



Historic Stockholm Concert Venue Nalen Gets a Modern Audio Upgrade - Solving Nearly 140 Years of Acoustic Challenges with L Series



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Concert venue Nalen solves nearly 140 Years of acoustic challenges with L-Acoustics L Series

JLE Audio AB deploys L2D and KS21 to solve unique acoustic challenges at Sweden's legendary music venue

STOCKHOLM, Sweden - For nearly 140 years, Nalen has been hosting the performances that shaped Swedish culture - from the legendary artists who graced its stage in the 1950s and 60s, to the diverse roster of contemporary acts that keep its calendar packed with over 100 concerts and events annually. But a historic venue comes with historic challenges. The 19th-century concert hall's architectural constraints - strict weight limits, sightline restrictions, and a protected building status - meant that the aging sound system needed replacing with something both powerful and ingenious.

Working with consultant Fredrik Martinsson of Comet Audio, Nalen assessed these challenges and identified the requirements for a premium solution. Several integrators were asked to propose systems.



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JLE Audio AB, an L-Acoustics Certified Provider with over 20 years of experience with the brand, was selected based on the strength of their proposal and the confidence Nalen and Comet placed in their expertise. JLE recommended the L-Acoustics L Series, a system engineered to overcome what conventional installations couldn't: delivering premium audio coverage while respecting the very constraints that make Nalen architecturally irreplaceable.

The venue is no stranger to L-Acoustics. For years, L-Acoustics systems have served Nalen's performance spaces with distinction. But technology evolves, and the system in the main concert hall - well over a decade old - had reached the point where an upgrade made sense. Nalen needed something that could handle the demands of modern touring artists, control the problematic reflections bouncing off the side walls, and do it all within a 200kg ceiling weight limit.



L-Acoustics L series was chosen as a premium solution that delivers



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maximum output with minimum footprint

An Iconic Venue with a Number of Challenges

Nalen’s acoustic overhaul presented a unique set of challenges. The first obstacle involved the aforementioned side wall reflections that were reducing acoustic clarity and causing uneven coverage throughout the space. This challenge was compounded by a strict ceiling weight limit of just over 200kg, and there were sightline and height restrictions to consider, too. Perhaps most importantly of all, the venue is classified as a historical building, which means that many of the architectural modifications that would ordinarily be used to address these issues weren’t viable.

“We needed a premium solution that could deliver maximum output with minimum footprint,” explains Johannes Jonsson, CEO and Sound Engineer at L-Acoustics Certified Provider JLE Audio AB, who led the installation. “The system had to be sustainable, long-lasting, and capable of meeting the complex needs of a wide range of artists.”

From Demonstration to Reality

The original project timeline was affected by the pandemic, but this delay ultimately proved favourable. When the project was initially conceived, L-Acoustics had not yet launched the L Series. By the time work resumed two years ago, however, the L Series was available -and turned out to be the ideal solution. “Nalen was specifically interested in the L Series from the outset,” notes Jonsson. “They’re tech enthusiasts and were aware that it would tick all of their boxes.”

JLE used Soundvision to assess the viability of L2D, carefully mapping every possible option to find the perfect placement. With a proposed Soundvision design approved, the team went on to arrange a demonstration. Because JLE also rents L-Acoustics equipment, it was able to temporarily install the exact proposed configuration in Nalen’s main hall in January 2025. The results were immediately convincing—and, with that, the project was under way.

The installation itself was executed with precision timing. Nalen closes for one month each summer, but with other building renovations taking place simultaneously, scheduling was critical. After the final show in late June, the team removed the old system and began installing new cabling, the most time-consuming



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phase of the project. The JLE team arrived in early August and completed the physical installation in just three days, taking advantage of existing hoist infrastructure and hanging points.

Precision Engineering and Acoustic Innovation

The final deployment comprises one L2D per side, four KS21 subs in cardioid, and an additional two A10 Wide for impact in the front. It was meticulously designed to address every challenge and to be reconfigured with ease.



The L-Acoustics sound system delivers premium audio coverage while respecting the very constraints that make Nalen architecturally irreplaceable

The highly controlled cardioid dispersion of the L2D focuses sound energy on the audience, ensuring full



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coverage while dramatically reducing energy directed at the side walls. With the total L2D weight amounting to 190kg in total, well within the ceiling's weight limit.

The subwoofer solution is just as elegant. Four KS21 subwoofers in cardioid configuration minimise low-frequency energy bouncing off the rear and side surfaces, and provide powerful bass response. Finally, the two A10 Wide offer enhanced front-of-stage impact during rock concerts, and because they can be pole-mounted over the KS21 subwoofers, they're easy to adjust for different types of events.

These event configurations may include, for example, a cube configuration for concerts, with all elements deployed for optimal coverage. For conferences or dinner events where a cleaner stage appearance is preferred, an end-fire subwoofer configuration is available. And a third, rarely used configuration allows the foldable stage to be reduced in size for speaking events, with front-fills repositioned and two subs removed.

The new system is Nalen's first Milan-AVB installation, and is indicative of a significant step forward in the venue's audio networking technology. The complete system runs through a P1 processor and three LA7.16i amplified controllers, a compact configuration that delivers exceptional power and control. All audio distribution uses AVB protocol via an LS10, providing reliable, low-latency digital audio transmission with built-in redundancy.

"Nalen is the second L2 installation we've completed," says Jonsson. "The first was in 2024 at Jönköping Concert Hall. There is huge interest in this system throughout Sweden and we're pleased to be meeting this demand."

'Truly Delighted'

The system's first post-calibration performance featured the artist SYML, with Jonsson remaining on-site to support the debut show. The subsequent response from artists, engineers and venue staff has been overwhelmingly positive.

"Everybody is incredibly excited about this installation," says Eijerstam. "For many of our crew and visiting artists, it's the first time they're working on an L Series. It's a fantastic new system and they're thrilled to experience it."



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Four L-Acoustics KS21 subwoofers in cardioid configuration minimise low-frequency energy bouncing off the rear and side surfaces, and provide powerful bass response

Looking back on the project, both Nalen and JLE express complete satisfaction with the results. “There’s nothing we would have done differently—we’re truly delighted,” concludes Eijerstam. “I’ve known Johannes for years and I’m extremely pleased with his team’s work. It’s been flawless. After the extensive testing we did with the actual system in the venue before installation, we were confident it would meet our expectations. And it has delivered completely.”