

CASE STUDIES

Concert and Touring



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.

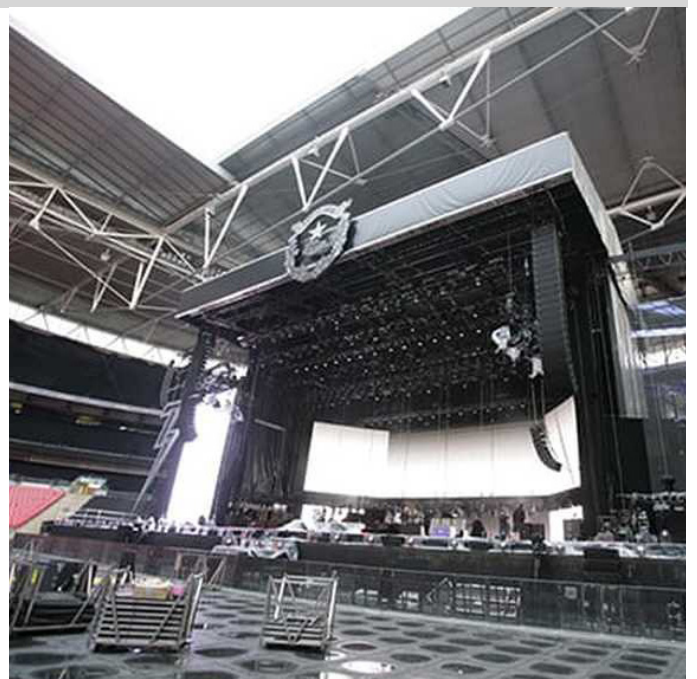
With over fifty years of live sound and installation expertise to our name, Martin Audio offers a wide range of premium professional loudspeakers so customers can be assured of selecting the right system for their chosen application, whether it's a small scale installation or a festival for over 150,000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

Concert and Touring

Martin Audio was founded to manufacture live performance loudspeakers for the supergroups of the '70s, allowing such bands as Pink Floyd, the Who and Supertramp to play to larger audiences and be heard properly for the first time.

Since then, Martin Audio has earned a reputation for supplying superb sound systems across the spectrum of sound reinforcement. Renowned for integrity in design, technical excellence and longevity of its products, Martin Audio offers a comprehensive range of touring speakers suitable for every type of venue and performance, with a focus on full frequency sound, control, coverage and consistency.

With a global network of committed rental partners and a proven track record, means whether it's a one off concert or a world tour the quality, performance and support for the system is assured.



The Killers – World Tours since 2012



Despite his long association with both Capital Sound and Martin Audio PA systems, dating back to The Strokes, it was never a given that Manchester-based sound engineer James Gebhard would automatically select the award-winning MLA loudspeaker array as top of his tour rider for The Killers Battle Born world tour in 2012/2013.

It required unconditional cooperation, commitment and enterprise by Martin Audio's premier touring companies on both sides of the Atlantic - Delicate Productions in California and Capital Sound in London - first to convince him of the merits of the system, and then to provide the resource.

Seeking a flagship system for the tour Gebhard still needed reassurance about the merits of Martin Audio's groundbreaking technology when Delicate took the unusual step of flying him out to LA - believing that once he had heard it (and tried it for himself), any alternatives would be rendered obsolete.

"Delicate flew me out for some hands-on experience and fired up a seven box hang with 12 subs in their back yard. I did the virtual soundcheck, revised my show file and couldn't believe how clear and precise it sounded. With MLA you could hear every nuance. From that point it was hands down a winner for me."

Delicate actually picked up the tour from Capital Sound in the UK, although somewhat anachronistically, it was only after the sound engineer had experienced his Californian epiphany that Cap readily agreed to invest in the system.

James Gebhard: "I wanted the best provider of that system and having been with Cap since 2001 they immediately made the decision to buy MLA. For a service provider to say "if that's what you want", knowing that it would require a huge financial commitment, was just amazing. It speaks volumes about the relationship we have."

The result was identical MLA systems waiting on both sides of the Atlantic, assuring a seamless transition in terms of coverage, audio quality and impact.

The sound engineer recalled the first time he actually took charge of the system. "It was in the two-week production rehearsal with the Killers in Las Vegas - and it sounded fantastic. Even the management commented because they were interested in the sound. I have been with them for nine years but if I make a suggestion they want the full justification as to why I have changed, and what advantages it would bring. During rehearsals they said the band had never sounded so good and production manager Michael Oberg was delighted with the decision to go forward with this system."



“ THE SOUND IS REALLY THUMPING; I THINK EVERYONE IN THE BAND IS SUPER HAPPY - WHEN THEY COME OUT FRONT AND LISTEN THEY’RE PLEASED.”

Asked about the benefits of MLA, James immediately replied, “Walk the room and everywhere you go it sounds exactly the same. There are none of the phasing issues typically associated with a conventional line array. It’s an audio guy’s dream. You don’t have to start making compromises or second-guessing yourself, searching for holes in the coverage between PA points or the back and front of the room. You can’t believe it actually does what it says it does. As for what you can do with the digital steering, by applying Hard Avoid™ settings to roofs, balconies and stage for instance, it’s phenomenal.”

Moving on five years and The Killers have continued to use MLA for their Wonderful, Wonderful tour in 2017/18.

Mixing at FOH this time was Kenny Kaiser, who was entirely familiar with MLA having worked at Delicate and been system tech for the Battle Born tour.

“I first experienced MLA when I was tech’ing for Selena Gomez, her first tour of the States. We had MLA out and I really loved it. I was system tech on the Battle Born tour and then toured with a bunch of other people and the system’s been awesome.”

For the European leg of the tour which culminated in two spectacular nights at London’s O2 Arena, Capital Sound were also once again involved and alongside Kenny was the experienced system tech Toby Donovan, arguably one of the most experienced MLA system techs in the world.

Promoting their fifth studio album Wonderful Wonderful, the band were playing through a familiar Martin Audio set-up comprising main hangs of 17 x MLA elements plus 2 x

MLD Downfills per side, with side hangs consisting of 12 x MLA plus 1 x MLD Downfill per side. Also deployed were secondary side hangs of 10 x MLA Compact enclosures on each flank. This was to ensure that while the main side hangs provided coverage up to around 8ft-12ft upstage of the downstage edge, the secondary hangs would infill the complete side stage seats with deluxe audio coverage.

As for the low frequencies, five MLX subwoofers were flown on each side at a 45° angle between the main and side hangs, while a further 21 x MLX were set across the front, in spaced 7 x 3 array ground stacks, with the bottom enclosure reversed. Flying the subs at 45° ensured good low-end reinforcement round the sides and enabled Toby Donovan to keep the electronic dispersion of the sub array on the ground fairly narrow and the delay time short, thereby keeping the sound punchy.

To complete the coverage, six of Capital Sound’s favoured Martin Audio DD12”s were used as front fills.

On this tour, says Kenny, “my main focus is clarity - and I mix tonality second. When we’ve had some challenges like at Glasgow Hydro or at Brixton academy, using “Hard avoid” [in DISPLAY software] just cleaned everything up.”

Kenny Kaiser also instantly noticed the coverage power of the system. “This box really throws - it’s insane. You can do any arena, you just put the system up and go.

“I’ve been sitting at like 108dB - I had a peak at 112dB last night [at O2 Arena] so there’s tons of power in this thing and I’m barely tickling the green meters.



“Over in Dublin the producer of the actual album [Jackknife Lee] came out and said it was one of the better shows he heard in there; he actually walked the room and it was great coverage everywhere.”

Finally, Kenny was full of praise for the Capital Sound team. “They’ve been absolutely awesome, the crew has been fantastic, super professional but at the same time everyone gets to share a joke.”

There was a reciprocal praise from his “wingman” Toby Donovan, another Killers stalwart. “I just love working on the Killers tour, I’ve done it for quite a few years now in various positions like the audio crew chief, front of house tech at festivals, and as a systems engineer as I am now,” said Donovan. “Kenny is just a great front of house engineer, his mix has such impact so it’s like a real pleasure to work with him because the results I think are really superb.”

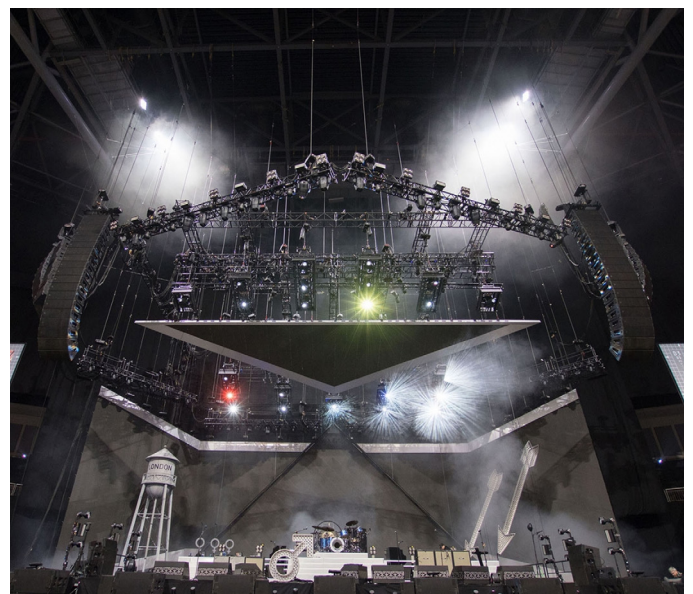
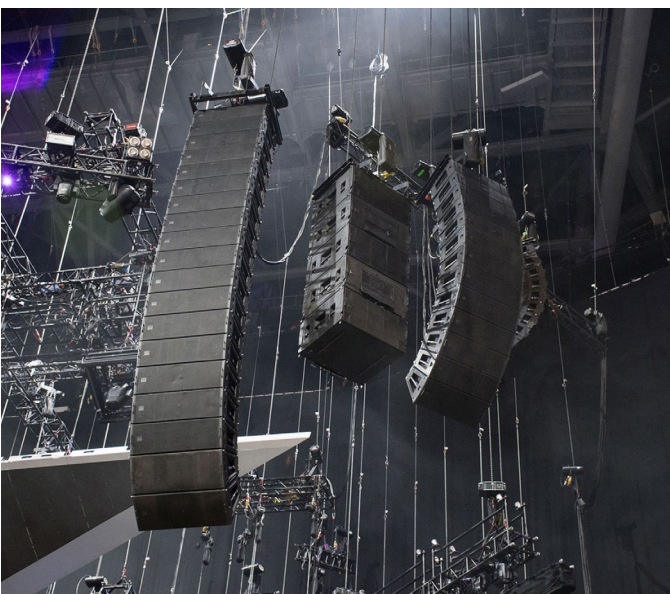
He says that all he is striving for is consistency. “Kenny’s mix is rock-solid, so we just want that to translate into every venue and sound as similar as possible in every seat,

which is challenging; but now we’ve got a PA system that helps us achieve that.”

He attributes this to the fact that Martin Audio are frequently improving the optimisation software. . “We’re using the latest version of the DISPLAY software to generate the presets which somewhat dictates the coverage the PA achieves through the venue - as well as other factors like SPL profile or if you want to achieve any particular avoidance areas of balcony front, or make the stage a bit quieter. We’re just allocating most of the DSP in order to achieve a decent smooth SPL profile through the venue.”

Although both he and Kenny Kaiser have got independent wireless analysers running SMAART, MLA is now such a known quantity that it obviates the need to check the response at every possible point of the venue. “I just know that the performance that is shown in the prediction software really translates well into the real world,” says the system tech.

And the final word from Kenny Kaiser: “The sound is really thumping; I think everyone in the band is super happy - when they come out front and listen they’re pleased.”



Twenty Years with the Stereophonics



Stereophonics

As noted Martin Connolly, Senior Project Manager at audio supplier Capital Sound, the Martin Audio connection with Stereophonics goes back a long way: “We first worked with Stereophonics in 1998 when we supplied the sound for their show at Cardiff Castle - it was a Martin Audio system, as it is to this day.” In the 2 decades since then, the band’s relationship with Capital Sound has remained strong. “Over the years it’s been fantastic; they know what they want and hopefully our 20-year history proves we have supplied exactly that.”

