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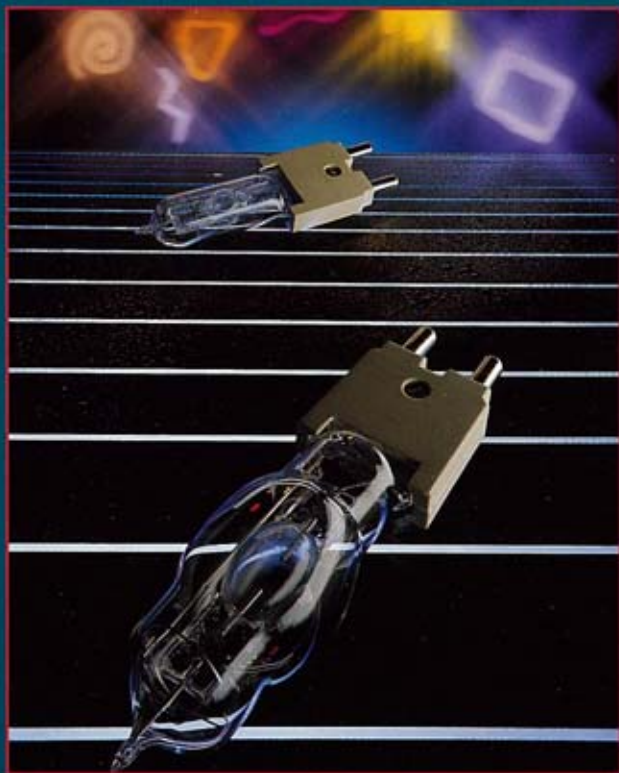
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- Euro Disney: Technical expertise creates Magic Kingdom
- Freddie Mercury Tribute: Patrick Woodroffe Interviewed
- A - Z of the ABTT Trade Show
- Manufacturing Success with Soundcraft
- English Shakespeare Company on tour
- Plus the latest round-up of News and Equipment

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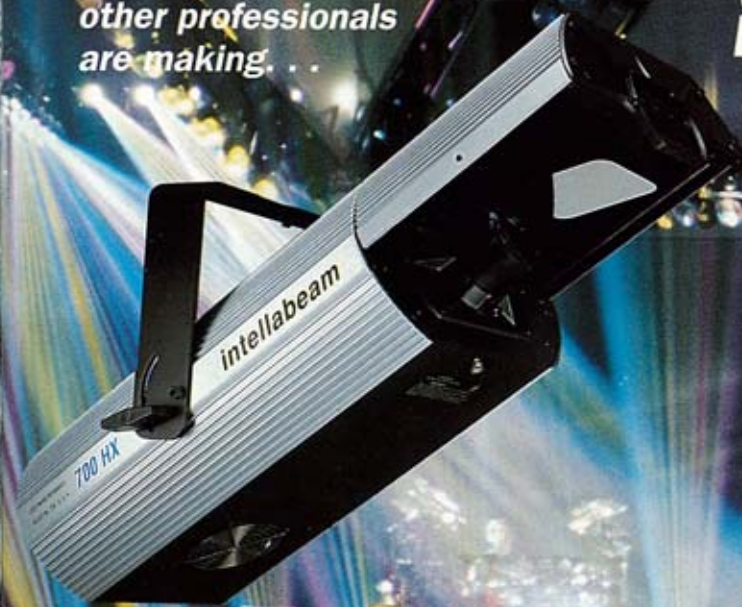


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LIGHTING+ SOUND *International*

MAY 1992

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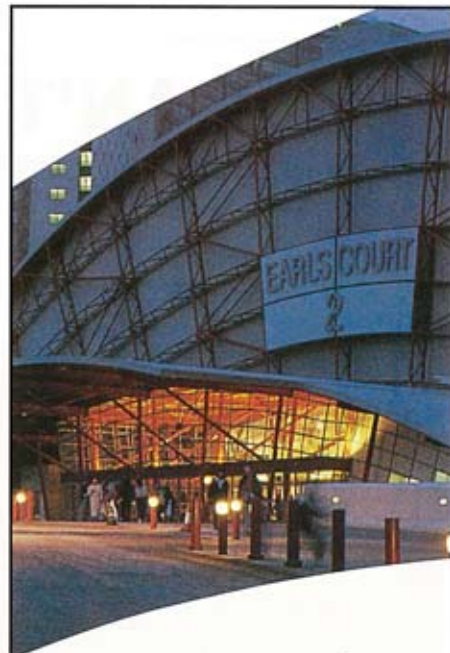
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Waiting List for Light and Sound Show

Exhibitor bookings for the 1992 PLASA Light and Sound Show have raced in so fast that the event has already as good as filled the south part of Earls Court 2 allocated to the show, and it is becoming increasingly difficult for organisers Philbeach Events to satisfy new enquiries. Although there are still a few stands available, a waiting list consisting of several companies requesting larger and special sizes of stands has had to be set up.

Stand sales are already 1000 square metres above the 1991 total, and over 20 per cent of the 130 companies who have signed-up for the show are first time exhibitors. With all this added activity, Earls Court 2, London, 6-9th September, will definitely be the place to be for anyone involved in the leisure and entertainment industry.

Among the new companies exhibiting is major pro-audio distributor Autograph Sales, whose Aviva Ozin said: "We have been visitors at the show for the last few years and have always felt that we were missed as exhibitors. PLASA draws good quality contractors and is a contact making exercise we simply can't afford to miss any longer." Another new major pro-audio exhibitor is loudspeaker manufacturer Canon Audio. Their professional products manager Sean Martin told L+S: "The show is undoubtedly the biggest puller on the exhibition circuit for club and discotheque pro-audio installers, which is our main target market at the moment."

Major concert companies also exhibiting for the first time include the Lighting and Sound Division of the Samuelson Group, Light & Sound Design, Zilz Concerts (Holland and Germany) and Power Light Productions (Switzerland).

Simon Boyd, the show's organiser, enthused: "The level of interest from existing and especially new exhibitors has been overwhelming. We are now concentrating our effort on attracting high-level visitors from all sectors of the industry. Our aim for this year's show is to create not only the largest, but the most successful Light & Sound Show to date - four days where the industry comes together for one of the circuit's most exciting business forums."

Further exhibitor and visitor information for the PLASA Light & Sound Show '92 is available from: Philbeach Events Limited, Earls Court Exhibition Centre, London SW5 9TA. Exhibitors contact: Caroline Clark. Tel: 071-370 8215. Visitors contact: Vivienne Orchard. Tel: 071-370 8214.



Michael Goldberg (left) and Magnus Anuell with the special Sky-Art Rainbow.

They Liked the Product so they bought the Company Goldberg and Anuell take over Camelont

Just three years since the first Rainbow colour changer was used in the award-winning M. Butterfly, Michael Goldberg and Magnus Anuell, inventor and designer of the Rainbow, announced that they have bought the company that manufactures them. Camelont Limited is now registered in the UK and is a wholly British company.

Camelont was originally owned by three Swedish directors, two of whom - Michael Joyce and Arne Akerstrom - also own Lightmen AB, the rental company. Because of the 'duality' they felt it would be better to concentrate solely on the Lightmen operation and the buyout process began during the LDI show in Reno last year, when Michael and Magnus - the third Swedish director - looked closely at buying the company between them.

Both directors are excited and extremely enthusiastic about the 'new' company. "It is now a company dedicated to the production of a scrollers," Goldberg told L+S.

Magnus Anuell is concentrating on new designs, the first of which was seen in action at the Freddie

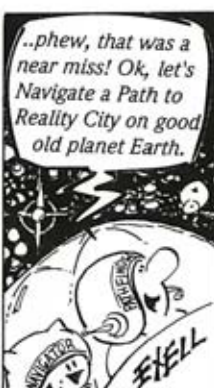
Mercury tribute concert at Wembley on April 20th a Rainbow-fitted to a Sky-Art. "This could be a good market for us," continued Goldberg "because there are many searchlight systems in use world-wide. Theatre Projects have ordered eight Sky Art Rainbows for the moment, but are looking at increasing this number in the near future."

Theatre Projects are agents for Sky Art and Sky Tracker and asked Camelont to produce a colour changer to fit the product. deadlines were extremely tight but the new Rainbow arrived in the UK on the Thursday and was being put through its paces at Wembley on Easter Saturday. Michael Goldberg again: "This is one of the huge advantages that Rainbow colour changers have over competitive products - we have a wide range of sizes available. And this is where we believe the future lies for the company - the ability to offer a Rainbow for all types of products."

A dedication to duty is one of the major factors which has gained Rainbow units the world-wide recognition they enjoy. Michael Goldberg believes in offering the market more than just the product.

continued on page 9

Action News



LIGHTING TECHNOLOGY

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revealed

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Seville Swings Open

With a great deal less razzamatazz than Euro Disney, Expo '92 swung open its doors during the weekend of April 19th. Branded the greatest show on earth, it had already played host to over 3m visitors by May 4th. Between 10,000 and 12,000 people daily are entering the British Pavilion, designed by Nicholas Grimshaw and Conran Associates, with its 70m long, 25m high, sheer glass wall of water.

Other than the virtual clash of opening dates, only one week apart, there are many other parallels between the two giant sites. Both have parades, a late evening lake show and mucho fireworks. Expo opened with a six ton display of firepower!

Fire has also played its part in upsetting this huge Iberian venture, both the Spanish Discovery Pavilion and the South Sea Islands feature have been torched, literally, to the ground in welding accidents. With the Discovery disaster went Devon-based Live Wire's hopes of a world showcase for their Now show control system which was to have run the entire display.

Many other British companies are, of course, included. Electrosonic are everywhere. In addition to their 850 monitor videowall for BT (pictured above), they have participated to some extent in 350 other venues on the Seville site. Laser Creations

Camelont Takeover

continued from page 7

From his early days as a distributor for Camelont, he offered a full back-up service to both rental companies and theatres, often doing a full day's work in the office and then spending the night working on a set to get the product up and running. Both directors have a full belief in service, and this is seen in their attitude toward the industry as a whole: "It is still very early days for scrollers and their full potential in entertainment lighting has not been seen," continued Goldberg. "We see our role as not just to promote and sell Rainbows but to promote the use of scrollers in general, and to this end our involvement with Strand will be very beneficial."

This involvement is the production by Camelont of a factored product for Strand, based on the standard Par size Rainbow, but with specifications tailored towards Strand's specialist market place - major turnkey operations, an area which Camelont has never entered (see L+SI News, April issue).

Michael Goldberg again: "This contract is of major importance not only to Camelont as a company but to potential scroller users generally. Strand is probably the one and only company with whom such an alliance would work, because of its history as a theatre lighting distributor and manufacturer and because until very recently there were no other scroller manufacturers making product specifically for theatres - all other scrollers come directly from the concert market." Both directors told L+SI that they hope scrollers will in time become a standard piece of equipment in theatres, just as they are in the concert sector.

Although the company is registered in London, Rainbows will continue to be made in Sweden. Magnus Anuell: "We looked closely at the viability of moving the whole operation to London, but we have a highly skilled team in Sweden and the training and tooling up costs of moving the manufacturing to Britain did not stand up, and we can maintain the product quality which is one of our main selling points."

and Electrosonic are literally up to their necks in the lake show which is controlled from a submerged bunker in the centre of an artificial lake and uses more, and larger, water screens than those seen at Marné Le Vallee.

Imagination have created what they describe as a low-tech history of the EEC. By that they, apparently, mean that they used theatre techniques and resisted the latest technology!

Of course, there are many others involved, too numerous to mention in this news snippet. However, as L+SI closed for press both Ruth Rossington and Tony Gottelier are en route for Seville and a full report of their investigations will appear in the next issue.

Designers at Euro Disney



Wild West Show lighting designer Andrew Bridge talks unpredictable cues with visiting LD Durham Marengi, taking time off from an industrial for one of the Euro Disney sponsors on the site. Assistant LD Mike Odham sits in. More news from Euro Disney on pages 13 and 23-28.

L+SI asked them about their plans for the future. "We now have direct, hands-on, control of the company, from design and production to marketing, which means we can plan for the future - something we could never do before," said Goldberg. "In the past new products came about because someone asked us for, say, a Rainbow to fit a light curtain - it was all a bit ad hoc. Now we have a proper structure for planning new products. We have more direct contact with both dealers, of which we have 31 in 25 countries around the world, and also customers, so we are much more aware of the gaps in the market place. Instead of new product design being market led, we still strive to lead the market."

"We believe we have a responsibility to our market and to this end we will be organising teach-ins and seminars for both production staff and lighting designers. We know that there are LDs who don't know how to work with a colour changer so we are hoping, for example, to arrange a seminar with the ALD in June or July."

"March was an extraordinary month for us - Rainbows are being used in the British, Irish, Spanish and French pavilions at Expo '92 where there are over 200 Rainbows in use and there are 250 Rainbows installed by Howard Eaton Lighting in EuroDisney - 231 of them in use on just one show, which has been lit by Andy Bridge. We've also just received an order for two TV stations in Australasia through our dealer Selecon (New Zealand) Ltd."

When theatres started to use scrollers, it was only for musicals, where money was readily available and equipment noise wasn't too important. Rainbow Colour Changers however were designed specifically for the theatre, and if you want proof, Michael Goldberg and Magnus Anuell will happily walk you along to the Barbican Centre in London to see them at work for the RSC on Henry IV, part I and II at the Barbican Theatre. It is therefore something of a paradox that their newest product is a Rainbow for Sky Art.

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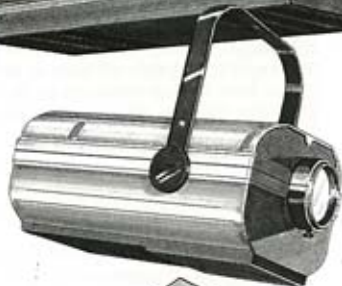
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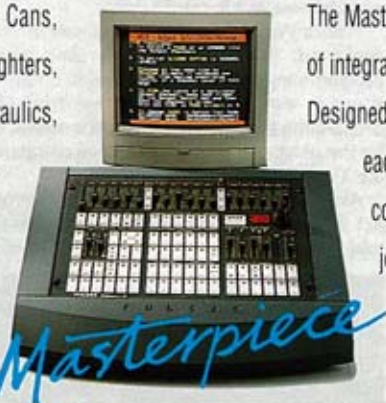
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The Dinosaurs Live

Imagination have recently completed the total re-siting of the National Museum's Dinosaur exhibits in a state-of-the-art display environment created within the renovated Ronson Gallery.

John Randle of affiliated architects Herron Associates has conceived and executed a hi-tech bridge from stainless steel and glass which creates a second tier in the tall Victorian building and spans the entire length of the wing. As a suspension bridge it surpasses itself in supporting both models and fossils on outriggers in suspended animation.

It leads the visitor naturally to the central exhibit which is a life-size animatronic reconstruction of carnivorous dinosaurs ripping into their larger scale vegetarian relative, Tyrannosaurus Rex. Complete with dripping blood and 'realistic' snarls and screams this spine-chilling feature relies on Electrosonic Digital Stores (ESTA) for the sound effects and is controlled by their show control system.

Project manager Nick Fraser and his team, which included lighting designers Jonathan Howard and Hugh Vanstone, also worked closely with Light Projects, Strand Lighting and others for the lighting throughout the exhibition. A fuller report will appear in June L+SI.

Avolites 4:1 for Queen

A show of the scale of the recent Freddie Mercury Tribute (see feature this issue) needed meticulous planning and London's 4:1 Studio had the responsibility of producing a scale model of the set.

Steve Nolan, director of 4:1 commented: "We are unique in providing a service to the Rock 'n' Roll and touring entertainment industry. With this particular project and with all the work we undertake it is vital that the customer receives complete satisfaction and that he is able to realise what he sees in his mind's eye."

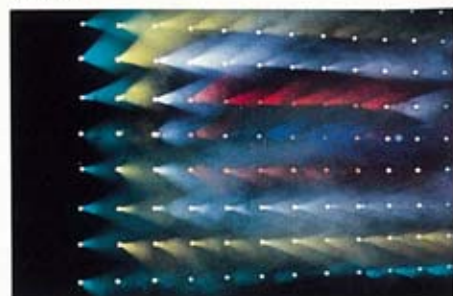
Patrick Woodroffe, lighting designer for the show explained: "With the incredibly short amount of programming time we had available on the Queen show it was essential that we had 10 days preparation time at 4:1, not only for myself, but also for the production staff, the lighting companies and the TV director."

Avolites installed the modified FD dimmers into 4:1 last year. Steve Warren, Avolites' sales director told L+SI: "The FD Series Dimmers have always



Setting up at 4:1 Studio.

had the facility to allow them to be easily modified to supply 24 Volt lamps. 4:1's need to duplicate exactly the characteristics of the different groups of lamps meant that the FD Dimmers were the natural choice."



Martin RoboColorWall

Martin Professional have produced a ColorWall using their popular RoboColor special-effects projector. It is made up of 108 RoboColor projectors in modular units of 12 heads, which can be bolted together to give various configurations. Using specially designed software with Martin control equipment, among the many different effects possible are message writing, matrix and colour washing. The system is designed to be used with touring bands and also has numerous discotheque applications.

Showlight Ahead

Plans for Showlight taking place in Bradford in April of next year are pushing ahead. A new organising team has been appointed to maintain the exhibition's successful format. John Smith, presently head of programme administration at YTV has taken on the role of show organiser. He will be supported by John Offord and Ruth Rossington of the Professional Lighting and Sound Association, who will provide all administration services. A Call for Papers will be sent out with the June issue of Lighting and Sound International.

Exhibitors confirmed to date: Arri (UK), DHA, Le Maitre, Lighting and Sound Design Ltd, Michael Samuelson Lighting, Optikinetics, Osram, PLASA/Lighting+Sound International, Rosco, Strand Lighting, Sylvania and Vari-Lite. For further information contact Ruth Rossington at PLASA on (0323) 642639.

PLASA and P.A.T.

A highly successful seminar on portable appliance testing was held in early April (see PLASA News page 32).



Talking P.A.T. (left to right): Ray Wilkinson of Northern Lights, PLASA Standards Officer George Thompson and Nicola Page and Stuart Gibbons of Le Mark TVS.



Val Dawson of Seaward Electronics addresses the delegates.

Euro Disney Opens With A Bang

Tony Gottelier reports

The bang in question may well have been the noise of the explosion when the main electricity pylon at Marne le Vallee succumbed to the urban 'anti' terrorists beforehand, or the noise of the pyrotechnics at the end of the opening celebrations, also the subject of local protest. Nevertheless, anyone travelling on a cross channel ferry since April 12th will be aware that Euro Disney is up and running, thanks in no small part to British technological involvement.

If Paris is the Isle de France, then Disney is l'Isle de USA, which is apparent as soon as you leave the A4 autoroute for the 1,943 hectare site. Immediately you are aware that you are no longer on French territory. And while French companies may well have secured the lion's share of the pan European participation, when it comes to entertainment technology British input is, none the less, very substantial. For example, the main park-wide 'intelligent' dimming contract went to leading French dimmer manufacturer RV Electronique for their HDD digital dimming system (described in our SIEL review) and which seems to have been developed specifically to meet this requirement. Whereas the lampposts on all the walkways across the park featured James Thomas Parcans, of which some 1300 are in use throughout the complex, together with truck loads of EAW speakers for public address purposes. In fact Eastern Acoustic Work's list of speakers supplied reads like an inventory. 250 KF300, 50 each KF 600, 850 and 153, 40 SM155 and countless of the little UB22 and 42s across seven different locations plus the numerous lampposts. Despite this impressive total, room was also found in the themed water park for four Tannoy CPA15 speakers.

Electrosonic at Hawley Mill were responsible for the highly complex integrated control of the parkwide background music, PA and paging, which also provides diagnostic feedback, and the interfaces to the Disney parade floats and other attraction systems which this involves. This complex system involves several hundred different soundtracks, central monitoring of every sound channel, and central computer control of thousands of EQ and attenuator settings. 22 locations and 3000, mostly EAW, speakers are involved.

Electrosonic were also responsible for the immensely complex task of providing the real time computer controlled automatic sound and light system for the Disney parade floats. Each float in the parade appears to generate its own music and also lighting after dusk. This means that at each part of the parade route there may be a need to dynamically mix three sound tracks at once: a

background track, an incoming float sound track and an outgoing one. In the past this has been achieved manually from a central control room, but at Euro Disney the system is fully automatic so that the changes occur as each vehicle passes. Now each float is fitted with the necessary electronics to interrogate passive transponders buried along the route. The ident of each of these tags is radioed to a central computer which determines the floats location. This enables it to control the sound mixing process, the lighting and any other effects, while also guiding the driver's speed.

This ESCON system uses 11 networked computers to control and monitor hundreds of sound and lighting channels, and two large audio routing switchers 140 x 180 and 64 x 128. The central control console includes a graphic map of the park with the positions of each float being continuously updated.

While missing out to RVE on the general dimming, through their French associates and particularly Glantre Engineering, Strand Lighting secured considerable orders for their Premier architectural lighting control systems, of which five are in use together with an MX board in the 575 room New York fantasy hotel, and at least four Galaxy boards and two MX 24s all linked to EC90MD dimmers are employed elsewhere.

One of these desks is used alongside an ALS Enigma in the Philips sponsored Videopolis, an ultra-modern version of a vaudeville/music hall concept, where customers can eat and watch a live show under an array of discotheque and theatre lighting, including numerous Telescans and 40 PALS Scrollers, supported on Thomas trussing against a backdrop of Vidiwalls. This stage featured live performances from Cher and Tina Turner during the opening celebrations broadcast on television worldwide. Philips' nominated contractor and the design and project managers for the entire Videopolis stage installation and a number of other venues across the park, were Glantre Engineering of Reading. Under Glantre's auspices, ProfSound of the Netherlands provided the discotheque lighting while the performance speakers and amplifiers came from Stage Accompany under Philips' wing.

Though the disco-type rig in Videopolis involved considerable use of mechanical movement, achieved with Hoffend mechanicals and their Micro-Commander IID scenery controller, elsewhere on the park Glantre, who are the US companys' European distributors, had implemented the first use of the famous Hoffend 'Starlift' outside the US. Four of these self-erecting towers were in use on the 'Castle' stage, mounting a battery of Strand luminaires and Thomas Parcans and 'Ministris' with added Thomas pre-wired bars supporting side fills, though for the initial

performances from Jose Carreras and others these luminaires were supplemented by the TV company for a Vari*lite rig.

Not to be outdone, the stage at the New York Hotel, which featured the Four Tops and the Temptations, relied on a rented Telescan rig for the debut performance. Glantre were also involved in a similar role in six other locations around the park. Generally, smoke was provided by JEM machines.

Another area with a heavy dose of local interest is the Wild West Show, with lighting design by Andrew Bridge. His work for Siegfried and Roy at the Mirage in Las Vegas had inspired Jean-Luc Choplin, Euro Disney's Director of live performances, and he was adamant about using Andrew for this 'high risk' arena show which features competitive horseback riding and herds of Longhorn steers and Buffalo. Already they have lost an Annie Oakley with a broken coccyx and the papers last week were running unconfirmed reports of four other people injured later on. "With a show like this you are on a knife edge as a lighting designer, or treading a high wire might be more appropriate," Bridge commented. "You can never really be sure what is going to happen next, which is precisely why I had always wanted to light a circus, or something similar. However, I have to admit that I had no idea just how hairy working with the unpredictability of animals really is."

"Of course, Andrew is a genius lighting designer," the enthusiastic M. Choplin told me. "I really had to have him for this show." Apparently Michael Eisner's original brief to Choplin was to produce a rodeo. "Obviously that would have been out of the question and when we discovered that 'Buffalo' Bill Cody had brought his original Wild West Show to Paris in 1902, it all fell into place." Andrew, for his part, was equally adamant that, to achieve the mood lighting he envisaged, Vari*lites were an essential ingredient, and after a protracted tussle a long term deal was struck. Otherwise, Howard Eaton provided the rest of the lighting (this will be expanded upon when Eaton finds the time to speak to me) and, the now defunct Kemps made the specials.

