

BLACK NOISE mains filters mod. Extreme, 500 and 1000

by Bruno Fazzini

Small, unintrusive, well finished in a splendid way with a very inviting price but most of all with the most positive performances; here, in a very concise way the impressions reported from the cohabitation with the Black Noise. Was it not always said that the mains filters strangle the dynamics and make some audio parameters worse?

These components have been parked for a long time in a corner of our listening room before I decided to connect them to our system, and this just because there was in me the belief, matured from years of cohabitation with filters, conditioners and stabilizers, that these objects would be able to improve the delivery's quality of mains supply, but at the expense of a loss, sometimes notable, of the dynamics' capacity. When I've finally decided to put them in use, I've been so baffled by the quality improvement brought to the reproduction, that I have not been able to disconnect them without suffering a sharp regress of the general sound performances, that, farther on, I will clarify in details. All this in spite of the fact that my listening room has a **dedicated mains line**, coming directly from the mains meter, and so it's lacking of all those interferences generated by the usual household appliances. **Mains filters are devices that are used to eliminate the undesired components present on voltage and current provided by the mains network.** Those on trial are totally passive and the filtering works both ways, isolating from the mains the connected devices, and at the same time avoiding that their interferences, emitted by the electronics themselves, pollute the network. Furthermore there is a useful protection that the Black Noise are able to provide against surges and destructive spike events starting from 250V with an activation time of less than 25ns. In overloads events, comes into action a protection connected to a resettable thermal breaker. The most interesting thing of these components is that they use traditional technology, because they adopt a R/C/L passive network filter of which are well known the theoretical characteristics. The circuit is constituted by a high number of

elements that go from the double metalized polypropylene condensers, to the toroidal inductors on synthesized ferromagnetic material, to high stability resistors, to insulating teflon elements. From a mechanical point of view, the whole turned out extremely well built: the case is extruded anodized aluminum 4mm thick on all sides, no assembly screws, externally milled, individually hand-assembled and finished. All filters under test are equipped with two 16A multistandard outlets. We have had for our tests from the roman Systems and Magic, the manufacturing company, three out of

whole setup. The results will not be the same, but in this way it's possible to strongly contain the costs. Finally, in the catalog it's also present a special "sturdy" model, the **2500** (2300 W, 10A), thought for particularly powerful amps or to filter out the whole installation.

The listening test

The source **North Star 192** (transport and DAC) was fed and filtered by the model **Extreme**. The model 500 instead fed and filtered the line preamp **Norma SC.2** and the phono **North Star Phonostage**. To the model 1000 went the task to feed and filter the two mono power amps **Norma 8.7** capable of 100 watt each. The rest of the installation used for the test was constituted by the **Sigma Acoustics Image** loudspeakers, **White Gold** signal and power cables and **Neutral Cable** mains cables. As it can be seen from the image, the mains line goes into a Neutral Cable power distributor and from there into three Black Noise cables that feed the respective filters. Then, from each filter the mains cables goes to the respective devices transporting current now refined from the electric garbage present before. Black Noise mains filters work remarkably well even if, of the three models under test, the greater results were obtained with the **Extreme** model, the one devoted to filter the sources. Both model 500 that was devoted to the preamp supply, and model 1000 that was filtering the power amps have only bore a small improvement, indeed so if compared to the one produced by the **Extreme**. I believe that this neat difference depends on the fact that Norma electronics have an excellent power supply section; I would like to point out that we are talking about reference electronics with a total cost of approximately 13.000 euro. I am convinced that if the amplification of the system used for the test had been entrusted to medium level devices, the



the four Black Noise models in catalogue. They are the model **Extreme**, the one of least absorption (230W, 1A), but with the greatest filtering capability; it is, in fact, specifically thought for sources and phono preamps. Model **1000**, on the contrary, has a higher absorption (920 W, 4A), but a less incisive filtering; more suitable in fact to be used with power amps. Model **500** has an intermediate absorption (460 W, 2A), and also an intermediate filtering ability, that renders it suitable to specific electronics like the line preamp or small amps. It has to be said, however, that if it's not one's desire to filter the audio setup in the specialized manner above depicted, it is possible to use only model 1000 (or the 500 if the amplification is made up of a small electronics) to filter the

results would have been more obvious. In any case, given the reasonable cost of model 500 and 1000, even the small improvements are decidedly to be taken into consideration. There is also the aspect that regards the protection of the power amps from mains overvoltages, that alone could justify the necessary expense to the purchase. But let's come to describe in detail the sonic characteristics of the products under test. The parameter that more than every other gets improved is the one relative to the **timbre** that turns out much more pleasant, with less contrasts in the features but with the same precise contours.

The physiological "hardness" of the digital reproduction disappears in favour of a better roundness of reproduction that leads, in time, to a much lower listening fatigue. The high frequency spectrum is less aggressive and rigid, keeping in the same time great precision and wealth of shadings. The low frequency spectrum improves too, increasing the articulation and keeping the same feeling of control; even the bass seems a little larger than usual, but perhaps this feeling depends only by the superior intelligibility. The medium frequencies are beautiful and bring to mind in some strings, woodwind instruments and voice passages the reproduction offered by a good valve amplifier. In short, all the things described leads to a dramatic increase of the general musicality perception. Directly connected to the timbre is the **transparency** parameter. In this case too the improvement perceived is obvious; the effect produced by the insertion of the filter is comparable to what it can be obtained when a veil of dust is removed from an image and our eye



A view of the Black Noise filters on a small table on the back of the audio setup.

perceives a greater sharpness. This involves an increase of breathe and space between the instrument that, in turn, revives the entire reproduction. There is a remarkable increase in microinformation and sound shades that before were just in a latency state. All this helps also improving the **soundstage** framework that, while not being of a dramatically different level than without filters, gains however both in localization and wideness. The parameter instead, which has more than all others positively disconcerted me has been the dynamic drive. I was expecting that the firm described improvements would be paid at the loss of dynamic shine and harmonic vividness.

Nothing of all this. I believe that the strongest BlackNoise capability is represented by it's ability to deploy the mentioned improvements without undergoing to dynamic mortifications. The reproduction is extremely nimble and lively, with a firm and well-built macrodynamic coupled to an accurate microdynamic deprived either of blurred sound in critical passages and of hardened harmonics in the most

delicate ones. The absence of dynamic drive is exactly what is perceived, usually, with an ordinary mains filter or conditioner, and was exactly the price I was ready to pay with BlackNoises too. Unsuspectedly, I was wrong.

Conclusions

Everything is fine then? I would say so, if a slight tone modification is accepted, meaning that the reproduction appears a bit softer than the usual, or better said, of as usually I am accustomed to listen.

But where is the truth, which is the most evident likeness to the real event? I don't

know it. What I know is that with these mains filters the CD reproduction turns out to be a little more "analog" and less "digital"; and personally I consider it quite a success. All other parameters, transparency in particular and even more so dynamics, are decidedly superior than those reproduced without the use of the filters. Globally, a more than positive assessment of these objects which, if we consider the economic aspect, amount to a total of 1.150 euro (*Extreme* + 500 + 1000). Maybe a traditional mains conditioner can be bought with less money, but one will not have the specialization of different filters for each device. At last, I executed a test using the model 1000 to filter the whole listening chain, but the results have not been of the same level as with a dedicated filtering. In any case I confirm that the best results I had, have been always obtained filtering the source with the *Extreme* model. This could be the first step to do, especially considering that the marked improvements will be obtained with a really modest expense.

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