

Royal Albert Hall: Sound System

Complete

Area

Client

2019

UK England

Royal Albert Hall

The sound-system upgrade of the Grade I listed Royal Albert Hall is the most radical update to the iconic venue's auditorium since the installation of the acoustic 'mushrooms' in the late 1960s. This resulted in the installation of the world's largest single-room audio system with 465 permanently installed loudspeakers and multiple additional deployable elements.

Sandy Brown were commissioned to help plan and deliver the large-scale sound improvements to the RAH, working closely with loudspeaker manufacturer d&b audiotechnik, installation contractor SFL Group and a wide pool of industry-leading experts led by Ollie Jeffrey (Head of Production and Technical for the Royal Albert Hall).



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The large undertaking aimed to deliver an in-house sound-system that would meet the demanding criteria of promoters and event organisers across varying genres of amplified performances. The project has been the subject of global media attention and won 'Venue of the Year' at the 2019 AV Awards. The team were commended for their approach to the dual challenges of installation without disruption to ongoing performances and minimal structural alterations of the hall due to its listed status.

Sandy Brown developed the performance specification for the system and provided acoustic survey data and ODEON computer modelling to support the design process. German loudspeaker manufacturer d&b audiotechnik were appointed to design and supply the system, with assistance from the hall's specialist AV Partner, SFL Group, to navigate the installation of the loudspeakers in this historic and high-profile building.



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In addition to a large new line array system suspended above the stage the installation introduces dedicated system elements for the Circle, Gallery and the 144 private boxes that ring the main arena. The novel design strategy adopts a divide and conquer approach, bringing listeners even at the farthest reaches of the hall into proximity with the system for improved clarity, critical in this challenging acoustic environment. The project also involved the installation of new audio facilities panels and a substantial audio data network to support the integration of the new DiGiCo mixing consoles.



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Loudspeaker install facts (sources: [Royal Albert Hall](#) and *Sound & Communications magazine Vol. 65 No.9*)

- 6 months of overnight installation works
- 693 labour-days of installation
- 15.3 km of cable
- 465 permanently installed loudspeakers in all 144 boxes
- 73 installed 4-channel amplifiers
- 211 microphones and 120 Microphone stands
- All new audio data networking including Dante, OptoCore and system control.



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