

CASE STUDIES

Live Venue Installations



Unite Your Audience
The Martin Audio Experience





Martin Audio



At Martin Audio we believe that uniting audiences with exciting sound creates shared memories that sear into the consciousness delivering more successful tours, events and repeatedly packed venues.

We achieve this by an obsessive attention to detail on the professional sound system's acoustic performance, frequently challenging convention and involving a sophisticated mix of design, research, mathematical

modelling and software engineering, to deliver dynamic, full-frequency sound right across the audience.

With over fifty years of live sound and installation expertise to our name, Martin Audio offers a wide range of premium professional loudspeakers so customers can be assured of selecting the right system for their chosen application, whether it's a small scale installation or a festival for over 150,000 people.

Live Venue Installations

With our heritage in live production it's no surprise that this has transferred into the realms of permanent audio installation within live venues. More often than not, live venues are combined with bar and club areas so our portfolio offering has frequently meant an integrated system design approach. As with many other applications, our solutions focus upon appropriate sound level performance, coverage, consistency and control to unite audiences night after night.



Cabo Wabo Cantina Upgrades With Martin Audio WPC



Cabo San Lucas, MX—Sammy Hagar's legendary Cabo Wabo Cantina recently underwent an audio upgrade with a Martin Audio Wavefront Precision Compact system just in time for the Red Rocker's 'Red 'Till I'm Dead – Sammy Hagar's Rock-N-Roll Birthday Bash.'

Celebrating Sammy's 70th birthday, the annual fan pilgrimage was filmed for a movie simulcast in 100 U.S. theaters with a list of guest stars that included Toby Keith, James Hetfield, Dave Grohl, Jimmy Chesney, Eddie Money, Chad Kroger, Bob Weir, Jerry Cantrell and Alex Gonzalez of Mana.

Martin Audio's Wavefront Precision line array introduces a scalable approach to resolution and control of coverage functioning with external, dedicated multi-channel amplifiers in a uniquely flexible, upgradeable, and financially accessible system. The more cabinets with dedicated amplifier channels, the higher the resolution and scale of coverage control achievable.

The Wavefront system for Cabo Wabo was designed and commissioned by Jim Risgin of OSA International, Inc. working in collaboration with local contractors and Martin Audio Distributor Audio Acoustica. Initially founded in 1990, Cabo Wabo needed a new PA system after 27 years, especially given the Birthday Bash was coming up in the near future.

According to Jim, who installed and tuned the system, 'Martin Audio WPC was chosen because it was the proper form factor, right size and had a good aesthetic look for the club. They needed a substantial PA, so we flew six WPC boxes a side with four SX218 subs mounted in the front

face of the stage. The monitor complement includes four Martin Audio XE500s and four XE300s.'

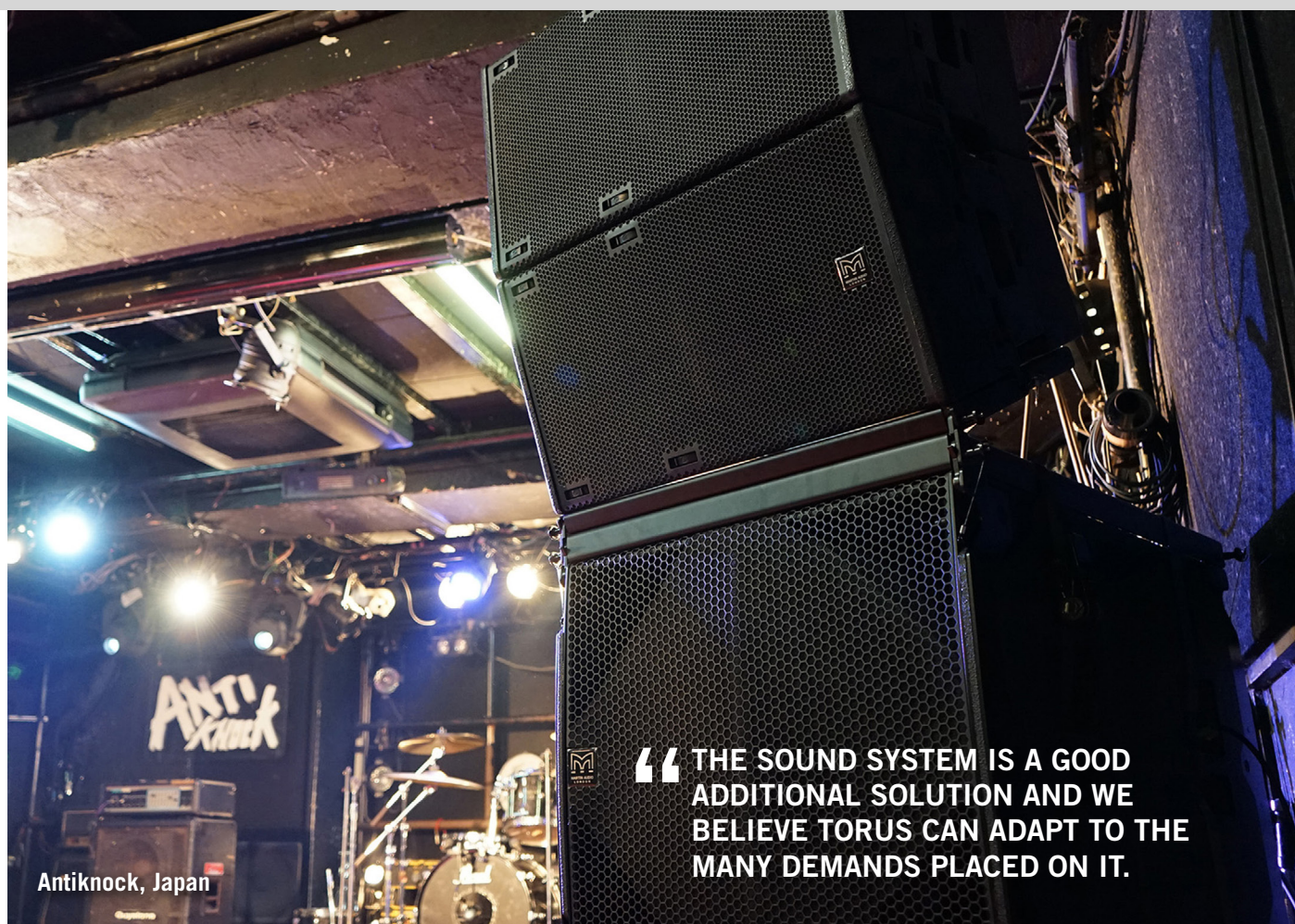
The XE Series monitors feature Martin Audio's unique Coaxial Differential Dispersion technology and are designed as a complete system that maximizes the capability of the monitor while ensuring both engineer and artist will experience the same high level of consistent performance from an XE monitor anywhere in the world.