The Wild West Show and Videopolis will be the subject of in-depth technical features in successive future issues of L&SI. In the meantime we concentrate this month (Pages 23 to 28) on the highlight of the opening ceremony, 'Le Spectacle du Lac', in which a pan-European crew of outdoor event specialists put on a monster performance to close the festivities. The event took place at 21.30 at night on the 80,000 square metre artificial lake which Disney have created in a setting as grandiose as the Palace of Versailles Palace, between the Newport Bay and New York hotels.

All eyes will now be on the opportunities presented by the expansion already underway for the adjoining MGM Studio lot to open in 1995, to say nothing of Euro Magic Mountain and Marine Worlds.



The walkway lampposts feature James Thomas Parcans and EAW speakers across the park, with 'intelligent control by Electrosonic (audio) and RV Electronique (light).

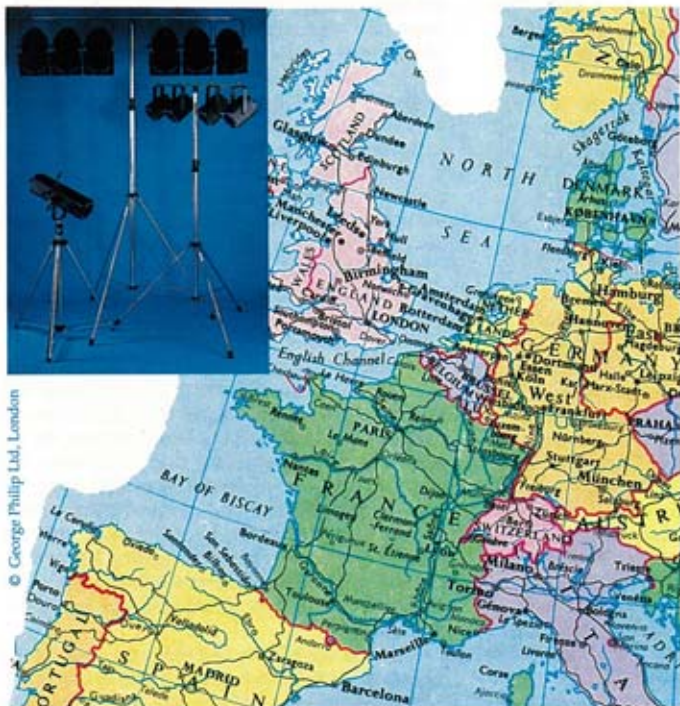


One of four Hoffend Starlifts installed for the 'Castle' stage by Glantre - a European first.



Sleeping Beauty's Castle, the icon of Euro Disney.

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Eurolight Reorganisation

Following some very difficult trading conditions in the UK, created by general recessionary trends, over the past six months the Eurolight Group has now completed a major financial re-organisation.

The Eurolight Group of companies includes Eurolight Ltd, Lytemode Ltd and Green Ginger Ltd. For many years the Group had suffered from a lack of working capital to develop the Group into a significant market leader. Following some six months of discussions, a major injection of funds and support has been secured. The funds are being provided from a number of sources, primarily from Lightolier in the USA, managing director Nick Mobsby, European investors and from smaller sums provided by BES investors and managers within the Group. The resulting injection now provides a capital base of £200,000. In addition further technology and manufacturing support is being provided to enable the Group to develop further. During the past months Group companies have been active in completing projects and winning £1.3 million in forward orders.

Projects recently completed include the lighting, sound and communication system at Richmond Theatre, the production lighting and working light system for Woking's new Peacock Theatre, equipment for the production lighting and working light systems for Wycombe Entertainment Centre, Broadmoor Hospital Theatre sound and lighting system, Sotheby's auction rooms lighting control, plus a number of architectural systems for Expo 92 in Seville.

Current orders in hand include communications equipment for Haastag Theatre in Norway, the Malaysian Fashion Theatre in Kuala Lumpur, lighting control for the Raddison Diamond Cruise Liner being built in Denmark, Minehead Leisure Pool lighting and effects, St Johns College, Oxford new theatre lighting and sound equipment, some three hotel systems for Singapore, Thailand and Malaysia and Queens College Theatre, Hong Kong.

Eurolight has also received orders for Applause and Ovation systems from Wycombe Entertainments Centre, Rio de Janeiro, Malaysian Fashion Theatre, Woking's Peacock Theatre and Oldham Coliseum.

Nexo Awards Distributors

At a recent ceremony during the Frankfurt show the annual NEXO distributor awards were handed over to this year's winners.

The recipients on this occasion were Alpha Sound from Greece, receiving the award for 'Distributor of the Year 1991' and Zap Sono from Switzerland voted 'Best New Distributor 1991'.

New Disco Lighting Company

New South East discotheque lighting company Set Lighting and Design, is forging ahead with major clients in London, Kent and Essex. The firm is actively seeking to win contracts to re-equip and install complete lighting and sound systems in the UK.

Set Lighting and Design opened in November and now supplies replacement equipment and lights to Stringfellows, plus the Premier Leisure Group with two award winning clubs Zen Discotheque, Dartford and The Palladium in North London. The specialist team running the company based at Spital Street, Dartford, Kent, is headed by director Jeffrey Spigmore. "We have come into the market quietly but in fact we are complete specialists in this market. We know the discotheque and nightclub lighting and sound business through and through," Jeffrey told L+S.

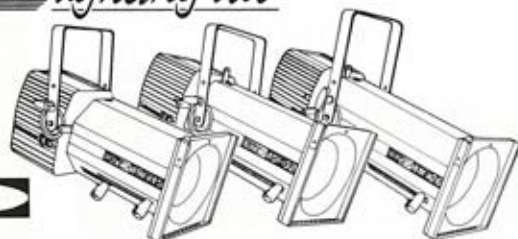
"Set Lighting and Design has been launched to go for the bigger marketplace of major clubs that we felt were getting a very raw deal on prices. Replacement lights - an ongoing expense for every club - is one area we have concentrated on. We set out to save them money - and have driven wholesale prices down - and we have picked up some good business as a result." Set Lighting and Design is using West Yorkshire-based company, Mico, and Leisuretec of Luton, Bedfordshire.

Now the company is going for the lucrative and expanding hotel entertainment market. They have just equipped one of Kent's largest privately owned hotels with full discotheque lighting.

Set Lighting and Design can be contacted at Westway House, 66-68 Spital Street, Dartford, Kent DA1 2DT. Tel: (0322) 288938.

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Court in the Act

Last month saw the formation of Court Acoustics Limited. The management team consists of managing director Stephen Court; sales and marketing director Alan Kilford; and financial director Terry Simpson. Each brings to the company a wealth of experience in their respective fields.

The company will continue manufacturing and supplying to the trade the renowned loudspeaker range including the Black Box system, together with electronic crossovers and equalisers. Planned for release at the end of April are two new products, a portable loudspeaker system and an innovative electronic crossover.

Stephen Court told L+S: "The future for Court is very exciting. We have the necessary financial investment to develop new and innovative products, a very strong management team with former Bose M.D. Alan Kilford responsible for sales and marketing and Terry Simpson, a Chartered Accountant, who until recently was managing director of an industrial plc, responsible for the company's financial affairs. This will enable me to concentrate on the design and development of new products.

Court Acoustics are based at: Lectra House, 119 Arthur Road, Windsor SL4 1RU. Tel: (0753) 833524.

New Executive For ALD

Following the Association of Lighting Designers' AGM on 29th April, two highly experienced pairs of hands have now taken the helm of the ALD: Michael Northern is chairman and David Taylor, of Theatre Projects Consultants, secretary.

A highlight of the Association's coming events is an Architectural Lighting seminar on 4th June to be held at the Bartlett School of Architecture, Gordon Street, London WC1. For details on this and how to join the Association contact Liz Lomas on 071-482 4224.

Black Light Relocate

Edinburgh-based Black Light Ltd has moved from The Old Customs House into larger premises at 18 West Harbour Road. The company feel that the conversion of this former warehouse offers more space and better dedicated facilities with which to serve customers in the theatre, entertainment, conference and production industry.

Recent additions to their ever-increasing hire stock include moving lights, colour changers, Showmist smoke machines, Arri control consoles and 24 channel touring dimmers. From June, all hire enquiries will be processed by a custom written computerized booking system. This will ensure a comprehensive allocation of equipment to all bookings, and a faster turnaround for all hire despatches and returns.

Black Light continues to stock a large range of consumables including tapes, paints, ironmongery, pyrotechnics and flame-proofing. Their stock of seven colour filter ranges is one of the most comprehensive in Scotland. Rosco Supergel, Roscolene, Cinegel and Cinecolor complement the Lee 100, 200 and HT series. The filter storage and preparation area is in excess of 300 sq feet and the company can prepare sheets, cut-to-size colour calls and scroller strings for next day delivery nationwide.

New LSC Dealers

Australian-based LSC have taken the forward step of appointing a principal dealer for Canada. Christie Lites in Toronto have taken on the representation of products to help them fill the requirement of providing an affordable high quality lighting control range. Through their dealer network in Canada they will now be able to offer LSC customers improved stock availability, service and technical backup service. Christie Lites have already made considerable sales of Precept + desks and Tour Series dimmers.

New European dealers for LSC include Sound and Light Image AG of Switzerland, telephone (01) 920 3388 and ESCRICHS of Spain, telephone (93) 411 1637.

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Renkus-Heinz UK Distribution

Following a series of articles in the trade press, last October, which announced the closure of Renkus-Heinz' European operation, it was assumed by many that RG Jones and Renkus-Heinz had parted company for reasons economic and otherwise, however, this is most definitely not the case.

Renkus-Heinz were running European marketing offices in Norway and the UK, and decided that this was not necessary at a time when the company was undergoing restructuring in the States. Consequently the UK office was closed, with the redundancy of Graeme Harrison, leaving Karl Brunvoll in Norway to handle the European marketing. RG Jones will remain the distribution company in the UK, and any enquiries on Renkus-Heinz will be welcomed by Simon Honywill.

Ten Years of Technics

Squire Sound & Light is celebrating ten years as an authorised Technics dealer with free mixing sessions at all of its retail branches nationwide. A major advertising campaign has been launched to invite prospective DJs to visit any Squire store and test the full range of Squire and Technics equipment in specially set up studio facilities.

As the only authorised national Technics disco retailer, Squire guarantee an extremely fast and efficient back up service to all its Technics customers, with instant access to all spares and a fully equipped service department in all its branches. Specially trained Squire Sound & Light staff will be on hand at the mixing sessions to recommend the right equipment mix or to customize systems to suit the specific needs of each customer. For more information contact Steve Rolfe at Squire Sound & Light on 061- 866 8069.

Superstar

Turnkey Projects recently provided production management services for the highly successful national concert tour of Jesus Christ Superstar with Paul Nicholas. The tour has travelled to some 26 different venues, notching up 37 performances in just five weeks! Andrew Stone of Turnkey Projects acted as technical director for the tour ensuring that all aspects of lighting, sound, lasers and set met both the director's and the producer's aspirations both in terms of artistic content and cost. Lighting hire, fibre optic starcloths and scenery were all provided as part of Turnkey's brief.



Paul Nicholas in the title role.

The tour is the first to use the new Oscar Lightpaint colour scrollers distributed by the Lighting Technology Group. According to Andrew Stone, the 20 units used in the show have proved very reliable taking into consideration the number of get-ins and get-outs they have experienced.

Laser Magic supplied a multi-coloured laser system with fibre optic fed scanning heads. One unit was mounted on the stage underneath the piano and fed to FOH effects, whilst a second was mounted on the lighting truss.

Other credits for the tour include Playlight for lighting hire, and MAC for sound hire with all companies providing both equipment, rigging crew and operators.

Mobility Seminar for Entertainment Industry

Ever ready to expand its work-load, the AETTI (Allied Entertainments Technical Training Initiative) will be holding a seminar on the mobility of entertainment industry personnel through Europe during the PLASA Light & Sound Show in London, in September. It will form part of the general programme of seminars currently being organised by John Offord at the PLASA office.

Laser Reveal

At a recent conference held at Hagley Hall, Worcester, The Definitive Laser Company supplied a graphic 'reveal' for a military marching band, as the finale to an evening of entertainment.

As the client had requested that none of the equipment be on show, the company installed the main water-cooled 5W Argon laser in the kitchens, beneath the ballroom and fed the laser beam via 3 x 50 metre lengths of fibre optics into the ballroom area. Two mini scanning systems were mounted high in each corner for spatial effects and a third head was mounted high in the ceiling to produce 'blanked' 3D graphics and animations through the doors, into the ballroom and onto a motorized black gauze. The screen was suspended on a Tri-lite frame and after being used as a projection surface, revealed the band! The end result being a complete laser show fed from fibre optics.

Two other new fibre fed laser effects systems are available from Definitive Lasers. The first is a moving remote scanning head, producing scanning or graphics. It can be moved in 180 degrees on the horizontal axis and 90 degrees on the vertical axis allowing greater coverage.

The second is a mini beam table, just 770mm x 250mm x 110mm high which can be used as a remote 16 channel output system, projecting beams in a 180 degree area.



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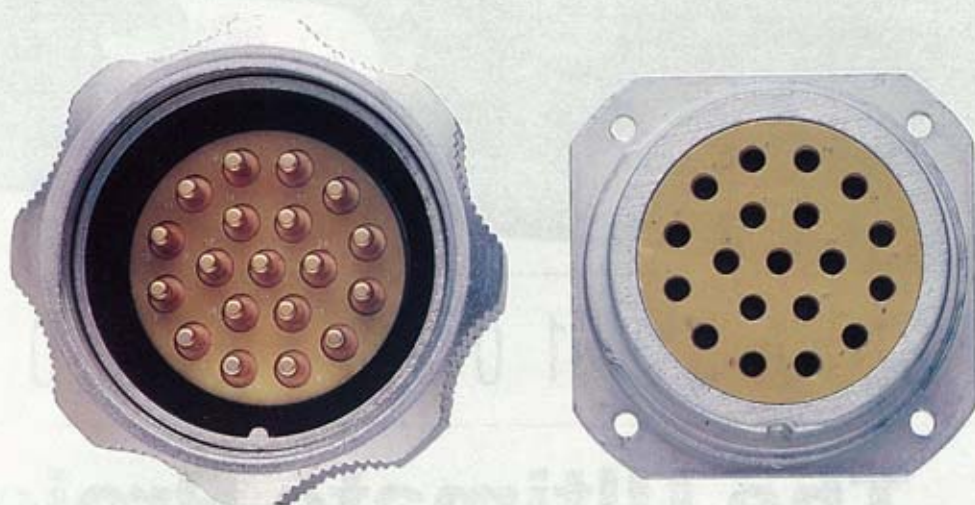
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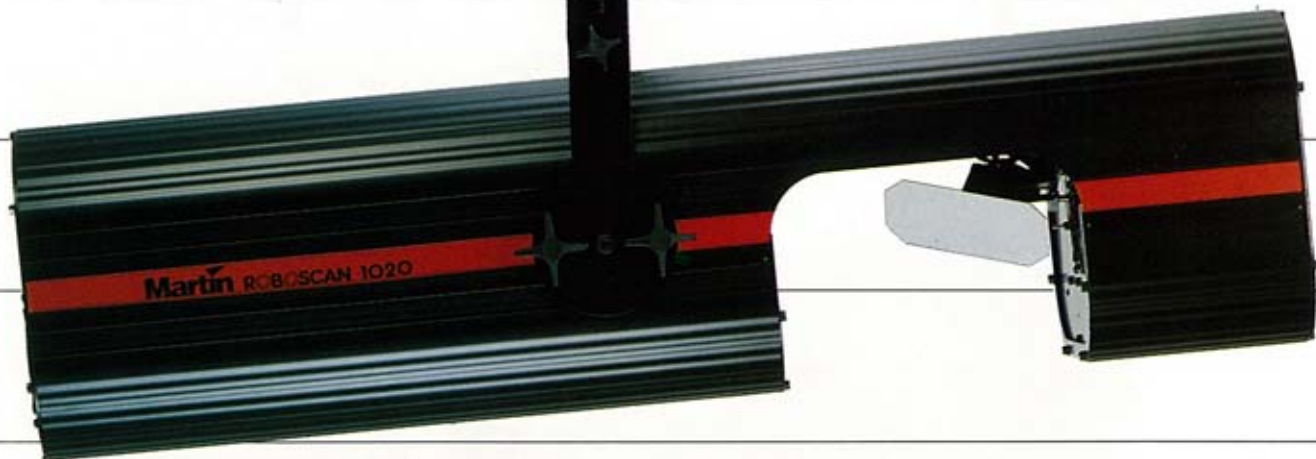


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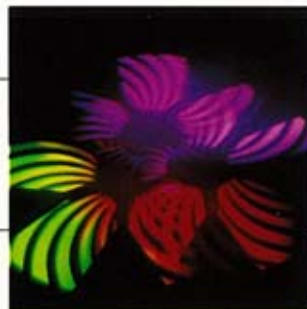


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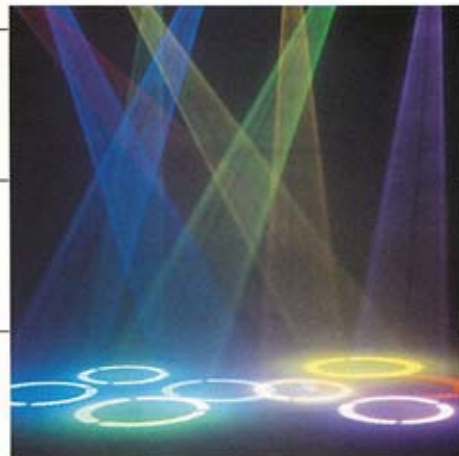
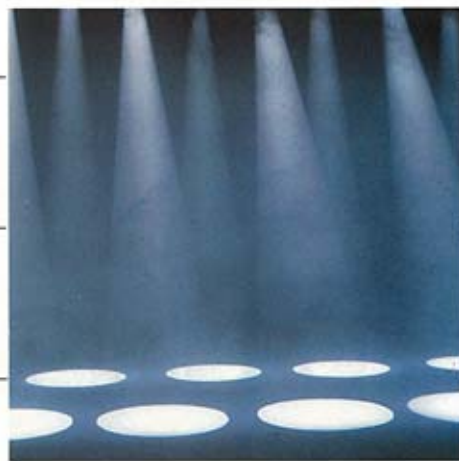
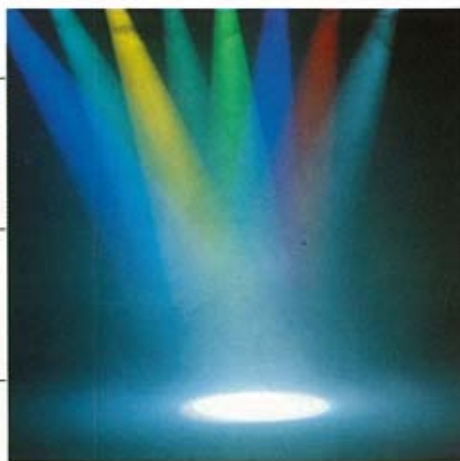
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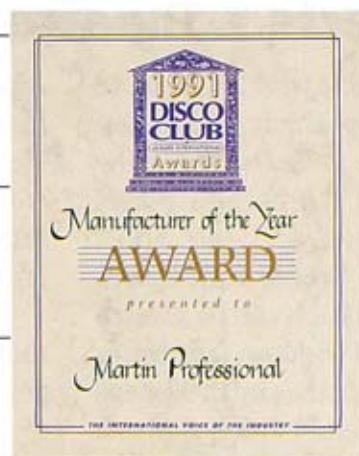
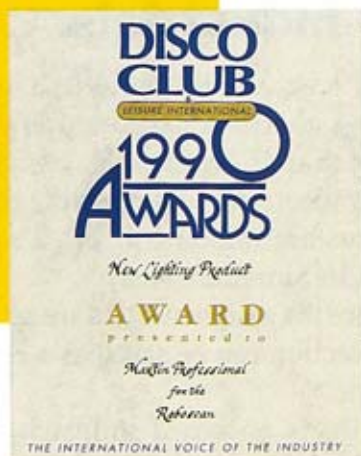
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Sound in Brief

Recently appointed as the Behringer distributor, **Shuttlesound** will be showing their range of processing products at the forthcoming APRS along with newly released product from Amcron, Electro-Voice, Greystone, OWI, Rane, Samson, Soundtracs and West Penn Wire Corp.

GB Professional Audio will be providing Shermann Audio loudspeaker systems to Glasgow's international festival, Mayfest, for the month of May. They will also be supplying complete sound system installations for three marquee theatre spaces for the Edinburgh International Children's Festival from 19th - 31st May. The systems will comprise Shermann loudspeakers and Amcron amplifiers.

Arup Acoustics, following several successful acoustic commissions in California, have now established a permanent office in Los Angeles which is headed by Richard Bussell. The Arup team will complement and add to the services of the existing Ove Arup & Partners' offices in Los Angeles, San Francisco and New York.

Tannoy has appointed Teac Deutschland GmbH as its sole distributor for professional products in Germany. Tannoy and Teac already have a successful relationship having worked together in Japan for the past 20 years. Teac introduced Tannoy's Monitor and Contractor Series loudspeakers to its customers for the first time at the Frankfurt Music Fair in March.

The Dorchester Club in Wolverhampton has recently been equipped with a comprehensive JBL sound system. The main requirement for the club's sound specification was that the system should be capable of delivering lots of bass. To achieve this, **Stagecraft Systems**, JBL's specialist dealer for the Midlands, in association with their sister company, Diamond Sound PA Systems, have installed four 4785A TCB sub woofers in a wall configuration which dominate the top end of the dancefloor.

To cater for the mid and high frequencies, Stagecraft has flown four JBL 4755A full range cabinets, one over each corner of the dance floor. Downstairs where the dance area is much smaller and more enclosed Stagecraft has supplied two JBL M350 full range speakers that are driven by C-Audio's latest addition to their range of power amplifiers, the TA 1200. Upstairs, the amplification is also furnished by C-Audio in the shape of four SR 707 power amplifiers and an SR404

A massive 10kW JBL Sound Power system has recently been installed at the newly opened Mirage nightclub in Enniskillen, Co. Fermanagh.

DSD Designs, JBL's specialist dealer for Northern Ireland, was called in to manage the entire project from interior design to sound and light installation. Half a million pounds was spent on the venue to make it into Enniskillen's premier attraction. DSD decided to format the club in the style of an amphitheatre which spreads over four levels beginning with the dancefloor at the bottom. Low frequencies are provided by four JBL 4785A TCB sub woofers which are built into the wall of the first level on either side of the dancefloor. To drive them DSD's Don Spence has used four C-Audio SR707 power amplifiers.

Delivering the mid and high frequencies, four JBL 4755A's have been flown from the ceiling using custom designed brackets that allow the speakers to swivel. Mounted on the same brackets but facing out towards the balcony, four JBL M330 full range cabinets provide surround sound. Amplification comes in the shape of another four C-Audio SR707's for the 4755's and two C-Audio RA 3000 power amplifiers for the M Series speakers. Last but not least in the sound scenario, the DJ booth is equipped with two JBL Control 5 monitors driven by a C-Audio RA 500 amplifier.

Following **Sennheiser's** purchase, last year, of Neumann, the world famous Berlin-based microphone manufacturer, Sennheiser UK is to exclusively handle the sales, distribution, service and technical support for the entire Neumann product range within the UK and Eire. While certain

Neumann products will take Sennheiser UK into new market areas, the addition of Neumann microphones to the Sennheiser range of products means that Sennheiser UK is now able to offer one of the most comprehensive ranges of microphones on the market. These range from the "inexpensive" consumer-based models to a complete range of both Sennheiser and Neumann professional studio models. Martin Gathard is maintaining his long association with Neumann microphones, joining Sennheiser UK to continue his service and support activities.

Balancing a classic Harley Davidson Electraglide motorcycle half way up a wall is not the only claim to fame for the £3 million Richardsons Bar and Fifth Avenue Restaurant in London. Now the venue has gained acclaim by receiving first prize in the Bose Drastic Olympic Challenge for best sound quality installation. The competition has been keenly contested since October 1991 by sound specialists utilising the equipment of the Bose Corporation.

