

LIGHTING+SOUND

International



JOY TO THE WORLD

Laser Art in Brussels and
Vienna

PLASA Chairman's Nineties
Manifesto

Hansel and Gretel at the
Coliseum

Dallas Meyerson Symphony
Center

Ben Duncan on Wedge History

Joy to the World at the
Royal Albert Hall

Sound at Stoke's Festival Park

Midi and the Theatre
(and Macbeth)

Scorpio's new Control Systems

The Changing Face of Squire
Sound & Light

plus all the usual regular
features

(details page 5)

JANUARY 1990

DALLAS
HONG KONG
LAS VEGAS
LONDON
LOS ANGELES
MADRID
NEW YORK
ORLANDO
PARIS
SYDNEY
TOKYO
TORONTO

Now the world's leading source of automated lighting has the world's largest network for production support.

Vari-Lite has expanded to 12 locations worldwide. Now we can serve you from the United States and Canada. Europe and Australia. Japan and Hong Kong.

Each Vari-Lite location is staffed by experts who understand their local markets. And each site is fully stocked with Vari-Lite's advanced consoles and luminaires.

For automated lighting in concerts, television, film, theatre and industrial shows, Vari-Lite gives you the full spectrum of lighting possibilities. Worldwide.

VARI*LITE

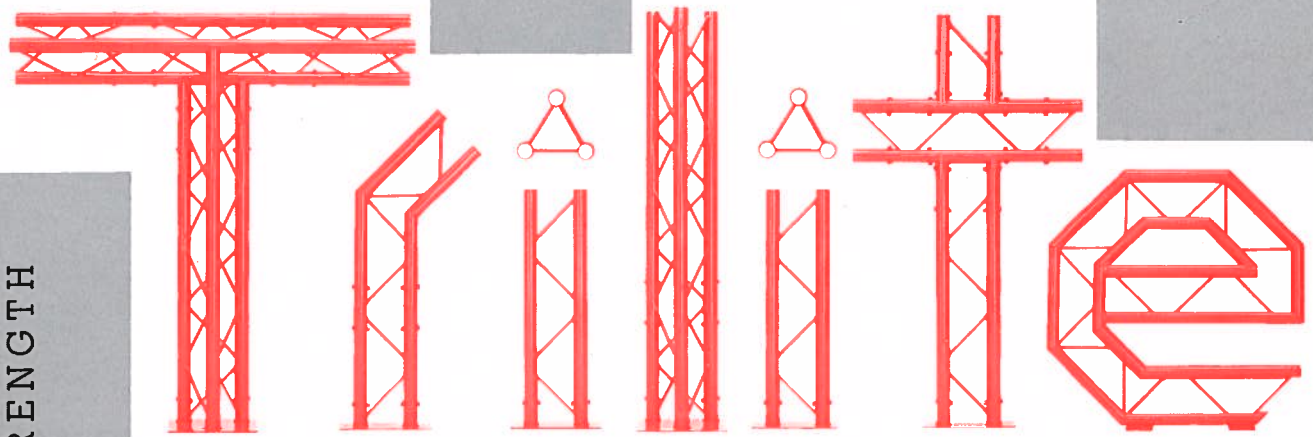
The Automated Lighting Company

Vari-Lite Europe Limited
 112 Cricklewood Lane • London, NW2 2DP
 44/1/450-8955 • FAX: 44/1/450-7921

DALLAS HEADQUARTERS 214/630-1963	HONG KONG DISTRIBUTOR 852/3-7550/145	LAS VEGAS OFFICE 702/795-4766	LONDON DISTRIBUTOR 44/1/450-8955	LOS ANGELES OFFICE 818/342-2000	MADRID SUB-DISTRIBUTOR 34/1/470 23 30	NEW YORK REPRESENTATIVE 914/942-0075	ORLANDO REPRESENTATIVE 407/855-8060	PARIS SUB-DISTRIBUTOR 33/1/45 07 97 09	SYDNEY DISTRIBUTOR 61/2/317-5200	TOKYO OFFICE 81/3/446-0041	TORONTO DISTRIBUTOR 416/367-8707
---	---	--	---	--	--	---	--	---	---	---	---

VARI-LITE® automated lighting equipment is made in U.S.A. under U.S. Pat. No. 3,845,351; protected by U.S. Pat. No. 4,095,139; 4,392,187; 4,402,321; 4,688,161; 4,701,833; 4,779,176; 4,800,474; and 4,709,311. Specifications are subject to change without notice.

A DISPLAY OF STRENGTH



The Trilite Structural System is strong yet lightweight and easy to assemble. Available in any color, Trilite's simple modular construction allows it to be built into an incredible variety of structures.

Full customer design service available.

For further details contact:

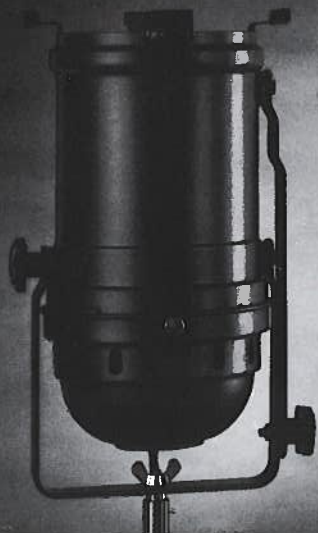
OPTIKINETICS LTD
38 Cromwell Road
Luton LU3 1DN England
Tel (0582) 411413, Tlx 825920
Fax (0582) 400613

USA

ELEKTRALITE
30B Banfi Plaza North
Farmingdale NY11735
Tel (516) 249 3662
Fax (516) 420 1863

IF YOU'VE
GOT ONE OF
THESE...

... THEN YOU'RE
HALFWAY
TO THE BEST
LIGHT SHOW
IN TOWN



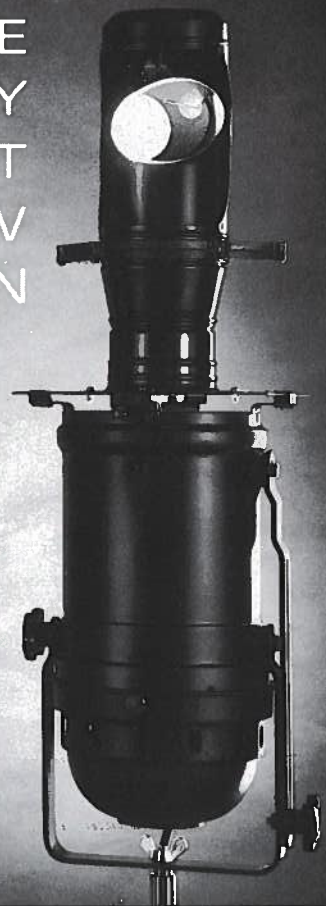
Introducing the new **Masterlight Multi-Directional Beam Unit**, for the ultimate in entertainment lighting.

With a capacity to rapidly project 9 different colours at any angle with its powerful concentrated beam, you'd expect a high price to match its performance. In fact the **Masterlight** costs a fraction of the price of any similar system!

Why? Because the light unit with its revolutionary **Masterlight** mirror lens is a compact accessory that simply fits on the end of any parcan and can be powered by any control desk of 0-10V.

Add together technical sophistication, performance capacity and cost and we think you'll agree that the **Masterlight** is the future of entertainment lighting.

For more details contact us at the following addresses:

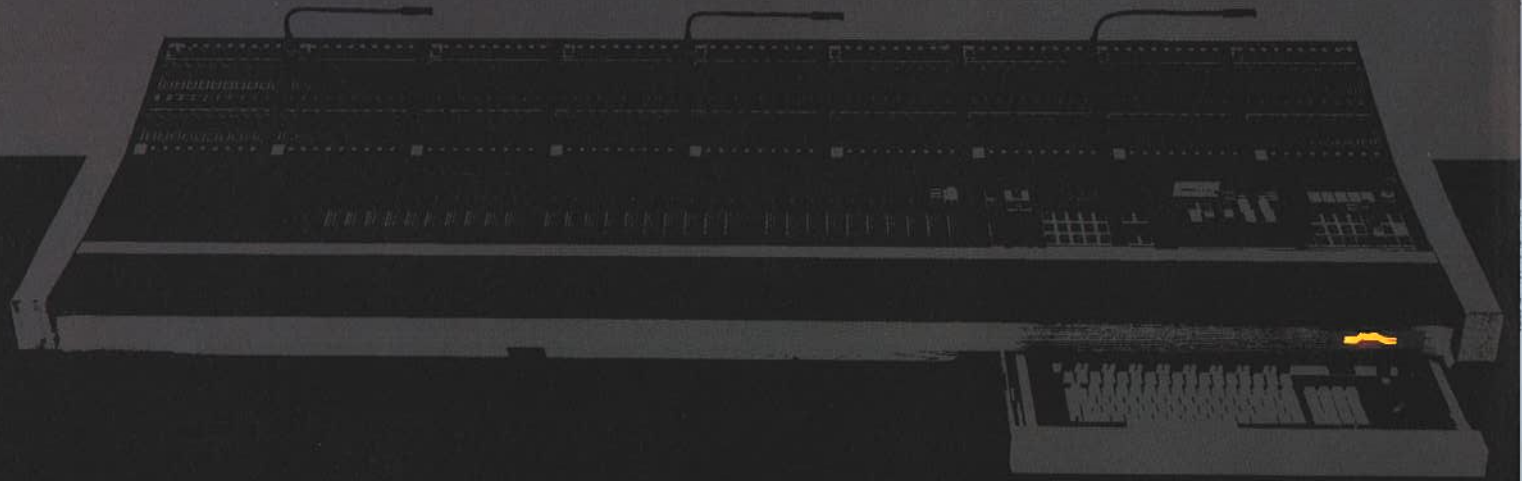


MANUFACTURERS: Rolight theatertechnik, Hoogsstraat 20, 7512 GX Enschede, Netherlands. Fax: 31-53-301201 Telephone: 31 53-320644

AGENTS: M & M Lighting Limited, 87 Gloucester Avenue, London NW1 8LB. Fax: 01-722 3940 Telephone: 01-722 4147

Lightpower showtechnik GMBH, An Der Talle 26, 4790 Paderborn, West Germany. Fax: 49 5251 407404 Telephone: 49 5251 4184

"THERE IS A LIGHT THAT NEVER GOES OUT."



**EXCEPT WHEN
YOU WANT IT TO.**

And then it's quick, simple and guaranteed. The Celco Gold combines the latest in software design with advanced electronics to allow the big venue designer to plot and execute the most complex lighting sequences.

The Celco Gold can store up to 450 different scenes on 30 Cue Faders and can run 24, 99 step, programmable sequence patterns simultaneously.

What's more, all programs are recorded on the unique Q-Card, our storage medium the size of an ordinary credit card.

Celco products are manufactured and distributed by: Celco Ltd, 1/3 Bellingham Road, London SE6 2PN, England tel: 01-698 1027 tlx: 927624 (CELCO G) fax: 01-461 2017 and Celco Inc, 30B Banfi Plaza North, Farmingdale, New York 11735, USA tel: (516) 249 3662 fax: (516) 420 1863.

If it ain't Celco ~ It ain't Rock'n'Roll!

LIGHTING+ SOUND *International*

January 1990

6 News in Lighting + Sound International

12 Japan In Europe

Motoko Ishii's laser art in Brussels and Vienna

15 A Manifesto for the Nineties

David Neale with thoughts on the future from new PLASA Chairman Kevin Hopcroft



21 Hansel and Gretel: a Coliseum Christmas

Julian Williams and a seasonal tale from lighting designer Chris Ellis



27 Meyerson Symphony Center

Dallas' new concert hall hailed as a triumph of acoustics and architecture

32 Wedge History

Ben Duncan dips into the history of rock'n'roll stage monitors

34 Bookshelf and Letters



37 Joy to the World

The background to the Imagination designed and staged Christmas Save the Children spectacular at the Royal Albert Hall

43 PLASA News and Show Page

44 Planned Equipment at Rank's Flagship Leisure Complex

The story behind the sound at Festival Park, Stoke-on-Trent

47 Disco and Club Scene

51 Midi and the Theatre

Michael Lancaster of the Glasgow Citizens Theatre discusses the uses of Midi on a production of Macbeth

54 An Icon for the Nineties?

Graham Walne studies Scorpio's new control system

56 Squires go County

John Offord talks to Squire Sound & Light managing director Simon Cummings

61 Equipment News

69 On Tour

75 PLASA Members contact information

77 Directory of Suppliers and Services

82 Viewpoint

LIGHTING+ SOUND *International*

published monthly by the Professional Lighting and Sound Association

© Copyright Professional Lighting and Sound Association

Editor: John Offord

Assistant: Ruth Rossington

Advertising: Alison Hunt

Published from the PLASA Office:

7 Highlight House, St. Leonards Road, Eastbourne, Sussex BN21 3UH England

Telephone: (0323) 642639 Fax: (0323) 646905

No part of this magazine may be reproduced without the permission of the Editor.

The magazine is available on annual subscription:

UK: £30.00; Europe and rest of the world £45.00; Airmail £60.00. Single copy price £2.00 plus postage.

Editorial Advisors: Tony Akers, David Bearman, Andrew Bridge, Peter Brooks, Jenny Cane, Tim Chapman, Mike Gerrish, Kevin Hopcroft, Tony Kingsley, John Lethbridge, Iain Price-Smith, Neil Rice, Manon Smith.

Regular Contributors: Ben Duncan, Catriona Forcer, Tim Frost, Tony Gottelier, Mike Lethby, David Neale, Francis Reid, Graham Walne, Julian Williams.

PLASA

PROFESSIONAL LIGHTING
AND SOUND ASSOCIATION

90

Light+ Sound Show

9-12 September

Olympia 2

If you are involved with equipment used in discotheques, clubs, theatres, leisure complexes, opera houses, symphonic halls or presentation arenas then you can't afford to miss the Light & Sound Show.

Organised by

3D Services

12 Brentford Business Centre

Commerce Road

Middx TW8 8LG

Telephone 01-569 9742

Fax 01-569 9783

SPONSORED BY

PLASA

LIGHTING SOUND *News* International

Looking to Europe - 1992 and all that

Forget 1992 - that's the message from many UK companies as the nineties get underway. Calls to the L+SI offices indicate that the activity will be directed into Europe, but away from the formal agreement to open frontiers planned for two years hence. The UK market is preparing for a decade that has nothing to do with 1992 directly, and everything to do with increased activity on European fronts in general.

That's not to say that 1992 won't herald significant changes for the industry, and the repercussions, good or bad, are bound to be felt at all levels. But the real activity seems to be focusing on countries such as France, Spain, Turkey, a united Germany, and the Eastern Bloc in general, including Russia.

The EuroDisney project to the east of Paris is one such example. Due to open in 1992, it is one of the major leisure schemes of the decade, and spearheads increased activity in this sphere across the Continent. Barcelona in Spain hosts the next

Olympic Games, and some UK companies are looking at establishing operations there as the knock-on effect of staging the most prestigious sports event in the World begins to tell. There is a major Expo in Seville, again in 1992, that is already drawing a lot of attention.

Another country that keeps cropping up in the conversation is Turkey. It seems that activity may increase in this once-stronghold of the Ottoman Empire, thereby accessing another new market area. And what of the prospect of a united Germany? Certainly no by-product of Europe being 'Open for Business' but indicative of the growing European cross-fertilisation that was inevitable, 1992 or no.

We'll be bringing you news of these projects as and when they happen, and where possible, before they happen. At the L+SI offices, a list is being compiled, based on information already received, of the major launches and projects planned for the early part of the decade.



Andrew Frengley of Tasco (left) takes delivery of the Series 4 console from LMC's Andy Simmons.

AETTI in the Nineties

The Aetti has taken a quantum leap forward to prepare itself for the next decade which will see it fulfilling its role as the lead body for training in the technical sector of the industry. The Aetti was the first such body to be set up and the recent 'Route to Recognition' conference supported the proposal that other bodies should be set up for managers/administrators and performers/creators.

At a recent Aetti meeting it was decided that if the Initiative was to adhere to its timetable then it could not afford to wait for the establishment of the other bodies although it would give every support.

The New Year will see the Aetti headquartered in London's Cockpit Theatre with an enlarged team. The Initiative has already attracted considerable industrial sponsorship and is now actively seeking further sponsorship to take it through its next stage which is the identification of the occupational standards. The process of inviting designers, stage managers and technicians to join working parties for the occupations for which Aetti is responsible will begin in January. These occupations were identified in a survey earlier this year.

Throughout 1990 the Initiative will consult individuals and organisations to ensure that the standards reflect as much representation as possible and at the end of the year the Initiative will run short courses to test the standards' validity before publishing the outcome of the process as National Standards.

Moving in Japan

The Technical Supply Japan Co., based in Tokyo, have recently moved to much larger and more convenient premises at Shiko Bldg 4F, 2-21-9 Aobadai, Meguro-ku, Tokyo, 153 Japan. The telephone number and fax number are the same as before (Tel 03-791-7501 Fax 03-791-7656).

The company has also opened a branch in Osaka to meet the rapidly increasing business in the west part of Japan, and can be contacted at: Tom Boy Bldg. 2F, 4-6-4 Nishinakajima, Yodogawa-ku, Osaka, 532 Japan.

New USITT Office

The United States Institute for Theatre Technology will be moving its HQ in January to 8-10 West 19th Street, Suite 5-A, New York NY10011.

Searchlights in Europe

Power Light of Basle, Switzerland, have announced that they have ordered a Sky Tracker unit and four Phoebus 2000W Silverbeam searchlights, and that they will be available Europe-wide from February 1990 onwards. Generators are also available as required.

The Silverbeams are equipped with a revolver unit that has speed and angle control, and all are tour packed in flight cases with the necessary cable and ballast. For further information contact Power Light on (61) 7018228, Basle.

Selling Soundcraft

Record order levels in the first few weeks of its launch have produced exciting installation news for the Soundcraft 200 Delta.

Replacing the five-year-old Series 200B, Farras have just finalised the sale of a 16 channel 200 Delta to The Theatre Royal, Windsor and a 32 channel 200 Delta has just been installed by LMC in the main auditorium of Wembley Conference Centre. Here the console has been configured with a combination of Deluxe and Stereo inputs and subgrouping facilities.

Further LMC sales include a 24 channel 200 Delta to the Rock Garden in London, and a second 24 channel console to Eton College, for use in the school's Farrah Theatre (just across the Thames from Windsor Theatre Royal). Documentary Video in Farnborough have ordered a part-filled 24 channel 200 Delta for their new 8 trak post-production suite - a sale completed by London dealer, Raper & Wayman.

Adding to their existing range of Series 4 monitor consoles, leading PA hire company Tasco has just taken delivery of a Series 4 house console, in time for the start of their new year touring season.

The 40-16 console will be used for Cliff Richard's eight week tour of Australia, which begins in January, following the completion of Climie Fisher's three week UK tour. The sale was coordinated by LMC's Andrew Simmons, who recently joined them from Britannia Row. Andrew was previously with Electromusic, where he spent four years as UK sales manager.

ADB
lighting systems
A Siemens Company

"EUROPE" Theatre Range



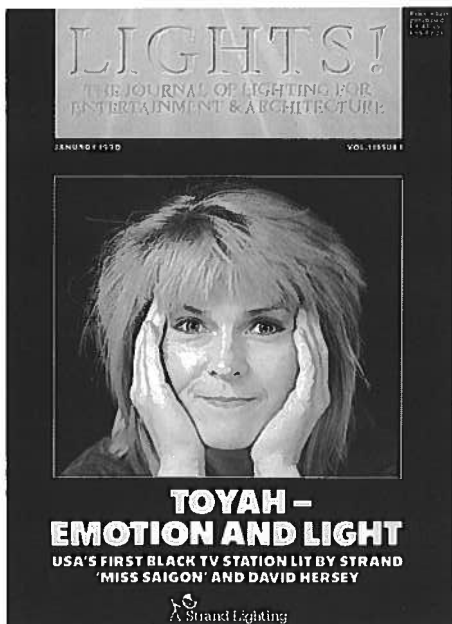
Europe
1000/1200W Fresnel
2000 W



Europe
1000/1200P.C.
2000 W



Europe
1000/1200 W
Zoom Profiles



Strand Launch Lights

A new 16 page full colour magazine has been launched by Strand Lighting. Entitled *Lights!*, the first issue is now available.

Lights! replaces Strand's long-running house journal *Strandlight*, and in addition to being mailed to distributors and lighting designers, it will also be going on general sale at the price of £1.40 per copy (USA \$2.25). It contains a mix of Strand Lighting news and technical data plus interviews with stars and lighting designers and is aimed at both the professional and amateur theatrical markets, television and film lighting designers and technicians, and architectural specifiers.

The launch issue carries interviews with singer and actress Toyah Willcox and lighting designer David Hersey; a special feature on Peter Radmore, lighting and sound technical manager at The National Theatre; a story on Black Entertainment Television; plus the first in a technical series on 'The Meaning of Light'. Further stories cover the lighting of museums and conference centres and the latest products available from Strand - of course!

For more information contact Strand Lighting at Grant Way, Isleworth, Middx TW7 5QD or telephone Marketing on 01-560 3171.

Taking Stock

Eastway Show Services Oy has announced that it has bought the complete stock of Ekku Peltomaki Oy, the well-known production, staging, design and hire operation, and it will trade as Eastway Show Services. The company will be based at Atomitie 5 B, 00377 Helsinki, Finland and can be contacted on (358-0) 503 1022. The staffing remains unaltered. The organisation's new agent in London is LEP International.

Independent Theatre Services

ITS, a totally new name in the industry, was formed in December following the closure of Lee Colortran's operation in Nottingham, and it will continue to provide the same service from the same address. A form of management buy-out, sales and hire manager Richard Atkins told L+SI that the formation of the new operation had been achieved with the aid of backing from a leading security and electronics company in the Nottingham areas.

In addition to design and consultancy, supply and installation of equipment, and maintenance and servicing of existing installations, a comprehensive hire stock enables ITS to provide equipment for both large and small events.

ITS will have an off-the-shelf availability of theatre luminaires, dimming and control (manual and memory), Lee Filter, Rosco scenery paints, lamps, tracks and curtaining, lighting bars, fixing and all the usual bits and pieces - plus a counter and delivery service.

Joining Richard Atkins in the operation are Bob Massey (project and office manager), Chris Scott (senior installation and service engineer) Gary Redfern (installation engineer) and Lucy Chamberlain (office administration). Contact number is (0602) 455520.

Lightfair New York

Lightfair international lighting exposition and conference will take place in New York from April 10-12 this year. The event attracts a large number of lighting designers, interior designers, architects, electrical engineers and end-users plus specifiers, facility managers and building owners.

For more information call (404) 220 2215 in Atlanta, Georgia.

Walker's Complaint

In his capacity as secretary of the PAEG (Pro Audio Exhibitors' Group), SCIF chief executive Ken Walker has written a stiff letter to the Audio Engineering Society in New York complaining about their dismissive response to the PAEG's advice on the clash of the proposed dates for AES Los Angeles 1990 with the already announced dates for the International Broadcast Convention in Brighton, England.

"It's unilateral action in total disregard of any concern for European exhibitors and PAEG's membership can only be considered as contemptuous," he said. "It is regrettable that these actions proliferate a view, held by many, that the AES is run by a haughty committee," he continued.

"The current arrogance visibly demonstrates the urgent necessity for the exhibition administration to be replaced with commercially minded personnel. Since PAEG's desire to collaborate has been ignored, the only recourse is to seek support amongst the AES membership for changes to obtain a more responsive attitude," he concluded.

Summit '90

What music acts fans will be seeing and how acts will be presented on concert and showroom stages over the next decade will be addressed at the 10th Annual Performance Summit Conference when leading touring industry professionals from around the world meet to discuss 'Concert Touring In The 1990s'.

Summit '90 will be held on February 15-18, 1990 at the Radisson Palm Springs Resort in Palm Springs, California, and will attract more than 500 of the industry's top promoters, booking agents, personal managers, facility directors, club owners, production personnel, corporate sponsors and other concert industry companies.

Delegates from across the U.S. and Canada, as well as an international contingent from Great Britain, Europe, Australia, the Orient and South America, will gather for a series of panels and one-on-one meetings to discuss the promotion and production of live shows to overseas productions.

Each year the Summit Conference panels are moderated and manned by top decision-makers such as past attendees Bon Jovi manager Doc McGhee, staging veteran Chip Monck, Beach Boys manager Tom Hulett, New York promoter Ron Delsener and U2's Dennis Sheehan. The professionals who attend and participate at the Summit Conference are directly responsible for the majority of the headline-generating concert tours seen by fans worldwide.

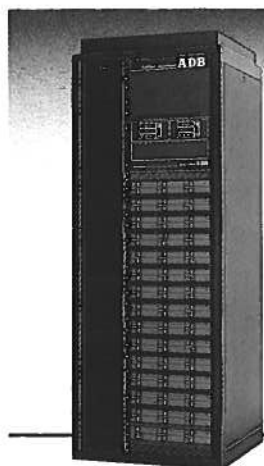
For further details contact Performance Magazine on (817) 338 9444 (USA).



In Memoriam

After struggling with leukemia for the past few years, Leland H. 'Lee' Watson, USITT president 1980-1982, died peacefully in his sleep on Saturday 9 December. A professional lighting designer and professor at Purdue University, Lee Watson had attended the USITT winter meetings in Milwaukee just a few days earlier, having chaired the Awards Committee.

Our picture of him above was taken by L+SI editor John Offord during Showlight 89 in Amsterdam in May.



Fully Digital EURODIM DDD DIMMERS

- dimmer modules as plug-in drawers (2 x 2,5 kVA or 5 kVA)
- up to 90 dimmers per cabinet
- entirely digital electronic control rack : microprocessor functioning
- 2 inputs according to USITT standard DMX512
- several levels of electrical protection
- ventilation regulated by microprocessor
- effective filtering for interference or noise suppression

ADB, Leuvensesteenweg 585, 1930 Zaventem, Belgium
Tel.: +32/2/7221711 - Fax: +32/2/7221764 - Tx: 22154

ADB
lighting systems

A Siemens Company

Vision & Audio 90

The market for audio visual and communications technology is rallying support for the new Vision & Audio '90 Exhibition - a totally new event planned to represent the industry well into the 21st century. With over three months still to go, more than 70 companies are booked into the Exhibition. With an expected 200 participants represented when the show opens at Earl's Court on April 22, it will be the largest specialist event of its kind ever organised in the UK.

Bringing participants from the Audio Visual Exhibition and the International Visual and Communications Exhibition together, the show will attract a number of new exhibitors from leading technology areas representing the high tech end of broadcast and business communications as well as the traditional audio visual market.

Former chairman of IVAC and director of marketing for Hitachi Denshi, Norman Simpson, told L+SI: "The feeling was that we wanted a venue in central London with room to grow, we want more people through the door and a wider cross section of visitors."

"The industry wanted it, our research confirmed it, and we are happy to provide it," said exhibition director Dave Smith. "In April next year London becomes the centre for the international business and communications industry." Major names already supporting Vision and Audio include - Sony, MAR COM, Panasonic, 3M, JVC, Kodak and The Saville Group. For further information contact Kathy Dinning of EMAP Maclaren Exhibitions on 01-660 8008.

Warning Systems

Today there are an increasing number of applications for high power voice and siren systems. Whelen Engineering have been in the business for over 30 years and offer a unique approach to 360 degree sound dispersion. Recently awarded the contract for the civil defence emergency warning system in Denmark, their products are now available in the U.K. exclusively through The Sound Department Limited.

Their WPS-2700 series of omnidirectional warning sirens use a vertical stack of round 'cells' that optimize low frequency warning tones and voice clarity. They project siren warning signals and voice messages that are uniform throughout 360 degrees within one dB of its related sound level performance. They produce outdoor warning signals at sound levels ranging from 112 dBc to 121 dBc at 100', depending upon the number of speaker cells utilized.

Even more powerful is the WPS-4000 System producing 133 degrees at 100' on axis. This device is directional and can be rotated using Whelen's heavy duty rotor which has been tested to a stall speed of 146 miles per hour in wind tunnel tests.

All the range of Whelen systems have sophisticated and innovative support systems from microprocessor based controls, system status maps to solar power options and weather data recorders. And each offers a diagnostic Silent Test to examine and confirm each warning system's operational capabilities. For full details about the product line, contact Steve Smith at The Sound Department Limited on 01-749 2124.

Desert Song

The luxurious Layalty Ballroom and Conference Centre in Jeddah has recently been completed with the help of a Plasa member company. Blending with the ornate interior is a complete JBL Sound System supplied and installed by Harman UK.

This £40,000 installation will provide constant coverage whilst retaining a high degree of flexibility to accommodate the needs of any event. Upon and around a mobile stage are no fewer than eight JBL 4770 full range cabinets and four JBL 4728 floor wedges. The Layalty is spacious enough to demand a further four JBL 4726P delay loudspeakers. All components belong to the JBL Sound Power Series. Amplification is provided by JBL 62 Series amplifiers, electronics by JBL/UREI/ART and system control is achieved through a Soundcraft 500, 24 channel desk.

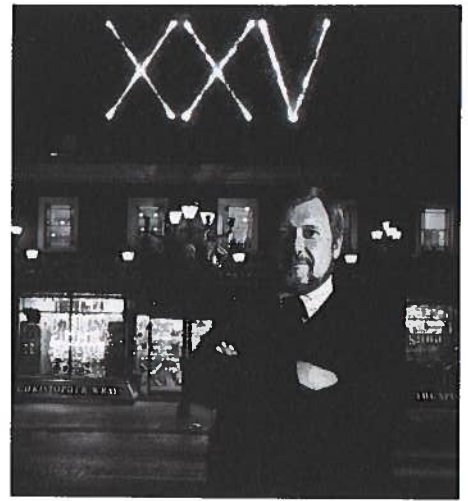
The system will serve a wide selection of events, from traditional Saudi weddings, conferences and business meetings to a large-scale variety of ethnic entertainments.

SEDA 90

Next year will see the 5th SEDA exhibition to be held at the Woodville Halls in Gravesend. Each year the exhibition has grown in content and attendance, and for SEDA 90 the committee told L+SI that they have pulled out all the stops to make sure that this will be the best year yet.

SEDA 90 also sees the increase in the number of stand spaces with more attention being devoted to the upstairs suites and walkways at the venue.

The exhibition takes place on Sunday 3rd June 1990. For more details and an information pack contact Mark Pantony at 359 Sutton Road, Maidstone, Kent ME15 9BU telephone (0622) 670352.



25 Years On

Pictured outside his Lighting Emporium on Kings Road, London, is Christopher Wray, who celebrates 25 years in decorative lighting. He sold his first lamp from a stall in the newly-opened Chelsea Antiques Market in 1964. After two years working alongside such quintessentially sixties figures as Twiggy, Justin de Villeneuve and Dusty Springfield's brother, Wray took a lease on an old Post Office at the bottom end of Kings Road. Quite against expectations he took the first year's rent in a week.

Since then he has built up a network of 11 specialist lighting stores across the British Isles (including the largest centre for quality decorative lighting in Europe) and factories in Birmingham, Wakefield and London, employing over 180 people.

Video Advertising

Over 200 clubs have now indicated a willingness to participate in video advertising with the Sonovision Network and, according to the company, that figure is growing rapidly. Neville Wake told L+SI: "This is definitely going to be the new advertising medium for the nineties. It is also likely to produce a boom in video projection sales as well, because many clubs which have not yet installed video equipment are deciding to do so on the strength of the advertising revenue they will receive."

Suppliers such as Electrosonic are organising attractive package deals and installation. The list of clubs which are in the process of signing agreements with Sonovision is comprehensive to say the least. With advertisers expressing great interest a launch looks set for the new year.


PYROFLASHTM

2-way, 6-way and professional systems

Full range of pyrotechnic effects including specials and 'one offs' to your requirements

Widely recognised reliability and safety

Colour brochure available from



Le Maître
lighting and effects

Le Maître Lighting and Effects Ltd
316 Purley Way, Croydon
Surrey, CR0 4XJ
Telephone: 01-686 9258
Facsimile: 01-680 3743



PROFESSIONAL LIGHTING SALES

- Comprehensive 125p Catalogue
- Open 8.30am - 8.00pm Mon - Fri
- Open 10.00am - 5.00pm Sat
- Tel: 01-703 0011
- Fax: 01-703 8123

Midnight Design (Sales) Ltd
The Arches
Grosvenor Terrace
London SE5 0NP

Spanning the Century

The 88th AES Convention, *Audio from one century to the next*, will be held in Montreux, Switzerland from March 13-16 in the Centre des congrès et expositions. Main sessions include discussion on Microphones, Systems and Measurements, Loudspeaker Systems, Acoustics, Loudspeakers, Recording, History, Digital Audio, Sound Reinforcement, Psychoacoustics and Studio & Broadcasting. In addition, there are numerous workshop sessions.

For further information contact AES headquarters in New York on (212) 661 8528 or the Europe office in Brussels on (2) 345 7971.

War Museum Phase II

The Lighting Design Partnership has announced that it has been appointed by the Imperial War Museum to design the lighting for the second phase of its World War exhibitions. This follows the successful completion by the consultancy of the first phase which opened in June 1989.

Phase two will feature a comprehensive selection of World War I weapons and equipment, and is scheduled to open in June 1990. Lighting Design Partnership will provide a lighting scheme for the entire space, including specifying fixtures and fittings and linking the system into the automatic control system which was developed for the first phase. This system is based on a photocell and a time clock and provides a completely automatic lighting system which requires no manual intervention and adjusts itself according to external light levels.

Because the exhibits require constant temperature and humidity levels the problems associated with lighting a space completely devoid of natural light are exacerbated. LDP is currently exploring a number of possible solutions, including fibre optics which were used extensively in the World War II showcases with excellent results.

French Connection

Portsmouth City Council and Hampshire Development Association representatives received a warm welcome from their Normandy counterparts when they accompanied Portchester-based Connect Lighting Systems Ltd. for the launch celebrations of the company's new factory in Caen.

Having flown from Eastleigh to Caen, the Connect party was greeted by more than 100 French guests at the Cormelles-le-Royal industrial estate site where the 31,000 sq.ft. factory and office building is being erected. The foundation stone-laying ceremony was conducted by Richard Smith, chairman of the Connect company, which specialises in the design and manufacture of low energy lighting systems. He was assisted by Michel d'Ornano, President of the General Council of Calvados and the Lower Normandy Economic Expansion Committee.

Connect's establishment is designed to increase its capacity and product range, with the additional benefit of better access to the French and European markets. This fast-growing company already has export orders from Holland, Germany and Scandinavia. Directed from the UK, the new £700,000 hi-tech factory is due to open in April next year and will employ about 150 French personnel.

ARK LIGHT

THEATRE LANTERN
RESTORATION

COLOUR MATCHING TO DECOR
SPARES, T/H KITS

2 Partridge Close, Upper Bruntingthorpe,
Leicestershire LE17 5QY.

Tel: (0533) 478336

SC Plus



Saber

Scepter

Studio 12

SR Plus

Sigma

SC Plus

PA/Theatre Systems

16, 24 and 32 input versions with four subgroups, stereo and mono outputs. The optional Matrix, previously not available in this price range, provides an additional 4 outputs.

Recording Systems

16, 24 and 32 input versions with 4 subgroups, stereo and mono outputs for 4 and 8-track recording.

