

# Legendary theater upgrades for twenty first century demands.



Photography courtesy of Jørgen Ingmar

Orpheum Theater, Los Angeles, CA, USA

**“Thanks to ArrayProcessing the energy and frequency response is great from the very top of the balcony to the front rows. Fact is, we haven’t taken it out for someone else’s touring system since we completed the installation.”**

**Jon Bullock**, Head of Audio,  
Orpheum Theater

## Setting the scene

The Orpheum chain of vaudeville theaters, built in the late nineteenth and early twentieth centuries reflect the confident, optimistic aura of the West Coast during those years.

The Orpheum on Broadway in downtown Los Angeles is a spectacular example: high vaulted ceiling, ornate crystal chandeliers, exquisite plaster work, lush velvet seating, deeply curved unsupported balcony, and classically framed proscenium arch.

From the burlesque stars of the 1920s through the likes of Duke Ellington, Aretha Franklin and Stevie Wonder, the Orpheum has seen it all. Extensively refurbished in the 1990s, the theater now hosts TV and special events, and performances from contemporary touring acts such as Maroon 5, The Who, Naz, and Adam Lambert.

## Establishing objectives

“The initial idea to have a d&b system came from me,” explains Head of Audio, Jon Bullock. “I do a lot a touring work and have used many of the current systems; I knew d&b would be perfect for this room for various reasons.

“I still called a few sound engineers and asked visiting engineers for opinions; they all came back and said d&b would be great and certainly more than acceptable to any touring band.”

The installation contract went to d&b partner AudioWest. “We had already done work with the Orpheum, providing rental systems for certain shows,” says Owner, Glenn Hatch. “The theater said they wanted the best; we all agreed that meant a d&b system.”

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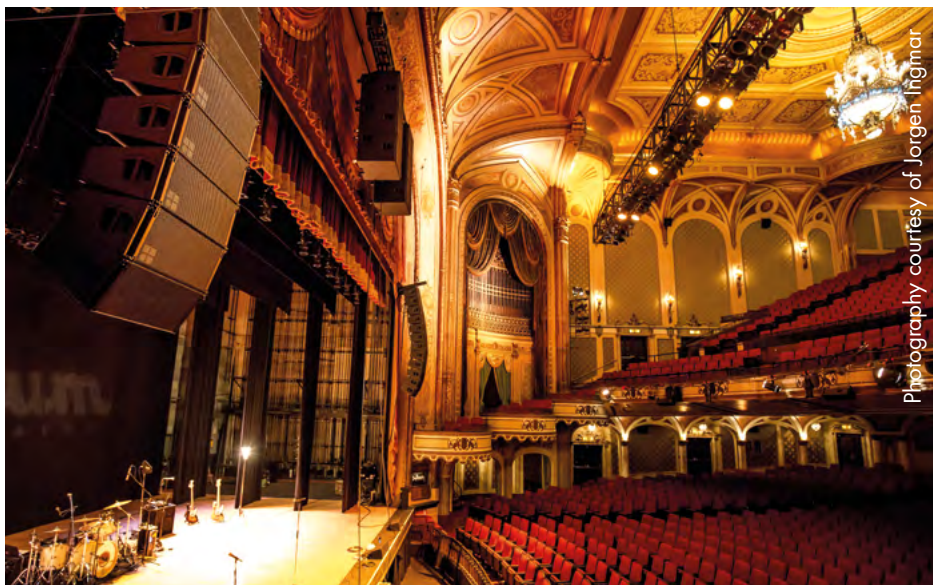
### The solution

Hatch continues: “Although we were both very familiar with how the room worked acoustically, Jon and I did an ArrayCalc model and we settled on a V-Series specification: V8s and V12s supported by V-SUBs and J-INFRAs for some extended low end weight.”

“We looked at it from all ways,” adds Bullock. “The acoustic of the room is pretty good. It had some treatment done during the refurbishment and the sound is nice and warm and fairly tight despite the huge vaulted ceiling.

“The big thing is the very steep and deep balcony. In a room with a capacity of about 2,000 almost half the seating is on the balcony and of course the depth of the balcony creates coverage challenges under it. Much to our delight, the long hangs of each V array reach right in under the upper tier; I left the old, under-balcony speakers there just in case but I have yet to use them.

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“AudioWest did a great job. This is a really busy venue and we only had two and a half days available, which was pretty tight.

“With the help of SAS Productions Audio Engineer, Mario Rodriguez, there was some extensive rewiring needed in order to use our existing patch panels and runs from stage to the amp room. We went from a 4-way active crossover system to a passively crossed system.

“Because of this, a good bit of the work was in the amp room. We went from twenty amplifiers running twenty speakers in pairs, to nine amps running thirty two speakers individually. With the D20 and D80s driving the system things are a lot smaller and neater down there now and I have more than enough horsepower.”

Finally, a real world test: “I brought in L.A.vation, a band I mix for on a regular basis,” concludes Bullock. “A U2 tribute band, they had played the theater previously. We invited promoters we work with, the owner and his financial manager, and other sound engineers to come and hear the new installation. Typical comment was: ‘It was night and day from the old system’; they all welcomed the improvement.

“Since reopening we’ve also had a lot of positive comments from our patrons who are frequent visitors and other SAS technical crew that are very familiar with how it used to sound. Hey, even the ushers have commented on the improvement. That makes the owner happy and that makes me very happy.”

**> System: J-INFRA, V8, V12, V-SUB and D20, D80**