The winning installers, **Middlesex Light and Sound**, have worked closely with Richardsons Inns on providing customers at a number of venues in London and the home counties with top quality audio visual experience. Mike Olivier, managing director of Middlesex Light and Sound told L+S: "This was a very big project for us and tremendously interesting because it was multi-purpose, with top quality equipment for live music, karaoke and disco, as well as spectacular lighting, video and satellite installations. We are naturally delighted to have won the challenge against some very stiff opposition."

The winning installation includes two 240 watt RMS 8025 Series speakers and one 200 watt RMS Acoustic Wave Cannon for the venue's marble-floored dancing area, and a further 36 smaller Bose speakers in the 301s series at 70 watts RMS per cabinet. The first prize of a four day trip to the Winter Olympics was jointly shared by Mike Olivier of Middlesex Light and Sound and Gerald Richardson, managing partner of Richardsons Inns.

Electromusic have installed the first ever Turbosound Flashlight system into Shaftesbury's in London. Flashlight is a completely innovative patented loudspeaker system. Already achieving great success in the touring market, the combination of the loudspeakers has been altered slightly by Electromusic for the club market. The result is a system that comprises components geared up to maximise the high quality sound area and minimise distortion.

The system in Shaftesbury's consists of four Flashlight high packs, eight TSW 121 Flashlight Bass units, and two Turbo TSE 111 mid/high packs. BSS EPC and Crest P8001 amplifiers power the system.

The only processing used in the signal chain is the Turbosound LMS 780 Flashlight system controller which contains active crossovers and provides limiting level control and phase coherence/time delay alignment for each frequency band. The DJ booth incorporates a Formula Sound PM 90 mixer and two Technics SL1200 decks.

The current series of BBC TV's topical debate programme Question Time has provided **RG Jones Sound Engineering** with the contract to provide a customised speech reinforcement system for the 36-week run, which began in September.

A zoned system, with instant, totally variable, level control available on the desk for each zone, has been designed around Renkus-Heinz CM81s and CM61s, JBL Control 1s and Visonik 5001s, all controlled through a Soundcraft 8000.

The company have also recently completed the installation of a new public address system for the Centre Court at the All England Tennis Club, Wimbledon.

R G Jones designed and built 48 new loudspeaker arrays which are suspended in pairs within the main roof truss. The system carries the umpire's announcements, and fully conforms to the requirements of the Safety At Sports Grounds Act for emergency use.

Lighting in Brief

April saw the launch of the new comprehensive range of lighting filter products from **Pro Color**. With over 130 effect, soft cosmetic, reflection, diffusion and colour correction filters Pro Color gives every lighting designer total control. Contact Pro Color's professional dealers for full details.

Memotech Computers have recently supplied a Show Controller for the world's first Interactive Videowall for Nuclear Electric's Plc, Oldbury Power Station. The display has been designed to be interactive, with visitor participation. Using a semi-circular top canopy which houses five passive infra red detectors which shine down onto five clear plastic 12" cubes that contain a small sample of gas, oil, coal, uranium pellet and water.



Each time one of the cubes is touched this is detected by the infra red beam and the Memotech Show Controller instructs the laser disc player to search for the appropriate track, and calls up the effects program from the videowall computer. Once the track is found, the Show Controller (SCI) controls the lighting interface, dimming the lights to zero and then plays the selected track. The computer also ignores any further detector until after the track has been played. If after playing, no other activation is triggered the lights will go back to full strength. The installation was carried out by Videowall Construction.

The Lighting Association has opened a new lighting test laboratory to extend its range of vital back-up services to suppliers and manufacturers of decorative and contract lighting. The lab offers comprehensive testing facilities for both indoor and outdoor fittings. Independently of that, The Lighting Association also runs a 24-hour technical advisory service, assistance with product development and advice on regulations affecting the lighting industry. For more details contact Richard Smith, technical services manager on 058 84 658.

MSL have been appointed as exclusive agents for Line Lite ultra violet reactive products. The Line Lite brand was last seen in the UK in the mid '80s since that time, Line Lite designers have enhanced the performance of their own product. In order to differentiate between any first generation product and the new high-efficiency compound, Line Lite

'll' is now supplied as a solid tube and not hollow piping as previously available. Furthermore, there is now a considerable choice of UV-reactive alternatives; solid rod, pipe, sheet and granular Line Lite are also available. MSL stock and supply not only the Line Lite range, but also offer UV 'blacklight' tubes (2ft and 4ft) and their respective fittings. There are also a small number of free Line Lite sample packs still available, so interested parties are asked to call MSL trade sales to reserve their pack as soon as possible. The MSL trade sales department can be reached on 071-354 2254.

Squire Contracts

Squire Sound & Light is set to complete two long-term contracts worth almost £150,000 within the same week. The contracts to completely fit the sound and lighting in two top clubs, Harpers in Guildford and The Roof Gardens in Kensington, will be complete in the first week of May ready for celebrity openings.

The two contracts were the first orders won by new Squire appointment Paul Endersby, who joined the Squire Contracts division last year.

Michel Harper appointed Squire to supply all the sound and lighting for his club in Guildford after one of the most publicised and infamous license applications which Rank contested all the way. The club is based in an old cinema, characterised by high ceilings and decorative plasterwork.

Squire took the opportunity to use the theatre lighting to enhance the existing features, whilst maintaining a modern image for the dance floor. The sound is, of course, also important and a JBL sound system has been designed and specified by Squire.

Meanwhile, Voyager Clubs, part of the Virgin Group who own The Roof Gardens, responded to a Squire advertisement on Capital Radio last year. Voyager MD Michael Herriot, chose Squire on the strength of the company's recent installation at Browns in Covent Garden.

Socapex Upgrade

Socapex have announced that they have made available all spares for the industry-standard SL61 series multipin connectors and have launched a new rubber neoprene insert for the 19 pin and 37 pin. These will be called the 'Tourpex' range, a connector designed specifically for the touring market.

Advantages are that the individual contacts can be replaced and the new rubber neoprene inserts will absorb extreme shock conditions incurred in heavy touring environments, thereby considerably reducing the risk of damage.

Socapex spares and the new 'Tourpex' range with neoprene inserts are available from local stockists, and Socapex have confirmed that the original Socapex SL61 series will remain available.

LETTER

Dear Editor

In reply to Bruno Wayte's Viewpoint on 'The Need For Training Initiatives' in your March 1992 issue, I would like to say that the City of Westminster College (formerly Paddington College), in association with the ABTT, took the initiative to start a sound engineering course more than 10 years ago (I've sent a copy of Bruno's piece to our marketing department!).

The college offers full time and day release courses aimed principally at Sound Engineering applications other than multitrack music recording. For school-leavers with musical ambitions, the Youth Training Programme opens the door into the recording studio.

On full time courses, students are placed in industry with a PA company, theatre or hire company. Many major companies support our courses in this way including the National Theatre, Royal Opera House, Autograph and Air Studios. In their placements the students do the kind of work any new trainee would, whether it is painting loudspeaker cabinets just back from a hire job or directly assisting engineers working at the highest level. Keen students get to do the best quality work and are rewarded by the possibility of a good reference when the time comes for job-hunting.

All our Sound Engineering courses lead to the City & Guilds 182 Certificate in Sound Engineering, a qualification pioneered at the college in conjunction with the City & Guilds of London Institute. Through this scheme of recognised qualifications, a pool of skilled potential employees is emerging.

Although Bruno Wayte may have felt that the year his trainees spent polishing mic stands at Entec was a worthwhile test of their enthusiasm, we at the City of Westminster College hope that a year spent on our full time sound engineering course (or equivalent time on a day release) will be a better first stage in a career, and will provide a firm foundation for the real life work to come.

John Mizzi

Head of Sound Engineering

HAVE YOU ANYTHING TO SAY ON WHAT YOU READ BETWEEN THE PAGES OF L+S?

WE WELCOME LETTERS ON ANY SUBJECT OR ARTICLES FOR INCLUSION IN OUR VIEWPOINT SECTION.

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RED HOT AND PUMPING ON LAKE BUENA VISTA

The climax of the celebration for the opening of Euro Disney was a performance of epic proportions on a vast artificial lake.

Tony Gottelier reports.



Spectacle du Lac: "totally eclipsed anything that had gone before in a magical explosion of technological artistry."



If the fantasy world of Disney is larger than life and twice as plastic, the opening party was typically grandiose and totally over the top, as TV viewers across the world will have witnessed. What they would have missed, as only a 30 second clip was spliced into the broadcast, was the fabulous 'Spectacle du Lac' (literally, 'Show on the Lake') which was actually the culmination of the entire celebrations for those present.

Based loosely around the animated Disney feature *The Little Mermaid*, in real life this separate but gigantic effort, which brought together numerous event specialists, including a handful of Brits, totally eclipsed anything that had gone before in a magical explosion of technological artistry. It couldn't have failed to impress even the most diehard Euro Disney sceptic.

But then the stretch of water itself is no small garden pond with a few gilded Koi carp gliding just below the surface. No, Lake Buena Vista is a 400m long archipelago stretching between two vast Palladian hotels. 'The New York' at one end and 'The Newport Bay' at the other. The picture it presents is a film-set version of the ornate Italianate gardens at those grand European houses where gardeners falsified the landscape to create a palatine setting for some famous architect's great conceit of a vast chateau or palazzo; this one worthy even of the greatest folly of them all, the Palace of Versailles but without its permanence.

So a setting of mythical proportions, worthy of a king-sized production, is precisely what we got. The power requirements alone read like the demands on the national grid: 2 x 800KVA, 2 x 350KVA, 2 x 200KVA, 3 x 150KVA, 2 x 100KVA plus 4 x 125A and 4 x 63A.

For, if fire and water are elemental, the Spectacle du Lac had both of these elements and more. The main constituents and participating companies were: dramatically lit and controllable water fountains (Aquatic Show International), big colour changing Xenon searchlights (STX Skylights), several colour Ionics' large frame lasers (Stratovision), extraordinarily clever aqua-projection (ECA2), a humongous pyrotechnics display (Eurodrop and Art Fireworks), giant inflatable (Air Artists) and a big sound system (Britannia Row Productions).

And orchestrating and implementing the



Various water structures gave a geometric shape to the entire show. Pictured above are some of the 13 controllable fountains.



"Had I not known better, I might have believed that I was looking at sans-screen holograms."

concept for the entire extravaganza, not to say organising the dozens of techs and operatives involved, was Euro Disney's chief lighting designer and special events producer, Claude Tissier. And, in recognition of their pioneering work on such mega-projects undertaken in

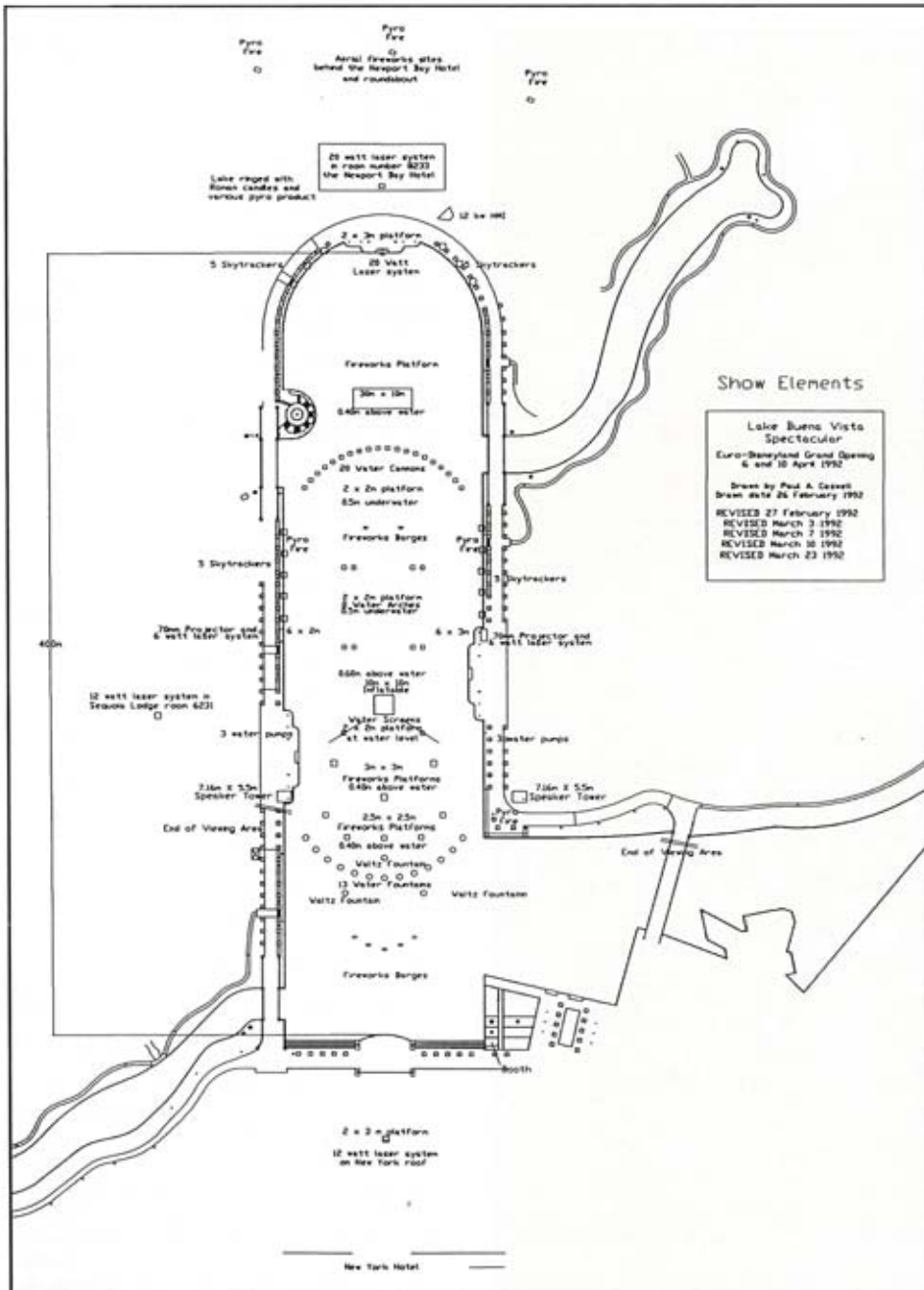
Orlando at Walt Disney World, Bettina Buckley, production manager of creative entertainments in Florida, flew in to perform a much needed hands-on co-ordination role. (I note, with amusement, that Ms Buckley's business address in the United States is PO Box 10,000, Lake

Buena Vista, FL.).

Those involved are all leading specialists, with events pedigrees as long as your arm.

Long before the performance, I had wandered unwittingly into the tense atmosphere of the tiny camouflage net and scaffold control centre perched on the edge of the lake and supporting, on three floors, a mass of control equipment and operating personnel. The ground floor, by far the most crowded with a crew of eight, was occupied by Brit Row Productions whose operations manager, Chris Hey, gave me a few brief moments between rehearsals to cover the bare essentials. 24 Flashlight stacks as used on The Wall concert in Berlin, had been deployed and flown successfully the first time round on StageCo towers. These structures are so solid they require no bracing, so there is nothing to compromise arranging the sound system so that adjustments can be made to suit variable climatic conditions. This proved essential, as weather conditions had been severe bringing both snow and driving rain at various times, for, curiously for the success of the venture, Marne le Valee is in possibly the wettest region of France and not subject to the drought which has afflicted the West coast of the country for the last three years. They wish!

In order to compensate for the huge distances involved, the tape replay system was time



Air Artists' King Triton emerged spectacularly from the Lake, unpunctured by firework debris.



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King Triton 'under production' at Air Artists' studios.

aligned using a time code offset. Time code generated from the same source was used to cue the Skylights, pyrotechnics and the lasers at 24 time code locations. 17 kilometres of cable were used for the sound and for the RTS Matrix Plus comms system, also provided by Brit Row, with the 60 stations and parallel traffic on numerous

command loops this required.

The aquatic element of the show was a ballet of orchestrated pulsating water jets and rich hues of projected light. This involved 13 controllable fountains arranged in a curve closest to the audience with three waltzing gushers in the same location, four water arches formed a



More fountain and firework action.



central salute down the spine of the lake and 20 water cannons in an opposing curve at the opposite end provided counterpoint - all fed by 77, 5.5kW pumps and 310 submersible 1kW colour projectors consuming 8400 metres of submerged cable. These water structures gave geometric shape to the entire show.

At the same time the 20 STX searchlights, arranged in two curved rows at the far end of the lake and in two straight lines to the sides, fanned and swept the sky in long coloured fingers; while two 20W Argon lasers, strategically placed on the roofs of the two hotels, sparked and crackled across the misty water.

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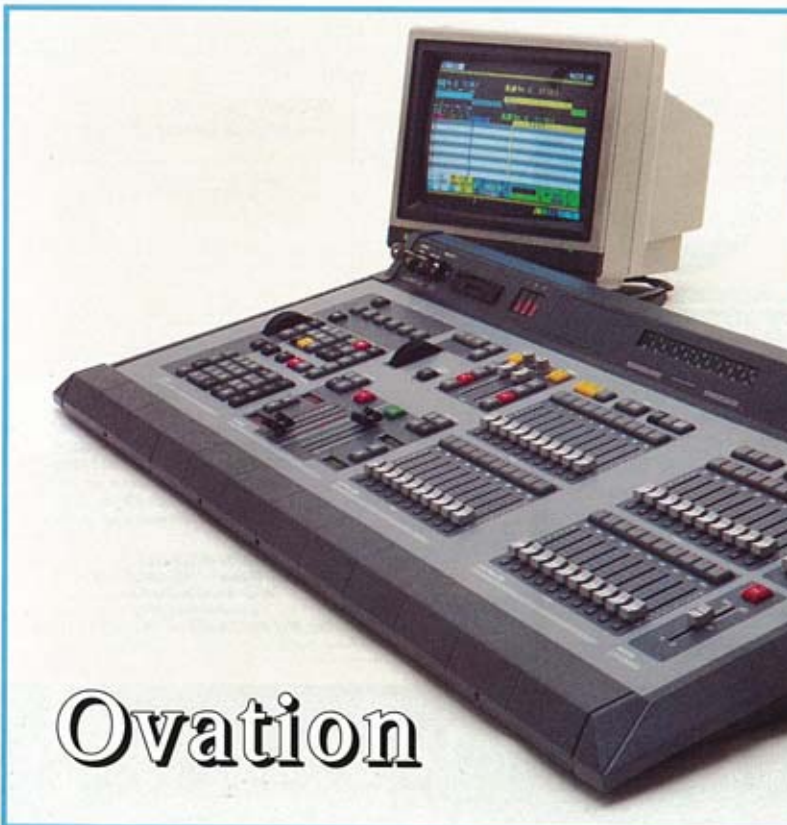


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And into all of this was introduced a single moment of sheer magic, both for its brilliant technical achievement and its mystical quality, as two shimmering and ghostly full colour images appeared suspended in mid-air over the centre of the Lake. Deliberately distracting the eye from the technique, were two 12W mixed gas lasers coming at the images from the same direction. When the haze cleared, this apparition took the form of the little mermaid herself, in pale colours, moving languidly as if uncomfortable on her rock. Had I not known better I might have believed, for all the world, that I was looking at sans-screen holograms! But how was this superb effect really achieved?

As with all the best ideas the concept is simple, the implementation not so easy. Two carefully angled screens, created from fine high-pressure water droplets were formed, using six 37kW pumps to provide the necessary pressure, and the images projected onto the audience-facing side of the screens from two synchronized 7kW Xenon 70mm projectors located on the lake shore. To realise this effect and the animations, Yves Pepin of ECA2 worked closely with Paul Curasi, Disney's director of animation in Orlando. Apparently, water screens have been used previously in Japan, where Pepin has been involved in many shows, and the same effect will also be used, by his company, nightly for the Lake Show at Expo in Seville.

All of this is achieved through the wonders of Time Code, MIDI and DMX512 (and the aforementioned headset communications), enabling the precision production of the show to the second. Despite this breathtaking moment, there was yet more to come, with the spectacular emergence, in a cloud of smoke and colour from the centre of the lake, of King Triton, Neptune to the rest of us, in a 15m high inflatable created by Air Artists in Norfolk, in the UK. Apart from the problems of building and colouring such a monster, as witness our picture (see also cover), the only major problem according to Rob Harries was the hazardous risk of puncturing caused by burning debris from the major firework performance. By now it was banging and flashing from all over the lake off diverse platforms, which formed the numerous islands of the archipelago, with one major platform to the rear of Triton and others from behind the Newport Bay Hotel at the end of the site. (All of this to the disgust of local residents who had signed the inevitable petition against such displays).

Now, even the hardened professionals on the site were saying 'Phew' and buttoning up their raincoats against the drizzle, which had started unnoticed several minutes earlier, and wandering away with glazed looks in their eyes. Yes, Claude Tissier and his team of eventers had certainly produced an intricately woven and brightly coloured patchwork quilt of a show. Brash, well just a bit maybe in the best Disney tradition, but Mickey Mouse it certainly wasn't.

The Lake Lake Show

Expo 92 are also running a water show on an artificial lake. A full report will appear in our next issue.

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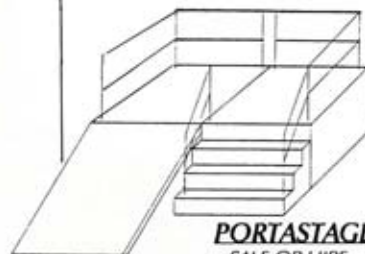
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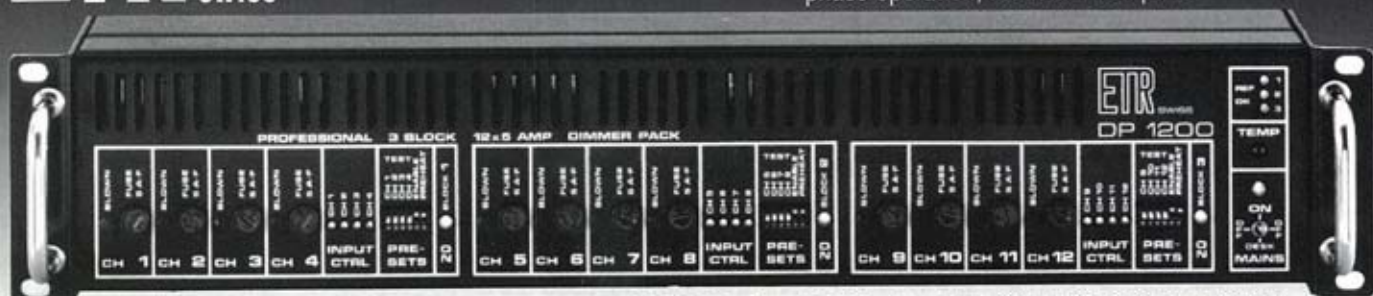
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FREDDIE MERCURY TRIBUTE

L+S special report.

Steve Moles reports on the lighting, Simon Croft on the sound

LIGHTING

The quiet West Sussex village of Bolney, near Burgess Hill, now sports a rather splendid portrait of Freddie Mercury on the signpost outside the Queens Head pub. It is perhaps symbolic of how this man, renowned for his outrageous, decadent and camp behaviour, managed to insinuate himself into the hearts of the British populace, in spite of himself. The recent public out-pouring of emotion at his memorial concert, which took place on Easter Monday at Wembley Stadium, only reinforces the belief that British concert goers (who since Live Aid have perhaps become immune to pleas for charity, and have recognised that you can no more prevent a famine than you can stop a flow of lava down a mountainside) hold Freddie Mercury in higher esteem than even they realised.

Thus was lighting director Patrick Woodroffe presented with a brief that implied something more than 'yet another big outdoor event'. When I questioned him as to what was the most important consideration for such a show he replied succinctly: "To provide something monumental in scale for the event, something spectacular for the 72,000 people there, and to provide an interesting, as well as properly lit, stage for the TV audience. Queen's shows were always lit strongly and simply and I wanted to follow that feeling - although on a truly massive scale."