Capital’s MLA Tech on the most recent UK tour, Toby Donovan, added, “When it comes to Martin Audio’s MLA, the Stereophonics have toured this PA since it came out and Dave Roden [FOH engineer] has been very loyal to the brand.”

For this tour there was a greater focus on both the band’s performance and the connection to the audience. One of the implications of this was decision of a second acoustic stage, accessed via a long thrust from the main performance area, and as result it provided a conundrum for the band’s long time technical crew, FOH engineer Dave Roden, and rental/production company, Capital Sound Hire.

“ OVER THE YEARS IT’S BEEN FANTASTIC; THEY KNOW WHAT THEY WANT. WHEN IT COMES TO MARTIN AUDIO’S MLA, THE STEREOPHONICS HAVE TOURED THIS PA SINCE IT CAME OUT.

With lead singer/guitarist Kelly Jones—exclusively on in-ears for the first time—preferring to be as far away from the sub energy as possible, Capital Project Manager Robin Conway set about reworking the traditional broadside cardioid array of Martin Audio MLX subwoofers into something that accommodated these new parameters. The solution was a central dual cluster in a cardioid design.

“Dave [Roden] is used to us producing even coverage with Martin Audio systems, but I knew that if we went for conventional left and right stacks we ran the risk of lobing. So with a combination of modelling and experimentation I came up with a solution that would avoid any compromise.”

Conway’s response was two hangs of six MLX in a cardioid pattern either side of the centre line, flown at a 30° angle pointing outwards; that ensured cancellation of the low



frequencies from the centre of the stage and at the same time also ensured the loudest point for low end wasn't on the thrust (as would have been the case with a L/R configuration). "We tried this at production rehearsal and the coverage was even, with no hot-spotting down the middle. The two MLX hangs functioned, in effect, as a single source."

According to Capital account manager Martin Connolly, this configuration was adopted universally. "We just had three MLX on the ground, left and right with no additional enclosures in the pit in view of the thrust. Had we done so it would have moved the band further back from the audience and impacted on the number of seats sold."

The general touring rig comprised 13 x MLA elements per side and an MLD Downfill, with hangs of 12 MLA Compact on each flank for sidefills.

At the largest venue, Manchester Arena, the main hangs were increased to 15 MLA per side and an MLD, and the side hangs to 16 x MLA Compact. Lip fills comprised six W8LM Mini Line Array.

Noted Donovan, "The system is performing very reliably and we achieved nice and even coverage with plenty of headroom. The onboard processing makes us able to have a nice quiet stage, which is a particular requirement for this artist."

The MLA solution also met the approval of the band, production manager Dave Nelson and the FOH sound team. Said Dave Roden, "As always it was a pleasure working with Capital Sound and thanks to Martin Audio for their current speaker system. It's been a great journey over the last 20 years—from F2 through to MLA—and things have certainly improved in many areas, including low-end uniformity."



Gabisom Supports Aerosmith in Brazil With Martin Audio



Aerosmith

Aerosmith recently completed several dates of their Rock 'n' Roll Rumble Tour in Brazil with a Martin Audio MLA system provided by Gabisom Audio Equipment of Sao Paulo.

The two shows included the Estádio Beira-Rio, a large football stadium beside the Gualba River in Porto Alegre with a capacity of over 50,000, as well as the Classic Hall in Olinda Recife, Brazil.

For the stadium show, the Gabisom crew set up 13 MLA cabinets and one MLD per side for the Main PA along with 11 MLA plus one MLD per side for the outfills and 12 MLX subs a side ground-stacked in front of the stage.

The setup for the Classic Hall indoor theater venue included 13 MLA and one MLD a side with 6 MLX subs a side. DiGiCo SD7 consoles were used for FOH and Monitors at both shows, along with Lake LM44 processing.

Gabisom crew for the shows was comprised of System Engineer Eder Moura along with System Techs Rubens

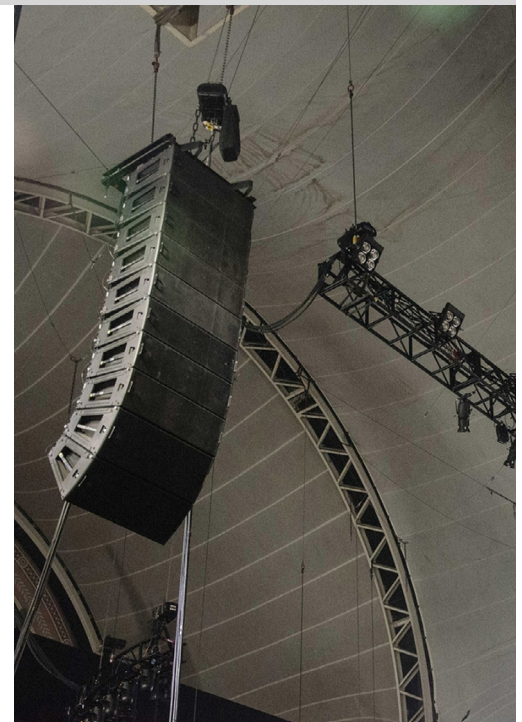
“ MLA WAS SPECIFIED BECAUSE OF ITS INCREDIBLE AUDIO QUALITY AND SMOOTH, EVEN COVERAGE.

Rocha Da Silva, Paulo Roberto Chicone, Joao Paulo Araripe, Gelson Pedroso and Diego Barbosa.

Asked why Gabisom used Martin Audio MLA for the Aerosmith shows, Eder said, 'MLA was specified because of its incredible audio quality and smooth, even coverage that's consistent for every seat in the house, no matter what type of room.

'That plus MLA is super easy to rig in and out and has amazing control via the VU-NET network and Display 2.2 software that really cuts down on setup time and keeps the sound where we want it. I wish we could use MLA for every show.'

Martin Audio MLA Wins The War on Drugs



The unique multi-cellular controllability of Martin Audio's award-winning MLA was put to the test recently at the notoriously difficult Alexandra Palace, when The War on Drugs played to a 10,000 sell-out crowd.

The American indie six piece rock band, fronted by Adam Granduciel, were promoting their fourth album *A Deeper Understanding* - and fortunately their FOH engineer Bob Strakele had prior experience, not only of the venue but also of MLA.

'I have mixed at Ally Pally before,' he confirmed. 'So when I heard that we would be doing a show there, I immediately asked our production manager [David Scheid] to get in touch with Capital Sound about getting an MLA system.'

Capital's Operations & Development Director, Paul Timmins takes up the story. 'We have worked with Bob on a number of shows over the past ten years, including Billy Talent, Erasure and James. So he contacted me and said he wanted us to do the PA for a band he'd not worked with before, primarily because of the Ally Pally show; then he looped me in with the production manager. What started off as being just Ally Pally then turned into two additional shows at Manchester Apollo as part of a European tour.'

Strakele was convinced MLA would be the right tool to tame the heavily glazed venue notorious for its reverberation. 'Having toured with the system before, I knew that we would be able to keep any unwanted energy from bouncing around in the roof,' he said. 'The drapes installed certainly helped to an extent, but I feel like the 'hard avoid' setting in the roof was what kept the room under control.'

The sound engineer was referring to the unique 'hard avoid' function in Martin Audio's dedicated Display 2.3 software which enables designated areas to be 'avoided' and spill to be reduced to a minimum.

According to Paul Timmins, the PA design for the room was self-evident. For the main hangs Capital flew nine MLA and an MLD Downfill enclosure, left and right, and two delay hangs of nine MLA Compact per side. 'These were set just behind the PA to keep the sound as evenly distributed as we could and focus the sound on the floor area,' Timmins explains. 'It worked really well.'

In addition, since there are limited options to where the PA can be flown at this venue, they added two ground stacks of three MLA Compact per side for infill, with a further six Martin Audio DD12 for front fill.

Subwoofers comprised six stacks of three Martin Audio WS218X, with the bottom enclosure in each stack reversed for a cardioid response.

And with Finlay Watt system teching, this gave Bob Strakele all the resource he needed. 'Finlay did a great job with the system,' praised the sound engineer. 'We had great feedback in the press about how controlled the room sounded compared with other shows in the past.'

'Regarding system EQ, the room was tuned flat by Finlay. Once I took over the PA, I added two very subtle filters in the low mids to clear up my vocal sound.'

Summing up MLA, he says, 'What I love about this system is its ability to throw extremely long distances and still remain relatively flat in the frequency spectrum. You don't get that HF roll-off over long distances that most other PA's suffer from. Also, the hard avoid function allows the user to tame reflections against hard surfaces, and control strict dB limitations at venue perimeters.'

In addition to Finlay Watt, Capital techs also included Bheki Phakathi and Sam Richards, while Martin Audio's Product Support Engineer, Nigel Meddemmen provided additional technical back-up.

MLA Compact Captures Every Breath of Imelda's Incredible Voice



Imelda May's latest album *Life Love Flesh Blood* has seen a marked change of direction, with the Irish singer replacing her earlier rockabilly romps with a more country/soul ballad approach.

She also has a new FOH sound team, with Nick Ingram following a line of experienced sound engineers that have included Trevor Gilligan and Gerry Wilkes - both of whom have used Capital Sound as their equipment vendor.

With a classical musician's background, Ingram was the perfect choice to reinforce sound in the series of concert hall and theatre venues around which the tour is based; and he is delighted he took up the recommendation from Capital's Paul Timmins to use the Martin Audio MLA Compact PA to support one of their long term accounts.

Although this was the first time Nick had taken the system out following three days' production rehearsals at Music Bank, the FOH man is no stranger to the platform, having previously mixed his other charge, Jake Bugg through the system. 'I experienced MLA at Hyde Park [British Summer Time] and the sound was unbelievable,' he reports. 'After all the historic problems with noise restrictions on the site, Hyde Park is now somewhere you look forward to rather than with dread. I also mixed Jake on the John Peel Stage at Glastonbury with the MLA Compact - I thought there was never going to be enough PA [to carry] but once again it was fantastic.'

Thanks to an instinctive compatibility with Imelda May, Nick - who has unwittingly found himself specializing in acoustic singer-songwriters - has coaxed a new subtlety and versatility out of MLA with a classical musician's

sensitivity. He has succeeded in matching concert hall acoustics and natural reverberation to the full range timbre of the artiste. 'These are all seated shows, and although the rooms hold around 2,000 people, in terms of a space to fill they are large so you need a box that will throw - and MLA Compact certainly does that so well.

'At G-Live [Guildford], for instance, I was mixing on the balcony near the back and the drop-off was almost non-existent. But more significantly it's the frequency response of MLA which remains identical.'

He believes sound engineers are spoilt nowadays with the new generation of line arrays. 'And for all the PA's I have used what I love about MLA is that musically it delivers the same expectation but with a warmth and natural transparent sound, and not too much bite.

'Working in concert halls with an acoustic artist the stage sound can be maybe 30% to 40% of my mix so it blends naturally with the room, and with a seated performance it is also vital to walk the floor to check for consistency at the seats. Just as when I attend a classical concert I want to hear the tiniest tap of a triangle, so I want to hear every breath [of Imelda's delivery] and her audiences expect to hear every word.'

“ THIS IS A DIFFERENT TYPE OF MUSIC SOURCE FOR MLA, THE CLARITY OF THE SOUND IS FANTASTIC. ”

The sound reinforcement inventory that ensures this happens is based around 24 MLA Compact enclosures, 12 elements hung on each side of the stage. Handling the low frequencies are eight WS218X subs. The increasingly indispensable Martin Audio DD6's have been deployed as lip fills and some XD12's, sat wide, perform both outfill and infill duties.

Imelda May is presently supported by seven backing musicians - but this will grow for the occasional show, with additional horns and backing vocals. This set-up occupies around 34 inputs on the Midas PRO 2C console.

Paul Timmins is delighted with the rapport immediately established between system tech Dan Draper and Nick Ingram (who are joined by Fran Bemrose on monitors). 'We are pleased to have brought him into the fold and he seems able to second guess what a sound engineer wants.' Nick Ingram agrees. 'Since I'm more of a musician and sound engineer than a technical person, I need someone like Dan who can explain everything to me.'

In terms of tuning and profiling MLA there has been little work required in the dedicated DISPLAY software other than to run the sound open, full range and flat. 'I want the sound to be as natural as possible, and MLA is astonishing.'



Imelda May

He has typically been averaging 94dB(A) at the desk. 'I almost want the acoustic sound to be as if there's no PA on it at all. I don't want it to sound digital.'

