



JBL Synthesis S3900

I've always been fascinated by the line that divides home audio (call it hi-fi) equipment, and pro audio gear. By pro audio I mean both the live concert and the studio environments, where the operating conditions are generally more taxing, and accuracy is a holy grail.

And yet, the ultimate objectives of pro audio equipment and so-called hi-fi are not that dissimilar. Both seek to reproduce audio precisely and believably. For the recording engineer, the near-field monitors framing his desk are meant to deliver an accurate rendition of the recorded music, and the way it's being mixed.

For the live concert engineer, the racks of amps, the stacks of bass bins and horns arranged around the stage, the mixing desk and the active equalisation allow the sound of the performing artists to be controlled and directed in such a way that the audience gets to enjoy the full impact, the electricity and the scale of the live performance.

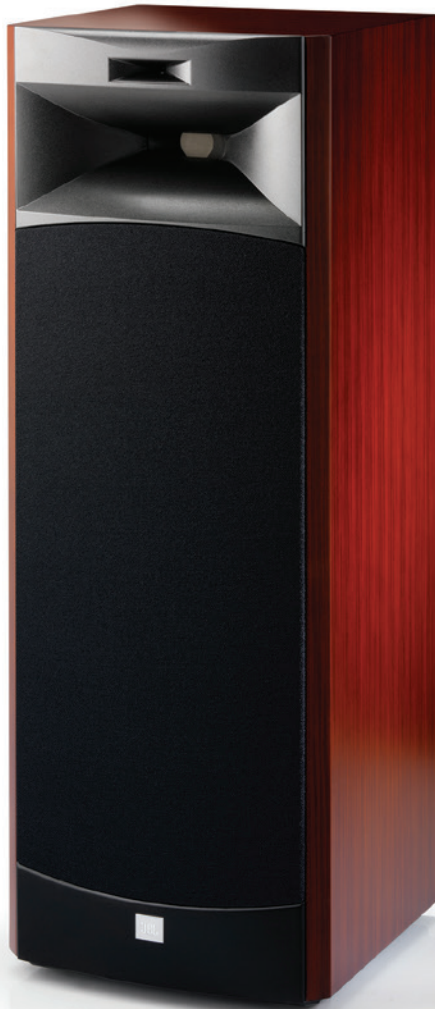
At home, our choice of hi-fi components should revolve around their ability to reproduce a musical performance with realism and believability. In many ways, we want to hear what the sound engineer heard when he signed off the mix of the music that he (or she!) recorded, and that we end up listening to.

In other words, hi-fi should be the final link in a chain that started with the artist stepping onto the stage, or into the recording studio. And that suggests that the loudspeakers used to critically monitor music during the recording and mastering process should be good enough for use in a hi-fi role, too.

As an example, the broadcast monitors commissioned by the BBC over the years, such as the legendary LS-3/5A produced by the likes of Rogers and Harbeth, have become popular home hi-fi speakers.

The converse is also true: good hi-fi speakers are often used in a professional monitoring role. For instance, B&W has supplied the likes of Abbey Road Studios with its 800 Series loudspeakers for some time now.

The JBL S3900 floorstander is part of the JBL Synthesis product line-up, which blurs the lines between professional and home audio



applications. In fact, the Synthesis gear is more usually associated with pro installations, although products like the S3900 and the 4367 studio monitor are finding their way into home audio applications, too.

It's a bold, beefy speaker that's eons removed from the narrow-baffled, effete designs adopted by so many current tower speakers. Even so, at just on a metre high and 370 mm wide, they didn't strike me as particularly obtrusive, even in our relatively compact listening room.

There are some very real visual indicators that the S3900 isn't your average home audio speaker. Perhaps most telling is

the presence of not one, but two horn compression drivers for the upper mids and trebles.

These compression drivers not only promise excellent efficiency and low distortion, but also feature a wide dispersion pattern, which should allow seamless staging and a generous 'sweet spot' for realistic imaging.

In this application, the larger of the two compression drivers employs a 50 mm pure titanium diaphragm with a thin, proprietary resonance-controlling coating and a neodymium magnet array, mounted in a bi-radial horn.

Stacked directly above it, an ultra-high frequency transducer uses a smaller, 19 mm coated titanium diaphragm, also powered by a neodymium magnet array and located in a more compact bi-radial horn.

The bi-radial horns are specifically designed to deliver stable imaging and a wide-open soundstage, and are derived from JBL's professional studio products.

While the two transducers occupy the upper quarter or so of the S3900's generously proportioned baffle, the bulk of the real estate belongs to a pair of large, 250 mm mid/bass drivers. The pulp-fibre cone woofers are equipped with ferrite motor assemblies and rubber surrounds.

They're located in a dedicated chamber with a large, rear-firing reflex port mounted just above the binding post terminal. The latter offers two pairs of five-way, gold-plated terminals to facilitate bi-wiring.

