

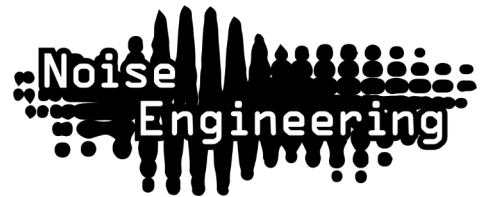
# Noise Engineering

## Sono Abitus

Stereo balanced ¼" TRS output and ¼" headphone output with separate level controls in 4 HP.

### Overview

Type	Headphone amplifier and balanced line output
Size	4 HP
Depth	1.5 inches
Power	2x5 Eurorack
+12 mA	50
-12 mA	50
+5 mA	0



Sono Abitus is a high-quality output module. It has a stereo pair of Eurorack-level ⅛" inputs that feed a pair of ¼" TRS jacks for line output and a ¼" headphone output. The headphone output and line outputs have separate level controls, making it easy to monitor while performing or recording.

### Etymology

**Sono** -- from Latin: "to make a noise"

**Abitus** -- from latin: "way out, exit"

"Make noises exit"

### WARNING

The headphone output can be EXTREMELY loud. In a normal, quiet environment, the first 25% of the knob will probably cover all the volume range you'll need. Use caution when listening on headphones (or in general!) as high audio levels can cause permanent hearing damage. Protect those earholes.

# Power

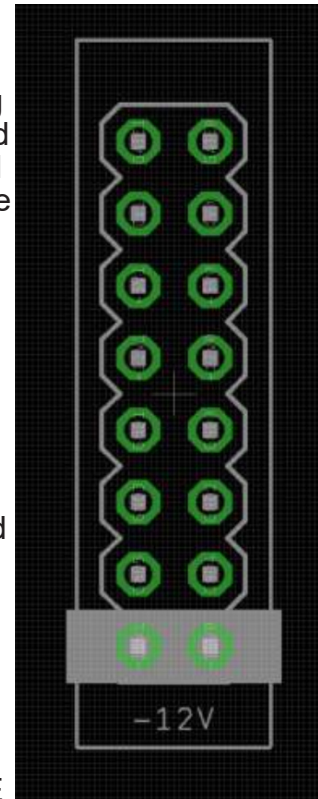
To power your Noise Engineering module, turn off your case. Plug one end of your ribbon cable into your power board so that the red stripe on the ribbon cable is aligned to the side that says -12v and each pin on the power header is plugged into the connector on the ribbon. Make sure no pins are overhanging the connector! If they are, unplug it and realign.

Line up the red stripe on the ribbon cable so that it matches the white stripe and/or -12v indication on the board and plug in the connector.

Screw your module into your case BEFORE powering on the module. You risk bumping the module's PCB against something metallic and damaging it if it's not properly secured when powered on.

You should be good to go if you followed these instructions. Now go make some noise!

A final note. Some modules have other headers -- they may have a different number of pins or may say NOT POWER. In general, unless a manual tells you otherwise, DO NOT CONNECT THOSE TO POWER.



# Warranty

Noise Engineering backs all our products with a product warranty: we guarantee our products to be free from manufacturing defects (materials or workmanship) for one year from the date of the original retail purchase (receipt or invoice required). The cost of shipping to Noise Engineering is paid by the user. Modules requiring warranty repair will either be repaired or replaced at Noise Engineering's discretion. If you believe you have a product that has a defect that is out of warranty, please contact us.

This warranty does not cover damage due to improper handling, storage, use, or abuse, modifications, or improper power or other voltage application.

# Interface

**Phones:** Volume control for the headphone output.

**Master:** Volume control for the line outputs.

**L/R (1/8"):** Eurorack input; sent to both the headphone output and the line output. The L input is normalized to the R input if nothing is patched to R. Input levels are displayed on corresponding LEDs.

**Phones (1/4"):** TRS headphone output. Level is controlled by Phones knob.

**L/R (1/4"):** Stereo pair of balanced TRS outputs. Level is controlled by Master knob.

# Patch Tutorial

Patch a mix to the L/R input jacks. Connect your headphones to the Phones output. Connect your speakers, PA, audio interface, or mixer to the Master outputs with 1/4" TRS cables.

# Patching caution

While difficult to do without the use of adapters, please take care not to patch signals into the headphone and TRS outputs. We take care to protect all our modules from any voltages that may be encountered in normal patching, but the drivers required in the 1/4" outputs are more delicate than the circuits we usually use and may be damaged from incoming voltages. Noise Engineering is not responsible for damage caused by incorrect patching.

# Design Notes

When using our cases, both at home and at shows, we struggled to find an output module that suited our needs. While there are many options on the market, we needed one that was small and had level controls for separate headphone and balanced line outputs. After some searching, we decided to make our own, and Sono Abitus was born. SA is designed to be a compact and straightforward output solution that will fit most connectivity needs.

