

STROMTANK

AUDIO POWER



Review of the Power Source STROMTANK 2500

When Sounds Are Reborn



In current social theory there is the common term „pyramid of needs“, which was already formulated in the middle of the last century by the psychologist Abraham Maslow. If one simplifies it to two statements, it says that we all primarily need immediate things in life such as food and sleep, and only then do we develop needs for cultural enrichment.

If this rather wise scheme is applied to current technological change, it becomes clear that in modern society everybody needs electrical energy at practically all stages of his or her immediate needs. With electric energy we prepare and preserve food, move about and communicate with friends, conduct professional negotiations, have fun and realize our creative spirit – even when electric energy only burns as a lamp above the desk.

But have we ever thought about energy quality? If you ask a driver what fuel quality he will use for any car, he will definitely choose clean, recommended gasoline with a high octane rating. Electrical energy, however, is a matter that is more difficult to judge. We are faced with a multitude of everyday devices that surround us but that hardly react to a wide variety of network fluctuations – they react only to radical voltage spikes and power failures. The qualitative character of electrical energy is most evident where it is directly converted into mechanical energy, be it in a clean signal accessible to our perceptive organs or in light/color and sound.

Perhaps the nature of electrical energy quality also reveals itself in a rather complicated way through its influence on sounds and tones. While everyone can recognize errors in the work of a mechanical device, for example waves and flashes of light, without special experience but solely due to the fact that such visual information is easily grasped by the consciousness, it is not only experience, but also the ability to evaluate this immaterial matter that is necessary for the perception of the smallest changes in a varied tone spectrum.

But who can notice these differences? Mostly professional musicians and sound engineers – they say. But even you yourself, dear readers, can do it. If you are a hi-fi and high-end technology fan, you can easily judge the contribution of electrical energy to the sound quality of your home audio system.

For you, what I said at the beginning may be obvious, but it's certainly not my task as an author to get to the core of the matter without previous explanations, and without answering the question in which way „bad“ electric energy distorts signals, one cannot end the introduction. But actually, everything is quite simple: Until electrical energy reaches your system, it has to travel hundreds of meters from the generating station. There is certainly no high-quality power cable on this route, so the energy will encounter a whole kaleidoscope of interferences on its way – from a multitude of radio signals to the feedback of thousands of electrical devices connected to the electrical grid. Electric current entering your amplifiers is therefore about as clean as water in a small forest pond. It looks okay most of the time and does not cause any direct damage, but is interspersed with a host of microscopically small life forms. Hence it is clear that fluctuations in power quality have a detrimental effect on the capabilities of the connected components. They simply do not receive enough “good” (clean) current to develop their full potential. Measures then have to be taken to unfold the entire musical material in its full sonic richness.

How can this problem be solved? A mains filter could be used to protect the system from overloads and to smooth out particularly unpleasant bursts for sound reproduction - but this does not help to maximize the flow of energy. You can go one step further and install a regenerator that improves the sinusoidal shape of the electrical signal. However, this leads to a loss of sound dynamics.

Don't lose your head if you don't know the answer. Don't get restless. Wolfgang Meletzky – a talented German engineer – already found the answer for us. He is widely known for his unique MBL systems. Like all brilliant engineers, Wolfgang is a person with an extremely emotional relationship to his creations. While developing high-quality amplifiers, power sources and sophisticated audio systems, he thought more than once about the problem that even high-quality systems often have less than satisfying electrical energy available. It took years of experience to find a solution as development progressed. And today, this solution is in the showrooms, and it's not only impressive from the outside, but also from a technical point of view.

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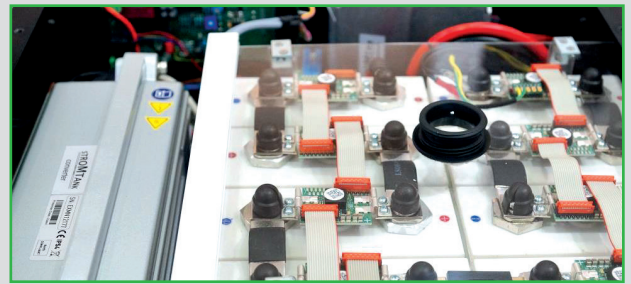
– Wolfgang Meletzky

The STROMTANK brand comprises a small series of special power sources of this brand. There are three models in the family (S2500, S5000, S5000 High-power), two of which are different versions of the same device. Here with us - the Junior Model S 2500. Main feature of this device is a powerful generator combined with a high capacity battery and a very unique feature. But before we get into that, we should get to know the whole device step by step.

The first thing that stands out is the impressive solidity of the device and the deliberate minimalism in the design. Everything superfluous has been dispensed with. The S2500 has a solid metal case with a convex front panel instead of horizontal chamfers. It is equipped with an eye-catching illuminated porthole for power indication. Depending on the selected mode, the porthole changes color. Underneath is a LED display in the form of a dotted line. It is used to indicate the battery charge - also a clear and convenient solution. A pair of buttons is located on the sides of the complex front panel: The left button changes the mains mode; the right button adjusts the brightness of the display.