'The system will be used 365 days a year and we fully anticipate the reliability to be great,' Jim explains. 'There's a grand total of nine iKON iK42 amps installed for system control and DSP tuning is all done inside the amps. We used 2-box per channel resolution which worked out well, the coverage is spot on. All and all, the system did what we wanted it to do and more.'

Asked about reaction to the WPC system's performance, Jim responds: 'Everyone is really happy with it. The club manager and Sammy's partner Jorge Viana was ecstatic about the way it sounded and how well it worked for the venue. The house sound guys were very impressed by WPC's performance and capabilities and they're looking forward to mixing on it every day.'

On first encountering the XE Series monitors Jim recalls, 'Sammy walked up to the wedges, sang a phrase, looked over at Jim Jorgensen, his monitor engineer, and said, 'I've never heard myself like that before.' Then he looked at me and asked, 'are you the guy who's responsible for this PA?' before thanking me and saying, 'First time I've ever heard myself in here.'

Legendary Live Venue Antiknock Introduces TORUS System



Since opening in 1985, Antiknock has become a hall of fame for punk and hardcore bands, and many of today's major artists originally set down their roots there. Now the venue, situated in the burgeoning Shinjuku district of Tokyo, has become the first in Japan to install Martin Audio's new TORUS constant curvature array.

Speaking of the installation, Mr. Sekikawa, CEO of Hardaway Corporation, which manages the venue, said the renewal of the sound system was a gift to the many artists and patrons who volunteered to sell T-shirts and make donations to keep the venue alive during the COVID pandemic. “This was my first thought when trying to thank them all for their cooperation during those difficult times,” he said.

The system previously installed had been huge and featured old long-throw cabinets. Their disproportionate size not only made the stage look small, but the clarity of the low end during live performances left much to be desired.

When seeking a replacement system, there were several key criteria that needed to be met: these included being suitable for multi-genres, with a reasonable size footprint, and offering good stability.

Mr. Hashimoto, of Enter Sandman, who designed the new system, explained the rationale. “Having had a

relationship with Antiknock for 10 years, I was able to determine several important factors. One was the theme of the venue, bearing in mind the type of bands who perform there. Another was the physical shape of the venue and the construction of the building, as well as the size of the loudspeakers. And finally, of course, there was the capability of the loudspeaker itself.

“A speaker with medium-throw capability would fulfil the demands of this venue and match the concept perfectly—and the new TORUS was the obvious solution.”

As a result, he specified a pair of T1215 onto two SXCF118 subwoofers per side, in a simple ground stacked configuration. Mr. Hashimoto confirmed that the height of the system had been carefully pre-arranged so that the size issue was resolved while achieving the optimum quality of sound.

As TORUS has three compression drivers which have 35mm voice coils, he knew it would be sufficiently powerful for loud bands performing at Antiknock, while rasping lead vocals could be reproduced in the mix with vastly improved intelligibility.

One challenge was the siting of the PA itself. Since sight lines on the audience floor are obscured by columns and joists, and the floor level increases at the rear, the loudspeakers needed to be set inside the stage area.

But TORUS is nothing but versatile, and can be flown from the T12GRID inverted, to allow stereo arrays to be mirrored with the high frequency horn either to the left or the right. This would maintain both the intelligibility, and the wide Left/Right separation.

During the initial simulations, Martin Audio's DISPLAY3—its proprietary 3D prediction software—was used to great extent by Mr. Hashimoto, with optimum results.

He goes on to explain, “TORUS has a unique feature in that we could easily change the waveguide's dispersion between 30-45 degree. We could also change the dispersion, setting the horn asymmetrically to avoid unnecessary reflections from the wall.”

Due to Antiknock's unique shape this solution worked well, as DISPLAY3 can simulate different settings of the horn graphically,” said Takahisa Ota, from Martin Audio Japan.

The multi-genre mode could be achieved by using the Lake controller to tune the system, by engaging the relevant saved presets to easily change the tuning.

“Antiknock is the venue where loud rock bands choose to perform, and this is reflected in the high SPL,” adds Mr. Kunii, the venue's operator. “However, the sound from the new system is always clear and transparent, and I have never felt tired. The audience also tell me that despite the volume, they feel comfortable and excited.” ‘Excitement’ and ‘clarity’ are two features that don't usually co-exist comfortably, he emphasises.

The final word came from venue manager, Mr. Yanagisawa. “A live venue such as this cannot survive on reputation or culture alone. The sound system is a good additional solution and we believe TORUS can adapt to the many demands placed on it. Consequently, we believe it will help us rebuild the live scene.”



The Broadberry Upgrades with TORUS



The Broadberry, Virginia

Popular Richmond, VA live music venue, The Broadberry, has taken delivery of a new Martin Audio TORUS constant curvature array, supplied by locally based rental partner, Soundworks of Virginia.

Soundworks has been working with the 550-capacity venue, owned by Lucas Fritz and Matt McDonald, providing sound for their outdoor concerts since the Spring of 2021.

Explaining the rationale behind the venue upgrade, Fritz says they had been making do with the old system that was in the venue when they took over in 2014. “We were well overdue for a PA overhaul, especially given the calibre of artists we were continuously bringing to the market. We had been working with Soundworks and knew they wouldn’t lead us astray.”

The venue’s production manager Justin Lewis confirms that the previous system had been poorly deployed—and he had a firm idea in mind for its replacement. “

Due to the shape of our room I wanted a box with a relatively narrow horizontal pattern. All the line arrays I looked at were too wide and point source didn’t provide the flexibility we wanted in vertical coverage.”

He looked at a number of systems and consulted his crew, ultimately deciding constant curvature would probably be the best for our room. “We chose TORUS mainly due to Soundworks’ existing relationship with Martin Audio, and the cardioid feature of the SXC118 was also a positive influence on our decision.”