Paul Timmins, who has himself been offering production support to tour manager, Brett Spence, adds his confirmation. 'This is a different type of music source for MLA, the clarity of the sound is fantastic and Nick gets a really big sound without making it excessively loud. These shows feel really comfortable.'

Photos copyright Nicky Kelvin



Full MLA for Good Charlotte Tour



“ THE HEADROOM IS ASTONISHING AND BEING ABLE TO ‘HARD AVOID’ PROBLEM SURFACES IS INVALUABLE.”

Good Charlotte

Brixton Academy provides a real triumph for Martin Audio’s premier PA. Stylus Productions recently provided Martin Audio’s premier multi-award winning MLA loudspeaker array as the preferred sound reinforcement for American rock band Good Charlotte on their UK tour.

The service company already owned the control/stage packages for the band and for the PA they turned to Martin Audio partners, RG Jones Sound Engineering and Capital Sound, working closely with Simon Honywill in system development and optimisation. They also supplied infrastructure and production management service for the tour.

MLA rigs went into Glasgow Barrowlands, Southampton Guildhall and Brixton Academy, and the PA appeared in various configurations, and with different optimisations to suit the venue — but included MLA/MLX plus MLA Compact and MLA Minis, with DD12s for fills.

Stylus Productions MD, Sam Thomas, confirmed that the decision to spec MLA was collaborative, but had not been a difficult one to make. “We were already huge fans of the system, having toured extensively with MLA Compact in identical venues, so were itching to see what we could achieve with the larger format boxes,” he said. “Some of these venues pose significant acoustic challenges and MLA is the best solution for controlling vertical dispersion in difficult spaces and preserving clarity.”

And each of those venues had their own idiosyncrasies to contend with. “We have to give much of the credit to System Tech, Simon Honywill, for his outstanding work optimising and propagating the system for these spaces,” praised Thomas. “Brixton was a particular breakthrough,

and many trusted sources commented on the quality of the sound.”

Here they rigged 11 MLA and an MLD Downfill per side, with four MLX per side, in left/right stacks, with four MLA Compact as front fill and various MLA Mini, DD12 and DD6 in support. “Brixton can sound cavernous and unfocused sometimes but this was upfront and powerful. The result was a combination of a great musical performance, the sound mix, the PA system, and Simon’s optimisation. As for the subs, we had way more headroom than required.”

Reflecting on the three main attributes of MLA, Stylus Productions Technical Director, Oliver Weeks, was unequivocal: “power”, “control” and “transparency”. “The headroom is astonishing and being able to ‘hard avoid’ problem surfaces is invaluable. The ability to control room reflections from the box and generate consistent coverage up to a boundary are unique hallmarks of MLA.”

Going forward, he said there were very few scenarios where MLA wouldn’t be considered first option by Stylus Productions. “However for those projects with considerable acoustical or noise boundary concerns, it remains the only choice,” he believes.

The band’s FOH engineer Jim Carmichael, who has worked with Stylus in the past, was in full agreement. “Having used MLA in Brixton Academy before I was keen to try it with a full-on rock show for Good Charlotte — and it certainly didn’t disappoint.

“I don’t usually need raw power but strive for punch and clarity, so the very clean HF of MLA worked really well and everything felt very controlled right down to the very low end,” he concluded.

Paul McCartney's 'Out There' Tour Lands in the Arena di Verona



Paul McCartney

“ THIS RIG IS RIGHT UP THERE WITH THE BEST IN THE WORLD.”

Paul McCartney's 'Out There' tour recently landed in the Arena di Verona, the historic Roman amphitheatre that for thousands of years has provided entertainment spectacles for the people of Verona.

Touring logistics meant that Paul McCartney's regular PA system could not make the Verona date so local supplier Amandla Productions stepped in to provide a Martin Audio MLA system, supported by All Access, the owners of Italy's largest MLA rig.

Paul McCartney's long standing FOH engineer Paul 'Pab' Boothroyd was at the helm for the show, ably assisted by his touring system tech Chris Nicholls. Both were impressed by the systems performance.

'I had heard a lot of good things about the new Martin Audio rig and was happy to use it for this show' stated Boothroyd. 'Everybody was really happy with the show, the coverage was great and the detail and clarity in the system made it an enjoyable show to mix. It's great to see Martin Audio right at the front of new design, the first systems I mixed on were Martin Audio Phillishave rigs and that powerful musical sound got me going in my career.'

All Access system tech Red was able to demonstrate the unique control of the MLA to Chris Nicholls with good effect: 'the way the system was able to cover a steeply

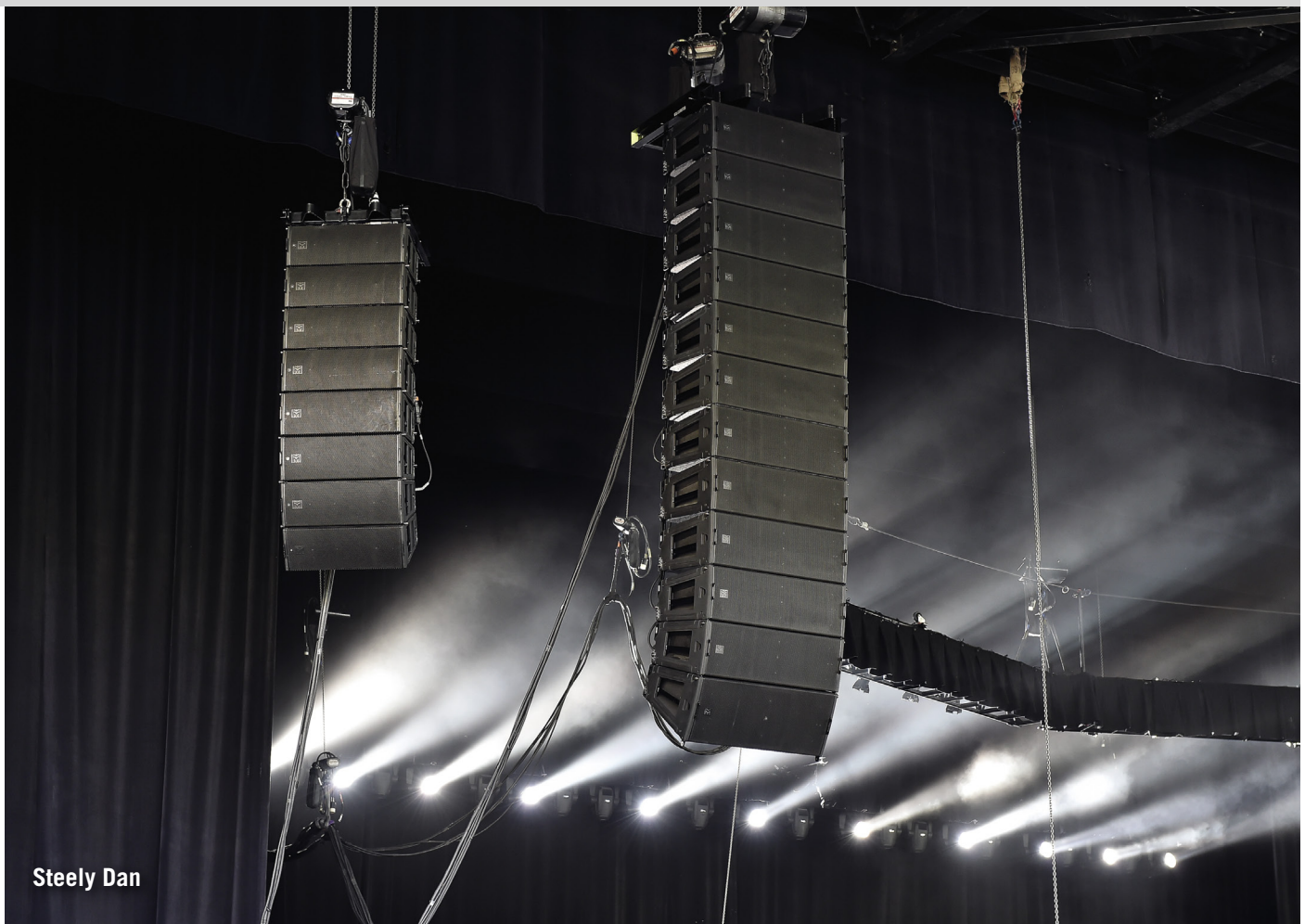
raked venue with relatively few boxes was very impressive, it didn't look as though they had enough curve on the array, and we gave them a really tight weight target to hit so they couldn't add more boxes, yet the flatter array shape was great for the throw required. With a quick adjustment in the software they had the system covering great right up to the back seat without adjusting its angles and that's something I've never heard a system do before.'

The system deployed in Verona included 12 MLA per side for main hangs, 6 MLA per side for out hangs and 2 MLD in the orchestra pit for front fill. The out hangs were particularly challenging as they had to be flown off of the ancient stepped seating within a scaffolding structure. The manageable weight and size of the MLA cabinets made this difficult manoeuvre possible. 'The MLA is less than 88kg' reported Red 'and being based around horn loaded 12's meant we could physically lift the cabinets and fit them in between the steps and the scaffold structure, anything heavier or taller simply would not have been possible in the space available.'

The 'Out There' tour continued on to Vienna before returning for a run of shows in America. 'we're back to our normal touring PA after this show but I'll look forward to mixing on MLA again, this rig is right up there with the best in the world' said Boothroyd at the end of the spectacular 2 ½ hour set that featured a huge range of songs from the McCartney, Wings and Beatles back catalogue.

Images © 2013 MPL Communications Ltd / Photographer: MJ Kim

Steely Dan's Pursuit of Perfection with MLA



In 2015, Rock and Roll Hall of Famers Walter Becker and Donald Fagen took Steely Dan's "Jamalot Ever After" tour across the U.S. and Canada this summer, with OSA International, Inc. providing Martin Audio's Multi-cellular Loudspeaker Array (MLA) sound system.

Steely Dan has a reputation among audiophiles and throughout Pro Audio for their fastidious attention to sound production, so much so that many FOH engineers and system techs use a Steely Dan track to tune a system. When it comes to live sound, their expectations for the PA are no less demanding.

Returning to mix Steely Dan is Mark Dowdle, whose extensive credits include Elton John, Gloria Estefan, Fleetwood Mac, Tina Turner and Jackson Browne, to name just a few. Last year's tour included a stop at Ravinia Festival in Chicago, where Dowdle mixed on two 7-box MLA arrays, the first year of a new OSA installation and the first new PA in a decade at North America's oldest music festival.

Steely Dan's road manager, tour sound icon Robert 'Nitebob' Czaykowski, introduced Walter Becker to MLA at a demonstration at New York's Manhattan Center, where they were able to walk around and hear the evenness of its response and coverage. Steely Dan often plays theaters, where the mix position is usually at the back, beneath a

“DONALD WILL COME OUT AND LISTEN AND FREQUENTLY COMMENTS, ‘IT SOUNDS GREAT,’ WHICH IS PROBABLY THE HIGHEST COMPLIMENT THAT I COULD EVER RECEIVE IN MY CAREER.

balcony. ‘I go out there every day and listen to it; that’s part of my gig,’ Czaykowski said. ‘What really knocks me out about MLA is that you can really control it so it’s not splattering off a back wall or cluttering up in the lower balcony.’

Present also at the NYC demo was Jim Risgin, Vice President for OSA –owners of the largest inventory of MLA in North America. With offices in Chicago, Las Vegas and now also Nashville, OSA have built an impressive reputation and client list providing complete technical services to some of the largest corporate, sporting events and concert tours in the U.S. The NYC demo was followed by extensive research from Mark Dowdle to confirm that the system would deliver the desired performance, and as a result Steely Dan added MLA to their tour.

Across the demanding 56-stop tour, MLA showed its versatility, control and overall sound performance credentials. Dowdle points out that the MLA provides extremely even front-to-back SPL as well as evenness of



an MLA product specialist before leaving to work for OSA as Director of Engineering. The Steely Dan tour travels in two trucks, carrying consoles and backline (including a Steinway grand) in one, and lights and PA in the second. 'We're carrying 26 MLA and 2 MLD down-fills, as well as 18 MLA Compacts, plus 8 MLX subs and 6 W8LMD used as front-fills,' Rowe explains.

