



Adam Smith auditions Bang & Olufsen's stunning looking Beolab 9 loudspeakers...

Lab Report

Bang & Olufsen in the pages of a serious hi-fi magazine - what's the world coming to? Well hold on a minute please, all you doubters, because as editor DP rightly said in his *Olde Worlde* article on the lovely Beomaster 2400-2 back in July 2002's *Hi-Fi World*, whilst it is indeed "hard to make a case for every B&O product ever made", they have certainly turned out a few truly innovative and

excellent products over the years.

Lest we forget, the Beogram 4000 turntable put the concept of linear tracking properly onto the map when it was released to the unsuspecting public in 1974 and, moving forward a decade, Bang & Olufsen developed the domestic version of Dolby's HX recording system that offered better dynamic range from cassettes. To this list, I personally would have no problem in adding one or two of their

loudspeakers, certainly those made in the last twenty years.

Up until this time, B&O took the conventional route of using passive loudspeakers with an amplifier (or more usually, receiver) and whilst some of their larger designs, such as the M-100s, MS-150s and MC-120s were fine units, they still lacked that certain something to lift them above the rather ordinary. Fortunately, this all changed in 1987 with the release of the Pentas, a superb sounding

column loudspeaker available with (Beolab) or without (Beovox) built-in amplifiers.

This marked a change for Bang & Olufsen, and one from which they have never looked back, as they embraced active loudspeaker technology with great enthusiasm. Although the Beolab Pentas were not truly active, but were strictly an amplified passive loudspeaker that still used a conventional crossover, B&O developed the technology further and all of their subsequent designs have made use of the fully active method of operation.

Whilst many people are aware of the advantages of active operation, namely that each driver has a truly dedicated amplifier which can be optimised for the frequency range it requires, it also allows for a little bit of performance tweaking, and it is in this respect that B&O have really made use of the opportunities available to them. Naturally, pleasing aesthetics are high on the list of Bang & Olufsen's priorities and this invariably involves compact and slim enclosures, which in turn means small drive units. However, the active mode of operation has allowed B&O to extract good bass from such units whilst permitting the protection they require when the volume goes high.

The system they use is called Adaptive Bass Linearisation (ABL); simply put this involves gradually cutting the lowest frequencies to the drive units as output level increases, in order to prevent them from overheating or literally ripping themselves apart. If the unsympathetic user continues the onslaught too much, then the loudspeaker will shut down until the signal is reduced. As the owner of a pair of Beolab 8000 loudspeakers, featuring two 4in (100mm) bass drivers, I can confirm that they do generate impressive bass for their cabinet volume, will play loud enough when required and no, I have never forced them to shut down!

The ultimate culmination of the active technology had to be 2003's Beolab 5 - a £10,000 four way technical *tour-de-force* featuring 2,500W of amplification per loudspeaker, automatic room calibration and the first appearance of the 'Acoustic Lens' technology, exclusively licensed to Bang & Olufsen from Sausalito Audio Works in the USA. This takes the output from an upward-firing midrange or treble driver and spreads it over a 180 degree arc, rather than just straight out towards the listener. The Beolab 9s are the fourth application of these acoustic lenses and come

lower down the range, effectively replacing the Beolab 1s.

So, what does your £5,000 buy you? In the case of the Beolab 9, a rather unusually styled three way design. Opinions on their styling have varied from "kettles" to "penguins" on the internet, but I think they are very neat and different and, at 775x400x300mm (HxWxD) are smaller in the flesh than they appear in pictures. Most of the main body is covered in grille cloth and this is available in black, dark grey, blue and red.

Driver lineup consists of a 10in (250mm) bass driver in an 18 litre enclosure driven by its own 500W ICEpower amplifier [a Class D

a separate phono socket, however more recently, these have vanished and the line input goes straight into the Powerlink socket through a special phono plug to DIN lead. These are available from B&O, but mean that cable upgrade opportunities are virtually nil for those who like to do such things. Even making up your own leads is not easy, due to the complex screening arrangements required by the Beolab 9s - it is all too easy to end up with loud buzzes, no music or even both, as I found out only too well when being impatient for the correct leads to arrive from B&O!