All SC Plus consoles feature:

- Modular construction
- 6 bus routing
- 4 auxiliary sends
- **Choice of 3 Input Modules :**
 - Fixed frequency EQ mic/line input
 - Sweep frequency EQ mic/line input
 - Stereo input with remote control
- Excellent audio performance
- High quality appearance and finish
- High reliability and technical support



SC Plus Matrix controls,
-the key to advanced live
sound mixing.

**SR Plus, SC Plus, Scepter,
SRM and Saber - the live
sound consoles from...**

...the total sound spectrum.



Allen & Heath
UK 69 Ship Street, Brighton, BN1 1AE, England.
Tel: (0273) 23346 Fax: (0273) 821767
USA 5 Connair Road, Orange, Connecticut 06477, USA
Tel: (203) 795 3594 Fax: (203) 795 6814

**ALLEN
&
HEATH**

Celestion Expand

Celestion International, the Ipswich-based loudspeaker chassis and enclosure manufacturer has increased its production workforce by 53% during the last 12 months.

An expanded research and development programme has resulted in more new products to sell and according to Celestion chairman Gordon Provan, his sales team has risen to the challenge in spectacular fashion. "We've had to continue expanding our production capability just to cope with increased orders," Provan told L+SI.

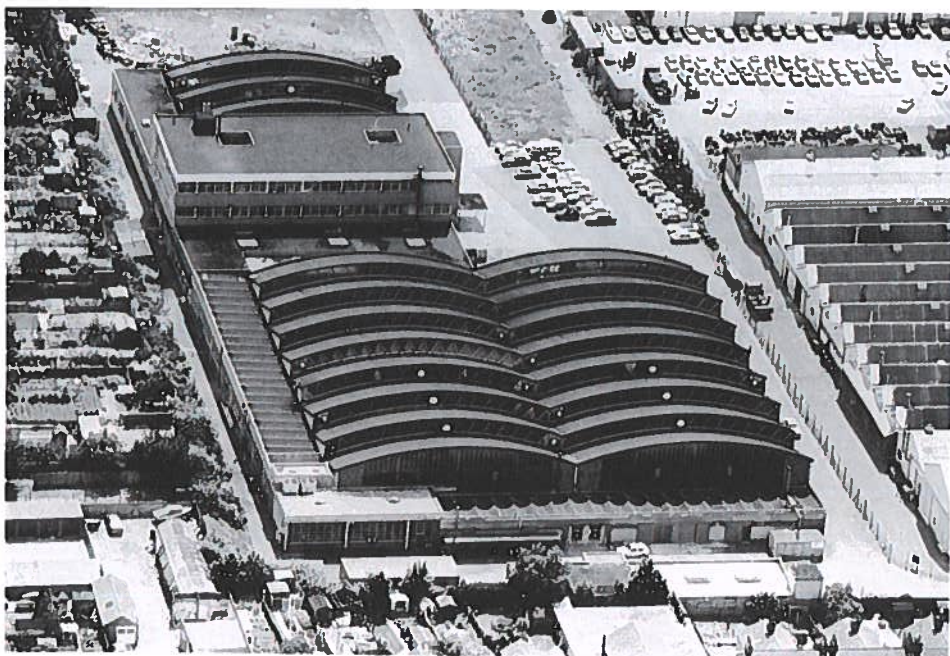
Hands-On at R&W

In April last year Raper & Wayman moved into their new, larger premises in North London and towards the end of the year they opened their new purpose-built, fully air conditioned demonstration rooms which have been equipped with an array of the latest studio equipment.

In the main room, mixing desks from six channel up to forty, recorders from two track to twenty-four, synchronisable DAT, hard disk recording, DASH in the very near future, synchronisers, cassette machines - are all available for hands-on appraisal. And, given a few hours notice, R&W will arrange for potential customers to try out specific items or systems that are not already up and running.

Expert guidance is always on hand, say R&W but, if preferred, clients will be left to evaluate the equipment alone.

In a second room R&W have installed KFA's 'The Box' to provide an acoustically sealed listening area for auditioning monitor loudspeakers, amplifiers, microphones and effects units in the best possible conditions. Of course it is also an excellent demonstration of the effectiveness of this modular, self-contained, acoustic structure itself which is also available through R&W. All the new R&W facilities are offered in addition to their installation services, equipment hire and service department.



Celestion International headquarters at Ipswich.

HH Services

Owners of HH products needing replacement speakers and those looking for new speakers for self-built enclosures can now obtain fast delivery on the complete range of HH Acoustics loudspeakers and compression drivers from all HH dealers under a new arrangement just announced by the company.

Production of the complete HH speaker and driver range is now fully under way at the company's new Cradley Heath factory and both the entire range of HH units, as well as re-cone kits for all applications, are available now from HH

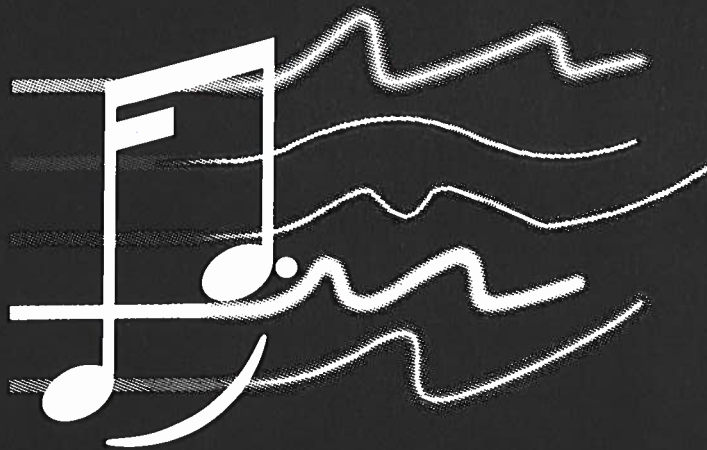
dealers. Along with this new service a new distributor has been announced for HH Professional products in Northern Ireland: Crymbles of Dublin Road, Belfast telephone (0232) 326818.

New Rosco Stockists

Since moving to their new premises in June last year, White Light North have been appointed the major stockist for Rosco Products in the North of England. The company will carry the range of Supergel, fog machines and fluids and all the usual sundries.

MUSIC
MUSIC
FRANKFURT

"Let's go."



To the International Music Fair Frankfurt '90. To find out what's happening and to place orders. Six stirring days of music: setting the tone for the trends of the 90s. With over 900 exhibitors from more than

Trade days:
21st-23rd March and 26th March 1990

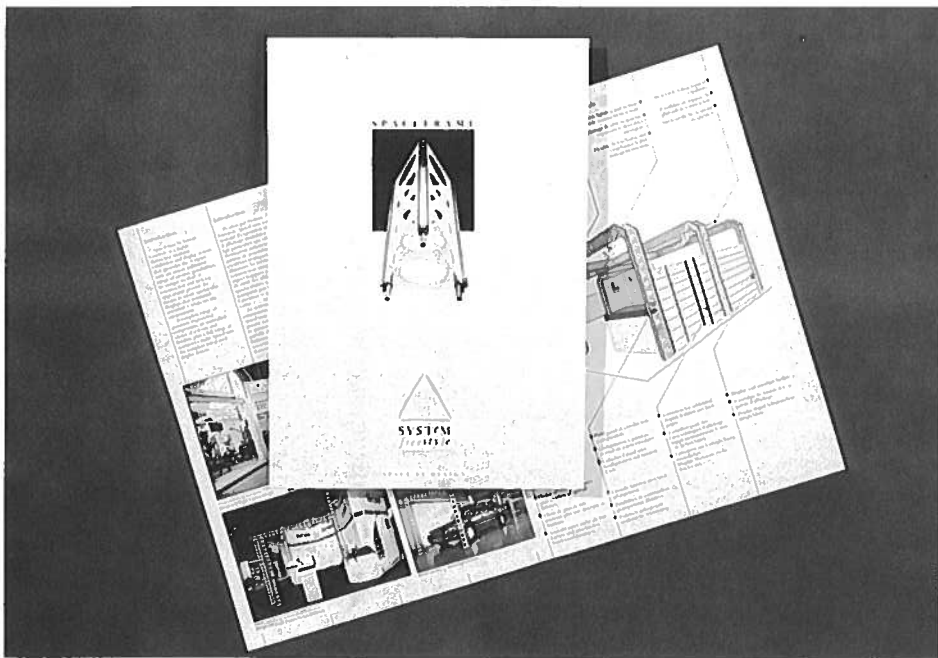
30 countries. With new products to try out from all over the world, prominent professionals to talk shop with and amazing technology. With old-timers and newcomers, tips and trends, notes and acces-

Open days:
24th and 25th March 1990

sories. There will also be workshops to take part in, concerts to inspire you and a thousand other good reasons for coming. So let's go!

 Messe
Frankfurt

Fair and travel information, admission tickets: Messe Frankfurt, U.K. Representation, Collins & Endres, 18 Golden Square, London W1R 3AG, Tel.: 01-73 40 543, Telefax: 01734 4024



System Freestyle

A helpful addition to any exhibition stand designer's desk is the full colour brochure just produced by System Freestyle Limited. Featuring their highly distinctive modular SpaceFrame display and exhibition system, which is available for sale or hire, the brochure is carefully designed to provide complete technical information on the range of precision engineered components and

the simple method of assembly.

Essential data on the load-bearing capabilities and tensile strengths are all clearly shown with photographs and drawings emphasising the versatility of the system to produce spectacular and creative displays.

Looking forward to 1992, with all the possibilities in Europe and beyond, System Freestyle's new SpaceFrame brochure is printed in three languages.

BBC On Automatic

The first Automatic Announcement system, designed and built especially to suit the BBC World Service requirements, has now been installed in the Ascension Islands transmitter station.

MANUFACTURED BY

Doughty Engineering Limited
 Crow Arch Lane, Ringwood, Hants BH24 1NZ
 Telephone: (0425) 478961 Fax: (0425) 474481

Ferroglyph carried out all the software and hardware design work to interface the digital equipment with the BBC control systems at their transmitter stations. This will allow audio to be automatically selected at random from the pre-recorded Digital Audio Cartridges and routed to any one of a number of transmitters at pre-determined times, all under the control of the systems microprocessor. New announcements can be recorded unmanned via satellite and duplicate disks prepared on the system after editing on the built-in terminal.

Each system incorporates several Model 9500 Digital Disk Recorders, microprocessor controller, 16 x 4 channel audio matrix, disk copying unit and special interfacing circuitry.

Ferroglyph have since built a second such system for installation in the Mediterranean, also for the BBC World Service.

The BBC are the first broadcaster to utilise the Ferroglyph Series 9 digital technology in this way, and Ferroglyph are confident that further orders for systems in other areas will be forthcoming.

Compact Contract

Compact Audio, the Yorkshire-based sound hire and installation company, provided a 4K Bose system at the recent Guardian sponsored I.P.M. Conference at the Crown Hotel, Harrogate. The system comprised of 302's, 802's, Carver amps and a Soundcraft 200B desk. Providing the cabaret for the evening were the Drifters and Bob Monkhouse.

All in a Name

The last time Richard Lockyer changed his name was in 1972. Then it was to Audio Visual Systems, Halifax, and as from 1 January 1990 it will be The Sound Workshop.

"So much about our business has changed over the years," Lockyer told L+SI, "that we wanted something more in line with our current activities and our future plans. We specialise in depth in working with sound, offering design, installation, customising and maintenance, and we sell our work - hence the name."

The Sound Workshop operates nationwide and overseas, supplies both entertainment-based and communications systems, and offers a full and up-to-the-minute portfolio of all leading equipment brands, independently and individually selected for each project.

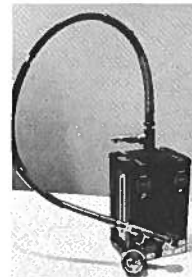
New Strand MD



The Rank Organisation has announced that as from 8th January 1990, Christopher Waldron, aged 46, formerly responsible for Rank Taylor Hobson, has been appointed managing director of Strand Lighting Limited. In this capacity he will be responsible for Strand's operations in the UK, France, Germany, Italy, Hong Kong and Australia. He succeeds Oliver Hartree who retired on 31st December 1989.

A & B THEATRE SERVICES

Specialists in Technical Theatre



Sole Distributors of the **Mini Dry Ice Box** Dry Ice Making Machine to the entertainment industry throughout the UK and Europe.

ABTT 'Product of the Year' 1989

Consultants for theatrical installations, refurbishments, local council venues, schools and theatres.

Manufacturers of internally wired bars and patchfields to order.

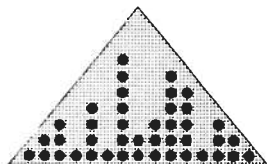
Suppliers of: Eltec, CCT, and Zero 88 equipment.

A & B THEATRE SERVICES
 4 Norwich Road, Wheatley Park, Doncaster DN2 4ED

Tel: (0302) 364808

▶ **CONTRACTING:** STADIUMS · FOOTBALL GROUNDS · CONCERT HALLS · CHURCHES · CLUBS · CONFERENCE CENTRES · DISCOS · THEATRES · TURNKEY TOURING SOUND SYSTEMS · CONSULTANCY FOR ALL SOUND REINFORCEMENT APPLICATIONS **DESIGN:** CUSTOM PATCHBAY SYSTEMS · ANY SPECIAL APPLICATIONS · TOURING MAINS DISTRIBUTION **HIRE:** CASUAL TO FULL INTERNATIONAL TOURING SERVICES TOUR SUPPORT · BROADCASTING INTERFACE **SALES:** AMCRON · HH · MEYER SOUND · YAMAHA · BSS · SOUNDRAFT · KLARK TEKNIK · DDA · NEXO · DRAWNER · AKG · SENNHEISER · AMPERTRONIC · KLOTZ · SWITCHCRAFT · EDAC · KORG · MARTIN AUDIO · ELECTROVOICE · SAMSON · DENON · EMO · BEYER DYNAMIC · SHURE · TAC · ASL · RCF · BOSE · CALREC · ALLEN & HEATH · ATC · TECHPRO · ALTEC C-DUCER · JBL · AUDIO TECHNICA · NEUMAN FORMULA SOUND · REVOX ALESIS · APHEX · TANNY · SHERMAN AUDIO · T.C. ELECTRONICS

SOUND SPECIALISTS



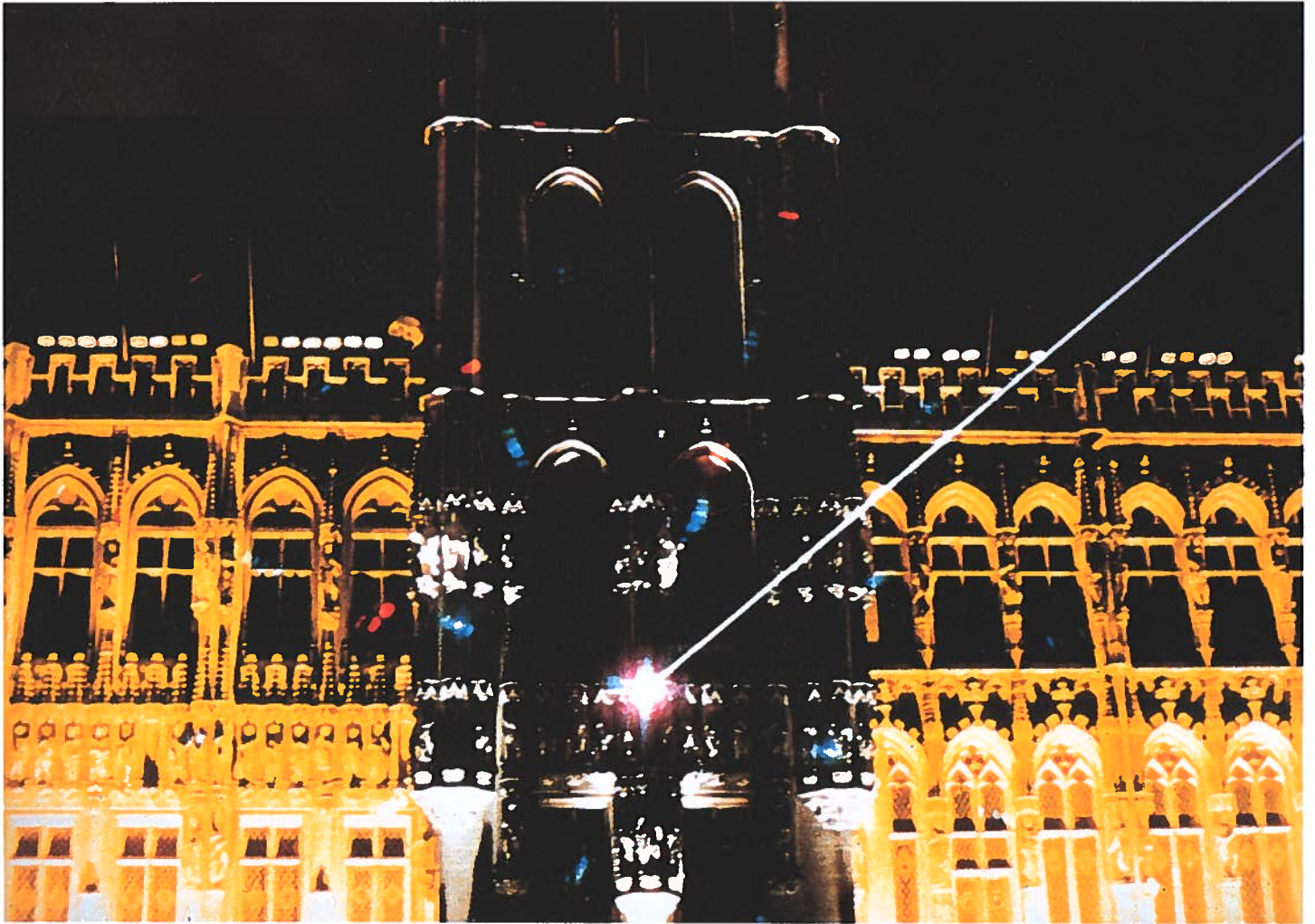
Wigwam

PHONE FOR A CATALOGUE

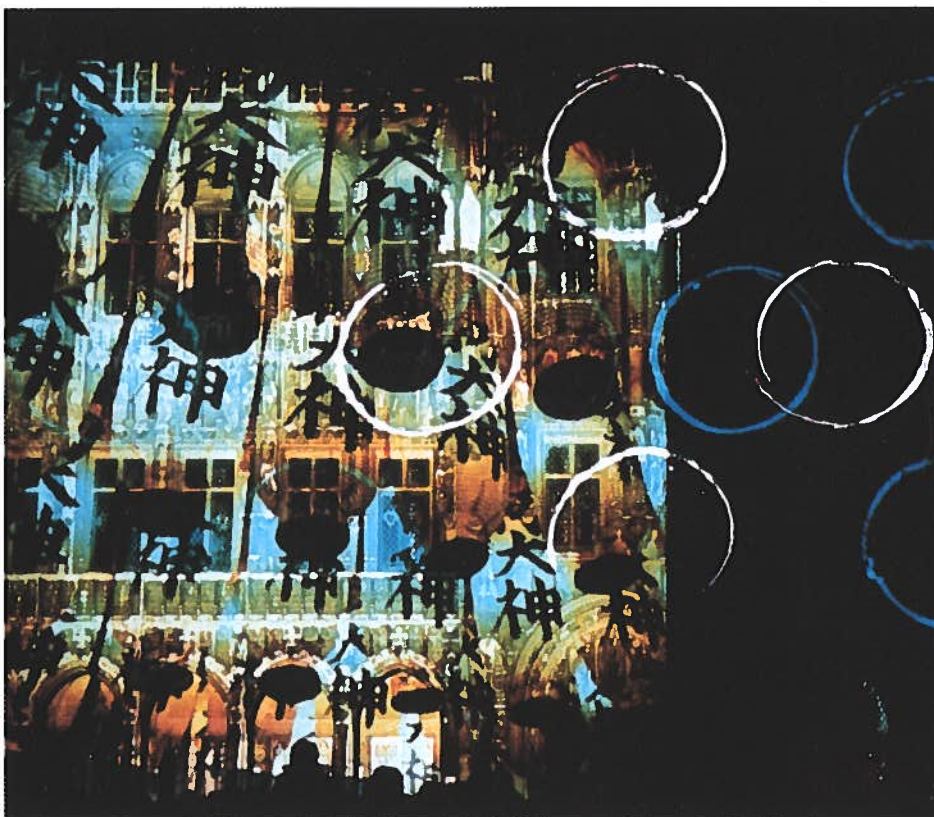
St. Annas House, Ryecroft Ave., Heywood, Greater Manchester O110 0QB
 Telephone: 0706 68766

JAPAN IN EUROPE

Motoko Ishii's laser art in Brussels and Vienna



Above and below: two scenes from 'Japan in Belgium' on the facade of the Hotel de Ville, Brussels.



Motoko Ishii

Lighting designer Motoko Ishii has pioneered a broad range of lighting projects, from urban scenic lighting to art performances, utilising lasers, fibre optics and light-emitting diodes, and is actively managing projects around the world in Europe, the USA, the Middle East, Australia and South East Asia. She has received awards in three consecutive years from the Illuminating Engineering Society of North America including the Edwin F. Cuth Memorial Award of Excellence.

Her major works include a laser performance at the Theme Pavilion of Tsukuba Expo '85, lighting-up the Tokyo Tower in Japan, lighting for Northwestern National Life Insurance Company (USA), the Royal Reception Pavilion of New Jeddah International Airport in Saudi Arabia, the Hong Kong Convention & Exhibition Centre, the Pan Pacific Hotel Singapore, and numerous other projects.

Japanese lighting designer Motoko Ishii works out of Tokyo, but her large scale laser art performances have been seen worldwide. This autumn she accepted commissions for two major projects in Europe.

For 'Europalia 89' in Brussels, in no less a venue than the Grand Place - 'the most beautiful square in Europe' - Japan in Belgium was a light composition using radiant beams of red, green and blue combined with huge images from Japanese history and life projected on to the Hotel de Ville. The aim was to introduce the culture of the 'new' Japan.

At the Rathausplatz (City Hall Square) in Vienna, the 120th anniversary of diplomatic relations between Japan and Austria was the excuse for another vibrant Japanese cultural message using the same laser and big projection techniques - and with Ludwig Pani just around the corner, the projections have to be particularly sharp in this city.

Both productions relied on 20W argon and a 4.6W krypton laser coupled with two Pani BP6 Gold projectors in Brussels and four in Vienna. Architectural lighting set the scene, and the original music scores were from Yoshitaka Azuma.

"We attempted a composition of European and Japanese images of lights, which resulted in a quite new style of performance," Motoko Ishii told L+SI, "and each performance was intended to introduce Japanese culture to Europe."

Credits

Production & Design: Motoko Ishii and Motoko Ishii Lighting Design Inc.

Laser Operation: Laser Ten

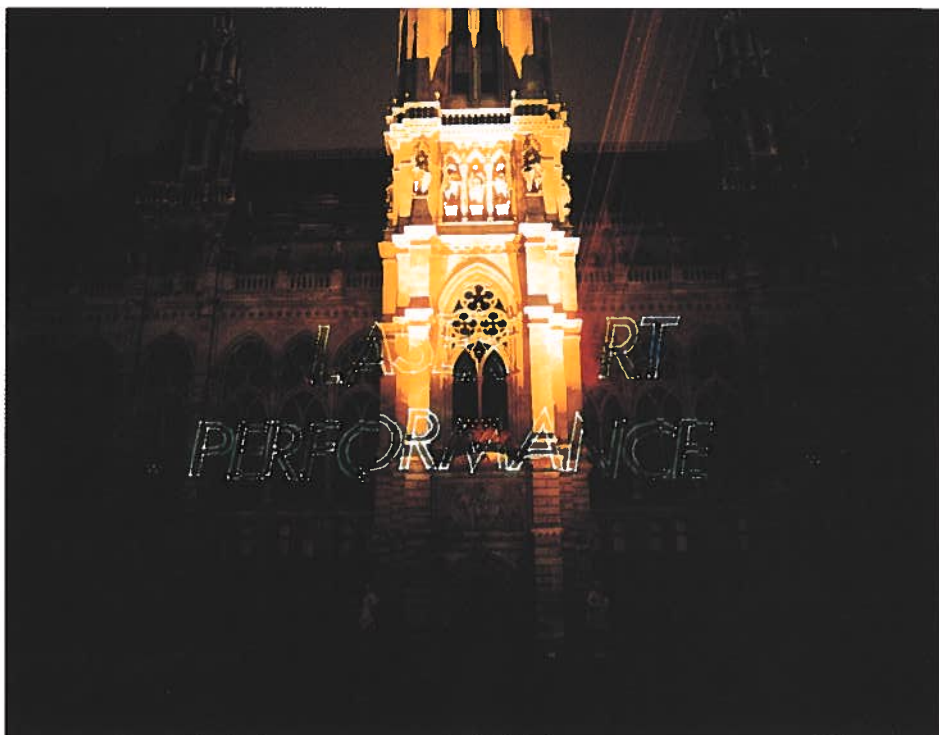
Technical Co-ordination:

Sonology SA, Belgium (not Vienna)

Eclatec SA, France

Spectra-Physics GmbH, West Germany

Ludwig Pani, Austria



Above and below: the production in Vienna, and (right, above) Motoko Ishii with her Brussels team.





**Professional lighting
suppliers for Entertainment,
Leisure and the Arts**

Jeff Demain, Sales Manager
tel: (0204) 364139

A MANIFESTO FOR THE NINETIES

David Neale with thoughts on the future
from new PLASA Chairman Kevin Hopcroft



Kevin Hopcroft: PLASA chairman and managing director of NJD Electronics of Nottingham.

"I think Peter Brooks will be a hard act to follow," was PLASA's newly elected chairman Kevin Hopcroft's initial response when speaking to L+SI for the first time on his new appointment. "I have the greatest respect for Peter and I'm very relieved he is staying on the committee so I can tap into his massive library of knowledge. Peter and I have a very good working relationship, but we are very different people, and because of this PLASA is bound to change. Hopefully it will change in a way that will please the membership, and I have some very firm ideas in which direction I would like to see PLASA to go during my term of office."

In his other 'full-time' job, Kevin Hopcroft is MD of NJD. He first became involved in the entertainment business as far back as 1967 and like many others who now run companies in the lighting and sound industry he ran a successful disc jockey agency that, at its height, had 30 DJ's doing 400 bookings a month. "We found that there was a demand for equipment," he said, "so we formed NJD Electronics." And the rest, as they say, is history.

NJD first became a member of PLASA in 1982. By 1987 Hopcroft had been elected to the executive committee, and he became treasurer in 1989. He takes on the mantle of chairman at a time when the Association is in a state of change; not only does it have a new chairman and treasurer, the latter being Marion Smith of Starlight Design, but it is also involved in restructuring after its transfer to a limited company on January 1st of this year, with John Offord taking on the role as acting chief executive to see the changes through.

"PLASA is growing at such a phenomenal rate that the internal systems we've initiated

are almost impracticable before we implement them," he continued. "On the committee we discuss the organisation of the Association and the role of the Eastbourne office, and before we can actually get the situation up and running it tends to be obsolete. One example of this was the first computer that PLASA bought. One year we think we need a computer, only a little one. The next year it's totally incapable of doing the job - that is, of dealing with an Association that is growing at 50% per year. Not only is its turnover growing, but also the membership. The amount of work that is put upon the system means that we have to continually upgrade the internal operation."

A year as PLASA treasurer has not been wasted on Hopcroft who takes a very forward thinking approach. But, even in this respect he remains a realist: "We try to look ahead, but how far ahead can you look? Often you don't see what's just around the corner. Some interesting things came up at the LDI show in Nashville recently.

"We are now getting very serious requests from American companies to join PLASA even though the Association is not set up for overseas membership. Clearly, the rest of the world can see where PLASA is going, and if you're going to be growing with the light and sound industry you've got to be associated with PLASA."

Kevin Hopcroft certainly has a vision of what the Association is capable of during his term at the helm. From this premise, he went on to explain his manifesto.

On the basic structure of PLASA he is unequivocal. "I want to spread PLASA's base. I want to get as far away from BADEM (original name of association) as I can and I

want to widen people's views of what professional sound and lighting is. It is not just discotheque or theatre to me. If you put a sound system into a supermarket that's not domestic it's professional. This applies to paging systems, cinemas, airports - they're all being used for financial gain. That's the direction I want to try and broaden PLASA into. I don't want people to think that the Association purely represents the discotheque operator."

Hopcroft believes that PLASA is winning the battle. Theatre companies are now joining in numbers, and he hopes that film and television companies will find it worthwhile joining the Association in the future. But he hasn't lost sight of the present. Referring to the Sound 89 exhibition held at Heathrow in February last year, his view was that the professional sound companies in attendance would benefit from wider audiences. "I went around it in an hour and the visitors are a fraction of what we get at Olympia. This is the way I want to spread the Association."

Before members start to envisage an Association which, on the basis of a company 'claiming' to be professional, will welcome them with open arms they will have to think again. Hopcroft believes the PLASA symbol must be earned.

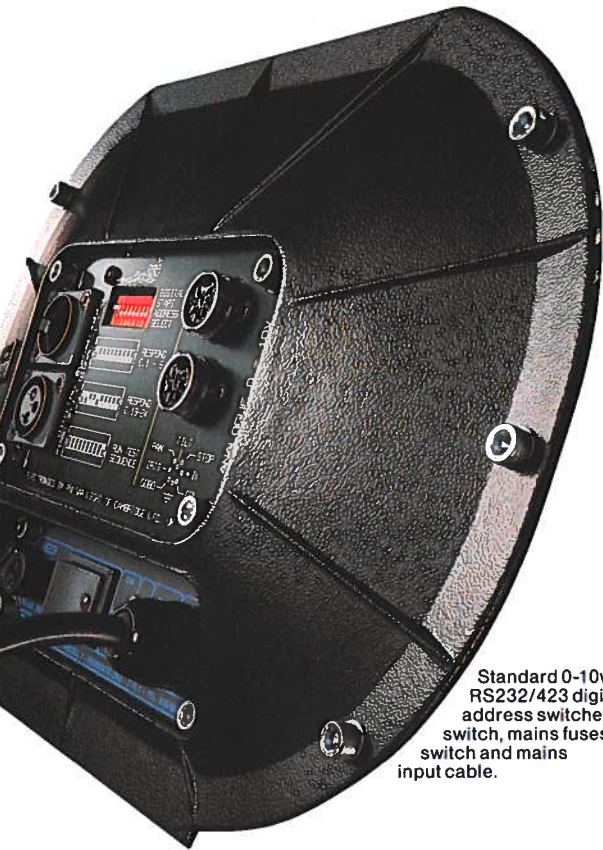
"I don't think I'm going to be popular on this next one," he said, outlining his second major point. "I want to set standards. I don't mean standards that the membership work towards, but standards that a company should achieve before becoming part of the Association."

"I think that anyone who employs or buys a piece of equipment manufactured or supplied by a member of PLASA should expect a high standard. They should feel confident that the equipment will be serviced, that it's safe, that the person who supplied it - say a retail shop - will be able to mend it if it goes wrong, is reasonably financially stable, and finally that he'll still be operating in six months time before the guarantee runs out! I do feel that we should set down criteria that will enable PLASA to judge whether a person is fit to become a member. That's tough, but it also means that companies can then be proud to say: 'look I've achieved this, I'm a member of PLASA'."

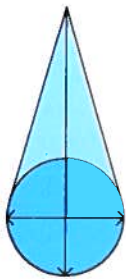
He also intends to try and instigate a system of certification, whereby members would receive a certificate as an approved member of the Professional Lighting and Sound Association, which would be renewed each year. It's a way of saying that a company is an approved member and conforms to the Association's standards.

To achieve these high ideals Hopcroft wants to see the Association writing a code of practice which would be available to companies wishing to join. "As you may know, PLASA has been researching standards for a number of years, and we are now working in conjunction with BSI on this mammoth task. I'd like to see PLASA eventually viewed in the same light as the N.I.C. (National Inspection Council). So, if someone has a job done by a PLASA member they know it's been done to a certain standard, and PLASA could

GOLDEN SCAN: beautiful



Standard 0-10v analogue input, RS232/423 digital input, digital address switches, self test switch, mains fuses, mains switch and mains input cable.



A very bright, sharp, evenly-distributed projected image is obtained from the high-definition optics.



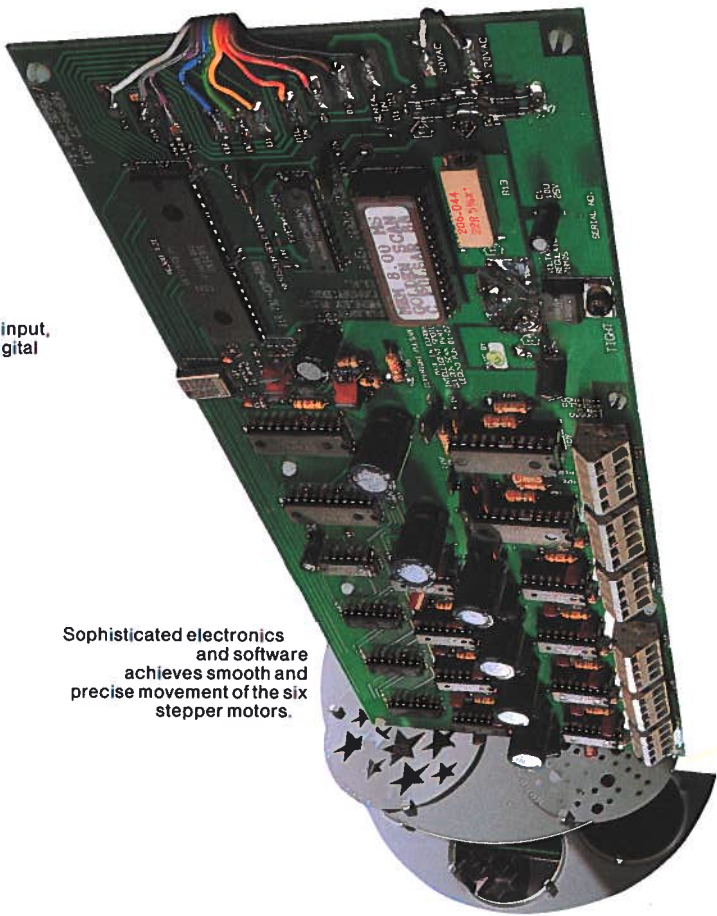
Cod. OSKA/01 - Computer Oska controller: its 512 channels can control up to 85 Golden Scans independently.



Cod. MOD/07 - 6 Channel Control desk: Used for the manual control of all the Golden Scan movements.



Cod. G.S.C.C./01 Golden Scan Computer Controller: its 120 channels can control up to 20 Golden Scans independently.



Sophisticated electronics and software achieves smooth and precise movement of the six stepper motors.