Taking up the story, Soundworks' CEO, Steve Payne, adds, "Their trust in the Martin Audio name, and belief that anything with that badge on it would be a quality solution, was reinforced by the [Wavefront Precision] WPL and WPC systems Soundworks had been routinely providing for their outdoor concerts."

And while he admits the Wavefront Precision series remains his "hands down favourite," for an installation situation he needed to look no further than TORUS. "I think this system, with its variable horizontal coverage and choice between 30° and 15° vertical angle is a better solution than a short hang of WPS," he says, concurring with Justin Lewis.

The pair of three-box hangs comprise two T1215 and a single T1230 at the base, to eliminate the desire for front

WE ARE EXTREMELY EXCITED ABOUT OUR NEW TORUS RIG.

fills. The arrays are supported by TORUS fly bars hung from Unitruss, which spans the structural roof girders. Four SXC118, ground stacked in a central cluster under the stage, provide the low end, and all processing is via the onboard DSP in the Martin Audio iKon multi-channel amplifiers.

Soundworks' project manager Bryan Hargrave masterminded the installation, in conjunction with Martin Audio US Technical Support Engineer, Joe Lima.

Summing up, Justin Lewis says, "The coverage and sound quality are just about perfect now, and the rig is a vast improvement over our old one. Our crew is pleased, and we've had generally good responses from guest engineers.

And Lucas Fritz is equally effusive. "We are extremely excited about our new TORUS rig. The room sounds better than it ever has," he exclaims.

All photo credits Ashley Travis, except Broadberry staff photo credit Zach Fichter.



(Le) Poisson Rouge Reimagines The Possibilities of a Sound System



(Le) Poisson Rouge

Celebrating its 10th Anniversary, the iconic music venue and multimedia art cabaret (Le) Poisson Rouge in the heart of Greenwich Village on the former site of the Village Gate is already legendary for its unique and eclectic synthesis of popular and creative culture in emerging music, theatre, film and fine art.

With “a mission to establish a creative asylum for both artists and audiences,” LPR’s performance spaces are designed to be highly adaptable in terms of seated, standing, in the round and other audience configurations depending on the artist, type of music, format, visual elements and level of immersion.

Considering the eclectic lineup of musicians, writers and composers who’ve appeared at LPR in recent years includes everyone from Lady Gaga, Yo-Yo Ma, Philip Glass, Iggy & The Stooges, Mumford & Sons, Kings of Leon, Norah Jones, Beck, Lorde, Salman Rushdie, The Shins, Sufjan Stevens, Laurie Anderson, Anthony Braxton, They Might Be Giants, the Kronos Quartet, Don DeLillo, Panic! at the Disco, and more, unlimited flexibility had to be an integral part of the genetic code of (Le) Poisson Rouge’s sound system.

Which explains why a recent re-design and upgrade of the sound system by Martin Audio’s partner, Frost Productions, led and engineered by Frost’s Installation Project Manager Jose Lima in collaboration with LPR’s Production Director Jay Eigenmann, has achieved an unimaginable level of flexibility for what is a complex, changing space in every sense. Audio quality first and foremost was a given – in this

“ ENGINEERS WHO’VE MIXED ON THE NEW MARTIN AUDIO SYSTEM HAVE HAD VERY POSITIVE REACTIONS ABOUT ITS FIDELITY, FIREPOWER, CONTROL AND EVEN COVERAGE.

regard, Martin Audio was unanimously handpicked by Jay, Bernie Girman, LPR’s Production Coordinator, and David Handler, co-founder, after auditioning a host of products at Infocomm 2017.

The new system employs a full complement of Martin Audio that includes a Wavefront Precision Compact array, CDD, CDD-LIVE, CSX-LIVE and SX218/SX118 subwoofers, XE300 monitors and iKON power amplifiers, networked via a Dante system in a design creative enough to match the demands of any artist or performance.

Describing the venue, Jay explains, “LPR has two areas in the venue, the main space which is the principal performance room and a smaller satellite room—the 130-capacity Gallery Bar— that can also be combined with the main space for larger events. The main space is a 700-capacity flexible performance area standing (350 capacity seated with standing room at the bar and around the perimeter) for corner stage configurations. When we do in the round, it’s a 600-standing room capacity, 300 seated and standing capacity with tables on the corner stage as well.”

Asked to specify the challenges implicit in LPR's layout, Jose points out: "The main space is an asymmetric shape with the corner stage diagonal to the room and low ceilings. There's an irregular ceiling with HVAC conduits running across the room with one in front of the House Right hang and one behind the House Left hang. There's also a hollow circular dancefloor, and a stage made of steel deck modules. That, plus we had a very short turnover time, with the installation completed in 4 days, from taking down the old system to the first show. This required the crew to work around the clock to get it done in time."

In the main room, the system starts with a PA hang for the corner stage with four Martin Audio WPC a side in 2-box resolution and a CDD-LIVE 15 as center hang/downfill with five SX218 subs across the underside of the stage. For in the round performances, the system used to consist of four multi-purpose speakers that had to be hung manually every time out and, according to Jay, "didn't provide the firepower or coverage to do more aggressive shows. They were ok for quiet jazz shows and acoustic performances, but LPR does everything from spoken word or solo piano recitals all the way up to death metal, EDM and everything in between. Basically, anything you can imagine we've probably had and we wanted our in the round PA to be able to handle the same breadth and scope as our main PA."

"Now the system has evolved to feature a permanently flown ring of six CDD-LIVE 15's in a 360° configuration around the 16-ft. diameter center stage that not only eliminates having to hang the speakers every time we go in the round, but also provides much more power and impact. The CDD-

