# WHY MLA WORS









## MLA Mini

It's over three years since we introduced multi-cellular technology with its individually driven cells and automated numerical optimisation. In that time we have solved acoustic challenges the world over by delivering consistent sound across the audience, right from switch on, as well as greater control of sound spill, delivering sound to where it needs to be and more importantly where it needs to avoid.

With the introduction of MLA Mini, we open up a wide range of Live Sound event applications for smaller venues, but it's also where installation opportunities can start to reap the benefit from this technology.

MLA Mini is quickly establishing its credentials as a sound investment, not only providing powerful and exciting sound for such an ultra-compact format, but also because its versatility and light-weight design offers a diversity of usage and ROI opportunity, with savings on transportation and manpower required for deployment.









### **Product Details**

The third generation of its MLA (Multi-cellular Loudspeaker Array) technology, MLA Mini's ultra-compact footprint, light weight and radical design form a compelling combination for both live and installed sound contractors looking for a scalable, high octane solution — within budget.

MLA mini is extremely versatile, offering pole mounted, ground stack and flown options of up to 16 boxes aside, catering for everything from the boutique gigs to permanent installs in theatres for a 3000 strong audience and over 35m throw.

The key that unlocks the power of MLA Mini is the MSX mini-sub power plant, which complements the main system and houses the amplification, networking and DSP necessary to power and control itself and four MLA Mini enclosures.

In its simplest configuration, four MLA Minis can be pole-mounted above the MSX with precisely adjustable tilt angle, and function as a plug-andplay system, with the user recalling onboard presets instead of using computer control. At the other end of the scale, up to 16 MLA Minis can be flown in an array and powered by four ground-stacked MSX's.

Each MLA Mini enclosure houses 2 x 6.5" (165mm)/2" (50mm) voice coil LF drivers and a vertical column of  $3 \times 1.4$ " (35mm) aluminium dome HF drivers on a 100° horizontal dispersion horn. The 15" reflex loaded MSX can be integrated into flown arrays or ground-stacked separately.

MSX also contains nine channels of Class D amplification to provide cellular drive while the onboard DSP interacts with proprietary DISPLAY2.1<sup>™</sup> intelligent software for accurate array optimisation.

With each individual cell under software control, 'hard-avoid' areas can also be programmed in to reduce sound spill, and vertical coverage can be fine-tuned electronically in-situ without the need to re-rig the array.

Arrays and MSX's can be remotely controlled from a laptop or wireless tablet running VU-NET<sup>™</sup> control software thus eliminating trial and error tuning.

As such MLA Mini brings this revolutionary technology to an exceptionally wide range of smaller scale portable and installed sound applications from the small to medium ballroom, concert hall, theatre, house of worship, and is already building a strong reputation in the corporate AV space. MLA Mini can also act as side-fills for MLA Compact systems in a live context.







### **Case Studies**

#### Virgin Records 40th Anniversary



Virgin Records recently celebrated its 40th anniversary with an extraordinary ten-day exhibition at London's Studio B1 and Capital Sound was on hand to make sure the company that built its business on music got the audio it deserved by specifying MLA Mini.

Paul Timmins of Capital Sound was audio project manager, while Harm Schopman took on the role of Capital crew chief and engineer.

"The MLA Mini was amazingly effective," says Schopman. "A PA in a reverberant room like that shouldn't sound that good. And it also made having lavalier mics on stage workable. It sounded very natural behind the PA."

Paul Timmins added, "we thought it would be a great opportunity to evaluate the system, although we were fairly nervous as the venue was an old car park — a concrete jungle with low ceilings and a low-level stage."

Draping the building to deaden the acoustics would have raised costs significantly but Timmins knew that any reverberation could be controlled in the MLA Mini's sophisticated Display software.

Capital fielded the MLA Mini standard package - with

four top boxes pole-mounted above an MSX for the presentation segments, and a Martin Audio a WS218X conventional concert sub positioned behind each mast, adding additional power and punch when bands like the Kooks and Strypes performed.

Paul Timmins said that the exercise 'rubber-stamped' the MLA principle — "and the fact that the MLA Mini behaves in exactly the same way as the other MLA's." He added, "You can do everything in a smaller room with this system as you can in the larger spaces.

"The amount of power produced from four boxes on a pole fixed to a sub was breathtaking — and yet it's so light it can be handled by one guy."

He said that the sonic benefits naturally led on to the economic benefits, given MLA Mini's low weight mass and tiny footprint. "The system is ideal for small showcases, and record label events. A lot of small gigs are tightly budgeted and to be able to package a system like this that fits into a van — rather than needing to go to the additional expense of a truck — is fantastic. Each box only weighs 13 kilos each so with two stacks of four you are only looking at a total weight of around 100kg."





