

M&K Sound S300 Series loudspeakers review

We reported a few weeks ago that the renowned M&K Sound had arrived in Hungary, and we also took some photos while the first shipment was being unpacked. Since then, the Home Movie team has not only installed and calibrated the sound system, but has also carried out the first improvements.

Serious hardware, serious installation

After our first visit, the Home Movie team set out to install the Miller & Kreisel loudspeaker set, which certainly did not involve merely replacing the older loudspeakers inside the demo room with the new ones. Due to the significantly heavier new rear speakers, and the increased sound pressure promised by the manufacturer, the room had to be slightly converted. The pillars in the back supporting the loudspeakers were reinforced and the seats moved closer forward. However, the most impressive change was that the centre speaker had been installed above the screen, creating a really peculiar effect, which we will elaborate later on.

Of course, compared to the previous demo system, an important difference was the S300T rear speaker, which incorporates a rare tripole setup. And the novelty: the subwoofer role was accomplished by utilising two units. The main role, in the front, was fulfilled by the M&K Sound X10, which provides accurate sub bass sound, while there was also another subwoofer placed behind the last row of seats. With the help of this minor addition, the Home Movie experts managed to create a much more homogeneous sound, free from stationary wave

effects. This is not merely a confident statement, but a fact supported by measurements. Measured at the seats, the spread was only 2 dB between 20 and 120 Hz, which is a very good value in this case. Of course, there was a small bonus involved. The subwoofer placed in the back also resonated and vibrated the seats and the listeners in them, creating a sort of shaker action.



The 300 series

The M&K Sound S300 series is an evolution of the S150 series, which had become an organic part of the history of cinema and music in the past decades. Companies playing a dominant role in cinema technology such as Dolby, THX and many others, have used these loudspeakers either as reference, or to demonstrate innovations. The S150 series was a solid and stable setup, but let us be honest: 1995 was such a long time ago and there was need for a better and better-looking model in the portfolio. Design had not been a relevant aspect for quite a while, as the product was used because of its features, nothing more. Placed in a studio above hundreds of pots, switches and buttons, no-one cares if there are 40 screws on the front panel and the metal baskets of the mid-range/sub speakers hang onto the structure via the recesses milled into the lacquered surface. Interior designers do not attend such places to enjoy their coffees and have a chat.

The designers of the S300 took the original design, which was not about appearances, but

rather about practicality and functionality, then combined it with today's technology and finally gave it a bit more aesthetic appeal. However fashionable it is to keep saying that loudspeaker production has not changed fundamentally in the past few decades, upon closer examination, this statement is not true any longer. There are more and more sophisticated tools available for design purposes and the parts used have undergone a huge development as the production of base materials became more and more advanced. A few decades ago, the focus of development was on the surface treatment and the geometry of the paper diaphragm; today, the manufacturer is able to install polymer-coated, glass fibre speakers that were nearly impossible to mass-produce at the dawn of the DVD era. A host of previously special materials are available today, making exotic technical solutions ripe for series production. The fact that the front panel of the box looks way better is just icing on the cake. Most people will not be looking at the loudspeakers, anyway.



A photograph of a home theater setup. A large screen on the left shows an astronaut in a white suit working on a spacecraft. Above the screen, a black ceiling-mounted speaker is visible. To the right of the screen, a floor-standing speaker is positioned. The room is dimly lit, with a red carpet visible at the bottom.

THX Ultra2 - that is, THX in capital letters

The M&K Sound S300 series is THX Ultra2 certified, meaning that it is capable of producing stable sound meeting THX recommendations in a room with a volume larger than 85 m³: this includes sound pressure, uniform frequency response curve and so on. If you choose adequate source electronics and make sure that the system is precisely calibrated in an acoustically "proper" room, then you are guaranteed to hear the same sounds the filmmakers did when they compiled the sound track. If you construct the same system using non-THX components, then despite the same thoroughness applied, you can "only" be sure that the sound is good. That is, by using the M&K Sound S300 series, you can set up a THX (Ultra2) home theatre where you hear what you are supposed to. Of course, if you wish to modify something, you are still free to do so. As an important part of the THX certification process is the inspection of continuous load-bearing capacity, you can rest assured that the system will have ample reserves. Speaking of THX, let us not forget that the manufacturer includes an original THX setup Blu-ray disc packed in a metal case for every left side speaker.