The tour played Oklahoma City's Chesapeake Energy Arena and New Orleans' UNO Lakefront Arena using the 14-box MLA main arrays and 9-box MLA Compact side arrays that they carry. 'The LA Forum was the only venue on our 56-show itinerary where we had to add PA,' said Mitchell Keller, Steely Dan's production manager for the fourth year running. 'It's quite impressive that on a two truck tour we can carry enough PA to do arenas.'

The rest of the itinerary ranged from sheds and theaters to casinos. 'The smallest venue was Humphrey's in San Diego, putting in two subwoofers and ground stacking six MLA per side,' Rowe explains. 'We recently did four shows in a row with single point hangs using ten MLA enclosures.'

As well as MLA's flexibility and scalability, Rowe is keen to point out the simplicity of its operation. 'It's like fly by wire; you tell it what you want and the software produces a custom preset for your system and the room,' he said. 'This isn't auto EQ, you still have control over all the decisions that are being made, but the computer is doing the heavy lifting for you.'

So, coming full circle, what did Fagen and Becker make of the sound quality? According to Dowdle, 'Both have come out into the audience on a number of occasions and have always been positive with their feedback and what was going on.'

'More often than not Donald will come out and listen and frequently comments, 'It sounds great,' which is probably the highest compliment that I could ever receive in my career.'

frequency response throughout the listening area. 'The coverage is very smooth, especially its shading,' he said. 'You can walk up on the PA in the front and it sounds just like it does in the back of the room.'

Dowdle also mentions an improvement to the stereo field. 'Everything is more defined, so that automatically translates into the stereo field being more discernable,' he said. 'MLA gives me dynamic range, clarity and definition so that I'm able to position and layer sounds in the stereo field which you can really hear where they all are.' He adds that the MLA's sound is extremely coherent and is very responsive from a mixing standpoint. 'You make a small fader move and it's immediately noticeable.'

Furthermore, Dowdle is surprised by the constant comments from the audience. 'I've been mixing for a long time and usually nobody ever says anything. This particular tour I've had more response from the audience than any tour I've ever done in my entire career, and it's always been very positive and it's always been very poignant. That's in large part because of MLA allowing me to get it exactly how I want everywhere in the room.'

OSA crew chief and MLA system engineer Martyn 'Ferrit' Rowe is well known from his tenure at Martin Audio as



Mixing Manilow Through MLA on Farewell Tour



Sound engineer Ken Newman switches to Martin Audio's premier system. Veteran American sound engineer Ken Newman carried on where he left off in the States when Barry Manilow's One Last Time tour arrived in the UK on its trip around the globe - with Martin Audio's premier MLA providing the arena sound.

Making his MLA debut with Delicate Productions' system on the North American leg, the sound engineer was adamant that he wanted the same production rider in the UK - and his first port of call was Martin Audio rental partner, Capital Sound.

Capital supplied the rig, but unlike the previous dates, the ten UK shows had the advantage of being run digitally. With MLA tech Russ Cunningham and PA/stage tech Nick Cook in support, the main PA comprised 11 x MLA and an MLD Downfill each side, while the sidefill component started with hangs of 12 x MLA Compact per side but increased to 16 for the larger 20,000-capacity O2 Arena in London.

Flown in the rig, between the main and side PA, were three MLX subs - mostly set at 45° to the main rig - while a further 14 W8LM Mini Line Arrays acted as frontfills/outfills with four further MLX on the ground. This was pretty much an identical rig to the system Delicate had put out.

After eulogizing the system performance in the States Ken Newman was equally elated with the slightly supercharged production tools made available to him in the UK, including

an updated DiGiCo console which brought the best out of MLA.

Speaking of his adoption of MLA, he said, 'I didn't hesitate to use a new speaker system, even though it's the end of an era for Barry Manilow. Although Barry did his first 'final tour' in 2004, and subsequently landed in Las Vegas where he stayed until 2011, it sounds like it's for real this time.'

The sound engineer had first been introduced to MLA by colleagues, Mark Frink and Harold Blumberg. 'They had been telling me about this amazing new speaker system for a while,' he said. 'I attended a seminar on Multicellular Loudspeakers at the 2014 AES Convention and pursued the idea of using MLA for Barry Manilow's shows without even hearing the system.'

He heard it for the first time when Delicate was setting up a show at the LA Forum, 'I was able to experience the system using recorded music and it was better than I had expected, in terms of evenness of coverage. It brings every detail of the performance to every seat in the house, without making it uncomfortably loud for anyone.'

Which was crucial, as the importance of everyone in the venue hearing every single syllable that Barry says or sings had been stressed from the get go. 'That being the premise, the MLA system sounded like a must have item!'

Once the North American tour wrapped in Denver, Ken Newman quickly got to work on sourcing the same rider across the Atlantic. 'It was vital that we continued with the exact same setup as it had been very successful, both in terms of what the audience experienced and the fact that Barry had become very comfortable singing through it.'

Whenever he is supporting a tour in the US that goes to the UK, Jason Alt of Delicate Productions turns to Capital Sound. 'It was therefore a huge relief when we learnt that we could use Capital's MLA with the upgraded production,' states Newman.

Barry Manilow himself was equally relieved, as the engineer explained. 'He always trusts my decisions - but when he was told that we might have to go with a different speaker system because of logistical reasons, he made it very clear that he wanted to stay with MLA because he had heard such great comments about how well it covered all the seats in a venue, even those very far from the stage.'

'It was surprising to me that he had heard any comments from audience members and showed he is even more in-tune with his audience than I had previously thought!'

A generic optimization had been evolved with system tech Phil Reynolds on the North American leg - 'settings which worked both for audience coverage, maximum gain before feedback and Barry's comfort level on stage'. With Cap's ace system tech Toby Donovan only available for the first show Russ Cunningham headed over from the States to run the entire tour. 'Russ not only checked with our US MLA tech, Nate Lettus, but was extremely accommodating in terms of system design and implementation, and offered new optimization curves based on what he saw me doing each day on the Lake processors. We implemented those curves and the system sounded even better than it had in the US.'



Another beneficial production 'tweak' was the decision to fly the subs, which was instigated by Ken himself. 'For the 2015 part of the US tour, we had only ground subs, three per side in cardioid mode. I commented to Phil Reynolds that it would be nice if there were more subwoofer energy up in the side seats, so he suggested that the next time we went out, we should fly a few subs between the MLA and the MLA Compact clusters. So in 2016 the flown subs were added, and they greatly improved the coverage of sub-100Hz energy.'

Summing up, the sound engineer said, 'Being able to run the system digitally was advantageous in terms of overall sound quality while the noise floor was simply non-existent. I feel Capital really spoiled me.'

Looking ahead, Ken Newman believes that while this may mark the end of Barry Manilow's touring schedule one-off shows are a likelihood. 'Of course I'll always prefer MLA systems for those shows - and if I'm fortunate enough to work with other artists, I'll certainly opt for MLA again, because I think its virtues are appropriate for all shows.'

“ HE MADE IT VERY CLEAR THAT HE WANTED TO STAY WITH MLA BECAUSE HE HAD HEARD SUCH GREAT COMMENTS ABOUT HOW WELL IT COVERED ALL THE SEATS IN A VENUE. ”



MLA Delivers The Perfect Soundtrack to Donny Osmond Tour



Donny Osmond

Donny Osmond's recent Soundtrack of My Life arena tour has given the entertainment icon not only a chance to promote the album of the same name (his 60th), but also take a trip down memory lane to cover five decades of material.

The fact that Donny-mania is still alive and well can be measured by the constant screaming of fans, drowning out the mainly arena auditoria, which in normal circumstances would threaten to envelop the sound from the stage.

In the case of Martin Audio's award-winning MLA, Osmond's tour manager (and FOH engineer) Chris Acton found so much headroom under the bonnet that this never became an issue.

Capital Sound, who supplied the rig, first worked with Acton on Donny & Marie's tour of the United Kingdom two years ago. Introduced by UK event production company, LarMac LIVE, the relationship has blossomed - and Acton was highly-appreciative both of the pedigree of the sound crew, and the sonic ordnance they had supplied.

Although more familiar with other PA systems, he became an instant convert to Martin Audio's multi-cellular array technology, which was used in all bar the Eventim Apollo (the only theatre on the itinerary) where the house rig was deployed.

Elsewhere, production typically fielded 12 MLA elements plus two MLD Downfill per side and four MLX subwoofers per side all forward facing, with hangs of 12 x MLA

Compact per side for outfills and eight DD12 for front fill coverage.

'I can honestly say that the Martin Audio system has a brighter, smoother high end, more powerful low end than what I am used to, and puts the vocal right in my face,' Acton observed. 'MLA proved to be an excellent recommendation. It's powerful and dynamic when it needs to be - such as in the rock classic Crazy Horses - but at the same time allows me a good deal of finesse, when run quieter.'

'We have needed a lot of SPL to get over the screaming fans - and MLA has done it with ease and grace. The PA is like driving a sports car, requiring just subtle EQ.'

A long serving member of the Osmonds' community, the sound engineer had replaced regular sound man Lucas 'Rico Corrubia following the latter's illness. And he readily pays tribute to 'the world class team behind me'. He explains, 'When I walk in, the PA is already tuned the way I like it, and all I have to do is push some faders.'

He was referring to Cap crew chief Robin Conway, monitor techs Marty Beath and Barney Cushman, and system tech Toby Donovan.

Capital have done their due diligence to ensure each room is measured correctly. Aside from recommending MLA from the brands that they could have presented [account manager] Martin Connolly also upgraded our Yamaha desk

to a CL5 when we realized we needed 61 input channels.'

This adequately services the four-piece band and playback tracks triggered by QLab play as well as time coded video. The stage retinue also includes four dancers.

The sound engineer also credited Robin Conway for putting together a five-page Dante bible. 'I have used Dante a lot on my corporate events but it's the first time I've toured with a full Dante [distribution system] with everything on the same network - and it's been a wild success.'

And far from applying pre-existing room presets at each venue, the changing stage heights positions and trim heights has caused Tony Donovan to take new measurements and in many cases react on the fly.

'He is making modifications in the [DISPLAY] software as we go along so that I am always in the same environment as I was in the soundcheck even though humidity changes as the place fills up,' Chris Acton continues. And with the artist spending so much time in front of the PA, moving rapidly across to the side bleachers, and out into the house to glad hand fans, he has needed to remain alert.

'With this high degree of audience participation we are constantly kept on our toes so I may suddenly need to refer to Smaart [analysis software], or dive onto a Lake processor,' notes Donovan.

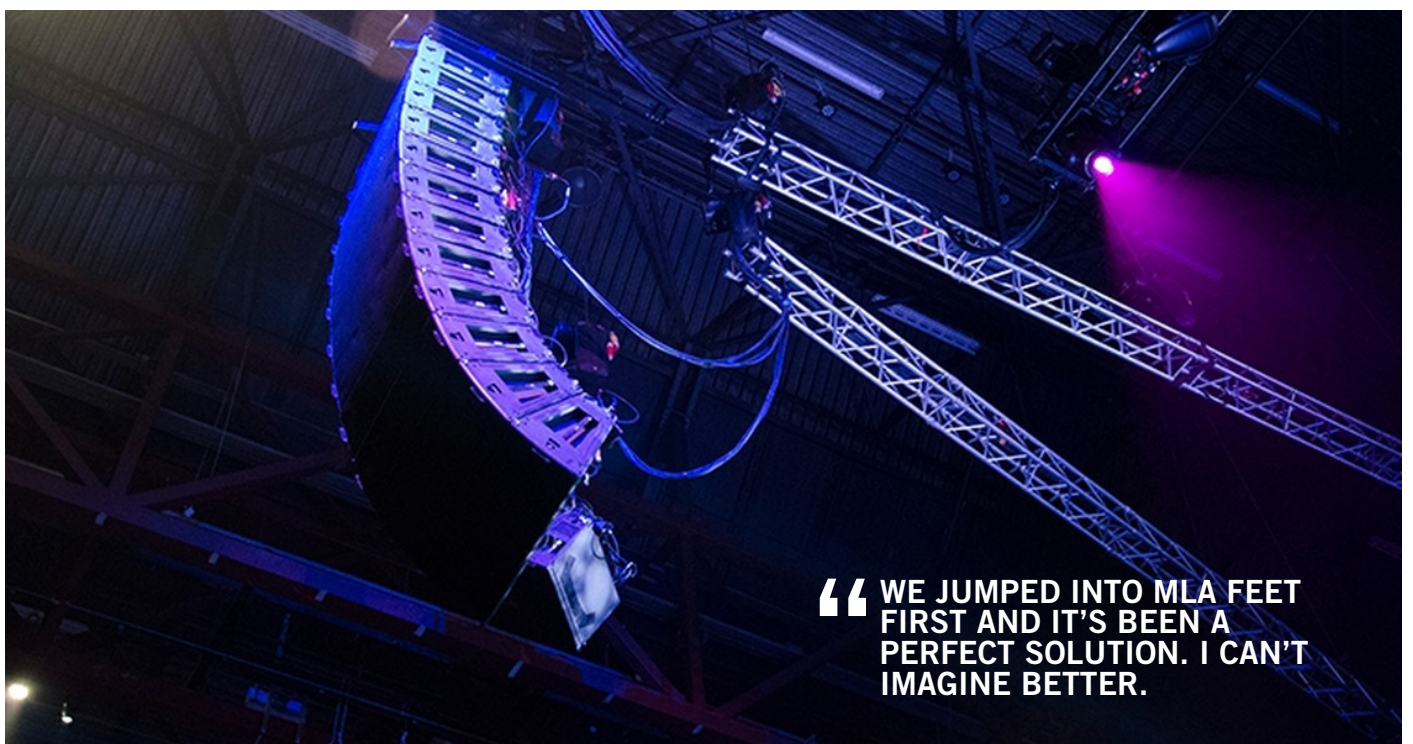
But ultimately, says the FOH engineer, the fans expect to hear the music they grew up with exactly as it should sound. 'And MLA certainly delivers on that.'

