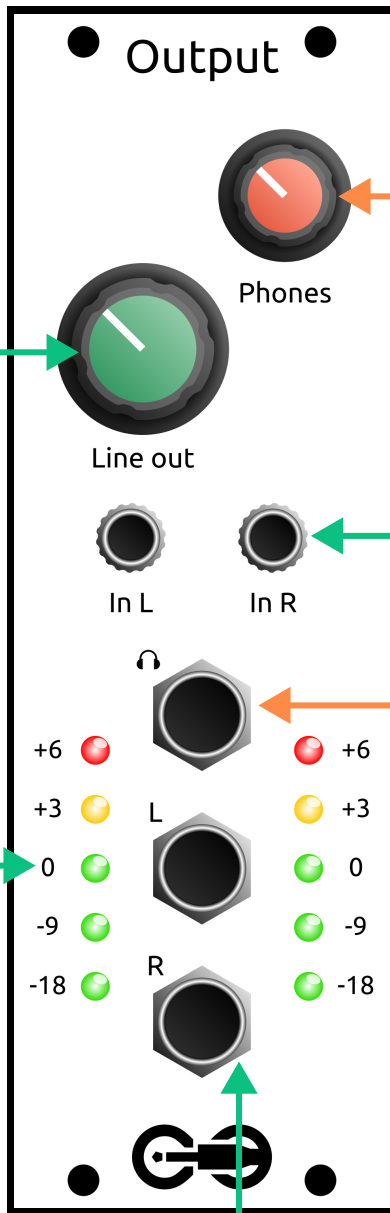# Free Modular

Output

The Output module lets you take a stereo audio signal out of your Eurorack case and pass it to other audio gear, an audio interface, speakers, or headphones. It provides a balanced line level output and a dedicated stereo headphone output with independent volume controls for both and a VU meter to measure your output levels.

Line Out Volume

Controls the volume of the line level output. At full clockwise, the module will convert a typical 10v peak-to-peak Eurorack audio signal to 7dBu for a sign wave (or 10dBu for a square wave), so a slight boost above "line level" at 4dBu. At full CCW, the signal is silenced.

VU Meter

These 5 LEDs indicate peak output level on the line out (left and right respectively). This is not a true VU meter – it shows peak amplitude instead of dBu (RMS). The printed numbers indicate the equivalent dBu assuming a sine wave. If the output is a more compressed wave, the true output might be a few dBu higher than indicated. If you want different values for the LEDs or a different peak detection window, that can be configured by swapping resistor values.

Headphone Volume

Controls the volume of the stereo headphone output.

Input

Accepts the Eurorack audio output from the rest of your system. AC-coupled. Left and right are each normalled to each other, so plugging into either will output the mono signal on both channels..

Headphone Output

1/4 in. TRS jack outputs headphone signal. This output should have enough power to drive studio headphones with minimal distortion. It can easily be stepped down to a 3.5mm jack with an insert adapter for consumer headphones.

Line Out

Balanced 1/4 in. TRS jacks output line level signal for both left and right channels. The output impedance is 100Ω, although that can be configured.

Output panel

Phones

Line out

In L   In R

+6   +6
+3 L +3
0   0
-9   -9
-18 R -18