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## NEWS RELEASE

FOR IMMEDIATE RELEASE

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### **JBL VERTEC AT THE NORWEGIAN GRAMMY AWARDS**

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NORTHRIDGE, CA - APRIL 8, 2002 - A 28-box JBL VERTEC line-array system, powered by Crown MA Series amplifiers with BSS digital system controllers was recently supplied by a new Norwegian sound company, Audio One, for two major national events. Both took place at the Oslo Spectrum arena and were broadcast on national television. The first was the Melodi Grand Prix (junior version), to choose Norway's entry to the 2002 Eurovision Song Contest. The second, Spellemannprisen, is the Norwegian equivalent of the Grammy Awards. Both events were staged by NRK, Norway's national TV station, within a week of each other.

The main audio challenge for these high profile shows was in the stage configuration. The NRK divided the hall in half and placed the stage in one of the corners. With the audience seated on three sides of the stage, from the very front of the stage to the highest rows at the rear of the arena required a horizontal sound coverage of over 180 degrees.

Audio One's Stuart Morch-Kerrison explains that they chose to use JBL VERTEC after being very impressed with it at a previous large show – to honor Norway's champion athletes.

They decided the most efficient way to ensure even sound coverage with the unorthodox venue set up was to use three arrays (A, B and C) of VERTEC. A and B, covering the main seating and corner



**JBL VERTEC Arrays At Spellemannprisen in Norway**

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sections, were progressive arrays. C, covering the side seating area, was a constant curved array.

Morch-Kerrison and his colleagues used JBL's VERTEC computer simulation program, the Line Array Calculator, to accurately determine the number of boxes needed to cover the arena and for the exact angles between the cabinets, based on the assorted array-to-audience distances. Trim height for all three arrays was 10 meters from floor to the bottom box and they allowed 45 degrees between arrays, with each one facing each of the main seating areas. The FOH mix position (utilizing an Innovason Grand Live console) was in Array B section.

"The response and dispersion of the JBL system was really impressive, there was absolutely no inter-cluster time alignment issues, and it all worked perfectly," states Morch-Kerrison, who adds, "I could walk from the highest seat in the house to the corresponding top corner on the opposite side with no change in sound quality, imaging or tonal balance. I also couldn't tell whether I was standing in front of one cluster or two – without physically looking up!"

Morch-Kerrison discovered another advantage of VERTEC at load-in, where it took only just over one hour to rig, fly and position all three arrays. "VERTEC's rigging system is far quicker than conventional systems. This creates time for engineers and designers to spend fine tuning the sonic quality."

Another significant advantage of JBL VERTEC is the lack of spill from the rear of the PA, allowing the presenters to use lavalier mics without any interference problems. "The NRK broadcast crews have commented on the improvement they get in the TV mix, due to the exceptional coverage control on the VERTEC system," explained Morch-Kerrison.

Ten JBL MPro MP410 cabinets were used for front fills. These played the all-important role of covering the audience sitting closest to the stage and also in pulling the sound image down from above the listeners' heads to the performers on-stage. When correctly balanced and time-aligned to the main arrays, working together with the under-stage subs, the full system produced a smooth, rich, cohesive sound from the front edge of the stage to the very back of the arena. There was also a dramatic improvement in sight lines because of the high trim height and elegant form of the arrays.

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