'Vocally, I wanted the PA I chose to be able to throw to the back of the arena, to provide the thump and bass that my artist would want and achieve the clarity through the mid and high - so I knew I was asking a lot of this system. Not only does it deliver that, but we get plenty of SPL without really touching the PA ... there is headroom for days.



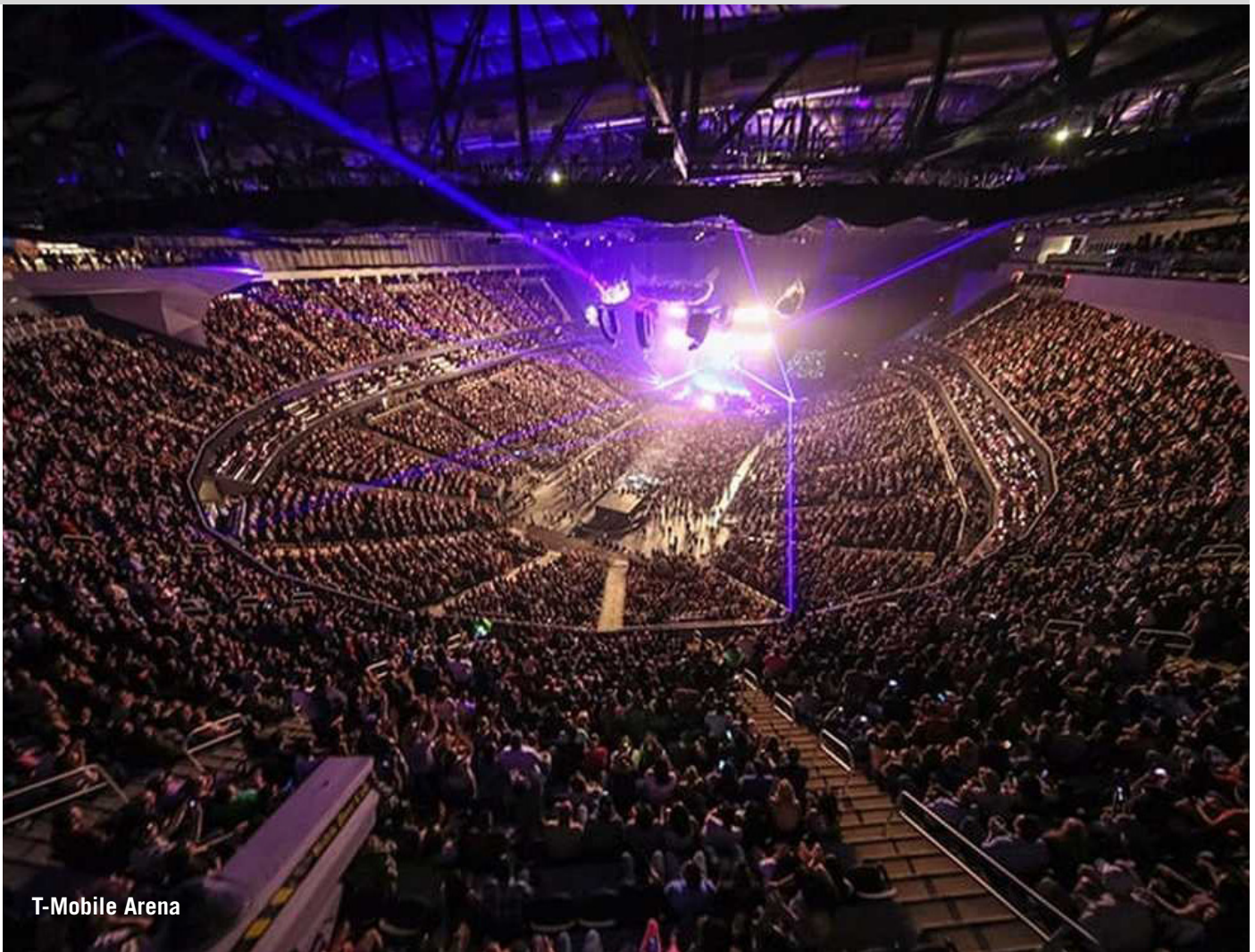
'In fact there's 10-12K here that I'm just not used to hearing and the definition in the high end at 125 feet back is amazing as is the clarity in the extreme highs. This HF can't be discounted when you pitch as high as Donny Osmond.'

In conclusion Chris Acton states, 'We jumped into MLA feet first and it's been a perfect solution. I can't imagine better ... and I know this PA has kept Donny more than happy.'



“ WE JUMPED INTO MLA FEET FIRST AND IT'S BEEN A PERFECT SOLUTION. I CAN'T IMAGINE BETTER. ”

Martin Audio MLA Opens T-Mobile Arena in Las Vegas



T-Mobile Arena

The new T-Mobile Arena recently opened with an all-star gala event featuring Las Vegas natives The Killers, Wayne Newton, Shamir, Blue Man Group and Cirque du Soleil. Delicate Productions of Los Angeles and San Francisco deployed a Martin Audio MLA system to ensure consistent coverage throughout the spectacular new venue.

A two-year project representing an investment of \$375 million, the 20,000-seat Arena will host over 100 events a year including sports ranging from UFC, boxing, hockey and basketball to concerts and awards shows. A special concert featuring Nicki Minaj with special guest Ariana Grande followed the opening night with an upcoming schedule of shows that includes the Guns N' Roses reunion tour, George Strait, Garth Brooks, Billy Joel and more.

The MLA system, supplied by the arena's preferred audio provider and MLA partner 3G Productions, was used for the opening show featuring the Killers and the Nicki Minaj-Ariana Grande concert that followed. It consisted of 16 MLA and 2 MLD cabinets per side for the main hang, 20 MLA Compact a side for outfills along with 32 MLX subs (12 ground-stacked and 4 flown per side).

The crew for the event included Bryan Bazilsky (Project Manager), Kenny Kaiser (FOH Engineer), Marty Beath (Monitor Engineer), Makoto Araki/Manny Perez (Audio

“ AS IT TURNED OUT, THERE WERE NO ACOUSTIC ISSUES OTHER THAN TO SAY THAT THE MLA SYSTEM HANDLED THE 20,000-SEAT VENUE PERFECTLY.

System Techs), Craig Robertson (FOH Tech), Jimmy Girard (Monitor Tech), Fumi Okazaki (Audio Stage Tech) and Arturo Acosta (Opening act Monitor Engineer).

Describing the event's planning, Delicate's Smoother Smyth said, 'Due to our workload, it made sense to bring in the MLA system from 3G who are based in Las Vegas. They installed the PA a week before the Killers show for a 'soft opening' with Martina McBride, an event to ensure the ticketing systems, concession stands and security were all in place and operating efficiently prior to the Opening Night Concert.

'As it turned out, there were no acoustic issues other than to say that the MLA system handled the 20,000-seat venue perfectly.

'This event had been looming on the horizon for quite some time and the show flow was much discussed. Thanks to a flawless performance everyone within the Killers camp were in great spirits by the end of the evening.'

Kraftklub And Casper Are Both Complete with MLA/MLX



German rock/indie band Kraftklub recently undertook their third major tour with Martin Audio's flagship MLA PA, provided by Complete Audio.

The five-piece outfit is a long-term client of the Berlin-based service provider, having embarked on their first tour of duty with MLA back in 2012.

This time around, the band played mostly arena sized venues ranging between 8,000-14,000 capacity, with a few club gigs (through house systems) thrown in 'for fun'.

The standard PA set-up comprised 13 MLA and a single MLD Downfill per side, with either three and four MLX subs flown next to the main hang to add further sub bass to the bleachers and to support the flown outhangs comprising 12 MLA Compact. A further 12 MLX along the stage apron, stacked in pairs, were designed as a broadside array.

Joint system techs were Benny Franke and Thomas Birnbaum. And according to Complete Audio MD, André Rauhut, 'With flown subs that powerful, they had to pay a lot of attention to time-aligning the MLX properly in order to blend in well with the rest of the system.'

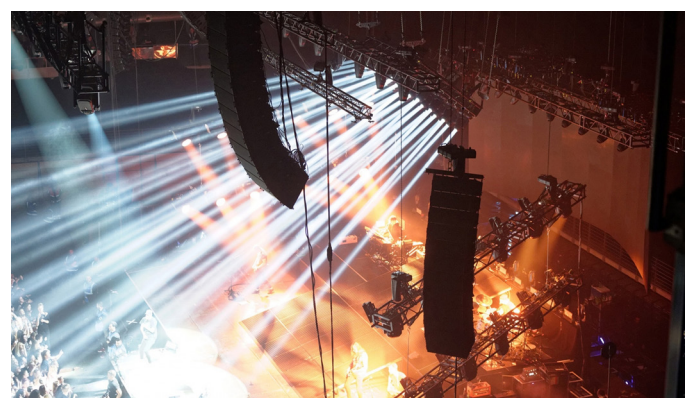
While Franke was taking care of the pre-production and MLA set-up, Nico Lindner took his place in the FOH mix position. It was the latter's first tour with flown subs and he was more than happy with the outcome. 'With this setup, you can easily achieve the same sound in the bleachers, compared with just having subs on the ground.'

At around the same time Complete Audio also had an arena sized MLA system out with German/American rapper

Casper on his Lang Lebe Der Tod (Long Live Death) tour. While the PA design boasted a similar set-up (again with 26 x MLA) Complete Audio decided not to fly subs, as André Rauhut explained. 'This was mainly because Casper has more sub signal below 50Hz in the main mix. In view of that, they had way better control with a sub arc in front of the stage only.' This arc comprised 20 MLX - three high on the outside and stacked two high along the stage, while 24 MLA Compact were deployed as side-hangs.

FOH tech was Oliver Voges, who is widely experienced with MLA, while system techs were Martin Eckert and Andreas Zwirchmair.

If Complete Audio's MLA inventory has scarcely been in the warehouse this Autumn, then the trend looks set to continue, with the announcement of further major pre-Christmas tours with Trailerpark, as well as Boonez MC & RAF Camora all heading out with big MLA/MLX rigs.



Capital Brings Gervais' Two Nordic Shows to Life With MLA



Ricky Gervais, Royal Arena, Copenhagen

Ricky Gervais recently performed a sell out show at the Royal Arena in Copenhagen - just ten days after another successful gig at the Oslo Spektrum in Norway, as part of the Humanity world tour.

The Humanity tour is his first new show in seven years has been wowing critics with many believing it to be his best and most considered standup.