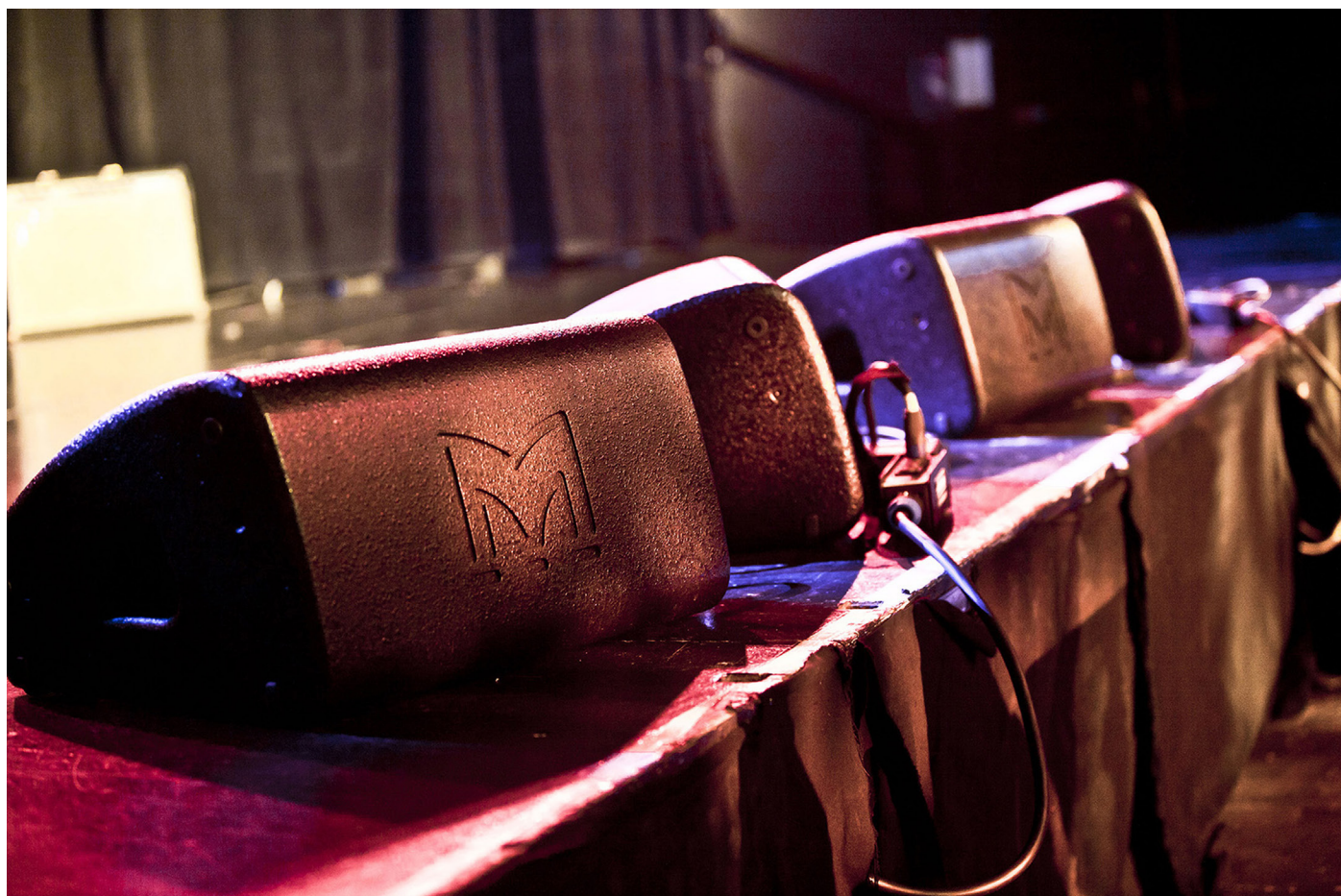
LIVE waveguide technology allows us to get even coverage throughout the room. With the additional horsepower to do those more aggressive shows, we're able to take on almost any sonic challenge in the round.

"For the new design, we came up with four SX118 single 18" subs that could either be used as utility subs for corner stage shows, side fill subs, DJ subs and whenever we do center stage shows, they can be placed strategically under the in-the-round stage and face outward to cover the entire room while emanating from the center of the stage to have it sound coherent."

The smaller Gallery Bar performance space is equipped with Martin Audio CDD's, all powered by a single iK81 power amp. The main left/right hangs are a pair of CDD12's in front of the modular stage (which is made up of three 4 x 8 decks) at the northwest corner of the room but can be moved based on the artist or type of performance.

A delay pair of CDD10's can be either turned in-line with the mains as true delays or turned inwards for an immersive dance party experience. Also, two CDD10's flown by the stage can be used as sidefills, or left-right when the stage is removed as reinforcement for dance parties or all-immersive events. There are also three CSX112 subwoofers to support the CDD's built into the soffits under the tables with banquettes along the wall across from the bar.

A pair of elf-powered CSX-LIVE 118's can be put on the ground directly under the mains and patched into the wall via Dante as full-range mains for concerts. They can also be stacked for dance parties to additional low-end support



or taken into the main space for use as utility subs with subs in conjunction with the four SX118's, for something like an electronic in the round show with six single 18s under the stage to match the flown CDD-LIVE 15s.

Underscoring some of the new system design's high points, Jose points out that "with the Dante network, all areas are connected and we have the capability of routing audio from and to anywhere in the building while each speaker can be individually sourced for limitless zoning/grouping. Basically, there are three high-output, premium systems for three distinct areas: Mainspace corner stage; Mainspace in-the-round stage and the Gallery Bar. Delay speakers can be easily rotated for an immersive/surround experience, for effects or movie screenings while the monitoring system features 10 active biamp mixes of world-class Martin Audio XE Series monitors all powered by iK42 amplifiers, as well as two CDD-LIVE 15's for side fills."

"The main room has three CDD-LIVE 12's used as outfills," Jay concludes, "one is for the raised VIP opera box section, and two are used as bar fills. And there's a CDD10 above the house right rig to cover an area off the stage where a lot of folks stand which had never been covered until now, so that's exciting. We also have a pair of CDD-LIVE 8's as stereo nearfields at FOH for our staff and guest engineers as it's traditionally been different up top at the mix position than on the ground in the house.

"Engineers who've mixed on the new Martin Audio system have had very positive reactions about its fidelity, firepower, control and even coverage. I had one engineer

dim the nearfields, turn to me and say it was one of the most pleasurable mixing experiences he's ever had! Jose and the Frost team did an awesome job especially with all the challenges and were fantastic to work with – the results speak for themselves."

Jose adds, "Jay came to us with all these great ideas. I think we were very thorough in adapting them to a working design, and making sure we could achieve the ultimate goal of building a consistent system throughout the venue, eliminating any bad seats in the house. With Martin Audio's sonic excellence on our side, it was translated into a system that is truly remarkable, and an absolute upgrade that is already raising attention in the NYC music scene. It was a joy to work closely with Jay and the rest of the LPR team on this one."

