







Loudspeakers Boenicke Audio W11 SE+

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Two years ago the Boenicke W8 SE+ was a game-changer in my listening room. Now the W11 SE+ is preparing to do the same as her little sister.



LIFE WITH BOENICKE

Perhaps I should first explain what I mean by “game-changer”: until I discovered the Boenicke Audio W8 SE+ I was a committed supporter of high efficiency loudspeakers. My open baffles were powered by single-ended triode amplifiers; after years of experimentation, trial and error, I had finally got the system how I wanted it. Friends and colleagues who came into my listening room put the icing on the acoustic cake with their compliments, analysis and emotion. Well, that was until some Swiss guy turned up, stuck a pair of speakers in my room that could not have been more different from my point sources, and ... turned my world upside down. The Boenicke Audio W8 SE+ totally changed the way I listen to music. Up to then, I had never come across a pair of speakers that so generously filled my listening room with melodiousness, while at the same time slipping on an invisibility cloak like something from Grimm’s Fairy Tales – nor have I since. Fortunately, my report on the W8 SE+ (image hifi 2/2015) echoed in my ears, often in combination with the question, which amp did I choose to partner them? A good question, which brings me back to “game-changing”: it was obvious that with the arrival of the W8 SE+, not one stone would be left upon another – with low powered tubes the W8 SE+ is hardly going to scale a sonic Mount Olympus. I took my time, tried out various different amplification concepts with the little mites, and discovered a couple of hot contenders for the coveted support role.

The more quality I “fed” the Boenickses, the more they repaid me. It became clear that I could go a really long way with the W8 SE+ in terms of three-dimensionality, resolution and timbre. But sonic Nirvana is a very personal matter. Thus the Hypex NCore Class-D based NAD M22 power amp rendered one of my guests in W8 ecstasy, yet another visitor was moved to tears of joy by the combination with Jadis JA30 Mk IV Signature push-pull valve power amps. These completely different amplifiers have one thing in common: both circuits are high-current and stable down to 2 ohm – both criteria that benefit the low-impedance W8 SE+, as it drops down to 2 ohm above 5 kHz – a behaviour that is down to the patented acoustic phase linearization network. Though amp loading-wise this is no problem, as very litt-

le current flows in that frequency range.

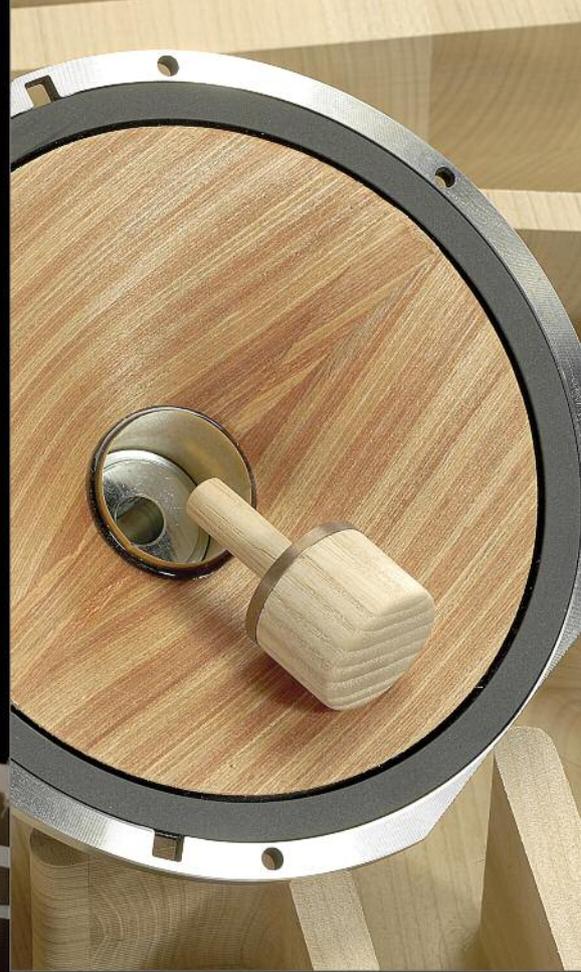
The W11 SE+, which also has a phase linearization network, exhibits the same impedance behaviour in the upper registers. The amplification question remains essentially the same: with an efficiency of 89 dB/W/m and a nominal impedance of 6 Ohm, the speaker doesn't make any excessive demands on an amp – with one exception. The W11 SE+ comes with an exciting feature that does require a circuit which doesn't lose control in the lower registers, where current flow is considerably higher: the volume of the side-firing Dayton 10-inch long-throw bass drivers (with twin voice coil and flat carbon fibre diaphragm) can be adjusted in five steps using a jumper – down to -4dB and up to +6 dB – via a custom autoformer specially made for Boenicke by Swiss manufacturer Audio Consulting. The potential challenge for the amp comes when the bass is boosted to the maximum – where the impedance falls to 2 Ohm. I had no problems driving the W11 SE+ with any of the amps I hooked up to them – the aforementioned NAD M22 power amp, the Shanling A3.2 integrated or the Sombetzki Audio S 509 valve monoblocks. A volume increase of more than +3dB was never necessary, most of the time the jumper remained in the zero position – with an impedance of between 6 Ohm and

