

[ESSENTIAL AUDIO TOOLS is a Dutch company focused on the design and production of power products – AC power strips, AC power cables and filters. All of their products are manufactured in the Netherlands, in Rijswijk, near the capital, The Hague. We are testing their latest product, which is used to block the DC component of the AC supply voltage.]

The MYNI AC POWER SUPPLY LEVEL by Essential Audio Tools **was an absolute surprise to me**. Compact, one might even say tiny, it was very solidly made, sensitively finished and clearly improved the sound of devices connected to it. I liked it so much that some time later I ordered two of them for the "High Fidelity" system with the intention of using them to test various types of components requiring more sockets, as well as for the section related to file playback (player, server, router, LAN switch).



The company in question specializes in just one thing – **conditioning the AC supply voltage**. In addition to Myini, it has five other power strips in its offer, differing in the number of sockets, as well as special filters that plug into AC sockets, resembling what the American Nordost offers. And three more versions of the AC power cable. The largest of the aforementioned power strips, called Filtered Multiplier 8 Mk II, is being prepared. It has eight power sockets, but more importantly, it is to be integrated with a module that has just gone on sale and which we would like to present to you: the DC Blocker constant component filter.

DC Blocker

THE PRODUCT IN QUESTION looks **like a classic power strip**. It is long and narrow. It is made of milled, precisely connected "RQO/E" "rctw" "ereating" "c" "tigid" "structure. "Although" "the simple, black shape of the filter is not boring. And this is thanks to such procedures as milling, edge cuts and milling in the upper wall of the logo and descriptions. This is a product that reminds of the former glory of German industry.

But, but – we're all chatting here, and I haven't even mentioned **what DC Blocker actually is**. Its purpose is described by both the product's proper name: DC Blocker, and its description: constant component filter. The manufacturer writes:

DC Blocker is an essential device that blocks direct current (DC) while allowing alternating current (AC) to flow. This feature is

So I turned up the volume, reached the same (subjective) level as before – and **then I heard it: dynamics**. Essential Audio Tools deepens the differences between quiet and loud sounds. But not in mass, but in their separate manifestations. This is a stereo recording, a rarer version of this disc, not "stereo-phonics", but fully stereo. It has just been released in Sweden, and in Poland it is distributed by Kameleon Records.



In any case, with the Dutch device, Elvis's vocals placed in the right channel seemed to me a bit clearer, more open, as did the drums in the right. For a moment I thought that DC Blocker, along with the improvement of dynamics, slightly brightened the sound, but it is not so. As it seems, we simply **get more information about the sound with it**, not only about dynamics, but also about low-level changes. And this translates into more information in general. And that is why it seems that individual "musical events" are brighter. They are not – they are clearer. And these are two completely different things.

I had a very, very similar situation with a disc containing a selection of Three Blind Mice recordings *The TBM Sounds!*, prepared in 2010 by Mr. Winston Ma for his Lasting Impression Records label in a technique he called "Ultra HD 32-bit mastering". This time, the volume knob in the Ayon Audio preamplifier **went up by as much as three decibels (!)**. I have the impression that the more dynamic the recording, the better the recording, the greater the differences I'm talking about.

After enjoying a few recordings, after a while I turned the volume down and got an equally nice musical image. But after a moment I went back up the scale – and everything is clear. The filter we are testing calms down the "background". The sound no longer breaks through something in front of it, and without effort, almost casually speaks up in moments where it should be heard. Previously, it was as if **it had to put more effort into it**. I know it sounds strange, but that is how I perceived it, such emotions did this change arouse in me.

But it didn't bother me at all before. In the sense that when I listened to the same recordings with the Essential Audio Tools power cable plugged directly into the strip, everything seemed simply great. Maybe not as deep and profound as with the Siltech Triple Crown cable, but there was no shame. However, it was only when I plugged the Dutch filter into the system that it showed that **there was something more there**. There was dynamics, there was sonority and there was also a stronger opening.

“crucial for maintaining signal integrity, especially in audio systems where unwanted DC leads to distortion. Essential Audio Tools DC Blocker effectively removes DC offset and restores the balance of the sine wave of AC power without compromising dynamics.

Additionally, a sophisticated low-impedance mains filter significantly reduces electrical noise, ensuring pure and realistic sound reproduction. Incorporating DC Blocker into your audio system not only improves sound quality, but also extends the life of the equipment connected to it.