The cabinets themselves exude class and craftsmanship, with crisply chamfered corners and flawlessly applied real-wood veneer. Smart cloth grilles are provided, but frankly, the S3900s look the business without them. Beautifully turned alloy locating spikes ensure stable positioning and easy adjustability.

AT 92 dB these JBLs are efficient enough, although I'd suspect that the impedance probably dips well below the nominal 6 ohm rating, while there's no doubt that those big woofers enjoy a bit of muscle behind them. So, as much as the specs suggest that 25 watts a side would be adequate, I'd be more inclined to recommend something a little meatier on the amplifier front.

It's exactly the kind of challenge our reference Parasound Halo A21 stereo power amp is up to. The John Curl-designed powerhouse has both the current and the shove to keep any speaker honest, and the match with the S3900s was an auspicious one.

Fulfilling the pre-amp duties was our regular Primare PRE32, operating in balanced mode, and offering both analogue and digital interfaces for the Olive One network player. Marantz's wholesome and engaging CD-KI Pearl Lite SACD/CD player provided the disc-spinning capabilities.

The unusual ability of the S3900s to combine real, almost tactile tonal depth with scale and agility elevated the listening experience to thrilling levels.

Setting up the S3900s was a relatively simple affair. Once unpacked, they were placed about 50 cm from the side walls, and about 1,5 m into the room. That left them about 3 m apart, and about the same distance from the listening position.

JBL suggests no toe-in in this configuration, given that the horn-loaded HF transducers should still be able to image and focus. However, after some experimentation I opted to toe in the S3900s ever so slightly, which added some depth to the soundstage, but not at the expense of width or air.

The review pair had already seen some service, so once the positioning had been finalised, and the ancillaries had warmed up, it was all systems go. Those big woofers looked eager for some exercise, so it was Daft Punk's intriguing, infectious and nostalgia-laced *Random Access Memories*

VITAL STATS

Type.....	Three-way floorstander, bass-reflex
Drive units.....	2x 250 mm pulp fibre woofers, 1x 50 mm HF coated titanium horn-loaded driver 1x 19 mm UHF coated titanium horn-loaded driver
Crossover points.....	850 Hz, 12 kHz
Bi-wiring	Yes
Impedance.....	6 ohms nominal
Sensitivity	92 dB (2,83V/1m)
Frequency response	33 Hz – 40 kHz (-6 dB)
Power handling	250 watts
Dimensions (HxWxD)	1 001 x 370 x 368 mm
Weight.....	39 kg each

Price US\$4 999 each

Verdict

A generously rendered, vibrant and powerful sound that retains the essence, the electricity and the presence of the real thing. Tremendous pace, agility and outright punch.

Supplied by

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OUR RATING: 90 / 100



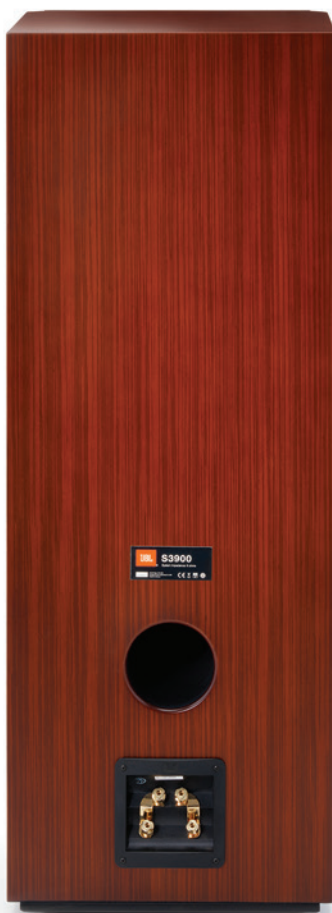


that served as the introduction to what would become an ongoing series of listening sessions.

It's easy to write off this recording as gimmicky and effects-driven, like musical CGI, but it happens to be a pretty stern test of system coherence, tonal range and outright resolution – and even if you didn't live through the disco era of the late 1970s and early 1980s, there's a splendour and a charm to the music of the French electronics duo.

The tonal breadth of the recording is exceptional, but while the bass is deep and sonorous, and will explore the lowest regions of a speaker's capability, it never seeks to simply overwhelm – even the deepest notes are delivered with an articulate precision, and even a certain elegance.

That's particularly true of 'Within', with its wistful piano reverberating across the wide, deep soundstage, only to be joined by the robotised vocals, soaring synths, brooding bass and precise percussion. It's a song that gradually, inexorably fills the room with sound, and puts the speakers



under increasing pressure in the process.

The S3900s seemed to welcome that pressure, however. The dual woofers move air with both gusto and precision, helped along by the water gutter-sized rear port, so there's no shortage of low-frequency energy. But it's the precision of the bass that's impressive: as much as you can feel the air in the listening room moving, it moves with a succinctness and a taut resolve that is – yes – more live concert than hi-fi.

