

Graham Audio LS5/9 loudspeaker

by Alan Sircom



The British Broadcasting Corporation was once a major contributor to audio and video technology. Those days are long gone, although they leave a lasting legacy. But the BBC LS5/9 loudspeaker was always the tough nut to crack. Newcomer Graham Audio did just that with its own LS5/9 standmount loudspeaker.

A little history is in order. The BBC was pivotal in designing high-quality monitor loudspeakers. The best known of which is the LS3/5a (which was originally designed for speech use in tiny environments like Outside Broadcast vans). The LS5/9 was a medium-sized, front-ported, passive two-way with BBC-typical thin-walled cabinet construction; development began in 1983 and as such is one of the last great speaker projects from the BBC R&D team.

Fast forward to today, and there are some problems bringing a LS5/9 to market. Problems like there aren't enough components to go round for servicing the surviving models, let alone bring a new model to market. So, Graham Audio called upon the drawing board of Derek Hughes, son of Spencer and Dorothy Hughes of Spendor fame. Hugues is one of the most 'BBC' designer in loudspeakers today and has an almost preternatural understanding of what is needed in such a design.

The good news was the 34mm soft-dome Audax tweeter used in the original is still in production in a similar form, but the 200mm polypropylene mid-bass unit made by Rogers is long gone. So, the company went to speaker maker Volt, armed with what little information was left from the



► Rogers vault and a replacement original driver and asked the company to fashion a replacement. Both drivers are not entirely identical to their predecessors of 30 years hence, so the crossover network needed a fairly significant reworking. This proved no simple task, especially as the end result was to receive approval by the BBC, and bare the LS5/9 name. In addition, it was decided the thin-walled cabinet would eschew the bitumen damping that was standard BBC issue in the 1970s and 1980s, preferring instead a more high-tech constrained layer critical damping. This improves the design, not in terms of sonics, but consistency and longevity. Some things don't change though – it's still made from birch ply. The speaker is single-wired, and it has an adjustment panel for the tweeter level, but this is factory set to compensate for minor variations in the tweeter design, rather than some kind of ham-fisted tone control.

The classic LS3/5a was designed to work with almost any amplifier and make a uniform sound. The LS5/9 is a more demanding loudspeaker than the usual

BBC fare, both in terms of electronics and positioning. The latter is notionally straightforward (although the standard isosceles triangle, with small amounts of toe-in is replaced by an equilateral triangle and quite a marked toe-in here), the former more tricky. The LS5/9 benefits from a big, solid-state amplifier, but not too big. Something the size of the Hegel H80 is almost ideal.

Get it wrong and it's got a lovely midrange, and not a great deal more. But get it right, and the speaker takes off. Part of that is putting these speakers with the right system, but another important aspect is having them in that near-field monitor layout described in the blurb. If you get them wider and closer than you might expect, and put them on rigid 50cm stands, the dramatic change to top and especially bottom end takes place.

This is kind of like the Rosetta Stone for BBC designs. The BBC design school as maker of 'classical loudspeaker' is exposed here as being a part-truth through the LS5/9; in low gear, it is great with piano and solo voice (Bryn Terfel's *The Vagabond* album for example). Step it up a notch and it begins to highlight insights into larger orchestral works (Du Pre's mandatory Elgar Cello Concerto), then jazz (*Headhunters* by Herbie Hancock) and finally more dynamic rock (even – fittingly – up to the Led Zep *BBC Sessions*). There is a learning curve to overcome the brightness inherent in many current loudspeaker designs, and the more you listen to the LS5/9, the more that brightness in other speakers becomes arch and unnecessary to you.

There is a sense of being 'in the control room' here, rather than being in among live musicians. Music is presented between and behind the loudspeakers rather than projected into your lap. Nevertheless, the overall presentation is pin sharp – you get to hear the vocals dead centre, as articulate as the vocalist and very solidly in place. You can hear precisely where instruments are in the mix (as ►

► befits a device designed to do just that in the studio), and the sense of layering of sounds is outstanding. The tonal balance (as suggested) takes some time to get used to (relearn?), but it's fundamentally honest and 'right' sounding to the point where if you spend enough time listening you begin to bemoan the quality of current recordings like an audio engineer, rather than an audio enthusiast.

BBC speakers are often dismissed as 'pipe and slippers' and this is also exposed as erroneous on close inspection of the Graham LS5/9. The sound is unforced and this is very much at odds with the current vogue for music thrown at the listener. But it's not laid back, it's just right sounding. The further you investigate the way music sounds through this speaker, you quickly realise that it sounds like music. That isn't as oxymoronic as it first appears. This isn't steely sound, it's just sound, it isn't dark toned or topky or coloured or anything else, it's just sounding like the music itself.

There are limits of course, but they are the limits imposed by cabinet and pretty much defined 30 years ago. It's a monitor for a medium-sized room; fitting snugly between the performance thresholds of the smaller LS3/5a and the large LS3/6. Also, it's not a magical musical panacea, it's just an accurate loudspeaker – if you play signal compressed music through these speakers it frequently sounds undynamic, often topky and always signal compressed (unsurprisingly). But ultimately, the maturity of the design (and that doesn't just mean it was designed 30 years ago) gives music a sense of gravitas.

Finally, we were fortunate to be supplied a pair of original BBC-derived LS5/9s in good condition as a comparison. The thing about BBC designs is absolute consistency – it should be possible to swap out one loudspeaker of a pair unnoticed (this is vital for performing running repairs in a 24/7 radio service). If the Graham LS5/9 didn't perform the same trick, it would not be worthy of carrying the designation, but it worked out fine. The Graham LS5/9 is notionally indistinguishable from an original model (in sound at least, the divots taken out of most BBC LS5/9 cabinets make the Grahams look shiny and new).

This is a tough call for a reviewer. The Graham LS5/9 makes a great sound... exactly the same sound made 30 years ago. Things have moved 'on' since then, but what the Graham shows is 'on' doesn't necessarily mean 'up'. Yes, there will be those who have spent the last 30 years listening to increasingly bright loudspeakers who will fail to find the good in the less upfront presentation of the LS5/9. But there are also a great many people who think modern loudspeakers represents something of a wrong turn in audio. For them, the Graham Audio LS5/9 joins (should that be rejoins?) a small, but select band of audio products that invite you – rather than try to force you – to listen to a lot of good music. The BBC didn't just get it right with the LS3/5a! +



TECHNICAL SPECIFICATIONS

System: 2 Way Reflex

Cabinet: Thin wall construction (critically-damped) Birch plywood

Responses: 50Hz~16kHz +/-3dB

Nominal Impedance: 8 ohms

Sensitivity: 87dB SPL (2.83V, 1m)

Maximum Output: Over 100dB for a pair @ 2m

Bass/Midrange: 200mm Diaphnatone Polypropolene

Tweeter: Son Audax HD 13D34H

Crossover: FL 6/36, 24 Precision Elements

Recommended Amplifier Power: 50 to 200 watts unclipped programme

Finish: Cherry Veneer

Dimensions: 28cm x 27.5cm x 46cm

Weight: 14kg

Price: £3,450 per pair

Manufactured by: Graham Audio

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