In recent years, THX has come under quite some criticism for inspecting and accepting smaller and less expensive systems as well, which is understandable from a certain point of view. After all, when the THX logo appeared for the first time on speakers and amplifiers, those devices represented the best the industry had to offer; now, the three-letter sign can be seen on certain better desktop speakers as well. This may indeed confuse people a little. Let us not forget, however, that THX Multimedia, Select2 and Ultra2 do not mean the same thing! A small active speaker, even though it sports the THX logo, will never sound like its larger brethren. The promise in this case simply is that among proper conditions, the device will transmit the sound in a way expected by THX. Those proper conditions, however, are hardly ever available. No-one ever said that a speaker placed upon a cheap IKEA desk, with the signal coming from an integrated chipset will produce a great sound in a 25 m² room with a plain plaster. This is nonsense!



What are the objectives and technologies that defined the design? The will to surpass everything...

In the past two decades, following the lossy Dolby Digital compression, lossless and high-fidelity formats began to emerge and spread. If we only look at the technical features of the recorded sound, we can safely ascertain that the minimum quality expected today is a lot higher than what we honestly cherished 20 years ago. Therefore, it was worth developing the sound quality of speakers. It is true that this can be achieved by introducing a new range of models, which the manufacturer did in the form of the S-150 MKII.

However, not only the digital sound tracks of films have changed in the past two decades, but our expectations, dreams and home theatres as well. The early home theatre systems set up in living rooms have been first replaced by single-garage-sized home theatres, then more and more by individual rooms of 30-40 m² in area. This created an ever-increasing demand for really powerful sound systems. And this situation called for a higher quality and also a larger loudspeaker set.

The S300 is better, larger and more powerful than its predecessor, the S150. Even though it would have been sufficient to install more modern speakers capable of withstanding a larger load in order to achieve a bit bigger load-bearing capacity, but why should have the designers stopped halfway? Apart from the individually designed speakers, the enclosure has also been further developed. We do not know how much time passed between the creation of the first design drawing and parts list and the manufacturing of the first prototype, but the manufacturer told us that test listening sessions and various fine tunings and adjustments took more than two years. The result is a sensitivity of 93 dB, which is 3 dB better than the predecessor's, and is a definitely high value. The largest recommended amplifier output is 500 watts; its frequency range is 60 Hz-22 kHz with a tolerance of +/-3 dB.

Even though the success story of the brand originates from the US, the new type was designed in Denmark, which is also home to production and quality control. We may have mentioned this already, but let us write down once more that sometimes we feel as if the Danes are more attracted to loudspeaker production than anyone else on this planet.

The structure

The mid-range/sub speaker diaphragms inside the S300 enclosure are made up of the previously mentioned polymer-covered fibre glass structure. However, fibre glass appears not only here, as it is also used in the dust cap and the oscillator coil body. Naturally, the speaker basket is of aluminium alloy and air flow requirements were also taken into consideration during the design process. The high tone tweeter is dome-shaped, meaning that it looks classical on the outside. However, the device hidden inside is highly complex. Apart from the air gap insert ring designed to reduce torsion and often found inside high-end speakers, there are several damping layers, different inserts regulating internal air flow, damping ring and shielding can also be found.



Coupling the parts with the double-walled enclosures is no easy feat, either. The three high tone tweeters are mounted on an aluminium alloy frame, then this module is installed in the front panel. M&K Sound used a thick steel sheet to clamp the subwoofers. The loudspeakers are constructed according to the box-in-a-box principle, meaning that the MDF sides are double-walled, with heavy damping material in-between, which not only damps a lot of mid-range and high-frequency vibration, but also increases the weight, i. e. the physical inertia, of the enclosure.

A little curiosity: the high tone tweeters come with 2 adhesive-backed acoustic foam stripes each, to be stuck between the domes if you intend to sit close to the speakers. This small accessory mainly helps studio utilisation, meaning we had no use for them in our actual setup. However, this foam strip is a reminder that the manufacturer continues to cater for

the needs of professionals. This model was not made to entertain the masses, but to achieve high-fidelity, realistic sound.

The rear speakers are S300T tripole types, with technical specifications similar to those above. They are of smaller volume, meaning that the multi-component speaker fastening used in the S300 cannot be utilised in their case. In spite of this, the three-chamber enclosure is not an ordinary device. The speakers installed in the front panel are the same type as in the S300, while the side panels hold 2 pieces of 4" diaphragms each, with separate air chambers.