4 Ohm. There may be those who might wish for a finer level of adjustment, maybe in 1dB or even half-dB steps, but let's not over-egg the pudding: how many loudspeakers even offer such a possibility at all?

Like all Boenicke loudspeakers the W11 SE+ cabinets are made from solid wood. The test pair comprise two CNC machined halves of ash, each of which in turn are made up of eight individual layers. This construction means the wood can neither warp nor crack. In order to prevent problems with the drivers interfering with each other, Sven Boenicke provides each driver with its own chamber, each sized accordingly. These are further divided by braces, preventing the formation of standing waves. The

Partnering Equipment

Turntable: Nottingham Analogue Dais including Sperling Audio NRM-1/S motor housing **Tonearms:** Robert Fuchs 12", Origin Live Encounter Mk2, Pear Audio Cornet 2 **Cartridges:** Grado The Statement 2, Lyra Kleos, Nagaoka NM 11A **Headshells:** Acoustical Systems Arché 5D, Oyaide HS-TF Carbon **CD Players:** Lector CDP-707 with PSU-7T power supply, Oppo BDP-103 **Phonostages:** Perreaux Audiant VP3, Tubeguru TubeMann RIAA based on Neumann WV2 **Preamplifiers:** Tobian Soundsystems Stereo Console SC 8, NAD M12 **Power amplifiers:** Sombetzki S 509, NAD M22 **Integrated amplifier:** Shanling A3.2 **Loudspeakers:** Boenicke Audio W8 SE+, W5 SE **Cables:** Clockwork Audio interconnects and speaker cables, WAY SILVER 3 interconnects, Fastaudio Black Science speaker cable, Acoustic System Liveline interconnects and speaker cables, Schallwand Opus Magnum **Accessories:** Audiophil-Schumann-Generator, SPEC RSP-901 EX Real-Sound Processor, SteinMusic "Pi" platter mat, TAOC Racks, SteinMusic Harmoniser and Blue Suns, Acoustic Revive RL-30 demagnetiser, Audiodesksysteme Gläss Vinyl Cleaner PRO and Sound Improves, Audio Exklusiv d.C.d Base and Silentplugs, FPH-Akustik resonance damper, Herbie's Audio Lab Tenderfoot, Schallwand Audio Laboratory Little-Foots/BigFoots, Duende-Criatura damping rings, Fastaudio absorber, Acoustic System resonators, MFE mains distribution strip, AMR, Furutech and AHP high quality fuses, Biophotone Magic Akasha Quantum Power Plugs, Acoustical Systems SMARTtractor and Helox record clamp **Valves:** All valves supplied by BTB Elektronik



