

# theEDGE

Issue Five | March 2002

## The New W8L Line Array

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The Martin Experience

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## At the Cutting Edge

We owe a huge debt of gratitude for this latest edition of *The Edge* to the remarkable contribution of stories from our distributors around the world. It has not only been gratifying to receive this level of response — but the quality of the projects in which our customers have been involved has been exemplary.

It has made the collation of material for *The Edge* #5 — which becomes available at the *Frankfurt Musikmesse* — the most dynamic yet.

The big news from company HQ has been the response to the W8L Line Array system, which makes its exhibition debut in Frankfurt. We gave it a secret 'dry run' at the KROQ Concert in December, which it passed with flying colours, and before we knew it DM Audio had specified 24 enclosures for use at the high-profile Eurovision Song Contest in Tallinn, Estonia. As we go to press, a huge W8L shipment is travelling east around the world to Dah Chong Hong in Hong Kong for use at major live events — a full report will appear in the next edition.

As ever, production of this issue would have been impossible without the assistance of our friends in the industry. Special thanks go to Paul James at *Mondo* magazine for granting permission to use their article on the Yu Club, Sydney and to Paul Kelly Design Pty Ltd for the accompanying photography. We must also thank Jimi Giannatti for his sterling photography at the 12th annual KROQ Concert in Southern California, as well as the Palace Theatre in Hollywood.

And on the subject of photography, we equally owe a massive debt to our own Martin Kelly, for forsaking the excitement of the office in favour of a trip to Paris, in order to deliver the goods on *The Wagg* — a week before Sir Terence Conran's first nightclub officially opened beneath his celebrated Alcazar restaurant.

Make sure you drop by our stand at the *Musikmesse* — or wherever else you find us on the exhibition circuit this Spring and Summer. We're gearing up for an incredible season.

*Jerry Gilbert*

## Where to see us

March 13-17: **Musikmesse**  
Frankfurt, Germany

April 25-27: **NSCA**  
Denver, N.America

May 16-19: **CALM**  
Beijing, China

June 19-20: **ABTT**  
London, UK

June 24-27: **Cinema Expo**  
Amsterdam, Holland

July 10-12: **Pala**  
Hong Kong

Sept 8-11: **Plasa**  
London, UK

New Product



# 'Next Generation' Line Array System is Unveiled



## W8L Features

- True three-way system
- Very high efficiency, all-horn design
- Horn loaded 15in LF - 106dB @1W, 1m (single box)
- Twin 8in mid-horn - 108dB @1W, 1m (single box)
- Triple 1in HF horn - 113dB @1W, 1m (single box)
- Consistent 90° horizontal mid and HF pattern control
- Closely coupled HF devices overcome air absorption
- Fast, integral rigging system with variable splay angles for short, medium and long-throw sections
- Predictive software
- Laser pointers for easy aiming
- Compatible with WSX horn loaded sub-woofer
- Compatible with W8C family for side/front-fills

With the Wavefront W8L, Martin Audio are pioneering the next generation of line array systems. The design combines innovative horn-loading techniques with line array technology to produce an extremely powerful system with maximum dynamic impact.

The W8L is a 3-way, full-range system, which may be used without subwoofers for many applications.

The W8L system is the result of Martin Audio's strong pedigree in manufacturing modular line array systems; by combining patentable and proven driver-loading techniques with no-compromise vertically-coupled waveguides and true constant directivity horns the W8L achieves a level of efficiency and coverage consistency not usually found in this popular format.

W8L horns develop low curvature wavefronts for smooth, comb-free vertical coupling.

The Wavefront W8L integrates a high excursion, Hybrid™ horn-loaded and ported 15in low frequency cone driver with two vertically-coupled constant directivity horn-loaded 8in mid frequency cone drivers and three vertically-coupled constant directivity horn-loaded 1in high frequency compression drivers. Like the Wavefront Longthrow high-mid system, the W8L mid frequency drivers are optimally loaded using a toroidal phase plug to produce much lower distortion and superior horizontal pattern control when compared with typical waveguide-loaded compression drivers or cross-fired direct radiator systems.

And production hire companies know that whether the programme is a balls-to-the-walls dance festival, an audience-crushing heavy rock bash, a grand opera or an outdoor orchestral event, the W8L systems provides the solution — straight off the truck.



# DM Audio Euro Debut Line Array on Song Festival



When the new Saku Suurhall in the Estonian capital of Tallinn hosts the 2002 Eurovision Song Contest on May 25, the audience of 6,000 will be treated to the first major European performance of the Martin Audio Wavefront Line Array (W8L), from Stockholm-based DM Audio. The hall is just four months old and in its normal configuration the arena will be able to seat 7,100 plus standing places.

Lars Wern's company are the first European customers for the W8L, and have made a major investment. After visiting the new arena just outside the Baltic capital Lars believes it is perfectly matched to provide exceptional coverage for the multi-act event, without the need for delays.



*Lars Wern – DM Audio*

"The Martin line array was in my mind for the Song Contest from the very beginning — when we were asked by Estonian TV to become involved," he said. "We have been eagerly

awaiting the arrival of the W8L and have had such a good experience with the Wavefront 8C that it was an obvious choice.

"The footprint, the rigging attributes and the long throw all are important for a show like this and we will be able to cover the whole arena with the line array."

DM Audio will fly the line array in a configuration of four clusters of six boxes.

The system's compatibility with the W8C also worked in its favour, as DM Audio will combine the W8L with standard Wavefront 8 Compacts for the near fills and extreme sides, at the local Saku brewery-sponsored Suurhall.

Lars Wern and his team first heard the W8L system fired up at a demonstration in a TV complex near Hilversum. "The sound coverage seemed very smooth — especially when moving across the horizontal dispersion — and I was very impressed how even it was. With many line arrays you experience cancellation and you hear a different sound when you move around the front; but the W8L seems very well behaved. The overall sound was also very impressive. The system had a very smooth and powerful low end, even without extra sub-woofers."

He added: "We had to have a line array because it's coming up increasingly on the technical riders. Everyone wants a smaller system these days, and although it doesn't solve all the problems, it's a way of providing a very dense system, loaded with so many drivers, which you can't do with normal cabinets."

Martin Audio's innovative horn-loading techniques are a feature of the three-way, full-range system. The company has been manufacturing modular systems for years and the W8L is the result of this pedigree, producing an extremely powerful system with maximum dynamic impact.

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loaded using a toroidal phase plug to produce much lower distortion and superior horizontal pattern control when compared with typical waveguide-loaded compression drivers or cross-fired direct radiator systems.

Martin Audio expect to announce further sales for the W8L in the near future.

# Sneak Preview of New Line Array at California Rock Concert



In early December, with a noticeable absence of media hoopla, Martin Audio staged a low-key 'sneak preview' of the Wavefront W8L line array system.

The event selected for the debut was the 12th annual KROQ 'Almost Acoustic Christmas' concert, which rocked Southern California's Universal Amphitheater with music from 16 top alternative bands. The prototype W8L system was flown in from the UK, with the balance of the system — as well as all other audio logistics — provided by Delicate Productions of Camarillo, California.

"The performance was outstanding," says Delicate's Audio Manager, Graham Thornton, "The coverage was exactly as predicted, with very little drop-off from front to back, and everything sounded superb."

The bulk of the capacity crowds (about 6,500 each night) were covered by the main FOH system, comprising 20 W8L cabinets, flown ten per side. Each W8L cabinet contains a single 15in driver, two 8in midrange drivers, and three 1in HF drivers, all of which are horn loaded. Sub bass was provided by Martin BSX subwoofers stacked six per side.

The diverse musical fare over the two nights provided the perfect test for a high performance, high powered touring system. Falling in with the concert title, a few acts (notably Stained and Alien Ant Farm) did play acoustic sets, which helped to demonstrate the dynamics and transparency of the system.

But most of the music was hard-edged rock from bands like Linkin Park, Foo Fighters, Bush, Blink-182, Bad Religion and System of a Down. The calibre of the bands, hailing from both sides of the Atlantic, proved the deciding factor in bringing the new Martin system all the way to California for its live debut.

"We went over to England to hear the system in October," recalls Delicate CEO 'Smoother' Smyth. "I suggested that it would have tremendous promotional value to use the new system, since more than a dozen top engineers would have a chance to hear it at one go."

According to Smyth all involved were impressed by both the sound and the low-key presentation. "In particular, I remember Gungi Patterson, who mixed System of a Down, was most impressed, as was Jeff Gilmer with Stained. Beyond that, I think they felt privileged to be in on it, and were taken aback with the modesty of our approach."

Delicate's Graham Thornton finds the new W8L both a step forward in technology, and yet comfortingly familiar. "It does retain some of the features we like from the other Wavefront systems," he notes. "For example, this is the first line array that is horn-loaded throughout, with the bass horn similar to



that of the W8CS. That's one of the things we noticed immediately, the depth it gives to the low frequencies."

To keep music coming non-stop, the KROQ show was set up with a turntable stage, with double front ends feeding into the XTA 226 processors and Crest amplifiers (7001 and 8001) driving the Martin W8L Wavefront system. FOH setups were identical, with Yamaha PM4000 consoles and duplicate racks of dynamics and effects. The dual monitor systems employed Midas Heritage 3000 consoles, Crest amplifiers, and both BSS (388 and 366) and Martin MX4 controllers for the Martin-based monitor systems.

To analyse the system performance in a live concert setting, Martin Audio dispatched Applications Manager Jim Cousins and Director of US Operations Robert Hofkamp to California for the event.

Reflecting on the positive outcome of the event, Delicate's Smyth stresses the crucial role of teamwork between the rental company and manufacturer. "For something like this, Martin can't really do it alone, and I can't do it without them. It was very much a team effort. They saw the value of what we were doing, and decided to come to the party. Now the word is out, and our orders are in."

Delicate Productions have now received their initial order of 24 W8L cabinets, with 16 more to follow. In the meantime Sunbelt Scenic Studios in Phoenix, who have also ordered 24 cabinets, have agreed to assist Delicate with touring demands and larger venues.

