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# The National Youth Theatre

Celebrating 60 years of  
influence behind-the-scenes

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SOUND DESIGN FOR SHERLOCK • BOOKS: THEATRICAL DESIGN, AN INTRODUCTION  
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plasma media



# classic gear

Altec-Lansing's Voice Of The Theatre Loudspeakers | Rob Halliday . . .



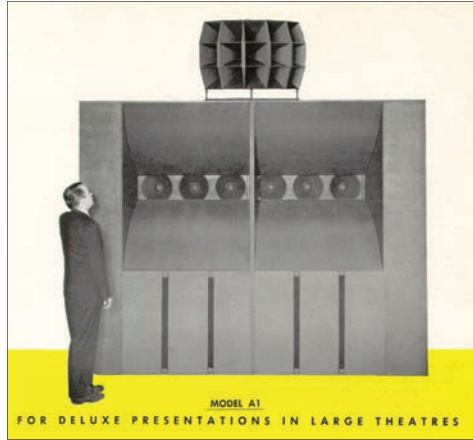
What makes a classic piece of gear? Something that changed the industry.

Re-shaped a category. Gave us a better tool to do our jobs. All those things. But if it has a very cool name, all the better. And has there ever been a better named classic than this: 'The Voice of the Theatre' loudspeaker? Particularly since 'theatre' in this case was actually cinema, so without the speakers, the actors in the movies would genuinely have had no voice at all . . .

The original speakers for the 'talkies' came from a slightly surprising source, Western Electric, part of the American telephone company AT&T. Western had made 'loudspeaking telephone' public address systems, and adapted them for cinema, creating a three-way loudspeaker with a big bass driver, double horn mid-range and twin tweeters. It worked, but the Metro-Goldwyn-Mayer Studios were not happy with it and set about designing a better system. This project was the first to combine the talents of John Hilliard, then of MGM, and James B. Lansing, then running his own driver manufacturing company. The result: the Shearer Horn, a two-way speaker with bass and treble horns that became the dominant cinema speaker from the mid-1930s. Crucial to MGM: better alignment of the different drivers, so better replay of their movies' tap dance routines.

In 1936, Western got out of the movie business; a group of engineers led by Alvis A. Ward founded Altec - 'All Technical' - to take over the cinema sound service and maintenance work. Later deciding to manufacture loudspeakers again, Altec acquired Lansing's company to create Altec-Lansing. This brought Hilliard and Lansing together again. 1945 saw the unveiling of their latest collaboration: The Voice of the Theatre, a range of loudspeakers of different scales to suit different sizes of cinema, designed to dramatically improve the quality of cinema audio once again.

The defining visual feature was the large



multicell horn array, fitted with the new Model 288HF compression drivers, this sitting atop a number of comprehensively cross-braced bass-reflex cabinets housing 15" woofers, giving a performance down to 50Hz while controlling the sound bouncing around backstage behind the screen, where the speakers were mounted. The horn's short, direct design allowed the high- and low-frequency drivers to be mounted on the same plane, removing the remaining phase discrepancies of the earlier systems. All of the drivers used new, permanent magnets made of the new Alnico V (aluminium/nickel/cobalt) alloy, with the woofers having edge-

wound coils. Efficiency and reliability were both dramatically improved.

Of the range, the most common was the A4, a single bass horn with two drivers, plus a single HF driver. For the biggest cinemas the range extended up to the dramatic A1-X, 10ft tall, 2300lb, six woofers, two really big bass horns and four treble drivers.

The improvement over early speakers was quickly confirmed by tests carried out by the Academy of Motion Picture Arts and Sciences, who by 1955 had designated the Voice of the Theatre as the industry standard for motion picture playback. They would remain that for decades - even as new competitors appeared including from a loudspeaker company that took its name from the initials of its founder, James B Lansing: JBL.

Though a staple of cinema, Voice of the Theatre speakers, or components pillaged from them, found themselves in all kinds of other theatres, and indeed at performances of all kinds - including during the creation of the music industry we know today, even providing the sound for Woodstock. Quite a legacy. Quite a classic. Quite a name. ☒

The Voice of the Theatre - Original 1945 Brochure:

[www.voiceofthetheatre.com/vottcat.1945.th.htm](http://www.voiceofthetheatre.com/vottcat.1945.th.htm)

Rob has been working in and writing about lighting for more than 25 years, on shows around the world. He wonders if this makes him a classic... or just old!

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