remaining hollow cells are covered in a special honeycomb board for the purpose of tuning the desired resonant frequency. The honeycomb effect leads to a further subdivision into many miniature hollow cells and thus provides a further means of absorbing any standing waves. To minimise diffraction effects at the edges, each driver is mounted in a neoprene ring. Further, Sven Boenicke optimises the cabinet volume for the lower mid driver and wideband tweeter by ear – the Swiss guy claims to be able to discern differences of up to 4 milliliters. To ensure time coherence, the inclination of the speaker and mounting distance of the front two drivers is precisely calculated. Thus the Fountek 3-inch aluminium wideband tweeter (made exclusively for Boenicke Audio) is recessed somewhat deeper than the 6-inch lower midrange driver beneath it. The lower mid unit is a real eye-catcher – alas, Sven Boenicke has sworn me to secrecy on the details: the driver, exclusively designed for him, complete with ash phase plug, comes with a gossamer-thin pliable diaphragm of sapele – a material oft used in the making of acoustic guitars. To my knowledge, Boenicke Audio is the only loudspeaker manufacturer who uses such a driver. The driver’s powerful magnet is “virtually” affixed to the cabinet, that is to say, via front assembly, the driver is pushed onto a wooden mandrel (see cover photo). Thus not only the lightweight chassis but also the heavy ma-

Above left: Incredible: the Dayton 10” long-throw bass driver only hits the -3 dB point right down at 27 Hz. It is built with a dual voice coil and thus exhibits high self-inductance

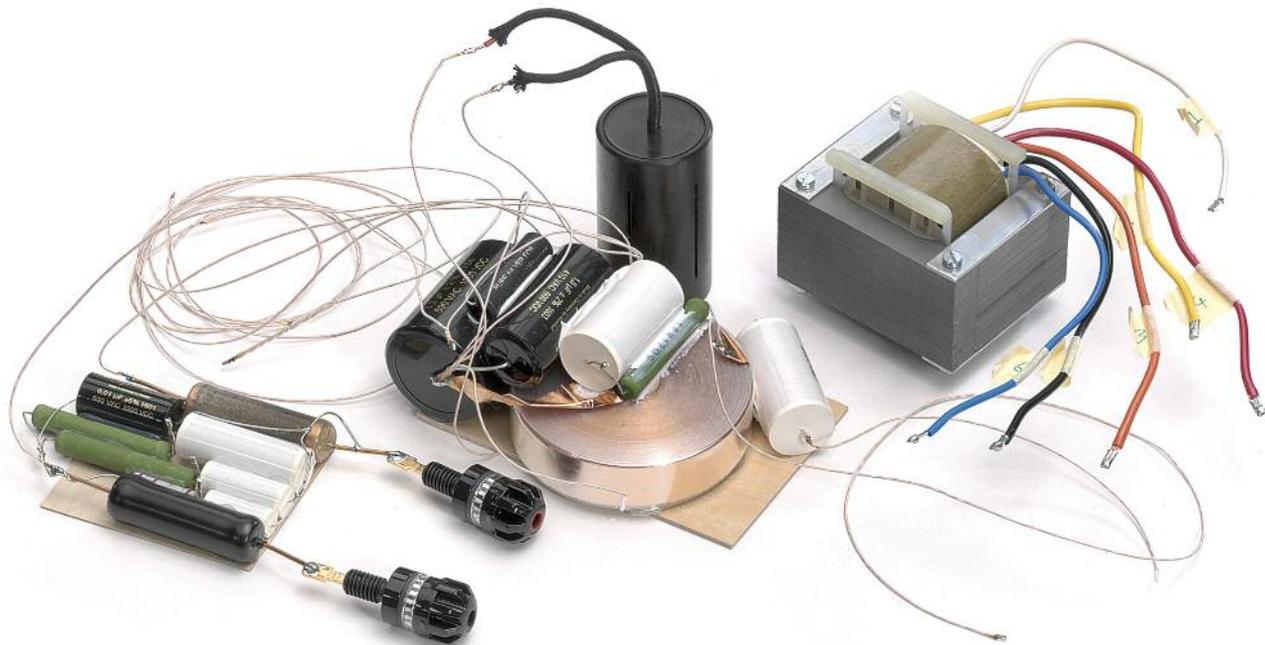
Above right: The phase plug for the lower midrange driver is made from ash wood with a copper short-circuit ring. This ring is intended to reduce harmonic distortion

Below left: The Fountek full-range driver’s magnet is equipped with Harmonix RF 57 MkII Tuning Bases. These optimize resonance by redistributing specific mechanical vibrations

Below right: A rarity: the lower midrange driver’s wafer-thin (0.7mm thick), flexible diaphragm is made of sapele and together with the paper voice coil former is responsible for the W11 SE+’s extraordinarily fast and natural sound reproduction

gnet are attached. Consequently the not particularly stiff basket spars are preloaded, which brings any developing resonances down to a less critical level. Sven Boenicke uses another measure with the same end purpose for the wideband tweeter. Its magnet is equipped with Harmonix RF 57 Mk II tuning bases to control undesirable mechanical vibrations. In addition, electromechanical series and parallel resonators on the cone transducer redistribute diffuse energy to defined resonant frequencies. Sadly, I still can’t persuade Sven to divulge details of which frequencies these are. But he repeats his earlier statement that resonatorless systems would mostly sound too bright and not spacious and expansive enough, and furthermore would sound coloured, conveying inaccurate timbre.