Working principle in: DC Blocker ,
→ www.ESSENTIALAUDIOTOOLS.com , accessed: 12.12.2024.

TECHNIQUE • So the matter seems quite simple. At least on “paper”. The AC supply voltage, present in the sockets of our homes, should have only one signal: a sine wave with a voltage of 240 V and a frequency of 50 Hz (this data for Poland). In reality, there are RFI interferences, overvoltages, and a shift of the sine wave in relation to zero - **this is the DC offset** , which the DC Blocker is supposed to counteract.

Since it also has a noise filter, **it also reduces other interference** . The device filters both CM (Common Mode) and DM (Differential Mode) noise. Although their nature may be identical, they differ in whether the interference occurs on one or both power lines.



The first ones are present on both power lines with respect to a common ground and have **identical amplitude and shape** . As the manufacturer writes, a filter to eliminate CM noise usually consists of grounding capacitors and/or coils wound on a ferrite core, which allows for "differential signals to pass" while "suppressing noise that appears equally on both lines." It also adds that common-mode noise is usually EMI radiation from sources such as phones, Wi-Fi, GPS, and Bluetooth.

In contrast, differential mode (DM) noise occurs **between the power lines** , and the noise current flows in the same direction as the supply current. We read:

“It is called differential mode because the forward and return currents are equal and opposite in polarity. The DM filter eliminates oppositely directed noise present on a pair of wires. It usually consists of capacitors between the lines and/or an inductor connected in series. Differential mode noise comes from sources such as switching power supplies in home appliances, LED lighting, and electric motors.

Ibid.

When we take a look at the photo from the inside of the device we are testing, we will see a large printed circuit board with chokes on round cores, polypropylene capacitors and banks of electrolytic capacitors. **The quality of such a system** depends on its sophistication, the components used, the board and the housing.

That is why it is easy to answer the question why I should pay : ; ; "gwq'hor"j g"DC"Blocker,"y hen"other"o anufacturers,"Such"cs"Kfi

And one more thing – energy. This, next to dynamics and openness, is the third thing that gives food for thought with DC Blocker in the power supply path. Both the previously listened to TSUYOSHI YAMAMOTO TRIO from **1** ' *Midnight Sugar* , and the MARI NAKAMOTO from **8** ' *Georgia In My Mind* , played right after, both of these tracks sounded **faster, stronger, more open** with it . But not brightly. So it's not about the fact that if your system has a similar sound signature, the device in question will brighten it up even more. It will be rather the opposite – through more information it will calm down what was strained by brightness.

Music with a filter in the system is full of energy, we already know that. So we have to know that **we will get a stronger impact** and a clearer sound contour with it. The bright, strong guitar of ALBERT KING from the wonderfully remastered, released by Craft Recordings, concert album *Live Wire / Blues Power* , sounded biting, high, a bit further in the scene than before. Because DC Blocker moves the foreground away from us, developing a deeper sound stage.



Because you can listen to music louder with it, having the impression that you are listening at the same level of amplification, all **the small sounds are clearer with it** . Like the hiss of the tape, like the sound of the organ, previously a bit more blended into the background, or – finally – the behavior of the audience. The differences between them are more unambiguous and therefore stronger. As if the filter added space, in every dimension, opening the sound from the top of the band, that's one thing, but also through a more precise drawing. Like in the introduction to the album *Borboletta* by SANTANA. A record, we should add, which was recently wonderfully remastered by Sony Music and released in Japan on a 7-inch SACD.

| Our records

SANTANA *Borboletta*

Columbia Records/Sony Records Int'l SICP 10155
7-inch LP Super Audio CD/CD 1974/2024



Borboletta IS SANTANA'S SIXTH ALBUM, released in April 1974. On November 6, 2024, his best, I have no doubt, digital version was released. Or maybe even as good as the analog original - let it be that I'm crazy. It was already the third album of

Audio or the Polish Tomanek, offer similar products, but much cheaper. The answer is as always: if you want to fight the problem, choose any product from a good company, try it out for yourself and if it works - buy it. But if you want something much better, **then there is no way out** and you will have to pay more, there are no miracles.

