

Fresh Sound for New Daisy Theatre

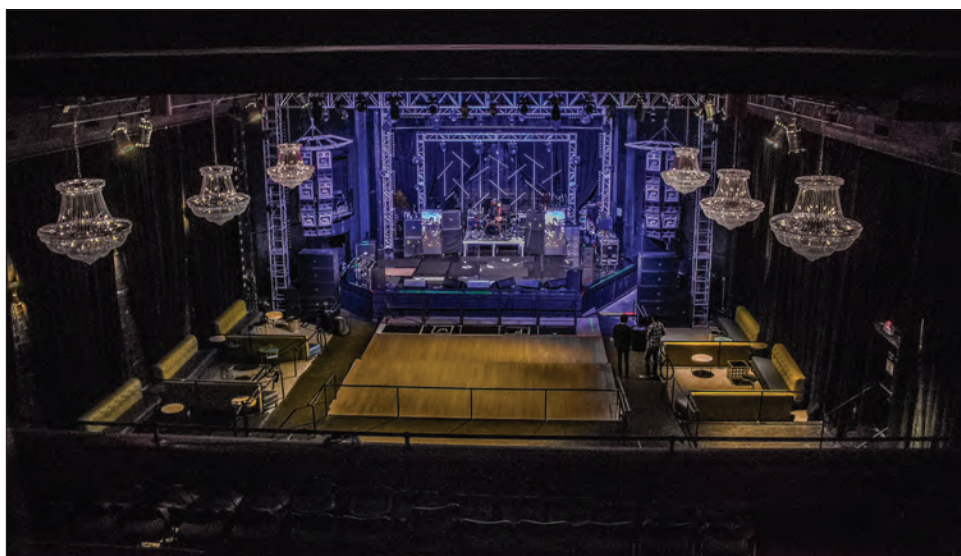
LSi reports from Memphis on an iconic music venue's new sound system . . .

USA - On any given night, you can walk down historic Beale Street in Memphis, Tennessee, and you'll see crowds of music lovers, hear music wafting from the clubs and restaurants, and feel the history of American music, especially the Delta blues. The Beale Street music scene dates as far back as the late 1800s when an entrepreneur named Robert Church paid the city to set aside parkland on Beale Street, and it became a gathering place for musicians. The park is now the site of an outdoor amphitheatre and is home to a bronze statue of the famous blues musician W.C. Handy. Just a half a block from the park and virtually next door to the W.C. Handy House Museum is the New Daisy Theatre.

The original Daisy Theatre opened in 1936, and it relocated across the street and reopened as the New Daisy in 1942. Originally a movie theater, it was converted to a live music venue in the late 1970s. Since then, it has featured such prominent artists as John Lee Hooker, Jerry Lee Lewis, Gatemouth Brown, Al Green, Stevie Ray Vaughn, Bob Dylan, and many more. Today, it hosts a wide range of artists, from blues musicians to heavy metal bands and comedians.

When Steve Adelman and J.W. Gibson took over the historic venue in 2015, they undertook an extensive renovation, updating and upgrading every aspect, from the sound and lighting systems to the venue's visual aesthetic. Adelman was keen to use a Funktion-One sound system at the New Daisy because of good experiences he'd had in the past, and so approached the manufacturer's US representative, Sound Investment Audio (SIA) to discuss the design.

The venue is 55ft wide and 80ft deep with a 26ft tall ceiling. What used to be a sloping floor with seating is now a tiered floor with seating sections. The



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balcony starts at 60ft from the down stage line. The walls have velour curtains which serve to reduce the amount of reflections in the room. The stage extends 32ft behind the down stage edge and is 36ft wide.

Since the primary focus of the New Daisy is live acts, Funktion-One's Vero touring sound system was the initial consideration. Vero is unique in that it fundamentally maintains point source characteristics while hanging as a single vertical column of speakers. Konecny comments: "The point source behaviour of Vero maintains the accuracy of the transients of an audio signal which is critical to imaging and dimension. Historically, point source systems have been more complicated to deploy and pack in a truck and are often aesthetically obtrusive. The fact

that Vero hangs in a vertical column means that it meets the expectations of the touring market with regards to a discrete appearance and a minimal setup time."

A Vero system consists of combinations of three identically-dimensioned cabinets: a long throw mid/high, a near throw mid/high, and a mid-bass cabinet. The associated system prediction software is called Projection and is used to determine quantity and arrangement of cabinets, inter-cabinet angles and gain settings for proper coverage.

"Based on the great response from engineers who have mixed on Vero, we felt strongly it was the proper choice for the Daisy. The system sounds terrific with minimal processing and has great transient response and imaging throughout its

frequency range," states Konecny. "We've had a wide variety of acts on the system, like R&B, rock and EDM, in arenas and outdoor stage and it has all sounded great."

"Based on the predictions, however, we found that the narrow and long aspect ratio of the room would benefit from a higher directivity cabinet for the balcony than even the long throw Vero cabinet. As a result, we looked at using Funktion-One Evo speakers which are derivative of the Vero system, in a smaller and more configurable package. The Evo's form factor allows for greater articulation of the individual cabinets and thereby tailoring the coverage more precisely. We were able to put the sound exactly where we wanted it."

The aim was to deliver high SPL to the back wall of the



balcony and the main floor, but avoid having sound reflected off the vertical face of the balcony back to the stage or wasting output on the side walls. According to Konecny, it was possible to get most of the way there with Vero, but with the Evo it was possible to get the exact coverage they wanted.

