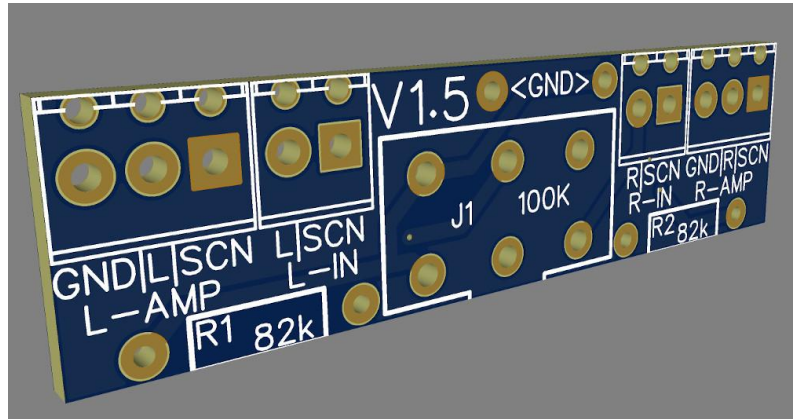


### Application & Purpose:

Provides volume/gain control by attenuating the input signal to a ZinAmp power amplifier. Can also be used to follow a phono stage in a phono-only installation

PCB allows mounting of a linear or logarithmic pot. Terminals can be screw type or pcb header pins such as Molex 254 or MTA-100



3D view of blank PCB

### Specification:

<b>PCB Dimensions</b>	45mm x 10mm x 1.6mm
<b>Purpose</b>	- Provides volume/gain control
<b>Impedance</b>	50-250k - depending on the value of pot used - 100k or 200k pot recommended. 50k can be used to follow a phono-stage when driving a particularly high-impedance downstream amplifier.

### Details:

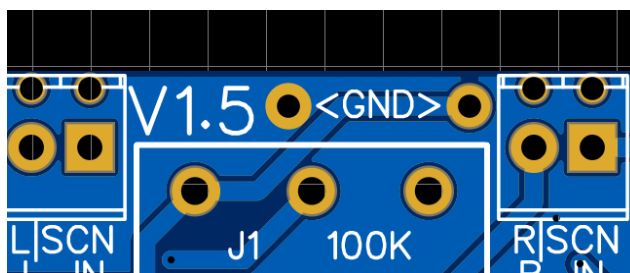
Mounted behind the front-panel of ZinAmp power amplifiers and phono-only pre-amps. Can be used as a gain control (linear) or a volume control (logarithmic). Adding two optional resistors (82k or 100k) makes the control response of the pots logarithmic. A log pot can be used if preferred, but these are generally more expensive, less reliable and can be difficult to source with the correct shaft size and type.

### Connections:

Terminal	Pins	Purpose
L-Amp	Gnd L SCN	Connects to the downstream amplifier. Gnd is Audio Ground, L is Left Signal and SCN is cable screen
R-Amp	Gnd R SCN	Connects to the downstream amplifier. Gnd is Audio Ground, R is Left Signal and SCN is cable screen
L-In	L SCN	Connects to the upstream source or selector switch. L is left signal, SCN is the Audio Ground. Run audio ground through the screen of a piece of screened cable if longer than 10cms. Shorter connections, audio ground can run through regular hook up wire.
R-In	R SCN	Connects to the upstream source or selector switch. R is right signal, SCN is the Audio Ground. Run audio ground through the screen of a piece of screened cable if longer than 10cms. Shorter connections, audio ground can run through regular hook up wire.

## Ground Terminals

There are two ground terminals on the board - marked <GND>. They are **General Ground** and **Audio Ground**.



**Audio Ground** is on the right as shown. It's connected to the following pins

- L-Amp - GND
- R-Amp - GND
- L-IN - SCN
- R-IN - SCN

Solder a piece of green hook up wire from this terminal to the star-ground of your installation. If you are using a ZinAmp pre-amp, you don't need to do this as the Pre-Amp module has an audio-ground to star-ground. Connect one or the other, but not both.

**General Ground** is on the left as shown. It's connected to the following pins

- L-Amp - SCN
- R-Amp - SCN

Solder a piece of green hook up wire from this terminal to the star-ground of your installation. This will ensure the cable screen between your volume control and downstream amp is grounded. If you are not using screened cable here i.e. your cable run is less than 10cms, you don't need to ground this terminal.

## Recommended Resistor Values - depending on pot value

Pot value is critical in some situations. If your downstream amp is a pre-amp or an amplifier with a lower input impedance, you will want a larger pot - perhaps 200k - to ensure there is no loss of bass at the input to the pre-amp. If you are driving a very high input impedance, you may want a smaller pot to ensure noise is kept to a minimum. These are our general recommendations.

Downstream Amp Input Impedance	Pot Value	Load Resistor Value (to make a linear pot logarithmic)
10k-47k	200k	100k
47k-220k	100k	82k
>220k	50k	47k

**Note:** We normally supply a 100k linear pot with 82k load resistors to provide a log-like response and this is fine for most situations. However the guidelines shown above are general guidelines to which there are often exceptions!

## Parts List:

CONNECTORS: Connectors are not included and can be purchased and soldered on by the constructor. This is to give the constructor a choice of how they wire their own particular installation. Terminal block connectors are indicated in the list below in [blue](#) and can be swapped for equivalent 2.54mm pitch connectors e.g. Molex KK254 headers, which are provided to the constructor in self-wire kits.

Designator	Value/Spec	Qty	Supplier	Manufacturer	Manufacturer Part	Supplier Part
<a href="#">L-AMP,L-IN,R-A MP-R-IN</a>	<a href="#">2 Pole Terminal (self-wire only)</a>	4	<a href="#">RS</a>	<a href="#">RS-PRO</a>	<a href="#">790-1098</a>	<a href="#">790-1098</a>
R1, R2	82k or 100k	2	RS	TE Connectivity or Vishay	LR1F82K or MRS25000C1003 FCT00	148-950 or 683-2923
J1	100k or 200K	1	ZinAmp			

Parts available from [RS Online](#). Also try [Farnell](#), [Mouser](#) and other online suppliers.

Parts from different manufacturers can be substituted where spec is sufficient

Supplier trading names may differ by country.