

# iFi Audio

## DC Blocker

**MAINS TRANSFORMERS ARE** designed to operate from an AC supply only. Unfortunately, by the time the electricity reaches our homes it can acquire all sorts of nasty noise including a DC offset caused by a non-symmetrical AC sine wave. The mains supply should be symmetrical around zero volts, which it is when it leaves the power station. However, by the time it reaches us, the positive half-cycle may not be the same amplitude as the negative half-cycle, resulting in a DC component being present. For most electrical appliances, this isn't a problem as the DC offset is small, so why is it a problem for hi-fi?

Mains transformers are coils of wire that are wrapped around a core material. When AC mains passes through the primary coil in the transformer, it magnetises the core one way and then the other,

with each half cycle. If there is a DC component present in the mains the core will be permanently magnetised in one direction, which causes it to operate outside its design parameters and it may become saturated, which can result in audible hum. Anything over 200mV or so of DC can be sufficient to cause toroidal transformers to do just this.

The DC Blocker can automatically cancel in excess of 1V of DC voltage to eliminate transformer hum. It is very well made and easy to fit to equipment. If you have any DC offset present, you can hear hum coming directly from the transformer.

### Block rocking beats

I fit the DC Blocker onto a balanced mains transformer that employs a toroidal transformer for powering my hi-fi. There is no detrimental effect to the sound from my system with it



fitted. The music seems much freer and has a crisper top end and tighter bass. In particular with the energetic opening allegro from Vivaldi's *Opus 7 Concerto No. 1 in B flat* played by I Musici, I perceive there to be much more space around Heinz Holliger's oboe. This is an excellent low-cost solution for removing mains DC offsets and certainly offers real sonic improvements for systems. **NR**

#### DETAILS

**PRICE**  
£129

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**WEBSITE**  
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#### OUR VERDICT

