MATRISE v2

MATRISE is an active matrix audiomixer sporting four inputs, four outputs, sixteen level adjustment knobs and individual phase inversion switches for each of the four output channels. This makes for a powerful tool to experiment with signal routing and feedback loops. Among other things the device can be used to run parallel effect loops or amplifiers, add a clean-blend to an effect, or regenerate effects or even the mixer itself. *A matrix mixer is a mixer with multiple inputs and outputs, where any input can be routed to any output, hence the name "Matrix".*

How it works

The Grid: The 16 knobs set the volume of each input present at each of the outputs. There are 16 knobs since 4 x 4 = 16. Each input has four outputs to choose from, just as each output has four inputs to choose from.

Polarity: Each output channel has a phase inversion switch. In the 'O' position the original phase is retained. In the 'Ø' position it's inverted. This is a handy tool for instance when running parallel loops or feedback loops as many devices invert the phase of your signal. With the phase inversion switch you are able to correct such phase cancellations. Adding positive or negative feedback across some reverb and modulation pedal will yield different textures. Experiment. Signal inversion can also produce intended subtractive signal mixing removing a component from a signal. For instance canceling out the dry signal component from a chorus will yield a vibrato effect!

Gain: MATRISE can be used to boost any signal by up to +6dB.

Headroom: MATRISE utilizes a chargepump to boost its supply voltage to 17 volts. This leaves you with an increase in headroom, important for preventing the mixer from coloring your sound. This is useful for instance in situation where you are running pedals in feedback loops.

Active > Passive: Most available non-modular matrix mixers on the market are passive. Though they do not require a power supply, they come with limitations and drawbacks. For one, a passive matrix will load down your signal resulting in attenuation and loss of frequency content. Another common issue is channel crosstalk causing signal interference across the outputs. Features like signal boosting and inversion is not available with a passive matrix. In summary: Active beats Passive.

Feedback loops: Feeding the output of a pedal back to its input can be a fun way to experimenting with sound. Different pedals behave differently and some might not produce positive feedback unless you invert the signals phase. Beware of loud signals and take care not to damage your ears or equipment.

Technical Specs

Input impedance:	1 MΩ
Output impedance:	~1 kΩ
Voltage:	9 VDC center negative (Normal Boss/Ibanez/1Spot style) No Battery Clip
Current draw:	50mA
Dimensions:	150 mm x 125 mm x 65 mm
Weight:	~640 g