

### hardware review

# English Electric EE1 cleans the stream

Tuesday, February 20, 2024 Chris Baillie



## **English Electric EE1 ethernet filter**

About fifteen years ago I saw a gold-plated ethernet cable for sale in Tesco and was somewhat bemused. Fast forward to this evening, where I am writing up what must be my umpteenth review of a device that claims to improve the sound of a network-streaming music system and I have long since realised that such devices can substantially enhance a systems' performance. The English Electric EE1's job is to filter out network noise. The first product I came across which claimed to do something similar things was the ENO from Network Acoustics. This device had such a dramatic and positive effect that it is still in my system.

My first experience of English Electric's prototype EE1 was almost a year ago, during a press demo at the Bristol Hi-Fi Show with The Chord Company, for whom EE is a sub-brand. At that point, the company had yet to design the casing for the filter. Nonetheless, the musical effect on the Naim/B&W system used for the demo was positive. I have read some comments, including some from other reviewers, which suggest a network noise isolator, such as the EE1, can be used instead of a network switch. My experience with the Network Acoustics ENO was at odds with such advice, and Chord Co/English Electric recommends using the EE1 in addition to their EE8 or EE16 switches. My main system is based around an ADOT SFP optical transmission with a Melco S100 network switch, so I could not test it there. Still, I was able to set up a second, headphone-based system, which I used directly from a router to the EE1 for additional testing.

The EE1 retails for £250. My sample was supplied with a 0.75m Chord Co C-Stream cable, which was initially bundled with the EE1. The EE1 is self-powered and employs galvanic isolation to block low-frequency noise and reduce high-frequency noise. Data speed is said to be unaffected by this filtering. EE also claims that the EE1 can enhance video quality, so I tested it with my BT TV box as well. You can use multiple EE1s in your system, perhaps

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between your router and your switch, a second one between your switch and server, and a third between your server and streamer.

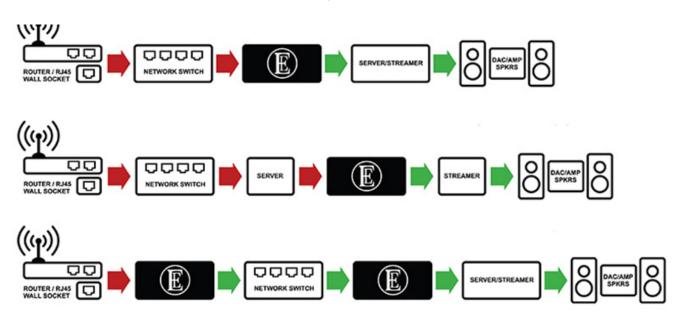
#### Music without noise

I will first talk about the set-ups in which I tested the EE1. In the main system, I replaced the Network Acoustics ENO filter and cable that sits between my Melco N1 server and Moon 780D streaming DAC with the EE1 and C-Stream cable. The retail price of the ENO Filter is considerably more than that of the EE1, but it gave me a benchmark. I also tested the EE1 on the feed between the router and the ADOT Fibre Converter.



I have a Chord 2Go/Hugo2 portable streamer/DAC, which I connected to the router with the C-Stream cable before adding the EE1. There is a PC in the same room, so I did the same between the PC and the router and listened via the Denafrips Iris/Ares 12th combo, recently reviewed, via a Heed headphone amplifier and Sendy Peacock headphones. Finally I put the EE1 between my network switch and the BT box that connects to my Moon DAC via an optical output.

Starting with the main system, with the filter between the router and the ADOT converter, I was surprised at the changes I heard in the sound. Firstly, there was more detail and improved instrumental separation. There was more snap to drums and high-frequency percussion



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instruments, and studio effects seemed to jump out of the speakers towards the front of the soundstage with renewed enthusiasm. With one pair of speakers that I had in to review, I felt the music was a little overly spot lit with the EE1 in this position.

As the TV box is fed from the switch at the end of the ADOT input, which still had the EE1 placed before it in the chain, I could assess the effects of the EE1 when using it. Interestingly, when watching streamed content, the picture was sharper and cleaner with the EE1 in the circuit. Similarly, the sound quality also appeared to benefit, bringing more detail and improving dynamic and transient performance. I am guilty of occasionally writing reviews while my wife watches the TV, on several occasions I stopped typing to look up as on-screen telephones rang or a door slammed; such was the sense of realism with the EE1 hooked up. I concluded that the sound emphasised the high frequencies with the EE1 in this position, although I am unable to explain why. Removing the EE1 from this position and placing it between my Melco S100 switch and the BT box improved things. The improvements to the picture quality of streamed content remained, yet the sound was better balanced, benefiting from a lift in detail and definition, but without the treble emphasis.

