Len Wallis Audio’s Alberto Vangi came up with his ‘Signature Cinema’ to deliver an outstanding cinematic experience including a winning combination of brands that offers exceptional quality.

One thing we often hear when reporting on new home cinemas is that it takes a team to deliver a great result. Often this will require a combination of trades and system designers, acoustic consultants and those wise in the ways of the audio and video equipment required for any given scale of room. But with Len Wallis Audio, the full team is already in place, with the Lane Cove-based retailer having a dedicated installation team, together with contacts across the industry for any more unusual request.

So when Len Wallis Audio was asked to work on a new-build cinema with two B&W speakers, of course, including the 800 Series Diamond as installed in London’s Abbey Road Studios and others around the world. But B&W is also increasingly involved in the ‘architectural’ and ‘custom theatre’ speaker market. This theatre uses the 700 Series, with three B&W CT7.3 speakers behind the micro-perforated screen in left, centre and right positions, and four CWM7.3 models in rear side and rear back positions to complete the seven channels of surround at wall level. Added to these are four square-fronted CCM7.3 ceiling speakers to deliver height channels for full immersion in the latest Atmos and DTS:X soundtracks. All these B&W models feature the company’s famous Nautilus tube-loading for their tweeters, while those behind-screen CT7.3 LCR speakers boast twin eight-inch bass drivers and dedicated Kevlar drivers for the midrange.

Completing the speaker complement are two Sunfire subwoofers, the substantial HRS12 model. “The B&W speakers provide a very easy-to-listen-to sound at the highest of levels,” explains Alberto Vangi. “They avoid being harsh or overly bright, as can many other brands. And by having two subwoofers at front left and right we were able to distribute the bass response more evenly in the room and eliminate issues caused by room resonance in these locations. It gives smoother, tighter and less boomy bass, and improves the spread of bass over multiple seating positions. The bass timing — as intended by the original sound engineer of the film — is far more accurate as well.”

To drive the B&W speakers, the team chose the separate processor and power amplifiers at the very pinnacle of Yamaha’s Aventage home cinema range, delivering full 11.2-channel Atmos and DTS:X processing plus all the connectivity one could require, including eight HDMI inputs and twin outputs, while the power amplifier delivers a quoted 150W per channel into the B&W’s nominal eight-ohm impedance. (This 11-channel power amplifier won our Sound+Image 2018 award for Power Amplifier of the Year.) “The Yamahas delivered on all accounts, handling all the latest surround sound formats and 4K HDR HDMI video switching,” Alberto tells us. “Also by using separates rather than an all-in-one amp for a dedicated cinema, the impact and sound quality is taken to the next level, with better control over the sound.”

Stewart Filmscreen 151-inch micro-perforated screen, Len Wallis enlisted Mick Peaker from Avical to deliver reference-level ISF calibration.

Sound design
The LWA team delivered what Alberto Vangi calls his ‘Signature Cinema’, mustering his 20 years of experience in design to deliver an outstanding cinematic experience from both the room design and a winning combination of brands that represents exceptional quality. As with all such projects, it’s the complete experience which is the thing, but breaking down the elements, the 7.2.4-channel sound is ultimately delivered by a speaker system from Bowers & Wilkins, a company renowned for its hi-fi speakers, of course, including the 800 Series Diamond as installed in London’s Abbey Road Studios and others around the world. But B&W is also increasingly involved in the ‘architectural’ and ‘custom theatre’ speaker market.

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Key source components for the cinema are Oppo’s now sadly discontinued Ultra-HD Blu-ray player, an AppleTV media player, and the customer’s own hard-drive storage.

**Picture perfect**

For native 4K projection (rather than creating a UHD image from multiple hits of lower resolution) Sony continues to dominate the projector market, and it’s no surprise to see the LWA team selecting the highly-regarded Sony VPL-VW550ES projector to illuminate the 151-inch Stewart Filmscreen Deluxe Screenwall micropertorated screen.

“The Stewart screen not only allows the absolute very best from the projector, it also achieves THX certification both in audio and picture” says Alberto. “The screen perforations are much smaller than those on commercial theatre screens [more than 320,000 micropertorations per square metre, compared with 59,000 for a commercial screen], since having more and smaller perforations is necessary in residential applications because of the closer seating distances. And of course having the speakers behind the screen delivers the most immersive and accurate means of drawing the viewer in.”

**Acoustics & control**

The acoustics of home cinemas are crucial to sonic success, and in this room, which is around 6 × 4 × 2.7 metres (lwh), the treatment forms a complete surface with concealed fixings and removable sections for service access. It was custom designed by the acoustic engineer, Andrew Steel of Ultrafonic, optimising the reflections and diffusion to balance the reverberation time and frequency response within the constraints of the physical limits. The designed components were manufactured as modules with the specified finish.

The comfy seating was chosen by the client, and the whole cinema runs from an iPad using the RTI control system, with macro functions programmed to speed and simplify operations still further — tapping the ‘Blu-ray’ icon is all that’s required to turn on the Yamaha combination, switch to the correct input, and activate everything required to get the movie session started. Different aspect ratios can be similarly selected, switching between 16:9 and 2.35:1 ratios requiring just a touch of the iPad screen.

Throughout the process, project manager Onur Guresen played the key role of both ensuring efficient installation, with all the wiring and conduits in place and on time, but also monitoring the fit-out period so that the architect and builder were able to deliver fully on their promises for completion timing.

And the final result?

“The room, the control, the AV quality, it’s all there,” says Alberto. “Bruce and Joe didn’t overlook an inch of the room with lighting, colour and finish choices, along with the overall build quality and design — it really gives the room the sense of delivering an even better movie experience than being at the cinema, yet all in your own home. We often hear that our Signature Cinemas become the most used room in the house. The screen and Sony projector create an absolutely stunning image, especially after being professionally calibrated, and it’s a very comfortable space for the whole family to watch and enjoy movies. The enjoyment factor is significant! And that’s what we always aim to achieve.”

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**EQUIPMENT LIST**

- **Sony** VPL-VW550ES 4K projector
- **Stewart Filmscreen** Custom 151-inch Cinemascpe format StudioTek Deluxe Screenwall with THX micropertorations
- **Oppo** UDP-205 Ultra-HD Blu-ray player
- **Yamaha** Aventage CX-A5100 11.2-channel processor
- **Yamaha** Aventage MX-A5000 11-channel power amplifier
- **B&W** CT7.3 LCRS x 3 (behind screen)
- **B&W** CWM7.3 in-wall speakers x 4 (2 rear sides, 2 rear back)
- **B&W** CM7.3 in-ceiling speakers x 4 (Atmos)
- **Sunfire** HRS12 powered subwoofer x 2
- **PS Audio** Dectec power board
- **Netgear** GS116 16-Port Gigabit Switch
- **RTI** X6 processor
- **RTI** PanelPremium software
- **Credits:** Bruce Stafford Architects, Innovative Building, Ultrafonic, Studio Kai photography

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