# Massive Wavefront Systems

## Power Alternative Fest



*That Damn Show*, a one-day alternative rock festival sponsored by Phoenix radio station KEDJ The Edge, drew a packed crowd of 15,000-plus to hear a lineup of alternative rock acts that included Stained, Lit, Alien Ant Farm, Pennywise and Jimmy Eat World. The bands alternated between two mirror imaged stages erected on the outfield of a baseball stadium at the Peoria Sports Complex in suburban Phoenix. To provide a seamless transition, each stage was equipped with nearly identical Martin Wavefront loudspeaker systems provided by Tempe, Arizona-based Sunbelt Scenic Studios.

Sunbelt worked with Radio Events Group in co-ordinating all aspects of the show production, while providing all staging, lighting, and audio.

At the show production was split into two independent systems. On the 'left' stage, the flown L and R incorporated 24 Martin W8C full range cabinets, 24 W8CS low frequency units, and four W8CT mid-high long-throw boxes. Deep bass reinforcement was provided by ground-stacked BSX subwoofers, from Delicate Productions of Camarillo.

The system for the similar right stage comprised of 32 Martin W8C loudspeakers, four W8CT cabinets, and four W8CM low-mid units. The thump on this side came from 32 Martin WSX subwoofers. The two systems were remarkably similar, although the addition of the W8CS cabinets added an extra warmth.

The stage monitor systems were Martin as well: the left offered 16 LE700 wedges with F1 and F2 drum and side fills;

the right was furnished with 22 LE12J wedges with W8, W8S and WS2A cabinets for drum and side fill. Stained loaded in a touring in-ear monitor system, all other bands used the equipment provided by Sunbelt.

Both stages were fitted with identical consoles, with Yamaha PM4000 boards at FOH and PM4000Ms for monitors. Delicate brought all Crest amplifiers and a BSS drive system, while Sunbelt's system was fitted with Crown Macro-Techs and FOH drive system included Martin DX1 system Processors.

The 2001 show marked the tenth anniversary for *That Damn Show* and the third year for Sunbelt as the principal audio supplier. "We completed our main Wavefront system just before the 1999 show," recalls Jim Jorgensen, audio manager at Sunbelt, "and at the time we may have had the largest Wavefront system in America. By that time, a number of other companies were using Martin systems, but I owe credit to Delicate's use of Martin Audio on the *Lollapalooza* shows in establishing name recognition for the Martin brand name — which probably helped us get the gig."

One concern was the volume level, and its effect on surrounding neighbourhoods. The city of Peoria has imposed a 76dB noise restriction at the property line, and in fact The Edge Radio station had been fined for noise complaints back in 1999.

"This year, with the Wavefront systems, we were able to exceed the bands' expectations in the audience area, but not receive one complaint from surrounding areas," reported Jim. "In fact, vehicular

traffic on Bell Road was louder than the show on the measurement tapes."



*Jimmy Eat World*



# High-Flying Starsailor Score

## With Cap Sound

Already this year Starsailor (named after the Tim Buckley epic album from 30 years ago) have enjoyed several Top 20 hits and recorded a magnificent debut album, *Love Is Here* since signing for EMI.

The four-piece from Chorley, Lancs are centred around the extraordinary songwriting talent of 20-year-old Walsh, whose songs began to take shape after arriving at music college in Wigan and meeting up with James Stelfox (bass) and Ben Byrne (drums). The final piece of the Starsailor jigsaw was the arrival of keyboardist Barry Westhead at the start of 2000.

In the wake of their third single, *Alcoholic*, they have now undertaken their first British headline tour — a series of sell-out dates at 1200-2000 capacity clubs, universities and theatres around the UK, supported by PA hire specialists Capital Sound Hire.

For Cap Sound project manager, Paul Timmins, it has been a particular triumph in his quest to develop the up-and coming band market. Gratifyingly, EMI could see the band's enormous potential and didn't stint on production values when it came to budgeting for live performance, says Paul. "We had done Starsailor's initial showcase — as we often do with EMI acts — and so they felt they didn't need to put the tour out to tender."

Cap Sound were also fortunate to have the experienced Trevor Gilligan engineering at front-of-house, and he sensed that a Martin Audio Wavefront system was perfectly matched for the size and scale of venues facing the band.

"We were lucky in that the band and engineer are both superb, and believe in a high level of production," says Paul. "In fact when the promoters at an early gig within the Manchester Academy wanted to hire in a local PA, the band held out."

Gilligan, too, had a major input in the selection of the equipment. "He wanted a good speaker system and console (Midas XL4), but his control, FX and inserts are basic. He used a couple of house systems during the tour but said he much prefers the Martin Wavefronts."

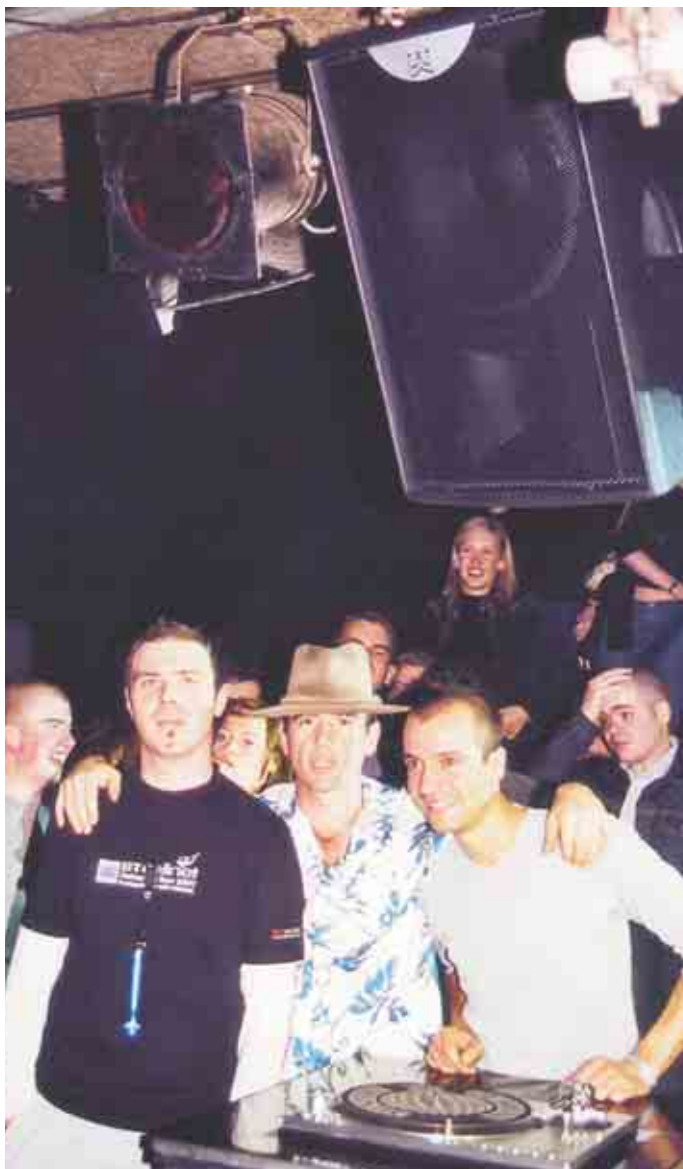
These were typically stacked seven W8C's and six WSX subs per side — and Gilligan quickly discovered that the Martin W2's he had on standby for delay purposes weren't necessary. At the stage end, monitor engineer Pep (working off a Midas XL3) mixed the sound exclusively into conventional Martin floor monitors. These comprised of eight of the classic LE700 wedges, with a pair of LE12JB's for the backline techs, and stack of W8 sidefills on either flank in support.

Cap Sound's Al Woods and Burger were on babysitting duties — at FOH and stage respectively — throughout the tour. Trevor Gilligan himself paid tribute to the Capital support team ... "particularly Al ... who dealt with the system dynamics in such a way that when I arrived for each show everything would be set up and ready."



Walsh,  
and (inset)  
Trevor Gilligan

# Blackline Provides 5.1 Monitoring At Ministry



The Ministry of Sound has selected a Martin Audio Blackline monitoring system to meet the high-system specification of its newly-commissioned DTS 5.1 Digital Surround DJ station and multi-channel sound system — the first in the world.

The cutting-edge booth — relocated to the far end of the main room in the famous London club — is the first to incorporate eight decks, along with seven sound mixers and seven other input sources in a DTS Surround Sound environment.

Aware that other superclubs had adopted the Blackline F12 for their house booths, the Ministry of Sound decided to go one better, and on the recommendation of ProMedia Systems'

Matt Bate, the venue's technical consultant Keith Hardy ordered five F15's, to be run in conjunction with an S218 — creating the highest-impact combination in the Blackline series. The 6kW system is controlled from a BSS Soundweb device.

The F15's are arranged in the traditional 5.1 configuration, with the centre speaker mounted horizontally, horn down. The mighty sub is recessed in an enclosure at the centre rear.

Commented Martin Audio sales manager, Simon Bull, "The requirement at the Ministry is comprehensive owing to the 5.1 digital surround sound design. Using the F15's makes this one serious system, which underlines the importance now given to DJ monitoring."

He emphasised that ProMedia Systems' Matt Bate had been instrumental in raising the Ministry of Sound's awareness to Blackline. "He is very pro-Blackline, having specified the series recently at the Player in Northampton and installed a massive quad system at the new Leeds University Stylus dance venue."

*Footnote: Martin Audio also supported the Ministry's premium outside event, when for the second year running the club took over the Millennium Dome for a 14-hour New Year's Eve Dance Party.*

*Capital Sound Hire dug deep into their inventory of Martin Audio Wavefront 8C enclosures to provide sound reinforcement, although due to other W8 commitments in St Georges Square, Glasgow, and the necessity to match each mid/high box with a low-end enclosure, Cap Sound were required to sub-hire an additional 14 WSX subwoofers from the new Martin Wavefront inventory of London-based FX Music to fulfil their remit to the Ministry of Sound.*

*Four separate arenas — 'Smoove', 'World Dance', 'Rulin' and 'Ministry Of Sound' — were set up, and among the world-class DJs involved in the spinning marathon were Judge Jules, Dave Pearce, Alex P, Brandon Block, Adam F, Tiesto, Dream Teem, Norris Da Boss Windross, Pied Piper, Fabio and Grooverider.*

*Capital Sound Hire were contracted to kit out Smoove and World Dance — filling the two massive, 9,000-capacity 8-pole Khyam tents with powerful Martin Wavefront stacks.*



**Pic (left):**  
Ministry technicians  
with Matt Bate (in hat)

# Blackline Arrives at London's Embassy



One of London's most famous dance venues has been fitted out with a Martin Audio system, courtesy of Bedford-based Creative Technologies.