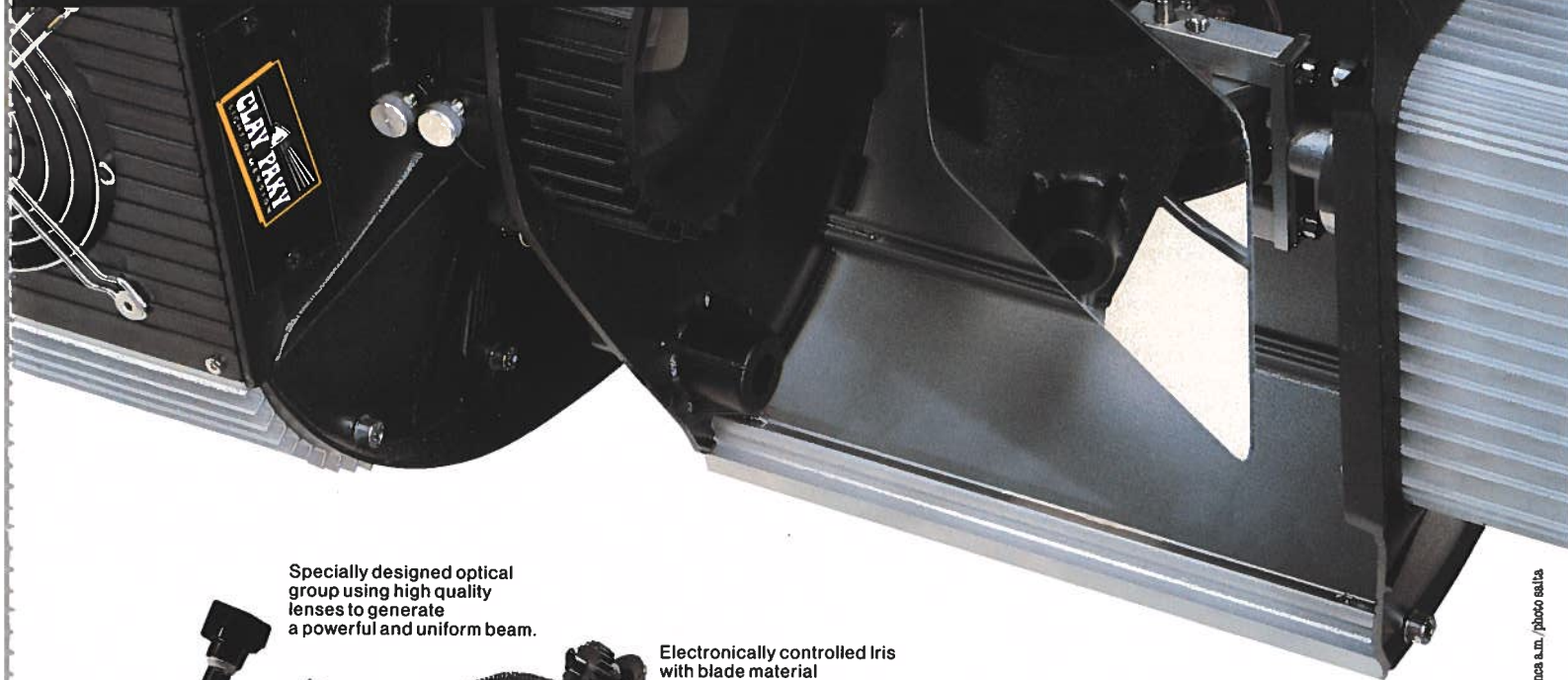
GOLDEN SCAN: the absolute winner!



CLAY PAKY^{Srl}
PROJECTORS AND LIGHT EFFECTS FOR DISCOTHEQUES
Via G. Pascoli, 1 - 24066 PEDRENGO (Bergamo) Italy
Tel. 035/663965
Telex 305242 CLAYPA I - Fax 035/665976

PULSAR Pulsar Light of Cambridge
Henley Road, Cambridge, CB1 3EA - Tel. 0223/66798 - Tx 81697

and intelligent.



Specially designed optical group using high quality lenses to generate a powerful and uniform beam.

Electronically controlled Iris with blade material chosen for its mechanical and thermal durability.

High definition focussing lens. Wide angle option available.

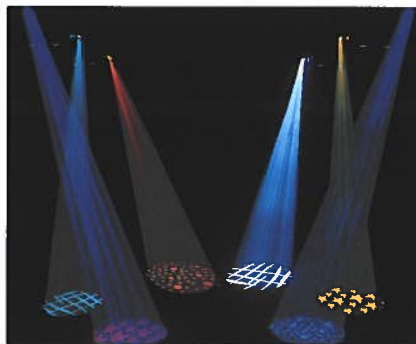
Strobe mechanism with variable speed.

Very bright, high efficiency, HMI discharge lamp. The 575 watt version gives 49,000 lumens, the 1200 watt 110,000 lumens.

Gobo disc with three easily-changed gobos + white.

Colour wheel: six colours; White plus five dichroic filters (Red, Yellow, Green, Blue, Violet) selected for colour uniformity and consistency.

Mirror head. Controlled via the central microprocessor to give fast, precise, high resolution beam movement.



have the right to inspect, if they wished, any work completed."

At this juncture he produced another one of his manifesto ideas - arbitration! Just when we thought it was safe to write off all his ideas as 'jolly fine in principle but you just try and put them into practice', he comes up with a (relatively) simple solution. Arbitration - why not? Hopcroft's view is this: "If a customer has a dispute with a PLASA member that customer can request to go to PLASA with it. Equally, if a PLASA member has a dispute with another PLASA member the two can decide to go to approach the Association to act as arbitrator. And part of the code of working practices, and the standard which we would expect a new member to agree to, is that they would accept the findings of the PLASA committee. And that would be one of the conditions of joining."

Hopcroft was at pains to point out that these were solely his own thoughts. They have to be put before the committee where he may well be shot down in flames. He continued: "But these are what I'd like to achieve - I have to have a goal."

"The next thing I want to do is to take a close look at the voting methods used to appoint members of the committee. I don't want to appoint any more committee members, and I don't want to change the number of votes allowed, but I want to see if we can segregate the different types of member on the committee. For instance into sound, lighting, theatre, television, etc, so that when a person is retiring, by rotation or decides to leave the committee, a vote is made for another television person, or another theatre person. I want to ensure we don't finish up with a committee full of lighting people or a committee full of discotheque people. We're presently taking membership fees off retailers and we don't have a retailer on the committee."

"So, if you take the recent situation we faced where we were voting for five new committee members, I would have liked to break them down into categories, with an instruction on the voting sheet to place a vote in each section. That way we could keep an even spread and an even view across the committee. The problem with the Association at present is that for historical reasons it tends to be disco-biased. The majority of member companies involved in it are, one way or another, in disco related markets, so that the majority of votes coming in from the membership reflects this. If we're going to spread we have got to get those disco people to vote for theatre people. You tend to vote for people you know and that is not always good for PLASA if we are going to appeal to the industry as a whole. So I'd like the voting system to be reassessed. Again it's an idea I have to put before the committee, and hopefully they will like it. I think we have all been in unison over this in the past. We want to extend the appeal of the committee, and to give it a broader base. It's impossible to do that when everybody is voting for the same little niche. I'm actually a disco person. My company is 99% disco orientated, so I'm actually weakening my own stance within the Association, but I see that as the right thing to do."

"Secondly I'd like to change the sub-committee situation. We have at present a system which enables the committee to appoint sub-committees. We have sub-committees from sound, lighting and standards, and these are usually made up of other members of the executive committee. I would like to change that so that only the



Retiring PLASA chairman Peter Brooks (right) receives a 'going away' present from Kevin Hopcroft.

chairman of the sub-committee is a member of the executive committee, with the others on it being co-opted from the membership. This would allow a much wider approach to what we should do, and we would not keep getting the opinions of the same nine all the time. I've got a note here which is not all my idea. John Offord has put this together, and he sees nine sub-committees - standards and technical, membership and training, manufacturing and export, retail and sales, public relations, sound, lighting, magazine and exhibition. I think it's a good spread, and hopefully we'll develop the idea from there."

All of this is part of Kevin Hopcroft's vision of getting more and more members involved in the Association. Like many others, he feels that in the past members have come together once a year at the AGM and only had three hours to precis a year's work. His opinion is that if you were to put everything down that occurs during a year, bearing in mind that each committee lasts four to five hours every month, you'd need a week for the AGM.

"To go back to what I was saying about giving the Association a wider spread I would like to include overseas members in two ways. If a non UK-based distributor is handling a PLASA member's product then I would like to make it possible for that distributor to become an overseas member. And if a British member is handling a foreign manufacturer's product in the UK then again that manufacturer could become an overseas member. It's still advantageous to the British membership; either our product is being sold abroad or their product is being sold in England. That way we don't fall into the trap of saying that PLASA is no longer protecting British industry by letting the foreigners in. We're letting the foreigners in who are helping the British industry. I hope we will set up an overseas membership, not quite the same as the British membership - it would be like being an associate member."

Another area which has been keeping Kevin Hopcroft busy is what PLASA should do when visiting overseas exhibitions. The present form is to produce an A4 information sheet listing PLASA members - Hopcroft feels this is an opportunity missed. He believes that a PLASA datafile would be more effective. Each member company would be invited to supply one A4 sheet promoting their company. This would give large and small companies an equal oppor-

tunity to promote their services to a world market.

"A lot of our members cannot afford to go to these overseas exhibitions but they pay their subscription - so what can we give them?" he continued. "They are paying for the same proportion of the PLASA stand as the larger companies. There are certain companies who rarely exhibit overseas, for instance, Mushroom Lighting. Paul Butler has a very successful hire business which hires rigging and lighting - and no way are you going to take a load of bare rigging abroad - but there could well be a company in Germany, for instance, looking for someone like Mushroom."

"The last thing I want to aim for - again a little ambitious, but I hope it will be approved - is, by the end of my term of office, to be able to pay the committee. I've firmly felt that ever since I got on the committee that they ought to be paid, that people work best when they are being paid for what they're doing, and that they work with more enthusiasm and commitment. I've now experienced it first hand. It was bad enough when I was a committee member and I drove all the way down from Nottingham to London and back again, at my own expense, to sit for four or five hours. When I became treasurer that four or five hours a month became anything up to 20 hours a week. It's not so bad now that I've got the job sorted - but at first it was a real nightmare, and you do begin to resent it. Your own business demands your time, and that is paying you, and your co-directors are noticing that you're not spending as much time on things. I now feel that with the amount of time and effort the committee members put in, that they should be paid. It's up to me and the new treasurer to see that the Association can afford to pay them, and I don't see this happening overnight. For example, I've been treasurer for the last year and not proposed it because I knew the financial situation wasn't right. It's not something that can be done without proper thought, but at least we could begin to look at paying expenses."

With a manifesto such as this Kevin Hopcroft is obviously not looking for a quiet term as chairman. At the start of a new decade, and with a new team to work with, one can only speculate as to the outcome. But with a fair wind and the right breaks, as the old song says 'there's going to be some changes made'.

**DISCO
& CLUB**
TRADE INTERNATIONAL

19

POLL AWARDS

Lighting Effect

AWARD
Presented to

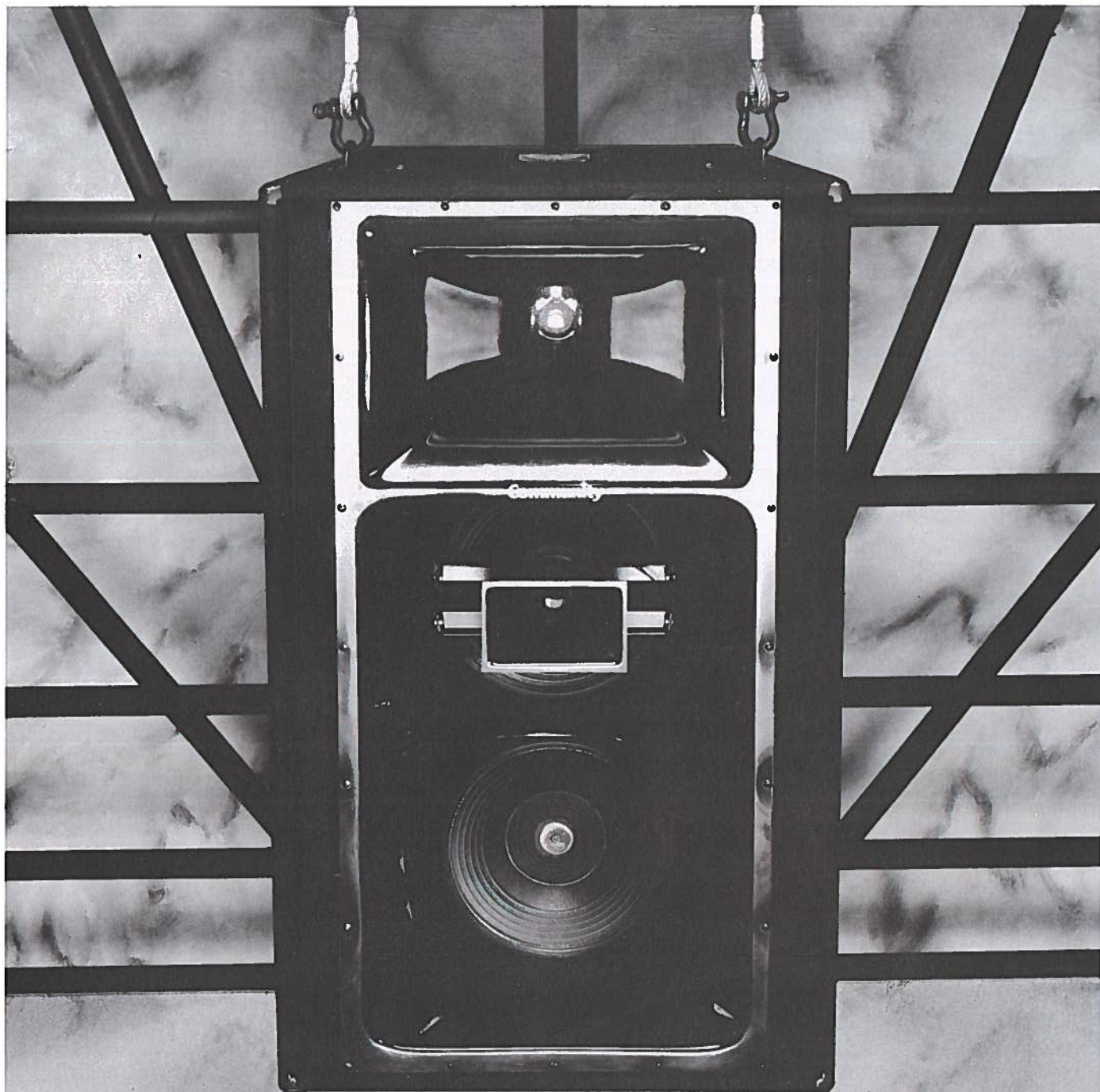
Clay Paky
for the

Golden Scan

International voice of



CLAY PAKY SRL Projectors and light effects for discotheques
24066 PEDRENGO (BG) Italy - Via G. Pascoli, 1 - Tel. 035/663965 - Fax (0)35/665976 - Telex 305242 CLAYPA I



Puts the others in perspective . . .
Community's new RS880 loudspeaker system*



Community's UK distributor:

The Sound Department Limited · Askew Crescent Workshops · Askew Crescent · London W12 9DP

Tel: 01 749 2124

Fax: 01 749 8789

* 3 WAY WAVEFRONT COHERENT, HORN LOADED SYSTEM · OPERATING RANGE 45Hz-18kHz · SENSITIVITY 107db 1w/1m.
POWER HANDLING - 400w PINK NOISE 1000w PROGRAMME. TRAPEZOIDAL ENCLOSURE WITH FLYING OPTION

HANSEL & GRETEL: A COLISEUM CHRISTMAS

Julian Williams and a seasonal tale from lighting designer Chris Ellis



English National Opera: Hansel and Gretel discover the Ginger House.

Christmas comes but once a year, and it's the time when dedicated shows come back again all over the land, often in the form of revivals, variously interpreted. They can be a lighting man's paradise, as a practice of his art.

One practitioner who is 'indulging' this season is leading lighting designer Chris Ellis, who returns to the West End for another seasonal production at the London Coliseum for the English National Opera. The revival of the spectacular production of Humperdinck's 'Hansel and Gretel', originally premiered here in 1987, was broadcast on BBC television on New Year's Day, and the show travels to the Muziek Theatre de Nederlandse in Amsterdam early in the year.

During a traditionally hectic re-light schedule, with resultant production meetings squeezed in amongst a busy operatic repertoire, Chris Ellis managed to fit in a chat whilst at his production desk in the stalls. He described the creative design for this technical opera, and told me about his work, and how he operates in a dual role capacity while managing his freelance work, which takes him through the whole spec-

trum of theatre.

It would be remiss of me not to acknowledge at this stage the veteran lighting designer Charlie Bristow, who was then lighting consultant at the Coliseum, and who lit the previous version of this opera in 1963, when they were the Sadlers Wells Opera. He was visiting the theatre at the time of this revival. Many older technicians (including myself), had at one time or another the unforgettable opportunity of working with this legendary professional.

But, back to Chris Ellis: "In 1990, as frenetic operas go, Hansel and Gretel is very technical," he explained. "I worked on Rimsky-Korsakov's 'Christmas Eve' here last year at this time, and Hansel and Gretel the year before."

Here, in producer David Pountney's evocative production, it captures a post-war nostalgia, although this 1950's version of Hansel and Gretel is not the standard story.

"This fairy-tale piece has an interesting juxtaposition, being set against a harsh realism, and it involves a lot of technical trickery," Chris Ellis continued.

"The way we put this show together in

terms of the design has an awful lot to do with what can be achieved with the lighting. It all starts with a model. The primary objective with the lighting is to make the set look as good as possible.

"Part of the way you can do that is to examine the way the model has been put together, and also to see if some things can be better handled to receive light. The finished visuals are actually a product of seeing the model, making modifications, and discussing the ways we can light it, which can be very exciting.

"Designer Stefanos Lazaridis is very sure of how he wants productions lit. He likes to collaborate with the lighting designer, and to visualise the entire concept. He experiments with the lighting to see how models receive light, and with miniature figures to see the blocking. He will actually put together the whole production in his mind.

"One smooths out the visual for most of the production and then makes it fit with the mechanics as, for example, at the end of Act 1 when Hansel and Gretel have been put to sleep by the Dew Fairy, and have a dream where the angels, who are all their friends



Part of the dream sequence from the production at the Coliseum, in which Hansel and Gretel are visited by angels who fly through the sky.



The 'magical' set design which captures the fairy tale quality of the popular story.

such as the milkman and the maid, fly through the sky.

"In this production the opening is gradually revealed and is quite magical, with 'waking-up' music that sets it all up, for the House to rise up in 'pop-up' book style by the end of the overture. You try to complement visually what the music is doing.

"When we televise the show we are going to have to turn it into a photographic session, which will be fascinating. It will have to work for a whole series of cameras, so you actually light for each of them. It's a whole different style, as the cameras will focus the attention. The eye accepts ratios so much bigger than you can possibly put in a camera; but you can exploit that, as a lot of the time in the theatre we want to create depth and darkness beyond with mystery. Providing that you have some say over the camera control you can use it positively, as long as the rack engineers know what you're trying to do.

"Some of the effects in this production are clearly very contrasting, but they are meant to be. One should exploit darkness, and so on. The BBC's lighting director, Alan Wolford, is very sensitive to the original design for the theatre, and we will work together. TV's objectives will create the atmosphere," continued Chris Ellis.

"In the theatre you focus a great deal more light onto the artist than the background. In terms of a balance for television, this would be a disaster. We have to cut back on all the front lighting rather than pump up the background."

Ellis is involved as consultant to the Deutscher Schauspielhaus, the National Theatre of Hamburg, a repertoire house under the new direction of Michael Bogdanov. He will be lighting 'Mary Stewart' later in the year, his third production there. "They have an extensive lighting system, but it works in the German way. They rehearse the production on the sets. Because, in Germany, it's a designer's theatre they tend to have few lights over the stage - being the domain of the scenery. It means that German lighting is developed in a different way to that over here, where they rig lighting for each production."

Chris Ellis has designed a concept that will allow them to carry on an intensive repertoire, but also to have some lights already pre-hung, introducing elements of a so-called 'saturation' rig as we have in our larger repertoire theatres.

He continued: "The combination of music working with lighting is something that interests me greatly. In opera there is the potential to create some very exciting work, working with a creative set designer coupled



The opening scene of Rimsky-Korsakov's Christmas Eve which ran at the Coliseum last year.

with stunning music - especially at the Coliseum where the standard is extremely high. It's a combination of all these things which make it very pleasurable. This is extremely high-tech opera. You would do something very similar with a musical, but in high-speed."

Chris Ellis's operation includes being based as an associate director at the Leicester Haymarket, involving the production of musicals, and where he also continues to light productions, having by now lit nearly 150. His other lighting design work has to fit around these major commitments.

"This can sometimes be an arrangement beneficial to the company when a particular show has an appropriate team with a lighting designer as part of it," he explained. "Most big productions around these days are the products of teams that have worked together on several shows. They learn how one another work and what fires each other off, and build on that.

"Set designer Maria Bjornsen and myself have worked on many shows together and 'Donnerstag aus Licht', for the Royal Opera in 1985 was a typical case in point where we almost directed the entire third act together! It was entirely to do with the presentation of the lighting and the scenery.

"Mike Barnett designed Donnerstag mechanically, being a complex requirement of the production. Bjornsen had this light show in the raked floor and in which we were going to put a completely separate light rig. We had to come up with an idea

which was more than shooting lights through smoke, which in itself can be boring after a while. The pieces of Stockhausen's music are quite specific in being divinely inspired. It's not like a musical where the music score can be made to fit."

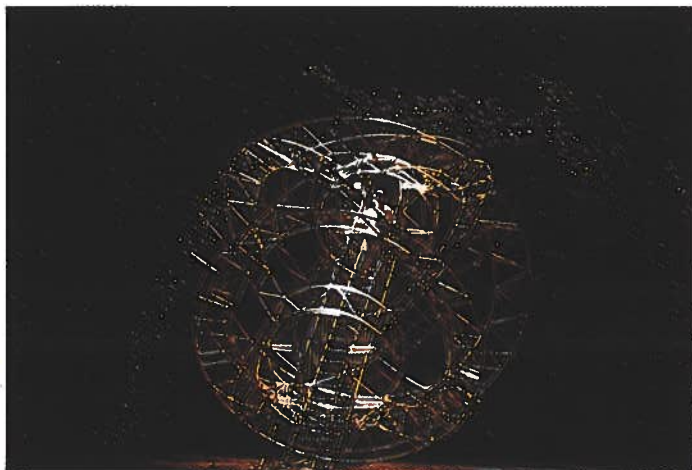
They considered reflecting the lighting by mirrors into the audience, but at that time many other productions were also using this technique. Ellis decided the only way to do it was to pick up the whole of the 40 feet floor on a disc, and point it, with all its lighting, into the audience . . .

Mike Barnett found that the Royal Opera House just happened to have a hydraulic ram in its stage floor at the time - left over from an old 'Ring' production - and he made it happen from there.

Ellis will be going on to light the next section of this mammoth seven day cycle, Donnerstag Aus Montag, at the Hamburg Staatoper in early 1991.

"In terms of set design, Hansel and Gretel is original and the engineering is state of the art," continued Chris Ellis. "The Mike Barnett/Paul Sadler duo are the best engineers around. Not only do they solve what the designer wants to do but they also solve how the technical office and the stage crew can cope with it, making it fit into a theatre environment. To have these talented designers allows all these ideas to be engineered in as part of the design concept."

I asked Chris for his views on the quality of the technicians he works with, a subject now under wide discussion.



From Donnerstag Aus Licht at the Royal Opera House, the scenes showing Michael's voyage round the world (left) and his homecoming.



Hansel and Gretel with the Sandman.

"In doing what I do, you are only as good as the people that will make it happen for you. Over the past five years, with all of the big high-tech shows going on, it's the enormous back-up team that makes it all happen, and it's exactly the same with lighting. Unless you work with really high standard technicians, none of its excitement will be made to happen night after night.

"You rely on having extremely original technicians to solve a lot of the problems, and who are there to put themselves out and really go for it. For the most part one is very lucky, and we are very fortunate as designers. It's no good my dreaming up concepts unless the 'theatre electrician' can realise those in every performance, and it's down to an awful lot of ingenuity and hard work if that is ever achieved.

"Any credit one receives for producing interesting work has got to be counter-balanced with the fact that the technicians are prepared to actually let you have a go and do that. I usually push things to the very limits, and they are marvellous at taking on the challenge, which is terribly important. This is the great thing about British theatre technicians: they are prepared to do that.

"This is live entertainment which all knits together. It is the process of a lot of discussion, which eventually turns into a memorable occasion ..."

Hansel and Gretel: Equipment List

Rank Strand Galaxy desk
30 x 2kW Sil 10
5 x 2kW Cadenza
5 x 2kW Sil 30
10 x 1.2kW Cantata
35 x 1kW Sil 30
2 x Strand Century (6x12) Lekos
5 x Patt.764

18 x T.84
4 x Prelude
8 x Ianiro 5kW fresnels
4 x Ianiro 2.5kW HMI
10 x 2kW Cadenza PC
3 x Patt.243
5 x 2kW ADB fresnels
22 x 1kW Starlette
18 x Patt.743
4 x Minulette fresnels
54 x Par 64
9 x Par 36 aeros
2 x Par 36 650w/120v floods
18 x Volvo fog lights
6 x Iris 4 floods
2 x AC1001
8 x Patt.750
8 x Svoboda light curtains
4 x MR16 battens
2 x RV500 follows
2 x Pani 1kW HMI follows
3 x Rosco 1500 smoke guns and fans
3 x Dry ice machines
1 x Fibre optic starcloth

Chris Ellis: Biography

1969 Asst electrician, Everyman Theatre, Cheltenham
1970 Chief electrician/LD New Theatre, Bromley
Hull Arts Centre
Phoenix Theatre, Leicester
1971 Chief electrician/LD
1972 First West End play
1973 Chief electrician/LD Haymarket Theatre, Leicester
1977 First play for National Theatre
1978 First West End musical
1979 First play for RSC
1980 Production manager Haymarket Theatre, Leicester
1983 First opera Welsh National Opera
1984 First Opera English National Opera
Associate director Haymarket Theatre, Leicester
1985 First Opera Royal Opera House
1986 First Broadway musical

West End plays include: Lloyd George Knew My Father (Savoy); Sign of the Times (Vaudeville); Sextet (Criterion); Importance of Being Earnest (Old Vic); Masterclass (Old Vic); London Cuckolds (Lyric).
National Theatre plays include: The Tale of the Ancient Mariner; Romans in Britain; Hiawatha; Le Malade Imaginaire; The Hypochondriac; The Mayor of Zalemee; Un-

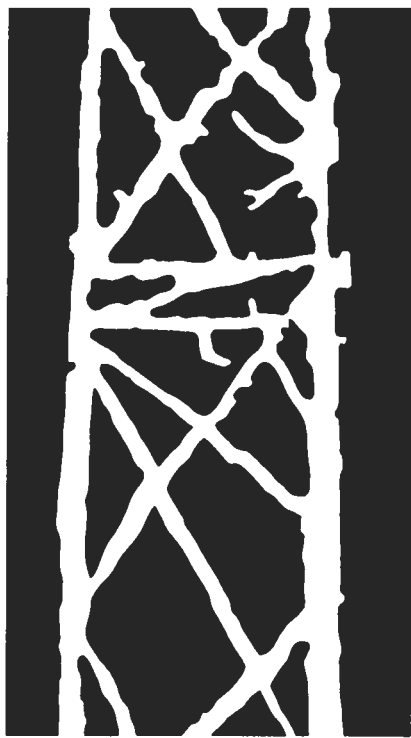
cle Vanya; Lorenzaccio; St Joan.
RSC plays include: Taming of the Shrew; Romeo and Juliet; Hamlet; Love's Labours Lost; A Winter's Tale; A Midsummer Night's Dream; Maydays; The Knight of the Burning Pestle.

He made his debut with the Royal Opera, Covent Garden lighting Stockhausen's *Donnerstag* in 1985. For the English National Opera, he lit Prokofiev's *The Gambler*, *Hansel and Gretel*, *La Traviata* and Rimsky Korsakov's *Christmas Eve*. For the Welsh National Opera, he lit *From the House of the Dead*. Other productions include several plays and musicals in Leicester: *Grease*, *South Pacific*, *Gypsy*, *Gigi*, *Guys and Dolls*, *Oh What a Lovely War*, *Annie*, *The Importance of Being Earnest* and *Masterclass* (also at the Old Vic).

For the English Shakespeare Company, Ellis lit *Henry IV Parts One and Two*, and *Henry V*. Outside the UK, he has lit the following productions: *Oliver* (Dublin), *Hiawatha* (Hong Kong) *Me and My Girl* (Australia, United States) *Woza Albert* (Avignon, Barcelona), *Midsummer Night's Dream*, *Les Miserables* (South Korea) *Regie von Zalawea*, *Hamlet* (Hamburg), *Hello Dolly* (Sweden) And in 1989/1990, he has lit *Hamlet*, *Hunting of the Snark*, *Kiss Me Kate*, *Cabaret*, *Dames at Sea*, *La Boheme*, *Hansel and Gretel* and *The Gambler*.



Chris Ellis on stage at the London Coliseum.



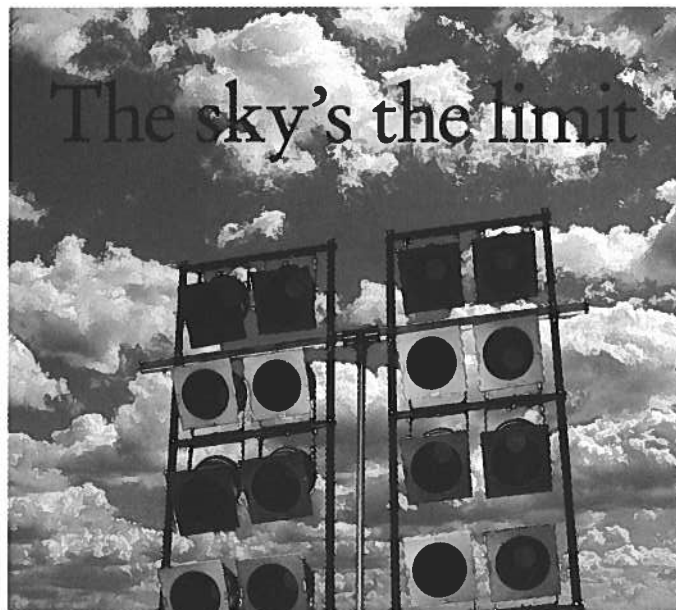
Astralloy

GROUP HOLDINGS LTD

Manufacturers of

Astralite
Minilite
Quatralite
Bilite

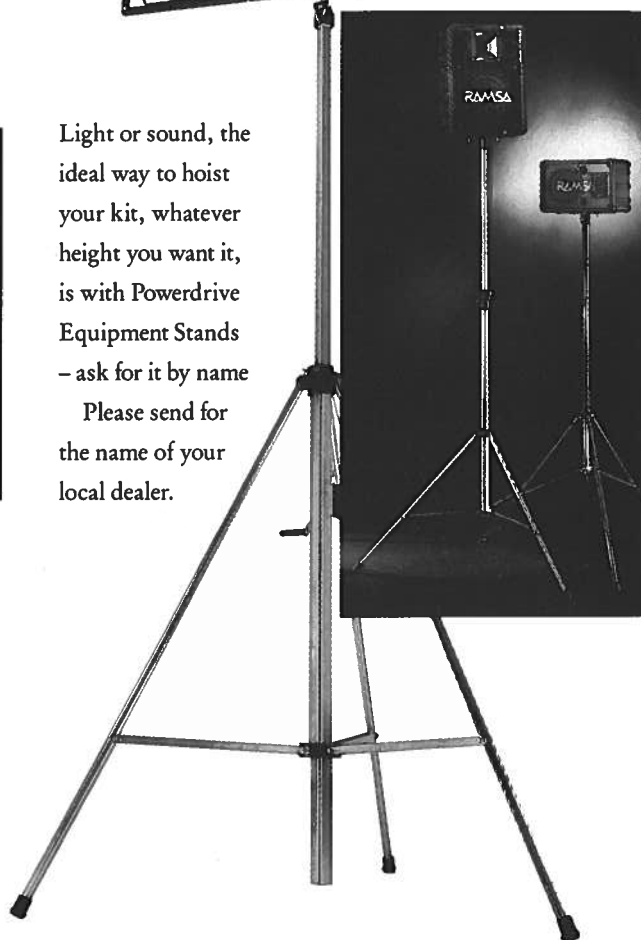
Unit 1 Manor Road Leeds LS11 5PZ
Telephone 0532 465331 Fax 0532 421342
Telex 557063 AGHLTD G



The sky's the limit

Light or sound, the ideal way to hoist your kit, whatever height you want it, is with Powerdrive Equipment Stands – ask for it by name

Please send for the name of your local dealer.



Europe's leading professional

POWER
ENGLAND **DRIVE**

Equipment Stands

Cerebrum Lighting (Sales & Hire) Ltd,
168 Chiltern Drive, Surbiton,
Surrey KT5 8LS, England.
Tel: (Intnl) +44 1-390 0051/4841 (UK 01-)
Fax: (Intnl) +44 1-390 4938 (UK 01-)
Telex: 892337 (CELCO G)



HOW TOUGH?



GamColors and GamColor CineFilters — tough enough to take the heat on stage, on location, and in the studio.

GamColor lasts longer than others because it is made of heat-resistant, scratch-resistant polyester — a material selected after rigorous testing for clarity and durability. It has a higher melting point than polycarbonate. It is a consistent .002" thick. The dyes used in GamColor are the purest available.

GamColor is the filter proved best for long days, long runs and hot lights. Call The Great American Market for the name of a dealer near you.

GamColor. Tough.

GamColor



Deep dyed polyester color filters

GamColor is made in U.S.A.

THE GREAT AMERICAN MARKET

826 N. COLE AVENUE HOLLYWOOD CA 90038
213/461-0200 • TWX 910 494 1233 • FAX 213/461-4308

GAMCOLOR IS AVAILABLE FROM THESE FINE PROFESSIONAL DEALERS:

U.K.: AC Lighting, Tel. 0494 39076, FAX 0494 461024. **SWITZERLAND:** Zilz Concerts AG, Tel. 071-22 75 45, FAX 071-22 75 44.

HOLLAND: Corne-Light, Tel. 02 090 9898, FAX 02 095 1881. Flashlight, Tel. 030-62 58 14, FAX 030-62 59 34.

WEST GERMANY: Alfred Haussmann Intl. Ltd., Tel. 4940 660896, FAX 4940 665071. Zilz Concerts GmbH, Tel. 221-58 30 31, FAX 221-58 43 99.

AUSTRALIA: Concert Lighting Systems, Tel. 03-529-5019, FAX 03-529-2629. **HONG KONG:** Engineering Impact, Tel. 3-7110222,

FAX 3-7642543. **NEW ZEALAND:** Spotlight Systems, Tel. 64 9-789354, FAX 64 9-780542.

MEYERSON SYMPHONY CENTER

L+SI reports on Dallas's new concert hall hailed as a triumph of acoustics and architecture



Architect I M Pei's impressive entrance to Dallas's Morton H. Meyerson Center in the Arts District of the city.

In Dallas, Texas, a new concert hall, the Morton H. Meyerson Symphony Center, is the latest jewel in the city's crown. Opened on September 8th of last year, the Center is the performance home of the Dallas Symphony Orchestra, founded in 1900, and is designed primarily as a facility for the performance of symphonic music.

Designed in 1981 by architect I M Pei, the basic plan of the Center is a combination of overlapping geometric forms: a masonry rectangle (the 'shoe box' concert room) set at an angle within a glass and masonry square containing public and backstage areas enveloped on three sides at the roof line with a 270° circle of glass lenses. The entire building is angled on its site to form a visual connection to the Arts District of Dallas and the city centre.