Sound reinforcement for both Nordic shows was handled by Capital Sound, whose Operations and Development Director, Paul Timmins, reports that his company had been approached by sound designer Chris Whybrow. The latter had been aware of the London-based production company's flagship Martin Audio MLA, with its unique multicellular controllability, and sensing this would raise production values, he swiftly introduced them to the artist's production manager, Gordon Isaacs.

Whybrow recalls, 'I knew on paper that we should achieve a more controlled environment onstage from this system; however I didn't quite expect the experience of standing on stage, in a 15,000-seat empty arena, with an omnidirectional microphone turned on, to hear the arena so precisely controlled.' He added that achieving minimal reflection back onto the stage had been their main focus.

Capital Sound and MLA has pedigree when it comes to comedy, having handled numerous tours for the likes of Michael Macintyre, Lee Evans and Kevin Bridges. The challenge for comedy in large arenas is to deliver an intimacy through coverage consistency and intelligibility because if the audience misses one word, the joke's not funny. With MLA the ability to control sound reflections

“ WHEN ASKED TO PROVIDE A SOUND DESIGN FOR THESE TWO ARENAS, I TRUSTED MLA WOULD GIVE US THE BEST OUTCOME FOR WHAT WE NEEDED.

in an arena and deliver smooth coverage consistency throughout ensures every word embraces the audience and enables the sense that the performer is right in front of people, no matter where they sit.

If the Oslo concert was deemed a success, the second show in Copenhagen became officially the largest comedy show ever to be staged in Denmark, with the 14,500-capacity venue completely sold out.

The PA system for both comprised 17 MLA elements per side, with a single MLD Downfill at the base, supported by side hangs of 13 x MLA. Four MLX subwoofers, in end-fire configuration, extended the low frequencies while eight Martin Audio DD6 provided front fills. Sound at the rear in Copenhagen was provided by four delay hangs, each comprising six elements of MLA Compact.

Capital supplied a four-man PA crew at both events, headed by Joseph Pearce and Finbar Neenan, with local MLA techs provided by partners in Scandinavia.

In conclusion, Chris Whybrow stated, 'When asked to provide a sound design for these two arenas, I trusted MLA would give us the best outcome for what we needed. It certainly delivered on all fronts, every seat evenly covered with minimal reflection back onstage.'

Showtime Sound Supports Kevin Hart Tour with MLA



Popular comedian, actor, writer and producer Kevin Hart has been on a successful, sold-out tour of the U.S. and Canada for the last nine months with a Martin Audio MLA system provided by Showtime Sound LLC of Frederick, MD. In January 2016, Hart continues his 'What Now?' tour in Europe, Australia, Singapore and South Africa.

One of America's fastest rising comedy talents, Hart has released four comedy DVDs *I'm a Grown Little Man* (2008), *Seriously Funny* (2010), *Laugh at My Pain* (2011) and *Let Me Explain* (2013), appeared on numerous TV shows and films such as *Little Fockers* (2010) *Think Like a Man* (2012), *Grudge Match* (2013), *Ride Along* (2014), *About Last Night* (2014) and *Get Hard* (2015), and has over 20 millions worldwide followers each on Facebook, Twitter and Instagram.

Asked about the challenges of producing the current tour, Showtime Sound's Scott Tydings says, 'We've worked with Kevin since 2010 and did the last tour, so we kind of know what to expect but there are always a few surprises. Showtime has been in business since 1996 and we do a lot of music tours, but lately there's been more of an emphasis on comedy artists including Amy Schumer who we're on tour with right now.'

'The Martin Audio MLA rig has been a big help for both Kevin and Amy's tours. We first used it for the 'What Now?' tour after hearing the MLA Compact at a demo. We've wanted to use it for a long time and just needed this opportunity to put it out there and showcase it.'

For Kevin Hart, the set up includes 15 MLA and one MLD a side, 12 MLA Compact cabinets a side for outfills and 8 MLX subs ground-stacked alongside the stage. The system also includes a Midas Pro 2 live digital console, a Shure wireless mic with an SM58 capsule and a Lake LM44 digital audio system processor.

Asked about using MLA for a comedy artist, Scott replies, 'We thought it was a great fit for Kevin especially in terms

of intelligibility in the arena because if you miss one word he says, the joke's not funny. It's more important to have even coverage and intelligibility for a comedian than any rock concert you're ever going to do.'

'In fact, I sold MLA to Kevin Hart, his tour manager and Live Nation—just kept telling them and telling them about it. When I finally got the opportunity to put it in front of them, they loved it so much that when we picked up the Amy Schumer tour, they were insisting we use MLA for that as well, which is all arenas. It's the same hang.'

'Kevin's definitely noticed the difference in articulation and even coverage in every seat with MLA. I was using another system before with three hangs a side and we were still getting sound complaints from people in the upper sections of large arenas about not being able to hear or get the clarity they needed.'

FOH Engineer Kenny Hoyt, who's worked with a number of different systems over the years, echoes Scott's impressions: 'MLA is amazing, the clarity and coverage is so much better when capturing a single voice in a large auditorium and making sure that every word gets out to the audience than other systems I've used. Other PAs are ok, but mixing with an MLA system is like nothing else I've ever experienced. I just know that the sound's going to be smooth and consistent with all the right overtones.'

Wrapping up, Scott adds, 'There's been a world of difference with the MLA rig. It's night and day. We've just had some fly dates and Kenny's never happy when he has to leave the MLA rig and do the same show on another system. It's just never the same.'

'For me, MLA is like having 3-D audio. Instead of sounding like it's coming from a speaker a few hundred feet away from you, Kevin's voice is right in front of your face no matter where you're sitting.'

Capital Deploy New Martin Audio Solutions for Michael McIntyre

Stand-up comedy, for all its apparent simplicity in projecting the spoken word to large theatre audiences, can be anything but straightforward. The real challenge is to deliver an intimacy through coverage consistency and intelligibility because if the audience misses one word, the joke's not funny.

Martin Audio loudspeaker arrays have proved their worth time and again, reinforcing a multiplicity of Tier A stand-ups — none more so than Michael McIntyre. In 2015 they successfully deployed an MLA loudspeaker array via their rental partners Capital Sound for the artist's Happy & Glorious tour, and they have repeated the formula for the current Big World Tour. With the exception of play-in/play-out music, this is 100% spoken word.

This time around the comic had a different team shaping and powering his sound in the form of FOH engineer Steve Carr and system tech Toby Donovan — both seasoned MLA practitioners.

Rigged at the 15,800-capacity Birmingham Arena was the larger of two scalable Martin Audio PA rigs from the MLA series. This comprised 14 MLA and two MLD Downfill elements per side, with 12 MLA Compact providing outfills from each stage wing. Providing necessary LF extension were six of Martin Audio's new SX218 subwoofers, in two groundstacked blocks of three, while eight of Martin Audio's tiny but potent stand-mounted DD6, were able to set an even coverage pattern across the first four rows. According to Donovan, this is largely due to their use of differential dispersion technology. In large arenas such as Birmingham three blocks of six W8LM Mini Line Array handle delayed sound at the rear.

Down at the stage, a pair of DD12 are tilted on Martin Audio yokes to deliver the sound at face height — providing a constant point-to-point reference to McIntyre's many excursions back and forth across the stage.

In fact, along with the newly-purchased SX218, of which this was one of their first deployments, the use of DD12's as monitors — suggested by both Carr and Donovan — has been a masterstroke.

As Carr explained, "When I first met Michael he said how important foldback was; he likes to hear himself loud and clear, so he doesn't need to push his voice and we decided that DD12 as low-level side fills would be ideal." Toby Donovan added, "Previously we had flown speakers for monitors but there was a desire to lose these because they looked untidy, and if you fly them too high they are not really functional. The DD12s sound so good and the dispersion is perfect. There is no problem with gain before feedback wherever he is, including lying on his back leaning over the edge of the stage. The speakers are always in the same place with every show so he gets consistency."

Although this is the sound team's first tour with McIntyre each has vast experience at amplifying stand-ups, and in working with production manager, Neil McDonald (Katherine Jenkins in the case of Steve Carr) and so it was a natural fit. Coupled with this Donovan has all the presets



“ MLA DELIVERS A LINEAR RESPONSE AND IS PERFECT, WHILE THE DISPLAY SOFTWARE ENSURES WE AVOID ANY REFLECTIVE SURFACES.

for the arena circuit stored in the Martin Audio software. He also has alternative presets to ensure the sound remains fully optimised depending on whether the entire venue is sold out or specific balcony areas have been screened off. The fact that coverage can be fine-tuned electronically in-situ to cope with changing conditions and last-minute changes, without the need to re-rig, remains a key benefit of the MLA system.

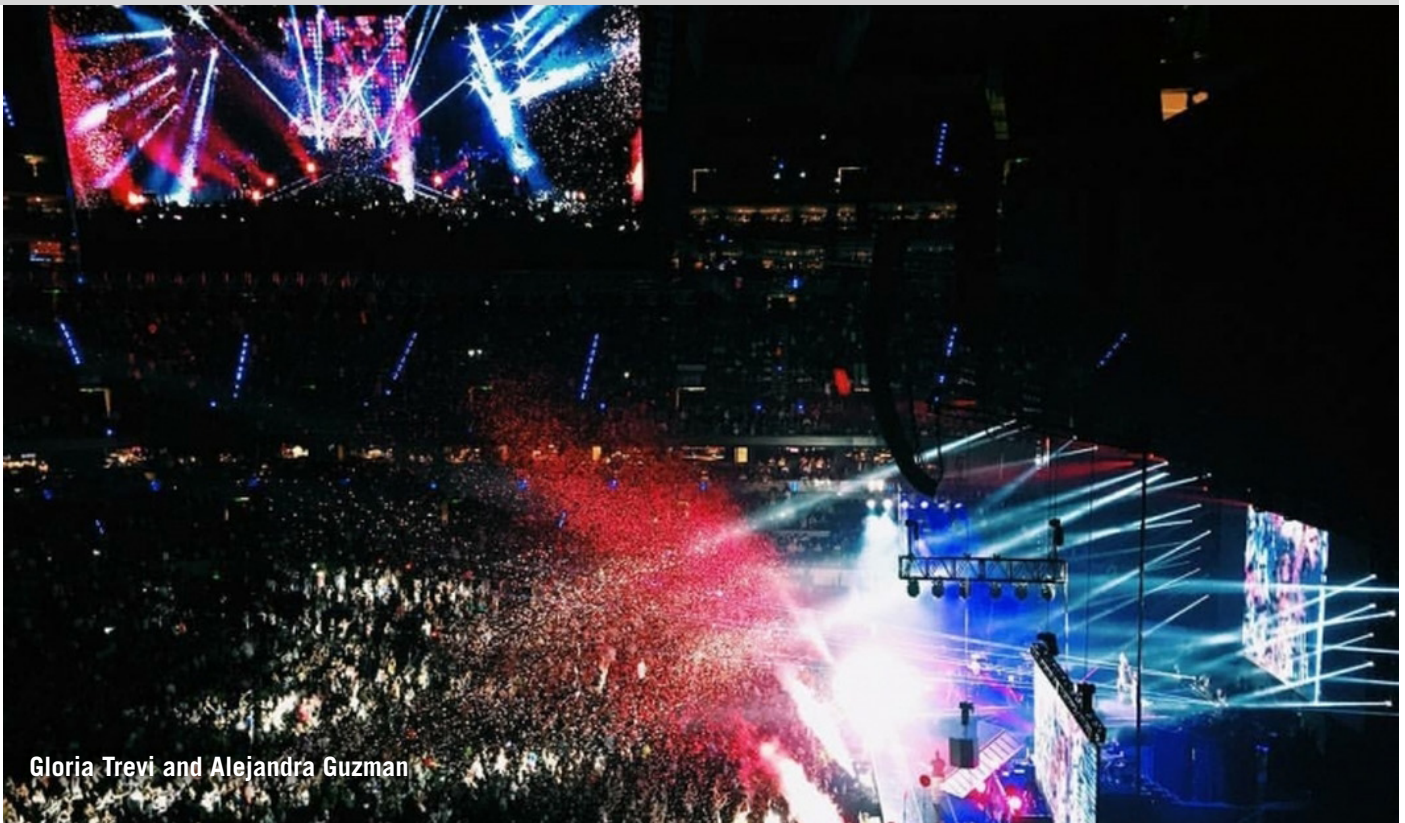
"The real challenge with stand-up," says Donovan, "is that we have to spend more time trying to avoid unwanted reflections whereas music shows can be more forgiving. Fortunately, we can comfortably deal with issues like slapback in the software. We can also minimise reflections by attenuating the signal and compensating with the delays for those at the back."