The former Legends — in Mayfair's Old Burlington Street — has been acquired by Mark Fuller's Embassy Restaurants Ltd, following the sale of his previous venues, Sugar Reef and Red Cube to Chorion plc.

Fuller — with partner Garry Hollihead and operations director, Gina Campbell-Clough — has renamed the venue The Embassy — in deference to the famous venue that flourished in nearby Old Bond Street in the early 1980's, where he also worked.

Creative Technologies' relationship with Fuller extends back to his days when he ran Little Havana. The company also installed Sugar Reef, but according to managing director, Rob Ferguson, this is their most sophisticated fit-out yet, as the combination of Martin Audio components and Soundweb networking will provide a level of local control in each sound zone.

Powered by QSC amplification, the system has been designed to allow for expansion should the venue wish to bring in live acts, but for the most part music will be played back from a Rolec hard disk machines, as well as by the DJs — working Technics SL-1210 decks, mixed via the now obligatory Allen & Heath Xone 6:2 — and a five-play Denon CD player.

This is fed for the most part to Martin Audio loudspeakers — eight EM15's, ten EM26's and four Blackline F15's, as well as some pre-existing other-branded subs, in which Creative Technologies have replaced the drivers.

These feature in the dance area basement where a Blackline F15 is flown in each of the four corners, working in tandem with some floor-mounted EM26's.

The EM15's can be found on the mezzanine vantage point, and in the ground floor restaurant along with some JBL Control 26 ceiling speakers.

The ceiling lighting features Pulsar's LED eyeball fixtures, the ChromaLights. Thirty of these were specified by Chris Shead of World Lighting With Technical Solutions. A Pulsar Masterpiece Replay 216 controls all the lighting, including 40 Martin Pro Minimac profiles, via two outstations, offering 24-button operation.

Commented Rob Ferguson: "We chose Martin Audio for a combination of factors — strong third-party recommendation, the brand's reputation and its versatility.

"It's the first time we've worked with these products and it's definitely not the last, as Blackline was a dream to rig.

"But the key in the end was the system's versatility, which enabled us to get the graduation right between the upper restaurant and lower dance floors."



# EM's Take The Floor For Conran in Paris



The famous Paris site where the legendary Jim Morrison said farewell to the world has been converted into a discotheque by Sir Terence Conran.

The former Whisky-A-Go-Go, underneath the entrepreneur's celebrated restaurant Alcazar, had been empty for some time, and when it was excavated for the refit, artworks from the legendary Doors front man, were found.

The site has now reopened as the Wagg — with the sound and lighting specified and administered by *fabric* of London, and featuring exclusively Martin Audio sound reinforcement and amplification.

Technical consultant, Dave Parry of Most Technical, who last year turned famous London club *fabric* (where he is resident) over to Martin Audio sound reinforcement, with the use of Blackline and Wavefront components, this time opted for the EM architectural range.

Sound over the main basement dancefloor — a long tri-domed corridor — is delivered through a distributed Martin Audio system comprising 14 Martin EM26's, reinforced by six Martin Blackline S15 subs, while the DJ will be able to

reference the music, mixed on an Allen & Heath mixer and delivered from Vestax, Technics and Pioneer playback devices, through a further pair of EM26 monitors and a Blackline S15 sub.

Dave Parry promises that the 350-capacity venue, in Paris' trendy St. Germain, would appeal to the ultra chic. And those lucky enough to gain entry to the bijou second room will be able to hear the music played through four tiny EM15's and an EM120 sub.

The entire system will be powered by a combination of nine Martin Audio MA1.3 amplifiers, a pair of MA1.6's and an MA900.

As with *fabric*, the system will be tuned using three BSS 9088 Soundweb DSP devices and utilise the OutBoard Timax ImageMaker. Each speaker has its own separate EQ programmed into Soundweb, and then sent out to Timax.

Dave Parry explained that after Sir Terence Conran had first called on his expertise to initiate the restaurateur's first nightclub, his instinct had been to approach tried and trusted contractors. And his faith proved well justified. "We knew all the product worked so the bigger issue was what level of back-up we would get. As we anticipated, everyone has been incredibly supportive."

Dave Parry also specified the lighting, using the new Pulsar Chromalights at floor level to create solid blocks of moving colour. Martin Professional moving yokes and strobes are also controlled from a ShowCAD MIDI controller.

"This will ensure we remain one step ahead," he said.

The venue's architects are Sarah Aldridge and Marie Deroudihle of Conran and Partners and the manager is Leon Akarirat.



# Screen Systems Used Throughout New West 12 Multiplex



Warner Village Cinemas have extended their relationship with Martin Audio cinema systems with the opening of the 12-screen West 12 Centre multiplex at Shepherds Bush.

Forming part of the £20 million redevelopment of the Concord Shopping Centre, the building of the latest Warner Village Cinemas site is part of a general renovation of the area, with design by architects the Colman Partnership.

The sound systems consist of Martin Audio Screen Series cabinets, which also featured recently in a number of screening rooms at the high-profile Warner Village Cinema complex at Star City, Birmingham, and in the Warner Bros. preview theatres in London.

Warner Bros. International Theatres Director of Projection and Technical Equipment, Phil Crawley, confirmed that Martin Screen 4's and 5's are currently being adopted in new Warner Village Cinema multiplexes around the UK.

Screen 5's and Screen Sub 1A's are set conventionally as L/C/R systems in the two large Dolby Digital EX cinemas (Screens 9 and 12, with 386 and 284 seats respectively). The added cinema surround is provided by Martin Audio Effect 5's.

Dolby Digital 5.1 features in the other screening rooms, where Martin Audio Screen 4's are in use.

The three-way Screen 4 and Screen 5 full range systems boast dedicated midrange and high frequency sections, with the Screen 5 designed for larger scale cinema environments. This system, which has been designed to meet the THX specification for 3-way screen systems, consists of a 2 x 15in low frequency section plus a unique midrange and high frequency horn which exhibits ideal pattern control across its operating range from 300Hz-20kHz.

The innovative design of the Screen 4 also overcomes the strenuous demands on the

high frequency section of traditional two-way cinema systems. By splitting the frequency band from 630Hz-20kHz into dedicated sections the Screen 4 produces superior, low distortion sound for large cinema environments.

The complete system comprises two separate sections, with the 2 x 15in bass drivers designed in a shallow format for behind-the-screen placement.

Martin Audio's Cinema Product Manager, Richie Rowley notes that each performance room in West 12 Centre is assigned its own technical plaque, indicating to the audience the component parts of the aural experience.



# Toko's Blueprint for the Future



Marquee Audio and Martin Audio formed a winning combination to deliver the technology for a wonderful new sister venue to Future 3000's award-winning restaurant, Bliss, in the British south coast holiday town of Bournemouth.

That venue also features Martin Audio loudspeakers — as do all of Richard Carr's enterprises, including the highly successful touring dance brand, Slinky, which has its base at the Bournemouth Opera House.

But this month a new Asian themed bar restaurant called Toko appeared in St. Peters Road — just four doors up from Bliss. The original design concept for both was inspired by Stuart Jones from Design Mode.

Future 3000 knocked a former furniture showroom and estate agent's office together to produce the 800-capacity venue on 7,000 sq. ft, at a cost of £1.5 million.

With the departure of his former technical manager, Richard Carr sought an outside company to supply and install the architectural Martin Audio EM series loudspeakers — and Marquee Audio were recommended.

The two-level floor, with a sumptuous basement bar, is divided into six zones, including the main focal point — an aquarium, in the midst of a 90ft circumference island bar, which is maintained by the local Oceanarium.

Six EM76's are wall-mounted on the main dancefloor (which becomes the buffet-style food servery during the day); three EM26's are found in the raised window/aquarium area, with a further 16 EM26's around the main bar. Three EM56's provide the sound for the second dancefloor, while seven EM26's are distributed around the 70-capacity basement area and eight Martin Contractor series C516 ceiling enclosures are



flush-mounted in the sixth zone — the toilets. All routing, zoning and EQ parameters are stored in a BSS 9088LL Soundweb, while a 9010 'Jellyfish' remote provides local access for the DJ. The system is powered by QSC PLX 2402 amplifiers.

A lot of loudspeakers for such a venue? Richard Carr certainly doesn't believe so. He specifically requested a large number of Martin EM series architectural speakers, in all the groundfloor zones and the sophisticated basement lounge. "In this way you don't have to over-drive the system, and you also achieve quality and coverage. I'd rather have speakers everywhere and the system run at 65% — it can be a false economy otherwise."

And he is delighted by the overall design and specification of the Marquee Audio components, including the C-Burn Revolution REV 100 interactive hard disk delivery system for use during the day — while by night DJs spin records from a Denon DN2600F twin CD player or the obligatory Technics SL1210 decks, with the aid of a Martin EM26 for reference monitoring. The system is mixed through an Allen & Heath XONE:464.

It's a punchy system alright — not that you'll ever hear any garage or house music in Toko. As Richard Carr says, "The music here is strictly '80's/'90's pop — and it has to be vocal-based."

And already that policy is attracting the type of sophisticated clientele they are seeking.



# Playhouse Upgrades with Wavefront



Officially declared the State Theater of California by the State Legislature in 1937, and known for decades as 'Hollywood's talent factory,' the legendary Pasadena Playhouse launched the careers of dozens of notable actors, writers and directors.

Unfortunately, in recent years, the Pasadena Playhouse's ageing audio system had fallen far short of the venue's tradition of excellence.

