TECHNICAL FOCUS: INSTALLATIONS

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Brad Paisley's setup for Live from the Drive-In.

Drive Up, Plug In, and Play

By: Dan Daley

Drive-in and parking-lot concerts bring a semblance of normalcy to a COVIDdisrupted concert industry

The very first drive-in theatre was a hybrid: a cinema auditorium in Las Cruces, New Mexico seated 700 moviegoers, but parking spots for as many as 40 automobiles within the



Above and opposite: Outside Nissan Stadium in Nashville.

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grounds were positioned to allow occupants to also comfortably view the films. This was in 1915, so sound was not an issue.

Fast forward a century or so and sound is a huge issue for drive-ins, as this quintessentially American institution, which had seen its numbers dwindle from over 4,000 in its midcentury heyday to fewer than 350 or so today, finds itself literally at center stage as a primary venue for live music in the midst of a pandemic. As clubs and music halls shut down to prevent the spread of the COVID-19 virus, the live-music sector, which had become the main moneymaker for the music business as recorded-music sales and royalties were decimated by streaming and other online distribution modes, found itself scrambling for any form of revenue it could find. Zoom and Facebook Live shows from artists' basements and front porches quickly proliferated but simply didn't have the impact that an in-person concert deliv-



The parking lot at Ruoff Mortgage Music Center in Noblesville, Indiana.

ered. Then on May 14, country star Keith Urban showed that a drive-in theatre was just what the doctor ordered. In fact, it was that performance, at the Stardust Drive-In Theatre in Watertown, Tennessee that's now considered the foundational performance



of what's become the drive-in concert phenomenon. That show, kept a closely held secret ahead of time, had a limited audience of doctors, nurses, and other front-line medical workers from Vanderbilt University Hospital in Nashville, about 40 miles to the west. But the ad hoc spectacle was something that would have been familiar to Mickey Rooney and Judy Garland in their classic lets-put-on-a-show-in-the-barn! musicals.

"It was put together on the fly, so last minute—I'd never heard of anyone doing a concert at a drive-in movie theatre or even thought about it until COVID came along," recalls Chris Demonbreun, system tech for the scaled-down L-Acoustics K2 system supplied by the Nashville office of Sound Image for the concert, which was itself a scaled version of Urban's stage show. Originally with just the artist and ProTools engineer Jeff Linsenmaier onstage managing backing tracks on a flatbed trailer in front of the theatre's outdoor screen, Urban's second guitarist and keyboard player Nathan Barlowe joined in at the last minute, all standing 10' apart. It caught the imagination of a nation starved for live music and would become the template for what Live Nation, the world's largest concert producer (and thus the company bearing the brunt of live music's sudden shutdown, with its Q2 2020 YoY revenue falling by a heart-stopping 95%) would quickly formalize as Live From The Drive-In, a limited-run concert series made for social distancing that included shows by Brad Paisley, Jon Pardi, Nelly, Darius Rucker, and others at drive-in theatres and other various venue parking lots in Nashville, Indianapolis, St. Louis, and elsewhere.

Working with front-of-house mixer Roz Jones and monitor mixer Joe Calabrese, Demonbreun (a descendant of one of Nashville's 18th-century founders who shares his often-mispronounced surname with a main thoroughfare in the city) used L-Acoustics' Soundvision software to position a K2

rig comprising five K2 tops and four SB28 subs per side, stacked on either side of the flatbed trailer. "There was no rigging," he says, "so we had to stack them, and we were going to go with six boxes per side but there was a limit to how high we could go with just the three of us moving the boxes onto the trailer."

Tuning the drive-in

Demonbreun, who had been scheduled to go on the road with Rage Against The Machine earlier in the year followed by a fall tour with Urban prior to touring's global shutdown, says the drive-in venue posed some challenges, including adjusting the soundarea coverage to account for any reflections from the parked automobiles. "What helped, though, was that we were on grass; it might be different in a [hard-surfaced] parking lot," he says. "If I could do the show again and could do whatever I wanted, I would have a flown PA with some delays around the parking area."

Demonbreun says predictive software helps lay out coverage designshe uses Soundvision for L-Acoustics PAs—and in this case each box had its own amplifier beneath it, so he made extensive use of the LA Network Manager's Air Compensation EQ tool, designed to provide a single gain setting to control the shape of a linearphase FIR filter, re-establishing the original frequency response of loudspeaker enclosure. "In long-throw applications, high-frequency propagation can be strongly affected by air absorption," he explains. "The Air Compensation tool smooths it out so that no one close to a box gets annihilated by the high end, because you're not overworking the high-end drivers in the PA." (Demonbreun has measured these shows' volumes at about 99dB, A-weighted, peaking around 101dB.)

But in true drive-in fashion, the audio was also being delivered, via an FM transmitter that radioed in the audience's cars. "The front-of-house mix was on a matrix, so we had PA control and FM control," Demonbreun explains. "The real challenge with that was, at what point to delay the FM to the PA? What Roz and I did was delay the FM transmission to where the PA coverage started falling off. That way, people in the back could tune in and not have too much of a time smear. We figured most people in the middle to front would be outside of their cars in their sectioned-off area. In a perfect world, we would have been able to fly a system and then have some delays around the venue, but the drive-in did not want to block the big screen that was behind the stage."