The Meyerson Center was conceived, some ten years ago, during robust economic times for the region, but when theory was put into practice, the Texas economy was barely showing recovery after being battered by the oil storms of the early eighties.

The timing gave rise to considerable controversy as the city found it hard to justify the proposed budget of \$81.2 million to a financially depressed community. The Dallas press reported the final figure to be in the region of \$108 million - 48% of the money came from city funds and the rest was made up of private contributions.

The Symphony Center's site is bound by Pearl, Munger, Crockett and Flora streets

within a 20 square block, 60 acre area northeast of the Dallas Central Business District in an area known as the Arts District. The Arts District is a major urban redevelopment project intended for mixed-use that will be home to many Dallas arts and cultural organisations. The Morton H. Meyerson Center and the Dallas Museum of Art, which opened in January 1984, are the cultural anchors of the district and provide the much-needed foundation for urban renewal. With the Meyerson as the harbinger of prosperity, downtown Dallas begins the nineties with a new look.

The Center houses the Eugene McDermott Concert Hall - the result of close collaboration between architect I M Pei and acoustician Russell Johnson, chairman of Artec Consultants Inc. The result is a concert room beautiful in appearance, with exceptional acoustics for the production of orchestral music.

The Dallas Symphony Association's Concert Hall Committee, early in its deliberations, assigned a very high priority to the acoustics of the Meyerson Center. A special sub-committee was formed to review the work of several concert hall acousticians. The sub-committee also prepared an acoustics brief which stipulated that the completed hall should have excellent bass response, a good blend and mixture of sound without excessive loss of clarity, and brilliance in the high frequencies with good clarity of the various orchestra lines in com-

ination.

With his experience in the field, and the range of services offered by Artec, Russell Johnson and his company were the natural choice. During the past 40 years, Johnson has collaborated in the design of many prestigious halls for the performing arts, including the Orchestra Hall for the Philadelphia Orchestra, the Birmingham Symphony Hall for the city's orchestra, and the Toronto Ballet Opera House for the National Ballet of Canada and the Canadian Opera Company.

Johnson was associated with BBN Inc from 1954 to 1969 as a theatre planning and design consultant. During his 16 years with the company, he had primary responsibility for room acoustics design and was project manager on more than 110 projects. In the spring of 1970, he founded Artec Consultants in Philadelphia. The company is now based in New York and Birmingham, England.

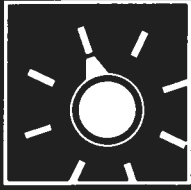
Johnson decided against the recently popular fan-shaped room, in which sound dissipates, and opted for the classic 'Shoe box' shape of the nineteenth century halls, which gives clearer lateral sound. His principle of adjustable acoustics is expressed in a 42 ton canopy in 4 sections that floats over the stage and can be raised and lowered as required; in draperies and panels around the hall, and in the reverberation chambers at the top of the auditorium that can be opened and closed.



The sweeping circular bridge that affords a spectacular view of the downtown Dallas skyline.



The interior of the Eugene McDermott concert hall - the result of close collaboration between I M Pei and Russell Johnson.



MAC SOUND

**What would you do
if the curtain went up
and the amplifier
went down?**

**The new 0800 Helpline service from
MAC Sound-for the industry that's at work
when everyone else has gone home.**

OUT OF HOURS HELPLINE

0800 777422

Merseyside Audio Consultants

1-2 Attenburys Park, Park Road, Altrincham, Cheshire WA14 5QE

TEL: (061) 969 8311 FAX: (061) 962 9423

PROFESSIONAL SOUND HIRE / SALES / SERVICE / COMMUNICATIONS

The acoustical success of the Center has been much hailed by the media in America, and is a direct result of Johnson insisting that the acoustics take priority over the design - a formula that would do well to be adhered to elsewhere.

The focus of the concert room is a Fisk organ, which is located behind the terraced performance platform, and designed for performance with the orchestra, as a concerto instrument and as a recital instrument.

The new symphony hall seats just over 2,000 concertgoers, and every seat provides unobstructed sightlines. Although the intimate design of the room accommodates fewer seats than the Dallas Symphony's current home, the Music Hall at Fair Park, the orchestra will perform more often, in the region of twice as many concerts annually, affording 10,000 additional tickets per season.

Alongside the main concert halls are a restaurant, a music library, rehearsal rooms, a musician's lounge, green room, offices for the Dallas Symphony Association's administration, and an underground parking area. The interior design by Pei, his first for a concert hall, has also been much praised by the media. The lobby features a double stairway with curved marble balustrades that lead one to the sweeping circular bridge. From these areas, a spectacular view of the downtown Dallas skyline can be seen through the glass exterior walls and skylights. In baroque fashion, he has shaped space and light to create clean lines and elementary forms in true classical style. In the concert hall, he has used lavish African makore and American cherry wood panelling, brass railings, a terrazzo floor inlaid with brass stripes, and glowing onyx sconces to create an intimate atmosphere.

Pei is one of the world's most illustrious architects, together with his partners, he designed the Dallas City Hall, the Dallas Centre, and the ARCO Tower before undertaking the Meyerson Center. His best known works include the John Fitzgerald Kennedy Library in Massachusetts, the East Wing of the National Gallery in Washington, and perhaps, most famous of all, the pyramid outside the Louvre in Paris.

He spoke to L+SI about the concept behind the Center's concert hall: "The plan for the hall requires that it be designed to accommodate two different but related functions. Of paramount importance is the performing hall. Its form and shape are the result of rigorous investigation to achieve an optimum audience without compromising sight lines or acoustical excellence. These constraints notwithstanding, the hall also must possess a quality of ambience that gives pleasure to the making of, and listening

to, music."

During construction, the Meyerson Symphony Center project has created more than 1,000 jobs in the city. The construction, plus the first five years of operation, will add more than \$400 million to the Dallas economy - a figure which takes into account ticket sales and peripheral activities. The Meyerson is fast-becoming a symbol of resurgent optimism for the Lone Star State.

Meyerson Center: Equipment List

- 1 x Yamaha M406 (6x2) mixer
- 5 x QSC 3500 dual channel amplifiers
- 4 x Shure SM-58LC microphones
- 2 x AKG D-58E microphones
- 7 x Meyer UPA-1A loudspeaker assembly
- 2 x Meyer M-1A signal processors
- 1 x Klark-Teknik DN360B equalisers
- 22 x Altman 750W Lekos
- 232 x Berkey mini-ellipses 500W pars
- 1 x Colortran Prestige 3000 lighting console
- 2 x Xenon Super Troupers 1600W



One of the formal lobby areas.

Light your act with Teatro

Followspots
Cyclights
Fresnels
Profiles
Floods
Pars
Pcs
300W - 2500W



ZAMBELLI ADVERTISING

 **TEATRO**

Creative Lighting

TEATRO srl - 46042 Castel Goffredo (MN) Italy
tel. 0376/780702 - tlx. 301590 |
fax 0376/780888

Action Lighting, London: 01-992 7821
BEMCO Ltd., London: 01-874 0404
Dial Sound & Lighting, Bradford: 0274 651600

Mushroom Lighting, Northampton: 0604 494886
Odeum Light Sound, Surrey: 0403 752775

PC Spot This sophisticated hard-edge light offers more features than any other moving light in the industry, including: high intensity light output, zoom optics, rotating gobos, revolutionary fading dichroic color, designer scroll, precise pan and tilt, and more.



PC Beam This reliable, flexible and cost-effective lighting fixture is ideal for stage productions and theatrical applications. This unique light features: light output equal to PAR 64, variable beam size, color changing system, precise pan and tilt, and more.



Technology That Makes The Difference.

PanCommand®

ColorFader This revolutionary new color system sets new standards in lighting technology by dissolving or bumping directly to and from any color in the spectrum—without the need for costly color scrolls.



ColorRanger This proven, reliable and extremely affordable fixture utilizes a custom color scroll that ranges from 2 to 11 frames, and is capable of changing color at virtually any desired speed.



Find out how to own the lights that make the difference.
Contact: PanCommand Systems, Inc.
1271 Alma Court, San Jose, CA 95112, 408-297-7262.

WEDGE HISTORY

Ben Duncan dips into the history of rock'n'roll stage monitors

Monitors didn't appear on the rock'n'roll stage until the late 60's, when bands began to employ multi-kilowatt PA systems out-front. At the time, PA developments in the UK were focused on WEM (Watkins Electric Music), who led the field. WEM's Charlie Watkins recalls that the need for monitors became painfully obvious in the summer of '68, at Camden Festival, after Duster Bennett complained that he couldn't hear himself sing, while thousands were enjoying the very loud sounds outfront.

A few weeks later at the Kempton Park Festival, blues singer Tal Farlow had struck the same problem. At the time, outfront mixing had yet to be invented, so Charlie Watkins was busy supervising the mix backstage. Being eager to hear the Savoy Blues Band, who were playing on another stage in a distant marquee, he'd sneakily rigged up an extension cable to a 12" speaker, so he could listen while mixing Farlow's group! The fateful moment came when Farlow saw the speaker cab and signalled 'Turn it up!' thinking it was his own voice.

After the inevitable torrent of upratable words had ceased, it seemed a diplomatic idea (at the very least) to link the 40 watt 'monitor system' to the vocals channel on the mixer. By a stroke of luck, WEM's Audiomaster, the forerunner of modern PA consoles, had the individual channel outputs needed to accomplish this. With the monitor cab hooked-up, Farlow's face then took on an unbelieving, ecstatic look. The horrific grimace came off, his hand came down from his ear, and the quality of his singing improved dramatically. Within minutes, the news of the 'stage monitor' had circulated amongst the other groups. Later, when Roger Chapman came on stage with Family, he snatched the 1 x 12" speaker cab down from the scaffolding. Plonking it on the stage, he tore off his jacket, rolled it up, and used it to tilt the speaker upwards. "So in one evening" recounts Charlie Watkins, "and at one festival, the side-fill and wedge monitor were both developed. Of course, the 1 x 12" speaker was inadequate, but it was so much better than nothing."

Stage monitoring was suddenly the 'in thing'. It was justified by audiences expecting to hear tighter, better timed live performances at a time when outfront sound was getting louder and was often highly distorted



Dave Martin's classic LE-200 Monitor was first introduced in 1973.

and incoherent. In these conditions, any kind of monitoring was a godsend, however rudimentary. Within a year, another pioneer sound man called Bill Hanley had successfully equipped the Woodstock festival in the USA with 'sidewash' monitors. These consisted of a pair of JBL 4530 bass cabs and Altec 311-60 multicell hf horns, placed in front of the rotating stage, at each end. By 1970, the PA rental companies of the time (eg Kelsey Morris) had graduated to individual monitor mixes using wedge-shaped cabinets, typically employing a single 15" bass driver, and a JBL hf driver. Being fitted with the 'crinkle plate' acoustic lens meant the treble spread just as wide as the low frequencies. One wedge could then cover a wide area; the spillage didn't seem to matter. Standard, mass-produced stage wedges of modern appearance and with some measure of directivity control first appeared in the UK around 1973.

This was the year Martin Audio introduced their first wedge, the LE-200. It featured a single 15" driver, a vented bass/mid enclosure, and a conical (90°) hf horn. Dave Martin recalls he built the first LE-200's for a tour of Switzerland in winter 72/73. Martin Audio's LE series has since gone through a number of incarnations and variants, and survives until this day as the LE-400, having become the world's most widely used (and imitated) wedge. Over 2500 have been sold in the past decade alone.

About the same time on the London scene, Court Acoustics were making a similar kind of wedge with JBL components, while a company called AMS (Artistes Monitor Systems),

run by a character called Nick Cohen, was specialising in building wedges and sidefills. Meanwhile, up in Scotland, Eastmill Audio (alias Neil Grant) was making 1 x 12" + horn wedges with distinctive, curved metal grilles. Wedges of this early genre were very loud over the key speech band (800Hz to 3kHz), but the sound was so piercing, it could easily become painful. Today's pro wedges may look superficially similar, but most have undergone prolonged fine tuning for improved clarity.

The musicians' attitude towards monitoring split into two camps. On the one hand, disciplined and well seasoned musicians just got on with their job, regardless of whether the monitors were good, bad, indifferent or just absent! Meanwhile, more anarchic players appreciated the buzz and adrenalin that loud stage monitors could stimulate. In time, the battle to achieve higher SPLs, while keeping howlround at bay, culminated in 1/3 rd octave graphic equalisers and bi-amped setups becoming the norm for each monitor send.

As the 80's dawned, Muscle Music, a London-based PA company specialising in working with hard rock acts experimented with 3-way active monitors. They'd already found that 4, 5 and 6 way active configurations could greatly improve the power handling and clarity of the main PA. At the culmination of their research late in 1980, they'd achieved 125dB SPL at the mic position with minimal EQ.

The wedges contained a 15" Gauss, a high power 9" ATC mid driver, and an Emilar driver mounted on JBL's Pepperpot, which had been favoured by wedge designers since it first appeared on the LE-200. The operating band of Muscle Music's wedge was extended down to 40Hz and out to 15kHz, which made the monitoring 'fuller' and less likely to be painful at very high SPLs. Today, 3-way wedges are still around, but in the intervening years, the majority of wedges have 2-way, in part because it's difficult to justify the added weight and size of cabinets fitted with a high-power mid driver. Anyone who's played on a small stage will know the pain of bashing ankles and shins against monster wedges, wedges which get in the way when it's time to leap about. . . Then there's the extra power amplifiers and crossover parts needed to equip a 3-way



Turbosound's TMW 215 grew out of wedges developed from 1972 onwards.



The Meyer UM-1A which was introduced in 1979.

system, unless exceptional SPL's are called for.

High-Tech approaches have been few and far between in the field of monitoring. In the mid 70's, Tim Isaac (today director of ATC) designed powered wedges (with integral amplifiers) for Turbosound Rentals. He even devised a bussing system, so each musician could set up their own mix on their personal monitor. The system was perfect, but the musicians were a failure!

The problem was the same one The Grateful Dead encountered with their 'self-drive' PA system: One or two members of a band would turn up their monitors (for a bit more excitement), others would follow, and a snowball effect would be set in motion, until everyone's monitors were being driven to maximum volume and the verge of feedback. In 1979, Meyer Sound in the US suggested a new direction with the launch of their Ultra Monitor, the UM-1A. In spite of its small size, it could produce exceptional sound levels without risk of destruction. It achieved this by being connected to a 'controller', a box of electronics arranged to

dynamically adjust the bass EQ, protecting the drivers from over-excursion.

Today, the production of wedges has diversified into three divisions. In the beginning, wedges were custom built by the PA hire companies for their own use. Many of the older hire companies still do this. Then there are countless makers of 'M1' cabinets for gigging musicians who include a simple wedge with a 1 x 12" driver + horn, in their repertoire. Broadly these are watered-down versions of what the PA rental companies have developed after the past 20 years of experimentation.

Thirdly, beginning with Martin Audio, a handful of manufacturers, notably Meyer, EAW in the US; and Turbosound in the UK, have grown up to supply the professional market, not just for live rock'n'roll, but equally for theatre, opera, video and TV productions, as well as for conferences and conventions.

In turn the majority of the wedges on major stages across the globe are still made by the handful of expert manufacturers who grew up with rock'n'roll PA rentals.

ARK LIGHT

THEATRE LANTERN RESTORATION
COLOUR MATCHING TO DECOR
SPARES, T/H KITS

2 Partridge Close, Upper Bruntingthorpe,
Leicestershire LE17 5QY.

Tel: (0533) 478336



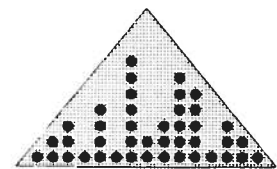
PROFESSIONAL LIGHTING SALES

- Comprehensive 125p Catalogue
- Open 8.30am - 8.00pm Mon - Fri
- Open 10.00am - 5.00pm Sat
- Tel: 01-603 9831
- Fax: 01-602 2558

Midnight Design (Sales) Ltd
32 Avon Trading Estate
Avonmore Road
London W14 8TS

▶ **CONTRACTING:** STADIUMS · FOOTBALL GROUNDS · CONCERT HALLS · CHURCHES · CLUBS · CONFERENCE CENTRES · DISCOS · THEATRES · TURNKEY TOURING SOUND SYSTEMS · CONSULTANCY FOR ALL SOUND REINFORCEMENT APPLICATIONS **DESIGN:** CUSTOM PATCHBAY SYSTEMS · ANY SPECIAL APPLICATIONS · TOURING MAINS DISTRIBUTION **HIRE:** CASUAL TO FULL INTERNATIONAL TOURING SERVICES TOUR SUPPORT · BROADCASTING INTERFACE **SALES:** AMICRON · HH · MEYER SOUND · YAMAHA · BSS · SOUNDCRAFT · KLARK TEKNIK · DDA · NEXO · DRAWMER · ARG · SENNHEISER · AMPERTRONIC · KLOTZ · SWITCHCRAFT · EDAC · KORG · MARTIN AUDIO · ELECTROVOICE · SAMSON · DENON · EMO · BEYER DYNAMIC · SHURE · TAC · ASI · RCF · BOSE · CALREC · ALLEN & HEATH · ATC · TECHPRO · ALTEC C · DUCER · JBL · AUDIO TECHNICA · NEUMAN FORMULA SOUND · NEVOX · ALESIS · APHEX · TANNAY · SHERMAN AUDIO · T.C. ELECTRONICS

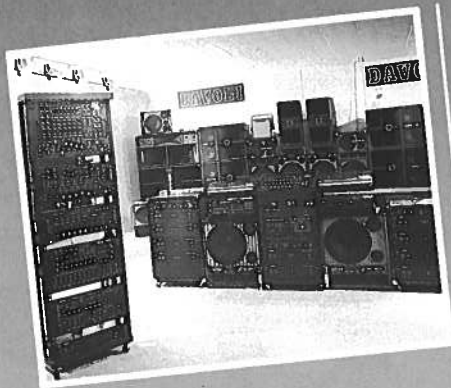
SOUND SPECIALISTS



Wigwam

PHONE FOR A CATALOGUE

St. Annes House, Bycroft Ave. Heywood,
Greater Manchester, OL10 1QB.
Telephone: 0706 68766



TRADE SECTORS

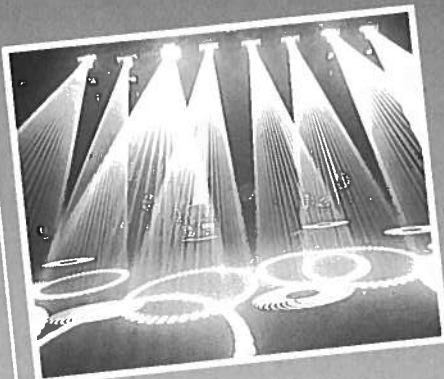
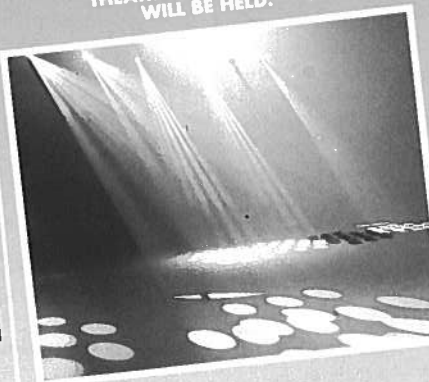
- Furnishing, professional amplification, lighting and light effects
- Video projector.
- Fire prevention, soundproofing.
- Special effects equipment.
- Stage props and choreographic material.



INTERNATIONAL EXHIBITION OF
EQUIPMENT AND TECHNOLOGY FOR
DISCOTHEQUES AND DANCE-HALLS

RIMINI TRADE FAIR (ITALY) -
APRIL 1/4 1990
10.00 a.m. to 6.30 p.m.

CONCURRENTLY WITH SIB,
THE 4RD EDITION OF MAGIS,
EXHIBITION OF EQUIPMENT
AND TECHNOLOGY FOR
THEATRES AND CINEMAS
WILL BE HELD.



The international meeting-point for discotheque professionals

Free bus service between Bologna airport and Rimini Trade Fair for the entire duration of the exhibition



Exclusive agents for the U.K.
market: PLASA
7 Highlight House
St. Leonards Road
Eastbourne
SUSSEX BN21 3UH

RIMINI TRADE FAIR CORPORATION

Please send me information on SIB

Surname _____ First Name _____
Firm _____ Address _____
Town _____ Country _____

Please send to: ENTE AUTONOMO FIERA DI RIMINI
P.F. 300 - RIMINI (Italy)
Tel. 0541/772000 - Telex 550844 FIERIM I - Fax 0541/774313

LETTERS

Dear Editor,

In your account of the attractive, though wide, 474 seat Bryggeteatret (November: p 37-46) you quote Derek Gilbert thus:

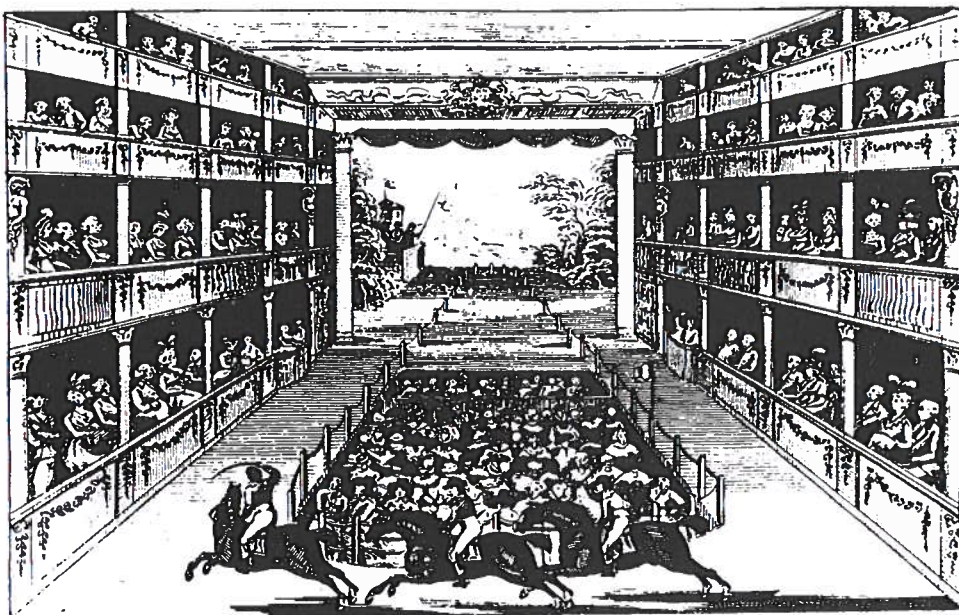
"The dual arrangements for flexible studio theatre usage and for an overall flat floored exhibition space determine that a reference level be established. It is common practice in multi-purpose halls that this should be the front auditorium level and that the stage be demountable. At Bryggeteatret, an innovative solution was adopted whereby the stage and mid-auditorium level became the reference point..."

Innovative?!!! Where has Derek been these last 20 years? Almost all successful flexible spaces with flat floor capability for exhibitions or promenade theatre adopt this simple solution. Examples originating in the Theatre Projects Consultants' design department include the Cottesloe (conceived 1973, opened 1977), the Wilde, Bracknell (conceived 1981, opened 1984), the Tricycle (conceived 1979, opened 1980, and rebuilt and reopened 1989), Derngate, Northampton (conceived 1981, opened 1984) and many overseas theatres including the Martha Cohen Theatre, Calgary (conceived 1980, opened 1985).

It is scarcely new since it's the way they were designed with integral flat floor capability by striking a level through the house at stage level for about 150 years.

I enclose an earlier example of the datum line being stage level. This is not a new Andrew Lloyd Webber environmental show but a simple illustration, in this case from Dublin in 1799, of how over 100 theatres were easily regularly converted into pony race tracks where the audience would come for an evening of sport and betting - Jockey Club rules.

I rather think the excellent Swedish theatre consultants and designers are well aware of where to position the datum to judge from their attendance at conferences I've addressed all over Europe on the design philosophy and practise of theatre space. It is about time perhaps that suppliers as distinguished as Derek Gilbert realised that the international theatre movement has come a long way from the temporary stage of the village hall or the fourth rate conference centre.



The only curiously old-fashioned parts of Bryggeteatret are the enormous full length width control room windows. But if you've proudly spent more on the sound system than anything else no doubt you want to put your Soundcraft 8000 mixer with 40 inputs in the shop window so the sound at least looks nice.

Iain Mackintosh
Theatre Projects Consultants

Dear Editor,

Following your article last month on Howard Eaton, I feel compelled to write to you in order to answer some of the injustices which I feel have been printed. I am responsible for the technical staffing of 11 West End Theatres, including the London Palladium, Theatre Royal Drury Lane and Her Majesty's, and I would like to make it quite clear that I regard all my technical heads of departments as being competent, conscientious and committed people, they are in no way inexperienced charlatans.

It has been my experience that a great many freelancers are former theatre daymen who were either too immature or too unreliable to sustain a full time job in theatre. I should also point out that the freelance staff employed to do the fit-ups

have no lasting commitment to that particular job. They very often 'throw' the equipment in with no regard for the I.E.E. regulations or the rules laid down by the Licensing Authorities. It is then left to the resident staff to install the equipment to a safe and reasonable standard once the production is running. A freelancer goes where the work and the money takes him, it may be a trade show one week and a conference the next week. Where then is their commitment to the theatre?

I consider that my staff do an excellent job of looking after the running of the shows, such as Miss Saigon and Phantom of the Opera, very often fighting a losing battle to maintain substandard or poorly designed equipment. It surprises me that Howard Eaton can, on the one hand, berate my technicians for their lack of experience and formal training, and then ironically, go on to explain how he learnt on the job whilst working for Joe Davis. Many of my staff were working in the theatre when Howard Eaton was still at school.

Finally, do not let us forget that Howard Eaton does have a vested interest in 'talking up' his status and making out a case for being indispensable. It is my opinion that producers often spend money on unnecessary freelance labour when the resident staff are in fact better placed and more able to do the work.

Julian Rees
Stoll Moss Theatres Limited

BOOKS

The Use of Microphones

Alec Nisbett

Published by Focal Press
Price £14.50 ISBN 0-240-51291-X

First published in 1974, the book is now in its third edition and has been enlarged to include a full account of stereo as well as mono microphones and techniques. The Use of Microphones follows current trends to the increasing use of condenser (including electret) microphones, and the digital processing of the audio signal.

The book comments briefly on recent improvements in sound quality, covering the advent of compact discs and digital audio technology. Nisbett goes on to advance his theories on the developments still needed in the interfaces between sound and electronic signal. The main discourse of the book concerns itself with microphone balance: the

placing of one or more microphones which sample the sound field in the studio, the control of the output, and the aural evaluation of the results. The book demonstrates practically and authoritatively how to position, balance and control microphones to ensure quality reproduction of sound.

The author discusses characteristics and types of microphones, and the equipment that is used to mix and control the resulting signals. The book also covers acoustical problems, the combination of sound and picture, and how to balance the music of various mediums. This is complemented by two sections, one devoted to useful formulae, and the other to a glossary of terms.

Alec Nisbett is well-placed to offer an overview of the proper use of microphones. He is a senior producer in the Science and Features department at the BBC. In 1979, he produced the fourth edition of the Technique of the Sound Studio, also published by Focal Press, which extends beyond the field of The Use of Microphones to include a full account of programme construction, sound effects, radiophonic techniques, tape editing, and the role of sound in television and film.



The Use of Microphones

Third Edition

Alec Nisbett

Increase your overheads!

The Gamma Lite Mover system is the ultimate addition to any overhead light show, with a whole host of advantages over other intelligent lighting systems.

LITE MOVER

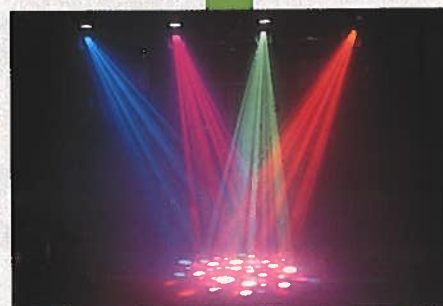
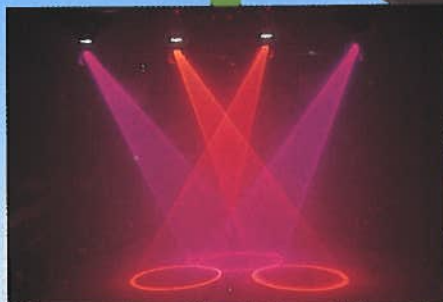
High power HMI 575 watt lamp with extremely high resolution optics. Nine dichroic colours plus white. Instant colour change of less than 0.08 sec. Variable speed seamless colour crossfade. Six gobos plus white and blackout. Variable speed and aperture iris, with strobing facility. High precision stepper motors throughout. Judder free slow scan, with full scan at max speed less than 0.2 sec. Multiplex data link, daisy-chained between heads.

THE PANEL OF EXPERTS



CONTROL PANEL

Dedicated touch sensitive controller for up to 16 heads. Instant access live operation, with over 750,000 pre-programmable steps.



The Gamma Lite Mover System — designed and manufactured by Avitec Productions GMBH, West Germany.

AVITEC

THE ATMOSPHERE CREATORS

The AVITEC Group — Europe's largest club lighting & sound equipment distributors.

AVITEC Electronics (UK) Limited,
80/81 Walsworth Road, Hitchin,
Herts SG4 9SX. Tel: Hitchin (0462) 458961.
Fax: (0462) 431019. Tlx: 825682 AVITEC G.

UNUSUAL RIGGING LTD

**UNUSUAL
RIGGING**
is proud to have been
associated with the
production of
Joy to the World

**RIGGING FOR CONCERT
THEATRE COMMERCIAL FILM
T.V. & VIDEO PRESENTATION**

4 Dalston Gardens, Stanmore
Middlesex HA7 1DA

01-206 2733

Fax: 01-206 1432

Telex: 945470 Riggin G

JOY TO THE WORLD

The background to the Imagination designed and staged Christmas Save The Children spectacular at the Royal Albert Hall

The biggest and most spectacular show staged over Christmas was undoubtedly the 'Joy To The World' musical extravaganza at the Royal Albert Hall in London. Designed and staged by Imagination, JTTW is a charity event, produced by Major Michael Parker, that has raised nearly £1 million for Save The Children in the two years it has been running.

Against the stunning backdrop of a huge 18-metre high 'Venetian' canopy designed by Imagination's creative director Gary Withers, the story of the Creation through to the birth of Christ was acted out, carols sung and the 12-days of Christmas performed pantomime style. Over 700 performers were involved including international celebrities, dancers, massed choirs and orchestras, fanfare trumpeters, harps and handbells.

As well as being performed live before an audience of around 6,000, including HRH The Princess Royal, President of Save The Children, the event was televised by the BBC for later transmission on Christmas Eve. One of the big surprises in the show was the appearance of Her Majesty The Queen who broke with tradition to give part of her Christmas speech live. Her message was later also broadcast throughout the Commonwealth on Christmas Day on TV and radio.

Learning From Experience

Having handled the production of the first JTTW show, Imagination built upon the experience gained and the special techniques developed for the show in 1988 to make the 1989 event even more spectacular.

As in 1988, a walkway ran at stage height from main stage to an 8-metre diameter podium in the centre of the arena. Three more walkways radiated from the podium to the main entrances to the arena. Most of the 'action' took place on these walkways and the podium - the orchestras being positioned in the four quarters of the arena surrounding the podium.

From a lighting point of view, probably the most important initial consideration was the requirement for the production to look dramatic for the live audience (some paying up to £750 per head), and also to make a spectacular television show with a potential world audience of up to 600 million.

"I agreed with the BBC that we should provide and control all the lighting - our rig had to give adequate illumination for TV coverage and to include specific TV requirements such as audience lights," said Simon Bruxner-Randall, Imagination's lighting designer. "I worked with BBC OB lighting designer Stan Snape who advised on TV requirements both for rig design and during both rehearsal and performance."

As the 'performing areas' accounted for virtually every corner of the building not actually used for audience, a very extensive lighting rig was needed. It had to cover: main stage, walkways and podium; each individual element of the set - support poles, canopy drapes, statues etc; choirs; organ; or-

chestras; entrance gang-ways; house lights; and 'audience lights' for TV. The conventional lighting, some 650kW, was controlled from a 90-way Celco 'Gold' positioned in the arena, and dimmers were mainly Avolites.

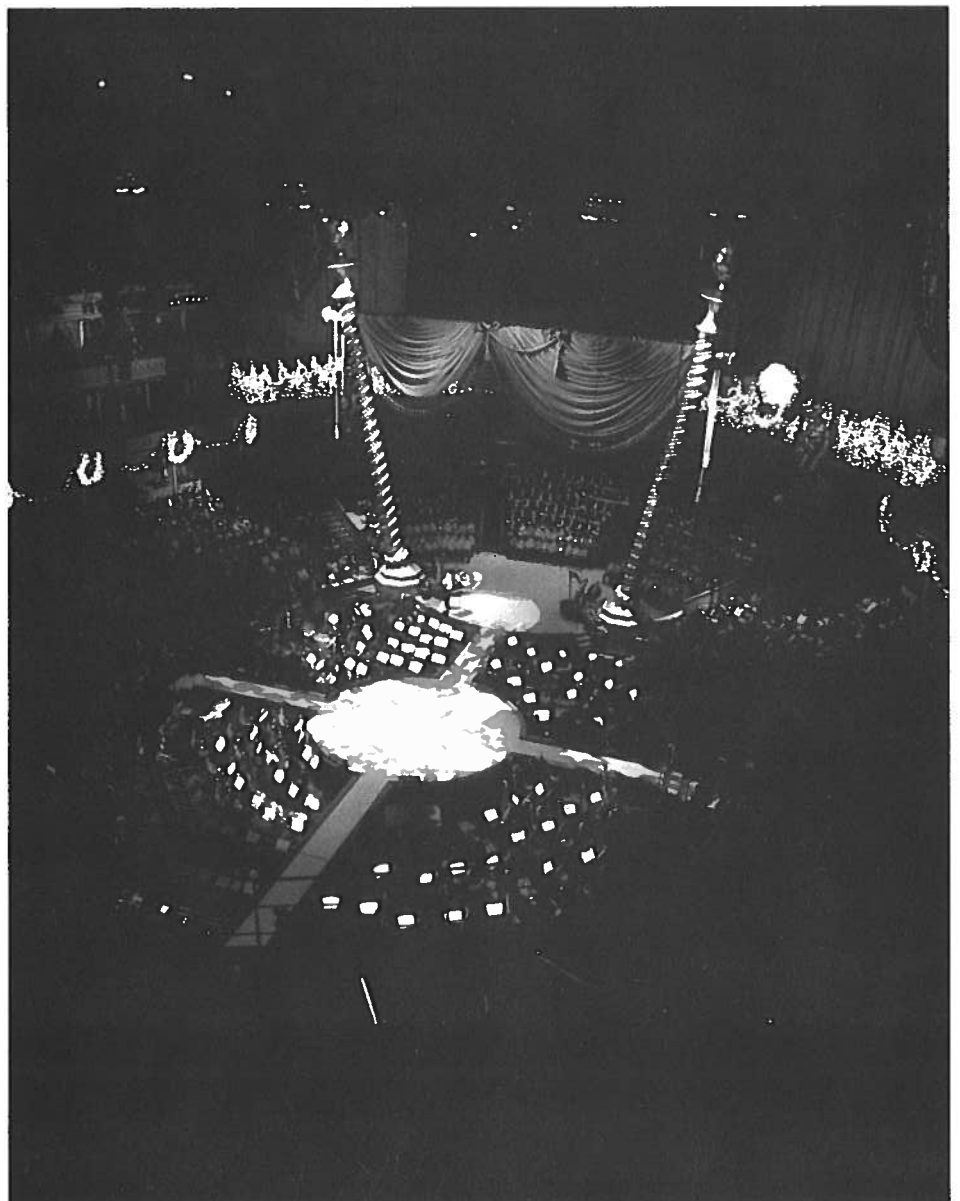
The main truss grid, suspended 20m above the arena, was in a star configuration, consisting of a 13m diameter Telestage circle with seven 8.5m arms radiating every 45°. This was devised to provide both lighting and sound positions. 27 Vari*Lites and 37 6-lamp bars of Par 64s were rigged on this truss; the Pars accounted for the bulk of the lighting for the podium, walk-ways, main stage, as well as all the audience lights. Within the circle there was a further box truss carrying: glitter-drop barrels, mirror balls, bowens strobes, and new 'EPS' snow machines (six of these produced a lot of soap-based snow over the entire area of the

arena).