As you have already read the term “SE+” several times, I’d like to use the tuning measures described above as an opportunity to explore the Boenicke Audio product hierarchy: each speaker in the Swiss manufacturers range is available in three versions. There is a choice of Standard, SE or SE+ versions. The basic concept is identical; the three versions differ in component choice and the number of additional integrated tuning elements. Additionally, special features for the W11 SE+ include a Mundorf MCap Supreme capacitor, as a sonic upgrade to the (in typical Boenicke fashion) rearwards-radiating Monacor 1-inch silk dome tweeter. SteinMusic Speaker Match Signatures are tasked with optimising the signal transmission from the amplifier via WBT NextGen ter-



Oh tweak freak, what more could you wish for? SteinMusic Speaker Match Signature to optimize signal transmission from the amplifier to the speakers, Bybee Quantum Purifier to improve the signal-to-noise ratio [SNR], Audio Consulting autoformer to customize the bass volume. A patented phase linearization network directs high-frequency components to their correct place on the virtual stage. The purist crossover – with Mundorf silver-gold-oil capacitors including Duelund silver foil bypass cap and Mundorf MCap Supreme – is point-to-point wired for better sound quality

minals to the speaker, and Bybee Quantum Purifiers on the silk-covered copper HF inner wiring are intended to improve the signal-to-noise ratio even further. Among the various tuning upgrades, special mention goes to the now-famous “Swing Base”: its effect across the whole frequency range is so amazing that other speaker manufacturers have ordered Swing Bases from Boenicke Audio, custom-made for their own product ranges. The W11 SE+ is suspended at the rear almost free-swinging with multiple degrees of freedom and minimal friction in the horizontal plane, thanks to a bronze plate “sandwich” – there’s a steel ball bearing between the plates – under the front of the cabinet. Even with the W8 SE+ I was able to experience the benefits the Swing Base brings: more soundstage, more air, more precision, more definition, more flow, better imaging, more everything... I think that’s enough “Pimp My Speakers“, so let’s just say a couple of words about the crossover: in order to keep signal

paths short and minimise the number of solder joints, the crossover is wired point-to-point. The lower midrange driver drops out around 1kHz without a high-pass filter, with impedance-corrected 12dB per octave. Above 1kHz the full-range driver takes over – with a 2nd order high pass filter. The ambient tweeter, with a 1st order high pass filter, comes into play at 6,500Hz. The twin-voice coil bass unit rolls off from about 100Hz impedance-linearised with the aid of a 1st order filter.

In the run-up to the review, I did wonder whether the W11 SE+, with its 30 litres – twice the cabinet volume and triple the weight of a W8 – might not be a tad oversized for my 22 square metre room. I’m very familiar with all the W11 versions, and have had several opportunities to listen to them extensively over the last 12 months – albeit in rooms roughly twice the size of mine. During the approximately 150-hour break-in period I primarily struggled with an overemphasised upper bass,

which I was unable to control, no matter how I moved or aligned the speakers with their outward-facing bass units. I was prepared for the fact that I might not achieve the same phenomenal separation effect in my room, also from a psychoacoustic view – the W11 is a good foot taller and 2 inches wider than the W8. Having said that, even the otherwise coherent, harmonious Shanling A3.2 with its spacious fundamental tone, a solid state integrated amp with sensational bang for its buck, was unable to fully unfurl its sonic wings. The colourful midrange and the fine silky treble that I experienced with the W8 seemed somehow “washed out” or glossed over. The double bass on “Camp d’Argeles” from Renaud García-Fons’ album *Méditerranées* (Enja Records/Soulfood, ENJ-9563 2, CD, 2010, DE) appeared in size XXL, the solo was more authoritative and with greater energetic force than the W8 SE+ was capable of, but the sound was muddied by imprecise bass energy – with the expected effect on the other frequency ranges. Naturally, definition and detail suffered, noticeable on vague-sounding bass strings for example. It seemed as if the sounds were fighting each other for position, and were strangling each other in the process. The NAD M22 power amp brought a tad more precision, but the overall impression barely changed.