### MLA Mini Tames 'Soulless Shed'

During October, MLA Mini stepped out onto the world stage in its first commercial outing, and took on one of the most challenging venues around. The event was the annual conference of the retail giant, SPAR, and the venue was Westpoint, otherwise known to those in the sound community as a 'soulless shed', just off the M5 in Exeter.

Whilst Westpoint offers acres of space for trucks, and therefore easy load in, the venue itself, originally designed for the trading of Devon's finest livestock, is known for having a reverberation time of at least 7 seconds. The pressure was further compounded because this event is a major cornerstone in the calendar of Plymouth based Pyramid AV, under the directorship of Nic Black. The production team at Pyramid have been producing events for SPAR for some years now, and there is a deep-rooted measure of trust between client and supplier of the sort that doesn't need a new piece of technology coming along and screwing things up.

Armed with 24 brand new MLA Mini, six MSX subs and three flying frames, the challenge fell to front of house engineer, Simon Honywill, and Applications Engineer for Martin Audio, Andy Davies.

The system was deployed in three hangs, with two main remits – one was full range, intelligible coverage of speech and music for the seated conference area at one end of the hall, and the other was coverage of the entire hall for general announcements throughout an exhibition – measuring approximately 80 x 50 meters. Simon and Andy opted for an 8 deep, left/right configuration for the conference, which was flown upstage of a thrust where all presentations would take place, and a central third hang of 8, approximately 30m out into the hall. The third hang was optimised to cover



approximately 50m to the far end of the hall, and the left/ right was loaded with two optimisations, one to cover just the seated conference and the second to work with the central hang to cover the entire hall.

Well, did it work? Simon was enthusiastic in his praise. "I would go so far as to say that Westpoint has never sounded so good. It was actually gorgeous to behold. This little system has something that I have never heard in a small format line array before – real depth and control across the entire spectrum, and a genuine ability to throw some distance. It is warm, smooth and extremely well behaved, requiring little or no eq on all the head mics, save a bit of LF roll-off. There was loads of gain before feedback, and I was actually enjoying the very simple task of mixing a little playback, speech and VT – everything sat just right."

Indeed, MLA Mini exhibited all the qualities of the ideal system for any organisation involved in the corporate world. Apart from sounding really beautiful, it flies, it goes on a stand, it's light, it's small, it looks really tidy and you can guarantee great coverage and masses of gain before feedback. As Simon added, "Problem voices will be a thing of the past as you can open up mics like never before, even with some of the top end conventional small format systems. I would recommend it to anybody who takes their corporate work seriously."

Having the final word was Nic Black, who had everything to lose from this outing: "Having the Mini MLA system at Westpoint this year reaffirmed to me that it is possible to have beautiful sound in a challenging space. It was a great opportunity to have demonstrated the simple fact that well engineered audio can enhance the experience of the listener. We have had much positive and complimentary feedback regarding the sound and it was without doubt the best we have had."



### Hive Partnership Makes Its MLA Mini Investment Count



The Hive Partnership and its AV rental division, London Speaker Hire (LSH), recently purchased four polemountable MLA Mini enclosures (plus MSX mini sub power plant) to cover each side of the stage, and immediately debuted the system at Le Book, a 2-day creative trade show at London's County Hall, where two bands performed in the Rotunda in front of around 500 members of the creative industry worldwide.

According to director Grant Turner, "We had wanted this type of modular system for some time and researched the market to narrow down the options. But MLA Mini is pretty much in its own class."

At the event itself, Turner says the acid test was when the sound engineer from Arthur Beatrice – Universal Music's up-and-coming indie band — who had previously been specifying other front line systems on the rider, immediately requested a quote for MLA Mini.

LSH had provided sound for eight rooms but it was the main Rotunda, where the gigs took place, which provided the biggest challenge for MLA Mini. "Not only was it a circular domed room where everything had to be ground stacked, but the layout was very limiting due to floor-toceiling video projections taking place, and a conference taking place during the day". Told they were unable to fly a system at just 24 hours' notice LSD were able to quickly reconfigure their layout designs as the MLA Mini facilitated a nice ground stacking system, without compromise.

More positive feedback was soon to follow. Two days later Athlete bassist, Carey Willetts, presented his solo 'Boxes' project and management were quick to compliment the sound system, while The Video Geeks, who were supporting the gig, were so impressed with MLA Mini that they immediately asked to hire the system. "They loved the MLA Mini paired with the large modular video panel screen we supplied, and commented in particular on the amount of low end," Grant Turner reports. "The system was only running at about 20%, which tells you a lot about its potential."