With the EE1 now in the main system, between the Melco server and my DAC/Streamer, I streamed the new album from the Pineapple Thief whose style is similar to late-period Porcupine Tree, with whom they share the a drummer. I listened to the first couple of tracks with the EE1 and C-Stream sitting on the sofa next to me, then repeated with them in the circuit, replacing the ENO filter with the ENO ethernet cable feeding into the EE1. As one may expect, considering the price difference, the results did favour the ENO, which sounded fuller and more natural. Listening again with no filter made the music sound flat and comparatively two-dimensional. Re-introducing the EE1 brought it back to life, especially in the high frequencies and this clearly benefitted Gavin Harrison's fine work with the drums and percussion.

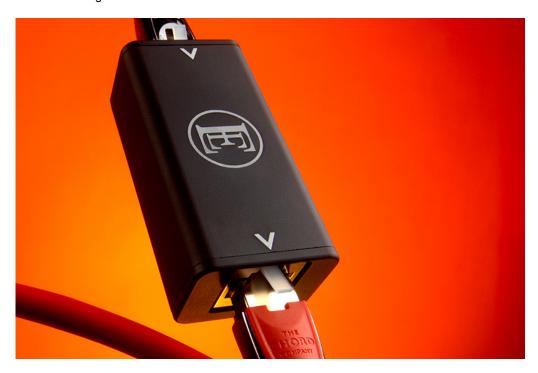
So, whilst the EE1 was outperformed by the almost three times more expensive ENO filter, its use made the music far more enjoyable than not having a network filter. At this point, I pondered whether some of the ENO's advantage may be down to its having a very good integrated ethernet cable. An online search revealed the C-Stream is Chord Co's entry-level cable, retailing for £60. I tried an alternative ethernet cable from my arsenal, which retails for around £350, and this improved the situation considerably. Now, the bass filled out, and the soundstage expanded. There was still a little more body and dimension to the music via the ENO, but the differences were now subtle. I would love to have tried the EE1 between a pair of Chord Co's Epic cables, but I think my experiments here gave me a taste of the EE1's potential with high-end ethernet cables.

#### Chord 2Go /Hugo2

The next test was the Chord 2Go /Hugo2, fed directly from the router and then via the EE1. This set-up worked well. With no switch in this setup, the EE1 had more noise to filter out. PJ Harvey's *I Inside The Old Year Dying* album was kicked into life by the EE1's noise reducing skills. Music like this needs leading-edge detail to help deliver impact, which is precisely what the EE1 provided. Polly's guitar also benefited here from improved body and precision. This album was a 24/96 download replayed via the Melco N1 but over the network, which potentially would give the EE1 some noise to filter out.

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A Qobuz stream of Say She She's *Silver* in 24/48 initially sounded somewhat flat and lacked definition. Here, the EE1 proved just the ticket, and I was now dancing around the house like Mr Quick from the film *Saltburn*, albeit I kept my clothes on. Getting back to *Silver*, via the EE1, the bass was funkier, the drums better defined, the cymbals cleaner, and the vocals had more body and were more human. I do not listen to much classical music, but the EE1 did great things for Anne-Sophie Mutter's 2023 release *Bach*, *Bologne*, *Previn*, *Vivaldi*, *Williams* via a 24/96 Qobuz stream. The EE1 appeared to make the musicians play with more vigour and passion and I could now separate each instrument far more easily because the soundstage was more convincing.



#### EE1 and computer audio

The next test was to see how the EE1 performed when used to feed my PC into the Denafrips DAC and Heed headphone amp. Starting off with a Qobuz stream of Bob Marley's *Kaya* in 24/96, sans EE1, things were pleasant enough, but I have heard this album with more body and life. The bass was a bit leaden – there was more of a thump where there should be a bounce. I could hear some studio reverb, but it was a little veiled. I plugged in the EE1, and there was music. The studio reverb was easier to hear, and the music sprang to life. The Sendy Peacock headphones are not lacking in the bass department, so they had no trouble revealing the improvements brought by the EE1. Now, the bass guitarist Aston Barrett is in top form, alongside additional texture to the bass notes he appears to have upgraded the strings and pickups of his guitar. Compared to feeding the PC directly from the router, the EE brings more life, body, bass control, timing, detail, and ambience with no downsides. I got similar benefits with everything I played via this setup.

#### Should you buy?

The EE1 works and works well. I felt it tipped the balance a little towards brightness when I used it certain circumstances, so it's worth experimenting with placement within your setup. The benefits of having the EE1 in the circuit are undeniable and easy to discern. The fact that it works with streamed video content should help it find friends beyond the audiophile community. If you can spare £250 to upgrade your streaming system, ask your dealer to loan you an EE1 to try it. To get the best out of the EE1, those with more expensive systems may need to budget for one of Chord Co's higher-end ethernet cables. You may well find that two EE1s improve your system further, and if you are anything like me, you will have great fun trying them out.