The subwoofer is of the X10 type, which employs push-pull drivers, a hallmark of the brand. As we wrote earlier, this solution is a great choice from the aspect of sound quality, but production is difficult and expensive, as the installed parts have to withstand significantly higher loads than in case of the classic reflex or passive diaphragm setups. The enclosure weighs nearly 30 kg and was placed under the screen.

In the setup we used for testing, the front and centre speakers were made up of 3xS300 units, comprising 1 left front and 2 right front channels. Interestingly, the manufacturer recommends that this latter should be used as the centre speaker. In this case, the centre speaker was positioned above the screen, which we liked during the tests.

Four S300T speakers served as rear channels. Apart from the matte black finish seen in cinemas, this model is also available in white, complete with pretty white fabric front panels.



We tested it - twice!

We tested the complete system two times. First, the Marantz AV8802A processor was complemented by a Marantz MM8077 power amplifier; the second time, a NAD Master M27 power amplifier undertook this no easy feat. During the tests, we listened to the usual, well-known songs, of which Hit Man Returns: David Foster and Friends (Michael Bubble) and Art of Flight should be emphasised. Also worth mentioning is Metallica's film Through the Never, not only because of Antal Nimród, but also because its thick and rich sound makes it stand out a bit from the rest. The first date is always unforgettable... Alright, now that is an exaggeration. After all, we are talking about a loudspeaker system, not our future wife. Regardless, the M&K Sound S300 series is a hell of a beast. When we arrived, a DALI test CD was being played, which we had listened to death before, yet the sound was definitely refreshing. Musical! This was our first exclamation, which we shall not take back, even if we are well aware that a speaker set should not be judged based on a couple of songs. We were just sitting there, enjoying the music. We tried to find faults with the sound, attempted to get a grip on the system, but we were unable to. We cannot diminish the excellence of the system by saying that "it is good considering it is a home theatre". It is simply good and that is all there is.

The mid-range sound is rich and detailed, making us believe most of the time that we are facing a serious loudspeaker set. The analytic, almost aggressively dynamic nature so typical of monitors did not come through during the tests.

Of course, we also gave films a try - that was why he had come for, after all. The local team did not mess around much. For starters, they fired up Interstellar, giving the speakers and our ears a thorough test. The 10-year-old boy next to us even stood up and left, saying the volume was too much for him to bear. We persevered, however, looking for tiny traces of distortion. But to no avail. Not even the proportions were distorted. The relevance of high tones and the relentlessness of mid-range sounds were especially impressive. The M&K Sound provided excellent bass, and with the subwoofer hidden behind the seats, it almost felt as if we were in a theme park. Alright, alright! We know you do not listen to bass using your backside, but still: when the spaceship lifts off among a myriad of cracking-crunching sounds and your seat also trembles in harmony with what is happening on-screen, then you simply cannot help smiling in joy. We checked out several films and the experience hardly changed a bit. The system built around the Marantz processor and power amplifier was undeniably powerful, pleasant and suitable for listening to music as well.



Still, we were terribly intrigued by one question: what if we connected these brutally powerful boxes to a more powerful power amplifier? We received an answer during the second test...

The big question was whether the centre speaker located above the screen would work out. And it did. The speaker placed high above merged nicely with the overall view of the fronts and dialogues did not seem to come off-screen, either. Let us remark at this point that if a character on screen can be seen at least down to the waist, then their mouth is closer to the top edge of the screen than to the bottom one; so in theory and in this particular case, this arrangement is closer to the ideal one, compared to the speaker placed underneath the screen. Of course, if you are using a proper (woven or perforated) screen, then you can also hide the centre and front speakers behind it, placing all three of them at the same height. This is advantageous not only from an aesthetic aspect, but also meets the THX recommendations.

The second test was conducted a few weeks later, complemented by a NAD power amplifier. By this time, the system had been completely operational and precisely calibrated, and boasted 4 additional high tone (Atmos) channels as well. Initially, the change was not evident.