Being no stranger to this size of show - last year's AC/DC World Tour and before that the Rolling Stones bear testament to his outstanding expertise - Patrick set about his task, choosing big moving blocks of light (with perhaps just a tip of the hat towards the show rig used by Queen on, what came to be their last tour in 1986), integrating both large numbers of Pars to provide bold, powerful washes, and Vari*Lite fixtures for subtlety and dynamic, within each lighting pod. Whilst the many stars who chose to contribute to the show were at Bray Studios honing their performances, Patrick, with equal application and the assistance of Charlie Wilson, was busy at his 4:1 rehearsal facility. As the show began to take shape, he took the opportunity to invite both the show's overall director and the director



The Vari*Lite pods overhead with 4kW of Clair Bros monitors on stage.

of photography to work with him there, so that they could agree on an integrated approach to the television show.

The side and back spot galleries, sporting 34 Vari*Lite fixtures (both 2Bs and 4s), a host of Pars, ACLs and Molefays and concealing six Skyarts, also held 19 followspots (from a total of 49 used on the show), with each operator illuminated, specifically for the cameras, by a photo flood above their heads. The overall effect, as well as providing great back and key light, was to give the cameras an inexhaustible supply of interesting shots, full of people, action and colour.

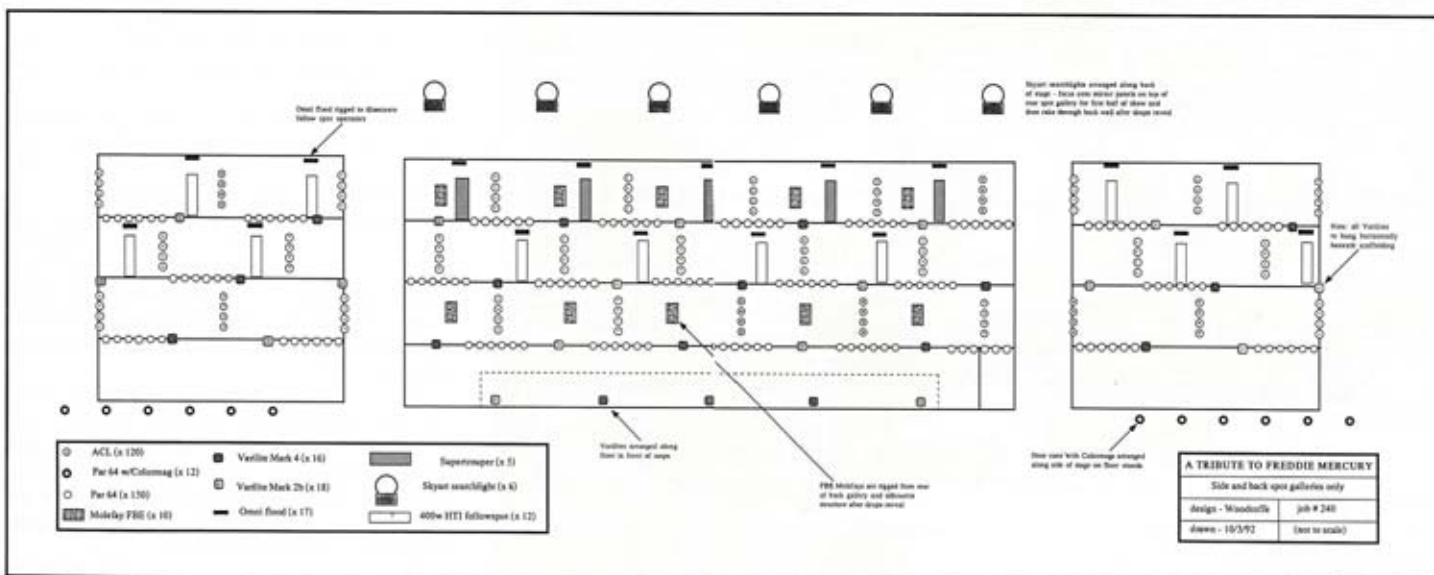
A substantial part of the lighting budget was spent on lighting the audience, not just with the usual towers of ACLs dazzling them, but lighting hung from the roof of the grandstands and also from the previously mentioned multiplicity of followspots, all of which contrived to involve the whole audience, especially those high up in the remote nose-bleeds, in the warmth of the total event.

For the first time Patrick used Sky Arts, fitted with Rainbow colour changers, to light the stage, bouncing their huge beams off mirrors mounted under the roof whilst the lamps remained hidden behind a black kabuki drape. Later when the drape was dropped the Arts swung down to throw the spot galleries into stark relief adding yet one more dimension for both camera and audience alike to soak up. It is somewhat unfortunate that some of the other dramatic effects he used, the great moving roof of lighting pods especially and to some degree, the strong Vari*Lite looks, barely registered on the TV screen. None-the-less, Patrick told me the expense of providing such drama is justified not only by the thrill it gives the audience but also by how, indirectly, that thrill is conveyed on the small screen. Incidentally, Dave Hill used the new Vari*Lite blind programming system 'Visionary' to pre-plot most of the major chases and looks. It was unquestionably a timely arrival for this system as, due to the preceding American Football match the night before, programming time at Wembley was acutely limited.

For the future Patrick is working on the outdoor shows for Simply Red this summer, the theatre/residency tour being undertaken by Erasme in the near future, the new Australian production of the Blues Brothers musical, and the lighting of a large new building in West Germany.

When I asked him which environment he most preferred to work in, stadium, rock arena or West End theatre, he replied predictably: "all of them," although right now the German project is proving the most challenging as he is having to learn about "a host of new types of lamp." No doubt we shall be seeing some of these lamps featured in his future shows.

The main contractor and co-ordinator for lighting services was Samuelson Concert Productions (supplying all conventional lighting, rigging, followspots and effects), Vari-Lite Europe (Vari*Lite luminaires) and Theatre Projects (Sky Art and Sky Tracker searchlights complete with their new Rainbow Colour Scrollers). The Samuelsons Concert Productions team was headed by John Coppen and Piers Shepperd who worked alongside project manager Steve Nolan of Chromatic Productions.



Patrick Woodroffe's lighting plot for the side and back spot galleries.



Panoramic views of stage and audience.

A fourth Samuelsons Group company, Brilliant Stages, were awarded the contract to build the three giant 'phoenix' logos which adorned the stage set, and provided stage risers from hire stock. Patrick summed up his thoughts after the show: "The attitude of all the crew was fantastic, and we had excellent back-up from everyone involved. It was a huge success - and a great tribute to Freddie Mercury," he said.

I should like to add one final personal note. In 1986 I had the great good fortune to be the lighting crew chief on Queen's last tour. At Knebworth Park I remember vividly the hairs rising on the back of my neck, as Freddie

Mercury swept 120,000 ecstatic fans into the palm of his hand, time and time again. It is fitting to recognise, within the lyrics of several songs on 'Innuendo' (Queen's last album) and most poignantly on the 'Show Must Go On' that Freddie had confronted his own inevitable death and found the courage to write his own defiant epitaph.

Crew List

Audience lighting director - Eneas Mackintosh
 Crew chief - Steve Nolan
 Conventional lighting operator - Charlie Wilson
 Vari*Lite operator - Dave Hill

Dimmers S/R and S/L - Danny Nolan and Brian Condroy

Hoist commanders S/R and S/L - Barry Bradford and Vince Foster

Set lighting - Paul Jennings

Audience lighting - Sandy Imrie

Vari*Lite crew chief - Andy Doig

Followspots - Bob Batty

Logistical support - Paul Sheppard of SCP

Steve Moles

SOUND

The unique nature of the event and the complexity of providing sound reinforcement for a constantly changing roster of artistes made the Freddie Mercury tribute a job for experienced hands. The company chosen was the US-based Clair Bros, one of the best respected outfits in the business.

Crew chief and monitor engineer for the event was Clair Bros' Jim Devenney, with Trip Khalaf on front-of-house and Dave Cobb handling the show's complex patching requirements.

Devenney told L+SI that the front-of-house rig used "about a quarter of a million watts" of speakers: 128 Clair Bros S4 enclosures. These were stacked on four levels either side of the stage, 12 high and five units across, with the remaining eight cabinets used as front fills at stage level.

This particular configuration had not been tried before but "it was perfect for the stage" said Devenney, as each of the main stacks took only 18 feet out of the total width. He is also an advocate of S4s as front fills because they are "almost invisible" because of their size but "quite amazing" in their performance.

Devenney was also fullsome in his praise for Wembley Stadium's sound technician Tim



The six Sky Arts, complete with new Rainbow Colour Changers .

James, who "did a real good job" with the house system that fills in around the stadium. James time aligned the house system himself, which made the Clair Bros task of setting up far quicker. Mixing FOH was taken care of with two Yamaha PM3000 consoles and a Clair Bros custom 32 channel. The "basic effects rack" included Lexicon 224 and AMS reverbs, along with Eventide Harmonizers and Yamaha SPX-1000 units.

About 4kW of monitors were used on stage, including Clair Bros 12AMs and Studio Monitors for the drums. A Ramsa WS840, together with a Yamaha PM2800 desk were used to handle drums and these were patched into a Harrison SM5 board.

With artistes changing every 15 minutes, the monitor side represented a potential disaster area but Devenney handled the situation with a special system of programmable graphic equalisers. These combine modified versions of the TC programmable graphics with a MIDI controller head designed by Clair Bros and TC.

"It makes a rack of MIDI graphics really controllable," Devenney observed. "In a situation like that, it's the only way to go."

Mics on stage included three Sony wireless systems for the main artistes, plus an extra for back-up. Fixed vocal mics were EV757s. Drums were mainly covered with Sennheiser MD421s, Shure SM57s and Beyer M88 on bass drum. MD421s were again used on guitar amps. "We tried to keep everything as standard as we could, so that there was as little changing over as possible."

In the final analysis, "it went amazingly smoothly," despite "one or two glitches." Devenney was quick to credit the artistes. "Everybody was very aware of what was going on and they all had a good attitude. They all knew that it was not their show, but a tribute to Freddie, which really helped the whole thing flow."

Simon Croft

Rainbows in the Sky

Everyone sweated blood to get the Freddie Mercury tribute concert together for Easter Monday, but for Magnus Anuell and Michael Goldberg, of Rainbow Colour Changers, time was even shorter. Putting together a new product for the rock event of the year is not something to be recommended, but they did it. At the request of Theatre Projects, Magnus Anuell, inventor and designer of Rainbow Colour Changers, had designed a new Rainbow specifically for the Sky Art search light. Magnus arrived on Thursday with eight Rainbow Colour Changers 'in bits' to quote Michael Goldberg, which were assembled and put through their paces at the American Football match at Wembley on Easter Saturday!

The Sky Arts plus Rainbows were used throughout the concert at the back of the set, the new Rainbows scrolling through 11 colours in approximately four seconds. A special weather-proof device allows these units to be used in most climates.



M&M's Michael Goldberg (left) and Alan Thomson of Theatre Projects with the new Rainbow.



72,000 people packed Wembley Stadium to pay tribute to Freddie Mercury.



The three technical facets of the show: video monitor, PA stacks and stage lighting rig.



"Pars provided bold, powerful washes, while the Vari*Lite added subtlety and dynamic."

PLASA NEWS

P.A.T. Draws the Crowds

Fifty delegates represented over thirty organisations at PLASA's Portable Appliance Testing seminar on April 6 at South Mimms. The event was highly successful, and an interesting factor was that over half the delegates came from outside the PLASA membership, mostly from major venues and local authorities.

Organised by Anna Pillow from the PLASA office, the day's proceedings were ably led by the Association's Standards Officer George Thompson. Speakers included Peter Coleman (Midland Theatre Services), John Watson (Theatre Projects), Val Dawson (Seaward Electronics), Peter Nelson (Barron-McCann) and Stuart Gibbons (Le Mark TVS).

As a result of the seminar a Working Party is being set up to promote an industry-wide bar-code format to facilitate record keeping and stock control, and enquiries relating to this can be directed to the PLASA office in Eastbourne.

If there is sufficient interest from members and the industry in general there is a possibility of the Seminar being given a an up-dated 're-run' during the autumn. Watch for more news in this column.

PLASA AGM

The Annual General Meeting of the Association will take place at the Holiday Inn, Stockley Road, Heathrow on Tuesday 9th June. Full details will be mailed to all members.

Demand for Service

PLASA's regular Standards News, compiled by Standards Officer George Thompson, is not only becoming more and more valuable to PLASA members. There is growing demand from many areas of the industry for the information it contains, and the PLASA Executive Committee is currently considering whether to make the popular 'Greenie' available on a broader basis for a small annual fee. L+SI readers are invited to contact us for further information.

Show Seminars

L+SI editor John Offord is currently putting together the programme of seminars for the Light & Sound Show and would welcome any suggestions for topics or presentation of papers. Call John Offord or Ruth Rossington on (0323) 642639.

More and More Members

No less than 14 new PLASA members were confirmed at the April meeting of executive committee. Five full UK members were joined by nine International members:

- Outback Productions
- Le Mark TVS
- ESP
- Music Factory
- Nu-Lite Systems
- d&d Audiotechnic (Germany)
- Coemar (Italy)
- Flashlight (Holland)
- Laser Theatre Lighting (Hong Kong)
- H. Ito & Company (Japan)
- LSC Electronics (Australia)
- Teatro (Italy)
- Zilz Concerts (Holland)

Martin Professional (Denmark) Camelont were approved as Corporate Members (main member M&M Lighting Ltd).

For all membership enquiries please contact Anna Pillow at the PLASA office in Eastbourne on (0323) 410335.

PLASA/L+SI at Showtech

Ruth Rossington and Barry Howse will be taking care of the PLASA and L+SI information stand at Showtech in Berlin in early June. They look forward to meeting you!

Expo Seville

We are planning a major feature on the Expo in our next issue. Please let us know if you or your equipment played a part in putting together this major event.

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People



Andrew Sutcliffe Corinne Fuller Graham Allen

Light Angles have now settled into their servicing and production facilities in their new premises at Gatwick, whilst still retaining their London office in Oxford Street. To maintain their efficient service they have recently recruited **Andrew Sutcliffe** formally with Juliana's as an addition to the contracts management team and **Corinne Fuller** as head of marketing, as well as increasing staff in the design office, general administration and workshops.

Squire Sound & Light's Contract Division has extended its service and maintenance back-up facilities by appointing a specialist contract engineer who will be available on a call-out basis to solve any service problems on-site.

Mark Westbrook, formerly manager of Squire's Guildford branch and an engineer for County Sound's roadshow, has been appointed as the specialist contract engineer. His 24 hour maintenance and repair expertise is available countrywide to any Squire contract club. Squire have installed a new lighting rig and workshop into their Guildford store. They have also appointed ex-Toa sales manager **Andy Brown** to manage the sales, hire and service outlet.

Squire Sound & Light's Glasgow branch is managed by recently appointed **Colin Ashby** and has an excellent reputation amongst mobile DJs and club-owners throughout Scotland.

Graham Allen has recently joined the team at Shuttlesound. He will concentrate on selling Behringer signal processing equipment together with other products appropriate to the M.I. market. His considerable experience of this market was gained during 10 years working in music retail.

Australian company LSC Electronics have recently appointed **Len Hayward** as their national sales manager. He 'cut his teeth' on the rock and roll industry 15 years ago and has spent the interim working for a variety of multinational companies including Sony.

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Sound and Light

BOOK REVIEW

1991/92 Directory of Drama and Theatre Courses

ABTT Publications
ISBN 0-900098-01-5
£5 incl. p+p

This annual was taken over by the ABTT in 1989 with the demise of the British Theatre Institute. The 1990/91 issue saw a change of title when 'Higher Education' was replaced by 'Theatre' to reflect the large number of new entries concerned with performance. The trend continues and the current issue contains 30 new entries representing an additional 1000 placed on offer. In addition most colleges have increased the number of places on their existing courses.

In keeping with the Association's other publications the Directory is now produced in A5 format, totalling 120 pages. As previously it lists drama courses in Drama Schools, Universities, Polytechnics, Colleges of Higher Education, Colleges of Art and also Tertiary and Further Education Colleges. There is an introduction to each of these categories and also notes on L.E.A. grants.

Appendices are included covering External University Courses, Independent Examination Boards and the value of Pre-HE Qualifications, and it is indexed by subject, qualifications, and location of colleges.

So You Want To Work In Theatre

ABTT Publications
50p incl p+p

This long-standing ABTT publication has recently been updated. It takes as its theme the mounting of a theatrical production to briefly describe the jobs and people involved in this joint operation and how they acquired their range of skills. The vocational courses that service the theatre are listed and described. The A5, 11 page, soft cover format has been retained by the ABTT in the interest of minimum cover price.

The Association's other publications include five Code of Practices for the theatre on such subjects as pyrotechnics and guard rails, and numerous data sheets. Publications produced by the British Theatre Institute and now available from ABTT include bibliographies, directories and study guides.

ABTT: Telephone 071-403 3778

New Health & Safety at Work Regulations

IND (G) 124L
Health & Safety Executive

This new 12-page leaflet from the HSE outlines key requirements for each of six new sets of regulations which are due to come into effect from the start of next year to implement European Community directives. These regulations will cover: general health and safety management, work equipment safety, workplace conditions, manual handling of loads, personal protective equipment and display screen equipment.

The leaflet is available free from HSE Area Offices or from HSE Public Information centres at Broad Lane, Sheffield S3 7HQ or Baynards House, 1 Chepstow Place, London W2 4TF.

Lighting Devices & Systems

ICC Financial Survey
£185 (publication or IBM compatible disk)

Anyone with an interest in the lighting industry, from directors to investors, should read this report. It provides easy-to-use access to 382 companies' facts and figures. Both quoted and unquoted companies are analysed using eight key management ratios, including: turnover, sales, assets, liability and employee figures. So companies can learn about the financial health of suppliers, customers and competitors.

Details of directors, holding companies, addresses and phone numbers make the survey an effective tool for direct marketing. And with the report on disk, companies have the power to develop and upgrade their database.

Choosing Colour

London-based Rosco's new leaflet 'Choosing Colour' joins the family of literature published by the company providing guidance on stage lighting to professional lighting designers, serious amateurs and teachers. 'Choosing Colour' is all about making the right decisions in the choice of colour and how that colour should be used and sets out the technical steps simply and logically.

The family of literature to which 'Choosing Colour' belongs, the Supergel Guide has been completely redesigned and updated, while retaining the filofax format, and includes guides to all the new colours introduced into the Supergel range in the past few months. Both the Supergel Guide and the new 16 page 'Choosing Colour' are available free of charge from Roscolab Limited, Blanchard Works, Kangley Bridge Road, London SE26 5AQ, telephone 081-659 2300.



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LIGHT Spectrum

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Lighting the way



More than ever we're committed to living up to our Speed of Light philosophy as we drive the company towards the final phase of integration. Our new distribution facility at Northampton is all geared up ready to accept the main bulk of product stock and the major task of bringing together the various sales office functions is now complete and fully operational here at Mitcham. This month's LIGHT Spectrum gives more

detail about the new sales office, how we have restructured sales areas and, most importantly, how we now respond to sales office calls through dedicated teams.

Branding is the next step and on this point Speed of Light is definitely the pace of change being demanded by our customers! Whilst we welcome such enthusiasm, I must re-iterate now that the size of the business dictates a step by step approach and this is still our policy. You have known for some time that the new products which are starting to come onto the market are branded GE and that familiar and established products, such as premium performers like Arcstream, will also gradually start to appear in distinctive GE packaging.

But because of their high volume, Thorn tubes, will be last in our wide product portfolio to go over to the new GE branding and therefore it is highly probable that you will be handling and installing product in the two different types of packaging. This will be a temporary overlap period and old packaging Thorn product will be clearly identified as being manufactured by GE Lighting. More about our brand strategy and packaging in next month's issue.

Thank you for taking the time to read this message - I hope that you enjoy the latest news in LIGHT Spectrum.

Clive Salmon
Business Manager
Photo, Stage & Studio



GE Lighting's new distribution centre in Northampton



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The direct dial numbers allocated to each region will be advised to individual customers. This new, fully computerised facility automatically passes incoming calls to the next free line allocated to that region.

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081-687 3458

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081-687 3423

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081-640 1221

Exclusive breakthrough technology turns wasted heat into light

Previewed at this year's Hannover Fair, Halogen IR™ is the exciting new technology developed exclusively by GE Lighting from thin film coating technology.

Dramatically increasing lamp efficacy by capturing otherwise wasted infra-red energy, this technology recycles it to produce more visible useful light. For example, a 100 watt tungsten halogen lamp with an energy-saving coating on the quartz tube of Halogen IR™ can produce the same light output as 150 watts. Halogen IR™'s compact coil also produces a smoother beam pattern.



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An ideal lamp for use in film, studio, stage, theatre and disco applications. CSR (Compact Source Rare Earth Lamp) is a high pressure discharge source with a high efficiency, it's available in 575W, 1200W, 2500W hot start and 1200W cold start. The lamp can be dimmed and has a stable colour temperature of 5600K throughout its life.

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May 1992

Customer service - only the best will do

"The essence of the new internal sales office is to make GE Lighting a company that's easy to do business with" says Trevor Jaggard, (photo 1) Director of Finance, IT and Administration, commenting on the new, integrated sales office facility based at Mitcham, Surrey. Key improvements in customer service are being implemented to deliver a speedy and more accurate response to sales office calls. Also, the move to a fully integrated IBM computer system, which will be on stream by the end of July, should further improve customer service. Roy Hyde, (photo 2) UK Commercial Manager explains, "specialisation



1



2

in order administration and direct dial numbers dedicated to individual regions all play a significant role in our new-look, focussed customer service package." Teams

have been allocated to look after the four specific regions - a move which Christine Pettit, (photo 3) Customer Services Manager for Regional Sales C & I and Consumer says will help her staff quickly develop a greater understanding of each customer's business needs. This personalised front line customer contact - the same sales contact each time to build an effective working



3

partnership - will enable GE Lighting to respond quickly and accurately with the right information and data required. Ensuring the rapid transition from receipt of

order to despatch will be under the watchful eye of David Dishart, (photo 4) Customer Services Manager - Administration C & I and Consumer. Working closely with Christine Pettit's team, David will provide full order processing support. The principle of specialist teams being responsible for specific customers is best illustrated by David Cleaver's (photo 5) role as Customer Services



4



5

Manager - OEM & Specialist Lamps whose team complements the main stream activity whilst concentrating on satisfying the special needs of GE Lighting's OEM, auto, specialist applications and stage and studio customers. A special department will continue to handle Government tenders. Also GE -Tungsram orders previously administered by Daventry, will be handled by a separate team until the amalgamation into one company GE Lighting UK. Looking forward GE Lighting are developing full EDI trading capabilities, and will be talking to major customers later in the year.



The diversity of light sources available for display, exhibition and accent lighting has spurred greater sophistication in their application. Now the user demands light sources that give his display lighting a fresh feel, a competitive edge, lighting that truly 'accents'.

GE TAL100 reflector lamps respond to these demands in a variety of ways. Principal among them is the power of their beams that adds good light even where high levels of illuminance are present: for instance in shop windows where metal halide lamps, such as Arcstream, are used. or where daylight impinges on the display.

The very narrow beams of TAL100 will also deliver substantial levels at long distances: the TAL 139's 50W give 550 lux at 10 metres, or 7 times

New low voltage lamps punch through with less watts



A setting firstly only illuminated by a 150W metal halide Arcstream.

When two TAL100 spots are added the central subject gains in prominence.

When only the TAL lamps are used the spatial context is greatly diminished and the central subject is lifted out of its surrounding to dramatic effect.

the amount produced by a 150W metal halide at the same distance. TAL100 achieve intensities up to 17% higher than comparable metal reflector lamps and this advantage is maintained throughout 3500 hours average life, thanks to their front glass cover. TAL also enjoy the engineered toughness of the unique TAL base that makes for simpler, safer luminaires.