"We had an antiquated system that was cobbled together back around 1988," admits Tom Ware, production director for the Playhouse, "and we had been looking around for quite a while. We needed a system that was flexible, since we do everything from small, intimate plays to large scale musicals."

To design a new system on rather short notice, Ware called on independent sound designer and audio engineer Rick Boot, a long-time associate of the Playhouse. Working closely with Lori Burke at Delicate Productions in Camarillo, Boot created a system design based around Martin Audio Wavefront loudspeakers. The main left and right systems each comprise two Martin Wavefront W8C full range 3-way cabinets augmented by a single W8CS bass cabinet. A removable centre cluster utilises two Martin Wavefront Theatre WT3 3-way systems. Sub-bass comes from a pair of discretely-placed Martin S218 subwoofers.

"I decided to go with the Martin speakers because I'm very familiar with their sound quality," says Boot. "The Wavefront

response, particularly in the crucial vocal range, is just incredible. They are never harsh sounding, but always warm and natural. They do a great job in here."

Tom Ware echoes Boot's sentiments. "The Martin is a great cabinet, very warm and full and with excellent detail. Although it's a permanent installation, the set-up allows for great flexibility."

Following Boot's specifications, Delicate Productions supplied a complete new system for the Playhouse, including a Midas Heritage 2000 console, 15 Crest amplifiers, and BSS Omnidrive and Varicurve units for system control and equalisation. Dynamics control and effects units come from Lexicon, tc. electronic, Drawmer and

Yamaha, while source playback units were supplied by Akai and Tascam. Other Delicate-supplied equipment included ten Shure microphones, a Telex intercom and a video monitoring system based largely on Panasonic products.

Interestingly, the Martin Wavefront system was not part of the theatre's original plan for technical renovations. Another firm had been contracted many months before to supply a different system, but when they demurred at meeting the installation deadline, Tom Ware called on Rick Boot to see if he could do better on a much tighter schedule.

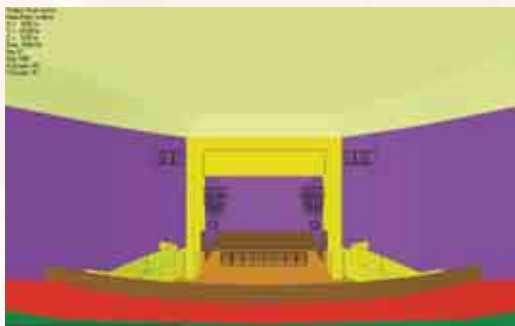
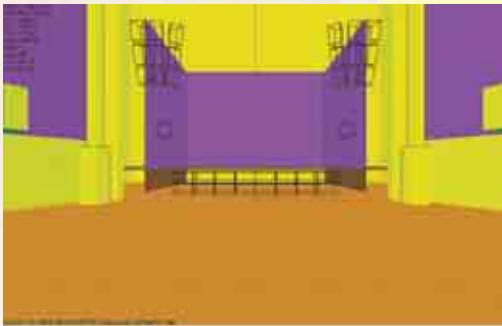
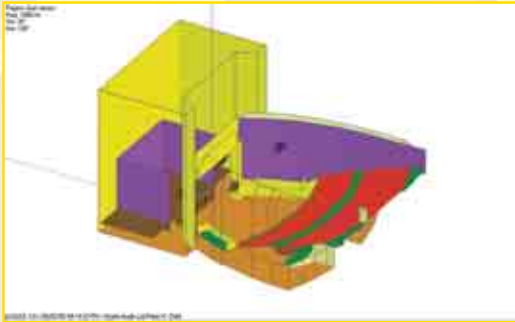
"The other company had already been working on it for six months," says Boot, "but we had less than two and a half months to get everything designed, supplied and installed."

"Lori at Delicate did a great job of co-ordinating with suppliers, and Martin Audio was particularly helpful in getting the custom-painted cabinets to us very quickly."

All's well that ends well, says the Bard, and all concerned at the Pasadena Playhouse seem more than content with the change in plans. The first show, a vintage Sondheim-Rogers musical, entitled *Do I Hear A Waltz*, was enthusiastically received by audiences and critics alike.



# Famous Hollywood Theatre Upgrades



Located close to Hollywood's legendary Hollywood & Vine, The Palace came into life in 1927 — during the era of vaudeville.

It has since been through many manifestations and even hosted the first West Coast performance of The Beatles.

During the disco boom it was in vogue as the Californian equivalent of Studio 54, featuring the largest light and sound system in LA, and throughout the 1980s and 1990s it was the definitive concert venue for new, aspiring bands (although in the 80s it had also hosted yet another British invasion, with the Eurythmics, The Clash and Duran Duran making their US debuts there).

Kay Neill, owner and CEO of Palace Holdings Inc, purchased the venue in 1991 with a mission to restore its former grandeur. By the end of 2001 she had invested over US\$2 million in multi-media technology. This included an upgraded laser system, intelligent lighting and video projection — culminating in the installation last December of a Crest-powered Martin Wavefront system. Her policy, she said, was to spare no expense to reinstate The Palace to the showcase that it deserved.

The venue had also been through many PA systems — many of them on long-term leases, many of them bulky. The theatre caters for a wide range of stage performance as well as all-night dance events and thus the equipment had to be sufficiently versatile to meet wide-ranging criteria, with a heavy duty cycle imposed on it (since the Theatre is open nearly every day of the year).

Kay Neill travelled the length and breadth of Southern California listening to sound systems in every kind of room — paying particular attention to the characteristics of old theatres. Generally the performance was left wanting, but because of its tradition as a radio and television studio she was also aware that The Palace was acoustically perfect.

Months of research later she had produced a short list of leading manufacturers, and several local contracting and concert sound companies were invited to tender proposals and submit systems for evaluation over a ten-day period.

The Crest-powered Martin system — supplied by Camarillo-based Delicate Productions — performed the best and offered the lowest physical profile, enabling the whole of the beautiful proscenium arch to be revealed. Kay Neill had further been reassured by a trip to the Martin Audio factory in High Wycombe during an unrelated business visit to the UK, where she was able to experience the philosophy and passion behind the product at first hand.

And if her visit to Bucks had satisfied the passion behind the manufacture then Delicate's dedicated team convinced her

that they could turn things round in double quick time. All other companies bidding required ten days for installation but due to the Palace's heavy performance schedule only three days were available ... one to remove the old system and two to fit the new.

Delicate's Graham Thornton emphasised that their experience as a touring company proved useful as they were able to prep and wire offsite, building and testing racks for delivery and plug in. Having made the commitment that the system would be fully commissioned and tested within an hour of showtime, they were bang on target.

Peter Child, Martin Audio's EASE guru, modelled the venue, generating simulations which gave accurate speaker location, coverage, SPL and intelligibility information. This greatly assisted Delicate's swift installation.

The FOH arrays consist of six Martin Audio Wavefront W8C Compact single 12in 3-way mid-high cabinets and three W8CS Compact 15in horn-loaded subs.



Two delay arrays consist of two W8C mid-high cabinets and a W8CS bass cabinet, suspended midway back to cover the rear of the 425-seat balcony. Four Martin WT2 two-way speakers, driven by Crest 7001's are used for front fill for stage performances and the system's low-end consists of 14 Martin S218 vented dual 18in subwoofers, driven by Crest 9001s.

Martin components have also taken care of the stage monitoring, in the form of six Martin LE12JB low-profile 12in two-way wedges and six Martin LE700A large-format 15in two-way wedges, controlled by six Martin DX1 dedicated digital controllers. The wedges are powered by 12 Crest 7001's and low-end drum monitoring is provided by a WS2A bass cab, driven by a Crest 8001.

Providing the sidefills are a pair of flown Martin W8C three-ways — one per side driven by Crest 7001s, and two stage-level S218 vented dual 18in subwoofers (one set on either side).

The Martin system had to be sufficiently flexible to cope with the stage configuration. Moved by four two-ton electric motors the stage takes 15 minutes to set up or retract, folding flat against the theatre's back wall.

When fully expanded the subs are positioned in front of the stage and the WT2 two-way front-fill speakers are placed along the front lip of the stage. When it is retracted (for dance and DJ events) the WT2's are removed and the subs are rolled back.

System settings for each performance mode are stored .

Despite the additional huge investment in lighting and lasers Kay Neill anticipates a further 18 months of hard work before the timeless design of The Palace is reinstated and the disco-oriented architectural elements of the '80s are fully removed.

It's hardly surprising that the deadline for the accomplishment of this is mid-2003 — for that's when The Palace celebrates its 75th anniversary.

*Photography: Jimi Giannetti*



They are configured 3 x 3 with a centre column of W8CS bass cabinets, flanked by a column of three W8C mid-high, tri-amped cabinets — powered by Crest 8001's and Crest 7001's.

The top row of the arrays is angled up towards the balcony to cover the front section and FOH mix position. The middle row of each array is angled down to cover the back of the theatre, and the bottom row is angled towards the nearfield.

# ASB Makes a Full Time Commitment



Martin Audio has been chosen as the new front of house system for the ASB Theatre, part of Auckland's world-class performing arts centre.

The Aotea Arts complex, located in the heart of Auckland, New Zealand, opened in 1990 offering a supreme performing arts centre. The 2,500 seat theatre was designed with particular attention to the acoustics of a large venue. The previously installed front of house audio system did not have the sound quality that international acts demanded and therefore, for some time, the theatre has been hiring in a Martin Audio system for the more critical performances.

Head of Sound & AV, Damon Newton, says, "We have always found the Martin Audio system has offered the true clarity required for our bigger productions. Purchasing a permanent Martin house system is the obvious and natural progression for us."

He continued, "The Martin sound is unbelievable. It sounded great straight out of the boxes — even before we had done any EQ or adjustments."

He emphasised that for the majority of the venue's national and international acts a system was required that had no particular 'sound', and was sufficiently neutral to handle opera,



ballet and large-scale theatrical presentations. The Martin Wavefront system fits the bill.

The new system was supplied by Auckland's ACME Audio, whose managing director, Rex Vizable, commented, "We knew from our long term relationship with the Martin brand that the system would sound stunning from the moment we supplied it. The guys at the Aotea Centre were amazed at how good it sounded right from the start.