Driving up

Parking lot shows—a "drive-up" instead of a drive-in-are also becoming popular during the pandemic, such as the one Brad Paisley did in the Tennessee Titans' Nissan Stadium parking lot in July. With plenty of sports venues as empty as the music venues, they offer the opportunity for a big stage with a flown PA and video walls flanked left and right, Demonbreun says. In many ways, these concerts are business as usual, though often scaled down in certain ways. When singer Jon Pardi did his Live From The Drive-In show from the parking lot of the Ruoff Music Center near Indianapolis in July, front-ofhouse mixer Colin Street had a respectable 24-box L-Acoustics leftright K1 system to work with, provided by Mid-Sound America, with as many smaller K2 boxes for two rows of left-right fills, necessitated by the widely spaced array of cars that comprised the audience. What was different for him was the Midas M32 console Pardi's crew brought to this show and one in the Nissan Stadium parking lot, another in the same series, instead of the larger Yamaha PM7 he usually uses.

"The actual shows aren't very different to mix," he says, and are made even less so by the fact that many of these shows aren't using FM trans-



Mobile stages, such as this Stageline SL100, have become popular with Christian music tours, Kordyjaka says.

missions to car radios as they are when done in actual drive-in theatres. "What is different is that we're trying to scale back the production we carry, to bring our overhead costs down, so everyone can get paid." (A reminder that these unique kinds of shows are not being done for the sake of novelty, and that musicians and touring AVL crews have largely been without work since the spring.) Street says the smaller console isn't a problem; the band has cut its stage back to 32 inputs, and he uses a Universal Audio UAD-2 Live Rack to keep his processing at the level he needs it to be. "We're just making the most of what we have," he says.

Keeping it safe

What is common to all of these drivein and parking lot shows is the need to keep musicians and crews safe. "The challenge we faced was, first and foremost, safety," says Demonbreun. "Everyone wore a mask, we social-distanced as much as possible, and we made sure hand sanitizer was everywhere. We all took as many precautions as possible."

While seemingly every crew member on tour has a second and sometimes even third backup on the road during normal times, the role of crew safety supervisor has yet to be formalized. Kevin Freeman, Brad Paisley's longtime front-of-house mixer and production manager, had taken on that task to some extent for drive-in shows, though he says Live Nation has done a very good job of having sanitizers, masks, and other salubrious items on hand ahead of time, along with frequent touchless temperature checks. The fact that the company has also provided sound, lights, and video at most of those shows also meant that Paisley's crew numbers were significantly reduced. "We had just our front-of-house and monitor mixers and techs and just the LD and the video director with us," he recalls of the abbreviated Live from the Drive-In shows. "Keeping everyone socially distanced isn't that hard, considering how few of us there are." Live Nation's protocols for the audience were also comprehensive: As attendees drive up to the gates, they'll scan their tickets through closed windows; cars and their tailgating zones are in a checkerboard pattern, giving each party at least 9' of separation from one another.

However, in the wake of recent shows that have drawn attention of the wrong sort, such as country artist Chase Rice's mostly mask-less concert during which the tightly packed crowd was singing and jumping as Rice urged them on from the stage (eliciting pointed criticism from peers such as Kelsea Ballerini), and EDM duo the Chainsmokers' now-notorious Long Island drive-in fundraiser that drew Governor Andrew Cuomo's Twitter ire, artists themselves have become more aware of their responsi-

bilities in the effort to keep everyone healthy. Freeman points out that while Paisley's scaled-down crew of about a dozen already had plenty of room aboard their two buses, the artist nevertheless added two more crew coaches to the convoy. "Brad is adamant about keeping everyone healthy," he says.

Drive-up shows getting bigger

The rapid and radical shift from conventional music-performance venues to parking lots and drive-ins has been jarring at times, not unlike the way music's own standard equation went from touring to support a new album to using that album to promote concert ticket sales. At the same time. there have also been more than a few similarities. Jeff Cranfill, a founding partner and VP at Special Event Services in Winston-Salem, North Carolina and Nashville, muses that the FM transmission SES was in the process of setting up for the Avett Brothers' August 29 show from the Charlotte Motor Speedway wasn't much different from the way they've used FM radio to propagate sound for large outdoor church services. And much of the video and lighting is already in place in these venues, such as the 200'-wide-by-80'-tall 720p Panasonic video wall that was the backdrop for the Avett Brothers' show, filled with IMAG images from multiple cameras by the band's regular video provider. SES was retained as the production provider for an actual drive-in theatre, the Drive at Winston-Salem Fairgrounds, a recently opened, socially distanced bespoke outdoor cinema created by and for the pandemic. "We get calls all the time to do lighting and projection, to bring power distribution, and align and weatherproof a projector for outdoor video," he says. "We just never got asked to do it for movie night."