However, arrive they duly did, and so after a suitable run-in period,

"an absolute must-audition for those who prize imaging and realism above all else..."

module also seen in the superb Rotel RB-1092 power amplifier reviewed in April - Ed.] a 5in (130mm) midrange unit in a separate four litre enclosure and powered by a 100W hybrid analogue amp; and a 0.75in (19mm) tweeter located in the acoustic lens at the top of the 'speaker fed by a second 100W analogue amplifier module. Whilst lacking the automatic room EQ facility of the Beolab 5s, the 9s do have a three-position switch that allows fine bass adjustment for freestanding, close-to-wall or corner placement

Connections to the Beolab 9s are through Bang & Olufsen's proprietary 'Powerlink' sockets and this is where things can become a little awkward. These are 8 pin DIN sockets and, in the context of a complete B&O system, each cable carries left and right signal, source and level information for those loudspeakers that have displays on them, a switching signal to activate the loudspeakers when the system is switched on, and a signal to mute the system's output if the 'speaker is overdriven. In your B&O system, you simply plug in your Powerlink leads, set the mode switch to tell each loudspeaker to play the left or right channel signal and off you go. To mate to non-B&O equipment, the mode switch needs to be set to 'Line' whereupon the speakers stay in standby mode until a signal is applied, when they will switch on. Subsequently, after no signal for ten minutes or so, the 'speakers switch back to standby.

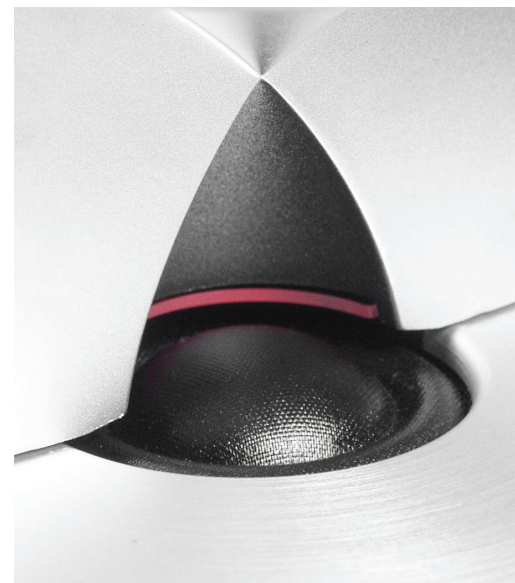
This is all very well, but B&O used to apply the line input through

the Beolab 9s were inserted into our reference system and driven by both a Quad QC24 preamplifier, plus the preamp section of the Luxman L-550A reviewed this month. Sources included Eastern Electric Minimax phono stage and CD player, plus our Pioneer PLC-590 turntable, complete with SME M2-10 arm and Ortofon Rondo Bronze cartridge.

SOUND QUALITY

The predecessors to the Beolab 9s, the Beolab 1s, were often a little controversial from a B&O enthusiasts' perspective. Although very good loudspeakers in their own right, they broke away from the traditional 'B&O sound' and had a quite forward balance that was not to all tastes. Well, the Beolab 9s have righted this 'wrong' and sound absolutely stunning as a result.

For those who are not familiar with it, that 'B&O sound' can be summarised as smooth and detailed, but with real top end clarity and insight. This sums the Beolab 9s up to a tee as they have a wonderfully



composed nature, yet pick out everything lurking in a recording. I cannot think of too many other loudspeakers, at any price, that serve up the midrange and treble of these units.

Starting at the top, the treble is completely free of the sometimes slightly ragged nature that can arise from devices that spread output over a wide area. Deflectors and omnidirectional designs invariably generate a commensurate sense of space and atmosphere, but sometimes fall down with detailing. The Beolab 9s are truly accomplished in this area, which speaks volumes regarding the design and implementation of the acoustic lenses that they use.