For further information on the GE range of Photo, Stage, Studio & Disco products please contact: Marney Lowe, GE Lighting



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ABTT'S SPRING SHOW

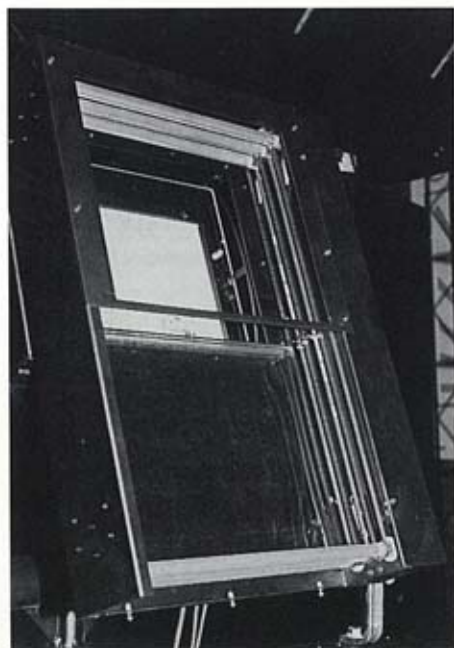
L+SI Reports from somewhere near Chelsea

ABTT Trade Show 92, hastily organised by the Association of British Theatre Technicians for a two-day appearance in early April at the Royal Horticultural Hall No 1, just off London's Victoria Street (and it came and went quicker than any spring flower), attracted the usual support from most of their regular exhibitors, although stands seem to get smaller every year. Some of the major lighting companies were notable by their absence; although Zero 88 were back, there was no Strand Lighting, Arri, Avolites or Pulsar.

Julian Williams, Tim Frost and L+SI editor John Offord joined the usual enquiring and discussion orientated visitors (and good to see many of them in their late teens and twenties), to bring you a round-up of what was shown on the stands. Much of the product presented has already been mentioned once or even twice in earlier editions of L+SI and in particular where it had been premiered at one or other of the three major European continental shows that have been and gone during the past couple of months. So please forgive some encores.

ABTT Trade Show Product of the Year, the winner receiving the famed Hook Clamp award, was the Laplight software programme from Modelbox and displayed on their joint stand with White Light. Peter Byard took home the clamp. (Reminder: you read about Laplight here in our December report on the LDI show in Reno). Commended were two tiny products: the Scotty portable smoke machine from The Smoke Factory of Germany via M&M Lighting, and the Lil' DMXter from XTBA, more of which later. There was no nomination for technician of the year, so there was no award. There was no recommendation for stand of the show, so there was no award for that, either. Couldn't there at least have been some commendations for several neat looking displays put together by exhibitors who'd had to work hard at very short notice? It would at least have given the troops some support in the field.

Having previewed it at the 1992 PLASA Light & Sound Show, Teatro of Italy had their new and patented Colourbox colour change system.



Close-up on Teatro's Colourbox.

It's aimed to take over where the semaphore changers left off, and its prime function is to fulfil the need to cross-fade from one colour to another - something possible with semaphores but not with scrollers. The unit has three drive belts, with two colour frames per belt. As each belt moves in a vertical direction a different colour is selected and to change a colour only a 'two-colour' frame it taken out of the unit. And you don't need a dedicated controller; it can be operated using DMX or multiplex.



Peter Byard (right) takes the Hook Clamp from ABTT chairman John Faulkner.

Zero 88's new LTC 24 channel x 10 amp dimmer rack first showed up at SIEL in Paris and boasts MCB channel protection on each channel and an RCD detection facility on each module of the 6 x 10 amp totally enclosed plug-in dimmer units. Each module incorporates a control panel, with a test panel, for testing with mimic facilities. For once the installation wiring blocks are presented as a feature, being both easily seen and almost at eye level, and very practical for the installation engineer. There's a see-through perspex cover. Zero also had their Rackmaster 490 which offers six channels of 3kW dimmers with MCBs. They claim it's the first portable dimmer pack to incorporate these safety devices. Completing the line-up were the Focus range of luminaires, the Lightmaster XL 12 channel desk and the Alpha three channel dimmer.

Celco centred attention onto their Pathfinder, first seen at Frankfurt in March. This very stylish (the same breed as Navigator) 60 channel console has 48 dedicated dimmer



Mark Morley of AJS (left) with Raph Janssens of ADB and a 'Cantor' control desk.

channels and 12 for controlling colour change units, and incorporates quality components from their top of the range 'Gold' and other systems. Needless to say it has a host of facilities right through to Q-Card storage interface and Mel Collins and Colin Whittaker were kept busy demo-ing throughout the show. Navigator itself was also on hand.

ADB had two control systems for the budget end of the market. The Tango comes in 24 or 48 channel versions and Bolero is a 2 preset, non-memory unit that is part of a series of four systems. They were both seen at SIEL in February. Their Europack portable dimmer has been designed to meet the needs of European television. An addition to ADB's Europe range of luminaires is a double condenser lens design, and the first unit was shown. It is claimed to enhance the variable beam unit providing a very smooth light across the field. All of ADB's profile spots will eventually be 'converted' (see ADB's insert in this issue for more information).

CCT Lighting's Don Hindle and David Manners look more confident with each show and confirmed that their full range of products is now available. Everything was 'on stand' including their Regal II control system, first previewed at PLASA last year. Two boards can be linked sideways to provide 24 or 48 channels, as 2 preset boards linked together, or they can be linked one unit above the other to give four presets: useful in the smaller market place where compatible equipment is often hired in. Don Hindle claims CCT's wall dimmer rack system is the first economical and standard unit on the market that offers earth leakage protection on every six channels.

Lighting Technology Group were promoting the services of Action Lighting, who had the Brucie Brute 8 light unit, which can operate from 12, 24, 48 or 96 volt supplies depending on the lamps used in the MR11 35mm dichroic range. They also had the Lightpaint colour scroller system and Compulite control systems on offer. Andy Stone of Compulite GB had his hands full with Smart and Applause control systems and the Q-Pack range.

Rosco have added eight new colour filters to their Supergel range: 317 Apricot, 398 Natural



Selecon's 'Accent' low voltage profile and spots.



Russell Dunsire of ADB (left) with Jim Pollard of PKE Lighting. Unit is an ADB 104 profile with new condenser optics.



Barrie Guy (left) and Wyatt Enever (right) of DHA with Teatro's Mike Lowe.

Grey, 342 Rose Pink, 344 Follies Pink, 351 Lavender Mist, 355 Pale Violet, 357 Royal Lavender and 359 Medium Violet.

M&M Lighting, in addition to the earlier mentioned Scotty, were showing Selecon luminaires. New are the small low voltage 'Accent' range. They have a gobo facility and appear by their styling to have a neat inclination towards architectural use. Mike Goldberg is evidently taking orders "by the case-load".

Northern Light announced an interesting 'soft option' facility across their range of services as an alternative method of getting your hands on new equipment. It provides a leasing service which includes the installation costs of a system, with sound, lighting or communication equipment. They claim it will be a very useful way for theatres and other venues to keep their equipment up-to-date whilst staying within a set

budget.

The Digital Light Curtain from **DHA Lighting** has had some 'user-friendly' updates added to the driving system, such as a self-correction ability for the colour selection. 30 of the units are currently in preparation for 'Miss Saigon' in Tokyo. DHA have also been busy designing animation and rotation units for most makes of larger luminaires. Units were shown for Teatro, Selecon and CCT lanterns.

Ark Light's small stand exhibited some nice examples of units that had had the benefit of their lantern restoration service. They also offer a special colour finishing service for any lanterns and some impressive pictures of their recent work was on display, from places as far apart as Portsmouth Cathedral and Northampton Guildhall.

The 'volt meter of digital lighting control' - the

Lil' DMXter - was launched by **XTBA** as the first portable DMX512 test device. It has facilities for generating a control system, receiving and analysing a signal, testing cables using data, and a verification facility for fluctuating signals. **XTBA** also showed the LSC Softlink unit which now has 3 x 512 dimmer inputs.

Cerebrum Lighting have gone this CAD and that CAD. They repeated their Rimini SIB performance with LightCAD, ShowCAD, MegaPatch and DigiView etc (see SIB Rimini report in our last issue) along with MA Lighting's Lightcomamnder range of desks, and the new Gelstream colour changer. For the first time as main distributors, they also had Strand product on view at the show, with an MX system and various luminaires. Powerdrive stands were playing their usual strong supporting role in the ever-growing Cerebrum line-up.



The Canford Audio line-up.



Alan Cohen (right) of ASG.



Northern Light's Jonathan Allen (right) asks Pulsar's Derrick Saunders if he's stuck for capital. Mike Smyth looks on.



Robert Achlimbari of Rosco with Anna Sassi of Le Maitre.



Richard Broadhurst of RB Lighting (left) with Ian Grey and David Manners of CCT Lighting.



Trafalgar's Alan Paulus with Intellabeam and Navigator.



Strand Lighting's Brian Myers (left) with Bob Anderson.



ALD 'Focus' gang of three: Nick Hunt, Jim Laws and Julian Williams.



ADB's Raph Janssens (left) with Sonja Ridgeway and Chris Cook of XTBA.



Richard Frankson presents the new products from Meridien.



DHA's Louise Tester presents the latest in projection artistry.



Glyn O'Donoghue of AC Lighting with ESP, Event and Vision luminaires.



Lee Filters: ever present at ABTT trade shows.

Doughty Engineering, following their grand tour of the European shows, had their Nebula 3.3m wind up stand and their Zodiac 4.5m winch stand amongst other items in their popular range.

Le Mark were deep into bar coding and labelling of product, a subject much taken up now by PLASA, with a seminar on portable appliance testing reported on elsewhere in this issue.

There were more small stands, many covered in our pictures accompanying this report. **Trafalgar Lighting**, an ABTT regular, announced that their comprehensive hire range now includes the Intellabeam 700HX projector from Lightwave Research. **Donmar** had Arri control and their award-winning Reference Manual, and also on their stand **AC Lighting's** Glyn O'Donoghue was showing the Event and ESP consoles from Jands and Vision luminaires.

The clash between the AES and ABTT reduced the number of new audio products at the show. **Marquee**, for example, were planning to have new Soundcraft desks and modules but these were still working their way back from Vienna. **Meridien**, however, managed two new UK showings for a digital snake and the Barco-EMT 981 CD player.

The 981 is one of that rare breed of CD players designed from the outset for professional use, with features which will make it useful both

in the studio and in the theatre and PA. It is a very solid and slim (2U) box with large illuminated buttons for all the main functions and, unusually and very welcome, an internal monitor loudspeaker. It has all the normal professional ins and outs and a whole set of internal DIL switches to configure its operation to meet the exact needs of the application.

Meridien's other new device, the digital snake, is an idea whose time is coming. The Bec Technologies digital snake replaces the large multicore used to move multiple line or mic channels around, with a lightweight twisted pair or an optical cable carrying multiplexed digital signals. By converting to digital, a twisted pair can carry 16 audio channels and an optical cable up to 64 channels, all encoded to CD quality.

Meridien showed a final prototype version of the Bec device using separate 16 channel units for transmitting and receiving the data. Perceived reliability and cost have been the stumbling block for these systems so far. Bec resolve the first by putting in two live back-up processors so that should one fail the next switches in and there is still a back-up in the case of a further failure. There is even a fourth processor in a spare socket that can be manually replaced should all the other three go down.

At £4,000 for a 16 channel system, this is still expensive compared to the cost of an analogue snake. However running and installing



Strand's David Bertenshaw (left) does a spot check with Mike Taylor of Ark Light on how well they have renovated a Patt 93.



David Catterall with Zero 88's new LTC dimmer-rack.



Strand and Zero 88 equipment on the Cerebrum Lighting stand with Greg Szabo (left) and Strand's Richard Harris.



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Andy Stone with the Compulite GB range.



Pathfinder and Navigator showed the way for Celco.

heavyweight cables is time consuming and therefore expensive, so on that basis, a digital system using thin lightweight cables which carries up to 64 channels may well start paying for itself after a few complex installations.

There was more: association stands, college stands, and Cara Lancaster's Book Bazaar. John

Offord reckons there ought to be a rule about opening up before hours and letting Rosco's Stan Miller from New York in early to steal away with all the best titles!

Julian Williams' summing up of highlights saw XTBA's Lil' DMXter as the most useful test tool for electricians, Zero 88 paying great attention

to detail, Celco's Pathfinder as an indicator on how top-end expertise is speedily enhancing products at the lower end of the market, CCT in full action, and luminaire manufacturers re-designing condenser lenses on profiles.

His favourite, however, is Teatro's simple and straightforward Colourbox system.



Cerebrum's Rod Bartholomeusz (left) and L+SI's Barry Howse.



Lighting Technology's new Bruce-Brute.



New at CCT: Patrick Brogan (left) and Steve Hall with Regal II.

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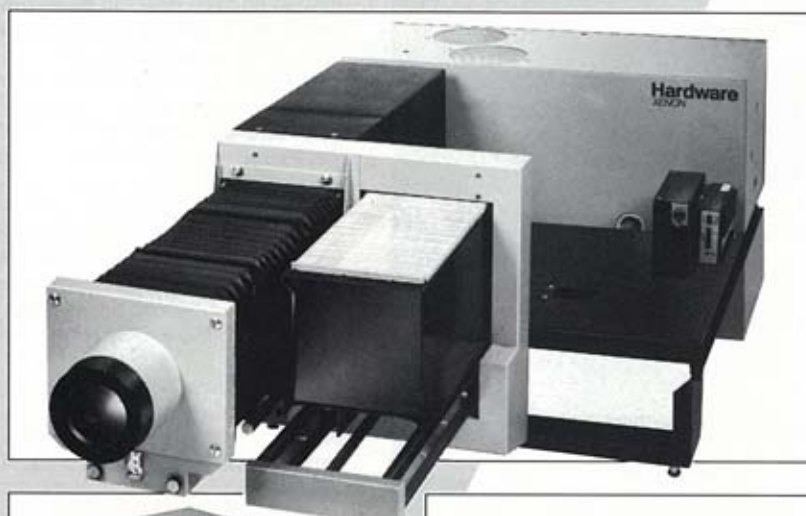
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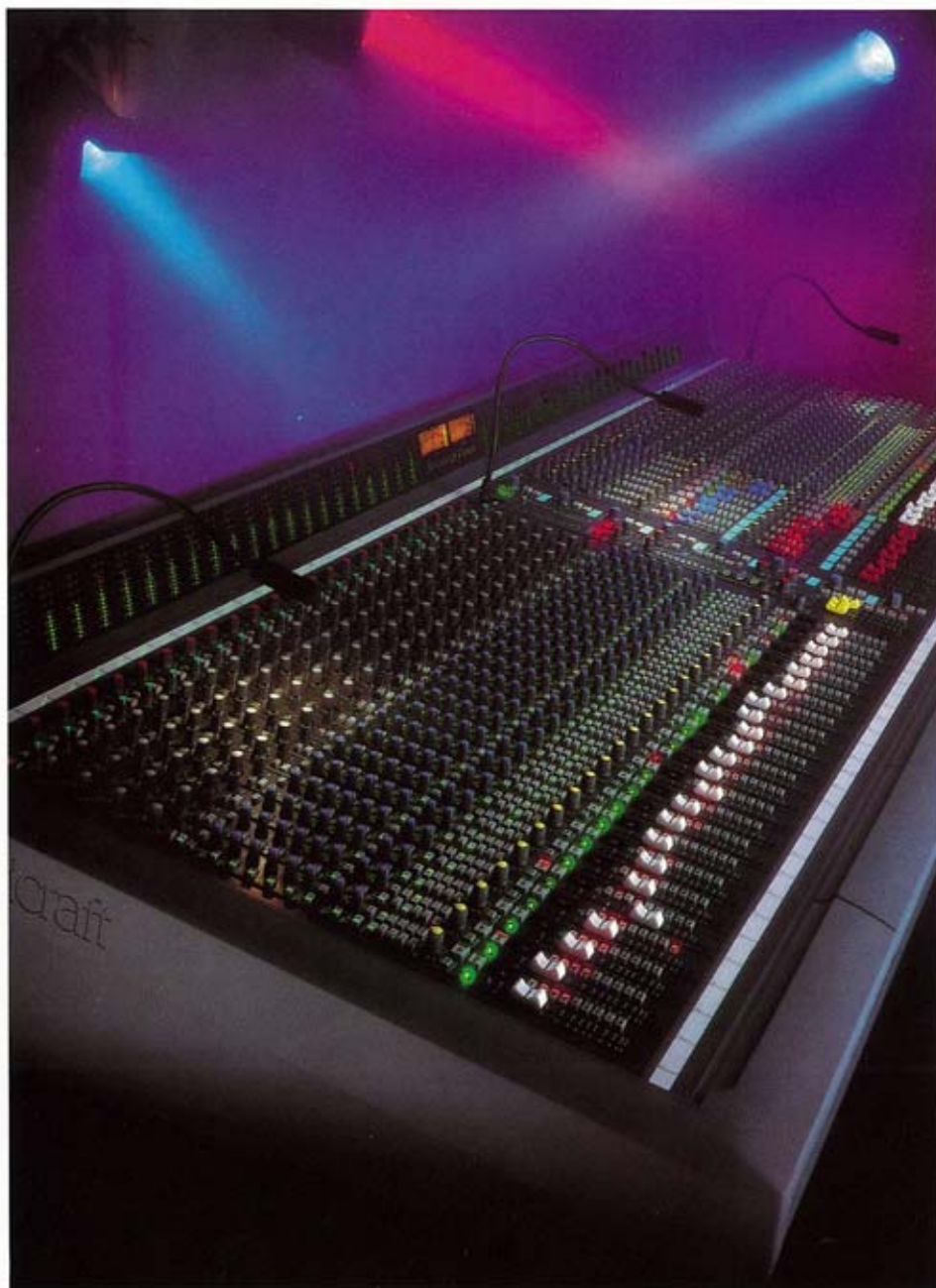
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SPREADING THE SPIRIT

John Offord visits Soundcraft's new base at Potters Bar



Vienna: the centrepiece of a new generation of Soundcraft sound reinforcement consoles.

Determined to put first things first, Soundcraft haven't bothered about spending money or time on a pretty front door for their newly acquired 80,000 sq.ft. facility at Potters Bar in Hertfordshire, as I found out when my taxi delivered me 'round the back'. Priority, not surprisingly, has been given to keeping the capital-hungry production lines rolling.

Soundcraft claim they are the largest value manufacturer of professional audio consoles in the world. From small beginnings in 1973 when Graham Blyth and Phil Dudderidge formed the business, the company has now grown to a stage where it currently employs 337 people and exports between 85 and 90 per cent of output. Since June 1988 they have been part of Harman International Industries.

Obviously, one of the primary reasons for moving on from their old Borehamwood base, which was under half the size of the new site, was to increase production to meet the mushrooming demand for their ever-expanding product range, which currently totals 23 consoles (including the MBI Series 30 and Series 20 broadcast consoles). Considerable investment had to be made, and Soundcraft now have a total of seven automatic insertion machines, for instance, where they previously had only two. As a result, an average of 11,000 pcb's now go through the system every week, as opposed to 3,000 at the old site, and most notably, sales have risen 20 per cent since the move.

Alison Brett is the company's sales and marketing director and she gave me the background to the very positive and pre-eminent position Soundcraft has achieved in the industry.

"Basically, two years ago we had a review of the direction of the company. Recognising that sound reinforcement was the heart of our business, we started a two-year programme to replace and enhance all the products across the sound reinforcement range. We started off with Delta in September 1989 and followed that soon after with Venue. Then we introduced Europa and finally Vienna (in Vienna at AES, in March this year), but in between we had also enhanced existing models. For example, this year Delta, which is now two years old, has had a re-vamp. We have an enhanced version - the DLX (neatly advertised by Soundcraft as 'the best made



Automated test station at the new Potters Bar factory.



One of the seven automatic insertion machines.



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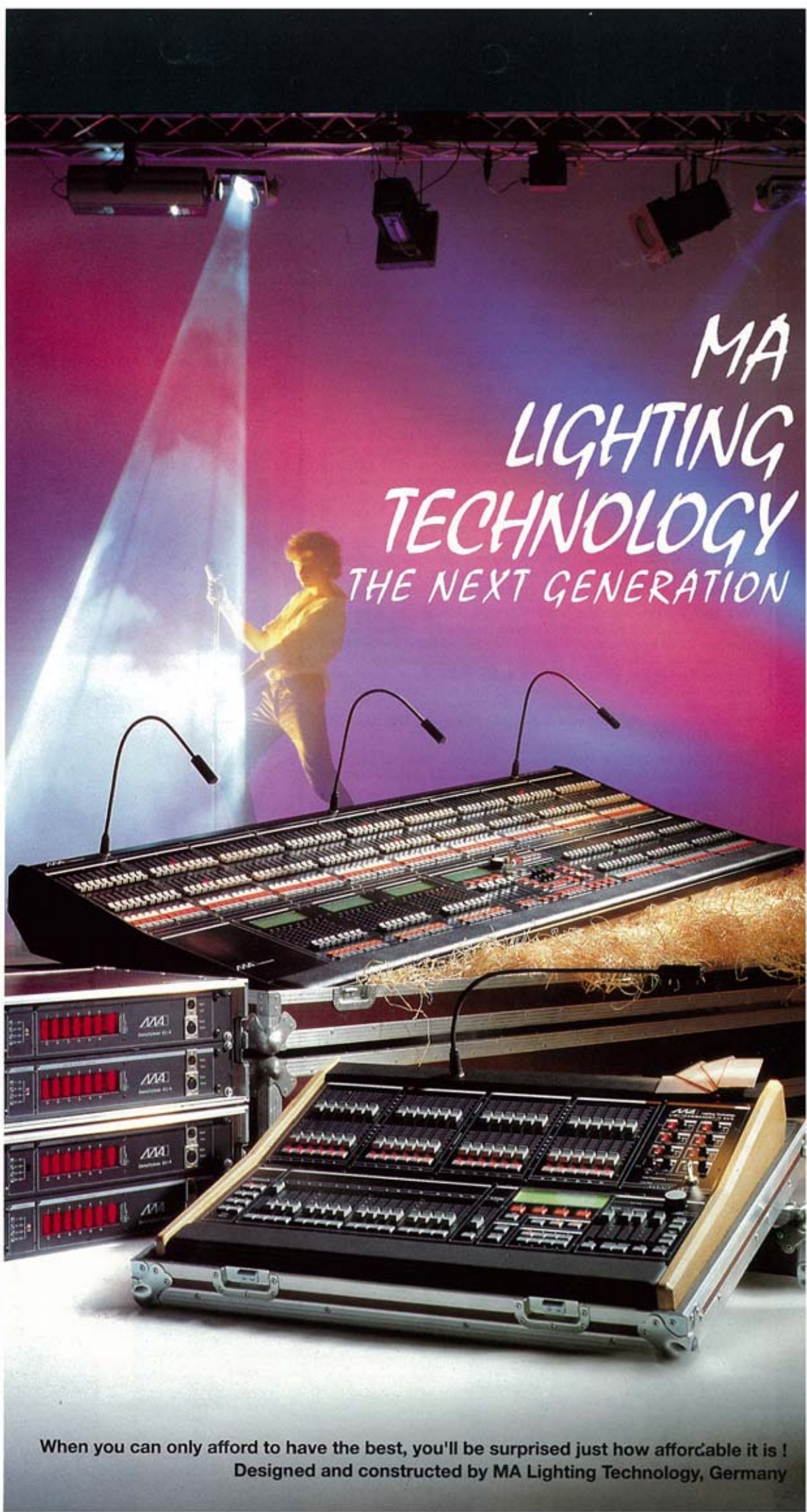
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NEW SOUNDCRAFT/MBI PRODUCTS FOR APRS

VIENNA: The Vienna replaces Soundcraft's 8000, the world's best-selling mid-market live sound console. Available in 16, 24, 32 and 40 frame sizes, it was created for applications ranging from theatre touring and fixed applications. It is the result of design input from many professional engineers from varied backgrounds and offers an array of new features including a console linking system which allows it to work alongside the Europa for dramatically increased versatility. Vienna can be specified in two standard configurations, with or without VCA's. With theatre installations in mind, each frame size has four blank modules on the far right of the console which can be replaced with four dual matrix modules or alternatively supplementary mono inputs. Main input and outputs are fully balanced throughout.

