

PURITAN
Audio Laboratories

Ground Master

The safe and devastatingly effective way of connecting additional ground rods into any system. Killing ground/earth line noise dead.



Made In United Kingdom

The Ground or Earth connection is the *absolute* reference for all of your vital system voltages and has to be as silent and stable as possible. This is an extremely significant key to achieving the ultimate fidelity from your system. However, there are problems:

Almost every modern electrical item is equipped with a high frequency switching power supply; kitchen and laundry appliances, chargers, TV's, PC's - the list is endless.

To meet emissions regulations these appliances use their Earth connection as a dumping place for the interference they generate. And with substations often serving hundreds of houses, your HiFi Earth/Ground connection may well be connected to thousands of Earth Line polluting appliances.

Long before the problem of high frequency interference on the Earth Line became as serious as it is today, audiophiles in the know were utilising additional Ground Rods to provide an independent Earth to their HiFi installations.

Elegant as this solution may seem, this is a *colossally* dangerous practice for the vast majority of current installations*. This is because it risks the potentially massive current from any fault between your HiFi and your local substation finding the easiest path to Earth through your HiFi with expensive, and possibly tragic, results! This is why the practice of introducing directly connected supplementary or dedicated HiFi Ground Rods is specifically prohibited by current UK Wiring Regulations. (Except in very specific circumstances).

By utilising the Puritan Ground Master the hazards (and illegality) associated with the use of additional HiFi Ground Rods are totally avoided. And this is achieved without compromising the effective route to ground and hence the removal, of undesirable noise disturbance frequencies on the Earth Line.

With the Puritan Ground Master used in conjunction with an additional Ground Rod the potentially dangerous route to Earth of mains frequency currents is safely isolated whilst offending noise and disturbance frequencies are permitted a highly efficient, extremely low impedance route to ground ensuring their elimination.

* For the past 50 years houses have normally been connected using the Protective Multiple Earth (PME) system, whereby the Neutral Line is bonded to Earth at the substation and at other points along the way and with Neutral and Earth circuits separated at the point of entry to the building. This style of installation provides the greatest dangers if using additional ground rods without connecting through the Ground Master whilst other styles of household Earth connection will still benefit greatly with increased safety and performance by using the Ground Master.

Additional Notes:

A single core cable to run from the Ground Rod to the Ground Master will be required. Smaller diameter cables are easier to handle whilst fatter cables offer lower resistance over length and because of this can provide performance gains. (The overall resistance of a 10 metre length of 2.5mm² cable would be 0.07Ω, 10.0mm² 0.02Ω.)

Depending on the type of soil, further improvements can be achieved by using additional Ground Rods linked together at minimum 1.2M spacing. Remember also that Ground Rods rely on moisture to link electrically to the Earth, in dry spells watering the area will elevate performance.

Further performance gains can be achieved using moisture retaining clay or conductive aggregates to surround the ground Rods e.g. Bentonite and Marconite.

Suitable Ground Rods are available from many online sources. (e.g. www.screwfix.com Part No. 28044 at £2.99). As are the clamp to attach the cable (Part No. 98752) at £1.49. 10M of 10mm² green and yellow one core cable (Part No. 4048T) is £10.19 or 100M of 2.5mm² (Part No. 4752T) £19.68