As for the new subs he says, "They are new out of the box, and because this is a brand new design they look smart and not too obtrusive."

Carr only requires a 16-channel DiGiCo SD11 for his house mix, and also provides the monitor mix from FOH. In summary he said, "My approach was to make sure audiences hear Michael the way they would on telly. The room plays a big part in this — but I didn't want to start hacking out frequencies because of the room.

"MLA delivers a linear response and is perfect, while the DISPLAY software ensures we avoid any reflective surfaces. As for the DD12 monitors, Michael said these have made a massive difference."

3G Supports Gloria Trevi and Alejandra Guzman Tour With MLA



Gloria Trevi and Alejandra Guzman

Gloria Trevi and Alejandra Guzman, two iconic Mexican singer-songwriters, have been co-headlining a US tour to support their collaborative album *Versus* backed by a Martin Audio MLA speaker system supplied by 3G Productions of Las Vegas and L.A.

Versus, which has produced two popular singles, ‘Cuando un Hombre te Enamora’ and ‘Mas Buena,’ is the latest contribution from the artists to a collective body of work that has produced sales of over 60 million records, with 100 international hit songs, 5000 concerts and a number of awards.

Manny Perez, System Engineer for 3G, confirms that most of the concerts ‘have been in arenas, with a few large theaters mixed in. The biggest challenge is getting uniform coverage for everyone from the audience on the stadium floor all the way up to the top tiers in what isn’t the best acoustical environment, but that’s never a problem with the MLA system because of the control and consistent response it gives us.’

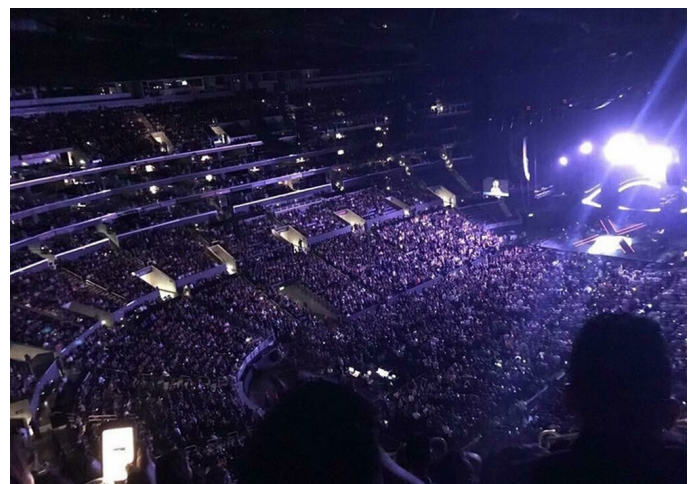
The artists are backed by a pop/rock type band with one half devoted to Gloria and the other half supporting Alejandra with everyone playing on songs where both artists perform together. The band consists of two drummers, two bass players, four guitarists (lead and rhythm), with three backup singers and a horn section consisting of tenor sax, trumpet and trombone for each headliner.

According to Manny, ‘the setup for the PA consists of MLA for the mains with MLA Compact for outfills, MLX subs ground-stacked in front of the stage and DD12 for front fills. Two Yamaha PM10 consoles are used for FOH and Monitors.’

“ MLA DELIVERS A LINEAR RESPONSE AND IS PERFECT, WHILE THE DISPLAY SOFTWARE ENSURES WE AVOID ANY REFLECTIVE SURFACES.

The crew for 3G includes Jorge Zolorzano (System Tech), Carlos Martinez/Ken Quinlan (Monitor Tech), Mateo Rodriguez (RF Tech) and Sergio Garrido (PA/Stage Tech).

‘The client is very happy with MLA and everyone keeps mentioning how great it sounds,’ Manny concludes. ‘We’ve had no complaints. In fact, the tour FOH engineer Fernando Perez, who usually works with Mana, a superstar Mexican rock band, has used other systems, but really liked mixing on MLA.’



MLA / MLA Compact – Irresistible Combo for Classical Spectacular



RG Jones' long relationship with Martin Audio was extended in fine style again this month at the Raymond Gubbay-promoted Classical Spectacular at the Royal Albert Hall. RG Jones supplied not only a full-size Multi-cellular Loudspeaker Array (MLA) for the main PA but also an MLA Compact rig for the sidefills.

MLA had first replaced the Martin Audio W8 Longbow when Simon Honywill, long time FOH engineer for the event (and Martin Audio ambassador), first specified it back in November 2011.

'Simon evangelised about MLA and I am happy to build on the foundation laid down by him and the RG Jones team,' says Phil Wright, who took over sound mixing duties from Honywill two years ago (working on a DiGiCo SD7). Alongside him was system tech Luke Murphy, implementing a sound profile set up by RG Jones project manager, Matt Sussex.

Wright believes that the sound at RAH just gets better and better under the aegis of Martin Audio's premier system - but believes that the big difference has been the deployment of the MLA Compacts for the first time, replacing the earlier conventional Martin Audio W8LC and W8LM line arrays.

'We had still been having issues with levels on stage and the orchestra struggling with internal balance - although MLA has made a massive difference,' he says. 'The addition of MLA Compact has meant that we've been able

“ I HAVE BECOME A REAL CONVERT TO MLA ... SIMON HONYWILL ASKED ME TO LISTEN TO MLA, AND I JUST LOVED IT.

to further reduce the PA spill onto stage to an extent where the orchestra is now really un-encumbered by the scale of the gig.' We've also taken the hi-pass from 40Hz down to 30Hz on the full range system and now just use one pair of MLX subs under the stage for sound effects.'

After discussions with Matt Sussex the sound team have been able to take 6-8dB off the stage levels using the 'Hard Avoid' function on the multiple arrays. 'Bringing the stage levels down means all that 'gloopy stuff ' you get at 300-400Hz disappears. The system provides much more consistency and high-end transparency now that we have 270° coverage in MLA.

Sussex and Wright optimised the MLA Compacts from ± 3 dB to values of 1 and 0. 'I don't think there's a way back from MLA now - it would be such a sea change. The difference is quite profound,' confirms the sound engineer.

The PA design itself was based around 16 x MLA per side and 12-aside MLA Compact for outfills (along with the two subwoofers under stage). Another system provided choir coverage. Six DD6 Differential Dispersion speakers acted as lip fill across the front with further pairs of DD6

variously drawing the image down from the nearfield stalls and positioned either side of the organ console on stands.

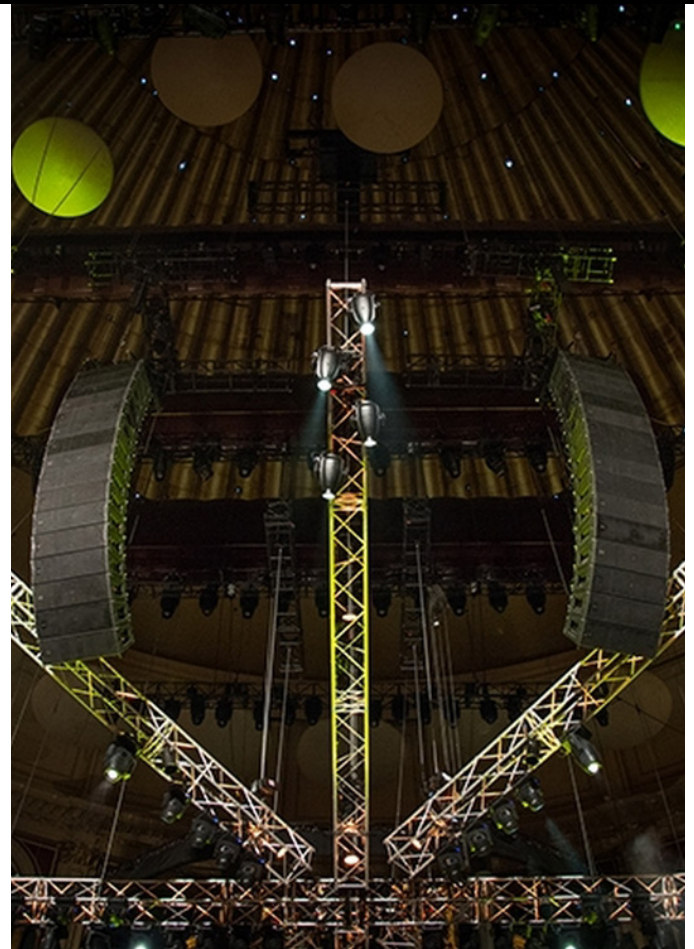
This year's show featured the RPO and Royal Choral Society, with Phil Wright delivering the thundering sound effects for the 1812 Overture from a 360 Systems Instant Replay triggered by the pyro team up in the gods over a bespoke radio control system designed by Firing Master, Lincoln Parkhouse.

Summing up the show, Phil Wright said, 'I have become a real convert to MLA. Prior to that I had always worked [with another system] but Simon Honywill asked me to listen to MLA, and I just loved it, and immediately embraced it.'

'We have now been able to ensure that the sound in the Circle delivers the same punch and dynamics as the Stalls. With SPL in the mid 90s you need to create the same sound everywhere which this system does very well - and the fact that it doesn't annoy the orchestra is a huge bonus.'

'In fact what I really love about this system is just how linear it is.' Luke Murphy also notes the consistency from the choir. 'It's generally hard to get that all the way round,' he says. 'MLA has become one of my favourite systems.'

When Classical Spectacular returns to the Royal Albert Hall in the Autumn, production will be joined by the third member of the Martin Audio MLA family, when MLA Mini takes on choir stall duties - the first time all three systems will have been deployed on the same event.



55,000 Seat Tokyo Dome - Without Delays



MSI Japan support Asian sensations TVXQ. The idea of providing even audio coverage for Tokyo Dome's massive 55,000 seats - without the need for delays - has always been the holy grail of incoming production teams.

Finally this dream became a reality - when the award-winning Martin Audio MLA Multi-cellular Loudspeaker Array made its debut there recently, supporting one of Asia's most successful acts, TVXQ (an abbreviation of their Chinese name, Tong Vfang Xien Qi).

Major rental company, MSI Japan had chosen this venue for the début of its new MLA system - supporting the Korean electronica pop star sensations (now a duo featuring U-Know Yunho and Max Changmin). As a result, they put one of their senior FOH engineers, Takashi 'Shiro' Murata, in charge of the mix.

Traditionally, with all large concerts at the Tokyo Dome, delay towers have needed to be set to provide even coverage throughout the venue. These have been considered necessary to reach the third tier - set at 150m distance from the stage. Consequently, the seating positioned beneath (and behind) the towers could not be used for audience purposes, resulting in a capacity drop of several thousand seats.

As a result, everyone had been dreaming of this day on April 14th, when two PA hangs of 21 x MLA enclosures and one MLD Downfill (main array), supported by a further 17 MLA enclosures (and one MLD) for each side array, were all that was needed.

The main array delivered clear, intelligible sound directly to the third level. It achieved the same SPL and same frequency responses throughout the venue with a sound fidelity that had hitherto never been experienced.

The control and containment of sound was amazing as

“ THE RESULT WAS SOMETHING THAT PEOPLE HAVE NEVER EXPERIENCED BEFORE.

well, according to Shuzo Fujii, the president of MSI Japan, 'It reduced the sound reflections, which constantly annoys audiences at this venue and at the same time gave the promoters several thousand extra seats. The result was something that people have never experienced before.'

Furthermore, he said, Tokyo Dome frequently receives complaints of noise pollution from its neighbours. 'However, there was no such claim from anywhere this time. Such was the quality of sound and absence of any leakage exhibited by MLA that few outside the building could have recognised what type of show was taking place inside.'

'In addition the absence of any towers meant we could reduce the number of tour trucks, making this a really cost effective exercise.'

With tickets for the concerts said to have sold out within 30 seconds of going on sale, it was easy to see why MSI Japan had chosen these artists for the début of MLA, concluded Mr. Fujii. 'Everybody involved in the production acknowledged that the system had delivered something unique, which they had never previously experienced. As a result we have had a lot of interest from major production and management companies.'