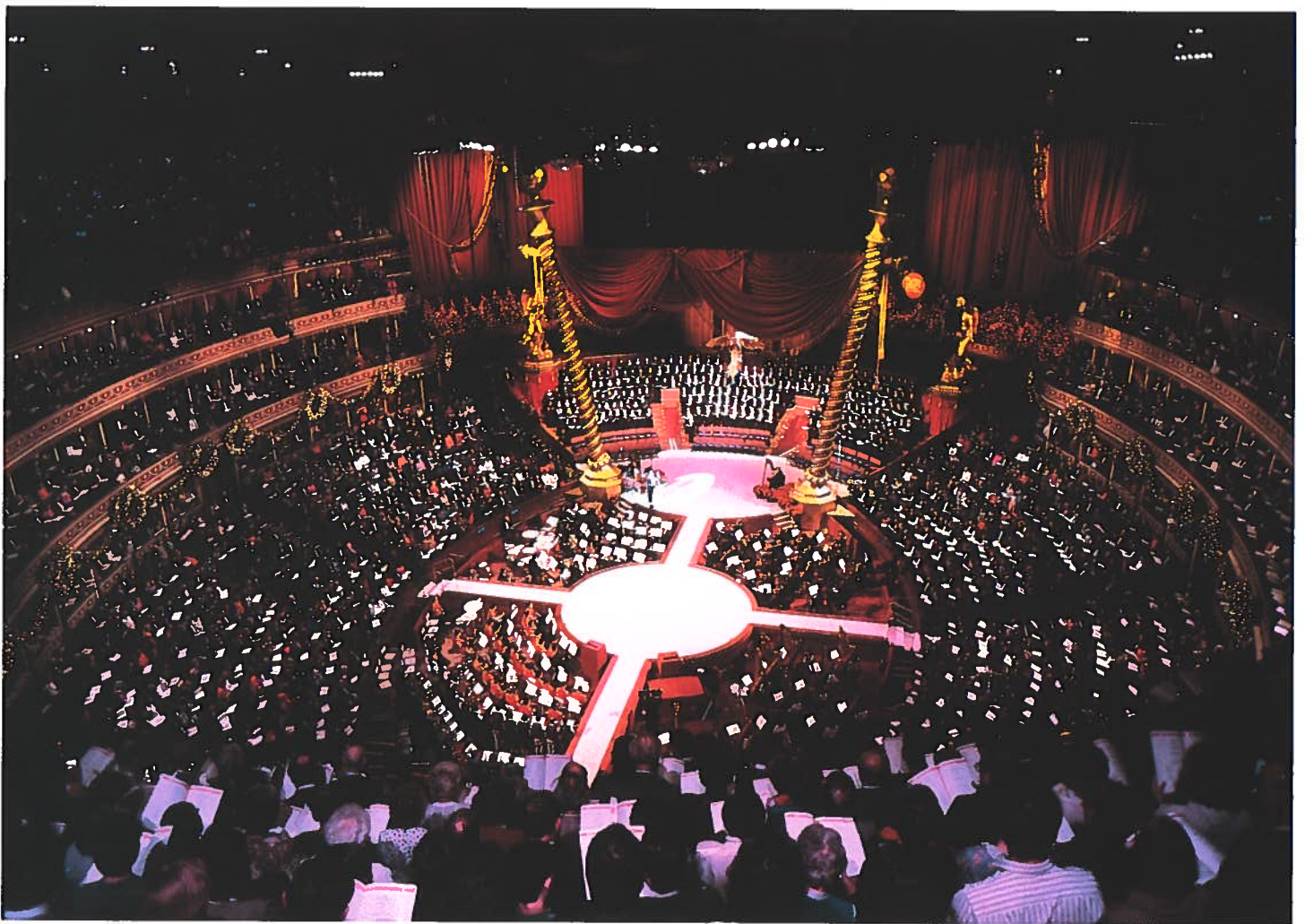
Positions over the main stage were rather restricted by the fabric canopy but one row of Par 64s were installed on the front header truss to light the choir and three up-stage trusses provided back light plus lighting for the organ and rear drapes. Additional lighting was provided by Par 64s on existing bars at both gallery and balcony positions and seven 2000W xenon 'Super Trouper' follow spots were positioned around the gallery.

Latest Vari*Lites used

One of the most interesting features of the rig was the inclusion of the new VL2B and VL4 Vari*Lites. As Simon Bruxner-Randall explained: "The new VL2Bs are brighter and narrower than the previous VL2s and this proved a great advantage as most of the units were 20m up in the air. The VL4s were



A bird's eye view of the stage, podium and walkways. The orchestras were positioned in each quadrant.



The JTTW stage set, designed by Imagination involved a huge 'Venetian' canopy 18 metres high.

mainly used to light the canopy support poles and the header drape. Their facility for live colour cross-fades meant that we used only 10 lights to provide all the variation needed on these huge scenic elements." (The Vari* Lite programmer was Nick Moran).

All conventional lighting was supplied and installed by Meteorlites Productions with Tony Panico as production co-ordinator and Andy Doig as production electrician. A separate crew was required for the Picelli lights; 540 sets were used for 60 Christmas trees and 26 wreaths, and this was headed by Barry Abbotts.

24 Hours to go. . .

"Focusing of the 600 lights began at 7.00pm the day before the show - only 18 hours after the get-in," recalled Bruxner-Randall. "We had two teams of two on the truss. I took one side of the rig and Steve Latham (also of Imagination) took the other. There just wasn't enough time for me to see every lamp focused personally.

"Meanwhile Nick Moran started programming Vari* Lite block focuses and chase patterns to pre-prepared plot shots and at 4.00am on the day of the performance I began plotting the lighting states. Rehearsals started at about 9.00am, by which time about half of the 150 states had been plotted."

Plotting continued during the rehearsals while Imagination's Hugh Vanstone concentrated on the follow spot cueing, with Stan Snape advising on TV needs. The last few states were plotted by 6.00pm - just an hour-and-a-half before the show!

Let There Be Sound

The sound system for JTTW was designed for Imagination by John Del Nero and Bobby

Aitken. It consisted of 29 Meyer UPA1a loudspeakers, 4 Meyer Ultra Monitors and 4 Meyer USW subwoofers - all controlled by a Cadac 'A' type mixing console and the regular selection of processing equipment. Meyer CP10 Parametric Equalisers and ADDS Delay units were also used to equalise the system.

The loudspeakers were hung from the specially designed overhead truss - the seven equally-spaced arms allowed the loudspeakers to be placed in the most economical position. As most of the performance took place in the arena itself - on the podium and walkways - it was important that the loudspeakers were as close as possible to the audience.

Precision Job

"Each layer of loudspeakers was rigged with the truss at working height. Then Chris set the elevation angle of each loudspeaker using a surveyor's clinometer. This had to be right because we just didn't have the time to reset all the angles. As it turned out only two out of 29 loudspeakers needed readjusting!

"Bobby Aitken's vast experience in TV came into its own when interfacing the BBC Mobile and our CADAC mixing console. The BBC supplied most of the microphones including all 24 Sony Lavalier radio mics and the two Sony handheld radio mics that were used by Cliff Richard and Leo Sayer. They also supplied the phantom power and let us have a high level split. We added supplementary microphones to deal with live needs, i.e. closer mic'ing of the choir."

The last word was left to Del Nero: "As usual, there's never enough time. You end up with a couple of hours sleep in 48, analysing the system at 5 o'clock in the morning and relying on the brilliance of your

operators to cope with those unrehearsed situations. Well they coped magnificently. And the show went exceptionally well."

And next year?

"Well there might be a few changes . . ."

Production Managers: David James, Nigel O'Hagan

Lighting Designer: Simon Bruxner-Randall

Assistants: Hugh Vanstone, Steve Latham

Sound Designers: John Del Nero, Bobby Aitken

Lighting Equipment and Crew: Meteorlites Productions Ltd

Production Co-ordinator: Tony Panico

Production Electrician: Andy Doig

Vari* Lite Programmer: Nick Moran

Sound Equipment: Autograph Sales

Sound Operators: Paul Stanering, Andy Pink

Rigging: Unusual Rigging Ltd

Production Co-ordinator: Alan Jacobi

Lighting Equipment:

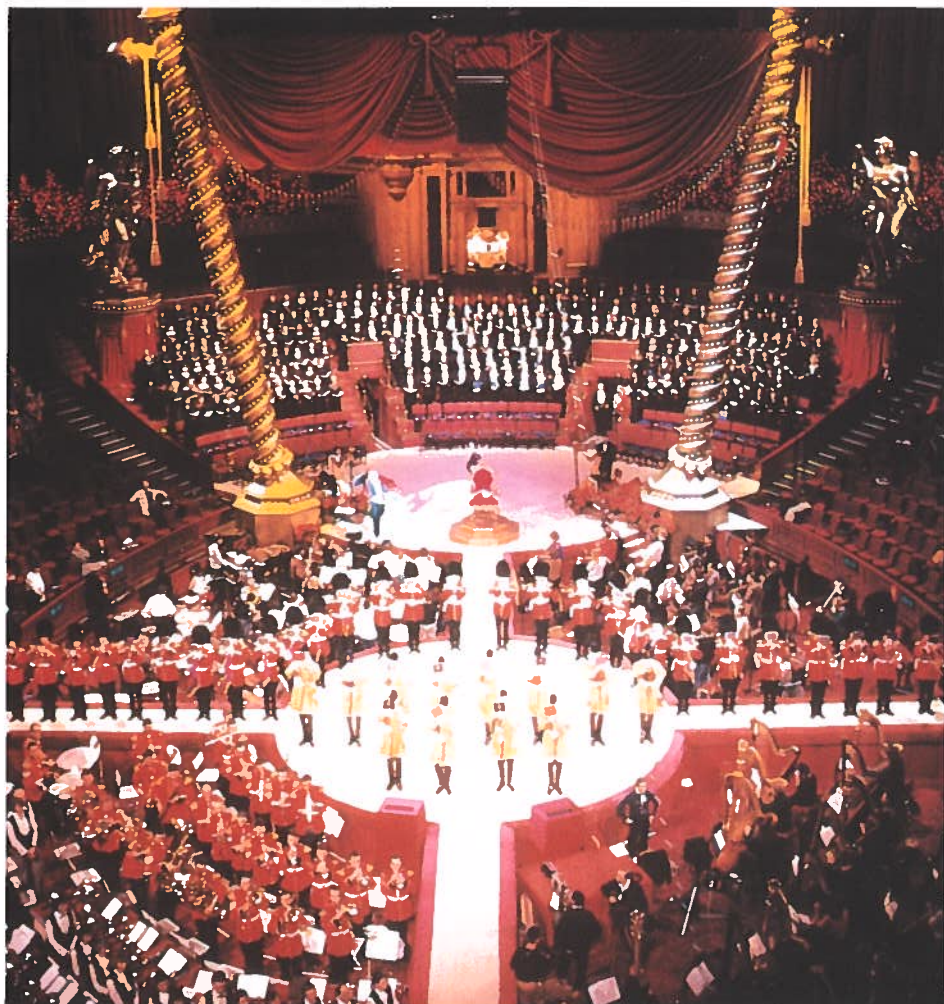
27 x Vari* Lite VL2B
 10 x Vari* Lite VL4
 7 x Xenon 2000 Super Trouper
 72 x Par 64/RL
 30 x Par 64/1
 250 x Par 64/2
 130 x Par 64/5
 44 x Par 64/cp62
 10 x Cantata 11/26
 2 x (6x22) Leko
 3 x Silhouette 30/1K
 12 x Bambino 2K
 6 x ADB 2K fresnel
 38 x CCT 1K fresnel
 12 x Iris 1 flood
 4 x Cadenza EP
 2 x Colorsette
 1 x 90-way Celco Gold
 4 x 72way Avo rack
 72 x IWB
 1 x 96way Q-Patch system
 2 x JEM Heavy Fog
 4 x smoke processor
 4 x wind machine

4 x 36" mirror ball
 8 x 18" mirror ball
 8 x Bowen photographic flas
 6 x EPS snow machine
 4 x glitter barrel
 180 x white Picelli light sets
 360 x red Picelli lights

Sound Equipment:

2 x Crest 400 2 channel amplifier
 9 x Amcron D150 2 channel amplifier
 1 x Amcron DC300A 2 channel amplifier
 20 X Meyer MS1000 amplifier
 2 x Klark Teknik DN700 digital delay
 1 x Klark Teknik DN701 digital delay
 1 x Klark Teknik DN332 graphic equaliser
 1 x Klark Teknik DN360 dual 30/30
 2 x BSS DPR402 compressor limiter
 1 x Anchor AN1000 50W self-powered
 loudspeaker
 1 x Anchor AN256M self-powered loudspeaker
 40 x Bose 101 loudspeaker
 2 x JBL Control 5 monitor speaker
 4 x Yamaha MS10 self-powered loudspeaker
 1 x Yamaha MS101 self-powered loudspeaker
 11 x MSLI UM-1 Ultra monitor
 22 x MSLI UPA-1 loudspeaker
 4 x Meyer USW1 subwoofer
 2 x Beyer M160N ribbon microphone
 2 x AKG C414EB condenser microphone
 6 x AKG C451E/CK1 condenser microphone
 2 x Schoeps CMC 541g hyper-cardioid
 microphone
 1 x AKG D80 microphone
 2 x Neumann KMR82i condenser rifle microphone
 6 x Amcron PCC160 microphone
 1 x Neumann SM69FET stereo condenser
 microphone
 2 x Cadac B and C mixer power supply
 2 x Lexicon PCM 70 digital reverb
 1 x Cadac 11way B type frame
 1 x Cadac 26way B type frame
 1 x Cadac 30way B type frame
 1 x Cadac B type auxiliary module
 56 x Cadac B type input channel

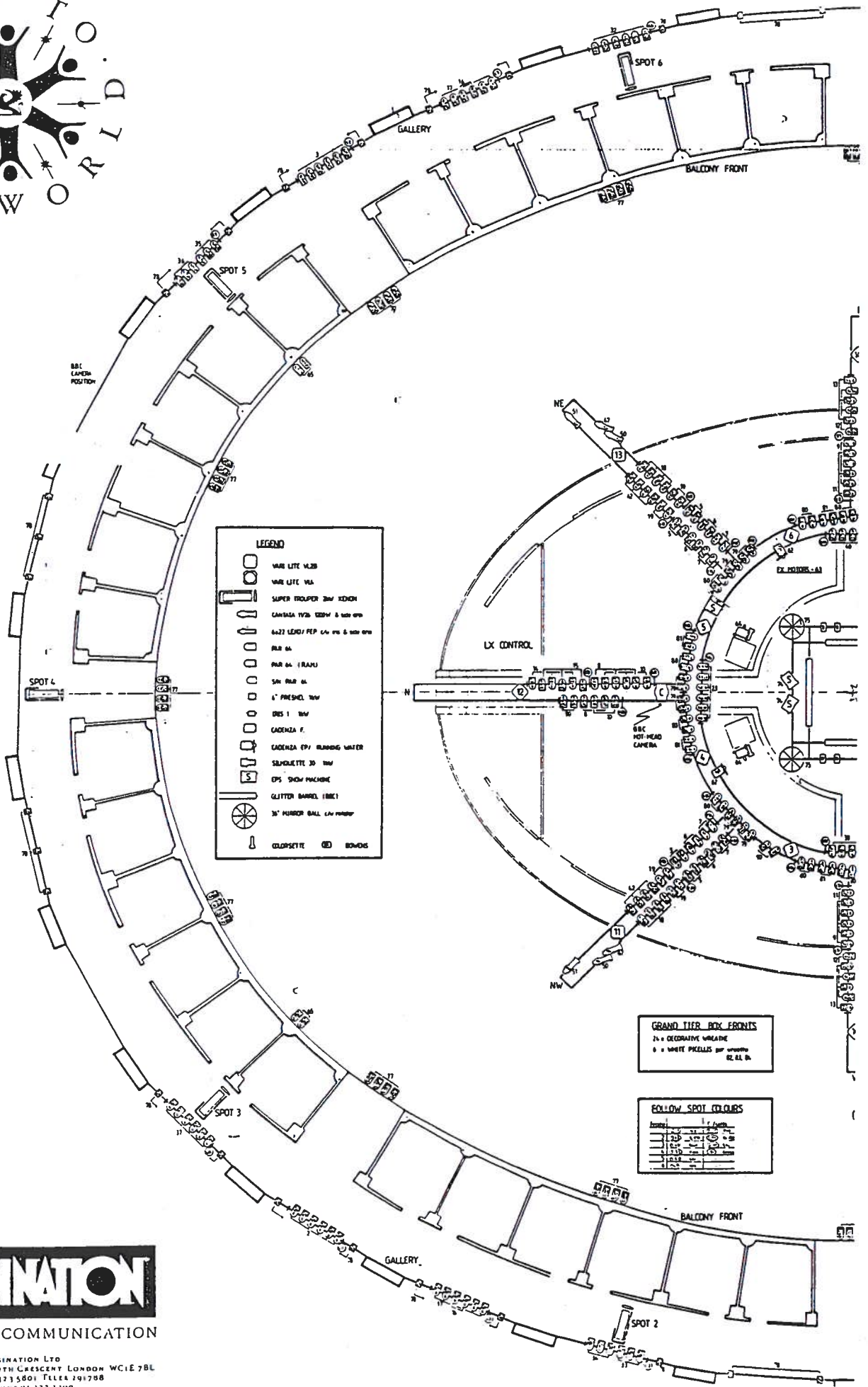
A plan of the 40 feet diameter truss with lighting and sound positions appears on pages 40-41.



The cast of over 700 for the show included fanfare trumpeters and military bands.



Dancers highlighted on the podium.



LEGEND

- VARI LITE VLSB
- VARI LITE VIA
- SUPER TROOPER 20W XENON
- CANADA TV20 200W & 400W
- 6000 LENO/PEP 600 W & 1000 W
- PAR 64
- PAR 64 (FRANK)
- 5W PAR 64
- 4\"
- DIS 1 10W
- CADENZA F.
- CADENZA EP1 BLANKING WATER
- SILHOUETTE 30 10W
- EPS SNOW MACHINE
- GLITTER BARREL (B&K)
- 36\"
- COLPSETTE
- BOW-TIE

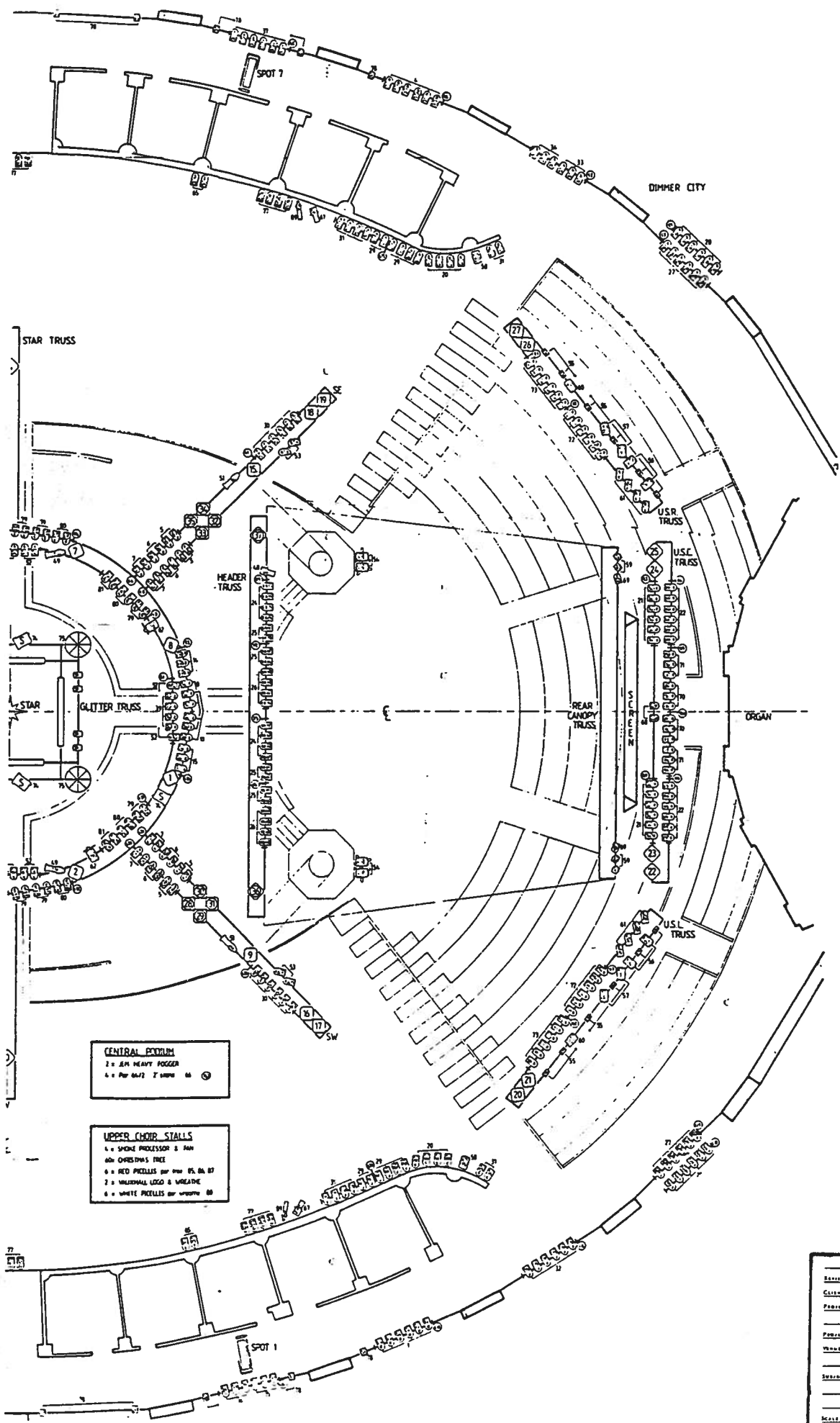
GRAND TIER BOX FRONTS
 24 x DECORATIVE WREATH
 6 x WHITE PHELLIS per wreath
 62.01.04

FOLLOW SPOT COLORS

SPOT	1	2	3	4	5	6
Color	Red	Blue	Green	Yellow	Purple	White

IMAGINATION
 DESIGN AND COMMUNICATION

IMAGINATION LTD
 NO 25 STONE STREET SOUTH CRESCENT LONDON WC1E 7BL
 FACSIMILE 01 273 5801 TELE 291708
 TELEPHONE 01 273 3300



CENTRAL FORUM
 2 x 5M HEAVY FOGGER
 4 x PAR 64/2 T 200W 60

UPPER CHOIR STALLS
 4 x SMOKE PROCESSOR 2 PAR
 60x CHRISTMAS TREE
 8 x RED PIXELS 80W PAR 64 60
 7 x MUSICAL LOGO 8 VENTURE
 8 x WHITE PIXELS 80 WENTURE 60

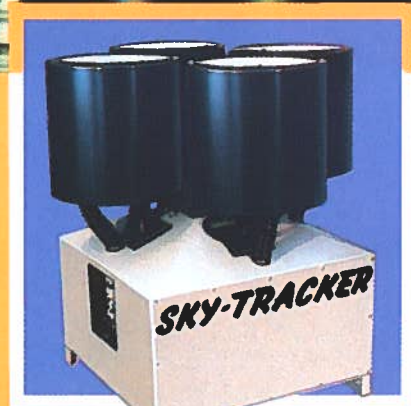
Revisions	1	10/11/89	4.7
Client	Save the Children		
Project	JOY TO THE WORLD		
Project Date	19th Dec 89		
Venue	ROYAL ALBERT HALL		
Source	Lighting Layout		
Scale	1:50	Date	10/11/89
Drawn	Simon B-R	Checked	FER/SL

DO NOT SCALE

SKY-TRACKER[®]

BY

THEATRE · PROJECTS



A SKYTRACKER is a powerful moving multi-beam searchlight , providing the ultimate lighting spectacular for Sales Promotions, Festivals, Restaurants, Retail Outlets, Theatres, Nightclubs, or any other special events. It is versatile and can be set up at any venue literally within minutes.

SKYTRACKER is available for rental only from:
Theatre Projects Services Limited, 8-34 Blundell Street,
London N7 9BW, Telephone 01-609 2121, Fax 01-609 8897.

Available in three versions:
4 head 2kW generator powered,
4 head 2kW A/C mains,
Single head 4kW A/C mains.

PLASA News



PLASA's outgoing 1989 committee and chairman (complete with caricature drawing) pictured at the final executive committee meeting of the year.



The new officer team: Tony Kingsley (vice chairman, left), Kevin Hopcroft (chairman) and Marion Smith (treasurer).

PLASA CHANGES

The recent re-structure of the Professional Lighting and Sound Association now sees the organisation with a new look for the nineties. The Association remains as PLASA, but the trading arm is now 'Professional Lighting and Sound Association Limited', as from January 1st.

At its first executive committee meeting of

the year held at Novotel Hammersmith on January 8th, Tony Akers of Citronic Limited was appointed Secretary to the Association, an unpaid post. At the Eastbourne office, John Offord continues as Acting Chief Executive with the responsibility of supervising the necessary changes and appointing a newly organised staffing situation, with details to be announced in the near future.

The officers of the Association, namely Kevin Hopcroft (Chairman), Tony Kingsley (Vice-Chairman) and Marion Smith (Treasurer) become the first directors of the Professional Lighting and Sound Association Limited. Former General Secretary Tony Andrew left the Association in December.

Amongst other matters discussed at the meeting was the expansion of the role of sub-committees which will see them co-opting members from within the Association and with work-loads supported by staff at the Eastbourne HQ. New Chairman Kevin Hopcroft also outlined numerous ideas on the future of the Association many of which he details in an interview in the January issue of the Association's monthly magazine 'Lighting + Sound International'.

The full committee was in attendance at the first meeting of 1990, including newly-elected members Paul Adams, Colin Whittaker and Mike Wood.

Exhibition Diary

SIEL

February 17-20, 1990.
Porte de Versailles, Paris.
Enquiries: Bernard Becker Communications,
22/24 rue de President Wilson - 92300 Levallois-Perret, Paris. Tel 33
(1) 47 56 50 00.

SOUND NINETY

February 20-21, 1990.
Heathrow Penta Hotel, London.
Enquiries: SCIF, 4b High Street, Burnham,
Slough, Bucks SL1 7JH.
Telephone: (06286) 67633.

ABTT GLASGOW TRADE SHOW

March 14-16, 1990.
Scottish Exhibition & Conference Centre, Glasgow.
Enquiries: ABTT, 4 Great Pulteney Street,
London W1R 3DF.
Telephone: 01-434 3901.

FRANKFURT MUSIC FAIR

March 21-26, 1990.
Frankfurt Fair Centre, Frankfurt, West Germany.
UK Representatives: Collins and Endres,
18 Golden Square, London W1R 3AG.
Telephone: 01-734 0543.

SIB/MAGIS

April 1-4, 1990.
Rimini, Italy.
UK Enquiries: The PLASA Office,
7 Highlight House, St Leonards Road,
Eastbourne, East Sussex BN21 3UH.
Telephone: (0323) 410335.

USITT

April 11-14, 1990.
Milwaukee, Wisconsin.
National Office: 330 West 42 Street, Suite 1702,
New York NY 10036.
Telephone: (212) 563 5551.

PUB, CLUB & LEISURE SHOW

April 3-5, 1990.
Olympia 2, London.
Enquiries: Angex Ltd, Europa House,
St Matthew Street, London SW1P 2JT.
Telephone: 01-222 9341.

VISION & AUDIO 90

April 22-25, 1990.
Earls Court, London.
Enquiries: Emap Maclaren Exhibitions Ltd,
840 Brighton Road, Purley, Surrey CR2 2BH.
Telephone: 01 660 8008.

SHOWTECH

May 8-10, 1990.
Berlin, West Germany.
Enquiries: AMK Berlin, Ausstellungs-Messe-Kongress GmbH,
Messedamm 22, D-1000 Berlin 19, West Germany.
Telephone: (30) 3038-1.

EXPO MUSICA

May 16-19, 1990.
Madrid, Spain.
Enquiries: IFEMA, Avda de Portugal,
s/n Casa de Campo 28011 Madrid 1101.
Telephone: 470 10 14.

APRS

June 6-8, 1990.
Olympia 2, London.
Enquiries: APRS, 163a High Street, Rickmansworth,
Hertfordshire WD3 1AY.
Telephone: (0923) 772907.

ABTT TRADE SHOW 90

June 28-30, 1990.
Riverside Studios, London.
Enquiries: ABTT, 4 Great Pulteney Street,
London W1R 3DF.
Telephone: 01-434 3901.

PLASA LIGHT & SOUND SHOW

September 9-12, 1990.
Olympia 2, London.
Enquiries: David Street, 3D Services,
12 Brentford Business Centre, Commerce Road
Middlesex TW8 8LG.
Telephone: 01-569 9742.

PHOTOKINA

October 3-9, 1990.
Cologne, West Germany.
UK Representative: Tony Pitman,
12/13 Suffolk Street, London SW1Y 4HG.
Telephone: 01-930 7251.

LIGHTING DIMENSIONS INTERNATIONAL

November 17-19, 1990.
Orlando, Florida.
Enquiries: Pat Mackay or Jackie Tien,
Lighting Dimensions, 135 Fifth Avenue, New York,
NY 10010, USA.
Telephone: (212) 677 5997.

DISCOTEC/HOGATEC 90

November 5-9, 1990.
Messe Dusseldorf, Dusseldorf.
Enquiries: Dusseldorfer Messgesellschaft mbH,
NOWEA, Postfach 32 02 03 D-4000 Dusseldorf 30,
West Germany.
Telephone: 0211 45 60 01.

New Members

THE SOUND PRACTICE

The Studio, 16 Spring Street, Rugby,
Warwickshire CV21 3HH
Tel: (0788) 541133
Fax: (0788) 541314
Contact: Ken Dibble

THE SOUND WORKSHOP

19-21 Queens Road, Halifax HX1 3NS.
Tel: (0422) 345021
Fax: (0422) 345031 Telex: 517776
Contact: Richard Lockyer

For details of
advertising in
Lighting + Sound
International
ring Alison Hunt
on (0323) 642639

PLANNED EQUIPMENT AT RANK'S FLAGSHIP LEISURE COMPLEX

The story behind the sound at Festival Park, Stoke-on-Trent.



Festival Park: one of the largest sub-tropical water worlds in Europe.

Looking at Rank Leisure's Festival Park leisure complex in Stoke on Trent, it is hard to believe that the area in which it now stands was less than 10 years ago, described as one of the worst examples of inner city dereliction in Britain.

In 1986, however, 200 acres of this run down area were given the go ahead for the National Garden Festival, with the objective first of clearing the area, but more importantly for including a rolling programme of development after the Festival had taken place.

The comprehensive development package that was put together included retail, industrial, business, commercial and leisure facilities, alongside a large area of quality landscaped public open space.

Rank Leisure were successful in tendering for the leisure aspects of the development, and have converted 23 acres into a leisure complex which is unique in the sheer number of facilities it offers all in the one place - a uniqueness that may be challenged in the near future though, since Rank see the Festival Park as the forerunner of other similar developments across the country.

Construction of the £17 million development began in November 1988, and the complex now boasts an eight screen cinema, dry ski slope, restaurant, themed bars, 30 lane ten pin bowling alley, snooker club with 17 tables, and one of the largest sub-tropical water worlds in Europe. Having now been open for just two months, the centre is already attracting large crowds.

A tender to supply the complex's PA system was won by Planned Equipment Ltd, with the contract effectively split into two parts - one for the main entertainment building, which includes the eight screen cinema, bowling alley and snooker club, and the other for the sub-tropical water world.

The main objective in the entertainment building was for a PA system capable of providing public information messages, together with emergency messages if required, that could also be used to broadcast background music. This was achieved using a total of 41 PEL PRB801N circular ceiling speakers throughout all public areas, including the cloakrooms. All ceiling speakers were fitted with PZR88N fireproof covers to reduce any possible fire risk. In addition to these

speakers, each of the eight cinemas has a PEL RC1015 metal column speaker placed behind the cinema screen. The whole system is wired in FP200 protective cable into a 16U rack cabinet with lockable glazed door, placed in the main reception area close to the paging microphone.

The rack contains two amps, one a mixer amplifier PAS1245N 240W which drives the main system, and a PAS 1106 100W slave amp which drives the cinema circuit.

The rack also contains an PEB30N four tape cassette deck and a PEL PD500 short text announcer. This provides standard public information announcements by storing a vocabulary of segmented digitally recorded speech. By selection from this vocabulary, true to life audio messages are produced which sound exactly like original recordings, rather than robot-like synthesised speech systems.

A particular advantage of this technique is in emergency situations, where, at the touch of a button, the operator can send out an evacuation message that will convey the correct sense of urgency, yet will be calm and intelligible, and all at the touch of a button.



Entertainment building entrance.



The main foyer, Festival Park.

The paging system is zoned, but in an emergency, evacuate messages are broadcast throughout all areas. Projectors and sound in the cinemas are automatically shut down. Three bars have their own juke box system, but there is a low level feed from the rack which mutes the music in the bar and broadcasts messages as required.

The Water World complex provided a completely different challenge with all the problems associated with swimming pool environments, where the combination of glass, steel and water, together with high ambient noise levels, measured at between 80-90dBa, provide what is possibly the most difficult acoustic environment imaginable. Planned Equipment were selected for the contract partly for their specific expertise in swimming pool installations.

Various options were considered, such as central cluster or distributed system, but in the event, PEL opted for the distributed system with the objective of reducing the distance to the listener (D) at the expense of a number of loud speaker groups (N), in other words, the use of a large number of closely spaced speakers.

A total of 90 PEL PRBP1035Ns were used, distributed at low level around the pool area, together with a speaker at the top of the flume tower for increased audibility in that area. Where possible, speakers were hidden in the planted areas or were disguised in the rock formations.

The PRB1035N projection speaker was chosen because of its exceptional directivity, with its ability to combat the high humidity.

It has a cylindrical moulded plastic casing, and a fibre glass diaphragm with stainless steel fixing screws. Fixing brackets were plastic.