Sven Boenicke advised me to be patient. He maintained that the speakers would need a couple of days to acclimatise after installation, much in the same way as acoustic guitars need a little while to settle down. A certain ghost in the machine – we’re not dealing with dead material here – for which even Boenicke had no rational explanation. And he was right: as I busied myself with moving the record racks that were standing close behind the speakers, the presence in the upper bass began to abate more and more. It took about 8 days for the sound to cleanse and purify itself. Moving the furniture also helped to reduce room modes. I went without the Swing Base until I’d found the final position for the speakers in order to make moving them easier. I’ve already mentioned the effect the

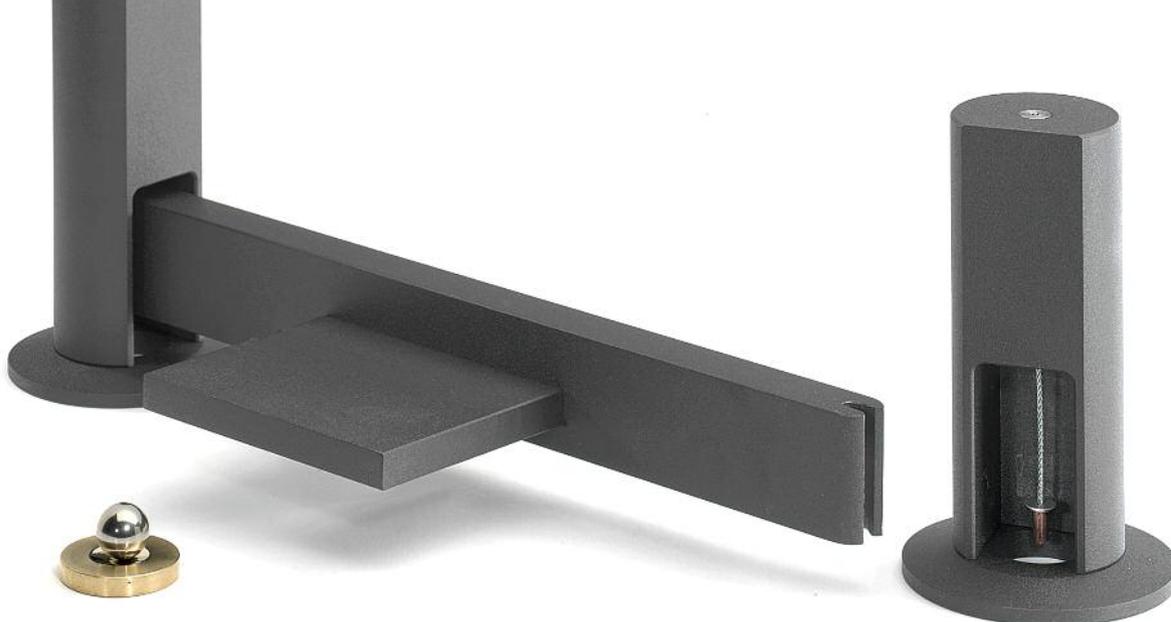
Swing Base has on the critical mid- and high-frequency ranges. In the case of García-Fons’ double bass solo, it definitely became enormously vivid and elastic, with the cleanest detail imaginable. The touching and plucking of the strings was unleashed in both fine and coarse dynamics, the vibration decay completely believable. The W11 SE+ played “as one” – with the large soundstage typical for Boenicke, and with noticeably more substance and authority than the W8 SE+, which began to reach their physical limits, understandably, given their volume, although remarkably late considering their size. Now the wide-radiating bipole treble concept in combination with the full-range and lower midrange drivers could reveal its strengths: homogeneity and micro-detail of the highest resolution, wrapped in timbre, timbre and more timbre. The naturalness with which the W11 SE+ celebrates Father John Misty’s vocal timbre on “Pure Comedy” from the album of the same name (Bella Union/PIAS/Rough Trade, BELLA628V, EU 2017, 2-LP) can only be described as benchmark setting. The same goes for the portrayal of wood, steel, tin and skin: western guitar, strings, horns and drums sound simply just right – anyone wishing otherwise only has themselves to blame. At that point, the Sombetzki Audio S 509 monobloc power amps were also contributing to the high emotional factor. Michael Sombetzki developed the parallel PL509 push-pull valve amp (based on the CIRCLotron circuit designed by Finland’s Tapio Köykkä) in order to keep low-impedance speakers such as his electrostatics on a tight rein without compromise. The monoblocs are a real success, managing to pull off the trick of combining valve charm with neutrality and absolute precision. The W11 SE+ quite simply shone when hooked up to the Sombetzkis and my Tobian SC 8 preamp.