VENUE THEATRE: The Venue Theatre has been designed for the specific requirements of theatre sound with a new sophisticated input module compatible with the updated and restyled 8-bus Venue II. Features include illuminated switches for clear status control, four mute groups, individual routing and an input bargraph meter. An unlimited number of theatre input modules may be specified within 16, 24, 32 and 40 input frame sizes, with or without an LED meterbridge.

DELTA SR: Based on the highly acclaimed 200 Delta, the new 4-bus Delta is available in 8, 16, 24 and 32 input versions. Designed for a variety of sound reinforcement applications, including AV, conference, sound contracting, churches and theatres, the Delta SR sets a new entry level to Soundcraft's professional live range. A new look to the console's styling has both practical and aesthetic advantages. Retaining the rigid one-piece Delta range frame, the console is extremely robust, incorporating an aluminium extrusion which forms a front carrying handle and tough easy-to-fit side cheeks. The mono input module includes a 3-band EQ with swept mid and low frequencies, four auxiliary buses and phase reverse. The optional stereo input module has a 3-band EQ, four auxiliaries, phase reverse on the left channel and a RIAA facility as standard. A 4 x 4 matrix is included on the output section and both mono and stereo inputs have integral rear connectors for easy maintenance.

BVE 100: The new high quality BVE100 eight-channel rack-mountable audio for video editing console has been designed to interface with a number of industry-standard editors via Soundcraft's VSA24 serial interface unit. It has been developed as a compact unit, which also features the familiar Soundcraft depth fader which allows partial cross fades at the user's control and manual as well as computer control of independent left and right monitoring and of the computer-control VCA circuit. The new brightness modulated LED enables the user to see the action of the VCA system.

MBI SERIES 30: This is a versatile console for major radio and television sound broadcast markets. It offers a wide range of input modules available in a multitude of combinations. Chassis sizes range from 16 modules through to 48 and beyond in any four module widths. The chassis itself comprises four zones, fader, input modules, EQ and monitoring and meterbridge. The 12-way section can be adapted easily for the addition of rack mount equipment which can be placed in three of the four zones.



The Europa sound reinforcement console.



A Sapphyre console with patchbay.



Delta SR.



Venue II.

better') - and we introduced a new version, the Delta SR which is specifically designed for sound reinforcement applications and with theatres as a particular target area.

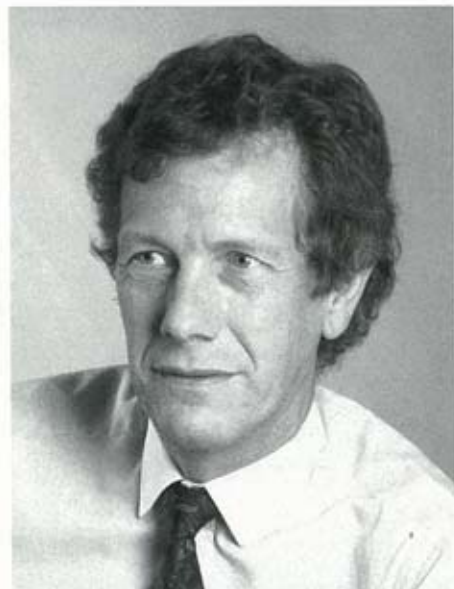
"With Venue, we've also introduced a theatre module and re-vamped the existing console so that we have a more competitive product. Over the past two years, culminating in March 1992,

we have replaced every single console in the sound reinforcement range so that we now have a complete range through from a £500 live mixer to a £30,000 Europa."

Up to two years ago when they took their first long hard look at the overall market, planning at Soundcraft had always been a fairly ad hoc affair, and decisions about what products to introduce

were in response to requests from the market, the filling of an apparent gap in the range, or an upgrading where it was felt due. No one had studied in detail the needs of the three basic areas of sound reinforcement, broadcast or recording.

"At that time sound reinforcement was our core business," continued Alison Brett, "and we



Philip Hart, managing director.



Alison Brett, sales and marketing director.



John Oakley, R & D director.

were very keen to protect it. The business has shifted slightly now in that recording has increased as well, and with the introduction of Spirit we have a whole new range of products which will see a shift of business lower down range. Additionally, the acquisition of MBI gives us the opportunity to develop the broadcast market further."

Having proved the point that all the effort put into getting a business plan off the ground two years ago had been well worthwhile, it was natural to ask how Soundcraft was looking to the future.

"We plan in a twelve month horizon, a three-year horizon and in a five year horizon, explained Alison Brett. "We've set major objectives for the three-year growth of the business and we will focus on the four different areas of business: broadcast, pro-audio (which includes sound reinforcement), recording, and Spirit - the non-modular mixer market below the existing Delta range.

"On the five year horizon, our R & D director John Oakley is looking in the longer term at technology projects, enabling technology, digital products and the investment in automation. So, in addition to the 12 month and three-year periods where we have 'real' products planned, we also have a five year cycle in which we are looking at the technologies we need to develop for products as yet undefined.

"With regard to the next 12 months we're looking at developing a Vienna Monitor, for example, but we will be turning our attention specifically to broadcast and to recording to build these two markets up. We will also greatly enhance the Spirit range by introducing a number of new products."

I asked what part Harman International played as far as strategy was concerned. They are an operation that has acquired numerous companies in the pro-audio and consumer fields and I was looking for a Soundcraft connection in the global machine. Alison Brett immediately and firmly confirmed Soundcraft's independence in all things operational.

"The companies in the Harman Group," she emphasised, "make independent decisions with regard to product development and strategy. However, as far as possible, we're looking for synergy with existing Harman products. The most obvious is JBL, so the sound contracting market in which the speaker system and a console system can be sold together is an area that we are looking for and JBL will be working with us on the development of that market, but not exclusively so. Many of our distributors don't handle JBL, so we view it as a way of serving the market - either with a JBL/Soundcraft package or with a Soundcraft/alternative speaker package."

One of Soundcraft's major strengths is that it has built up over the years one of the finest distribution networks in the world. "When Harman acquired Soundcraft we were very keen that we should be able to preserve our distribution network," continued Alison. "As you know, Harman has several distribution companies as part of its portfolio, but in almost every case Soundcraft has retained its existing distributorships. However, where it's appropriate, and where Harman distribution offers things our existing arrangements don't, then we have switched. For instance, Harman Deutschland has done very good business for us since they took over our lines a year-and-a-half ago."

The coming APRS exhibition at Olympia 2 in London in early June will give a graphic portrayal of how the Soundcraft range of products is lining up for the nineties. The Soundcraft and MBI stand will show five consoles that will be making

their first UK appearance: the Vienna, Venue Theatre, Delta SR, BVE100 and the MBI Series 30 (see panel for detail). They will also have Europa for the high end touring live sound market, Sapphire for the mid-range recording market, enhanced with the option of patchbay and available in five frame sizes, and the established MBI Series 20 stereo broadcast console.

So, where will the Spirits appear?

You might well ask. Having created a separate Spirit division to focus internal resources and marketing effort, stand 23 at APRS will be devoted totally to Spirit Auto, Spirit Studio, Spirit Live and Spirit Monitor (again, see panel).

One thing that has emerged consistently - and I've found it greatly inspiring - across the vast majority of my visits to various lighting and sound equipment manufacturers over the years, is that whether large or small, there has always been the same attention to detail and quality, coupled with an intrinsic love of the particular product and the 'feel' for its eventual use in the creative environment.

It goes without saying that Soundcraft, although a massive operation, has no less of the friendly atmosphere and motivation by product that is endemic in our industry. However, the bigger you get, people can start to assume you're moving inexorably towards a numbers game and only interested in rolling more and more boxes off the end of the production line.

"The really interesting thing about being a volume manufacturer is that it's a double-edged sword," said Alison Brett. "It gives a lot of advantages, but there is also the danger that customers think we just churn out consoles, saying 'here's a Soundcraft, take it or leave it'. This isn't the case with us. We take care to build precisely what customers want, and although we produce a large volume, there's a huge range of input. For example, the choice we give our customers, other than with the Spirit range, is that all our consoles are modular and the configuration options our distributors can choose from is enormous. Furthermore many requests for customised consoles are also undertaken alongside the standard volume production. A case in point is a 3200 for Anvil film studios with a remote patchbay.

"We also have the advantage in that we make one thing, sound mixing consoles, and we make one thing well. We have the widest possible range and they are all professional quality. We have a team of between 20 and 30 research and development engineers who are dedicated to the highest sound performance possible. For example, the Spirit specification was so high and advanced that it was an improvement over some of our more expensive consoles, which was a bit of an embarrassment! We care desperately about sound quality, about how the consoles look, and the build quality. Coupled with that the consoles are exceptional value for money."

I spoke to R&D director, John Oakley, the lead-man behind what ends up inside a Soundcraft console, how it looks and how it feels. "As important as the electronics is the ergonomics and mechanical design," he said. "From market feedback we can arrive at the most effective layout for any given application. Much attention is given to console styling and we work closely with industrial designers to achieve practical benefits rather than purely aesthetic ones. For example the meterbridge on Europa is recessed to ensure sightlines over the consoles aren't obstructed. And a new patented control knob has been designed to provide excellent grippability."

Soundcraft has made heavy investment in automated and computer-controlled test equipment ensuring quality is maintained at

THE SPIRIT RANGE



SPIRIT LIVE

SPIRIT AUTO: Designed for the home studio, combines all the features of the successful Spirit Studio with VCA automation of the channel faders, channel mutes and monitor mutes. It also offers the facility for the automated mix of both multitracked and sequenced instruments. Soundcraft designed the Spirit Auto to be accessible to as many users as possible, and it is particularly suitable for musicians already familiar with MIDI. The standard MIDI protocol allows the user to automate Spirit with any software sequencer. In this case Auto responds to MIDI control change messages.

SPIRIT STUDIO: Based on an in-Line design, Spirit Studio is available in two frame sizes: 16-8-2 and 24-8-2. There is no shortage of inputs since in mixdown mode the multitrack monitor inputs double as extra line inputs which in turn transforms the 16 channel Spirit Studio into a 40 input mixdown console. The 24 channel unit provides a total of 56 inputs. Each of the input channels has a four band EQ section with fixed HF and LF controls and two swept frequency mid bands and six aux sends, two dedicated for foldback and four for out-board effects.

SPIRIT LIVE: A professional PA mixer, the Spirit Live is equally at home as part of a permanent sound system for a conference venue or as the mainstay of a touring PA rig working around small clubs and theatres. Available in three frame sizes, 8-3, 16-3 and 24-3, the Spirit Live provides an additional mono output alongside the main stereo faders. An optional expander unit is available for the two smaller frames, allowing an extra eight inputs to be added. An important feature is the variable gain control on the line input. This compensates for the low level outputs on both keyboards and effects devices. The inclusion of a High Pass Filter cuts unwanted low frequency noise.

SPIRIT MONITOR: This version includes eight sends, a dedicated wedge output and a linear fader on every channel. The three band equaliser section is the same as the popular Spirit Live EQ with sweepable mid and low frequencies enabling precise control over the important bass and vocal signals. Operational control is accurately monitored by 16 segment LED bargraphs on the eight outputs and master section.

every step. "High priority is given to manufacturability and consoles are designed with automated assembly and testing in mind," continued Oakley. "Within the R&D department all electronic and mechanical design is CAD based. It doesn't always make the development cycle quicker but improves the quality of the design immeasurably."

Rounding off the technical and business report, I am pleased to be able to report that being a part of Soundcraft isn't just all hard work. There's a unique atmosphere and a terrific loyalty to the company, and as it has grown it's also good to hear it hasn't lost its roots in rock and roll. There are musicians in every department and the company Christmas party always features a selection of acts playing jazz and serious rock and roll - all courtesy of Soundcraft staff.

ON TOUR

Catriona Forcer



Roy Bennett's design focuses heavily on intense colour-saturated washes.

Prince

Sydney Entertainment Centre

LD: Roy Bennett

Vari*Lite Op: Mac Mosier

Board Op: Justin Collie

Prince fever ran high in Australia for his Royal Badness' first ever tour here. The usually unimpressable critics were unanimous in their praise for the 'Diamonds and Pearls' show: "Permit me to dribble readers . . . it is nothing short of miraculous . . . you might not feel the itch to go out ever again. Not until HE returns anyway . . . gig of the millenium . . . the wait was well and truly worth it with an explosive performance."

The staging and lighting for the concert was of the kind not seen before in Australia. You could say it was like Cecil B. De Mille on acid. A fibre-optic curtain backdrop provided a sea of stars against which two 20 feet high Greek statues, plasma balls, tiered walkways and video walls stood out. The most dominant stage feature was the 40 feet long lighting trellis shaped as a union of the male/female symbols which hovered above the action. There is

a blackout across the opening number 'Thunder' until a glass elevator rises and then silhouetted in a riot of white light is Prince himself. From then on the crowd are in a frenzy.

Roy Bennett has designed a very intense and busy show with many exciting elements. The original rehearsals took place back in August 1991 with the tour due to start in October of that year. Prince then delayed the release date of the 'Diamonds & Pearls' album and so the tour was shelved for seven months. At the first rehearsals Mac Mosier was in charge of the Celco Gold board and someone else ran the Vari*Lites. By the time the second rehearsals were due, people had scattered and the show had become very orientated towards Vari*Lites, so Mac Mosier took over the Vari*Lite control. Justin Collie, who was originally destined to be crew chief, took over the conventional board and spot calling.

Mac Mosier is a freelance VL operator who admits that 99% of his work comes from Roy Bennett. "The thing I like so much about working with Roy," explained Mac, "is that it is his conceptual design, but when we get on site and start putting the show together he pretty much gives me freedom to add what I like. He's very easy to work with. This is a difficult show with 1,000 cues and

1,300 cue numbers which completely fill the console."

The tour started out fairly budget conscious but, as the album did so well, by the time the second rehearsals were under way the show had grown considerably. Although it was the same basic lighting rig, there remained only three songs from the previous rehearsals that did not need reprogramming. After a full month of rehearsals at Paisley Park, Minneapolis, the first show was at the Egg Dome, Tokyo followed by two weeks in Japan and three in Australia. After a week off, the tour reaches England for a week of pre-production at LSD and then another ten days of full production in Rotterdam. A seven week tour of Europe follows. Prince will then release another album and the plans at present are for more rehearsals using the new material. Whether the stage set and lighting rig will change is impossible to say yet.

The lighting rig consists of 72 Parcans, all with Colourmags as well as 54 VL2Bs and 27 VL4s. There are six hexagonal pods (originally used on the 'Sign of the Times' tour) each containing four 8-Lite Par 36 ACLs all with Molemags on the front of them. The movements of these pods are controlled by a Chemberg computerized motor system as is the 40 feet x 12 feet Love symbol which holds 16 VL2Bs on its surface and 12 VL4s inside to light from within.

As well as moving up and down, either end of the Love symbol can be moved all the way down stage to various positions by a tracking system. Very handy for getting the arrow to point at truss spot operators when they mess up! This symbol adds a whole new dimension to the lighting rig and, particularly when used with the star drop, gives the show a lot of depth.

There are also another 30 8-Lites with DWEs in them and Molemags on the floor. For effect there are six Terramags, a lightning machine and a 108ft wide fibre-optic star drop. At the back of the rig are two truss spots as well as eight front-of-house spots. On stage there are two videowalls which are two monitors high by two wide. These are used not only to project images but also as colour washes to reinforce the lighting. Either side of the stage are two video screens showing live as well as pre-recorded film.

One of the most intense and visual numbers is the song 'Insatiable' where one of the dancers rollerskates about the stage with a hand held video camera. The result - the concept of a home movie - comes up on the video screens. Amid a lot of dry ice, Prince climbs on top of his piano while she films and then he heads stage right where a pearl drop comes down to surround him like a cage. A bed



A 108 feet wide fibre optic star drop adds depth to the stage.



Prince with the Love Symbol behind which carries 28 Vari*Lites.

decorated with fibre-optic neon lowers slowly stage left to reveal the divine dancers Diamond and Pearl in recline. Of course, Prince joins them and as they squirm about the bed is raised up and out over the audience down stage centre.

Other specials include a 'flower drop' over the audience. This consists of four (eight in Europe) 54 gallon drums with a fan at the bottom which dispense fake flowers over the audience as well as a perfume spray. For the first time ever, Prince has incorporated pyrotechnics in his show and they are particularly noticeable during 'Live 4 Love'. The plasma balls and the glass tube elevator he appears and disappears in were originally props in a Star Trek movie. In fact, the tube was a 'transporter' and the man who takes Prince up in it on this tour is actually called Scottie!

All of the production was flown into Australia and nothing was hired locally. There are 13 trucks which is fairly large for an indoor show. Technical crew numbers 65 with 70 local crew brought in at each venue. In true Prince fashion, the wardrobe crew outnumber the lighting crew! So far in the tour there has always been a load-in day prior to show day so there has been plenty of time to set the show up. In Europe there will be a few overnights as well as outdoor shows and a roll-on stage is being considered.

This is the first Prince tour that Roy Bennett has been absent from due to commitments with The Cure. Prince likes somebody he knows out front and fortunately, Mac Mosier has been with him since the 'Purple Rain' tour. Prince is incredibly aware of the lighting as he is with every aspect of the production. Each night the show is taped and Prince will watch the whole two and a half hours after the performance. He has a reputation for working very hard to achieve a first class performance and he expects his crew to do the same.

"With any lighting designer or director there is always room for improvement," Mac said. "You never get to a point where you can say 'this is it, I can't do anymore'. I can't add anymore cues to the Vari-Lites because the board is full, but I can still find things to change and develop."

Crew List

Lighting designer: Roy Bennett
 Lighting director: Mac Mosier
 Sound engineers: David Morgan/David Natale
 Lighting crew chief: Justin Collie
 Vari-Lite crew chiefs: Joe Chardukian/Robbie Greenburg
 Vari-Lite crew: Eugene Benavidez
 Lighting crew: Kathy Beer
 Ralph Ferreri
 Mary Perrault
 David Shepard
 Chris Varrin

Rigger: Dennis Jones



The flamboyant performer stops at nothing to entertain the audience.

George Dalares Athens LD: Mike Cooper

When I was queue jumped by half the Greek sisterhood veiled in black, when a computer failure brought the entire operations of Heathrow airport to a grinding halt just as I came face to face with the check-in desk, when the lady next to me on the plane genuflected, not once but three times, as we bump-landed at Athens airport and when standing alone in the baggage collect hall, I watched dismayed as three boxes of bananas made their steady progress round the carousel, with my luggage nowhere to be seen, my hopes for a successful trip were rapidly fading. My last effort at cheerful optimism was burnt to a frazzle when I entered the lift at the hotel and an electronic voice hissed at me from behind 'do not be alarmed, we

are experiencing minor technical difficulties'. Me and Greece had not got off to a good start.

However, despite the saying, you do get a second chance to make a first impression, and Greece certainly took its opportunity with me. The people work long hard hours (I can testify to that), but there's not the freneticism that I associate with the UK/US version - that's what a good climate and a European outlook do for you. Greece only has a population of some nine million, five of which cram themselves into the capital. Overpopulation leads to 'overtraffication' of course and so bad is the problem that cars with even number plates are allowed into the city on one day, and cars with odd numberplates on the next and so it runs alternately. If you're smart of course you have two numberplates; if you're rich, you have two cars. Classical Greece is, of course, most people's first association with Athens, but the centre of Athens is a twentieth century creation, and there's very little that is ancient about this modern capital - and that

includes its lighting and sound industry.

It's often said that technical facilities are neither available nor good in Greece, but as Alpha Sound, my hosts for the visit, explained, the equipment is available, you just have to know where to get hold of it, and be prepared to pay for it. At the concert I attended however, there was no shortage of technical equipment or expertise.

George Dalares, the performer in question, is a rising star in the Greek artistic firmament, currently rated as the number one artiste in Greece and doing rather well across Europe and America. He's a big draw and regularly packs huge stadiums. This is his third major European tour and marks his aim to attract a more international audience making the crossover from ethnic artiste to international performer. Not knowing much about George Dalares, I read the publicity portfolio. 'He combines artistic talent with musical ability, both as guitarist and composer, and provides an alternative style of music without compromising the



The extended 'V' shape truss allows front of stage projection.



George Dalares, national hero and number one artiste in Greece.

Mediterranean style of songs.' He has been credited with the rebirth of the once forgotten 'Rebtika' a form of blues music considered so revolutionary in its nature that it was politically censored in the troubled Greece of the thirties and forties. He's important enough to warrant EMI stepping in with a plan to market Greek music world-wide, and he's heading towards Wembley stadium in June - there's even talk of George Michael putting in an appearance. The concert I saw was a one-off special (to be broadcast live), in addition to his current tour dates, with proceeds going to help ease the pressure valve on the current Cypriot troubles.

British-born Mike Cooper is responsible for the lighting design for the George Dalares tour. The rig installed at the sports venue was a development of previous rigs and Mike Cooper re-jigged it slightly, to accommodate the live TV broadcast of the event, allowing for increased white light and the addition of a video screen where once there was a cyclorama. The first thing to catch my eye on the rig was eight Clay Paky Golden Scans, more usually to be seen providing an upbeat backdrop to the club dancefloor, but now beginning to be a regular feature on the touring circuit. Mike Cooper reckons he was the first to use them when he specified them for an It Bites tour some years ago. Reasons? "My main reason is budgetary, but that being said the 1200's light source is good for television, availability is good, and they don't need a separate operator."

Mike often uses Zero 88's Sirius to run the Golden Scans. He has also employed the Golden Scans as followspots, first removing the mirror and then adding a handle. This allows the cueing of colours more precisely, and lets him control the look from the lighting desk creating the rest of the mood with the additional lighting effects. The rig itself was a box truss supported on Thomas climbing towers, and featured a sub-grid constructed from Thomas tower section, with the tower hinge units re-employed to create two moving arms of truss. Two 'V' trusses projected front of stage, to give a better look on the artiste's face. Hardware on the



Lighting designer Mike Cooper at his Celco/Jands combo, mounted on a keyboard rack for ease of operation.

rig was quite minimal with 22 bars of six Pars, four Molefay 8-lites, 15 ellipsoidals, four strings of ACLs, six floorlights, including keylights for the television and six four-cell groundrows. Two Strong Supertroupers complete the role call.

Control-wise a Celco Series 2, working in tandem with a Jands Instinct 48 does the groundwork. Most lighting designers have favourite boards and Mike Cooper is no exception. He particularly likes the sample facility on the Instinct, described by him as "quick to programme and easy to modify" which allows crossfade from one preset to another at a rate determined by the operator. By all accounts Jands desks are very popular in Greece - a lot of the nightclubs have them. When the show moves to other venues in Athens, a Celco Navigator will come into play. Behind mission control sat 72 ways of Avo racks (two modules @ 4kW).

All lighting and sound equipment for the tour is supplied, set-up and in some cases operated by Alpha Sound. Mike Cooper is quick to acknowledge that his reason for going to Greece (I had to ask why he'd turned his back on the UK-based touring scene) was down to the length of rope Alpha offered him. "The company has given me the opportunity to experiment - an opportunity not often available in the UK. They have a forward

outlook, and will always listen. I try to keep up with modern technology (as do Alpha) and stretch myself in using it. That way you advance, learn new skills and discover the capabilities of the equipment."

Prior to linking up with Alpha Sound, Mike designed for Yes in the United States, Channel Four's short-lived 'The Switch', which led to work with Sade, Jethro Tull, and a spell at the Marquee club designing for the various bands that passed through the door. He picked up his yen for experimentation when working with adventurous bands such as the Associates. His design for George Dalares focuses on washes of deep, highly saturated effects, based around the primary colours, which create an intense tableau of light. He also adds some interesting little touches. During the course of the concert, I wandered backstage and was intrigued to discover a mirrorball at the rear of the stage onto which Mike was bouncing Golden Scan beams to good effect.

