

Rebirth under a new brand

Neumann, traditionally associated with the recording microphone, has ventured into the world of studio monitoring.

ANDREW GOLDBERG, product manager of Neumann's studio monitor systems, describes how this came about, the changes that have occurred within the world of Neumann, and some of the first new products.

Sennheiser needs no introduction as a manufacturer but what is less well known is that Neumann and Klein + Hummel have been part of the Sennheiser Group for 20 and 5 years respectively. Towards the end of 2009 it was announced that Klein + Hummel would close down due to slow progress in gaining international brand recognition, and thus a correspondingly slow progress in business development. The audio quality of the actual products was never in question; in fact the reputation in the German-speaking countries and a few others has been extremely high for decades. The core issue was simply that sales were insufficient. So the two existing product lines were split and moved: Installed Sound products were moved to the Sennheiser brand and Studio Monitoring products were moved to Neumann. The Klein + Hummel brand will eventually cease to be but almost all the former Klein + Hummel engineers continue to work for the Sennheiser Group in support of the Installed Sound products at Sennheiser and Studio Monitor Systems at Neumann. Thus, for the most part, the same people still stand behind the products and service is also assured for past, present, and future customers with the accustomed Sennheiser and Neumann quality.

Since that announcement Sennheiser has been further reorganised as part of a much larger long-term plan to address different markets. As of late last year, the Sennheiser Group is now split into three divisions: Consumer (headphones), Professional (wired and wireless microphones, and pro headphones), and Installed Sound (conference and tour guide systems).

Neumann sits firmly at the high-end of the 'Pro' division as a flagship brand but what does 'Pro' really mean? To Neumann it means perfection, reputation and obligation to deliver the best to our demanding customers.

So what have we been doing at Neumann during all of this corporate reorganisation? Sales channels were reinvigorated using Neumann's existing contacts as sales people selling world-class microphones to studios can also be selling world-class studio monitors to the same customers at the same time. We have already seen the benefit of this in the sales figures. At the same time, the monitor factory has been branded Neumann, all processes reviewed, and all staff reoriented under the overall subject of 'quality'. This investment has paid off and production output is now of a quality befitting a world-class brand like Neumann.

The creative minds at Neumann came up with the concept of the 'Symbiosis Symbol', which denotes a coming together of the two ends of the audio chain -- microphones and loudspeakers. These devices are both electro-acoustic transducers, with as many differences as they have similarities! The Symbiosis Symbol also represents that in a visual way.

The website was also revamped to reflect the new branding. Additionally we publish a lot of data about our products as we believe the performance parameters of measurement instruments (we measure electronic audio signals and convert them to acoustical signals at the listening position) should be described in every detail.

We arrived at last year's Prolight+Sound exhibition ready to go with improved production quality, activated sales channels, and a new market image. Neumann, already a world-famous name for professional microphones, is now a new name in the world of Studio Monitors. This is an interesting position for an 83-year-old company to find itself in as Wolfgang Fraissinet, president of marketing/sales at Neumann Berlin, said at the time: 'We anticipate a strong synergy effect

here. In the history of the company, Neumann stands for far more than microphone technology. Over the decades we have also produced record-cutting equipment and studio consoles, for example. Our expertise in transformer design — for the microphone — as well as in signal processing and digital audio technology, has already been demonstrated. In addition Neumann has a leading role in the area of high technology, which is successfully implemented, for instance, in the digital microphones of the Solution-D series. Over time, new products will be developed to fulfil the needs of the most discerning customers in the market. The core concept of excellence in audio reproduction will remain and cutting-edge technologies will continue to set Neumann Studio Monitoring Systems apart from the masses.'

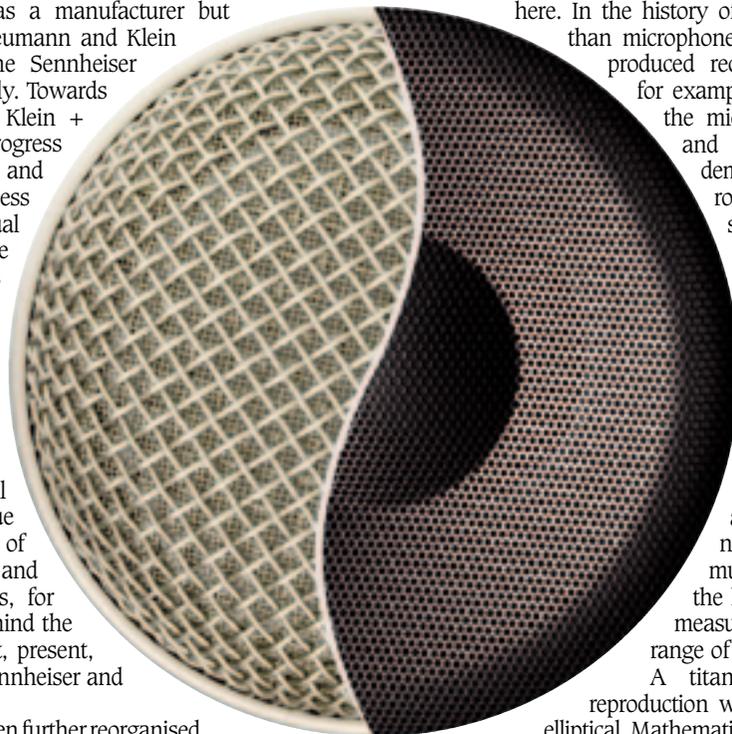
The first Neumann branded studio monitor is the KH 120. The KH 120 is a two-way active studio monitor designed for use as a nearfield or as a rear loudspeaker in larger multichannel systems. The KH 120 represents the latest in acoustic and electronic simulation and measurement technologies and can be used in a broad range of applications.