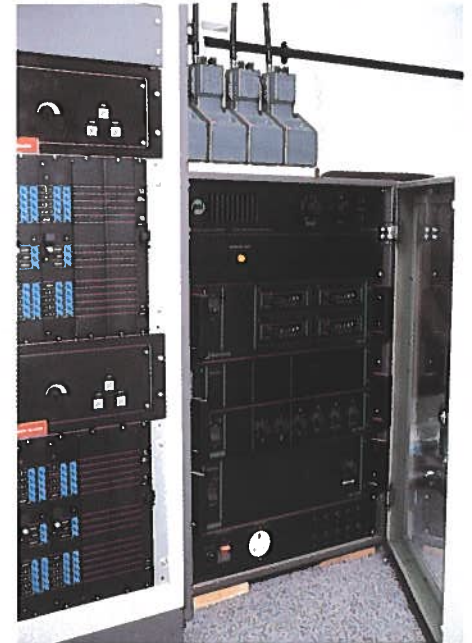
The paging microphone PGZ571N was chosen from PEL's large range of microphones. This is a cardioid electret mic console and is desk mounted in the command module. Public information announcements are provided by the PEL PB500 short text announcer, including a warning broadcast at regular intervals into the changing rooms, advising people of the dangers of using the pool when the wave machine is on if they are not good swimmers. Sound into the changing rooms is provided through eight PRB801N flush fit ceiling speakers.

The power amplifiers for the water world are housed in a PEL 27U rack cabinet with a lockable glazed door. Four loudspeaker circuits were installed, which were connected to four PEL PAS 1240N 240W power amplifiers. The mixer was a PEL PAPI010N with six mixable and pluggable inputs. An EVT 2230 graphic equaliser was built into the rack to provide overall equalisation of the system, and this proved a great help in providing acceptable levels of intelligibility.

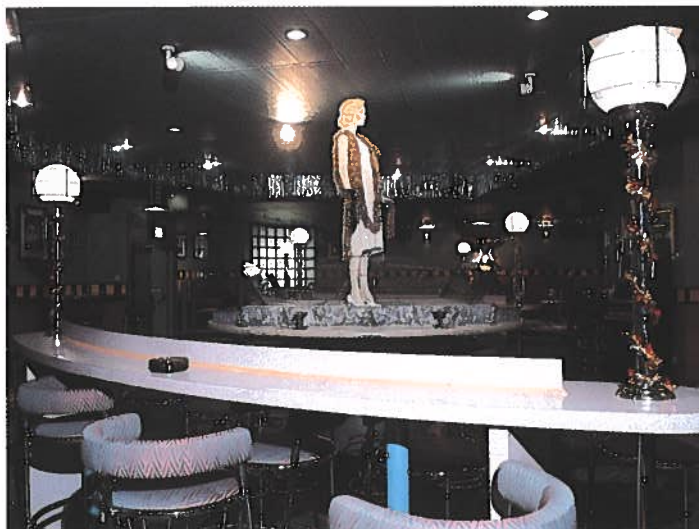
Planned Equipment Ltd.

With bases in London, Birmingham and Manchester, Planned Equipment have specialised in sound and communication systems for over 30 years. The company is the largest stockist of public address and background music equipment in the UK, and designs, supplies, installs and maintains complete systems for its clients.

The company pioneered the concept of fire alarm linked public address, particularly where this is linked to the company's own digital announcers. The complete range of services includes foreground music equipment, public address, sound reinforcement, intercoms, fire detection and alarm, and close circuit television. The company also offers a complete background music service, compiling its own programmes all from original artistes in its own central studios.



Control rack in the Entertainment building.



Norma Jean's themed bar.



Control rack in the Water World complex.



TEN VINTAGE YEARS

*To all our customers
and suppliers thank you*

AVITEC
THE ATMOSPHERE CREATORS

The AVITEC Group – Europe's largest club lighting & sound equipment distributors.

AVITEC Electronics (UK) Limited, 80/81 Walsworth Road, Hitchin, Herts SG4 9SX. Tel: Hitchin (0462) 458961. Fax: (0462) 431019. Tlx: 825682 AVITEC G.

European Leisure's Tuxedo Royale

An ex-car ferry, the Sol Express, once co-opted to evacuate equipment and personnel from the US Embassy in the Lebanon, has been converted into a multimillion pound leisure centre by European Leisure plc. Now moved to a permanent site on the Tyne at Gateshead, the ship has been renamed the Tuxedo Royale by its new owners.

It is the second floating leisure venue that the company has opened, and replaces the Tuxedo Princess European Leisure's other floating venue that was moved from Newcastle to Glasgow late last year. It will also complement the leisure group's other operations in the northeast which include Tuxedo Junction, Manhattan's, Nikki's Bar and Presidents in Newcastle, with Heavens Above in Hartlepool.

Wynne Willson, Gottelier, the Sevenoaks based lighting designers, were responsible for the total lighting design, including the decor lighting, throughout the public areas on the ship. Several unusual features are claimed for the lighting scheme which covered seven different operational sectors including a cafe bar, a restaurant and two nightclubs.

"Ceiling heights on a boat are very restric-

Etienne Zacamerek

The news came just before Christmas that Etienne Zacamerek had died on December 21st in a car crash in Paris.

Etienne was 33.

For many years he represented the French Discotheque Industry publishing a series of magazines and latterly organising an exhibition.

For some years now Etienne (everyone called him by his first name) had been publishing the magazine Night Show. For people throughout Europe, he was their way into the French market.

For media people visiting Paris, for the annual SIEL exhibition, Etienne was high on the list of people to see first, and check out what party or press reception was about to happen.

Others, I'm sure, will be able to relate stories of meeting him in Italy, Spain, France - wherever the industry was gathered that week.

ive when it comes to lighting," points out Tony Gottelier. "Everything had to be recessed within a maximum of 2.2 metres and we had to use some considerable ingenuity to make this feasible."

For myself, I have cause to be thankful for his help on numerous occasions when visiting Paris both on business and privately. But it's London's Covent Garden that I turn to for this story.

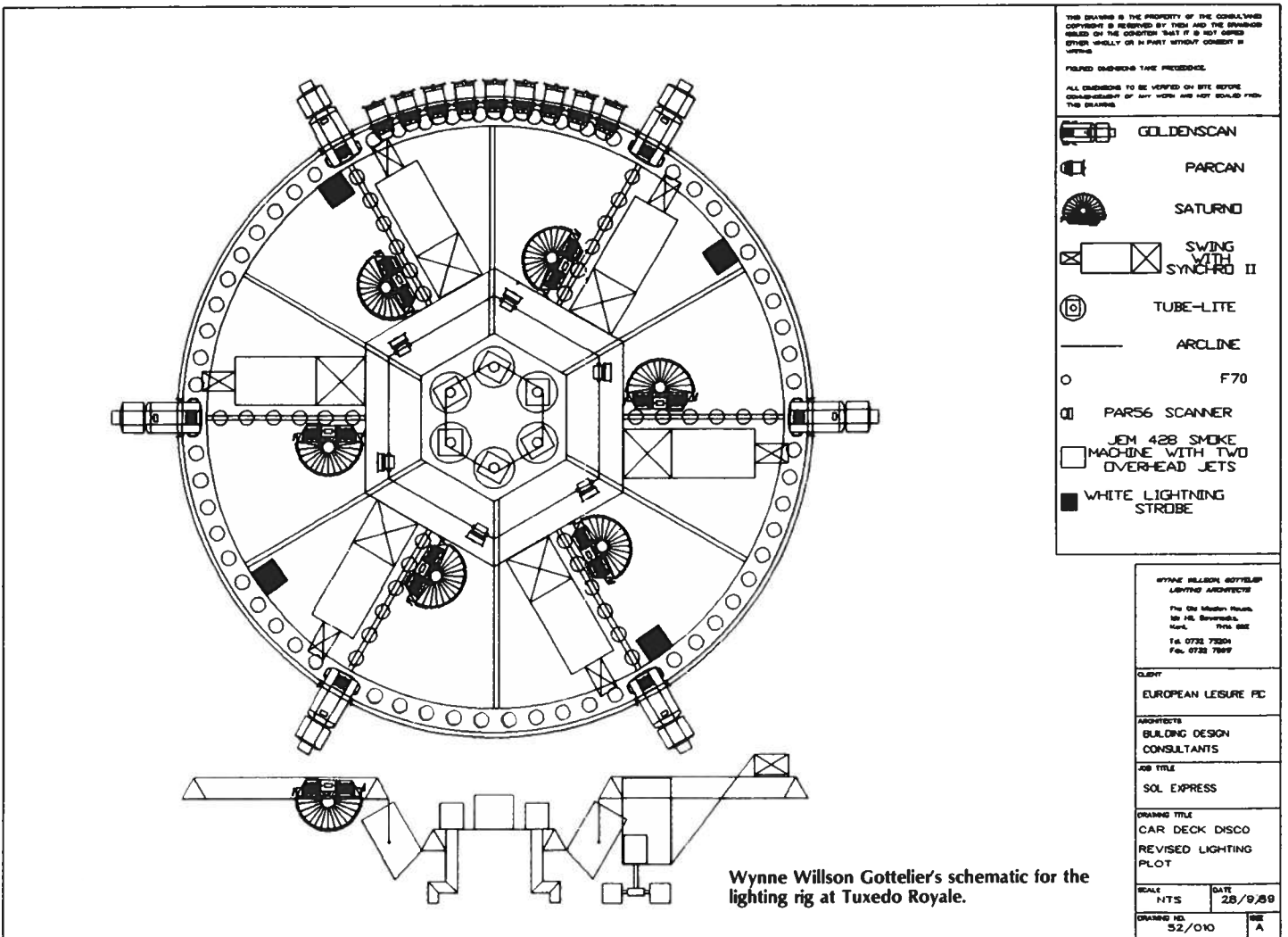
Out late on Saturday night, just after the Opera crowds had turned out, we tried for a table in a then overcrowded French restaurant. He talked four of us in, persuading them to make a table for us.

During the meal I remarked on the design of the ashtray which matched the rest of the dinner service. When we left it was no surprise to anyone that the ashtray appeared out of one Etienne's pockets.

What made him special was when he produced the coffee pot out of the other one.

He will be sadly missed by many I'm sure. His partner Therry Savignac plans to continue publishing Night Show, and after their successful exhibition last November (Discotech '89) he plans to run it again this year.

In particular, he is especially proud with the technique developed by the partnership to enable the incorporation of infinity effects above one of the dance floors. An unusual suspension system was expressly designed



to give a seamless appearance to the finished article, which incorporated neon and star lights, and which also enabled low voltage dichroic spots to be included externally to the glass, but still within the limited soffit level.

Wynne Willson Gottelier's work will be a major feature of the floating venue, a concept unique to European Leisure, which offers facilities for up to 2,000 people, including a discotheque for 500, six bars, a theme bar, a restaurant, a separate night club with bar and discotheque, together with two conference rooms and day time operations for 350 people.

In the cafe bar, a posing area has been created with sculpted art deco style lines in the ceiling, made from side-emitting fibre optic rope. This 13mm diameter tubing, connected to hidden light sources, changes colour along its length giving, what designers

believe, is a stronger statement than the shimmering effect normally associated with fibre optics.

No such height problems were involved on the old car deck, where the original vehicle turntable has been renewed and converted into the dance floor. A giant circular rig made from Trilite truss was suspended above, to support a central cluster of Electrovoice speakers and a battery of lighting effects. One interesting feature is the Power Swings, which were developed in collaboration with Lynx Lighting, to provide synchronised concentric mechanical movement.

Originally visualised as part of the scheme by Tony Gottelier, and sketched in a shorthand notebook while on holiday in the summer, it soon became clear that Lynx were well advanced with a very similar idea, so it made sense to pool resources. As an end

result, they have been used to fly Synchro Scans into line of sight and have also been neonised to create a spectacular entrance.

The installation of the lighting rig was carried out by Sound Electronics of Newcastle.

As European Leisures' retained consultants, WWG were also responsible for the sound concept on the ship. This involved two full dance floor systems, as well as a background system into all seven entertainment spaces. The whole set-up is managed by a central computer via Amcron's IQ system and was supplied and installed by Shuttlesound.

The background system is sourced by Databeat 120 disc CD system.

While, outside the ship is floodlit, two Xenon arcs sweep the night sky in wind-screen wiper format. Despite the unfamiliar context, you can be sure that these searchlights are there to encourage boarders, not repel them.

Bass Nightclub Award

The only managed nightclub run by Bass in the North of England has been voted the best new night-spot in Yorkshire and Humberside - only months after it opened to the public.

J.D.'s in High Cliff, Cleethorpes, managed by Bass Taverns (North East), beat off stiff competition to win the title in the prestigious Premiere Discotheque of the Year Award, run by Disco Mirror magazine.

J.D.'s formerly Dean's nightclub, opened in June following a major £200,000 refurbishment. It pioneered one of the country's most advanced video-wall units and computerised lighting systems, making it, according to Bass, the hottest night-spot in town. It came top of the ratings over 21 other new venues - some much bigger - to claim the regional title in the competition.

"The innovative use of video and the most sophisticated lighting equipment impressed us very much" said Damien Walsh, managing director of Disco Mirror, who was one of the judges. "The standards at J.D.'s are those you would expect to find in a major city centre club."

The award was music to the ears of John Scaife, area sales manager of Bass Taverns (North East): "We're highly delighted J.D.'s has won," he said. "The nightclub has proved extremely popular, attracting disco-lovers from all over the country, and the staff have done a marvellous job, especially new manager Alan Reed, who was formerly the DJ."

J.D.'s will receive a certificate and a chance to compete for the national title, at a presentation early this year.

TVDJA Exhibition

The Thames Valley Disc Jockey Association annual Disco equipment exhibition will be held at Kempton Manor Complex, Kempton Park from 12 - 6pm on Sunday 28th January.

At the time of going to press, companies exhibiting include L.S.D., Alvins, Vestax, S & S Lighting, Harrison Information Technology, Ryder, L.A.D., E.L.M., Cerebrum, M.K.S.L., Squire Sound & Light, Rainbow/Powerhouse, Trifibre, Lightfactor, and Music Factor. There will also be a number of retailers exhibiting.

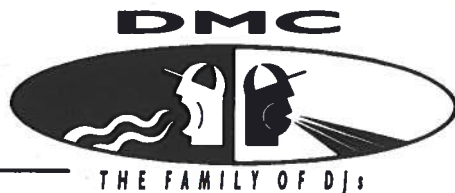
In the evening the TVDJA Dinner and Awards night will be held in another part of the complex. For more information contact the secretary and organiser, Mike or Margaret Jordan at the TVDJA, 9 Headington Drive, Wokingham, Berkshire RG11 1XB. Telephone: (0734) 771450.

SIEL 1990

Next month sees the eighth annual exhibition of the Salon International de L'Equipelement des Lieux de Spectacles et de Loisirs which takes place at the Parc des Expositions on the outskirts of Paris. Running from the 17-20th February, Siel has become the annual rendezvous for all professionals concerned with the entertainment and leisure venues industries. During the four days of the show, visitors will get the chance to view the complete range of products and services, together with the latest technology available in this expanding market. With over 20,000 professional visitors, a growing number of overseas buyers, and over 300 exhibitors in 22,000 square metres, who could ask to mix business with pleasure more satisfactorily than in France's capital. It's an occasion not to be missed, and if you do manage to get over there, representatives of both PLASA and Lighting and Sound International will be on stand H33 to answer any questions you may have about the Association or the magazine. A full report on the show will appear in the March issue of L+S.



Dates for DMC's 1990 Championships



Dates for both UK and World Finals in DMC's 1990 Technics DJ Championships have been confirmed as follows:

UK Final: Thursday 1st March, Hippodrome, London.
World Final: Tuesday 20th March, Wembley Arena.

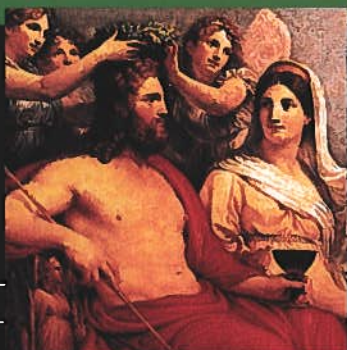
Heats for the UK Championships kick off at the Limelight in London and will run throughout January. Winners of these heats will then go through to the Regional Finals which will take place at the following venues:-

Monday 12th February	Hacienda, Manchester.
Wednesday 14th February	The Palace, Blackpool.
Monday 19th February	Camden Palace, London.
Tuesday 20th February	Goldiggers, Chippenham.

Winners of the Regional Finals will be entered for the UK Final at London's Hippodrome, the winner of which will represent the UK at the World DJ Championships at Wembley Arena on 20th March. This year's Technics World DJ Championships twinned with the Stanton sponsored DJ Awards is the biggest in the history of the event. The World Championships are one of the main highlights of the DMC International DJ Convention which this year runs for four days from 18th March through to the 21st March. The four day event includes the final of the Sleeping Bag/Shure sponsored Rapping Competition which takes place at The Hippodrome on 18th March and a Gala Music Industry Awards Dinner at the Hilton Hotel on 21st March. This dinner, in aid of the Princess Trust Charity, will be hosted by the Technics 1990 World Mixing Champion. Representatives from the music industry as well as top UK and international recording artistes will be attending this star studded event.

jupiter. the ultimate.

Jupiter
in a famous painting
by Andrea Appiani.



Jupiter was the Mythical Ruler of the Gods.
But today Jupiter is no myth
- stunning power, sharp colours and clean,
accurate movements
make the Coemar Jupiter
the unrivalled King of the Discoteque.



Programmable controller,
90 memory banks and 8 programmes
with 60 steps each.
Possibility of using
external memories with the same
capacity as the internal one.



Cassette-wheel for 12 colours.

Cassette-wheel for 12 gobos from a selection of over 100 patterns.

Wheels with automatic reset to home position by means of optical sensors.

Microstep stepper motors controlled by microprocessors.

Programmable chase with 8 speeds.

Programmable movements with 8 speeds of the high quality reflector.

Independent general blackout.

Individual blackout for each lantern.

High definition autofocus zoom objective.

Programmable angle from 10° to 20°.

Thermal sensors automatically control the internal temperature.

Safety device for lamp exchange.

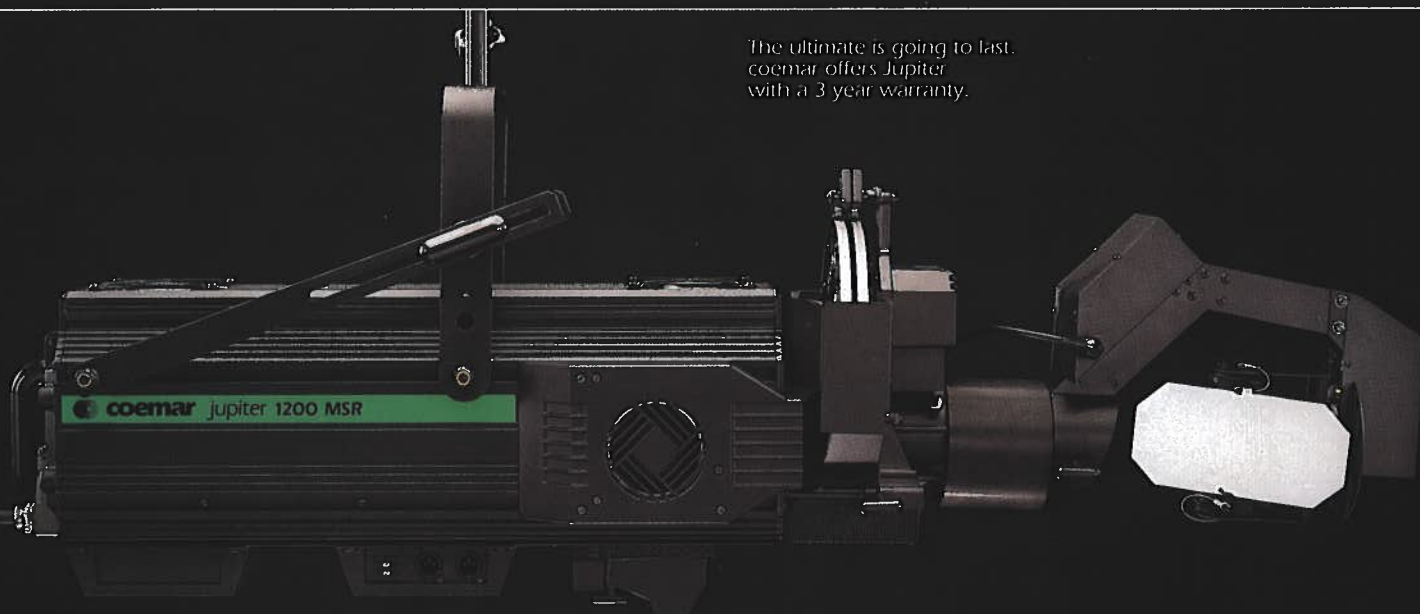
Remote ignition of the lamps via controller.

Programmable mechanical dimmer
for light intensity from zero to maximum.

New lamps of exceptional brightness:
700W MSR 56.000 lumen 5600°K, 1200W MSR 110.000 lumen 5600°K.

Extremely easy installation.

The ultimate is going to last.
coemar offers Jupiter
with a 3 year warranty.



w.b.lighting
4 tenter road, moulton park
northampton nn3 1pz
phone (0604) 49.93.31
telex 312320
telefax (0604) 49.94.46

coemar spa
42042 castelgoffredo (mn)
via inghilterra
telefono (0376) 77.93.36
telex 301590
telefax (0376) 78.06.57

professional projectors
for lighting effects



coemar

New Look Dukes

Dukes Discotheque, the Chelmsford-based nightclub, closed on January 1st this year for major refurbishment, with a proposed reopening scheduled for early in March. During the closure the administration offices will remain open and staff will be on hand to answer any queries.

Off the Wall

The mural in Legends discotheque is giving the locals something to talk about. Sited on the wall at the back of the stage, it measures 25ft by 9ft and altogether there are approximately 200 faces. The central section is loosely based on the Sargeant Pepper album cover, the well-known image of the sixties created by artist Peter Blake. The mural at the nightclub is brush painted direct on to the wall surface in water-based acrylic paints. The central section conceals a pair of wooden doors used for access to the stage.

The artist Denis Critchlow originally intended to incorporate relief forms which would have permitted interaction with both the sound and lighting systems. Such a design would also have permitted the use of various materials for his purpose, however, such a scheme, proved, in the end, to be unviable.

Denis Critchlow, has his studio at The Children's Hall, Beaulieu, Invernesshire where there are facilities for the preparation of a wide range of work.

Celebrate with the Stars!

It's in the stars that many of Britain's discotheques will benefit from a weekday business boom this year.

Wiltshire-based direct mail specialists Celebration File will be tempting night time revellers into a host of nightclubs around the

country with a novel astrological inducement.

Celebration File, who are celebrating their fifth anniversary this year, have established themselves as the discotheque industry's leading ally in the promotion of special events aimed at bolstering trade on normally quiet nights.

In the past five years literally thousands of disco revellers have received Celebration File 'birthday packs' offering them the chance to celebrate their birthday at their favourite club with free tickets for friends and free bottles of bubbly thrown in.

Now the company has come up with a horoscope-style inducement package to help disco operators like First Leisure, Mecca and others to reap dividends from the phenomenal popularity of stargazing.

Whatever your star sign, if your name is on a discotheque customer list, the chances are that when the heavens move into the appropriate phase you will be tempted to take your pals along free to your favourite nightspot, claim your stargazers' cocktails, meet someone very special and receive a gift or prize from an unexpected admirer!

Celebration File, in Melksham, Wiltshire, is run by husband and wife team Bruce and Carole Bronson. It is a sister company to the data mailing firm Valldata, whose clients have included The National Trust, Harrods, Childline, The Samaritans, Saatchi & Saatchi, American Express and Avis, to name just a few.

Celebration File's new zodiac packs include personalised laser printed letters using the christian name of each recipient in the main text.

Bruce and Carole have also dreamed up another occasion which they think club goers will respond to enthusiastically.

Their 'It's nearly my birthday' party packs will go out to disco customers exactly six months after their birthday, again offering a variety of inducements to celebrate the 'half-way stage' with a night out at the disco.

Mecca Move In



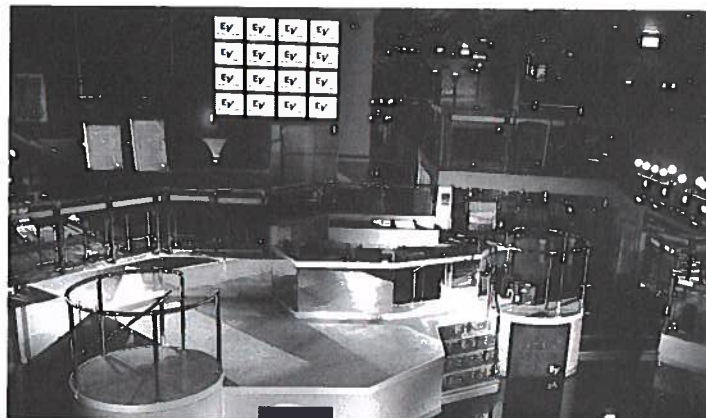
MD of Mecca, Tony Marshall (right) with Rinaldo Fasulo (left). Sean Lea, general manager looks on.

One of the industry's leading leisure companies, Mecca Leisure, have acquired the just-opened Rinaldo's Nightclub in Peterborough. Winner of this year's New Independent Nightclub of the Year Award, the club will complement Mecca's Ritzzy and Central Park branding and reinforce the company's strong position in the nightclub market.

Set on three floors, the club features Milano's Bar on the ground floor, with the remaining space accommodating a 900 capacity discotheque and facilities for private functions.

Maintaining a close personal interest in the club which he designed and built himself, local personality Rinaldo now provides a consultancy service to Mecca in Peterborough after the handover on 4th December last year.

The Zen - Dartford



Equipment List

Speaker System

- 14 Electro-voice Motivator 2 12 inch plus Horn PI system
- 2 Electro-Voice MTL 4 subwoofer, carpet cabs
- 2 Electro-Voice FM 1202 wedge monitors
- 4 Electro-Voice FK MTVTR 2 flying harness for Motivator 2
- 2 C 15 background speakers
- 2 speaker brackets

Amplification

- 4 Amcron MT-1200
- 2 Amcron MT-2400

Signal Processing

- 1 Furman LC-XB expander/compressor/limiter bal
- 1 EQ Prod 1.2R + remote connector
- 1 Furman TX-324B 2/3 way 24 dB/Oct bal
- 1 Furman GQ-31B graphic mono 31-band bal
- 5 SCV UB287 voltage controlled amp
- 5 SCV UB285T bal in/out module
- 2 SCV UB281 PSU
- 2 SCV UB288 mainframe
- 4 B1 blank modules

D.J. Unit

- 1 Formula Sound PM80/12
- 2 Formula Sound phono mod 3B
- 2 Formula Sound mic mod

- 2 Formula Sound tape mod bal
- 4 Formula Sound tape mod 3 band
- 2 Technics SL 1210
- 2 Concorde pro cartridges
- 2 E235 pre-amplifiers
- 1 SLP 1200 CD player
- 1 Tascam 32 reel to reel
- 1 DRM 12 HR cassette player
- 1 Electro-Voice PL 80 microphone
- 1 Samson SH-2, SR-2 wireless microphone system
- 1 Multi-verb effects unit

Live Sound

- 6 Electro-Voice PL 88L microphones
- 6 ST 210/2 stands
- 1 Electro-Voice BK 1232 12ch mixer

MIDI IN THE THEATRE

Michael Lancaster, of the Citizens Theatre in Glasgow, discusses the uses of MIDI on a production of Macbeth

So - Midi has finally raised its head in the world of lighting after years of revolutionising the music/recording industry. Will it do the same here?

What is Midi and what can it do for you?

Well, it's just another communications buss really but it talks music rather than bills and overdrafts. When you hit a key on any Midi keyboard, a command is sent telling whatever is plugged to the other end what note you hit (a note on event), how hard you hit it (velocity), and when you release it (a note off event). It will also transmit things like patch changes (changing a sound on a synth), tempos (for syncing up other devices, i.e. drum machines and sequencers), pitch and modulation info (the two wheels on the left of nearly every synth), and a whole host of other goodies too complicated to go into here.

Computer-based sequencers can record these events in time with a master clock (tempo). Like all things that end up in computers you can mess about with them, and Midi is no different. We can edit the notes to play when we want to, and most important, we can now sync these sequencers to tape via SMPTE (a universal standard used in film, video and the recording industry).

Since the arrival of the latest version of Arri's Imagination 250, I have been keen to try out its Midi interface.

The Plan:

The music was recorded onto an eight track tape recorder with SMPTE code onto track 8. The SMPTE code is then read by a computer running a music sequencer. The lighting cues can then be inserted like any other Midi event. The lighting board is then linked to the computer via the magical Midi 5 pin din lead.

The beauty of this set up is that lighting can now be totally synchronised with the sound track, i.e. if the cue is just a little late due to filament warm up times etc., then unlike previous systems we can now move the cue point earlier to avoid these delays. Slow fades can follow musical swells perfectly, although, as with all computers, fancy results require long programming times.

In Practice:

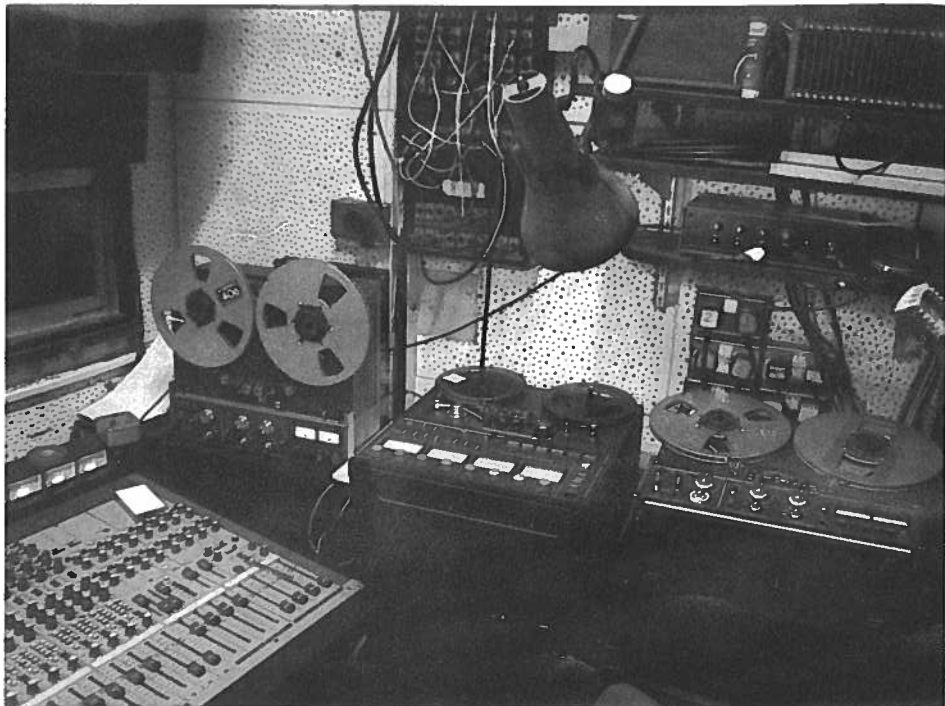
These theories were put into practice for the production of Macbeth at the Citizens Theatre Glasgow.

All the music was recorded into the computer (Atari 1040ST running Hybrid Arts SMPTE track software) and several arrangements were made of the themes. The actual recording to tape was left as late as possible so last minute changes could be easily integrated. Also the music was not fully mixed down, i.e. we left horns separate so we could route them to a different speaker position in the auditorium, so in a sense, 60 tracks of Midi music were mixed down to seven tracks on the tape recorder. This left us with greater flexibility for routing the arrangements around the stage and auditorium. (Hell to operate!).

After plotting the show in the normal manner, leaving gaps where the sync passages



Nicky Rintoul, assistant electrician at the theatre, operating the Arri Imagination 250 lighting board with backup (centre) and the Atari 1040 computer (left).



Two of the Revox mixers used in the production together with the Tascam mixer (bottom left).

were to go, we start the tape, noting the bar positions at the start of the piece and any cue points.

Arri lets you access the board in the following ways. The bump buttons (submasters 1-24) via Midi note numbers, i.e. middle c (60) on - sub one fades to full in the time assigned and will stay there till a note off is received. Again it will fade in the time specified.

The cues are accessed in two ways: patch changes 1-128, i.e. on patch 5 cue 5 will be

executed in the AB playback: and to access cues 129 onwards and the cues to the CD playback you have to use control codes 70 onwards, each having 128 steps.

The main problem I had was with snap cues at the beginning of a sound cue. The computer wouldn't lock onto the sync code in time, e.g. we had a backward cymbal crash with which we wanted a light to flash on, but the sound cue was too short. Back to the normal cueing method.

Plotting the sync cues went fine - snaps on

beat, fades with choirs and horns etc., but when we came to run the show a problem soon became apparent. Every time the sync tape was started the board would run the last sync cue. After a bit of head-scratching we realised this was due to the fact that the 'clever' sequencers send out the last patch change when started in mid-song and therefore the synth is using the right sound and consequently the last cue. By setting each cue to a different register (arrangements within the sequencer), and cueing it up on standby, we made it behave itself.

Conclusion:

Basically it works a treat although it does take a lot of preplanning, and I don't really think it will find many applications in Rep theatre productions. I think it will come into its own in dance lighting where everything is 'synced' to the music including the dancers/actors. With time and patience, the results could be quite stunning.

As Midi is still evolving there are going to be more and more interesting ways of syncing lights to action on stage: C-lab have just released a human tempo input whereby the tempo can be controlled by hand claps or finger snaps etc., or the device that uses infra red beams to scan the stage for movement and converts it into Midi codes that could in turn control the lighting board, i.e. fast movement downstage brings up red footlights, and a slow move upstage crossfades to blue sidelight. . . Now that more and more companies are putting Midi into their equipment the possibilities become mind boggling - imagine a video, computer graphics, lasers, Vari-Lites, music and lighting control all running in perfect sync with each other. And it's all nearly possible - weather permitting of course.

Sound Equipment:

Emax Sampler
Akai S700 Sampler
Ensoniq ESQ1
Akai VX90
Yamaha TX81Z
Yamaha DX7
2 x SPX90
Midiverb II
Aphex Type C
Studiomaster 16:8:16 mixer
3 x Revox B77
Fostex A80
Tascam 22-4
Luxman Cassette
Tascam 20:8:16 mixer.

Lighting Equipment:

Arri Imagination 250

Computer Equipment:

Atari 1040ST running Hybrid Arts SMPTE-Track Software

Macbeth by William Shakespeare

A Citizens' Company production

Directed by Jon Pope

Designed by Stewart Laing

Soundtrack by Adrian Johnston

Lighting design, mix and programming by Michael Lancaster

Lighting Operators Paul Sorley & Nicky Rintoul

Sound Operator Bevis Evans Teush

ARK LIGHT THEATRE LANTERN RESTORATION

COLOUR MATCHING TO DECOR
SPARES, T/H KITS

2 Partridge Close, Upper Bruntingthorpe,
Leicestershire LE17 5QY.

Tel: (0533) 478336

*The
Fibre Optic
Lighting
People*

We manufacture and distribute all fibre optic lighting materials - Parglas harnesses and conduits, Parflex polymers, light sources, theatre curtain washers, spot ball and bullet lenses, side emitting fractured fibres, ceiling fittings and large bore fibre optics.