"The W3's are a dream to set up, needing very little adjustment for most installations, it's 'plug and play' in the best sense."

The new system includes 11 Martin W3 3-way active speakers, giving excellent sonic quality at very high SPL's. There is a group of four W3's to each side with a

cluster of three flown over the front centre of the stage. For bass extension, two Martin WSX monster single 18in sub woofers are used.

Amplification is provided by no fewer than seven of the highly regarded Martin MA2.8's. These dual 1.4kW amps use patented switch mode power supplies offering excellent speaker driver control whilst offering a lightweight, low heat output design.

Rex Vizable is fully confident that the new system will offer the sound quality that

the ASB Theatre has long deserved. "Sound crews are notoriously hard to please but the guys were just blown away by the quality from the word go; the smiling faces just said it all."

And Martin Audio's New Zealand distributor, Robert Judd, added, "I'm delighted that Martin Audio is starting to be used in the premium theatres in New Zealand.

"It is very important for our clients to know that we can offer both an outstanding sound system and the ongoing service to match."



# Screen 6 Chosen for NZ Lord of the Rings Premiere



The Martin Screen 6 Series has been chosen for the upgrade of Wellington's Embassy Theatre. The theatre is run by the Embassy Theatre Trust, established in 1995 by a committed group of arts, film and heritage interests. So when trust member, Peter Jackson, wanted a premium location for the New Zealand premiere of his film, *Lord of the Rings*, the Embassy seemed the obvious choice.

It was felt that the sound system was in need of some improvement. And with the premiere date fast approaching a complete upgrade proved more cost effective than repairing and modifying the current house system.

With the help of Optimum Cinema Systems MD, Ewan Cole, the new Martin system was designed, flown to New Zealand and installed in record time ready for the premiere. "There were concerns with the old system's lack of sub bass", says Ewan, whose company distributes Martin Audio's cinema products in New Zealand. "In the end it was decided that one of the best cinema audio systems would be needed to portray Jackson's *Lord of the Rings* with the maximum impact and quality that it deserved. The existing system suffered from not only a lack of bass but also under-powered surrounds."

"The resulting upgrade just sounds fantastic," he enthused. "High quality clean audio is instrumental in enjoying the film experience to the maximum. It is fantastic for the Embassy and Wellington to have such a prestigious location to screen quality films. The Martin Screen System manages to convey more excitement than any system I can think of."

Ewan, who attended the New Zealand premiere of *Lord of the Rings*, discovered that his enthusiasm was contagious. The film's Post Production Producer, Jamie Selkirk, added "The sound is just fantastic," while director, Peter Jackson, was even more enthusiastic, telling the audience, "Having seen the premieres in London, New York, Toronto and Los Angeles, The Embassy is the best screening I have seen."

The system consists of the brand new Screen 6 Series. Three Screen 6's are used across the front along with six centrally-located Screen Sub 1A's supplying the sub bass necessary to fill the theatre. Power is supplied by two Martin Audio MA4.2's and three MA1.3's, Martin's acclaimed high power amplifiers.

Summarised Ewan, "In the end people speak with their feet and the Embassy is still filling to capacity. The sound is an integral part of the experience and I am glad that the Martin system adds immeasurably to that enjoyment — both for now and the foreseeable future."

# New Noise Extend W8 Fleet



During 2001 the German production company New Noise were constantly extending their inventory of Wavefront equipment. In addition to W8C/WSX stacks they have also invested in both the CM and CT Longthrows, which have debuted on a musical production for 6000 people at the Grugahalle (a well known hall for concerts and other events) in Essen, Germany.

The main PA consisted of seven W8C's and W8CT, plus W8CM and six WSX subs — as well as a pair of W8C's as nearfills for each side. The system was supported by a centre cluster with two W8C's as bleacher-fills and two stacks of W8C/W8CS.

Robert Eckerfeld, head of New Noise, enthused about the even coverage of the sound throughout the concert hall, and the excellent speech/voice output.

The enormous flexibility of the Wavefront system continues to surprise engineers and public alike — in fact almost the same configuration has recently been used for a large Techno event.



# Kelly Creates Another World at Yu Club



The concept from the outset was to make Yu in Sydney the best club in the world. The clients were so set on this that the designer, Paul Kelly, undertook a four-day research journey to London in which his team saw 67 bars and clubs.

The sound system at Yu is superb. The music is crisp and sufficiently clear and loud, according to the designer, to create a sensation that “your insides will burst out of your ears.”

This is achieved by using a Martin Audio system comprising of ten Martin W2's, six Blackline S18's and a Blackline S218 – with two dedicated DX1 system controllers. These are powered by six QSC PL-218's and a QSC PL-224.

One of the main points that the designers had to attack was the fact that there was a growing bar/club market in Sydney, and the competition was fierce. Their strategy was to create a space that was changeable and had a wide variety of ‘options’ for different and changing markets. They decided to split the concept into three main focus areas: the lounge bar, the nightclub and the joining zone ‘fast lounge’. They wanted to develop two separate markets at the same time, as the lounge market finishes earlier than the nightclub and naturally starts earlier. In order to maximise both markets in the one space, they conceived the design with a ‘stage’ in mind, where doors close, furniture goes down shutters and suddenly it's a new room.

Above all they wanted to take patrons on a journey of senses, creating a club that could be everything to everyone, and not clearly define a specific market.

Thus the entry was designed on the same criteria as a theme park ride, with the creation of an Atmospheric Sound Corridor. This is a long corridor with two distinctly different forms of architecture overlapping each other. They placed fibre optic lighting (that can change colour on different

nights) in ceiling voids and mirrors at both ends, animated two-minute DVD loops of various scenes and installed a six-speaker Dolby 5.1 sound system into the entire corridor.

Inside the club, an illuminated white fabric wall ends with a cluster of chrome blades to the right, and the dichroic blue lighting on glass brick laid tiles with the fully mirrored bar to the left.

The designers created an elevated DJ/VDJ area, with a private lounge to the rear. Here the patrons can see the amount of technology that is required to create what they are experiencing, however the cantilevered construction of the bench allows the DJ to be part of the crowd, not hidden in the corner. The private lounge area has plush purple material curving up and over, so VIP guests can feel part of the action, as if they are with the crew.

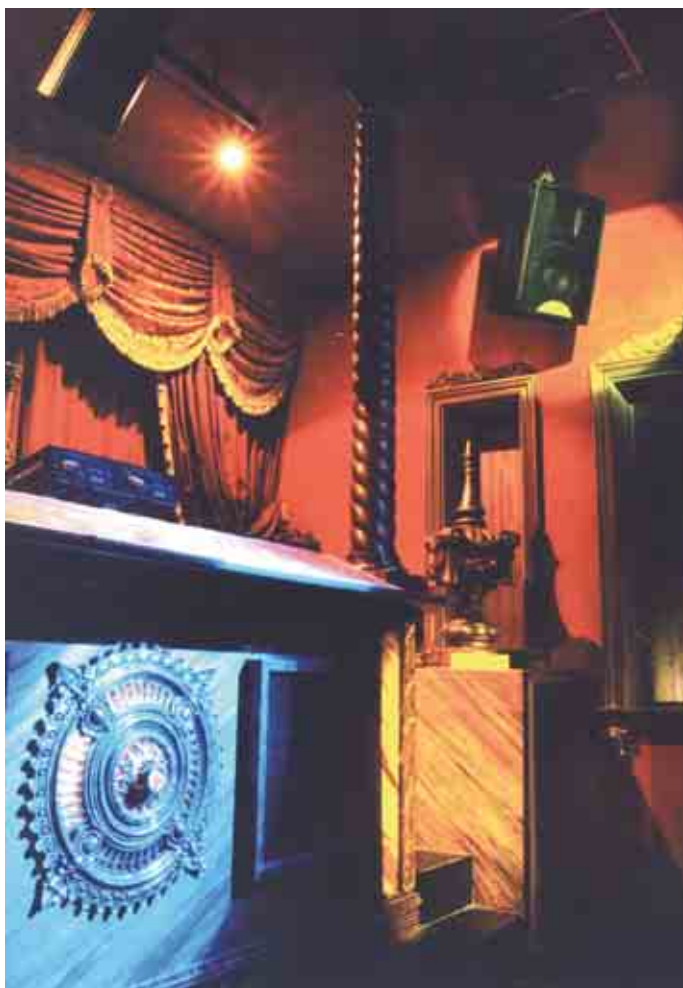
The entire site has the same sound properties as a sound studio, with visible and non visible acoustic control. “For this reason,” says Paul Kelly, “we wanted to show the patrons high quality sound, without actually seeing it, like huge bass bins etc. We were able with the help of consultants to put the entire Martin Audio sound system in the ceiling, bouncing bass waves through people and off the floor back up. This creates area distinction between zones of music, and we have been able to target specific areas with volume, and be able to have a conversation in others.”

Due to ceiling height constraints the designers decided to make a feature out of both the light and the lighting produced. The video projection, which is mixed in real time, creates individual film clip style images for each separate track. Also scattered throughout the crowd are tiny video cameras that allow the crowd to be mixed in real time.

The audio contractor/system designer was Matthew Kline (for AV Sound), with technical assistance provided by Anthony Russo at TAG.



# Zone's Outstanding Theming



The Zone, Melbourne's, newest and perhaps Australia's finest club, features a themed interior that pays extraordinary attention to detail.

The main room is seemingly lifted from Easter Island, with hand carved replicas of those famous Moai statues complete with foliage growing over rough rock walls. The DJ booth consists of smoked glass, more statues, rocks and foliage. The bar doubles as a small stream with water pumped from one end to the other bubbling along under the glass top. In this sort of setting the mind can't help but be transported.

Situated in the heart of South Yarra, The Zone combines extravagant interior design with leading edge visual and audio technology. Three of the first guys on-board were Jay Mic'A (audio/lighting technician), Michael Spektor (lighting and programming) and Paul Nicolaou from AVL Electronics (equipment supply and installation).