Justin Kantor, co-founder, director of operations and classical music director of (Le) Poisson Rouge also weighs in: "You don't need audiophile ears to recognize a tremendous improvement with the new system right away."

David Handler, (Le) Poisson Rouge's other co-founder concludes: "As musician-founders we know there is no more important thing to an artist and an audience than the sound of a performance. When I went down to Florida (for Infocomm 2017) to hear the system, I was struck by the warmth and natural breadth of the Martin sound signature. The system we chose gives us the audio versatility to match our eclectic programming, the integration we were looking for, and of course a sonic result that we feel is second to none in our space."



North Carolina Museum of Art Amphitheater Opts for Martin Audio



Raleigh, NC—Nestled in the North Carolina Museum of Art's campus park surrounded by gardens, meadows, woodlands and sculpture, the Joseph M. Bryan Jr. Theater is known for its summer concert series featuring a variety of musical ensembles and singer-songwriters such as Rhiannon Giddens, Sheryl Crow, Tegan and Sara and others.

The NCMA's amphitheater has used various PA systems over the years but has now chosen Martin Audio MLA Compact deployed by RMB Audio. Asked to describe the current system, RMB's Tobias Cannady says: "We'd originally used speakers stacked but then negotiated for the ability to fly MLA Compact for an improvement in quality.

"The setup includes eight flown MLA Compact cabinets per side with four Martin Audio DSX subs ground-stacked on each side of the stage and CDD-LIVE 15's for side fills and delays.

"There's been a significant improvement in several areas with the new system," Tobias explains. "Even though the stage is lower than most of the seating, the MLA Compact system is able to throw much further with a more cohesive sound quality while cleaning up the area in front of the stage which can sound muddy.

"Overall, visiting engineers and artists have been very impressed with MLA Compact. At the end of the night,

“AT THE END OF THE NIGHT, EVERYONE IS VERY HAPPY WITH THE COVERAGE, CONTROL AND AUDIO QUALITY WE CAN PROVIDE FOR THEM.

everyone is very happy with the coverage, control and audio quality we can provide for them.”

RMB owner/founder Cooper Cannady adds, "We'd been aspiring to fly a system at the site for years, an idea which was not well received initially because the theater is a North Carolina government facility with its own rules.

"Finally, our discussions led to a structural engineer coming in and approving load points and we were able to move ahead with flying a system. In this case, it was the MLA Compact that was also a really good match for Martin Audio's CDD-LIVE 15's that we deploy as outfills and delays.

"So, we put it up last year for a number of shows and the system won the approval as the only one they wanted to use, which was a major achievement for us. And we were also using MLA Mini as an outfill instead of their outfill system for a number of months, so everything changed to Martin Audio MLA technology in 2017, a win-win for the museum, amphitheater and us."

De Oosterpoort Upgrades to New Generation MLA Compact



De Oosterpoort Concert Hall

Martin Audio has extended its long relationship with De Oosterpoort concert hall in the northern Dutch university city of Groningen, by upgrading the W8LC compact line array, that had served it so well for 14 years, with a new MLA Compact.

The installation was again carried out by Ampco Flashlight Sales (AFS), and the man responsible for commissioning the earlier Martin Audio compact line array, Oosterpoort Technical Manager, Pieter Stove, was again responsible for the upgrade.

Known for its vibrant cultural and musical nightlife, Groningen is also the city where one of the largest European music festivals is held every year, called Eurosonic Noorderslag. During this festival the venue hosts up to 3,500 visitors of which 1,850 are packed into the large room.

And it was with this event in mind that Pieter Stove decided it was time for the old PA system to be retired and replaced.

The hall itself is supremely versatile. Built in the 1970's as an amphitheatre, the acoustics of de Oosterpoort's main theatre were designed very much with natural classical orchestras in mind. Due to its clever adjustable panels it not only serves as a classical venue, home to resident orchestra Noord Nederlands Orkest (NNO), but is well known for rock and pop. It also hosts pure theatre and a number of conferences.

“ WE CAN SAY WE HAVE NEVER HEARD A BETTER SOUND IN THIS VENUE, WE WERE COMPLETELY BLOWN AWAY!”

With modern day requirements in mind a more adaptable system was required. Thus the tech team set up a programme of extensive evaluation, setting stringent specifications, before issuing an EU tender. Martin Audio specialist, Simon Honywill assisted with the MLA site demo at AFS's request.

Choosing a high performing system was one thing, but Stove recognised the benefits of cutting-edge control technology - and the advanced coverage control of MLA became the deal clincher, since a single system could be tuned and tailored to any possible event or configuration (rather than requiring separate physical add-ons). It would also radically cut down turn-around times. 'It was not hard to convince Oosterpoort that this should be the system of choice,' stated Ampco Flashlight specialist Ramon van der Zalm.

Pieter Stove takes up the story. 'It was a tight schedule - we did not have any time in between shows to do a proper set up, so we had to do a temporary install in the first instance and a permanent fix later on. MLA Compact proved to be a system with a fast setup, easy and flexible to use. We can



say we have never heard a better sound in this venue, we were completely blown away!’

De Oosterpoort’s new PA design comprises 18 MLA Compact cabinets in a L/R hang (nine each side), eight DSX subs (three per side, with two for auxiliary use), eight MLA Mini on the subs for infill/outfill (four per side) and four DD6 front of stage for the frontfill - all controlled by a pair of dedicated Martin Audio Merlin processors.

Multiple presets have been stored in the system, which

was set up by a top technical team. This consisted of the highly experienced Mark Edwards, as Martin Audio tech support, local specialist Taco Amsing, Gert Jan Gomez, Dutch MLA specialist, and Ampco Flashlight network guru Ramon van der Zalm.

Having long equipped both its theatres with the brand, including the manufacturer’s classic LE floor monitors, De Oosterpoort’s relationship with Martin Audio equipment shows no signs of diminishing.



Brixton Jamm Sees UK's First MLA Compact Install



Martin Audio is pleased to report the first UK installation of its MLA Compact Multicellular Loudspeaker Array - as part of a £350k refurbishment of popular Brixton live music /party venue, Brixton Jamm.

Supplied and fitted by Martin Audio dealer, Old Barn Audio, the Kent based specialists have complemented this potent concert system in the upgraded back room with a similarly high SPL DJ and playback system in the adjacent bar, using Martin Audio’s new CDD Coaxial Differential Dispersion technology.

