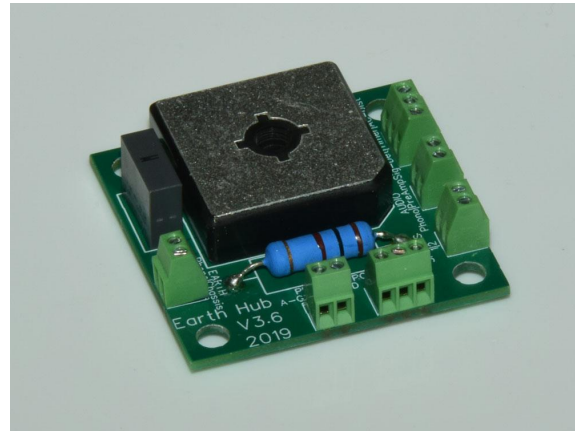


Application & Purpose:

Star-earth and loop-breaker on one PCB. Isolates mains earth from amplifier ground nets and minimises the chance of earth loops between your ZinAmp and any connected equipment e.g. another pre-amp or power amp



Specification:

Purpose	<ul style="list-style-type: none"> - Isolation between AC mains earth ground nets - Eliminates hum arising from earth loops with external equipment - Separation of power supplies ground from audio ground, keeping AC rectifier noise out of the audio path
Features	<ul style="list-style-type: none"> - 2oz copper tracks to handle mains current in the event of a fuse-blowing - 25A rectifier bridge

Details:

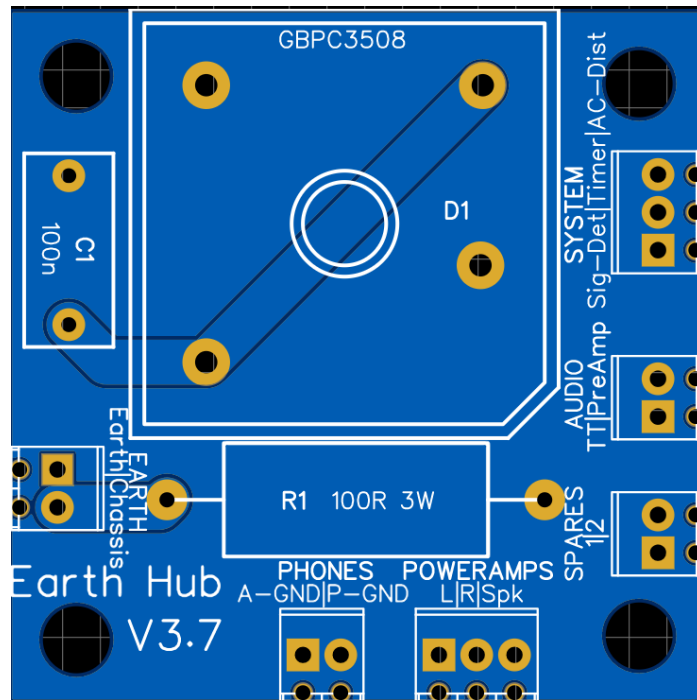
A simple and clearly marked ‘organiser’ of ground nets, separating AC earth from DC and audio ground. Functions as a star-earthing point with clearly marked terminals for audio and power ground nets.

Separating AC earth from DC and audio ground in this way eliminates any ground loops that may occur when connecting other equipment to your amplifier. It also negates the need for devices like power conditioners as any interference in the power supply is kept away from the rectified DC supply.

Safety Note:

This module **MUST** be connected to the chassis which in turn **MUST** be connected to AC Earth. For convenience, the AC Earth can connect to the Earth terminal and the metal chassis to the Chassis terminal. Doing this will connect the chassis to AC earth. However, we do recommend AC Earth has its own connection to the chassis as well, as this provides a fail-safe.

Bare PCB:



Connections:

Earths: Using the PCB layout above as a guide, connect the Earth terminal to electrical earth from your AC supply. Connect Chassis to your metal amplifier chassis. This will ground your chassis and make it safe. For additional safety we recommend you make an additional connection from the earth on your AC supply to your chassis.

Grounds: All of the other terminals e.g. PHONES, POWERAMPS, SPARES, AUDIO are connected together and form the common ground or start ground point. It doesn;t really matter which of these you use, but they are marked for convenience.

Typical Use: If you are installing a power amp and a power supply, you will need to make the following connections to the common grounds on the hub

- **Transformer** - connect the centre-tap (0v) of your transformer secondaries to one of the ground terminals on the hub
- **Power Supply** - connect the GND terminal to one of the ground terminals on the hub
- **Power Amp** - connect the Power GND terminal to one of the ground terminals on the hub
- **Power Amp** - connect the Audio GND terminal to one of the ground terminals on the hub

Note: The Power GND and Audio GND terminals on the power amp must only meet at the hub

Parts List:

CONNECTORS: Both blank and ready-built PCB requires connectors be purchased and soldered on by the constructor. Terminal block connectors are shown in the list below. For safety, these must be used and not swapped for PCB headers, as with other ZinAmp modules.

Designator	Value/Spec	Quantity	Supplier	Manufacturer	Manufacturer Part	Supplier Part
C1	100n	1	RS	Kemet	R46KF310040 P1M	126-2250
R1	100R 3W	1	RS	TE Connectivity	ROX3SJ100R	214-2623
EARTH, PHONES, SPARES, AUDIO	3 Pole Terminal	4	RS	RS-PRO	790-1092	790-1092
POWERAMP S, SYSTEM	2 Pole Terminal	2	RS	RS-PRO	790-1098	790-1098
D1	GBPC3504W T0	1	RS	HY	GBPC2510W	917-8815

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.