On the back of the device there is a power switch, three additional ports, a LAN port for possible remote access and a USB port for firmware updates. Wait a minute, a software update for a power source? Yes, exactly. The device is equipped with an internal control system for the battery block, which supports a balanced energy output as well as a coordinated operation of the battery cells and their regeneration. It should also be noted that, in the STROMTANK, you will find exactly the same LiFePo4 cells that are used to power Tesla cars - a serious and fully justified application, as the further discussion will show.

As it turns out, the S2500 has two different operating modes. Firstly, the operating status indicated by the blue backlight is very interesting: The unit feeds the audio system from the mains according to the principle of a regenerator, but with one important difference - an inadequate power supply will be compensated by a pack of rechargeable batteries, which, thanks to an immanent system control of the system to be supplied, provides exactly as much energy as necessary.



The capabilities of the STROMTANK are most clearly demonstrated in the other, the „green“ mode. Then your audio components are supplied by the batteries alone - the output current is sufficient to power both a full-size integrated amplifier as well as a pair of energy-hungry mono blocks. The average autonomous operating time is 4 hours, but of course this depends on the power consumption of the connected components. When the battery charge reaches a critical minimum, the S2500 automatically recharges itself from the mains. I can't say how this step would affect the sound quality, as I was unable to completely discharge the STROMTANK during one listening session.

During the listening test of the STROMTANK S2500, I was lucky to be able to use a harmoniously tuned audio setup from MBL. The following devices were involved in the test: the N51 integrated amplifier, the C31 CD/SACD drive and the mbl 116 F Radialstrahler (radially radiating loudspeakers).

After the system had warmed up for about half an hour, I began to listen attentively. It is important not to immediately connect the STROMTANK to an audio system that you don't know properly - it is then difficult to capture the full effect of its presence.


That's why we listen without a mains filter first. Even without STROMTANK support, it becomes clear that the MBL components can amaze their listeners also in a normal configuration: The amplifier clearly has enough power and control, and the disc drive performs high precision data reading.

Together, the two make it possible for the speakers to create a unique, incomparable sound field, in which even the focus and directional response meet the highest demands- and the listener is still always at the center of the action. To put it more simply, you are not being forced to listen, but experience a wealth of details and nuances in a very casual way.


After a while of listening to the MBL system, we entrust the power supply to the STROMTANK, which is initially running in blue (continuous charging) mode. Well-known tracks you've heard a few minutes before are changing substantially already in the first few seconds - and it's not that easy to put the effect into words.

The ear hears the difference, it feels the changes, but all this becomes a consciously describable event only with a certain lag. After a few moments one is simply enchanted, and in the head the individual sound impressions finally form into a uniform whole. Apparently even such a high-quality sound system without the STROMTANK is like a technologically perfect building complex - only without a facade and somehow still incomplete.

Don't get me wrong, I don't want to say that without the STROMTANK the system sounds unbalanced or without a sonic foundation, but the implicitly perceived sound difference is so big that the original performance fades away against this background. Only now do tender semitones emerge, the bass volume reaches an unprecedented fullness, the stage exhibits a fine spatial structure. As if light were shining through a prism, driven by the S2500, the sound system reveals a myriad of its hidden shades. The STROMTANK literally creates an energetic system leap – a feeling of differentiated spatiality.



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It is said that we modern humans, with our highly developed rational judgement and critical evaluation of reality, strengthen the primitive, ancient senses of seeing and hearing – senses that once served primarily the instinctive protection of our own bodies. And the primitive instinct kicks in when the STROMTANK enters its fully autonomous mode – you hold your breath.

The STROMTANK, which now supplies the audio system solely via the batteries, sends the listener back via his sense of hearing to that forgotten state in which sound perception took place like immersion in a holistic physicality. The sensations are like those of a child - filled with uncanny joy, a firework of emotions raging in the head.

Half an hour ago you were thinking about the characteristic features of the sound system and now you are plunging into a completely new sound stream – all around is singing, the organ makes the inside tremble. These are only a few of the feelings that arise from this incredible sound vortex. If I force myself to evaluate everything that happens, then the following aspects could be emphasized:

First, the room acoustics influence seems to vanish completely, the sound now comes evenly distributed from all directions. Secondly, the entire stage structure, the positions of the instruments and all their accents become comparable to those of a prestigious concert hall. Third, finally, each sound picture element is perceived at a realistic physical level – the feeling of listening to a recording disappears completely, music becomes completely alive and concise.

In summary, readers should be made aware of a number of factors. The S2500, the smallest model in the STROMTANK range, is an exquisite and unique product that requires a suitable system for complete disclosure of its quality.

Your system should already sound balanced and tonally complete, otherwise you will not feel the full potential of this exceptional power source. No less important is your own preparation as a listener: Without a doubt the STROMTANK is an important and useful upgrade of your system, but if you are currently still looking for an uncompromising audio system or just got one, you should wait a little before integrating such an instrument into your composition and get to know your new setup, because the more extensive and diverse your experience as a listener is, the greater and deeper the pleasure you will experience from a later acquaintance with a STROMTANK in your system.

It remains to be hoped that such a highly regarded device is only a first swallow as a harbinger of summer and that in the future a completely different era of power supplies for audio systems will await us - with the quality of the „fuel“ playing by far not the last, but sometimes the decisive role in opening up the musical material in all its natural beauty.

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