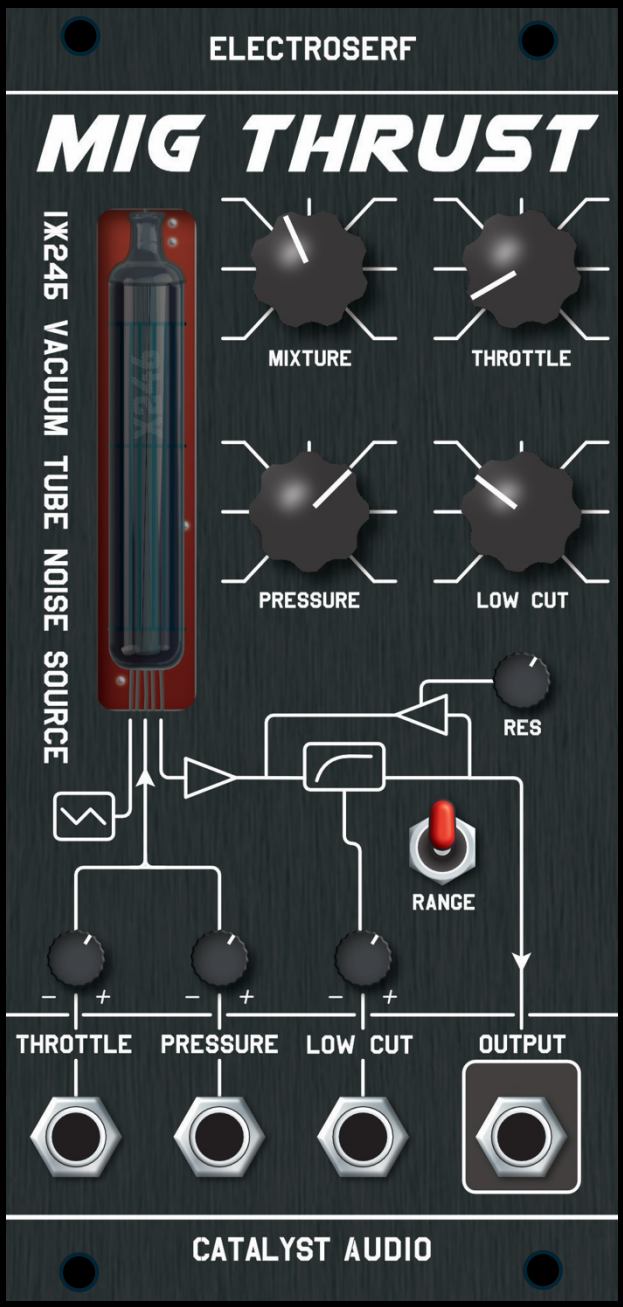
CATALYST AUDIO / ELECTROSERF

MIG THRUSTER

VACUUM TUBE NOISE SOURCE

Mig Thruster Manual V1.0 6.10.26



[01 DESCRIPTION]

The Catalyst Audio / Electroserf Mig Thruster is a fully analog voltage controlled vacuum tube noise source built around the 1J24b subminiature vacuum tube. It is an extremely unique sound source.

[02 SPECIFICATIONS]

HP	12
POWER DRAW (+RAIL)	67 mA
POWER DRAW (-RAIL)	68 mA
MODULE DEPTH	approx. 30mm

[03 MAIN CONTROLS]

The controls on the thruster are hard to describe, because most of them do not have any analogous controls on traditional modules. The pots generally alter some type of internal circuit behavior or tube parameter voltages that are somewhat meaningless unless you understand how the circuit works.

>> MIXTURE – THROTTLE - PRESSURE

All three of these controls are highly interactive with each other, and it is hard to describe the functionality of any of them in isolation. As much as I dislike saying “you just need to explore it on your own” that is particularly true regarding these 3 controls.

>> LOW CUT

Low cut does mostly what its name says it does. It is a 12db high pass filter, however – due to its placement in the circuit it will not just cut the low end, but it also affects the inherent quality of the noise beyond just filtering it.

>> RESONANCE

Controls the resonance of the low cut filter. However, Similar to the low cut control, the location in the circuit will also affect the quality of the noise itself (in quite dramatic ways).

>> RANGE SWITCH

Switches the flavor of the noise output. This can be quite subtle or drastic depending on the settings of the module.

[04 CV INPUTS]

The Mig Thruster features 3 individual CV inputs.

>> THROTTLE INPUT

CV input for controlling the Throttle parameter. The Throttle pot sets the initial throttle level and the cv attenuverter (just above the cv input jack) determines if cv is either added (clockwise) or subtracted (counterclockwise) from the initial pot setting.

>> PRESSURE INPUT

CV input for controlling the Pressure parameter. The Pressure pot sets the initial pressure level and the cv attenuverter (just above the cv input jack) determines if cv is either added (clockwise) or subtracted (counterclockwise) from the initial pot setting.

>> LOW CUT INPUT

CV input for controlling the Low Cut parameter. The Low Cut pot sets the initial low cut frequency and the cv attenuverter (just above the cv input jack) determines if cv is either added (clockwise) or subtracted (counterclockwise) from the initial pot setting.

[05 OUTPUTS]

>> OUTPUT

The Thruster’s main output

[06 ADDITIONAL INFORMATION]

The controls of the Thruster have a very large range. This provides a lot of amazing sound shaping power, but it also allows you to find corners where the module is not producing any sound at all. Both the Pressure control and Res control can cause the module to stop producing sound at the extreme ranges. I find that the best way to “reset” your settings is to set the Pressure pot near the 12:00 position, Turn the Low cut all the way off (full CCW) and sweep the Res pot. You should find noise somewhere in that sweep which you can then use as a new starting point.