Footnote: The band has different names in different countries: in addition to TVXQ (in China) they are known as Dong Bang Shin Ki (DBSK) in Korea while the Japanese call them Tohoshinki. Either way, their name translates as 'The rising gods of the East' and they have a profound influence throughout Asia.

MLA for 140,000 at Japan's Nissan Stadium



Nissan Stadium

One of Japan's most popular bands, Sekai no Owari, held a two-day show, named Twilight City, at Nissan Stadium, Kanagawa, Japan's largest concert venue. With 70,000 people arriving at the football stadium on each night, this became the band's biggest gig yet.

Supported by American pop-star, Austin Mahone, audiences were treated to first class sound delivered from Martin Audio's premium MLA system.

FOH engineer, Yusuke 'Nobi' Kobayashi from Delta Acoustics, who had supported the band's entire tour, contacted MSI Japan for additional support at these special gigs since the two companies have a good working relationship. MSI Japan's Bun Hote has had previous experience working both with the band and with Nobi. So with this cooperation, the two men were able to start planning the system design six months before the event.

When it came to the choice of PA they reviewed many options. However, the restricted array positions and concerns about noise pollution led them to the conclusion that the Martin Audio MLA was the only system appropriate for these shows.

The main stage set featured a huge 40-metre high tree monument, symbolising the imaginary world of the band, and the production team were careful to preserve the sightline to this impressive structure while at the same time concealing the back facing elements of the rig to those seated behind the stage (as requested by the artists).

Since there were only a few positions available for the delay towers the sound team needed to set optimisations so that most of the area was covered from the main system and the remainder from the stage side. The weight of the rigging was another challenge that production would generally have needed to face but once again Martin Audio's MLA showed its advantages when it came to loading.

They opted to place three separate MLA arrays on the stage side - the main array outer array and a further outfill still, projecting 180 degrees from the stage.

The main array consisted of 23 x MLA and an MLD Downfill and nine MLX subs (three back-facing to create the cardioid effect).

The side array consisted of 21 x MLA and an MLD Downfill, plus and nine MLX subs following the same cardioid principal. The wider outside array consisted of 16 x MLA elements with no subs.

There were also additional subwoofers on the ground, with six positions of double stacks stacks, producing an array that again implemented the cardioid settings. Finally, four positions of two Martin Audio W8LM Mini Line Array provided infills.

Bun said, 'Most of the area was aimed from the stage side. The delay systems were only for the intelligibility but we could listen to the show very clearly from the end of the row.'

The venue had a sound threshold of 95dBA (measured at certain locations within the venue) and care had to be taken in the optimisations to preclude neighbour complaints - a task which MLA was equal to.

Fortunately for the audience, the storms that had blighted set-up day disappeared, and the weather was fine for both show days.

Summing up, Nobi, who mixed the sound at front-of-house, explained, 'This was a biggest gig ever for both the band and for me. To make it a success, we needed to achieve absolute consistency of the SPL - and quality of sound to match - as well as meeting the noise pollution regulations. Thanks to the careful planning by our production team I was able to deliver the passion and emotion of the artists without compromise.'

MLA on Tour with Tim Bendzko



When Berlin-based Tim Bendzko was gearing up for his latest tour, the singer-songwriter's FOH engineer Stefan Lohr wanted to be sure that Martin Audio's MLA PA would be on the truck as his primary PA system.

Lohr is a long-time user of the award-winning system, and production company Complete Audio, who were the first global adopters of MLA when it was launched seven years ago, were delighted to respond to the specification.

The full-size MLA system was preferred over the MLA Compact as Complete Audio proprietor, André Rauhut explained. 'Although we sometimes use MLA Compact as the main PA in smaller venues, Stefan Lohr likes the tonal balance and the character of the full-size MLA - and won't alter his mix to squeeze it in a smaller box.'

Complete Audio have supported all Bendzko's tours dating back to 2011, mostly with MLA as first choice, and once again provided a scalable system to accommodate the different venue sizes, ranging from 2,500 up to 17,000. 'It was a tour where you had to bring the appropriate gear to fit every venue size,' confirmed André.

Thanks to MLA Stefan Lohr, assisted by head of sound (and system tech) Julian Hoffmann and second line array technician Niko Fuchs, were able to deliver the full range of dynamics to Bendzko and his backing band, which included a horn section.

'As usual there was no need for any delay lines, even in the larger venues, thanks to the unmatched throw of MLA,' he continued.

“ THE RESULT WAS SOMETHING THAT PEOPLE HAVE NEVER EXPERIENCED BEFORE.

Typically in the smaller club venues, production rigged between six and nine MLA elements per side, complemented by six or eight MLX subwoofers. This grew to 12 x MLA and a single MLD per side in the larger venue set-ups. Side hangs ranged between eight and 12 MLA Compact elements, flown on each side. In this instance they used 16 x MLX subs in clusters of two as a broadside array.

Owing to the nature of the tour Complete Audio invested in new custom dollies. This tour was the first time the dollies, purpose made for MLA and MLX, had been deployed. Each can support up to five cabinets, fully rigged and wired, while the sub dollies can hold up to three MLX (rigged and wired).

And it made a significant difference. 'Thanks to the new dollies, we were able to save around one hour per day during setup and breakdown,' André rationalised.

KIZ Takes On Germany's Arenas with Complete Audio's MLA

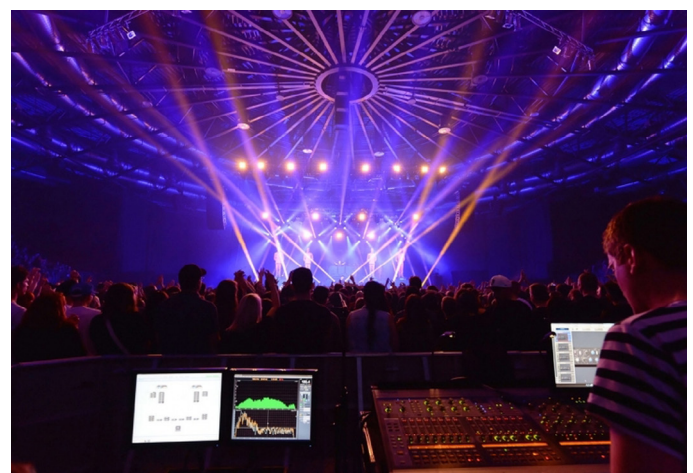


Berlin-based Complete Audio recently took its Martin Audio MLA system out with long-term client, KIZ on the band's latest tour, Hurra die Welt geht unter (which translates as "Hooray the world is going down").

André Rauhut's company has been working with the local politically-based hip-hop band, comprising three MCs and a DJ, since they first set out playing small clubs many years ago. This was their third major tour together - and it was FOH engineer, Rainer Noll, who also happens to be one of Complete Audio's long-time sound specialists, that specifically requested MLA.

The tour took the band through the established German arena and music hall circuit. Over the years the PA company has built a large database of MLA Venue Files - ranging from hockey arenas to city halls - and this data is available to their techs either online (or via Dropbox). This enabled quick optimisation of the system at each venue on the itinerary by system techs Thomas Birnbaum and Martin Eckert.

“ MLA PERFORMED TO EXPECTATIONS. EVERYONE KNOWS WHAT THEY ARE GOING TO GET WITH MLA AND THAT'S WHY IT WAS SPECIFIED IN THE FIRST PLACE.”



Complete Audio were able to run their full MLA system without delays, fielding up to 10 x MLA enclosures (and an MLD Downfill) each side, depending on venue size, while outfills consisted of up to eight MLA Compact elements per side. Meanwhile, 16 MLX subs were distributed alongside the stage in a broadside array to ensure even coverage throughout.

Once again MLA performed to expectations. 'Everyone knows what they are going to get with MLA,' declared André Rauhut. 'And that's why it was specified in the first place.'

Jesse Clegg Tours with MLA Mini



“ I’VE NEVER SEEN ANYTHING LIKE THIS SYSTEM BEFORE.”

South African singer songwriter, Jesse Clegg recently completed his traditional national December acoustic tour — and has found a perfect solution for a versatile PA rig in Martin Audio’s MLA Mini.

The system was introduced to him by Audiosure, Martin Audio’s South African distributor, with whom he has enjoyed a close relationship in recent years, since they first introduced him to a mixing desk. When he and long-term sound engineer, Vervy Scholtz, saw the need for a compact, portable, high quality PA Audiosure jumped in.

In fact Alison Taman, General Manager of Audiosure, knew right away that Martin Audio’s MLA Mini would be a perfect fit for Jesse’s tour. The locations ranged from open-air botanical gardens to intimate lounges and only the MLA has the power, control and portability to pull off every situation without compromise. “As the distributors for Martin Audio in South Africa, we are thrilled that a prestigious brand and high-end audio system such as this was experienced by music lovers around the country, allowing them to enjoy a world-class talent like Jesse with such sound quality and detail at a live show,” she concluded.

Jesse, who has been following in the footsteps of famous father Johnny, and is well on the way to conquering North America after a string of top ten hits in his native country,

said that where possible he always looks to avoid house systems and use his own production.

“Last year we had challenges when using another PA system,” he admits.

And with club and venue sizes varying between 500-1000 capacity, working with either a three or four piece acoustic band, the Platinum-selling recording artist says it was important that production could reduce sound check times and revert to saved presets, with no variables. “Audiosure arranged a shootout between different systems, and MLA won,” he remembers.

Jesse was soon in production with a powerful package comprising four MLA Mini cabinets per side over a single MSX sub.

“We found the system had a lot of headroom and the volume was impressive. The crew has been able to rig it and derig it quickly which is a further bonus, while in terms of its cutting edge technology, the fact that it has incredibly intricate control parameters is another advantage.”

In particular he says the way they have been able to shape the sound to the physics of the venue has been “fantastic”.

“I’ve never seen anything like this system before,” he concludes. *Photography by Dani Cooperman.*

Other Tours and Concerts



MLA Compact Tops Joe Satriani's Rider



3G Productions Supports Juan Gabriel With MLA



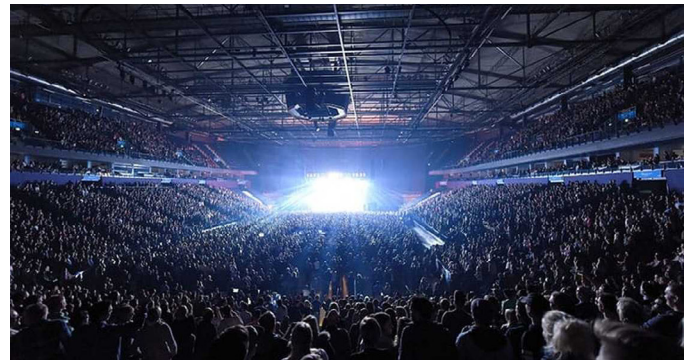
MLA Meets The Challenge Of Alfie Boe's Serenata



Chicago And Earth, Wind And Fire Tour With MLA



MLA Reinforces Jolin Tsai 2015 Play World Tour



Fettes Brot Tours With MLA And Complete Audio



Shane Filan Tours With MLA Compact



3G Supports Julion Alvarez Tour With MLA

Other Tours and Concerts



MLA Delivers Potent Sting In Berlin



MLA Reinforces Davide Van De Sfroos At San Siro



Delicate Supports Billy Talent Tour With MLA



Nitin Sawhney Gives MLA Albert Hall Work-Out



Delicate and MLA Support Black Crowes



MLA Rig Provides Bite For Alligatoah



Technotrix Supports G-Eazy With MLA



Avett Brothers Triumph At Red Rocks With MLA



Needtobreathe Breathes Easier With MLA



MLA Delivers Memphis Sound Of Paul Rodgers



MLA Shines For Yuzu Arena Tour

and many more...



martin-audio.com/case-studies/concert-and-touring

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

SX Series

HIGH IMPACT, LOW FREQUENCY
PERFORMANCE SUBWOOFERS



martin-audio.com/products/series/sx

XE Series

HIGH PERFORMANCE
STAGE MONITORS



martin-audio.com/products/series/xs

martin-audio.com/case-studies/concert-and-touring

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

Martin Audio Ltd
Century Point, Halifax Road, High Wycombe
Buckinghamshire HP12 3SL, England

Telephone: +44 (0) 1494 535 312
Facsimile: +44 (0) 1494 438 669
Email: info@martin-audio.com

www.martin-audio.com