Ian Gough, who co-owns the venue with Jonathan Allen, says the whole turn-around, giving the Brixton Jamm an expanded 650 capacity, took place inside three weeks.

‘The idea was to reorganise how we present ourselves. We were aware of the presence of MLA at high profile events like Glastonbury and British Summertime in Hyde Park, and realised that it was appearing increasingly on riders. By offering MLA it would put the venue on the small band circuit with promoters and agents.’

The owners reviewed other premium brands but have backed Martin Audio frequently over the 17 years they

have owned the venue - first with a W8C / WSX system before more recently adding a pair of Martin Audio XD15’s from Old Barn Audio.

‘It was because of our success in selling Martin Audio in the past that we were given the nod,’ says OBA director, Phil Clark. ‘We loaned them one of our demo MLA Compact systems for evaluation, and they loved it as did the artists coming through.’

The system he and partner Neil Kavanagh designed is based around a conventional stage proscenium system, three MLA Compact elements a side, with a pair of arrayed Martin Audio CSX218 direct radiating subs under the stage apron.

On stage musicians have the option of four classic Martin Audio low profile wedge monitors and an LE1500, while a Martin Audio S18 is used for drum fills. And when the stage reverts to club mode, the XD15 cabinets are pressed into service for DJ monitoring purposes, frequently supplemented by the S18.

In view of the low ceiling, OBA designed bespoke flying frames so that the array could be trimmed as high as

possible, and then used Martin Audio's proprietary Display software and VU-NET to tune the system. 'Display plots the room and predicts the splay angles and this is then transferred to VU-NET for control,' Clark explains. OBA analysed and time aligned the room using Smaart software to further ensure optimisation.

In the main bar room, dominated by an imposing brick style frontage, they have distributed six CDD12 (1x12') full-range speakers and two single 18' WS18X floor-mounted subs, on which are pole-mounted two XD12, facing back to the DJ console for monitoring purposes.

Signal processing remains in the Martin Audio domain since presets are stored in an Engineer 818 (8-in/8-out) DSP for both daytime BGM (accessed via a wall panel at the bar) and the main DJ. Live music can be routed from the main room if necessary where again the presets have been tuned in Engineer and locked out.

Speaking of MLA Compact, the venue's technical manager and sound engineer, Stuart Crossland, confirmed, 'We've received great feedback. The system is very responsive, providing really even coverage, and there are added

features that conventional line arrays do not have. It is nice to have a system no-one else has, plus it's a touring system so bands were happy to use it.'

Situated on the main Brixton Road the history of Brixton Jamm has seen the building take many forms. Once a travellers' inn in the 18th century, it was known as Ye Old White Horse from the 19th century until owners Ian Gough and Jonathan Allen purchased it, turning it into a multi-purpose music venue. It has been designed in 'shabby chic' style by interior specialists Halo.

Aside from investing it with superior audio they have created an outside terrace to give it a visual relationship with the enlarged back bar, which in turn now includes a backstage Green Room and dressing rooms.

Concluded Phil Clark: 'MLA Compact was the obvious choice for them; it's cutting edge, rider friendly and reasonably priced - and the system will seriously enhance the venue's reputation. It is a privilege to have carried out the first MLA Compact installation in the UK and to have done so in such a prestigious venue with so much history.'



Scala Invests in New Martin Audio MLA Compact



Historic landmark building (and former picture house), The Scala at Kings Cross originally opened its doors just after the end of World War 1. More recently, in its current guise as an eclectic live music and dance/club venue, it has played host to many top bands since the venue reopened in 1999, including Tiesto, Bastille, Ed Sheeran, Nine Inch Nails, Kaiser Chiefs, Foo Fighters, Rihanna, Rita Ora, Lana Del Rey, The Killers and Stereophonics.

In order to keep up with the demanding technical requirements of artistes of this calibre, the Scala recently upgraded its house PA system to a Martin Audio MLA Compact, with the new system designed and installed by Capital Sound (for whom both The Killers and Stereophonics are long-term touring accounts).

With as many as 800 people packing the place for live stage events (rising to 1145 capacity for club nights), audiences too are now treated to pristine digital audio from the new mixer-loudspeaker combination.

Explaining the background to the sale, Capital Sound's Operations & Development Director, Paul Timmins stated that when his company became aware that the Scala were starting to upgrade, having taken possession of a new digital console, they approached the venue's Technical Manager, David Preston and he in turn introduced them to Scala owner, Ryan Bissett and Operations Director, Lee Hazell.

'We recognised that this is a difficult venue, with a big reflective glass wall at the back, and we felt that MLA Compact would offer the ideal solution,' he said. 'The sale was concluded over a course of meetings.'

Capital Sound Head of Development, Robin Conway, who had been responsible for much of the system design and sound predictions, said that with a new console putting out crystal clear sound, the venue had deserved a groundbreaking PA to match. 'MLA is set with a flat frequency response to deliver clean and identical sound everywhere in the venue - and this will enable it to overcome some of the inherent difficulties it faces. At the same time, the fact that it is now state of the art will make it more attractive to engineers coming in.' And the rider-friendly install will also obviate the need for production crews to lug equipment upstairs in difficult load-in circumstances.

Both Capital and Martin Audio were equally aware that such an installation will open up greater possibilities to the corporate sector, including record companies for artist showcases, while both parties will recognise the prestige in having a flagship site for the award-winning MLA platform.

The installation itself comprises six MLA Compact elements per side and three stacked DSX subwoofers on either side of the stage. In addition, they have provided two of Martin Audio's Coaxial Differential Dispersion CDD-LIVE12 - one for centre fill and one for balcony fill - all operating under Vu-Net system control.

“ MLA HAS BEEN INCREASINGLY EVIDENT IN ALL THE BIG, HIGH PROFILE FESTIVALS CAPITAL HAS SUPPORTED.

Explaining the rationale, Conway said, 'MLA Compact is a 100° box so there is already plenty of horizontal coverage. It made sense to fill any holes [in the coverage pattern] with a separate CDD-LIVE rather than using MLA for balcony coverage.'