The day before I finished this report, I had the chance to hear a standard version of the W11 at Isar Audio, a Boenicke Audio dealer in Munich, with an Allnic L-5000 DHT valve pre- and Leben CS-1000P power amp. Hans Zimmer’s orchestral, majestically



Above: The bass volume can be adjusted in five steps from -4 dB to +6 dB using the jumper. To achieve this, Boenicke Audio turned to his Swiss colleagues at Audio Consulting for an autoformer specially developed for the W11 model range

Below: The rearwards-radiating Monacor 1-inch silk dome tweeter is responsible for the Boenicke concept's great depth imaging. Sven Boenicke wouldn't be Sven Boenicke if this were left to chance: Mundorf MCap Supremes should aid the tweeter in delivering sweeter timbre, better resolution and more generous spatiality



Completely free-floating suspension: The Swing Base developed by Boenicke Audio functions like a purge or purification treatment. It throws the resonant and vibrating ballast “overboard” with spectacular tonal effect. At the front the Swing Base is complemented by a steel ball bearing sandwiched between bronze plates

towering “Journey To The Line”, on the soundtrack to Terrence Malick’s “The Thin Red Line” (Related Recordings/SME Media/Sony Music, 09026 63382 2, EU 1999, CD), positively pushed me back into the chair – an overwhelming performance. If you ask me, even the basic Euro 9,280 version of the W11 is worth the price of the SE+. Perhaps you’d better hurry, before Sven Boenicke decides to put the prices up. Oh and by the way, the W11 possesses a particularly high WAF (Wife Acceptance Factor) and goes down well with the ladies. My summation of the optical and haptic factors in addition to the reactions of our “better halves”: the Boenicke W11 SE+ is a perfectly crafted ladykiller, with spousal approval included in the Euro 17,040 price. Not that I need worry about such things, as a macho batchelor... Now I’m sitting here, looking at the W8 SE+ and my thoughts begin to drift to the near future, in which I am about to move –

into a house with a bigger listening room. Friends, I fear the worst, sorry, I mean the next “game-changer”. Either way, life with Boenicke continues...

Loudspeakers Boenicke Audio W11 SE+

Functional principle: closed box 2-way concept supplemented with bass and rearwards-firing ambient tweeter. Efficiency: 89 dB (1 W/1 m) **Nominal impedance:** depending on autoformer adjustment 2–6 Ohm (2 Ohm above 10kHz) **Frequency range:** 27–25,000Hz **Crossover:** point-to-point wired; bass with 1st order filter and dedicated impedance linearization, lower-midband with 2nd order filter (no high-pass filter), full-range driver with 2nd order high-pass filter, tweeter with 1st order filter **Special features:** cabinet machined from solid wood, Fountek 3” aluminium full-range driver with Harmonix RF57 MkII tuning bases, 6” Sapele wood lower midrange driver with ash phase plug, Dayton 10” long-throw bass driver with carbon honeycomb diaphragm, customisable in 5 steps from -4 to +6 dB via Audio Consulting autoformer, rear-mounted Monacor 1” silk dome tweeter with Mundorf MCap Supreme **Finishes:** ash, cherry, Euro 575 supplement for black walnut. Swing Base available in silver or black powdercoat **Dimensions (W/H/D):** 16.1/105/39 cm **Weight:** 30kg **Guarantee:** 10 years (excl drivers) **Price per pair:** Euro 17,040

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