Front-of-house sound came in the form of a 40-channel TAC Scorpion which mics up the choir and is mixed to two Midas consoles. For side stage monitor mixing Alpha Sound have invested in a brand new Midas XL3 console which is operated by Costas Constantinopolous, owner of Alpha Sound and long-time sound engineer for George. 20 Turbosound TMS3 speakers and the same number of Nexo TS2400 full range speakers act as conduits for the sound. The Nexo speakers are the French manufacturer's latest addition to their range, rated at 2.4kW each and pack a powerful punch for their size. Alpha are dealers for Nexo and recently picked up a dealer award. A Nexo TSTD processor is used in conjunction with the speakers. Clair Bros monitors also feature for which again, Alpha Sound are dealers. They seem to me to have carved themselves a profitable little niche in the market by virtue of their forward-thinking approach, and the almost pristine condition in which they keep their equipment. Not bad going for a company with two clapped out bangers, and only one numberplate!

Ruth Rossington



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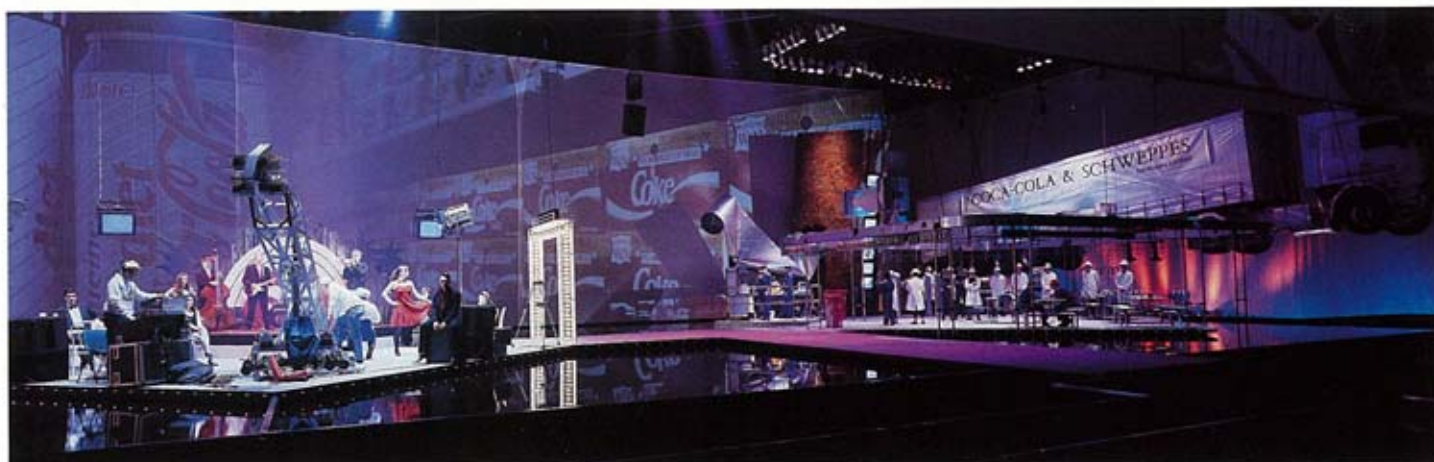
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COCA COLA AFLOAT

Alison Hunt finds out how Corporate Promotion is shaping up for the nineties



CCSB's 'No 1 Serves You Better' event: 'Diet Coke' island and 'Operations' with its 45ft cab and trailer hanging from the roof.

Corporate entertainment has moved on apace in the last few years, businesses are no longer content to offer cheese, wine and a speech from the managing director to promote their services. Nowadays they are looking for high-tech solutions to promotional problems and one of the main beneficiaries of this new philosophy is the lighting and sound industry. Only recently Coca-Cola Schweppes Beverages set out to demonstrate this with their fifth Birthday celebration-cum-self-promotional show staged at the Birmingham NEC.

The lighting design for the entire event was in the capable hands of Durham Marengi. Using equipment supplied by Meteorlites, it was his responsibility to bring alive production company Park Avenue's creation three times a day for six days.

As the audience entered the reception area, walled in by lit and working CCSB dispensers, an overall wash of amber and gold was employed to keep the area bright and jolly. They were then invited into the circular auditorium which had a low lavender houselight wash from 1k fresnels and dissolving slide images projected onto the wrap-around cyclorama.

As the houselights dimmed the entire seating block revolved through 180 degrees to the middle of seven stage platforms (or islands), all joined by walkways, placed around the revolve edge. Professional actors then delivered the corporate message in a short but active presentation, moving from stage to stage with the audience following the action in a physical sense, on the revolve.

"We managed to use some 70 lighting cues in this sequence with the seven stages and their associated walkways needing 13 areas of light, both singly and in groups," explained Durham. "The fact that the auditorium lighting system was on a 30-way Celco, which only has 10 cue masters, and all the cues had to be taken visually, made for a lively start to each show!"

Each area was lit by four profiles, with care being taken to prevent their beams from reflecting off the wraparound screen. During some of the opening presentation the actors were standing just one foot away from the screen so it was 'out with the hamburg' and some fine tuning to ensure the actors were very closely followed, leaving no area of screen lit unnecessarily.

At the close of the actors' segment darkness descended once again and the whole of the circular cyclorama slowly flew out to reveal the rest of the hall. The effect was as though the seating block was sinking below a static cyc and lighting grid. The audience became aware of the 'islands' silhouetted against floor to ceiling projection. Each island was also backlit with its own 5k fresnel in congo blue and reflected, thanks to Byll Elliott, proprietor of Lancaster-based Water Sculptures, and his astounding 'let's flood Hall Four' trick, in the vast pools of water surrounding the islands. A row of blue pinpoint lamps running around the facing edge of the islands, just above the surface of the water, completed the effect.

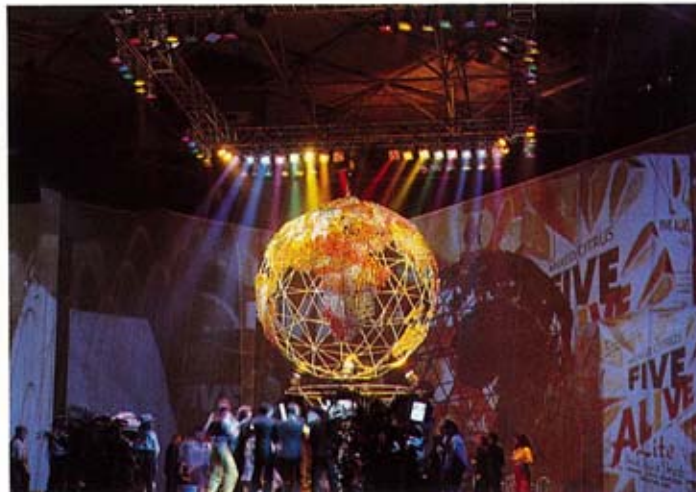
London-based Visual Techniques had been given the task of providing projection for the two

different environments, the auditorium (before the cyc flew up) and the main hall. For the first segment they used a total of 15 screens with two Yokogawa VIP 300M 250 watt Xenon projectors per screen. All the images were front projected from just above the 5.5ms cyc. The almost daylight colour temperature of the lamps' output meant that large images could be projected with only a relatively small light source. All in all the auditorium's projection rig used approx 50 amps, split across three single phase distribution units. That's not bad when you consider that all the projectors were Xenons and a normal Kodak projector rig, with filament lamps, would use around 45 amps.

This event was the first time that the company used Yokogawa projectors in such quantity and they were pleasantly surprised. "They survived being bounced around when the side of the truss got snagged and even when the truss was flown back in for the closing sessions the projection rig managed to stay reasonably lined up," commented Visual Techniques' Scott Burges.

At the end of the auditorium sequence, the projection moved on to the next phase. Scenic projection was made up of seven screens with two projectors per screen. Each projector's fades were controlled by AVL from a central controller, but the actual slide changing was performed manually by operators on the platforms.

The first island to come alive was 'Operations'. To an accompanying voice-over the area was first revealed by the illumination of a huge aluminium roll suspended above the



Each island had its own lighting rig. 'Schweppes' island (left) with its fan of huge bottles and 'Brands' island the main focus of which was a revolving globe.



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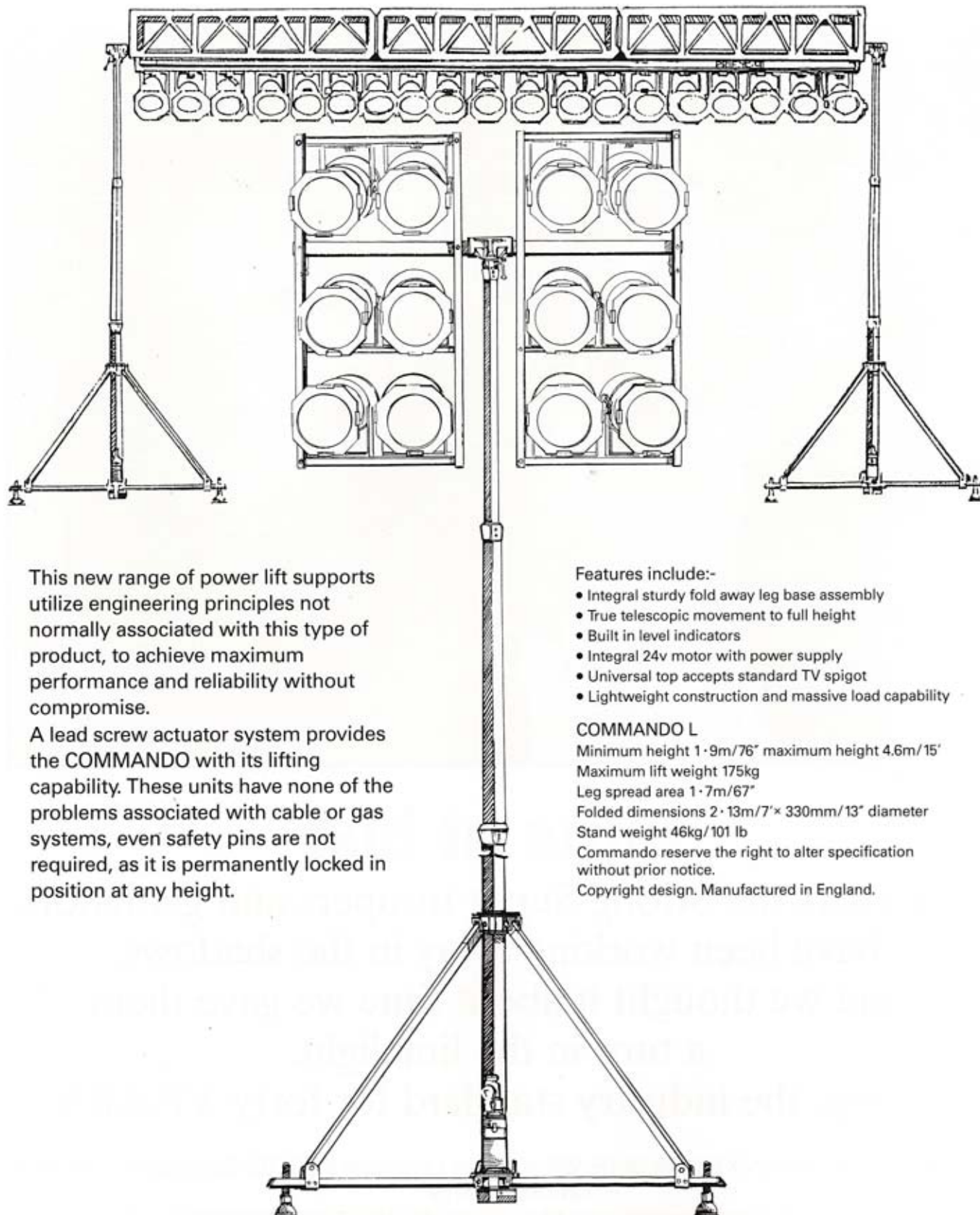


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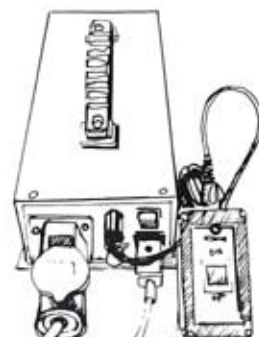
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island, which unfurled through a 10m high brick wall containing a vertical row of video monitors which then sprang into action. Next a chase effect lit-up a stream of branded cans floating from the other side of the wall to a 45 feet cab and trailer hanging at an angle from the roof. The operations staff on the island went through their paces, as did an airway conveyor system which swept rows of plastic bottles, just above head height, around the island.

The revolve started to turn back and the lights dimmed on Operations to reveal activity on the 'Diet Coke' island. Here the filming of Elton John's Diet Coke ad was being enacted and the lights moved from a nightclub ambience to bright HMI film lighting as the 'shoot' began, with a cine film of the real advert being projected on the cyclorama behind.

Once again, as the seating moved slowly past, the lights faded. This time, to an accompaniment of pyroflashes and maroons, courtesy of Le Maitre, a team of abseilers descended from more Unusual Rigging wizardry - six transit vans flown in an inverted pyramid - above 'Merchandising' island. The abseilers were joined by the merchandising team and as the island's display material was illuminated the revolve swept on to 'Brands'.

A geodesic revolving globe was revealed, with clumps of cans representing the land masses and a re-lit mirror ball as the earth's core, illuminated in dissolving 'fruity' colours thanks to a ColorFader system. A group of dancers then went into their routine lit by multi-coloured aircraft landing light beams, picked out by cracked oil and animated by Vari*Lites.

As Brands faded away the cocktail bar environment of 'Schweppes' island was revealed. The audience first saw a fan of five huge bottles flown above the bar and detailed with projection. Bubbles rushing up within the bottles were created using an amber gelled snow effect on Cadenza EPs, run upside down and out

of focus. Below these a cascade of real glass mixer bottles were backlit by a zig-zag run of acrline. The island then burst into life with more dancers and a pair of bottle jugglers, all lit in amber and green against a dark lavender wash.

Onwards then to 'Cold' island. Snow effects on the cyc and a 30 feet drop, dry-ice waterfall set the scene, followed by a bright steel wash as the Cold island team were revealed around casino gaming tables floating on a bed of dry ice (thanks to production manager Chris Venn's idea of dropping dry ice pellets into the pool immediately in front of the island). At this point, as Water Sculptures efforts really came into their own, water fountains formed a wall between the revolving audience and the islands, and the full Vari*Lite rig came into play sweeping green and blue ripple gobos across the water wall.

As the revolve moved back to the as yet unrevealed centre island, an olympic torch-bearer ran alongside carrying a real flame torch. The Vari*Lites picked him out at the end of his run and followed him up to the Olympic Bowl. As the torch was touched to the bowl the water walls were 'set alight' - the Vari*Lites being swapped to red and amber flame gobos. The edge-lit perspex flames in the bowl flickered into life and with a burst or two of smoke, the bowl rose towards the roof revealing four Vidiwalls carrying the 'Coca-Cola' island's message.

The water wall then fell away and the dancers and CCSB teams invited the audience to 'come on down' and spend the next hour on the interactive activities on each island. An exhibition state was established, bright enough to make each area attractive, but not bright enough to wash out the wraparound projections. Throughout the exhibition phase Vari*Lites moved around highlighting the different activities and features. Everytime the Diet Coke island did a 'shoot', with the audience as its stars, on came the HMIs. This meant constant attention from the control desks and no

rest for the wicked!

At the end of the 'fun' period and with the more extrovert cast members exhorting the audience to do Mexican waves and pelting the unattentive with t-shirts, the auditorium filled up once more. The water walls rose up and were used as a vehicle for a Vari*Lite display as the auditorium cyclorama descended slowly 'back to square one'. The presenters made their farewells, with the cyclorama backlit by reflections from the Vari*Lites in the pools. The resulting ripple effect was taken over by special 'water wafers' whose job it became to keep the ripples going by waving their hands (or anything available) in the water.

The sound equipment for the shows, provided by Delta Sound and Theatre Projects, was controlled via six matrices and two master faders from a Soundcraft 8000 desk, thus giving eight discrete sends. These fed eight DDL3 delay lines, each of which had three outputs controlled by a Stacy computer via a MIDI interface. This enabled delay times on all eight units to be switched on a given cue.

During the actors' presentation radio mics were employed ensuring the sound followed them as they moved. However, use of the radio mics presented a problem because of the large amounts of RF being generated by the revolve every time it moved to a different position. Sound designer Dick Sinclair found the solution by placing the aerials at the actors' feet.

He also had to ensure that as each island was highlighted, sound for a descriptive voice-over appeared to come from that island.

Over the six days of the event CCSB entertained over 6,000 people (awarding the most enthusiastic participant with a free trip to the Olympics), utilized 500,000 gallons of water which only took 12 hours to drain away, drained the National Grid of 1.6 megawatts of electricity - just to prove that Coca-Cola Schweppes Beverages 'Serves You Better'.

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TOKYO GLOBE TO RICHMOND VIA CHICAGO

Robert Halliday on World Tour with the English Shakespeare Company

It can't be that often that a new, large scale theatre company appears, apparently from nowhere. Even less often that such a company's aim is to produce the works of Shakespeare and that the company would exist solely to tour, with no home base theatre at all. Yet that is what happened in 1986 when, disenchanted with the work they were producing elsewhere, director Michael Bogdanov and actor Michael Pennington came together to form the English Shakespeare Company.

The company's aims were quickly made clear with their first productions - not a small tour of a single play, but *The Henrys*, versions of *Henry IV* parts I and II, and *Henry V* which toured across the UK, Europe and Canada. The other plays in the history cycle were added the following year to form *The Wars Of The Roses*, and the company played across the world to huge acclaim. The style set then - 'accessible' Shakespeare aimed at those not necessarily familiar with the play, non-classical designs, and playing several shows in repertoire - largely remains in force today. The result, of course, is a greater requirement for pre-planning and organisation, and greater demands on the crew who have to get it all working each week. But then, of course, that's the fun of it all . . .

This season's tour has been organised in a slightly different manner from the earlier shows. *Twelfth Night*, Michael Pennington's debut as director for the company, opened last autumn and toured the UK on its own until Christmas. After Christmas, Michael Bogdanov's *Macbeth*, with Michael Pennington in the title role, was added. At the time of writing the shows have played three UK venues along with Korea and Japan. By the time you read this, more of Britain will have been covered and the company will have spent two weeks in Chicago before settling down to end the run at the Richmond Theatre.

Technically, the challenge of the shows has largely been to get the two to fit together. Both are designed by Claire Lyth, but the two designs



The Tokyo Globe: Shakespeare in a housing estate.

are completely different: *Twelfth Night* involves a standing set of portals, tracked drapes to define the two households and flown metal trees to take the action out into the gardens of the Lady Olivia, *Macbeth* basically an open stage with one main scenic element. No two stages are the same, of course, so to give a fixed reference point, we are touring a theatre 'back wall', complete with fake socket outlets and drainpipes.

The 'scenic element' causes much mirth each Monday morning since it is, essentially, a telescope. Nicknamed the 'Macbethoscope', our version is on a steerable base, with the main frame mounted on a turntable and the ladder attached to a hydraulic ram. Designed to suggest 'backstage' in a theatre once again, the scope becomes at various times a throne, a lift for Banquo's ghost to swoop over a tortured *Macbeth*, and a giant cauldron with a flown mirror above, and a mass of rubbish, chairs, tables, and other props.

The problem of combining the two shows repeats itself with the electrics - given the completely different natures of the two plays and sets, and the limited time for changeovers (sometimes between a matinee and evening

show) a single, dual purpose rig was never really going to be possible. Instead there are essentially two complete lighting rigs, with Chris Ellis' lamps for *Macbeth* nestling between those used by Michael Bogdanov and chief electrician Kevin Fitz-Simons to light *Twelfth Night*. The flown rig travels as one, permanently plugged up to six-lamp bars which are linked by multicore back to the touring dimming - two of White Light's 48-way Arri touring racks, along with two sets of 5k dimmers. The changeover from one show to the other is accomplished using the mains patch on the dimmers, simply unplugging one lead from each dimmer and replacing it with the second lead

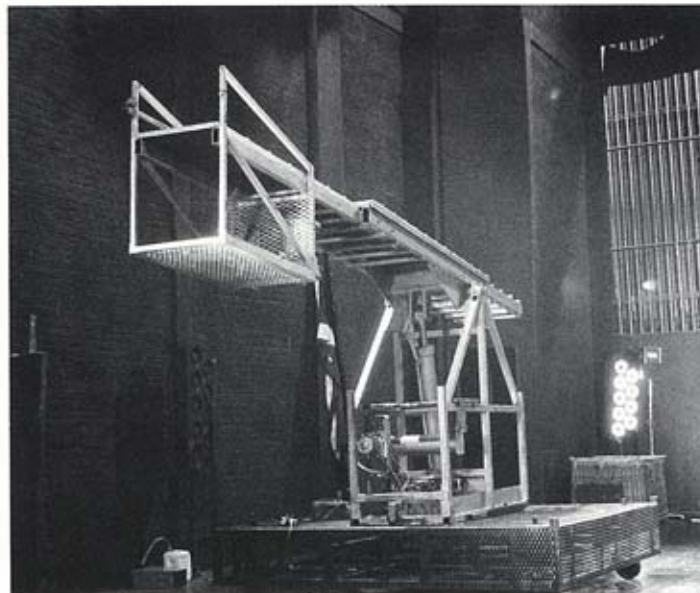
for that dimmer. An even quicker method would have been to have used a switch box for each channel, with one controlling channel to set the show, but the re-patching works fine once the fear of the great intimidating mass of patch leads is overcome!

The rest of the changeover involves striking the vast battery of floor level sidelighting used in *Macbeth* (including Svoboda light curtains on stands, and Reich & Vogel followspots), and setting the floor lighting for the cyclorama which plays such an important part in *Twelfth Night*. The rig is controlled by an Arri Imagine 250, a desk which has proved to be a good and reliable workhorse well able to survive the abuse of a tour. Its versatility, and that of the Connexion demux module, means that the smoke machine and White Light's vari-speed cloud disks are also under its control.

Thus, in Britain, the routine of the shows is fairly well established - rig, fit-up, focus the first show and then on a changeover day fit-up and focus the second show. How easily it works depends largely on the size of the theatre, because of the need to store a second set and then manoeuvre the two around each other. The only area with no real problems is sound,



Sound equipment for the UK leg of the tour: a Soundcraft Venue in control.



The 'Macbethoscope' at the Mayflower Theatre, Southampton.



The 'Macbethoscope' in use as Macbeth confronts the witches.

where sound engineer, Paul Spedding, moves two speakers, changes two tapes over and is the envy of the rest of the crew! And we even seem to have avoided the bad luck associated with the Scottish play - apart from the 13th performance when all sorts of things went wrong!

Abroad, the situation changes completely. In an ideal world, perhaps, everything would be toured lock, stock and barrel - but the ESC has neither the time nor money for this approach, and here one of the company's great assets - its ability to 'busk it' to a certain extent - comes to the fore. The tour of Seoul and Tokyo proved this very well.

Seoul was always likely to be a problem. The booking was made by KBS, the Korean Broadcasting Service, along with the British Council, to play at the KBS Hall, part of their studio complex. We took with us the basics of the shows - the scope and the drapes - while KBS agreed to build a version of the Twelfth Night set and the cauldron. As the company played its last night in Southampton, an advance party of production manager Graham Lister and Kevin Fitz-Simons set off to join production carpenter Colin Le Gendre (who had gone out a week early to make the trees for the Twelfth Night set) to get the fit-up rolling.

Instead, they spent three days in endless meetings with a television company who had no real understanding of large theatrical

productions and a translator with fairly limited English. When the rest of us arrived little had been achieved - so we set to work straight away.

Even after the spaciousness of Southampton's Mayflower Theatre, the KBS Hall was a shock - a vast cavern of a concert hall with a hugely wide proscenium opening, and even wider wings on each side. Overhead, there was a mixture of flow lighting bridges and pipes (some round, some square), all of which were motorized. Unfortunately, in terms of subtle flying, the motors only had one speed. Unfortunately, in terms of ease of fit-up, some of the bars wouldn't come all of the way to stage level.

All in all, the fit-up was a very strange experience - trying to explain new concepts through an interpreter who knew nothing about theatre, discussing with the managing director of Korean television how something should be flown, and even having an epic trek just to get from one side of the stage to another. The lamps were Korean home-brews, all black metal and huge lenses. We exhausted an entire roll of Lee 202 and still half the rig wasn't coloured! We then exhausted the entire supply of 202 in the country to get it finished.