We really liked what we heard, but we had had no complaints beforehand, either. Then we experienced some film segments and a couple of live songs that made the high tone tweeters work more. The sound we had described as musical earlier now turned more aggressive, faster and more dynamic, while the high tone range became more punctual and open. The cinema feel prevailed even more, if you like. Compared to this, the previous musicality was a sort of benevolent concealment of the limits of a purely Marantz-based system. Not that we have any reason to criticise the Marantz electronics, but the NAD Master (at a considerably higher price) indeed performed better.

Atmos?

The system complemented by the Dolby Atmos high tone channels divided the audience a bit. Three of those present liked the extra experience provided by the additional channels, while one person admitted that they do not find this feature overly exciting. However, everyone agreed that the difference is similar to driving a car with the windows down or driving a convertible. Of course, part of the reason for this division in opinion was that of the demo materials we listened to the Dolby Atmos presentation disc is boring by now, and Transformers: Age of Extinction...



Well, there are quite a number of films that we would not mind watching over and over again in a really good home theatre, but this work is not one of those. Hopefully, time will solve this issue, as there are more and more films released with support for this sound format. But to return to what we heard, sound quality remained excellent, the spatial positioning of sound effects perhaps improved a little, yet the real plus was an increased sense of atmosphere and immersion. Of course, the processor and the fine-tuning played a greater role in this than the loudspeakers, which also performed great in a 7.2 setup.

Recommendation

Surely, the M&K Sound S300 will sing its siren's call to cinema fans with an interest in technology, as the manufacturer's pedigree and the monitor-like appearance of the speakers foreshadow absolutely professional quality. However, this speaker type is not only interesting for technology aficionados, but also for those who want to build up a professional home theatre system from scratch. The loudspeakers may be hidden behind the screen or mounted in wall recesses, and due to its

Specification

M&K Sound S300

Frequency Response: 60 Hz – 22 kHz

Impedance: 4 Ohm

Crossover Frequency: 1500 Hz (!)

Sensitivity: 93 dB

Recommended Power: 25 – 500 watts

Colors: Black Satin

Dimensions: 273x160x200 mm

Weight: 18 kg

M&K Sound S300T

Frequency Response: 60 Hz – 22 kHz

Impedance: 4 Ohm

Crossover Frequency: 1800 Hz (!)

Sensitivity: 89 dB

Recommended Power: 25 – 400 watts

Colors: Black Satin or White Satin

Dimensions: 345 x 345 x 180 mm

Weight: 12 kg

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www.homemovie.hu

www.mkssound.hu

www.av-online.hu

output, it is an excellent choice in case of large rooms as well. If you choose a proper amplifier, then the sound will enthrall and captivate the entire audience in such a way that no multiplex cinema today is capable of.

Verdict

M&K Sound introduced itself and we got to like it. This is some serious hardware, and not only in terms of volume. We were not necessarily surprised by its dynamics and speed, as the sight of the monitor-like enclosures had somewhat prepared us for what was to come. And perhaps also because all of this seemed natural, as presented by M&K Sound. However, the light power of high tones still caught us off guard. Beyond doubt, this is owing to the three dome-shaped speaker configuration. The way the speakers handled high volume also surprised us. They are not merely restrained, but almost calm. As if it was easy to create vibration in every nook and cranny of the room. It is worth paying a visit now to Home Movie, for it is great fun to sit smiling inadvertently in your seat while watching a loud film sequence. It is also interesting to see how a true home cinema is capable of providing a musical experience that makes your jaw drop in surprise.

M&K Sound X10

Frequency Response: 20 Hz – 200 kHz

Phase: 0 – 180 degrees, continuously variable

Switchable Lowpass Filters: Fixed 80 Hz / Variable / No lowpass

Amplifier Power: 350 Watts RMS (650 Watts Peak)

Colors: Black Satin

Dimensions: 380 x 560 x 420

Weight: 28 kg

Our opinion

Sound Quality for Movie:	★★★★★
Sound Quality for Music:	★★★★★
Build quality:	★★★★★
Value for money:	★★★★★

+ A sound that is precise and full of energy. A great and rare combination for both movies and music.

+ The triple tweeter design eases stress on the domes, while boosts surface area. This gives amazing stability and smoothness, from low to high sound pressures.

+ The massive, reinforced cabinet is combined with a speaker set and crossover, capable to deliver great sound pressure. This shows its greatest values when combined with big amplifiers.

- The lack of factory designed stands makes designing and setting up a system a bit trickier.