Each channel can **amplify up to 4x** input (makeup gain/overdrive)
 - **Auxiliary input/output** with soft vactrol-based mute
 - Toggle switch (rear): Aux input gain (Unity/x2)
 - Suitable for mixing (audio, CV, FX send/return, feedback, modulation matrices)
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Controls & Jacks Reference

Inputs (Jacks)

- **Inputs 1-4 (Top Row, Left)**
- Accept **audio or CV signals**
- Typical modular range: $\pm 10V$ (not specified, but standard for Eurorack, module is DC coupled)

- Each input may be summed to any output

• **Auxiliary Input**

- Signal is summed with Output 1 before being routed to Aux Output
- Gain: Switchable (Unity or x2 via rear toggle)
- **Mute:** Vactrol-based soft mute (button or toggle on front panel)

Outputs (Jacks)

- **Outputs 1-4 (Top Row, Right)**
- Each receives mixed signal according to matrix settings
- **Auxiliary Output**
- Sum of Aux Input and Output 1 (post-mix), subject to mute status

Knobs / Potentiometers

- **16 Channel Level Knobs** (4 per input/output crosspoint)
- Each knob controls send level from one input to one output (linear response)
- Levels up to **4x** amplification of input signal

Switches

- **Aux Input Gain Toggle (Back Panel)**
 - Selects between Unity Gain (1x) and high gain (2x) for Aux In
 - **Aux Mute (Front Panel/Button)**
 - Soft vactrol-based mute for Aux Input (clickless)
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Typical Use Scenarios

- **Basic 4-Input Mixer:** Route all to Output 1 as main mix.
- **FX Send/Return Matrix:** Send Outputs 2/3/4 to effects, return effected signals to Aux In.
- **Modulation Matrix:** Route various CV signals to different destinations.

- **Feedback Networks or Cybernetic Circuits**
 - **Kick Drum/Accent Mixing:** Use Aux channel for bringing in/out specific sounds.
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Power / Specs

- **Size:** 12 hp
 - **Current Draw:** +12V 17mA, -12V 3mA, 0mA 5V
 - **DC Coupled:** Handles audio & CV equally
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Compliance & Limitations

- **EU (RoHS):** Not currently shippable to EU (vactrol in Aux mute, RoHS version pending)
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Quick Links

- [Manual PDF](#)
 - [ModularGrid](#)
 - [Etsy Purchase](#)
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