After 18 hours of flying, we had an all-nighter to focus the show (a great cure for jet-lag) which included finding a dead fish tied to one of the bars (a good luck charm!), and cutting bits of aluminium foil as masks for the PCs and fresnels

in the front-of-house bridge, which must have been over 100 feet from the stage. The concept of using profiles front-of-house seemed to amuse the Koreans greatly, and I still think we should act as touring salesmen for British lighting manufacturers.

Coupled with this were the usual problems of international touring, such as the scope not clearing customs until about two hours before the first performance, or discovering that the sound operating position was at the back of the auditorium behind three layers of glass - it was, after all, really there as a control room for broadcasting concerts.

By the time of the changeover to Twelfth Night, things were better since the crew had some idea of what we were up to. And we did succeed in introducing the D-shackle to Korean theatre. They denied all knowledge of such a device, but we promptly went to a market and bought a load to fly the set with. A breakthrough of a kind, I guess! In the end, as always, the shows went on and were very well received despite (or perhaps because!) no translation system was available. We all survived a week in Seoul with our sanity more-or-less intact, though with patience sorely tested.

Tokyo could only be easier, and it was. The staff at the Tokyo Globe know the ESC - the company opened the theatre five years ago - and the style involved. And they know about theatre - to have a trained designer and a trained lighting designer at a touring fit-up would be a luxury anywhere. To find that they speak English and are your translators is pure bliss!

In contrast to KBS Hall, the Globe is a lovely theatre - a very close recreation of Shakespeare's Globe which takes the language beautifully. Jokingly we compared it to the Barbican Centre - built by a wealthy businessman in a housing estate on the edge of Tokyo for performing Shakespeare. But the Globe's graceful, round pink form is far more attractive than the Barbican has ever managed to be, and the Barbican certainly doesn't have a shrine to the theatre just inside the stage door!

Because the limitations of the stage were well known, and there were umpteen split-days being played, the 'scaled-down' versions of the shows swung into action: Twelfth Night without the standing portals (the Korean version now being shipped to Chicago in true ESC style - at one point, believe it or not, there were three Wars Of The Roses sets circling the planet) and with gauze instead of metal trees, and Macbeth using the two proscenium doors which are a feature of the Globe anyway.

It all went to plan, the only scare coming when the universal joint from the scope's steering was found to be missing. A desperate search and later modifications mean that the scope is now based in an old Nissan rather than a mark IV Cortina,

Details of the English Shakespeare Company Spring/Summer 1992 Tour

'Macbeth'

Directed by Michael Bogdanov; designed by Claire Lyth; lighting by Chris Ellis; sound by John Leonard; fights director Malcolm Ranson; assistant director Kate Beales. Starring: Michael Pennington as Macbeth.

'Twelfth Night'

Directed by Michael Pennington; designed by Claire Lyth; lighting by Michael Bogdanov and Kevin Fitz-Simons; music by Terry Mortimer; assistant director Kate Beales.

Tour sponsored by IBM. Supported by the Arts Council.

For both shows:

Production manager, Graham Lister; company manager, David Bownes; stage manager, Adrian Bray; deputy stage manager, Sid Charlton; assistant stage manager, Debbie Rogers; production carpenter, Colin Le Gendre; chief electrician, Kevin Fitz-Simons; sound operator, Paul Spedding; assistant electrician, Robert Halliday; wardrobe mistress, Alison Edgley; wardrobe assistant, Tania Murray-Cowan.

Company:

John Berlyne, Allie Byrne, Alan Cody, Jeni de Haart, Timothy Davies, Gerard Doyle, Colin Farrell, Sean Gilder, James Hayes, Edward Little,

Tracey Mitchell, Michael Mueller, Vivian Munn, Michael Pennington, Jenny Quayle, Derek Smith.

Tour Schedule:

In the UK - Arts Centre, Warwick; Civic Theatre, Darlington; Mayflower Theatre, Southampton; New Theatre, Cardiff; New Theatre, Hull (Macbeth only); Theatre Royal, Newcastle; Theatre Royal, Bath; Hexagon, Reading; Theatre Royal, Plymouth; Theatre Royal, Glasgow; Richmond Theatre.

Overseas - KBS Hall, Seoul, South Korea; The Globe Theatre, Tokyo, Japan; The Chicago International Theatre Festival, USA.

which aren't that easy to find in Tokyo!

The lighting was once again recreated from scratch using the theatre's own equipment, this time Japanese-sourced Leko clones made by RDS. Without a standing set for Twelfth Night a universal rig was much easier to achieve, and the changeover between shows was accomplished simply by dropping the motorized bridges and changing the colour, and then setting or striking the lamps behind the Twelfth Night cyclorama. The scenic changeover was equally simple, with props dropped to the basement on the centre stage lift, and the drapes switched for the correct show. During the performance the Japanese crew ran their lighting desk, mainly because it was labelled in Japanese and therefore incomprehensible to the rest of us, while we ran sound from a lovely operating position - in the door, shoes off, and the floor dropping down to form a natural seat. And a window that opened! The box also housed the only 240V power supply in the building - sound Q1 was carrying the hair curlers up to warm up, and the interval preset included carrying them back, through bemused onlookers, to the wardrobe room.

Away from the theatre, for the brief moments where that was possible, Tokyo was much more fun than Seoul - infinitely more modern and civilized, with the beer machines that feature on every main street always working and always unvandalized, something that would be unimaginable in Britain. At night it was a dead ringer for the Blade Runner set. There are electronic gadgets everywhere - it must be pretty close to techie paradise! Especially with the theatre supplying the Saki on the first and last nights!

And so back to the UK. Somehow, despite the fun of going abroad and seeing new places, it's always good to get home again, as long as the lessons from abroad are learned. It's all too easy



The multi-talented tallelescope, this time as cauldron with flown mirror above.

to knock many methods of working that aren't your own, but equally they have some things right. Motorized lighting bridges don't feature in that many British theatres, yet they make rigging, focusing and changes much easier, especially front-of-house. Perhaps other companies, just taking one show and leaving it set up for the week, don't notice. In that respect, the ESC is practically unique, and it was its pioneering lead back into large scale touring of Shakespeare that has led many others back into the same field. It is also fairly unique in having three 'technicians'

as associate directors, a move derided in at least one publication when it happened but yet one which shows a commitment to the people who have to make it all work.

Where the company goes next remains to be seen, although planning is already underway for the next tour. Perhaps more importantly, the company is continuing to strive to bring Shakespeare to new audiences, with a small scale tour of Macbeth currently wending its way around Africa, an educational tour playing small UK venues and a variety of school workshops held wherever we go.

It is a remarkable company, and one which works everybody hard - sometimes almost to the point of abusing them. But the shows get on, often in the most demanding circumstances imaginable, and are triumphs of efficiency, skill and experience. And, more importantly, they sell - this tour, to date, has been practically sold out.

It's quite an achievement for an upstart company that has no real base, has only just turned five, and only gained full Arts Council support this year. Long may it prosper.

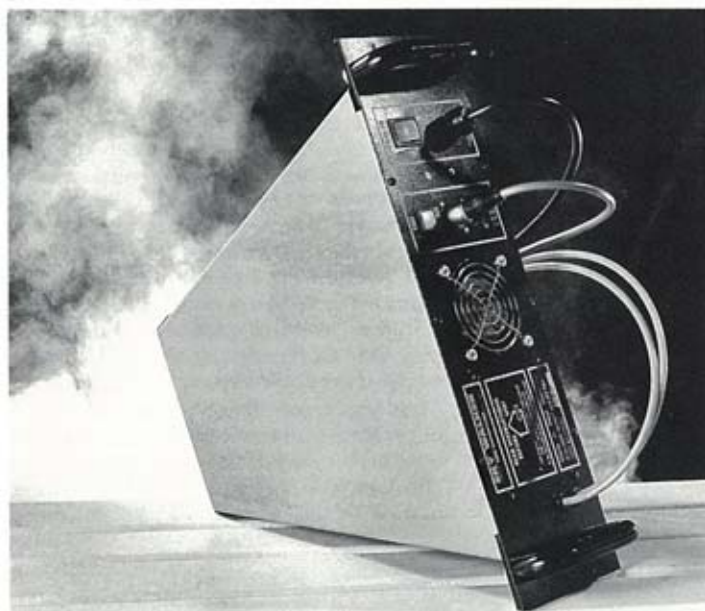
The author is assistant electrician with the English Shakespeare Company.

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Celestion Controller



Celestion's new SRC1-MK2 has been designed to offer improved control of the company's SR Series loudspeaker enclosures and has the ability to drive the SR1 to its maximum power handling of 500 watts. According to the company, improvements provided by the SRC1-MK2 include superior equalization and limiting, a soft turn on/off feature, set-up error detection, impedance selection, a high crossover frequency and Neutric XLR connectors for increased reliability. Recommended for use with both the Celestion SR1 and SR3, the dual channel processor and crossover unit will function at either four or eight ohms.

For further information contact Celestion in Ipswich, telephone (0473) 723131.

More on Colour Call

Following last month's news story on Strand's new Colour Call scroller system, major features are provided here.

The unit has quiet operation with two selectable fan speeds for extended filter life or extra-quiet operation; a reliable 'show-tested' design with the number of frames per scroll quickly set and direct-drive position sensing eliminating power-up resets. According to Strand, two models satisfy most requirements: a Par 64 size for Cantata, Cadenza and Lekos plus a larger unit for 2kW/5kW studio luminaires. Backplates are available for nearly any luminaire.

Fast scroll operation is provided, if desired, with '11 colour frame one movement' in one second. However the scroll speed can be set, using fade time, by the board operator. The unit also has variable scroll length with 2 to 16 colours per scroller. The large model accepts up to 11 colours. Gel scrolls are removable for easy replacement and have springs to keep scrolls taut, further reducing noise during operation. Colour Call operates with standard control protocols and LED indicators display power, signal, and signal level.

For further details contact Strand in Isleworth, telephone 081-560 3171.

Compulite Update

May sees the launch of new versions of Compulite's Applause and Ovation lighting control systems. The Ovation 're-fit' includes a redesigned keyboard layout incorporating four completely independent effects playbacks and additional editor keys together with sound-to-light input and built-in two row fluorescent displays to indicate contents of all 40 submasters. All Applause and Ovation systems now utilize a completely new processor card which allows for much greater software expansion and the use of flash memory enables future software upgrades from the disc drive. Systems are also now supplied complete with VGA monitors.

Other new products include an intelligent DMX combiner, digital dimmer racks and versions of the Animator moving light control desk to control Intellabeam.

For more information contact Compulite GB in London, telephone 081-961 9750.

Green Ginger Update

Green Ginger have now commenced delivery of the new Arena memory/manual lighting control desks. Significant additions to the product have been made since it was launched at PLASA last year including softpatch to 96 channels, memory card, analogue output, isolated DMX output and significant playback facilities. Orders totalling some 520 units are now being manufactured for release in the next two months. Further enhanced versions of the desks will be launched shortly.

New, improved versions of Wallrack have now been launched offering a fully circuit breaker protected solution to 12 or 24 channel cabinet dimmer requirements with the option of residual current circuit breakers. Versions are now available for 2.5kW, 5kW, 10kW tungsten/inductive dimming and 16 amp switching or non dim. The Wallrack has been upgraded to be compliant to UK 16th Edition regulations as well as current European standards. According to the company, further additions to the Wallrack range will be made shortly including a completely new concept in dimming.

Improved DMX demultiplexer products called Microplex are being release this month. These products can be used as stand alone 24 or 48 way decoders or via a unique racking system into a 500 channel demultiplexing system. All demultiplexer products now have full galvanic isolation with relay controlled line termination and are designed for bi-directional communication. The product offers switchable positive or negative 10 volt output coupled with front panel mounted displays for interrogation, testing and channel address setting.

The Lytemode architectural range has been enhanced with improved versions of Lytemaster and Compli controls. Lower cost, infra red remotes and dimmer units have been added to cope with most types of fluorescent dimming including PL lamps.

For further details contact the Eurolight Group in Feltham, telephone 081-751 6400.

DN800 Active Crossover

Klark Technik has introduced the new DN800 active crossover to complement its existing range of signal processing equipment.

The DN800 has been designed for ultimate flexibility. The unit's four inputs and eight outputs - which are balanced as standard - can be configured as a stereo 4-way, stereo 3-way or a four channel or quad 2-way system. Occupying just 1U of rack space, the DN800 uses half the space of any other comparable product on the market.



Plug-in frequency cards allow a choice of 12, 18 or 24dB/oct slopes with Linkwitz-Riley, Butterworth of Bessel responses, with band overlap possible. Other features include a mono bass function for use with sub-woofer systems, trimmers for phase adjustment between bands and switchable phase reverse for each output. Outputs also include gain and mute controls and 'signal', 'limit' and 'over' LEDs. Options include Advanced VCA limiters on plug-in cards, internally fitted output transformer balancing and fixed equalization cards.

The DN800 was launched into the US market at the NSCA exhibition and is due for European launch at APRS in June.

For further information contact Klark Technik in Kidderminster, telephone (0562) 741515.

Lightwave Colours

Lightwave Research has added the low voltage Color Pro EX to its line of colour changing spotlights. Featuring three 4000 hour 12 volt lamps, the dichroic colour changing luminaire has self-contained dimming and is pattern capable. The Color Pro controller has 16 addresses (or channels) and outputs serial data via a 3 pin XLR data line. Controllers can be slaves for larger systems. A protocol interface can be used with RS-232, analogue and DMX-512 controllers.

The company has also introduced Multiflash, a multiple lens flashlamp projector with optional dichroic colour. Eight separate focused beams of strobed light fan out from a single xenon linear flashlamp, covering more than a 90 degree angle. The beams produced by the Multiflash are well focused and can project up to distances of over 22.5 metres (75 feet). The Multiflash's on board microprocessor reads incoming serial data to determine intensity and rate.

An air-cooled fixture, the Multiflash is digitally addressable by means of DIP switches located on the rear of the fixture. Connection to the data lines is accomplished by a standard 3 pin XLR connector.

For further details contact Lightwave Research in Texas, telephone (512) 836 2242.

MC Series From EV



Electro-Voice have launched a new cost effective range of dynamic microphones - the MC100 and MC150.

Designed with the vocalist in mind, the microphones offer a carefully shaped sound giving robust low end and bright high end. Both models have on/off switches and ergonomically contoured handles. They come complete with a lead and clip and are backed by EV's two year unconditional warranty.

For further details contact Shuttlesound in Mitcham, telephone 081-646 7114.

Mobile PA

PA Installations have recently introduced the 'Pacer' which has been developed after much research and in-depth consultation with privatised industries. The central component of the 'Pacer' is a digital device which allows messages to be recorded and replayed instantly without the use of conventional cassette tapes, thus reducing servicing because of the absence of moving parts. A single operator is able to pre-record, and instantly replay a suitable, high quality, message without having to repeatedly use the microphone.

The product is available in various packages to suit all possible requirements and PA have even designed a robust fibreglass moulded rooftop unit which houses an illuminated sign and beacon, together with the loudspeakers. For fleet users an additional unit is offered which allows the message to be recorded at headquarters and downloaded directly to any vehicle which is fitted with the 'Pacer'.

For further details contact PA in Llanelli on (0554) 752490.



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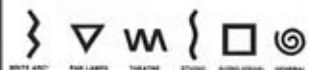
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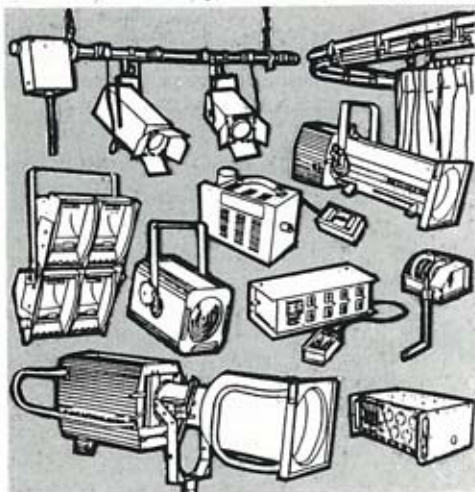
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VIEWPOINT

George Thompson

The View from the Standards Office

It was just over two years ago that the PLASA executive committee, with considerable forethought, decided that the time was ripe to appoint a permanent and qualified Technical Standards Officer to provide guidance for members on the many new standards being introduced and how they are likely to be affected by them. Subsequent events have shown just how wise that decision was, and it is believed that PLASA is still the only trade association in the United Kingdom with such a post.

Clearly, the chief task of the Standards Officer is to become well-informed on relevant British, European and international standards and hence be able to alert members to their presence and where necessary provide interpretation, but the work itself goes well beyond this. Apart from keeping up-to-date with new standards, there are meetings and conferences to attend and visits to be made to members' premises.

Also, at monthly intervals I produce 'Standards News', which as its name implies, gives members of PLASA the very latest information I have been able to glean on current topics in the standards world. Quite often this also overlaps into health and safety matters, as there is much new legislation in this field too.

I consider it an important part of my brief to disseminate this kind of information as widely as possible among the membership - even to the point of becoming unpopular by harping on about the potential problems! With the bewildering number of new standards which are being given the force of law it is almost impossible for directors of small companies (the majority of PLASA members) to become familiar with the often very subtle complexities of a new law or regulation in a short space of time. Unfortunately the Law takes no account of such difficulties; hence the need for someone like myself to ferret out the information and make it known to members enabling them to take action before trouble arises.

However, as I have had no legal training I must put in here a caveat to the effect that I can only advise on the situation as I see it, and specific cases may require the services of legal professionals. Nonetheless, my experience so far shows that the general effects of most new legislation are easy to understand, but the difficulty for PLASA members lies in meeting the requirements without incurring bankruptcy-sized costs.

Such a case occurs with the Electricity at Work Regulations (1989) which came into force - extremely quietly - on 1 January 1990. Although naturally complex, the Regulations, which are in effect laws, can be crudely summarised by saying that workers must not be given electrical equipment to use which is unsafe. Very laudable, you may think, but also in the Act is a requirement to maintain the equipment in a safe condition, and of course the only way to do this is to carry out electrical tests at regular (but unspecified) intervals. For hire companies hiring out hundreds of individual items over and over again, possibly at

very short intervals, this is something of a nightmare. To make matters even more worrying, the whole basis of common law has been equally quietly changed to the effect that if an injury to anyone occurs, the owner of the unsafe item is automatically guilty unless he can prove that he has "taken all reasonable steps and used all due diligence" to avoid causing the injury. Clearly, he now has to prove that the item was properly maintained (i.e. tested for faults) at some reasonable time in the past. Easier said than done.

To show one way in which this might be achieved, in April PLASA collaborated with three companies in the portable appliance testing field and presented a seminar. It was well attended and considerable interest was shown. As a result, a small working party will be set up to see if it is feasible to standardise some aspects of the testing process.

Another very important subject which occupies much of my time is the ramifications of the EC Directive on Electromagnetic Compatibility (EMC), issued on 3 May 1989 and initially scheduled to take effect on 1 January 1993. Almost immediately after joining PLASA this directive began to be taken seriously by official bodies such as the DTI and the British Standards Institution. Very early on it was appreciated that the Directive was something of a blunt instrument which unless modified would badly affect the professional lighting and sound industry.

Consequently, the BSI set up a panel (of which I am a member) to look into the possibility of


producing a set of standards which would be specific to our needs. Drafts of possible standards have been produced and the relevant European committee has been informed of our work, with the object of obtaining views of the other 11 member states of the EC before proceeding any further. It is hoped to ameliorate some of the worst aspects of the Directive.

This Directive proved to be the thin end of a rather large wedge, and since then there has been a whole stream of Directives which will directly affect PLASA members and indeed everyone in the supply side of the entertainments industry.

On a personal level, having worked in Government R & D establishments for over 35 years, where of course as everyone knows, money is no object, it came as something of a culture shock to join PLASA and see how the other half lives. My chief impression was one of amazement that such highly complex and well-engineered equipment could be produced at such low cost and in so short a time, and at a profit. I have great admiration for the people who can do this, often under very difficult conditions, and I am pleased to be able to help them wherever I can.

Looking to the future, there is a lot more to be done in assessing the effects of forthcoming EC Directives and telling members about them. In this connection it may be possible to form links between PLASA and other trade associations, to the mutual benefit of all concerned. At the moment our Standards News is sent only to PLASA members and it reflects only their interests, but it may be possible to broaden the content and at the same time widen the distribution.

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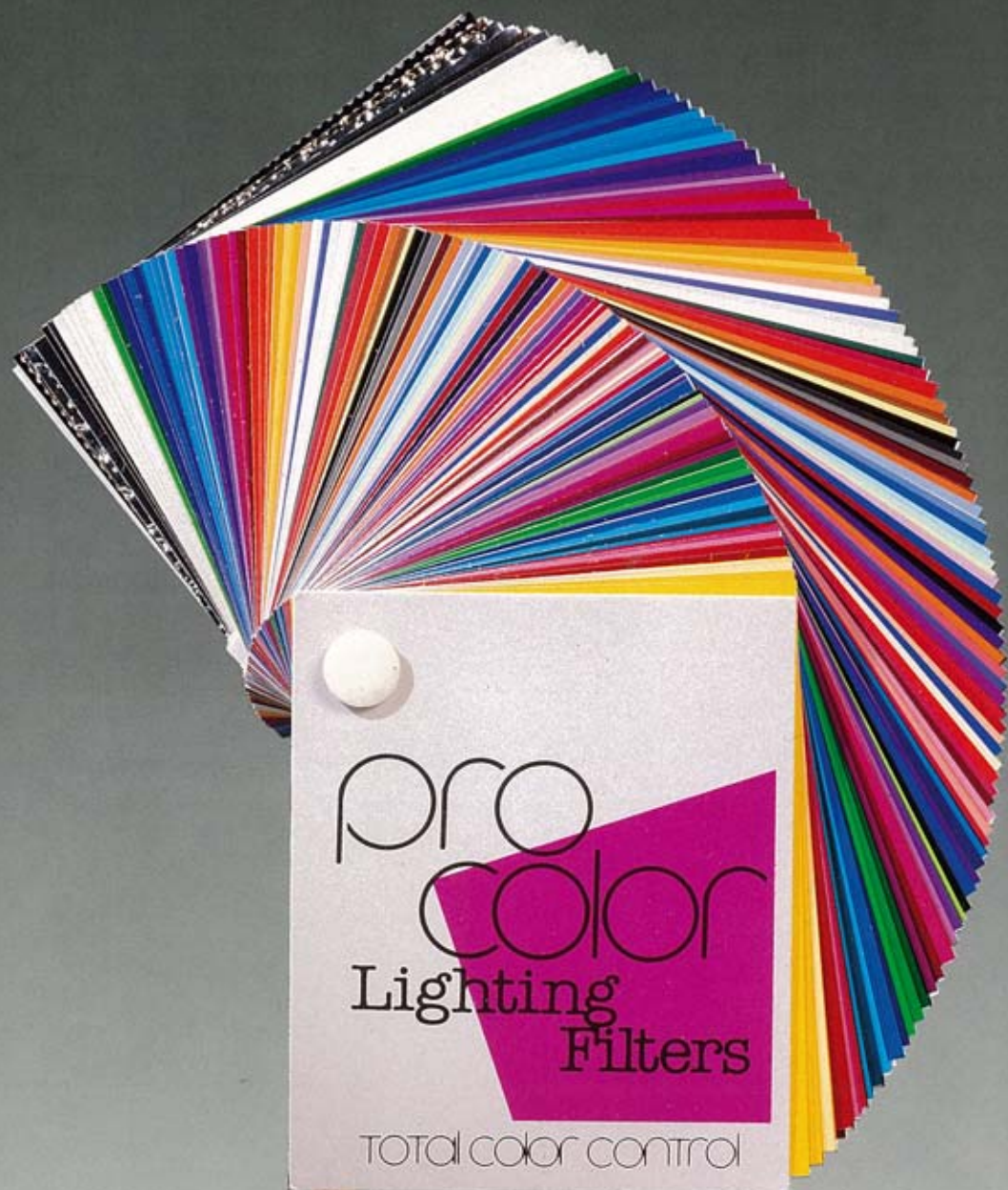
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