Examples of our fibre optics may be viewed at our Chiswick showroom, from subtle backgrounds to fibre optic fireworks. Leaflets available.

(Visitors by appointment)

Trade & Export call PAUL RAYMOND

Par Opti Projects Ltd.

Unit 9 The Bell Ind. Est.

Cunnington St.

Chiswick Park

London W4 5EP

Tel: 01-995 5179

Tlx: 933718 PAROP G
Fax: 01-994 1102



CONDITIONS FOR ADVERTISEMENT IN LIGHTING+SOUND INTERNATIONAL

The Publishers reserve the right to refuse any advertisement—whether pre-paid or not—and without reasons being given for any such refusal. The Publishers accept no liability for any loss or damage by an error or inaccuracy in the printing of any advertisement.



Clear-Com
Intercom Systems

introduce the new

SERIES 500 BELTPACKS

FEATURES . . .

- Momentary or Latching microphone on/off button.
- "Remote Mic Kill" feature.
- Exceptionally light weight and small size.
- Rugged case constructed of extruded aluminium and advanced HDS composite material.
- All controls and indicators protected from damage.
- Ergonomically designed controls for ease of operation.
- High audio output power.
- Special belt clip and surface mounting adapter.
- Colour coded models.
- Auto-shutoff of belt-pack microphone circuit when intercom line disconnected.
- Dynamic, Electret, or Carbon microphone capability.

Full technical brochures and price lists on these and all other Clear-Com intercom systems equipment available from the . . .

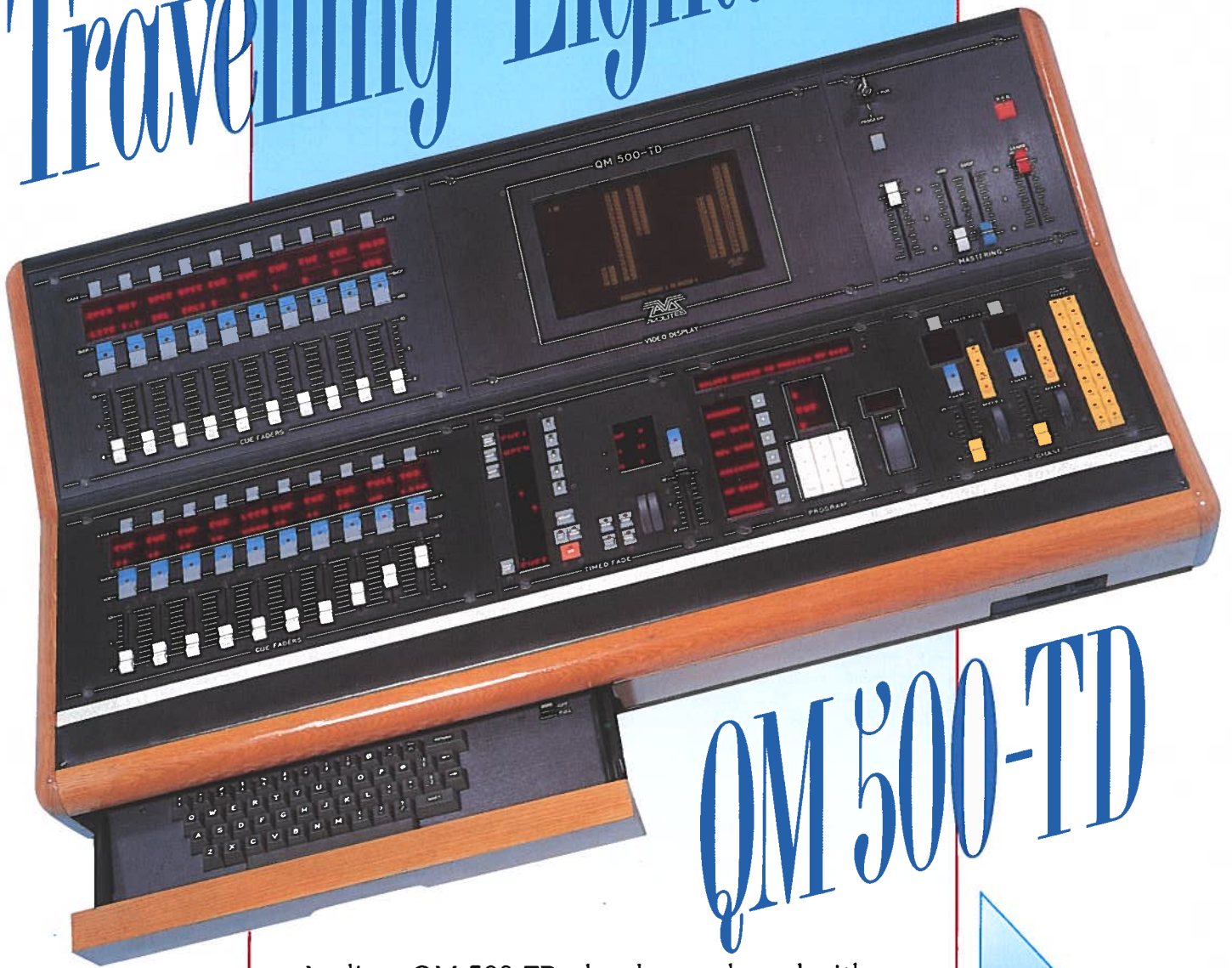
UNITED KINGDOM
DISTRIBUTORS



67 Drury Lane, London WC2B 5SP
Phone: 01-836 7877/8 Fax: 01-836 7879

Theatre Sound & Lighting (Services) Ltd

Travelling Light.



QM 500-TD

Avolites QM 500-TD, the theatre board with an impeccable pedigree.

Developed from the original "QM" the benchmark for touring boards, combining state of the art technology with craftsman construction.

Technology you can trust from the winner of the "Performance Award for Lighting Equipment Manufacturer of the Year, 1988"

Avolites QM 500-TD "the" theatre board.



AVOLITES PRODUCTION COMPANY LTD.
 184 Park Avenue, London NW10 7XL.
 Telephone: 01-965 8522. Telex: 24652 SPOTON G.
 Fax: 01-965 0290.



AVOLITES INC.
 9700 Owensmouth Avenue, Unit B, Chatsworth CA 91311.
 Tel: (818) 709 1116. E.MAIL IMC 506 OLLETT-us.
 Fax: (818) 709 0153.

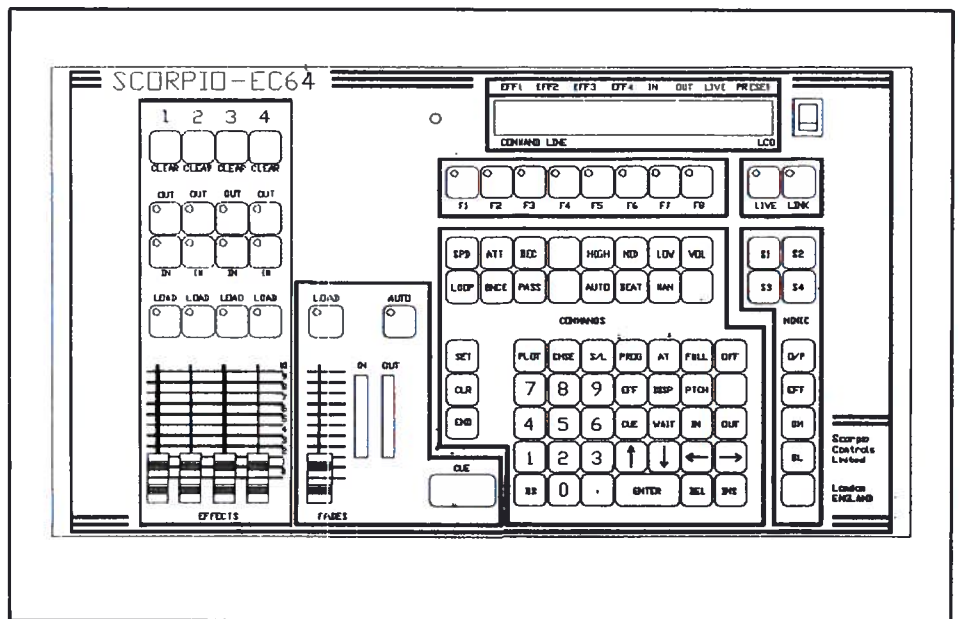
AN ICON FOR THE NINETIES

Graham Walne studies Scorpio's new control system

"Will numbers be replaced by icons, keypads give way to interactive mimics?" This question was posed by Francis Reid in December's L+SI (Post Modern Lighting Control at the BBC) and not for the first time has Mr Reid's prescience been remarkably on target because hot on the heels of his question comes this report on the Scorpio Controls' EC64 and if this system is typical then the answer to Mr Reid is a resounding 'yes'.

In fact, the flexibility offered by the EC64 in terms of what the VDU carries (and how one talks to it) is what marks this system out from others. The colour monitor will display a variety of menus but the client can create his own display using the system's mouse or the optional trackerball, touch screen or graphic pad. The significance of this is that the operator can draw geographic mimics with instruments being represented by numbered icons which grow in size as the intensity increases (although standard percentage displays are also available); the screen will also accept text so that focus notes or cue sheets can be written. I don't know if Mr Reid would approve of this facility being used as a prime part of the setting process (and I certainly support his view that operators should be looking at the stage rather than at Mission Control) but sensibly the EC64 also incorporates a built-in 2 line x 40 character LCD display showing system status and commands, so the operator need not look at VDU for basic information.

However the EC64 monitor and its attendant access peripherals can be placed on the production desk and used via the geographic mimic to access channels, groups, cues or effects, and so I suggest that this offers

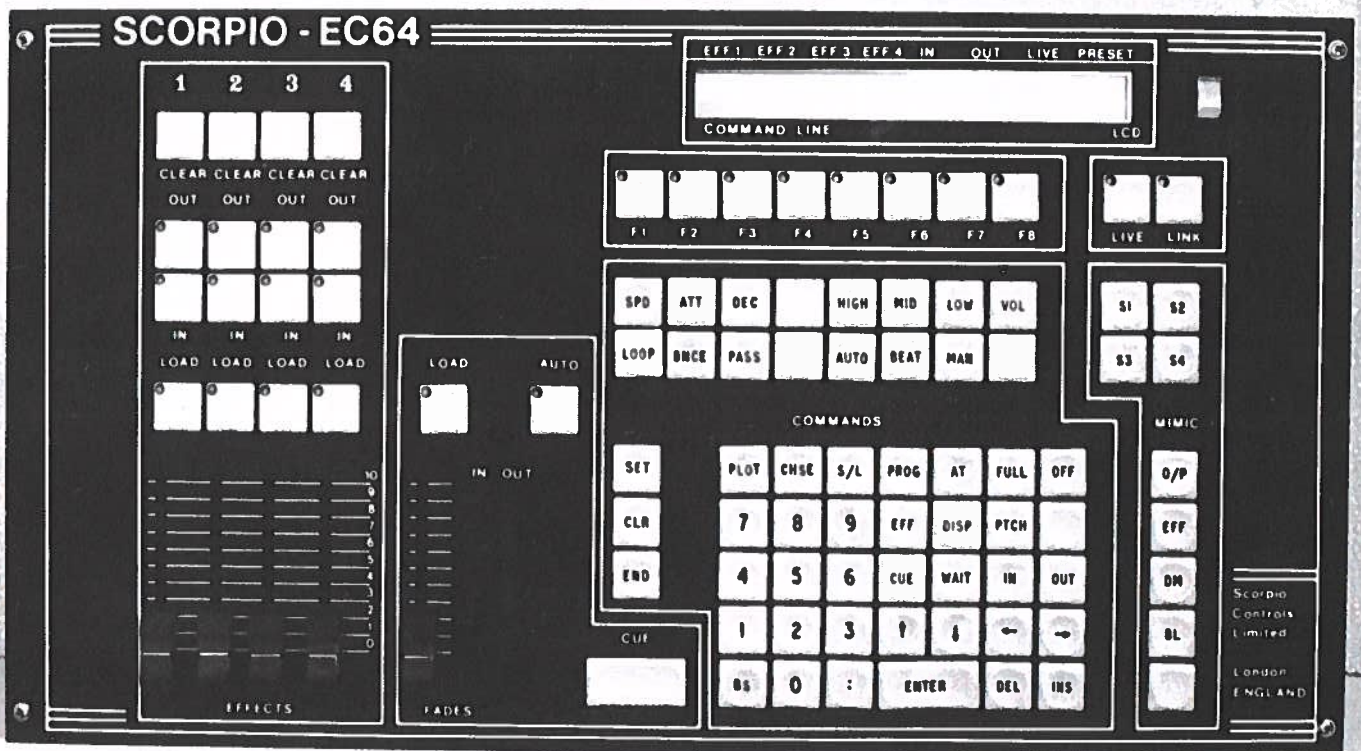


A diagrammatic representation of the EC64 Effects Control System's keypad.

designers a considerable tool. I'm a big fan of the graphics tablet systems, and all for anything which makes it easier for designers to experiment and in my book, however good the operator upstairs, there is no substitute for a twiddle box on the production desk. Scorpio promise that later this year there will be an option to print from the screen so that the client's own geographic displays can be turned into 'cheat sheets'.

This aspect of the EC64 took over two years to develop and if you're thinking that

you need to be a computer expert to work it, Scorpio will proudly tell you that a 10 year old uses it to draw houses and cars! The company do offer one day's free training but so far users have been working the system without taking up this option, so it is clear from this that the EC64 is 'user-friendly' to use computer jargon. Scorpio is no cottage computer company however, it was formed in 1988 from two companies which themselves had been formed by Martin Redshaw (EC64's designer) and Anwar Sultan,



The EC64 self-contained memory desk.

both previously employees of Dynamic Technology. Scorpio now have unlimited licence from DTL to produce, sell and maintain DTL products such as the Datalite memory desk, thus leaving the larger company free to concentrate on their video products and systems work.

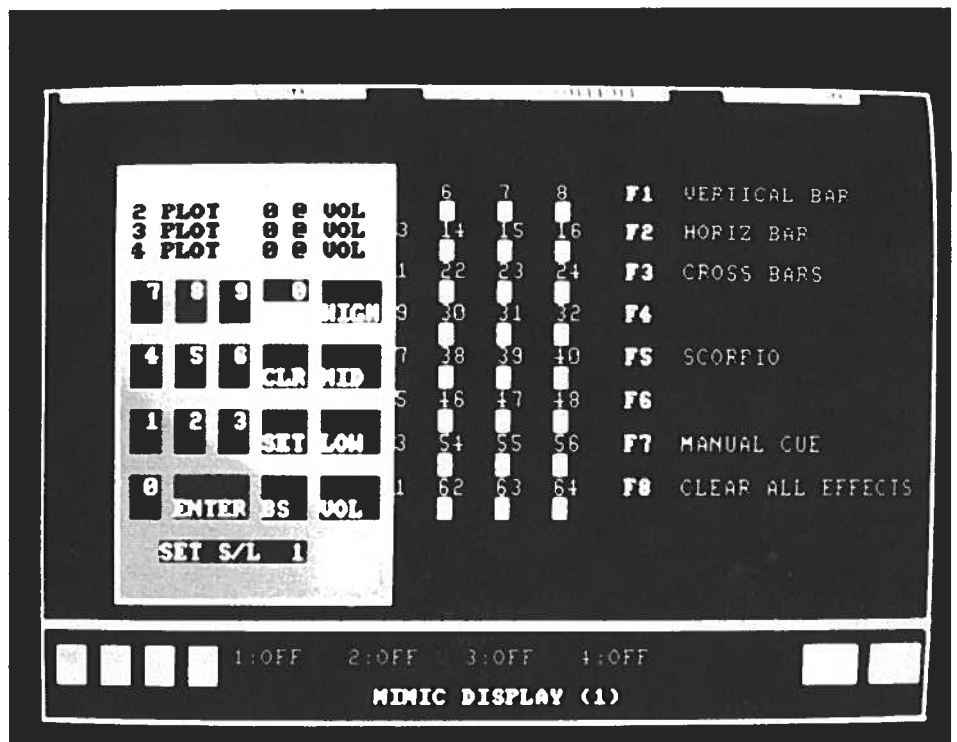
DTL, of course, although known much more for their television work than for theatre nevertheless enjoyed a reputation as the builder of reliable systems and Scorpio obviously want to carry on this tradition, an important aspect of policy for any manufacturer but vital for a small company. Consequently, Scorpio aim to help clients undertake first-line maintenance themselves and to this end will supply full circuit diagrams, technical information and diagnostic software where appropriate; this might be fine for television engineers (EC64's are installed at Channel 4 and TVS) but I have my doubts about some theatre electricians, nevertheless all major components are socketed, and so easily changed.

The system itself is very compact (480mm x 265mm) and although available in traditional desk format it can also be rack mounted as standard, an unusual option for a memory control system. Control is offered over individual channels or groups of channels, and over effects. Contact is made either by the keypad or by using the VDU and mouse etc. This useful facility not only means that the VDU can act as a total backup to the desk (a fascia menu is included as standard) but it can also be used to set up states whilst the main desk is doing something else; there appears to be considerable scope for blind plotting and adjusting, not something widely available at the lower end of the market.

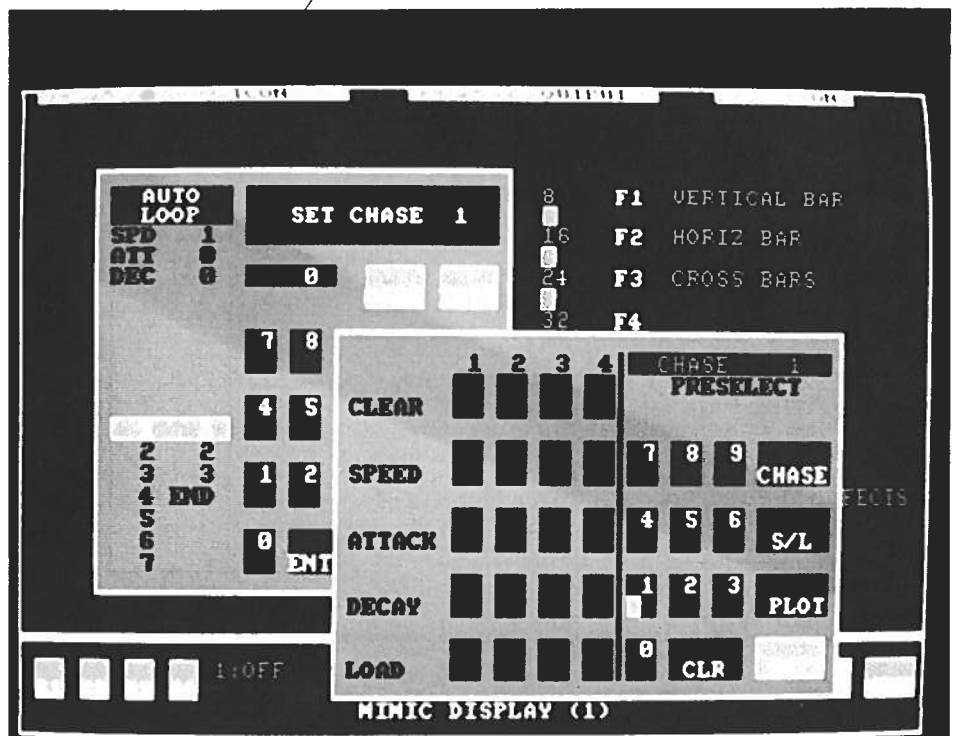
EC64 is not however a small system, although it will only talk to 64 channels at one time, each channel could be controlling a group of dimmers or effects; and the soft-patching is done internally. The language used is multiplex and Scorpio have developed their own which, although slower than DMX512, offers a wider bandwidth because it is only talking to 64 channels simultaneously. Scorpio will however be happy to discuss any alternative protocols needed.

The system offers 99 user programmed chases and 99 user programmed sound to light effects and these can be set and operated in an almost unlimited number of ways, notably either by four group faders or by any combination of 8 fast action touch keys. In addition the desk enables operators to write their own effects sequence simply by touching the appropriately designated keys and all sequences can be viewed on screen either live or blind. Since I haven't seen the EC64 I cannot comment on how easy this is and in my experience complex effects sequences can take a considerable time to program unless the system offers a clear scaffold on which to build, possibly the EC64's ability to draw your own schematic will help.

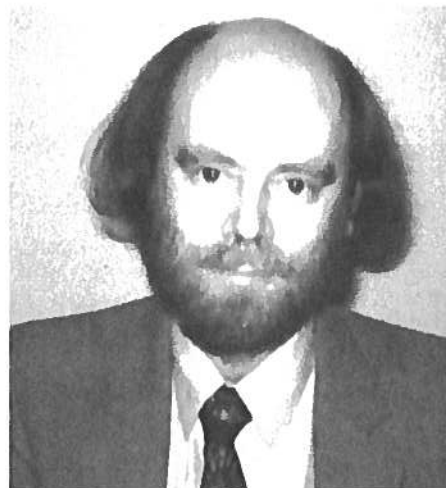
Since I was seduced into lighting by Francis Reid (simply because he made it fun) I have always tended towards his philosophies and here and there have caused a few eyebrows to raise by suggesting that the layout and labelling of any lighting control should be such that no training is needed in order to use the system's basic functions. Consequently I have tended to shy away from the more computer-orientated systems and I would be less than honest if I said that initially I put EC64 into that category. However, I would also be less than honest if I said that having now researched this article I am looking forward to meeting a system.



Mimic display graphics on the system's VDU.



The system offers 99 user programmed chases and 99 user programmed sound to light effects.



Martin Redshaw, technical director at Scorpio.

PLASA
PROFESSIONAL LIGHTING
AND SOUND ASSOCIATION

**INDUSTRY
YEARBOOK
1990**

will be available
late January

**Watch for Advertisement
in the February issue**

SQUIRES GO COUNTY

John Offord talks to Squire Sound & Light managing director Simon Cummings



Simon Cummings.

The biggest name in the retail of discotheque equipment in Great Britain is now in the hands of Guildford-based County Sound plc (see News, L+SI December). From the original Squire Light & Sound to Piccadilly Squire, the famous name is now incorporated within 'Squire Sound & Light'.

Well, the title may be similar, but I doubt the future style of operation will be. In acquiring the operation, County also took over Rough Diamond of Guildford complete with its owner Simon Cummings and personnel. And the purpose in doing that was to put people in control whom they knew at first hand. Rough Diamond in fact becomes a kind of benign 'fifth column' in the new Squire operation, and Simon Cummings is the man who's in place as commander.

I began by asking him about the background to the company shuffles.

"For two or three years while I was a County Sound radio presenter - I've been there six years now - CS had expressed an interest in a business deal of some sort with Rough Diamond as it then was. They saw that the company was successful because I kept doing less and less programmes a week for them! On two occasions we hadn't quite managed to get the act going together, but when County's managing director Mike Powell had the opportunity of purchasing the Squire Group from Piccadilly Radio, ideas started to take shape.

"It had all come about because the owner of Piccadilly Radio had many other enterprises and wasn't interested in keeping the disco market going. I think he felt it was unfair to work in a field or to own a company that he didn't have a huge amount of interest in.

"As a result, the offer was made to Mike Powell, and it wasn't the sort of deal that would have gone ahead without Rough Diamond simply because County had no

way of controlling the business.

"We have proved to County Sound that different things we have achieved up to now in Guildford could also happen with a larger national network."

The new Squire set-up now has five branches: the original four on take-over plus the Rough Diamond outfit in Guildford.

"The flagship with Piccadilly Radio was obviously Manchester," explained Simon Cummings, "but we now perceive it as having no one flagship. All five will stand up on their own merits. However, I'm a great believer in corporate identity, and in making all five look and feel the same, and for that reason we are anxious to re-locate two of the present sites to be more like the Manchester and Guildford operations which are industrial unit based rather than old premises in town centres.

"We have seen in Guildford that people prefer industrial estates. They aren't the poshest places in the world, but you can park outside, you can organise better opening hours, have better access, and you don't have to go fighting through town streets."

A change of location for the Squire locations in London and Birmingham is therefore high on Simon Cummings' agenda. "The Glasgow branch at Kelvinside we are happy with. It has an established clientele and easy access. London is where it all started and we certainly want to re-locate. It's an old building with too many stairs, and not at all ideal for this business.

"Our more immediate objective is to make sure we have good engineering back-up as well as good sales. Manchester has it, and we need the same in all the other branches. If we are the only national company with national UK exposure and representation then we want to make sure that if someone has a problem or if a new customer wants a club sorted out then we have the facility to

do it."

Would County back-up the operation with an expansion programme, even adding further operations to the network?

"The immediate answer is 'yes,'" said Cummings. "And this is also very high on our list of priorities. I see the value of having a branch in the middle of the country between Birmingham and London, and also another one in the North East. The Bristol area is also a possibility to service the South West. We'd like to achieve a situation where we could advertise that 'you're never far away from a branch of Squires'.

"However we won't be walking into this and spending millions. What is more important is to get the present set-up ship-shape, and in that direction we are computerising all stock control and sales. We've got five operations stocking a common range of items, and you've got to know who's got what, and so on. We are currently installing a computer system which will act as a sort of mainframe for all the branches, and it will give us all the information on the day's sales, about stock, plus customer lists and so on."

The HQ for the new Squire Sound and Light will be Guildford as far as buying, accounts management and policy-making is concerned.

"All branches will send through to Guildford a list of what they require, and the control will happen from here. This is essential. We're not going to make it more 'special' than any of the other branches - it's just where we happen to be."

Although ownership is now primarily by County Sound, Simon Cummings and technical director Peter Balfour, who was with him at Rough Diamond, have an interest in the new company. "Obviously there is representation on the board from County Sound, and their directors are giving us tremendously constructive help, and their experience in the music business is of great value."

The work load for Simon and Peter has been enormous, and often it's a case of whether they should be wearing jeans or a suit depending on the situation at the time.

"Yes, it has been very demanding," admitted Simon, "but then we knew it would be. On the other hand we are delighted in the way that staff have taken us under their wing. I think they had been worried about their future, but now they feel secure. They've hopefully got the confidence that we're behind them. We didn't want to go in and say 'right, we're running the company, based down in Guildford and will be sitting there in nice warm and comfortable offices waiting for things to happen'.

"The other thing is, we think it's essential, not only to be in charge but to seem to be in charge. Therefore we've said we're going to visit every branch every week and the only exception is Glasgow where we're going up every couple of weeks but staying longer. Manchester simply needs more work at the moment because it's the biggest: catalogue sales, trade sales and the contracts department all need to be kept control of, and they are all based in Manchester.

"In the longer term I hope we will be able to put more and more emphasis on the

DATAFLASH

Up to 256 Channels

Pump up the Power with Bursts of Animated Energy . . . or Dim Down to Subtle Hues . . . with DATAFLASH

Self-Diagnostics

Dimmable!

Reflectors and Yoke Kits Available



DATAFLASH ILLUMINATOR SPECIFICATIONS

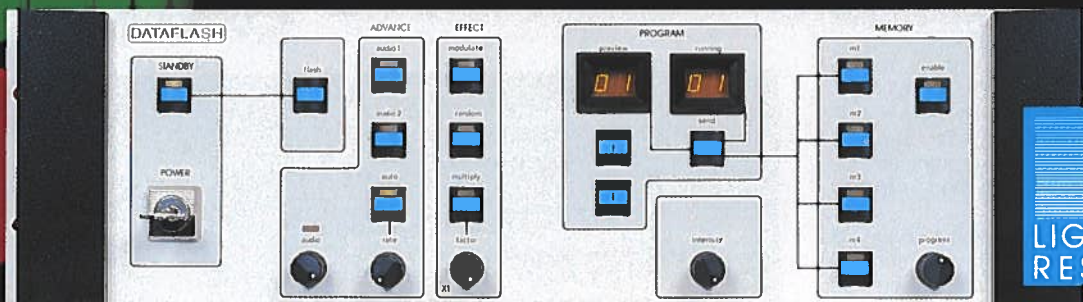
- maximum flash rate 171ps
- minimum flash rate .51ps
- xenon lamp power 1000 watts at 10 fps duty cycle regulated
- lamp life: dependent on intensity: at 50%: 500,000 flashes average
- digital assignment selector 256 channels
- self-diagnostics
- data active indicator
- easy lamp replacement
- 3 phase system capability
- self-resetting thermal breaker
- thermal fuse
- current consumption adjustable
- volts 120 60hz 240 50hz
- dimensions 28.5cm x 20cm d
- weight 2.0kg

. . . The World's most advanced Xenon Flashlamp System. Multiple flashlamps, each individually addressable and dimmable, provide short-term bursts of incredible power . . . or soft hues for more subtle effects. Colored domes, color-correcting domes, narrow-beam reflectors and dichroic filtration are available options. Each controller can individually control or communicate with up to 256 illuminators by means of a single 2 conductor shielded cable which is daisy-chained from one illuminator to another. Each controller may contain up to 99 programs, and a unique touch panel interface allows the user to call up programs instantly for live control. Audio synchronization is accomplished by two different audio advance selections. The end result is a powerful xenon illumination system that delivers *on demand*.

Incredible Power . . . for the Largest Stage

DATAFLASH CONTROLLER SPECIFICATIONS

- up to 99 programs
- up to 256 channels
- touch panel or analog interface
- multiple intensities per step
- master intensity
- audio advance
- audio modulation
- memory storage
- step multiply
- installer power level select
- remote enable
- security keylock
- positive feel switches
- communication port
- standard rack mount, 3 units
- volts 120 60hz 240 50hz
- dimensions 13.3cm high x 48.2cm wide x 28cm deep
- weight 7kg



Concept, Design and Photography: David Keene

LIGHTWAVE RESEARCH — 2209 WEST BRAKER LN. — AUSTIN, TEXAS U.S.A. 78758
PHONE 512 836-2242 — FAX 512 837-5290

branch managers to sort out the day to day business. At the moment the telephone's ringing all the time, but as they get used to the new situation and the computerisation things are bound to improve. We've managed to hold most of the team together and it's a very strong one."

How would the future Squire Sound and Light be structured, and where would the emphasis be placed?

"On the retail side there will be a rationalising of stock, a tightening up," continued Simon Cummings. "There is often an element of confusion in a customer's mind if he is shown (say) six different amplifiers, all roughly the same. It is up to us to know which are the best and the merits of each, and trim the number down accordingly. Within this we also have our own brands and we intend to expand this area. There is an exclusivity about a brand name, and provided the product is good brand loyalty can be built up.

"Our trade sales are at this stage based in Manchester and we'll be carrying on in this way for the time being. They are mainly sales to the major catalogue companies, and we are well geared in this area with good holding stocks.

"One element that has been quiet, apart from here at Guildford, is the hire side. Whether it's the hire of a box of lights or through to a big marquee with the full works, it's something I want each branch to start. And if you think about it it's quite easy. Any dead stock that's difficult to sell can often be put into a stock situation and go out on hire."

One of the major areas of change as far as the Squire image is concerned may well be that of price discounting. I questioned Simon Cummings about their policy on pricing.

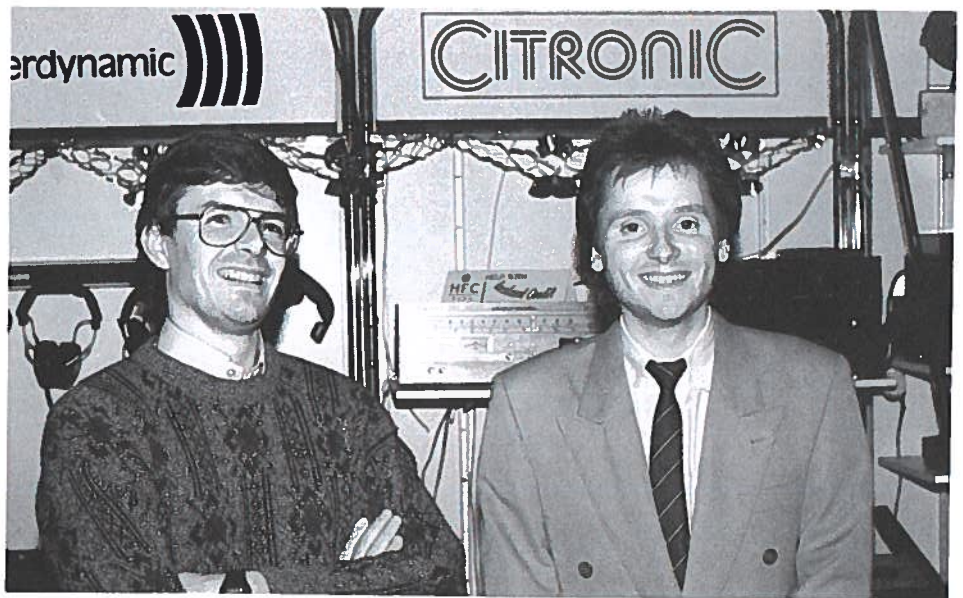
"It is impossible to give the very best prices in the land, and the ultimate discount whilst at the same time maintaining the technical back-up which I believe is essential. Yes, we could give say 25% on all items but then we couldn't afford to have an engineer available if anything went wrong. At this stage we are going to do what Rough Diamond has done over the years and that is not offer the best prices, but offer as good a back-up as you can get, making sure that you are easily accessible so that people can get an engineer 24 hours a day. You can't afford to do that if you are cutting prices.

"I've got a great deal of time for the views of Mike Gerrish of Citronic who has grabbed hold of this subject, and I think this is the way the industry should work. I'd rather not do the sale than enter a price war. There are other ways of doing special deals without giving big discounts. We've had a system at Rough Diamond, for instance, where if you've spent a certain amount of money with us you would then have a discount on hire equipment.

"We should endeavour to make customers loyal without being silly. There's a company in London who openly advertise a discount of nearly 30% and they say that's the trade. But a lot of DJ's say 'I'm trade'. As far as we're concerned, a trade customer is one who is VAT registered, has business premises, and someone who is going to take over a lot of the maintenance that's required after the sale.

"At this point in time I am only two weeks into the operation, but this is the direction I'd like to see us going. I'm still learning the old processes and how they went about things, although in some ways I don't want to learn them because they're old system and defunct!"

A first move in the new direction will see Squire Sound & Light producing a price list in



Squire Sound & Light technical director Peter Balfour with Simon Cummings in the Guildford showroom.

a modular format for easy up-date, and this was 'on the drawing board' when I spoke to Simon Cummings.

And there are some peculiar matters that arise on occasions when a switch in ownership takes place. "One very interesting thing that happened recently was when a competitor, who must obviously remain nameless, arranged for a divert on our London branch telephone number. They actually wrote to British Telecom saying that they'd pay the last account of Squires and please would they arrange for the telephone to be automatically diverted? This was on the first day we moved in. You can imagine the storm that was kicked up as a result! At least it was a way of making Squires newsworthy, and keeps us on our toes."

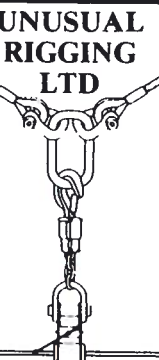
Having finished my list of questions, I invited Simon to round off with anything he wanted to emphasise.

"The other thing I want to push hard is the contract side of the business," he said. "We've just completed a £100,000 job in Ayr won by the Glasgow office, and there are more on the way. We have work coming up in Doncaster and Birmingham and at least six 'very likely' contracts in the offing.

