iFi Audio
GND Defender

A PROBLEM OFTEN encountered when connecting new items of audio equipment into your hi-fi is the introduction of hum. This is invariably caused by the dreaded earth loop and occurs when a piece of equipment is connected to earth via more than one electrical path.

An earth loop can occur in a system when the signal earth is connected to the mains earth on a component. The equipment is therefore connected to earth via both the audio signal earth and the earth in the mains connector. This has led some to remove the earth connection in the mains plug as a way of curing the hum, but this poses a real safety hazard and is certainly not to be recommended.

iFi Audio has come up with an elegant solution to the problem in the shape of the GND Defender, which is fitted between the IEC socket of your equipment and the IEC plug of the mains lead. The GND Defender works by disconnecting the DC loop running through the connected component without compromising either the EMI shielding or electrical safety (it doesn't employ a simple earth lift resistor that could result in the equipment chassis not being at earth potential).

Rattle and hum

In order to test the GND Defender, I connect an old, low-cost CD player that has a known issue of causing mains hum into my system. As soon as I plug in the IEC mains lead, I can hear a slight hum through my system, even when the CD player is switched off. I then remove the IEC plug from the CD player, connect the IEC plug to the GND Defender and then plug the GND Defender into the CD player. The result – silence!

I turn on the CD player and am finally able to play music with no audible hum whatsoever. Of course, if multiple earth loops exist, more than one GND Defender may very well be required for each piece of offending equipment.

The GND Defender definitely does what it says on the tin and solves the problem of earth loop hum in a safe and elegant way. *NR*

▶ DETAILS

PRICE
£99

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OUR VERDICT
★★★★★