In conclusion, he says the big advantage of MLA Mini is the number of different set-up options. "Where you would traditionally need to use a flown line array in certain smaller venues, nearly all current systems are so large that they are impractical. With the MLA Mini we are spoilt for choice. The compact footprint means we can have a two-man set up on certain events whereas we would have needed double that. This in itself is an immediate cost saving towards ROI.





#### MLA Mini's 'Flying Start' 180 Metres Above Ground

Martin Audio's MLA Mini loudspeaker array made another high profile appearance at a recent private party, when Production and Event Agency - Penguins, staged an 'invitation only' gathering at Searcy's at the Gherkin, for around 200 prime donor/sponsors of the British Airways/ Comic Relief UK Flying Start charity.

Special guest Katherine Jenkins delivered a stirring operatic performance — as Matt Manasse's company Bluefish Audio faced the inherent reflections of the glazed dome roof in this landmark London skyscraper, and the difficulty of manually humping all the gear 180 metres up to level 40.

Fortunately for Manasse's team, the MLA Mini is both lightweight and portable. A top line sound engineer in his own right, he was already familiar with Martin Audio's compact philosophy when he became the first sound engineer to air the W8LM Mini Line Array — on tour with Katie Melua way back in 2004.

By the time he attended this year's PLASA Show and saw MLA Mini at first hand he had already spoken to Martin Audio's Andy Davies about the prospect of using the system. "We do a lot of work with Penguins, and had the Katherine Jenkins date in the diary — so this seemed ideal."

Matt Manasse's arrival on the PLASA stand fortuitously coincided with that of Simon Honywill, Jenkins' regular sound engineer and a huge advocate of MLA. "And the fact that the former had already undergone MLA technology training for the larger system further underpinned the decision.

"I specialise largely in corporate events and wanted to move on from my old point source system," he explained. "I could have invested in conventional line array, but was waiting for something new to capture my imagination. The fact that MLA Mini was about to be released made it a lot more attractive; the technology behind it is just so interesting."

The decision to deploy it at the Gherkin was also born out of the fact that the room had "appalling acoustics," he added. Having had prior experience of the larger MLA Compact, further assurances provided by Andy Davies provided all the confidence he needed. "The first time I heard it was in the warehouse the day before the gig — and it sounded brilliant," he reports.

Arriving on site at Searcy's the first thing he noted was the curved, reflective building — with sound travelling effortlessly from one side of the room to the other.

With only a brief window to set up, there had been no facility to programme in 'hard avoid' areas, so on Davies' recommendations — and with physical dimensions such as the 18-metre head height taken into account — they predicted the splay angles using an optimised preset back at base. And it worked to perfection.



Katherine Jenkins, The Gherkin, London, UK





The Gherkin, London, UK



Also helping to overcome the near impossible timescales was the fact that the four MLA Mini top boxes could be pole mounted straight into the MSX sub station. "The whole rig went up extremely quickly," noted Matt.

The show itself was expertly mixed by the experienced Steve Carr, who was effervescent in his praise. "[Martin Audio's] new cellular array products impress me the more I use them. MLA Mini produced nice rich controlled lows with stunningly even coverage in the highs in a very difficult space and I easily managed to produce clarity and intelligibility of the voice. Any EQ'ing at the desk was very responsive in the system despite the acoustics of the space being incredibly lively. Minimal (if any) leakage off the back of the boxes meant the foldback mix was cleaner and more precise. Finally, neat rigging and smart box design makes it very inconspicuous and tidy."

Penguins production director, Richard Bowden added his own praise. "From a production viewpoint it was always going to be a tough challenge to provide a top spec audio system, for a hugely discerning artiste in a glass dome, with a one-hour prep time! However the speed of set-up and the ability to focus the sound so precisely made the Martin Audio system the perfect choice.

"Aesthetically, the box design is smart and compact — so for a venue such as the Gherkin, where the view is so important, it was a win.

"A number of guests commented on the sound — saying how they had expected the audio to resemble a busker in a train station. But the sound system was stunning and faithfully reproduced the classical vocals from Katherine Jenkins, who produced a memorable performance in front of this celebrity audience.

"I can see a wide range of applications for the system with our projects and I would definitely look forward to using the system again."

But the final endorsement came from Matt Manasse himself. "People with whom we have worked before were amazed at the quality of the sound, which was beautifully clean with even pattern control.

"In many ways this is the system I have been waiting for," he said in conclusion. "I feel I am buying into progress and that this steerable technology will be the next big step for audio. The whole MLA concept lifts so many of the problems for system engineers and bands, and I think it's fantastic."

For more information about MLA, training and relevant contacts please visit **www.martin-audio.com** 

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