FUNCTIONALITY • DC Blocker has **only one power socket**, type F, known as *schuko*. So it cannot act as an AC power strip for several devices. However, it has two things that increase its functionality and that make it simply a good tool.

One is feedback on whether the AC power cable connected to it, from the wall socket or strip side, **has the correct polarity**. The plugs of this company and its strips clearly indicate the "hot" line (*live*), but most products of this type ignore it. If we do it correctly, a green LED will light up, if incorrect - a red one. All we need to do then is reverse the plug in the socket. The second diode will show whether our socket has a protective wire ("ground ") connected.

The second possibility of improving the operation of the DC Blocker **is connected with the protective wire**. Like the Mains Multiplier 6+ and Mains Multiplier 8+ strips, it has a special function. It is called Ground-Bridge and offers the option of connecting to an external grounding system instead of the ground from the wall socket, which is shared with all other devices in the house. In this way, all devices **BEHIND** the DC Blocker will benefit from an uninterrupted ground.



The manufacturer writes that in most cases this external grounding is a special copper electrode **placed deep in the ground** outside the house. This grounding pole should have an exclusive connection to the DC Blocker and nothing else should be connected to this special grounding pole to protect it from interference. And further:

“ With the grounding bridge placed between the black and green connectors, the DC Blocker is connected to the ground of the wall socket. After placing the grounding bridge between both black connectors, you can connect the external ground to the green connector.

Ibid

The bridge in question is **a plastic jumper** that we plug into the holes on the top of the DC Blocker. Plugged into the green hole means that we are using the grounding of the power supply network, and plugged into the black one, that we are using the external one, made by us. Let's add that the internal wiring is silver-plated copper in PTFE insulation (PTFE = Poly(tetrafluoroethylene), Teflon DUPont brand name). And also that the DC Blocker stands on four rubber half-spheres, so it is a nice field for using various types of anti-vibration feet.

LISTEN

HOW WE LISTENED • Testing this type of product poses some problems. You simply can't make a comparison with it - **I don't**

his band **in the jazz-funk-fusion style**, after *Caravanserai* (1972) and *Welcome* (1973). Biographies also list two albums created with the help of other musicians in the same group: *Love Devotion Surrender* (1973) with John McLaughlin and *Illuminations* (1974) with Alice Coltrane, Jack DeJohnette and Jules Broussard.

The record was released in an expensive way. Instead of a matte or varnished cover, it had a drawing of a butterfly **in metallic blue lacquer**; in Portuguese, *borboleta* means "butterfly". As we read, it was also an allusion to the album *Butterfly Dreams* (1973) by Brazilian musician Flora Purim and her husband Airto Moreira, whose contribution deeply influenced *Borboletta's* sound (source: → [en.WIKIPEDIA.org](https://en.wikipedia.org)).



While the album saw the return of original Santana bassist David Brown to the band, it also marked the beginning of the end of an era in which the guitarist recorded albums with his own band—he would later hire session musicians to do so. The album's sound is marked by the leader's generous space for drums, saxophone, and keyboards. Perhaps that's because the album **was produced in-house**, by Santana and keyboardist TOM COSTER. Coster played piano, Hammond organ, electric piano, Fender Rhodes piano, and Moog synthesizer. *Borboletta* was recorded at Capitol Studios in Los Angeles on a 24-track analog tape recorder.

The sound of the reviewed album is excellent. Really top, especially in the Super Audio CD version (although the CD layer is also delicious). But what I would like to draw attention to is the way the album was released. The album was prepared in a wonderful, exceptionally expensive way. Its cover is in the form of a mini LP, so it is a precise reproduction of the original cover, and it is large - it is a so-called 7-inch, i.e. the size of a seven-inch vinyl single. The Japanese branch of Sony began releasing Santana in this way in April 2017, together with the three-disc (!) album *Lotus*. *Borboletta* is the seventh release in this series. I bought my copy, as usual, in the online store → [CD JAPAN](https://www.sonymusic.co.jp). •

→ [www.SONYMUSIC.co.jp](https://www.sonymusic.co.jp)

AS I SAID A MOMENT BEFORE, **the sound of Santana's album opened up**, and the percussion at the very beginning was clearer, stronger and brighter. Not "too bright", but "brighter". The slight distortions in the right channel at the beginning of the instrumental **2` Canto Des Los Flores** were now stronger and clearer. Essential Audio Tools makes the sound both more resolved and more selective.