At the same time Capital have upgraded the stage sound which features eight of Martin Audio's brand new LE200 (1 x 15') floor monitors that deliver coverage from 100° directly over the monitor, narrowing to 60° further back. This maintains the sound level and balance independent of distance from the monitor and produces a consistent near-rectangular coverage plane at head-height. These are driven by Martin Audio MA5.2K amplifiers with processing via a pair of Martin Audio DX2 to enable eight bi-amp mixes. In addition a pair of WS18X subs are used for drum fill and are driven by a Martin Audio MA9.6K DSP amplifier.

Capital has provided a new cabling infrastructure and the installation has been carried out in such a way that it is semi permanent, and can be used as a training facility. It has been supplied on a long-term rental basis.

Due to the venue's heavy programme, the fast-track installation was carried out over a carefully-selected two-



day period, and was supported by Martin Audio's Product Support Engineers, Nigel Meddemmen and Simon Purse, while house engineer David Preston has subsequently joined Capital's Development Team.

Summing up the value of this installation to all parties, Paul Timmins said, 'MLA has been increasingly evident in all the big, high profile festivals Capital has supported, particularly in London. We therefore felt it was time one of the major London venues had its own MLA system, which will also provide access to take potential customers along, and allow them to hear a system before they use it.'



Martin Audio Equips Two Tokyo Venues with One System



Space Odd, Tokyo

Two new live venues were recently opened in Tokyo - at Sarugakuchō, Shibuya. One is the live venue, Space Odd, while the other is the nightclub, Sankeys TYO, which takes its name from the original venue in Manchester UK, which later set up in Ibiza. The unusual feature is that both Space Odd and Sankeys TYO are located at the same place and are equipped with a cutting edge Martin Audio loudspeaker system.

Naoki Shimizu, CEO of Creativeman Productions Co. Ltd. Takes up the story. A well-known organizer of Japanese music festivals such as Summer Sonic, he had heard about the impending closure of the previous nightclub and decided to develop a permanent location for his company to showcase live entertainment for the first time.

He approached MSI Japan to supply the sound system and Takashi 'Kon' Imaoka from Martin Audio distributor Audio Brains was placed in charge of the project. Shimizu made two stipulations: that the sound should be mainly for live performance, but could also provide an immersive nightclub sound. Kon and his team proposed several different brands, in different configurations, from which Martin Audio was selected.

The main speaker system comprises three MLA Compact

and MLX subwoofers, on the special wheel-board frame for each side of the stage, and XD15 and WS218X for rear left and right. Stage side fills consists of XD15 and WS18X, along with ten LE1200 floor monitors, giving Martin Audio complete control of the signal chain (including amplification).

The second important factor was that the venue had to be switchable between live bands and nightclub use. Physically, the main speaker and rear speakers set on the wheel-board frame, could be selected, and the casters moved accordingly. And from a technical perspective, MLA Compact can be quickly optimized between the two different preset profiles via Martin Audio's proprietary VU-NET software. They also established synchronicity between the sound and visual / lighting effects.

Naoki said how delighted he was with the result. 'I'm be thrilled with this place,' he said. 'This is not Shibuya, Daikanyama or Ebisu (each a place name in Tokyo) but simply 'THE Place'. Previously, it was a popular nightclub, and before that it was a flower market. I totally love this place including its history, also.' He said that with a reputation to preserve as professional event organisers, Creativeman would accept no compromise - and that this was truly innovative.

Martin Audio Covers All Bets at The River City Casino



Steely Dan

St. Louis, MO—TSI Global chose a Martin Audio MLA Compact for the ballroom performance space at the River City Casino Event Center because their client needed a multifaceted sound system to handle touring bands, Mixed Martial Arts bouts and a variety of other live events.

As Paul Murdick, General Manager TSI Global Companies LLC, explains: ‘The original project for us was Phase II for the Casino which was to build a Hotel and Event Center. We were chosen as design bid contractor for the Casino portion and everything went so well, we ended up doing the AV for the Event Center with a focus on the ballroom performance space.

‘The Event Center is also a bi-divisible conference space in addition to being a ballroom, so there is AV for that in terms of a control system with distributed audio. The client decided to go with Crestron control and portable video for the divisible spaces and conference rooms, and a large LED wall for the stage.

‘The MLA Compact system was chosen over all other contenders as the performance audio system because of its ability to quickly reconfigure coverage for different events via Display software and to create areas of hard avoid in what is a challenging space acoustically.

“OUR CLIENT IS VERY PLEASED WITH THE AUDIO QUALITY, COVERAGE AND CONTROL AND ... THAT THE MLA SYSTEM WOULD EASILY BE APPROVED ON ANY RIDER COMING THROUGH THE VENUE.

‘The ballroom is basically a square box,’ Paul continues. ‘And they needed to control the pattern with hard avoid on the back walls to eliminate reflections that would have caused a major problem with typical arrays.’

In addition to the reflective walls and ceilings, the ballroom’s floor is also combined with portable risers to create 1200-capacity stadium style seating areas for concerts and a special configuration for MMA events which uses the stage and the area directly in front of the stage for VIP seating. ‘These different configurations allowed the unique coverage abilities of MLA’s cellular technology to be the perfect fit for the room,’ Paul adds.

The performance system consists of five MLA Compact enclosures flown on both sides of the stage with four DSX subwoofers under the stage. Two flown Martin Audio DD12’s are used for outfill with four AQ28 dual 8’ speakers provide lip fill. Five LE1200RS and five LE1200LS monitor wedges, right and left respectively, are used for the stage.



'We also installed six Martin Audio DD12's in the Casino's Grand Promenade and two in the outdoor entranceway because the client wanted high quality audio for special events and people walking into the building.'

According to Paul, 'Our client is very pleased with the audio quality, coverage and control and the fact that the MLA system would easily be approved on any rider coming through the venue.'

The DD12's were recommended and brought in as a mockup for the side fills in the house MLA Compact array, and they were pleasantly surprised to find the quality matched what was needed.

'During testing, the output of the subs comprised some of the downlight fixtures in the Event Center. The Pinnacle Management team were amazed at the results and decided to keep the DSX Sub audio settings and replace the lights.'

Photo credit: Catina Bryant



Bucharest's Hard Rock Café Upgrades with Martin Audio



Hard Rock Café, Bucharest

When Romanian sound engineer Alex Serb left distribution and integration company, Paradigma Teknik, in order to stand on its own as freelancer, he soon started to provide technical support in live shows for Hard Rock Café Bucharest, one of his most important clients.