Having worked for some of the leading club management organisations in the UK Jay unhesitatingly specified Martin Audio for The Zone. Stated Jay, "The critical issues were positioning speakers to get the best coverage with the

maximum direct to reflected sound, and using high quality components to provide the clarity and the impact without the pain! When you spend this much money on the concept, you can't leave anything to chance when it comes to the the sound. I was very upfront in insisting on Martin Audio Wavefront as I've experienced just how good Martin and its technical support is."

On the main dance floor Jay and Paul incorporated eight W3's positioned in a giant 'doughnut,' — four in the middle in a tight circle pointing out and four on the outside of a much larger circle pointing in and thereby providing a continuous even stereo source for the dance floor area. To achieve the enormous bass impact are eight WS2A double 15in subs, forming a cylindrical base stack directly below the inner circle of W3's with a small circular stage sitting on top for poseur dancing.

At the perimeter of the room are 14 Martin EM15's providing fill with two Blackline S15 single 15in subwoofers providing bass. DJ booth monitoring is courtesy of two Blackline F12's with additional, delayed, F12's covering the balcony areas.

Audio amplification is entirely QSC with a mixture of PLX and RMX Series models. An Allen & Heath Xone 2:62 presides over events in the DJ booth.

Elsewhere in The Zone two other dance style rooms are equally spectacular with a Bohemian harem theme in the Moser Room, and in the Gaian Room a visual dreamland, with projected images constantly moving around the walls. Audio is supplied in each of the rooms with Martin Blackline F12's with two S15 subwoofers in the Gaian Room and two S218's in the Moser Room. Controlling the audio is a BSS Soundweb.

The Zone is already well on the way to establishing its niche in Melbourne with rave reviews about its extraordinary appearance and feel.



# Quai West Expands and Upgrades



Situated in the downtown area of Nantes, the nightclub Quai West originally opened its doors five years ago. The venue's manager, Philippe Clément, is a well known 'nantais', since he runs the restaurant Le Virgil, in association with French national soccer hero, Marcel Desailly.

For the audio refit, a Martin Audio sound system has been specified by the sound contractors, ALS, using five different models from the EM series.

Fitted around the dance floor are four EM186's for mid/top and four EM251's for sub bass, all connected to a dedicated EMX2A management processor. The primary system is reinforced with a pair of EM56's.

With more than a thousand people attending on weekends, and a limited dancefloor surface available, some additional monitors have been fitted on the mezzanine over the floor in the shape of a pair each of EM76's and EM56's and six EM15's. The entire system runs with a digital delay, ensuring a homogeneous sound spreading evenly throughout the club.

In early 2002, the Quai West opened a new room called Le Club, which has been fitted with a Martin Audio Blackline system. Designed as an intimate room, the system comprises four F10's overhanging the dance floor, a pair of S18 subs and six EM15 as monitors.

The F10's are driven by a Martin Audio MA1400 amplifier, while the two S18's are on an MA1.6 — with the whole system operating on a DX1 digital controller.

All the consultancy and implementation of these two sound systems was carried out by Jean-Noël Elouali, Martin Audio's product manager at Algam, Martin Audio's French distributor.



# Stockholm Globe's Wavefront Cluster Boost



A new sound installation at the famous Globe Arena in Stockholm, scene of the 2000 European Song Contest, will feature clusters of Martin Audio Wavefront 8 Compacts.

The audio rental and contractor company DM Audio AB — has finalised the design to update and expand the installation which they undertook 12 years ago — when the arena was originally built.

“The reason for the expansion,” explained DM Audio’s Lars Wern, “is that when the arena has hosted touring artists their sound engineers have often received complaints from the audience seated in the highest seats. Most tours do not bring enough equipment, or simply could not tilt the speakers upwards enough (the catwalk is situated 36 metres above the floor).”

To help the visiting sound engineers, it was decided to install a delay speaker system that could be added to the main system, and at the same time beef up the installed centre cluster in the arena.

This called for a more sophisticated solution and resulted in a system that included six clusters — three on each side of the arena.

Each cluster will support three Martin Audio Wavefront W8C speakers, powered by QSC Powerlight 236 and Powerlight 218 amplifiers. A Rane RPM 26v digital matrix mixer handles the equalisation, delay settings and dynamics.

To be able to switch on and off individual speakers in each of the cluster a Rane Via 10 Ethernet bridge is used to communicate with relays in the amp racks.

The whole installation is managed by a QSCControl II computer control system, and the control PC can either remain in the control room or be connected at the actual bleacher covered by the speakers. In this way

individual adjustments may be made to tailor the sound from the delay speakers to the main clusters.

The system has now been in use for a variety of events and artists. The high seats have gained in value and the audience is now participating in the events much more enthusiastically.



# Ital Cida Fit Out Parma Auditorium



Audiosales have supplied a Martin Audio system for installation in the new 800-capacity Auditorium of Parma, which is run by the Commune di Parma.

The contract for the audio was fulfilled by Ital Cida, and according to Audiosales' Mauro Codeluppi, one of the reasons his company were nominated as the supply source was their proximity to Parma — they are based just ten minutes outside the town. Planning was handled by Flat Renzo Building Workshop (Paris) and acoustic consultants were Muller-BBM GMBH (Monaco di Baviera).

When it came to equipping the former sugar refinery — which had stood empty for years — Ital Cida recognised the cost-effectiveness of Martin Wavefront components, and specified four WT3's, six WT2's, a pair of WS2A subs and eight WT15's — ideal for the multi-purpose nature for which the theatre will be used.

The system will be powered by Lab Gruppen amplification, and the loudspeaker management system will be provided by a digital network of XTA DP224 's, DP200's and a DP226 — all linked together on Audiocore. Stage monitoring consists of two Martin Audio Blackline F12's, arranged as floor wedges, powered by Lab Gruppen iP2100 amplification and EQ'd through an XTA GQ-600.

Mauro Codeluppi explains, "On the main outboard eight DP324's give the sound engineer the opportunity of having 16 channels of dynamic processing that can be configured as compressor, limiter, gate and expander, depending on his needs, while 48 channels of mic/line splitter are available through six XTA DS-800's."

In a separate rehearsal room a further pair of Martin Audio Blackline F12's have been specified, powered by an iP2100 Lab Gruppen amp, and EQ'd through a GQ 600.

Mauro Codeluppi states that the programme of performance at the Auditorium of Parma has yet to be specified. It was originally thought that it would become a second opera house to the town's famous Teatro Regio.

The whole project cost 31 milliard Lira to realise, of which the town of Parma contributed around 28 and three were offered by local firms, Barilla and Bonatti.



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The Martin Experience

# P60: Another Dutch Venue Chooses Wavefront



A new 700-capacity rock venue in Holland has meant that the citizens of Amstelveen no longer have to travel to nearby Amsterdam for their nightly entertainment.

The newly-built P60 opened its doors last November adjacent to the town's theatre in the reconfigured town square (which now includes a parking lot), and has been thriving to a mix of Holland's leading bands and international touring acts.

Owned by the local government the three-storey rectangular building cost HFL 11,000,000 to develop. It offers a ground floor café bar under an internet café — and on top is the large performance auditorium, where the sound sweeps through the floor and balcony courtesy of the much-loved Martin Audio Wavefront 8 Compact system.

The entire sound contract was won by Martin's Dutch

distributor, TM Audio, who put together a high specification of leading brands.

Sales manager Jeroen van Keeken had known sound engineer, Arne de Wit, from a previous venue — the Hotel Arena in Amsterdam.

De Wit was asked to investigate the market for PA systems and four companies were invited to demo systems sequentially.

One of these was Martin Audio — and shortly afterwards van Keeken received the call to say that it had been adjudged the best-sounding of all the proprietary systems evaluated.

Aside from its sonic superiority, the venue's administrators were also aware of the huge profile Martin Audio has in Amsterdam's leading clubs, the Melkweg and Paradiso.

Said Jeroen van Keeken: "The venue is true multimedia, staging comedy (spoken word), rock

concerts and dance events; thus they needed a versatile system."

Jeroen himself was responsible for the sound design. "I have a lot of experience selling these systems and I was there at the construction stage, when it was a hard hat site. So I had a good idea what I was going to do."

His original concept had been to ground-stack a Crest-powered Wavefront WSX and W8C either side of the stage — with a further W8C flown above to project to the balcony. But the imposition of a curtain rail — in the exact spot designated for the W8C — put paid to that.

This was amended to a pair of WSX's and W8C's — run four-way active and controlled by an FDS-388 BSS Omnidrive — ground-stacked on either side of the stage, without compromise to the sound.

"In fact it was a perfect combination, providing the best sounding solution by far," said Jeroen. "The coverage was even wherever you stood in the auditorium and was consistent at both floor and balcony level."

He added that the installation had gone remarkably smoothly. "It was very easy to tune the system because they had an acoustic engineer involved in the design of the building — so it had been properly thought through."

The venue director is said to be delighted with the quality of the sound — in fact the band Mirror 99 have specifically asked to launch their new CD at the club ... purely on sampling the sound quality.

P60 now hopes to become a satellite club to the imposing Heineken Music Hall in Amsterdam, to stage after-show parties for touring bands.



# International News

## Buda Bar the Heart of City's Nightlife



Buda Bar is the largest venue located in the city of Eskisehir — a neighbouring city to Ankara which is the capital of Turkish Republic. Martin Audio was the preferred sound system supplier, in order to achieve perfect aural experience for its valuable customers in the city.

The Martin Audio system specified included four Martin Audio EM186's, four W3P's, four Martin Audio Blackline S18 and two S15 subs, four Blackline F12's, two Martin F15's — and a pair of LE400C wedge monitors for the DJ booth. The whole system is powered by Crest amplification.

Because of the unusually high quality of sound and lighting inside, the venue has become very popular in a very short period of time. Holding 1,500 people, Buda Bar is now the heart of the whole city's entertainment and has definitely introduced an injection of high energy to the nightlife of Eskisehir.

# Panama Provides Another Amsterdam Showcase



There are almost as many channels of Martin Audio sound now flowing through Amsterdam as there are canals.

The Dutch capital's two flagship venues — Paradiso and Melkweg — both reinforce their aural fare through Martin enclosures, which is one of the reasons for the owners of the newly-refurbished Panama, in the city centre, endorsing the brand. The other is the Blackline system's pure sonic qualities.