Summary

BECAUSE, AS IT TURNS OUT, the filter we tested affects the sound **more than changing the power cable** or power strip. In the sense that it changes the sound as a whole, changes its structure. So it's not about minor shifts, emphasizing this or that aspect of the sound, but about a general change. And this is really big.

DC Blocker **improves dynamics and selectivity**. It extracts energy and "power" from recordings. It does this, as I said, by pulling out small sounds higher than they were and saturating the message with them. The whole thing seems more open, even - brighter. So it will not be something that will appeal to those who would like to have peace and only peace in the system.

have this type of filter in my system and I don't know anyone who does. Usually, as in Gigawatt conditioners, it is an integral part of the device. So when testing the Essential Audio Tools DC Blocker, you need to reach for an additional AC power cable. We plug our current one into the DC Blocker, and another one into the wall. And, as we know, cables are also a type of filter. So in reality, we will be listening to both the impact of the tested device on the sound and the additional cable.



To get around this, I used a proprietary cable, Essential Audio Tools, Current Conductor "U model," doth "to" and "from" the "FC Blocker. In one configuration it was connected directly to the strip, and in the other to the DC Blocker, and only then was it plugged into the strip. **I powered two devices this way** : the Ayon Audio CD-35 HF Edition SACD player and the Lumin T3 file player. The Essential Audio Tools power cable was plugged into the AC Acoustic Revive RTP-4EU Absolute power strip (test → [HERE](#)), and the latter was plugged into the Furutech FT-SDS power socket with a 2.5-meter Acrolink Mexcel 7N-PC9300.

» PLATES USED IN THE TEST selection

ELVIS PRESLEY, *Elvis' Christmas Album* , RCA Victor/Stereo Experience Records Stereo 1, Compact Disc (1957/2024).

The TBM Sounds! , Lasting Impression Music LIM UHD 048LE, "Limited Edition", Compact Disc (2010).

ALBERT KING, *Live Wire / Blues Power* , Stax/Craft Recordings CR00745, Compact Disc (1968/2024).

SANTANA, *Borboletta* , Columbia Records/Sony Records Int'l SIPC 10155, 7-inch LP, Super Audio CD/CD (1974/2024).

TOMASZ PAUSZEK, 20 Years Live, Audio Anatomy [AA-011-19-LP], 2 x Master CD-R [unreleased CD version] (2017).

MEGADETH, *Countdown to Extinction*, Capitol/Mobile Fidelity Sound Lab, UDCD 765, Gold Compact Disc (1992/2006).

LARS DANIELSSON & LESZEK MOŹDŹER, *Pasodoble*, ACT Music ACT 9458-2, Compact Disc (2007); review → [HERE](#) .

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I HAD NO IDEA what to expect from this device. I had never **tested this type of product** before and although I know hundreds of other approaches to minimizing supply voltage noise, DC Blocker, as a separate device, was my first. As it turned out, I *really* didn't know what it gave. And it brings to the sound, above all, a better sense of dynamics. But - really BETTER, not just better.

The first sounds of **1** ' *Santa Claus Back In Town* , a Christmas song from *Elvis' Christmas Album* , seemed quieter to me with DC Blocker in the system. Yes, this is something we will come across immediately after venturing down this rabbit hole. It sounded as if I had **turned down the volume in the preamplifier by 1 dB** , maybe even two. And yet I meticulously write down and then make sure the sound level is identical for subsequent albums and songs. So there was no way I could have made a mistake - I checked it several times, just to be on the safe side.



This is a solution for those **who want to hear more** , but without hardening the attack and without brightness. For them, the filter from The Netherlands will be a discovery on a par with the first contact with better interconnects. I think each of us remembers those first enchantments – it will be the same here. ●

Technical data (according to manufacturer)

Peak voltage: 2500 V

Maximum peak current: 4500 A

Maximum peak energy: 2 x 65 J

Response time: <25 ns

Maximum continuous current: 6 A

Dimensions: 329 x 70 x 53.5 mm (L x W x D)

Weight: 1.1 kg

Distribution in Poland

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→ www.sklep.AUDIOPUNKT.com.pl

» The text contains an affiliate link to the online store

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→ www.AIAP-online.org