But it gets better. For all its considerable stature and presence, the bass is never allowed to expand beyond the boundaries of what the original recording determines. The S3900s exercised unwavering control over the low frequencies, but without robbing them of vital pace and agility – and that's a bit of magic that very few home audio speakers can muster.

Tonally, I expected the S3900s to err on the warm, even rich side of the spectrum. And to some extent that expectation was vindicated: the midrange was smooth and creamy, but without smothering the music.

But the overall delivery was sleek and linear, never running too rich or too lean, and maintaining a compelling sense of pace and dynamics that compellingly, decisively, reflected the beating heart of the music.

Those horn transducers did much to create an expansive, airy soundstage on which the music was allowed to stretch out in all directions. The sound image was certainly open and inviting enough, so that even the denseness of the recording's layers were easily unravelled and examined.

No, the big JBLs didn't disappear completely in the way that small, transparent monitors can do, but they painted a richly hued, finely defined and generously proportioned sound picture on which the presence of the enclosures themselves remained vaguely noticeable, yet never intrusively so.

Okay, so the S3900s can rock with pace, with soul and with conviction. But what about the scale, complexity and dynamic swings of a large-scale orchestral work? Camille Saint-Saëns' *Symphony No. 3 'Organ'*, performed by the Kansas City Symphony under Michael Stern is a perfect example.

Software

Daft Punk – *Random Access Memories* (Columbia 96/24 FLAC)
Joe Bonamassa – *Driving Towards The Daylight*
 (J&R Adventures 44,1/16 WAV)
Keith Jarrett – *Live at the Deer Head Inn* (ECM 44,1/16 WAV)
John Mayer – *Where The Light Shines* (Columbia CD)
Saint-Saëns – *Symphony No. 3 'Organ'* – Michael Stern,
 Kansas City Symphony (Reference Recordings 176,4/24 FLAC)

Associated Equipment

Olive One network player
Marantz CD-K1 Pearl Lite CD/SACD player
Musical Fidelity V-DAC II D/A converter
Primare PRE32/MM30 pre-amp
Parasound Halo A21 power amp
KEF R500 loudspeakers
Synology 216se NAS
XLO Reference interlinks
Straightline Virtuoso speaker cables and interlinks
TelluriumQ Blue speaker cabling

The work ranges from almost intimate interludes to powerful crescendos and full-cry symphonic climaxes. If I had any concerns that the S3900s would lack the finesse to dig into the heart of the performance, they were soon dispelled: the speakers used their full-range capability to riveting effect, but never to the detriment of the music's finer, subtle nuances.

Instead, they were able to resolve the intersecting layers of the music so that both the scale and the presence of the music was faithfully portrayed. The strings had a lithe intensity, the woodwinds sounded urgent and excited, the brass soared with heroic bravery and the cellos and double basses marched along with stern, measured intent.

The unusual ability of the S3900s to combine real, almost tactile tonal depth with scale and agility elevated the listening experience to thrilling levels. The speakers could delicately tip-toe their way through the hushed transition from the first to the second movement, then

sustain sweeping crescendos and dazzling dynamics with majestic assurance.

Modern bluesman and guitar ace Joe Bonamassa's *Driving Towards Daylight* remains one of my favourites, not only because there's not a bad track on the set, but because ex-South African Kevin Shirley's production meshes lucidity with a siney reality that showcases the sheer grit and virtuosity of Bonamassa's guitar work.

The title track's solid bass foundation was rendered with a distilled purity of pace and purpose, setting the stage for the driving drumwork of seasoned session man Anton Fig, and Bonamassa's equally fiery riffs.

Not surprisingly, the JBLs excel at translating live recordings – or, let me rephrase that: well-recorded live music. John Mayer's acoustic set on *Where The Light Is* with David Ryan Harris and Robbie McIntosh is electric, with the virtuosity of the trio spellbinding, with the appreciative audience's reaction adding to the sense of occasion.

As a compelling counterpoint, the live

performance of jazz piano legend Keith Jarrett at the Deer Head Inn, accompanied by Gary Peacock and Paul Motian, is intimate and almost introspective, but with an intuitive rapport and a quiet brilliance that the S3900s showcase to perfection. Again, it's the way they bring the full musical picture to life that compels and enchants.

So, are the JBL Synthesis S3900s pro monitors turned hi-fi speakers, or damn' good hi-fi speakers drawing on the tech usually associated with studio gear? Both, actually – I'd imagine they'd be great in a full-range studio monitoring role, thanks to their ability to capture the full extent of a live recording so accurately.

For that very reason, of course, the S3900s also excel in a hi-fi role: they are able to translate what the sound engineers and producers intended – or, at least they have the potential to do so. Music fans, and anyone who knows what real, live music sounds like, will be utterly enchanted by these majestic floorstanders.

Deon Schoeman