The 450-capacity venue is a true nightclub — a live band/DJ hybrid, which is also equipped for taking television broadcasts.

With sound coverage needed from the stage area, Martin Audio's distributors, TM Audio, hired acoustician Frans van Houten, and he in turn arranged a loudspeaker demonstration. Owners, Wouter Brave and Andre Van Gelderen, were delighted, and the installation was duly carried out by local dealer, Audio Amsterdam.

Specified were four full-range three-way Blackline H3's run biamped — two flown on either side of the stage — accompanied by a pair of ground-stacked S218 (2 x 18 subs) on each wing.

"This is a very trendy venue, and a lot of TV broadcasters make their recordings there," said TM Audio's Jeroen van Keeken. He believes that Panama will quickly become established on the Amsterdam club scene.



# EXIT Fest Debuts Three Products



The EXIT Festival took place recently in the Yugoslav city of Novi Sad, on the banks of the Danube, in front of 250,000 people. The event featured three stages of which Martin components dominated the Rock and DJ stages.

Among the acts who performed were Finley Quaye and Anastasia, Banco de Gaia and Roni Size (main stage) 4 Hero, Fluke, Tim Simenon and Bentley Rhythm Ace (DJ stage) and musicians from the Yugoslavian rock 'n' roll scene on the Rock Stage (including the Orthodox Celts).

This performance stage was equipped with a Martin F2/F1 combination, supplied by Novi Sad-based Audio Constructor, who have the only Martin Audio hire inventory in the region. However, the main point of interest was that this stage saw the introduction locally of three new products. The Martin DX1 is the first digital speaker management system to arrive in Yugoslavia, while Martin Audio WSX subs and LE400C monitors (for the DJs) were also seen for the first time.

The DX1 was able to match the WSX's to the F2/F1, producing an extremely deep and powerful low end. All the DJs enjoyed playing through the LE400C wedge monitors — and for Audio Constructor, represented by Milan Kljun (sound) and Zdenko Gajta (lighting) the whole job went without a hitch.

The complete Martin Audio inventory (which was powered by Crest PRO series amplification), comprised eight F1's, six F2's, two FSX's, four WSX's, a pair of DX1's and a pair of LE400C's.

The promoters were so delighted that they have asked Audio Constructor to install the complete W8C/WSX system at this year's EXIT Festival as the production moves up a gear.

*Pics: Miljan Cubrinovic*



# International News

## Ljubljana's New Multiplex



Situated in the multiplex, Kolosej, in Ljubljana, Slovenia is the cocktail bar Oz, Italian restaurant Subito and 515TEM Compaq.

Oz boasts a rich, beautifully-designed interior, with a large bar, fire place, mirrored ceiling and small dance floor, and has a capacity of just under 500.

The Italian restaurant Subito has a fruit theme, and serves the best Italian pasta and pizza in town, with 120 covers indoors and 180 covers outside.

515TEM Compaq is a 'space ship' for PC net-games, set in an amazing glass-aluminium 'cubus' from Fractal, NL.

The sound in Oz is broadcast through two Martin Audio S218's built into the wall on the dancefloor, four F12's above the dancefloor, two EM26's serving the second zone, and 16 EM15's (for the third and fourth). This is run through XTA DP-226 digital processing and Martin M3, with the power supplied by five Crest Audio amplifiers (CA12, CA9, VS1500, VS900).

The music in Subito is delivered from a combination of 16 C115's indoors and four EM15's, 16 C115's and two EM120's outdoors.

515TEM contains four C115's and CS265's in the cubus and four EM15's and an EM150 outside in the bar area.

Music playback for all four rooms is located in the DJ booth

in Oz. Most is computer-driven while in the evening a DJ takes over.

The sound was designed and installed by CV&AR, Slovenian sound installation company.

Owner Tugo Stary says: "We now have one of the best sounds in Slovenia. I am very pleased with the performance of Martin Audio, and from now on it will be very easy to decide!"



# Booting It Up For Thomas Brolin



Undici, located in the centre of Stockholm, is a hybrid between a sophisticated restaurant and a cool (but in the evenings very loud) bar. Undici is owned by Swedish national soccer hero, Thomas Brolin. 'Undici' is Italian for 11 and that was the number on his shirt when he was playing in the Italian league.

The discreet and elegant interior breathes coolness and calm which the dinner guests appreciate, however later in the evenings nightclubbing is the main course. The choice of Martin Audio to reinforce the sound has worked well. C115's + C516's were discreetly installed in the dining area and run as a separate zone from the heavier system in the bar, which may look over-specified in terms of amp power, but the headroom is often needed when the DJ has a big crowd and needs a couple of extra dB's at his disposal (an issue which is addressed by some of the neighbours!)

The system consists of six EM26's and two 15in subs (concealed behind the bar counter), with C115's for fills.

QSC takes care of the amplification and the DJ set consists of a Rane MP22 mixer with Tascam CD302's and Technics SL1210's.

The requirement for a system that was loud and tight without being 'in your face' has been met despite the difficult acoustic environment.



# Rea's Versatile Quarter



Irish-based Rea Sound have completed many projects involving Martin Audio sound reinforcement over the last quarter, including a new Performing Arts Centre.

Situated in the small town of Roscommon, towards the west of Ireland, the Arts Centre has been funded by the local County Council with the community in mind.

A small venue, seating approximately 250 people, the sound system had to be capable of offering a wide choice of requirements. In order to achieve this a total of six Martin Audio EM76's, a pair of Martin Audio EM210 subs and four Martin Audio MA1.6 amps were requisitioned. Two Martin Audio EMX1A system controllers were also supplied, enabling the venue to deliver the best sound available.

Another unusual installation has been the AV fit out for a new Forklift Showroom within Still Materials and Handling, Billston, involving a number of Martin Audio Blackline F10's. The 2-way passive design of the F10 enables simple, high performance systems to be put together whilst minimising the number of amplifier channels required. As extra low frequency output is required, Rea Sound also supplied and installed a Blackline S12 sub-bass system, enabling the client to create the maximum impact in the showroom and add an extra wow at point of sale.

At the present time two further exciting installations with Martin Audio equipment are in progress. The first is a new stadium sound system for the Dungannon Swifts Football Club, where for the first time Rea Sound have installed



weather-proofed Martin Audio F12's. These units were chosen due to their adaptability and size, and are powered by the Martin Audio MA series power amps and controlled by a dedicated M3 system controller.

The second project is a new theatre, located just minutes from Dublin City. Bray Urban District Council wanted to build a multi-functional performance space, capable of different theatre formats, as well as cinema projection and conference usage. An Art Gallery and secondary performance space are also incorporated into the design.

Seven C115's are strategically placed around the foyer area, which doubles as box office and incorporates a bar area. Within the main performance space a total of four Martin Audio EM76's, four mid-top EM26's and two EM201 subs have been used. The whole system is controlled via three dedicated EM1A system controllers.

With a number of projects still in the pipeline, the future looks to be busy for Rea Sound and Martin Audio.