A prodigious soundstage emanates from the Beolab 9s and no matter what material you put through them, they disappear more effectively than most other loudspeakers I can think of, leaving you alone with the music. Even more uncanny is the way you can move away from what would normally be considered as the stereo hot spot, and the image stays rock-solid. You have to

be quite a long way off-axis before the band or orchestra vanishes and the two loudspeakers reappear, meaning that these 'speakers are an absolute must-audition for those who prize imaging and realism above all else.

Of course, imaging is all very well but if instruments are not faithfully conveyed, then all that hard design work ends up ruined. This most certainly is not the case with the Beolab 9s, as instrument representation was impeccable. During auditioning I found myself searching out tracks that incorporate lots of percussive elements, as the Beolab 9s have astonishing powers of revelation with such items. Drum kits had depth and power to them, with each stick strike having real feeling. Cymbals were the best of all, however, with a beautifully shimmering sense of decay to

them as they faded away. Some other loudspeakers make them sound like rusty dustbin lids by comparison.

At the bottom end, the combination of ten inch driver and 500W amplifier makes itself known in a surprisingly subtle way, as the Beolab 9s have an aura of effortlessness about them. Should you so wish, they are more than happy to headbang or turn your lounge into a nightclub, yet the bass drum rolls across the soundstage of Steve Earle's 'Copperhead Road' had realism and an underlying authority that is usually only achieved by cranking up the volume. The Beolab 9's bass has no colouration or boom and is a testament to the cabinet design and construction. This also has the advantage of adding to the feeling of realism that they generate - once again you are left with the instruments and no unpleasant side effects.

CONCLUSION

Let's start with the obvious point straightaway - yes, you can buy a very impressive amplifier and loudspeaker combination for the Beolab 9's purchase price of £5,000, however I suspect you would struggle to find seven hundred genuine watts for this amount and, to be frank, I think this is missing the point. With loudspeakers like these, you are paying your money to buy not only top quality drive units and amplification, but the knowledge that they have all been mated together properly and set up for optimum performance.



Bang & Olufsen have designed a loudspeaker that makes superb use of their technologies, from the highly efficient and powerful ICEpower amplifiers at the bass end, to the Acoustic Lens technology that lifts treble performance comfortably above the rest of the crowd. The Beolab 9s are superbly engineered and built loudspeakers with each area of the frequency range expertly integrated to, and thus complementing perfectly, the other areas. Not only are they a technical accomplishment but, more importantly, are a musical delight.

Yes, we're a serious hi-fi magazine, but these are serious loudspeakers that add another nail to the coffin of the idea of Bang & Olufsen equipment being 'all style and no substance'.

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MEASURED PERFORMANCE

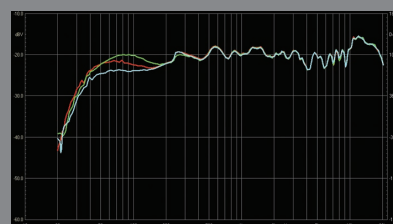
Output from the Beolab 9s remains generally flat across the frequency range, with a rise in output above 10kHz. This will mean that the Beolab 9s should have an even, but clean and crisp sound with good high frequency detail.

The Acoustic Lens on the tweeter spreads the output from the dome very effectively and measurement shows very consistent results off-axis - this will work wonders for the imaging and mean that the Beolab 9s should not have a narrow and distinct 'hot spot'.

Bass output from the sealed ten inch driver is good, with rolloff commencing at around 40Hz. The three position location switch introduces cuts of up to 2 and 4dB in the 60-100Hz region, but does not appreciably

increase the bass rolloff point. As a result, this will be useful for fine-tuning the loudspeakers' output depending on their positioning, without just 'killing off' low bass output. AS

FREQUENCY RESPONSE



Green - 'Free' position
Red - 'Wall' position
Blue - 'Corner' position

HI-FI WORLD

VERDICT

Superb loudspeakers with first-rate sound and genuine technical innovation, wrapped in B&O's trademark stylish package.

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FOR

- stunning treble clarity
- stable soundstaging
- overall integration

AGAINST

- connection to non-B&O equipment could be easier...