He was immediately back in contact with his former colleagues to indicate that the facility needed a new sound system — and Paradigma wasted no time in recommending a Martin Audio W8VDQ and CDD solution. This they adopted purely on trust and the reputation of previous Martin Audio installations undertaken by the distributors.

“They wanted to change the entire sound system with a new modern setup and we provided a solution. We sent a technical proposal, taking into consideration the specification put forward by Alex,” remembers Paradigma General Manager, Laura Angelescu. She added that the bid had been fiercely competitive, with several other front line speaker manufacturers delivering proposals. At the same time they also offered some lighting equipment and a digital mixing console.

The clients were clear in that they wanted two different PA systems controlled by the same application — one for live and one for ambient sound. In some instances they also wanted the live system subs to be redeployed with the ambient system.

The ambient system comprises 23 ultra-compact CDD8 (8” + 1”) Coaxial Differential Dispersion loudspeakers, which are distributed throughout the venue. Each speaker is controlled by a single channel from a combination of four-channel Powersoft amplifiers over Dante.

As for the main live PA system, Paradigma specified eight W8VDQ and four WS218X subwoofers. Four of the W8VDQ are used for the main PA, two are used for side-fill and the final two for Left/Right delays.

The compact Martin Audio W8VDQ combines line array and differential dispersion technologies to provide an advanced solution to the requirement of even coverage over wide angles and throw distances. It does this by employing a hybrid quad 8” LF and MR configuration.

“CDD IS A GREAT SERIES— FABULOUS QUALITY SPEAKERS WITHIN A COMPETITIVE PRICE RANGE. THE COAXIAL DRIVER STRUCTURE IS EXTREMELY WELL SUITED FOR A LARGE RANGE OF APPLICATIONS.”

Paradigma project manager Daniel Albu said that this hybrid solution ticked all the boxes. “There was not enough height for line array speakers, and we agreed that these speakers were the best alternative solution because of the vertical (both near and far) coverage.” In fact the short throw horizontal dispersion is 120°, narrowing to 100° as the throw increases.

Summing up the success of CDD Laura Angelescu was unequivocal. “CDD is a great series— fabulous quality speakers within a competitive price range,” she enthused. “The coaxial driver structure is extremely well suited for a large range of applications.”

Martin Audio and Dr. Martens Come Face To Face in The Boot Room



Dr. Marten's Boot Room, Camden Market

Dr. Marten's Boot Room is the aptly named live venue at the rear of the legendary industrial boot manufacturer's prominent new store in ultra-cool Camden Market.

Promoting a regular programme of gigs since its Easter opening, the DM Boot Room has enabled emerging talent, bands and DJs to perform through a Martin Audio CDD PA, installed by Leicestershire-based NoiseBoys Technologies Ltd.

NoiseBoys director, Phill Beynon, knew that the store's aim was to become a cultural hub, upholding the musical heritage of Camden Town by providing a complete experience. As a freelance engineer, he had been familiar with Martin Audio's high premium technology and was happy to extend the relationship after NoiseBoys was set up nine years ago.

Therefore, when his company was approached by the store's shopfitters, the retail design company Closed Sundays, to equip the 8m x 8m room with a complete staging infrastructure, NoiseBoys had no hesitation in specifying CDD - a solution already proven through the HoW and cruise ship sectors in which they have worked.

The first challenge they faced was that the store was set within The Stables, a 19th-century, Grade-II listed

“ THE SOUND SYSTEM HAS MET AND EXCEEDED OUR EXPECTATIONS AND DELIVERS EXCEPTIONAL QUALITY ACROSS ALL OUR ACTIVITIES.

building at the hub of Camden Market. ‘This meant we had to fly the speakers off ground supported box truss rather than from the ceiling,’ he said. ‘Therefore, aside from CDD's excellent dispersion pattern, weight and size were a further consideration.’

NoiseBoys have flown a pair of the compact CDD10 (10') Coaxial Differential Dispersion speakers on each PA wing along with a CSX112 (single 12in) subwoofer. When the venue is opened out to the overflow area in the main store via the stable door, crowds at the back are serviced by four of the tiny CDD6 (6in) satellite speakers, on a separate control circuit.

The installation needed to be as discreet as possible. ‘As this is a flexible room, used as a shop during the day, it was important that customers could roam freely without the risk of tripping over cable and so on. We wanted the installation to be compact and serve the space well but at the same time respect that proper bands would be coming through with their sound engineers, and so we needed a recognisable brand.’ He knew that CDD10, with its 110°



(max) horizontal, 60° vertical dispersion pattern would tick all the boxes. 'This is exactly why we went for it,' he says.

Phill Beynon added that he had been eager to keep the design concept as 'British' as possible from the get-go - an ideal discussed with Closed Sundays. 'Not only is DM's an iconic British brand, but the Boot Room is actually full of famous 'Doc wearers' band memorabilia. The Clash used to rehearse just over the road,' he noted. 'And so we are delighted to have Martin Audio as part of the set up.'

Said Daniel Freeland, UK marketing manager, Dr. Martens, 'The sound system has met and exceeded our expectations and delivers exceptional quality across all our activities. NoiseBoys were immense partners throughout the spec'ing out of the DM's Boot Room and we now very much see this exciting new store and cultural space becoming a hub for the brand, its fans and Camden. We've already welcomed the likes of Mykki Blanco, Warpaint plus a host of other live acts and DJ's.'



Recommended Products

MLA Systems

MULTI-CELLULAR
LOUDSPEAKER ARRAYS



martin-audio.com/products/series/mla-systems

Wavefront Precision

PASSIVE OPTIMISED
LINE ARRAYS



martin-audio.com/products/series/wavefront-precision

TORUS

CONSTANT CURVATURE
ARRAYS



martin-audio.com/products/series/torus

FlexPoint

PASSIVE POINT SOURCE
LOUDSPEAKERS



martin-audio.com/products/series/flexpoint

CDD

PASSIVE INDOOR
LOUDSPEAKERS & SUBS



martin-audio.com/products/series/cdd

LE Series

COMPACT, TWO-WAY
STAGE MONITORS



martin-audio.com/products/series/le

martin-audio.com/case-studies/live-venue-sound-systems

This is just a small selection from a wealth of examples from around the world that you can find out more about by visiting www.martin-audio.com

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