# Wavefront 8 Rental Companies Around the World

COMPANY NAME	COUNTRY	TELEPHONE
3200 LIGHTIUNG	AUSTRALIA	+ 61 2 9693 1777
AVSOUND PRODUCTIONS	AUSTRALIA	+ 61 2 9949 9000
ANDY J SOUNDS	AUSTRALIA	+ 61 8 8376 2771
MARTIN PARKS PRODUCTIONS	AUSTRALIA	+ 61 2 6360 4411
ENTERTAINMENT INSTALLATIONS	AUSTRALIA	+ 61 2 4324 3873
JAZZRIGHT PRODUCTIONS	AUSTRALIA	+ 61 2 9311 1197
TOP END SOUNDS	AUSTRALIA	+ 61 8 8981 7744
AVL	AUSTRALIA	+ 61 3 9387 1055
CENTRESTATE	AUSTRALIA	+ 61 2 6362 0587
SOUND SOLUTION	AUSTRALIA	+ 61 3 9686 4755
PHASE ONE AUDIO	AUSTRALIA	+ 61 89 22 77979
DERRINGERS MUSIC	AUSTRALIA	+ 61 88 37 11884
STEPHEN SOUND	AUSTRALIA	+ 61 3 9436 8981
DAVIDSON AUDIO	AUSTRALIA	+ 61 29 36 81159
MASTER SOUND PRODUCTIONS	AUSTRALIA	+ 61 2 9683 4971
HARWARE CORPORATION PTY LTD	AUSTRALIA	+ 61 3 9510 7529
AVLA	AUSTRALIA	+ 61 8 9221 1888
KRAXBERGER HERBERT	AUSTRIA	+ 43 7242 45193
PA SOUND & LIGHT TEC	AUSTRIA	+ 43 7667 6090
TOPLAK STAGE POWER	AUSTRIA	+ 43 222 4898877
VIDEO & SHOW	AUSTRIA	+ 43 7242 66588
FOR MUSIC VERLEIH	AUSTRIA	+ 43 2236 71684
BRUNNER & BRUNNER	AUSTRIA	+ 43 663 037578
STUDIO 2000 BVBA	BELGIUM	+ 32 89 30 89 54
STAGE PROJECTS BVBA	BELGIUM	+ 32 75 721710
PHILIPPO AUDIO BVBA	BELGIUM	+ 32 3 491 91 76
D-RENT	BELGIUM	+ 32 3 324 02 97
ALL AUDIO ACCOUSTICS KORK BVBA	BELGIUM	+ 32 475 5745 17
DELTA TARENT NV	BELGIUM	+ 32 50 49 00 81
SOUND ART PA & LIGHT SERVICES	BELGIUM	+ 32 50 81 61 30
CANDO SA	BELGIUM	+ 32 2 366 22 225
SOUND & LIGHT SYSTEMS	BELGIUM	+ 32 59 27 66 46
NORTHWEST PRODUCTIONS	CANADA	+1 250 765 8451
THE LION SHARE INC	CANADA	+1 905 830 0525
S.P.L. SOUND	CANADA	+1 250 763 3855
D & E (INTERNATIONAL) LTD	CHINA	+ 852 2898 8666
HUIFENG PERFORMANCE EQUIPMENT CO. LTD	CHINA	+ 86 20 8481 1088
AV CENTRUM	CZECH REPUBLIC	+ 420 602 227357
SOUND SERVIS	CZECH REPUBLIC	+ 420 602 2220870
RINGSIDE TOUR PRODUCTION	DENMARK	+ 45 3393 4748
AUDIOTEL	ESTONIA	+ 37 2 7 38 5485
RADIANT SOUND COMMUNICATION	FINLAND	+ 358 3 22 33311
UNITED SHOW ENTERPRISES HELSINKI LTD	FINLAND	+ 358 9 759 4180
SUOMEN TAPAHTUMATEKNIKA	FINLAND	+ 358 3 225 8600
BGM	FRANCE	+ 33 4 66 84 39 34
TECHNISCE	FRANCE	+ 33 2 35 88 86 86
PRODUCTION 44	FRANCE	+ 33 2 40 52 07 07
ART SON ET LUMIERE	FRANCE	+ 33 4 94 03 03 52
ATC	FRANCE	+ 33 5 56 69 60 60
AUDIO CONCEPT	FRANCE	+ 33 563 39 67 86
AUDIOLYRE	FRANCE	+ 33 5 59 98 31 10
GPS	FRANCE	+ 33 251 686 900
EURO LIVE	FRANCE	+ 33 296 743 326
MEGAWATTS	FRANCE	+ 33 478 431 026
BALLOON FARM STUDIO	FRANCE	+ 33 299 321 111
RICHARD LAURIANT ECLAIRAGE	FRANCE	+ 33 385 391 535
REGI-SON SONORISATION	FRANCE	+ 33 555 062 020
LWS	GERMANY	+ 49 228 94676-0
KLEMENT ELEKTROTECHNIK	GERMANY	+ 49 5626 8475
SCHALLDRUCK VERANSTALTUNGSTECHNIK	GERMANY	+ 49 3531 65300
NEW NOISE	GERMANY	+ 49 201 8686010
BIG BEAT PA - SERVICE	GERMANY	+ 49 4403 6358
COMPLETE AUDIO BERLIN GERMANY	GERMANY	+ 49 30 661 00 45
MEGATEC	GERMANY	+ 49 351 8386811
SATION AUDIO	GERMANY	+ 49 8225 958134
JA AUDIO	GERMANY	+ 49 5722 1342
SLP PRO SARL	GUADELOUPE	+ 590 80 15 80
D & E (INTERNATIONAL) LTD	HONG KONG	+ 852 2898 8666
THUKRAL PRODUCTIONS	INDIA	+ 91 11 431 1011
REA SOUND	IRELAND	+ 44 1648 764059
MAFFEI SERVICE	ITALY	+ 39 0461 707852
FUMASOLI SERVICE	ITALY	+ 39 0165 35806
PHOENIX AUDIO SNC	ITALY	+ 39 041 5342349
RADIO SATI SERVICE	ITALY	+ 39 051 6332440/6332398
MUSIC SERVICE	ITALY	+ 39 0577 306032
PIANO & FORTE	ITALY	+ 39 0522 661506
ELECTRA SERVICE	ITALY	+ 39 0375 82919
CLAPS	ITALY	+ 39 0434 26882
MEZZA NOTA	ITALY	+ 39 0444 695507
BIG TALU SERVICE	ITALY	+ 39 0174 45314
BLU STUDIO	ITALY	+ 39 079 293179
COOPERATIVA 56	ITALY	+ 39 051 6153339
FAST SERVICE	ITALY	+ 39 081 8237009
T.S.S.	ITALY	+ 39 0521 776810
VOX SERVICE	ITALY	+ 39 049 5380151
ZOHO MUSIC SERVICE	ITALY	+ 39 011 6645754
W. M. AUDIO SERVICE	ITALY	+ 39 0962 865013

COMPANY NAME	COUNTRY	TELEPHONE
EMPORIO ON STAGE	ITALY	+ 39 055 720794
CORIPPO ALBERTO	ITALY	+ 39 030 2511722
MUSIC LIGHT INSTRUMENTS	ITALY	+ 39 0566 56356
MASTER SERVICE	ITALY	+ 39 371 460304
JE-IL SOUND	KOREA	+ 822 835 1608
LIVE	KOREA	+ 822 747 2162
SOUND BOX CO	KOREA	+ 822 419 5141
MARTIN KOREA SOUND CO., LTD	KOREA	+ 822 419 5141
SHINHAN SOUND CORPORATION	KOREA	+ 822 376 8383-4
ELTEK	LEBANON	+ 961 1 265048
CHIFU	MACAU	+ 853 567847/8
KILMI MUSIQUE	MOROCCO	+ 212 332 44 23
SIMPLON	NETHERLANDS	+ 31 50 3184150
EAST SOUND	NETHERLANDS	+ 31 575 519365
MANIFESTO	NETHERLANDS	+ 31 229 279839
PURPLE HAZE	NETHERLANDS	+ 31 348 424477
VAN SAMBEEK PA	NETHERLANDS	+ 31 653 902690
SERVICE-CENTRUM APTRONICS	NETHERLANDS	+ 31 315 631521
ACME AUDIO LTD	NEW ZEALAND	+ 64 9 302 0352
NORSTAGE A/S	NORWAY	+ 47 52 71 43 10
AMAS LYD PRODUKSSON A/S	NORWAY	+ 47 55 32 90 50
RHYTHMIC SOUND SERVICES	SINGAPORE	+ 65 841 0911
PLOHL MIRAN	SLOVENIA	+ 386 62 661 761
MEGA AUDIO D.O.O.	SLOVENIA	+ 386 62 314063
SONOSET (MILWAUKEE AUDIO S.L.)	SPAIN	+ 34 93 372 40 53
SONARTE	SPAIN	+ 34 926 31 28 28
SONOBEXI	SPAIN	+ 34 953 76 33 37
LUC SON	SPAIN	+ 34 96 530 30 23
TOUR SERV. PROF. SO I I L. LUM. S.L.	SPAIN	+ 34 93 477 04 95
RED TSO	SPAIN	+ 34 977 64 34 95
PROSEC AUDIO S.L.	SPAIN	+ 34 985 98 07 01
ELECTRIC-SO	SPAIN	+ 34 93 726 54 44
MUSIBELIOS S.L.	SPAIN	+ 34 95 234 12 51
SEGUNDO LASER	SPAIN	+ 34 967 40 10 96
SONORIZACIONES Z, S.L.	SPAIN	+ 34 961 20 31 11
FATSINI S.L.	SPAIN	+ 34 97 770 1257
SONER, SONIDO E ILUMINACION	SPAIN	+ 34 98 653 0555
MUG HYR AB	SWEDEN	+ 46 31 130990
SKELLEFTEA LJUDUTHYRNING	SWEDEN	+ 46 910 173 74
DM AUDIO	SWEDEN	+ 46 8 97 07 85
RIGHIRE	SWEDEN	+ 46 16 145 300
SOUNDHOUSE	SWITZERLAND	+ 41 41 240 44 24
AUDIO-PHASE	SWITZERLAND	+ 41 32 384 26 72
X-LIGHT & SOUND GmbH	SWITZERLAND	+ 41 62 923 95 75
REYANG PROFESSIONAL SOUND CO LTD	TAIWAN	+ 886 2 2254 2926
YASHIN PRO-AUDIO INC.	TAIWAN	+ 886 7 322 2555
DINGLEY PROSOUND SERVICES	TAIWAN	+ 886 7 384 3845
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STAR SOUND SYSTEMS	UK	+ 44 1924 278875
CAV	UK	+ 44 1453 751865
ADLIB AUDIO	UK	+ 44 151 486 2214
CAPITAL SOUND HIRE	UK	+ 44 207 978 5825
ROSSCO LTD	UK	+ 44 1462 431413
AUTOGRAPH SOUND RECORDING	UK	+ 44 20 7485 4515
PA PA	UK	+ 44 1248 670980
CABLE MUSIC PA HIRE	UK	+ 44 1926 339780
ZU 2	UK	+ 44 7974 418867
INTASOUND PA	UK	+ 44 1905 841591
BLIZZARD SOUND	USA	+ 1 920 451 1343
GSA NEW YORK	USA	+ 1 914 632 0192
PROLINE AUDIO	USA	+ 1 918 260 0503
SOUND CONSTRUCTIONS	USA	+ 1 718 893 7352
SAI	USA	+ 1 612 724 5395
DYNAMIC PRODUCTIONS	USA	+ 1 770 529 8100
RALEIGH MUSIC	USA	+ 1 919 965 4300
SUNBELT SCENIC STUDIOS INC	USA	+ 1 480 598 0181
CLEARWING AUDIO	USA	+ 1 414 258 6333
WORLD AUDIO	USA	+ 1 210 472 3932
OPRYLAND PRODUCTIONS	USA	+ 1 615 228 0491
GO AUDIO	USA	+ 1 414 764 8290
A.C.E.S	USA	+ 1 800 204 5415
CELEBRATION SERVICES	USA	+ 1 937 836 5662
DELICATE PRODUCTIONS	USA	+ 1 805 388 1800
LA SOUND	USA	+ 1 818 765 6900
LOUDSOUND	USA	+ 1 916 481 3679
MHA AUDIO	USA	+ 1 301 733 9337
ROLLING THUNDER	USA	+ 1 401 331 5427
SOUNDWAVE	USA	+ 1 520 327 5590
STICHA BROTHERS	USA	+ 1 608 276 5570
TECHNOTRIX	USA	+ 1 815 935 0233
TECHNICAL PRODUCTIONS	USA	+ 1 314 644 4000
VERTICAL SOUND	USA	+ 1 216 521 9994
WAVE TRIBE PRODUCTIONS	USA	+ 1 541 618 9499
AV PRESENTATIONS	USA	+ 1 985 542 9196
PHIL REIGH SOUND	USA	+ 1 884 411 7445
NORTHEASTERN PRODUCTION	USA	+ 1 716 427 8760