Cranfill says while many of the skill sets are similar, the scale is different. The Charlotte Speedway show hosted an estimated 1,800 cars for the quickly sold-out and prosaically named *Avett*

Brothers Drive-In Concert, with the band set up on the speedway's backstretch straightaway on a custom stage into which SES integrated lighting. There wasn't a conventional PA system because, he explains, the depth of cars in the lots would require a slew of delay towers that could impede sight lines to the video wall. "And at these distances, you're basically watching the show on the screen, so the synch issues for live sound would have been way too much," he says. "An FM broadcast is the best solution for this. But at least it's live music again."

Lights and video

While many drive-in/drive-up concerts are kicking off during the summertime cocktail hour, that seminal Keith Urban concert at the Tennessee drive-in theatre waited till dusk for its downbeat. which gave Anthony "Geddy" Kordyjaka, design manager for Premier Global Production (PGP)-provider of staging and lights for the show-a chance to do some actual lighting. He set up four small towers in front of the trailer stage hung with ETC Source Four LED Lekos and SGM P-10 luminaires focused on the band, with several Chauvet Professional COLORado 2 Zoom LED washes facing the audience and six Portman Lights P3 fixtures that provided what Kordyjaka describes as a "nice tungsten look," adding a sepia tone for the acoustic numbers. PCP also provided three robocams on stage that were switched using a disguise media server, which was routed on fiber around the perimeter of the drive-in property to the theatre's own projector and then onto its screen. "It was a small kit, but we got a lot out of it," he says.

Jacob Mueller, Jon Pardi's lighting and video director for the last four years, worked on both the Nashville and Indianapolis Live Nation parkinglot shows. However, the Nashville show in the Nissan Stadium parking lot began at 8pm, which, in midsummer, means there's still nearly an hour of daylight to go. "What surprised me was I was expecting an opening act,

but instead it was 'an evening with,' so they were onstage immediately," he recalls. "It made me realize that these kinds of shows may have to be approached more like festivals for lighting," which, for him, included more blinders and strobes to compensate for the daylight, along with the usual complement of washes and spots. "Just more eye candy and twinkle. And I'll have to be ready to adjust as the amount of daylight changes during the show."

Video is also finding its ways of accommodating the drive-in/drive-up concert phenomenon. Travis Walker, director of operations at Nashville's Moo TV, says image magnification remains the cornerstone shot for music shows, but that as the audience is spread further apart in cars, more of the big picture finds its way to the main screens. "More wide shots," he says. "It's becoming more like a TV show production." Added delay screens around the parking lots to supplement the 45'-by-200' Hox 3mm screen used at the Nissan Stadium shows help viewers who have to park on the fringes of lots, or if the terrain elevation isn't cooperative.

Media crew sizes have been smaller in the age of COVID-19; often, just the video director and server technician/playback operator for the Ross Carbonite switcher and Green Hippo Amba media servers. Ironically, Walker says that means in some cases they have to use larger tents for video production—their work space at the Nissan Stadium parking lot shows was a 10'-by-30' tent, half again as big as they'd usually bring to space people and workstations further apart.

An uncertain future

Drive-in theatres were experiencing a bit of a revival in recent years, a renewed novelty along with vinyl records and old-school denim. But the pandemic has shed a new light on them as music venues. The question is, will this application for them disappear with the arrival of a vaccine or will they establish themselves as alternative music venues? Only time will tell, but some of those who have



Colin Street, front-of-house mixer for Jon Pardi.

found themselves working in these unlikely concert halls wonder what their lasting effect might be.

Walker says he's had inquiries about drive-in theatre shows, mostly asking about camera packages that would be used in conjunction with their installed projection systems. But the trend seems fleeting, he feels. However, the reduced crew sizes and tighter logistics that it entails will likely be with us for some time to come. "Budgets are going to be reduced, at least for the short term," he believes. "We may also get used to working with more local crew members, like stagehands, instead of taking them out with us, and we may be asked to do the same level of work with fewer people."

Kordyjaka, at Premier Global Production, which has partnered with a remote-production broadcast company to turn its Nashville warehouse into a live-streaming studio, also doubts the economic sustainability of these kinds of shows long-term, noting that many promoters, who are the event impresarios, seem less than thrilled by their ROI even as many artists look to them more to maintain visibility during lockdown than as rev-

enue generators. "We've had three Christian-music tours out with our [Stageline] SL100 mobile stages doing drive-in shows, so it's something, anyway," he says. "Personally, I'd rather stay home and pay to watch a livestreamed concert and turn up the stereo as loud as I want."

Mueller expects that crew health concerns will outlast the pandemic, with wipedowns of consoles and other high-touch surfaces being a routine protocol for years to come. But the current environment will also be a time for learning new skills and systemsvenues and producers like Live Nation have been providing far more of, and often very different from, the audio, video, and lighting packages for these shows than the artists typically carry. "You have to adapt when that happens, and that means changing your thought process," he says. "And that can be a good thing."