A single high-directivity Evo 7 and a mid-bass cabinet at the top of each hang covers the balcony, a pair of mid-bass in the middle of the hang add to the mid-bass content without throwing mid/high frequencies at the face of the balcony, and a pair of near-throw Evo 6s at the bottom of each hang address the main floor. The area immediately beneath each hang is covered by Funktion-One Resolution2SH mid/high fixtures, which are skeletal horns that allow for a high degree of rotation and downward pitch for downfill.

The low frequencies are supplied by six Funktion-One F221 horn-loaded double 21" subwoofers. According to Konecny: "the F221 gives higher efficiency and higher fidelity than bass reflex cabinets. Being horn-loaded, the F221's higher directivity means it is able to deliver powerful LF content to the back of the room and balcony."

As for amplifiers, the system uses Lab.gruppen PLM20ks, which is Funktion-One's preferred amp for the Vero system. "Realising that most visiting sound engineers wouldn't be familiar with Funktion One Evo cabinets, we wanted to present a system to them that ticked as many of the usual boxes as possible. FOH guys are understandably cautious about what they allow to be used on their shows, so instead of using an unknown sound system, made up of boutique amplifiers and an unfamiliar processing front end, we chose to use a standard high quality, touring-grade platform, which is the Lab.gruppen, Lake platform and Yamaha CL5."

A further benefit to the Lab.gruppen amps is that they utilise Dante networked audio. "We've compared Dante to other digital audio networks and are extremely impressed with the sound quality," he explained. "The Yamaha CL5 console is

native Dante, which allows the inputs at the stage box to be available at the FOH board using only network cables. It also allows for an onstage monitor console to share its local inputs with the FOH console.

"We minimized the number of DA and AD conversions by having the console and the amplifiers networked via Dante. Also, the control and routing flexibility of Dante makes it easy to provide FOH guys with the exact level of control that they want. Dante is robust, reliable and sounds great."

As for the resulting sound quality, Konecny describes it as follows: "The Evo 7s have extremely well-controlled directivity, so, up in the balcony it's like listening through headphones. This minimizes room excitement and gives a very direct and immediate image in the balcony. The mids and highs are great, but the big difference with this system is that the transient response extends down through the mid-bass and the bass, which is somewhat unusual." This is partially due to advancements in driver and enclosure design, but also due to the system being a point source system.

Funktion-One has always been a champion of point source. Konecny comments: "To maintain coherency you want to have a minimum number of drivers providing the sound at any given listening position, which is the basis of point source." He continues: "The current demand for line array sort of ignores that, as a line array fundamentally smears transients due to multiple sources arriving at the listener. The current thinking is that line array is perfect for every situation. It's not. A line array has fundamental characteristics that we don't find to maintain accurate transients."

Point source systems, in general, have fallen out of favour in the live sound industry, partially due to the more complex setup they require, but also because of the limitations on delivering high SPL at long distances that spherical radiation patterns experience. Vero and Evo address these issues through advancements in driver and waveguide design and configuration. Because the entire system is horn-loaded,

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including the mid-bass, the system maintains point source performance but is able to provide high SPL at distance.

Funktion-One's popularity in electronic music has led some to suggest that it can only perform in such an environment. This isn't the case, says Konecny: "I've talked to FOH guys who are running a live performance through one of the Funktion-One systems installed in a club and they wonder, 'I've only seen Funktion-One used with DJs. Can we put vocals through that?' And of course DJ playback sounds great through the system, but it's cool to see live guys get on it and the vocal is right in their face and crisp, and the snare hits them in the sternum, and the bass guitar has fidelity in the mid-bass, and they realise that it does sound good with live program as well."

Now that patrons, live music enthusiasts, and musicians have the opportunity to experience it in a live situation, that perception could be changing. As Gibson said: "The New Daisy has such a rich history in Memphis and has been one of the lasting cornerstones of the city's live music scene. As more audiences have experienced the changes, we've really been able to bring some renewed life and energy to the east end of Beale Street."

Konecny credits the venue's owners for taking a bit of a risk



with the system.

"The reason this is working is because the ownership of New Daisy is so into it sounding good and sounding right that they're willing to go through the extra effort to make sure it does," he said. "We continue to hear from them that engineers get on it, and then after the show say, 'Wow, that's really fantastic sounding.' I know when I'm there, if I'm tuning the system and the band is there, I've had random band members come up and say, 'You know, I do 300 shows a year on tour, and I can't believe how good that system sounds.'" And there's no better endorsement than when the band sits up and takes notice.

"Sometimes even the

drummer," added Konecny.

Co-owner Steve Adelman commented: "In today's concert world, patrons and talent alike are more attuned than ever to the sound quality experience of a show. As the bar gets raised higher you need to deliver to stay a step ahead of the competition. With Funktion-One, we're confident we've taken that next step."

Funktion-One founder Tony Andrews comments: "We're very pleased to be involved in such an auspicious venue. The New Daisy has an incredible history and an important legacy in live music. It's good to hear that the system is performing very well with the mix of acts that appear there."

A key element behind the

venue's renewed energy is a strategic partnership with concert giant Live Nation. Since re-launching, an eclectic array of talent has graced the Daisy's stage, including: Ben Rector, Slash, Disturbed, Excision, Corrine Bailey Rae, Bryson Tiller, Bullet for My Valentine, Somo and The Dropkick Murphys.

"Because of its long history of being an early showcase for major talent, the New Daisy is truly unique," said Ben Weeden, COO for Live Nation/House of Blues. "Our team is certainly looking forward to being a major part of the continuing New Daisy story, and feel the best is yet to come."

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