A titanium fabric dome brings high-frequency reproduction with a very low-distortion. Combined with the elliptical Mathematically Modelled Dispersion (MMD) waveguide, a smoother off-axis response is seen which is then more forgiving of diverse acoustical environments. The wide horizontal dispersion of the waveguide brings freedom of movement within the large listening area and the narrow vertical dispersion reduces reflections off the mixing console. The long throw bass driver with its composite sandwich cone has well-damped break-up modes and low distortion at high output levels. The large front panel ports minimise bass compression and allow for easier mounting in tight spaces, such as OB vans. The robust metal grilles protect against mechanical and handling damage.

The compact aluminium cabinet, which is magnetically shielded, minimises resonances, offers better heat dissipation, and will have a longer life than a wooden or plastic cabinet. The one-piece front panel has no unnecessary discontinuities and that minimises diffraction and brings a smoother frequency response. There is a two-colour Neumann logo that shows power on status and the activation of the extensive protection system. The 80W analogue Class AB amplifiers have large headroom, thereby improving the transient response. The result is a response down to 52Hz at -3dB with an output up to 111.1dB SPL at 1m. Attention to detail in the electronics design brings a self-generated noise of 0dB(A) at 1m, i.e. inaudible at the

listening position, even in a quiet room at a close listening distance.

Separate woofer and tweeter electronic limiters, an excursion limiter, an infrasonic filter, and thermal-protection circuitry bring high reliability even under punishing conditions. Four-position bass, low-mid and treble acoustical controls give more control in diverse acoustical environments. Easy interfacing with signal sources is possible with the electronic-balanced XLR input combined with wide range input gain and output level controls. The ground lift control reduces noise in electrically noisy environments and overcomes ground loops in temporary set ups. New mounting hardware options bring more flexibility when mounting cabinets in diverse locations and the display dimmer accommodates low-level lighting conditions or behind-the-screen applications. The universal switched-mode



power supply (100-240V AC) means that one version of the product works in any country, and it is also very tolerant of poor quality mains supplies. The KH 120 A has an analogue input while the KH 120 D has an additional digital input with some unique features and will be available soon. Finally, any KH 120 is 'pair-matched' to any other KH 120 as production consistency is so high.

Neumann is expanding the monitoring range to include the KH 810 subwoofer. More than just a subwoofer, with its 7.1 High Definition Bass Manager it is the heart of the monitoring system. A profusion of transmission technology developments has increased the demands placed on monitoring and facilities now require high-quality monitoring systems that can reproduce any signal up to the latest 7.1 discrete HD formats.

The KH 810 meets these demands and is the perfect compliment to the KH 120. It can be used as a unit dedicated to reproducing the LFE-channel, or as a way to deepen the system's low-frequency response down to 18Hz and increase the maximum output level. Alternatively you can benefit from a lower distortion when playing the system at the same level because the subwoofer takes over reproduction of frequencies below 80Hz thereby relieving the main loudspeakers of the hardest part of their reproduction range. The KH 810 makes it possible to assemble flexible monitoring for different sized studios, with a smooth and uniform response that ranges from below 20Hz to more than 20kHz.



It has eight channels of XLR analogue input and four-mode LFE-channel processing with 0dB or +10dB gain ensures compatibility across all formats. Fourth-order 80Hz crossovers and acoustical controls (including output level, phase in 45° steps, parametric EQ and low cut) adapt the subwoofer's response to the environment and allow for seamless integration into a complete monitoring system. There is independent control of bass management for front and back channels and system-wide volume control via optional hardware remote controls or RS232 control data. The built-in volume control allows for centralised system replay level adjustment independent of the source.



The electronics can be located remotely to reduce cabling or to allow the cabinet to be flushmounted, and the electronics can be remotely powered up with two modes of operation (0V and 12V trigger). The low heat dissipation amplifier offers good headroom and high efficiency and an electronic limiter protects the amplifier and driver. A low-distortion magnetically-shielded long-throw 10-inch driver is mounted in a well-braced cabinet with high-capacity ports that delivers tight and distortion-free low frequency reproduction down to 18Hz (-3dB) even at high replay levels. There is reduced bass compression at

high SPL from the generously proportioned bass reflex ports and high density rubber feet isolate the cabinet from the floor. Using the sum output, larger systems can be constructed and Plane Wave Bass Array (PWBA) techniques acoustically can improve lateral consistency in the listening area.

We also offer mounting hardware to locate loudspeakers at the desired position in the room, digital interfaces, transport cases, remote electronics kits, cables, protective metal grilles, and remote controls.

It should be obvious by now that the rest of the Klein+Hummel range will eventually be replaced by similarly-sized Neumann products, but for now we cannot confirm when this will happen or the details of the product specifications. In the meantime we continue to sell Klein+Hummel's well-proven products.

Neumann is a subjectively world-class brand attached to objectively excellent products: a combination that is sure to have a strong, positive effect in the studio monitor market. Welcome to the world of Neumann Studio Monitor Systems. ■

Contact

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