"Finally, I've never spoken to Roger Squire himself and would welcome the chance. So if he happens to read this article, I would ask him to get in touch."

Come in please, Roger Squire.

UNUSUAL RIGGING LTD



**RIGGING FOR CONCERT THEATRE
COMMERCIAL FILM T.V. & VIDEO
PRESENTATION.**

4 Dalston Gardens, Stanmore
Middlesex HA7 1DA

01-206 2733

Fax: 01-206 1432 Telex 945470 Riggin G

Laser Magic

**SPECIALISTS IN
HI-TECH PROMOTIONS**

Unit 39
Cradle Hill Industrial Estate
Cradle Hill, Seaford
East Sussex BN25 3JE

Telephone: 0323 890752
Mobile: 0836 252885
Fax: 0323 898311

For the creative use of "lasers" in the A.V. Industry, Music Industry and Theatrical Industry call us first. You'll be glad you did!

**LASER DISPLAYS
LIGHTING & SOUND HIRE
FIREWORK DISPLAYS
PYROTECHNIC DISPLAYS**

Sound Equipment Rental and Sales
including the 'Hackney Cab' speaker system
and Yamaha PM 3000 mixing desk

Sound Design and Engineering
Specialist Radio Mic Applications

West Works Telephone 01-986 6111
Chalgrove Road Telex 265871 Attn DG5 2220
London E9 6PB E-Mail Hardware-UK



OSKA
VOTED LIGHTING
CONTROLLER OF THE YEAR

OSKA

winning performances

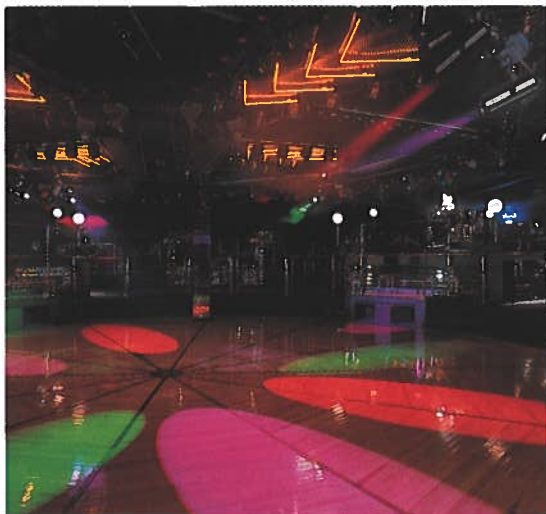
Zhivago's, Darlington



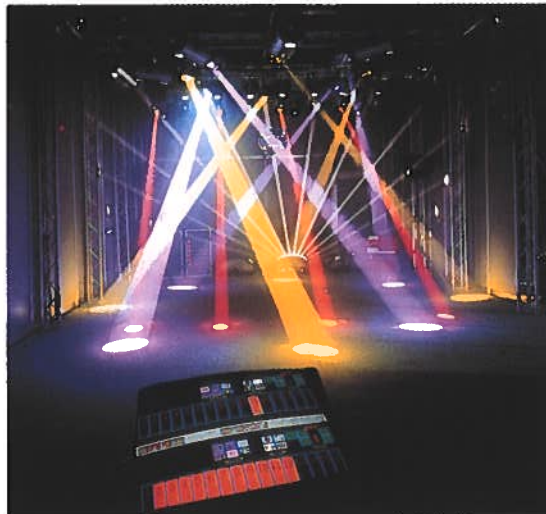
Camden Palace, London



Fallows, Liverpool



Nowea, Dusseldorf, Germany



OSKA is the ultimate lighting board.

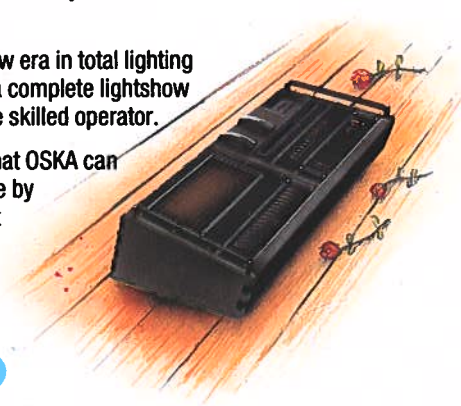
Speed is the essence of its power – speed in learning, speed in programming and speed in action. Its touch-sensitive colour monitor translates the skill of the operator into instant lighting action. Handling 256 lighting channels including Golden Scans and other intelligent moving lights, it knocks spots off any other lighting controller.

OSKA is used by operators throughout the world who

depend on a powerful control system to make the most of their lightshow.

OSKA has initiated a new era in total lighting control, by integrating a complete lightshow under the control of one skilled operator.

Find out more about what OSKA can do for your performance by contacting your nearest Pulsar distributor.



PULSAR
LIGHTING FOR EFFECT

Pulsar France Sarl,
10 Avenue du Fresne,
14760 Bretteville sur Odon, France,
Tel: 31 741001 Telex 171237

Pulsar Light of Cambridge Ltd.,
Henley Road, Cambridge CB1 3EA,
Tel: 0223 66798 Telex 81697 PULSARG
Fax: (0223) 460708

Pulsar GmbH,
AM Vorort 23,
D-4630 Bochum 7, West Germany,
Tel: 0234 28171 Telex 825593



Supply us with a logo or image and our experienced artworkers can adapt it for use as a gobo.

Contact DHA for a high quality, economical and fast service.

Phone for your free catalogue of stock patterns and details of prices.

We will be pleased to help with any enquiries.



Customer's
Original
Artwork

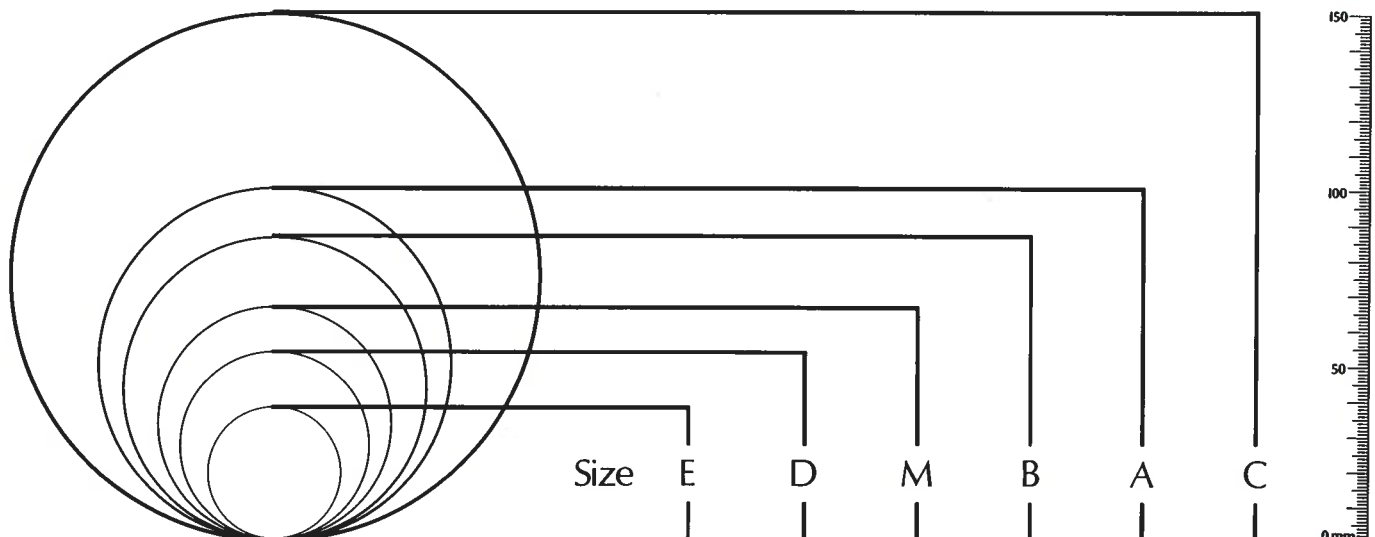


The
Finished
Gobo

Six gobo sizes (see below) featuring our standard designs are available from stock and provide a complete range suitable for use in most standard profile fittings including MR16 architectural lanterns and most theatre luminaires and follow spots.

In addition gobos can be produced in special shapes and sizes for use in any number of further applications - for example in various moving light systems and Pani projectors.

For the reproduction of extremely fine detail or tonal images our glass gobo technology can produce excellent images for use in many fittings including MR16 profiles.



EQUIPMENT *News*

Rosco 119

Light Hamburg Frost is its formal name in the swatch book, but to maker and user it has quickly become Half Hamburg. Unlike the latest badge-engineered control desks or spotlight variants, this is a significant new tool for the lighting designer. We have never had such subtle diffusion available to us - not even in the days when gels were gelatine and their frost could be clarified with a drop of three-in-one oil.

Diffusion media were one of the major lighting advances of the eighties. A wider more subtle choice, together with stretching silks and colour diffusion combinations, provides a powerful - and economic - addition to the lighting palette. Impetus came from film and television where technological eyes emphasise contrasts, and close-up skintones are particularly responsive to subtle softness in light. In theatre the overall softening of the light, although less critical than in a screen close-up, is a valuable asset but one somewhat overshadowed by the potential to soften beam edges. The diffuser breakthrough

means that softening, both of the beam and its edge, can now be achieved without the side effect of scattered light impairing control of selectivity.

Defocusing has always been a rather crude way of softening profile spots: Half Hamburg is cleaner and faster. It gives me just about the right amount of softening for most situations although inevitably I now hanker for the added flexibility of a Quarter Hamburg! And I know that I am not alone in hoping for a fractional (half?/third?) stretchy silk frost. (Stretch frosts are slowly overcoming the albatross of being called silks).

The Hamburg family cleaned up my panto parsons with silk stretching those on the booms. I only used fresnels because the theatre had them: I now regard fresnels as dead technology, superseded by the new prism PC's which are better for most users and can be extra softened with diffusers as required. This is the decade of the diffuser: Hamburg shows the way and from Hampshire to the Highlands the filter folks are doubtless pounding softly away with mortar and pestle.

Francis Reid

Rosco on stage in Oxford Street



An unusual use for Rosco's Supersaturated paint was seen by millions of London shoppers this Christmas.

The famous Christmas windows at Selfridges, Oxford Street's leading department store, were this year based on designs from The Royal Opera House ballets and operas including Swan Lake, Coppelia and The Sleeping Beauty. All the sets have been painted by scenic artists Mike Beckett and Hazel Gash, who used Supersat throughout. Mike, for many years, worked for The Royal Opera House and it was his intimate knowledge of the ballets that gained them the contract.

Supersaturated Roscopaint is a unique vinyl acrylic system designed to paint not just wood and muslin, but also metal, foam, polystyrene, rear projection surfaces, costume fabrics and nearly every other porous/non-porous surface in a theatre. Wherever it's used Supersaturated Roscopaint dries to a flat, matt, velvet-like finish which won't reflect stage light, so whatever illusion the artist has created will be maintained.

Low Interest at R & W

In these times of high interest and hard-hearted chancellors, finding the funds to equip a studio, whatever its size, becomes more and more difficult. With this in mind Raper & Wayman have introduced their own LeasePlan. The Company claim that serious percentage savings can be made, with up to 10% off commercial rates a possibility, and in some cases R & W are offering to pay the first three monthly instalments, subject to status. Further details are available from Raper & Wayman on 01-800 8288.

Furman GQ-62 Graphic

The GQ-62 stereo graphic equalizer from Furman is a 31-band, one third octave graphic housed in a cabinet measuring 3 1/2" in height. Effective circuit design means that low noise levels may be maintained with the GQ-62, even when large amounts of cut or boost are selected. Low cut buttons and overload lights along with level matching sliders on each channel, are provided. Sliders are on ISO centres with 12dB of cut or boost available at each end of the spectrum.

Further information from Shuttlesound Ltd, Unit 15, Osiers Estate, Osiers Road, London SW18 1EJ. Telephone 01-871 0966.

Mercury Tilt Switch

Ekram Electric Limited has added to its range of components a unique safety device designed for free standing luminaires to meet B.E.A.B. approval.

This sealed mercury tilt switch maintains the electrical circuit while the lamp remains upright. If tilted between 20° to 30° from the vertical the mercury within the switch moves to break the

contact and automatically cuts off the power, thus eliminating any fire hazard should the lamp be accidentally knocked over. The mercury switches are totally enclosed within a plastic housing and are encapsulated to isolate them from the current carried by the switch. For further information contact Ekram on (0255) 861148.

Ramsa Lease Plan

Details of the Ramsa Lease Plan were unveiled to Ramsa dealers at a recent meeting held at Panasonic's new Head-Offices in Bracknell. Backed by a leading leasing company, Ramsa has put together a Lease Plan which they say offers maximum flexibility and very competitive rates.

The plan will be available for complete system costs, through all Ramsa dealers. Ian Sharpe, Ramsa's product manager told L+SI: "Leasing offers considerable benefits to all types of companies especially at time when budgets are under severe pressure due to the adverse economic climate. With this Lease Plan we are able to offer fixed repayment terms and strong tax incentives to profit making companies." For further information on the Lease Plan please contact Ian Sharpe on (0344) 853176.



An exciting career opportunity exists for a

LIGHTING DESIGNER



to join our expanding marketing and sales team, moving to our new corporate headquarters at New Malden, Surrey, in April 1990.

We are seeking a person who will have had several years first-hand practical experience in working with theatrical, concert or audio-visual lighting equipment. Some technical expertise will be necessary, but a talent for creative design and an imaginative mind will be the prime criteria for selection. The successful applicant must have the personality to be able to communicate confidently and effectively with potential clients in diverse areas of the entertainment and leisure industry, and identify specific requirements that can be fulfilled by the company's products and expertise.

He or she should be capable of producing creative solutions to the customer's needs, to include detailed written proposals, plans and costings, and have the ability to follow a project through from conception to implementation.

Much of the time will be spent meeting with potential clients, demonstrating new lighting technology and generally developing new business opportunities for the company. This will include a high degree of participation in several international trade shows, many of which, the company exhibit at. A negotiable remuneration package is offered, dependent on the experience and ability of the applicant. A valid passport and driving licence are essential requirements.

Applications for the post should be submitted by February 9th, 1990. Interviews will be arranged during February.

Please apply in writing, by forwarding a c.v. to John Lethbridge, Managing Director, Cerebrum Lighting (Sales & Hire) Ltd., 168 Chiltern Drive, Surbiton, Surrey KT5 8LS. Tel 01-390 0051/01-390 4841 Fax 01-390 4938.

SKY-TRACKER[®] BY THEATRE · PROJECTS

MANAGER for rental & sales

An exciting opportunity exists for a self-motivated, dynamic Sales Manager, to head up our Skytracker rental and sales department. Salary is negotiable dependent upon age and experience.

If you feel that you could benefit from this exciting career move, please apply in writing to:

Alan Thomson
Theatre Projects Services Ltd.
8-34 Blundell Street
London N7 9BW.

Another difficult venue
successfully mastered by Avitec -
Dynacord CL815 with add-on
Fostex ring radiators in the
Waterfront swimming complex,
Woolwich, London.

Before taking the
plunge, talk to Avitec,
the sound specialists!

Our considerable
experience in designing
and specifying sound
systems for a multitude
of different venues and
applications is available
to help *you* achieve an
excellent sound for your
own application.

We have the expertise to
assemble a reliable, cost
effective and sonically
excellent system — our
standard range offers a
wide choice and can
fulfil most requirements
but we will specify from
outside this range where
necessary or on request.

We welcome visitors —
by appointment please
— to our lighting and
sound showroom where
a large selection from
our standard sound
range is permanently
installed for
demonstration, and we
will discuss and advise
on your project without
cost or obligation.

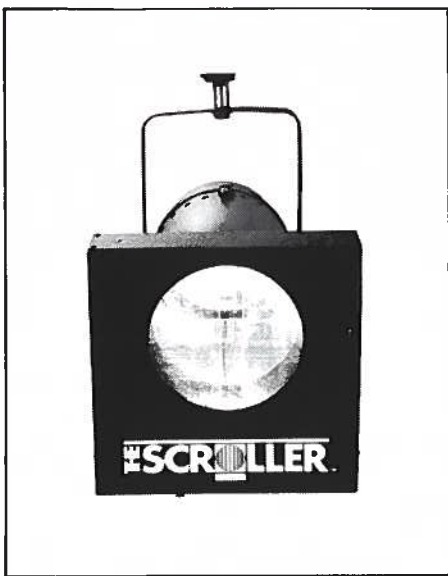


**IF YOU'RE OUT OF YOUR DEPTH WITH SOUND,
DON'T DIVE IN AT THE DEEP END**

AVITEC
THE ATMOSPHERE CREATORS

The AVITEC Group — Europe's largest club lighting & sound equipment distributors.

AVITEC Electronics (UK) Limited, 80/81 Walsworth Road, Hitchin, Herts SG4 9SX. Tel: Hitchin (0462) 458961. Fax: (0462) 31019. Tlx 825682 AVITEC G.



The Scroller

Wybron, Inc. president Keny Whwright has announced the company's decision to begin marketing its latest addition to the rolling color changer family, The Scroller. Established in 1979, Wybron invented and manufactured the rolling color changer known as Colormax, which was marketed by The Great American Market. Wybron went on to design, engineer and manufacture Colorwiz in 1986.

In May this year Wybron began production of The Scroller, and for the first time in the company's ten year history will direct market its product to customers as well as through distributors. Wybron general manager, John Madden told L+S: "By marketing our product directly, we hope to enter smaller markets like theatrical and production facilities who do not have large volume

needs and might not have had access to our products in the past."

Wybron's latest rolling color changer, The Scroller, incorporates many of the standards and features found in Colorwiz with improved cooling techniques, analog (0-10 volts) or digital (DMX512) capabilities and continuous positioning (no more indexing). Both 7" and 10" models are available in addition to eight or nine light molefay units. The Scroller delivers rapid 2.2 second changes across 11 colours. Over 800 units have been delivered since May.

For additional information contact Wybron Inc. 1096 Elkton Drive, Suite 200, Colorado Springs, CO 80907, USA. Telephone (719) 548-9774.

Midget from Lycian

Lycian Stage Lighting of New York have recently announced the newest addition to their expanding line. The Model 1207 Midget, a new 2000w Quartz follow spot, contains a BWA Quartz lamp and is 50% brighter than the standard midget. It offers a template slot for pattern (gobo) projection. Also included with this unit is an internal automatic, self cancelling, colour boomerang, dower and an externally controlled spread lens. The Midget also comes complete with castered three legged floor stand.

For further information contact Lycian on (914) 469-2285.

Universal Buffer

The new Model 288 Universal Buffer series rack mounting modular cardcage system from SCV Audio was designed to solve problems that arise when interfacing semi-pro or consumer audio equipment to broadcast installations, PA systems, recording studios, video post production and duplication facilities.

Each cardcage accepts a power module and up to eight audio modules from a range that includes a microphone preamplifier, phono preamplifier, a choice of three line amplifiers, VCA/AGC level detector, and a dual output mixer module. Sec-

tion A, the input of each module, provides level, impedance matching, and equalization when required. Section B, the output, provides buffering of the returning signal to the front panel connector.

Model 288 may be configured as an 8 channel interface for small 8-track recording facilities, act as a mono input/8 output distribution amplifier or stereo to mono converter, or as a combination of any of these.

For further information contact Shuttlesound Ltd, Unit 15, Osiers Estate, Osiers Road, London SW18 1EJ. Telephone 01-871 0966.

Shermann Wedges

Shermann Audio have announced the introduction of three low-profile wedge-style stage monitors. The new models, which will be incorporated into Sherman's GX Stage Series, will be the passive GX-M315 and two biamped units the GX-M2312 and GX-M2315.

The passive GX-M315 features a single 15" bass driver, two midrange and a HF driver along with Sherman's PCN-1 passive processor network. The GX-M2312 features 2-12" bass drivers, two midrange and an HF driver with an active crossover point at 600Hz. The Mid/HF section is controlled by Sherman's PCN-2 passive processor network.

The GX-M2315 is a floor wedge version of Sherman's successful GX-A Commando and features identical components and active crossover requirements. The SM94 cone driven midrange and 1" compression driver are mounted centrally between the twin 15" bass drivers with the Mid/HF section also controlled by the PCN-2 passive processor network.

Shermann's most recent addition to its GX Concert Series, the GX-B415 is now in production and initial units are currently on tour throughout Europe.

For more details contact: Sherman Audio Ltd., 27 Mochdre Industrial Estate, Newtown, Powys. SY16 4LE. Telephone 0686-626025.

YAMAHA



The Yamaha MC Series Mixer

The new Yamaha MC and MR Series mixers are purpose designed for theatre and conference use. Both Series come in 8, 12 and 16 channel formats, the MC Series with stereo outputs and the MR with four subgroups, 3 band e.q. with sweep and 48v. phantom power. Full monitoring facilities and inserts on every channel are also featured. In addition, the MR Series has seperate phono/tape inputs.

FARRAHS

7 St Georges Estate, 380 Richmond Road, Kingston, Surrey KT2 5BQ
Tel: 01 549 1787. Fax: 01 549 6204. Telex: 945114 FARRAH G

FARRAHS
the sound professionals

RAINBOW

The West End's choice!

In just twelve months since its launch in this country M&M's Rainbow Colour Changer has already been involved with three major West End successes - M. Butterfly, Anything Goes and Miss Saigon.

All these productions involved innovative lighting design with a wide range of effects.

And they all felt that M&M's Rainbow met their demanding criteria more comprehensively than any other colour changer on the market.

What makes the Rainbow so special is its speed and its quietness in use - faster and quieter than any rival product - combined with a versatility of colour which gives lighting designers a limitless creative range. The Rainbow's robust yet lightweight construction and ease of maintenance also make it a must for concert and touring companies.

For further information on the colour changer that is fast becoming the number one creative choice contact us now for a copy of our brochure.



LIGHTING **M&M** LIMITED

M&M Lighting Limited, 87 Gloucester Avenue, London NW1 8LB
Telephone: 01-722 4147 Facsimile: 01-722 3940

OptiColor



Optec has recently introduced the OptiColor electronic colour changing luminaire. The OptiColor uses precision dichroics technology which enables it to deliver pure vivid colours in virtually limitless combinations. The OptiColor projector emits superior brilliance of up to 750W - a result of the MR16 high tech halogen lamp. The projector can create a circular, hard edge, ellipsoidal type beam or a flood soft edge fresnel type beam. No dedicated controller or dimmer is needed.

The OptiColor is compact, lightweight, road-worthy and economical, and is engineered for ease of installation, operation and servicing. The luminaire is manufactured in the USA and is UL approved. According to Optec, the OptiColor family is going to grow with more models attachment and accessories to address different needs of the market. For more information, contact Optec in New Jersey on 201 646 1328.

Control Loudspeakers

JBL have transformed their smaller Control Series loudspeakers with the addition of the SB1 and SB5 dedicated sub bass units. The passive SB1/SB5 units feature JBL's recently developed 'Triple Chamber Band Pass Technology' used in the Sound Power Series, and incorporating no less than four bass drivers. The SB1 will operate with the Control 1 and Pro III loudspeakers and the SB5 with the Control 5. The new Control sub bass units do not require a further crossover or power amplifier, and only one is required for a stereo system.

For further information contact Harman (Audio) UK Ltd., Mill Street, Slough, Berks SL2 5DD, telephone 0753-76911.

Additions to "Nova Range"

To complement the existing Nova Lantern range - Novalight International Ltd have introduced a new range of control desks and dimmers designed both for the educational market and the smaller venue. The 'Aurora' range of dimmers incorporate MCB protection, hard firing circuit techniques and have the option of CEE22, Hardwired, 5 amp, 13 amp, or 15 amp socket outlets and are in single, three or six ways continuously rated at 2kW. The manual desks start with a basic 2 preset model to chase and timed crossfader types and are compatible with all plus 10v systems although minus 10v types are to order at no extra cost.

A new memory desk, the 'Nova Cosmos' is designed for installations up to 48 ways. The smaller model starts at 12 ways and is exceptional value as it will either replace or enhance existing manual desk systems. A new fixed focus Fresnel for display and drama work, a wind up stand and a 750 watt flood with barndoors are all new for 1990 from Novalight's Berlin factory. The company would be interested to hear from prospective dealers both in the UK and abroad.

For further details contact: Novalight International Ltd, telephone 0594 23197.

Aerosmith tour with Hartke

Aerosmith bassist Tom Hamilton is currently touring with one of Hartke's 410B 240 watt loudspeaker systems. The 410B is revered in the USA for the clarity of its four 10 inch aluminium coned loudspeakers which exhibit a tight, direct, punchy bass sound and controlled bottom end.

Hartke also produces a single 15 inch 180 watt cabinet, the 115B which is also powered by an aluminium coned driver. Both cabinets may be combined and stacked to provide an extended range system for the most exacting live and recording situations. Hartke utilises aluminium cones for their ability to accurately project sound as opposed to absorbing it.

For further information contact Samson Technologies in Hicksville, USA. Telephone (516) 932 3810.

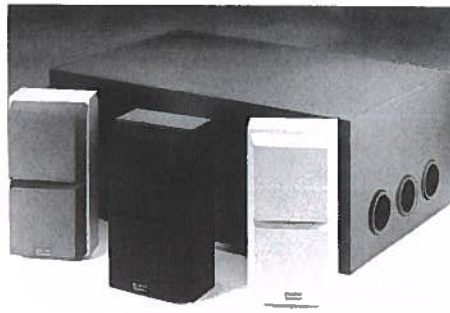
New from HH

The first fruits of HH Acoustic's recent re-location and investment programme have just been announced. Three new models, the B18 loudspeaker, HF 300 Bullet Radiator and CD500 Compression Driver, have been added to the company's range of high performance transducers.

Designed primarily for Bass, PA and Disco applications the 18" B18 features a steel chassis, is rated at 300 watts and is suitable for applications requiring a frequency range of 20Hz-2kHz, and the speaker is available in 4, 8 and 16 ohm impedances.

The HF300 bullet radiator offers a significant improvement in quality over the HF201, which it replaces. The HF300 offers a 30 watt rating with a frequency range of 5kHz - 20kHz and impedance of 8 ohms. The third of HH's new releases is the CD500 compression driver, a 50 watt rated unit suitable for PA and Disco use and with a frequency range of 1kHz - 18kHz. For further details contact HH Electronics Ltd on (0384) 69956.

Marriage Guidance



Is your marriage on the rocks? Well, here's a helpful hint - it could be your loudspeaker system that's causing all the problems!

It's hardly surprising when you think about it. Partner number one likes big speakers for their big sound performance. Whilst partner number two recoils in horror at the thought of cumbersome speakers cluttering up the living room.

But if that scenario sounds familiar, don't worry. Help is finally at hand in the shape of Studio Power's revolutionary SUB2000 system.

For SUB2000's three bass ports - which give good performance at extremely high power levels - are situated separately from the rest of the system in a purpose-designed Subwoofer cabinet. The cabinet can be positioned anywhere without affecting performance in the slightest.

New from Third Generation

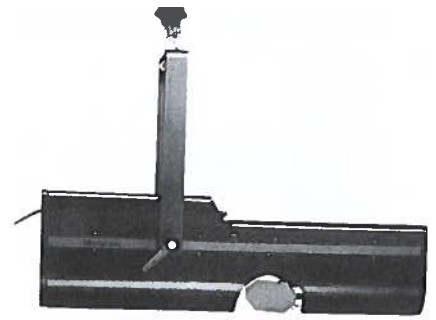
A new small amplifier recently joined the HP professional power amplifier range: the HP200. It is a 1U, 19" rack mount unit delivering 100w per channel (8 ohms) aimed at home, and small professional studios as a monitor amplifier, and also installations and PA systems for driving HF speaker systems.

Like the HP400 and HP1000, the HP200 is fully protected against thermal, open and short circuit and DC offset. Furthermore, 'soft-start' circuitry protects speakers from possibly disastrous 'thumps'.

Front panel LEDs provide true 'CLIP' indication, protection circuit status and confirmation of bridged mono selection. Connections are by XLRs with binding posts also fitted to the outputs and the amplifier may be used both balanced and unbalanced.

For further information, contact Third Generation, telephone (0702) 420645.

Roboscan from Martin



Martin Professional, the Danish lighting and smoke machine manufacturer, has begun shipping its most important product to date, the much heralded Roboscan. Available in a range of configurations the Roboscan offers intelligent lighting technology at a price that, according to its UK distributor, Lamba PLC, was previously unthinkable.

Peter Johansen, Martin Professional's owner and chief designer, told L+S of his latest development: "Roboscan represents a massive investment for our company in terms of both financial and development resources. It has proved however, that, given sufficient commitment, we can not only compete with the major players but, I believe, beat them at their own game."

Roboscan is available in two models the 1004 with 24V, 250W tungsten lamp and the 1005 with an HTI 400W lamp. Both feature four gobos, four dichroic colours plus white and, on the 1005, a fast shutter. Perhaps the most obvious advantage over other systems is, however, Roboscan's ability to produce its own animated light show from ambient music. The major implication of this feature being that Roboscan can become part of almost any lighting system without a total redesign. Wagging mirrors for the masses. When it is time to expand and synchronize the system Martin's dedicated 2008 or 2032 controllers will manage 8 and 32 heads respectively.

The UK's first Roboscan installation is by LSD at Busby's Discotheque in Brighton using eight 1005s in chrome and a 2008 controller. For more information contact Jan Pederson at Martin Professional on 45 8617 5288.

More Downstairs

The latest technological advance from JBL is called Vented Gap Cooling and, the company claim, it will yield improvements in virtually all performance parameters over conventional transducer technology. A voice coil's operating temperature is crucial to the transducers performance. Conventional designs rely on a transducers magnetic structure to draw heat from the voice coil.

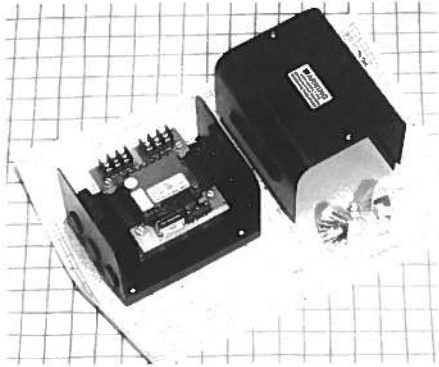
The Vented Gap Cooling design provides a far more efficient cooling of the voice coil assembly by pumping air through the magnetic gap and around the voice coil. This allows the transducer to handle more power - double that of a conventional design. VGC technology also provides for an improved driver excursion limit - translating increased power handling into increased output capabilities.

Damaging long term and short term power compression, which rob a driver of its SPL capacity, have been dramatically reduced by Vented Gap Cooling - up to 60% in 2.5 and 4" voice coil designs.

JBL's Magnetic Finite Element Analysis, a computer based assessment of potential magnetic topologies, has enabled JBL to define the optimum magnetic structure for the new VGC drivers. The levels of magnetically induced distortion exhibited are comparable with those of JBL's finest studio monitor transducers.

The combination of higher power handling, lower power compression and lower distortion attributed to Vented Gap Cooling technology, has produced a significant increase in the maximum SPL performance of JBL's new VGC designs. For further information contact Harman UK on (0753) 76911.

Series 2 Transformers



Tekcon Electrical's new Series 2 transformer range, designed for use with low voltage lighting systems, incorporates a number of features which give improved connection and service access. The Transformers meet the requirements of BS 3535 and/or IEC 742, and are fitted with replaceable anti-surge input fuses and a thermal cutout.

Top fixing retained screws have replaced the previous side-fitting screws, giving improved access to terminals and mounting holes. In addition, the casing now has edge lipping, to fit flush with the base plate. Series 2 has the addition of output fusing. To allow for various lamp ratings, the 200VA and 300VA transformers are provided with an output fuse for each 100VA of the transformer rating.

Series 2 terminals are also generously rated, the number of terminals allowing for one pair per 50 watt lamp. The terminal ratings also permit the use of 100 watt lamp circuits if required. Semi-standard voltages are available, whilst non-standard voltages and construction can be produced on request.

Further information is available from Stanley Wright at WPS Communications. Telephone (0249) 815467.

Real-time from DOD



DOD Electronics' new 4315 Real-Time Audio Analyzer is a window-type RTA covering the 20Hz to 20kHz audio frequency spectrum. Widening the window is effected through a resolution switch by selecting different dB steps for each LED. A five-LED level meter is provided for each of its 31 audio frequency bands.

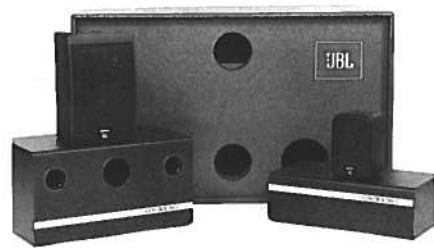
Other features of the DOD 4315 RTA are input level control, an internal pink noise generator and level control, plus a calibrated audio measurement microphone. A 30 feet microphone cable allows the user to take readings and therefore make evaluations from a considerable number of positions. An input jack allows direct analysis of any equipment in a system, whilst an output jack means the signal can be looped through the RTA, and subsequently monitored during a performance.

For further information contact DOD Europe on 01-449 5566.

Sentry 30

Recommended for clubs, bars, shops, AV presentations, nearfield monitoring and other applications requiring compact units, is the new 2-way E-V Sentry 30 loudspeaker system from Electro-Voice. The Sentry 30, powered by a polythene coned 5 1/4 inch woofer in an optimally vented enclosure for increased bass response, incorporates a tweeter with its own protection device. In an emergency this automatically resets itself without affecting sound quality. Both woofer and tweeter are magnetically screened allowing the units to be used in the vicinity of computer and video screens without affecting picture quality. Frequency response at plus or minus 3dB is 90-20,000 Hz.

Helmholz Effect Development



JBL have adapted the Helmholz effect (a resonant sound created by the transfer of energy) with computer aided design techniques to create a sub bass system which yields improvements, say the company, in every performance parameter. The Triple Chamber Bandpass (TCB) system fundamentally comprises three discrete chambers and two (or multiples of two) drivers.

The drivers are positioned back to back sharing the same chamber and radiating into their own dedicated secondary chambers. Chambers 1 and 3 are tuned to a lower frequency than the driver chamber 2 and it's this tuning differential which is critical to the success of the TCB design. Once tuned, the chambers together with their ports act as Helmholz resonators driven by their drivers.

Unlike most systems where the driver is directly "moving" air, the TCB system energises the chambers and ports, and the air within them, which in turn moves the air outside the system, producing the sound we hear. This tripartite chain reaction is very important. It provides acoustic isolation from errant driver resonances and generates a natural high frequency roll-off in the system - desirable in any sub bass design.

At the port-tuning frequencies, the drivers transfer their energy to the chamber via the Helmholz effect. At or around these frequencies the drivers operate within a smaller excursion range thus preventing excursion damage which naturally limits the power handling capabilities of conventional designs.

The TCB system's unique driver to driver configuration reduces unwanted enclosure resonances and acoustic colouration. Large ports are used to reduce vent air velocity and associated vent noise. Careful chamber and port tuning ensure that port frequencies overlap exactly, producing a seamless transition from one to the other and a flat bandpass response.

The TCB design is able to generate substantially more output at low frequencies than typically available from the same drivers in any other enclosure configuration. The common assertion that more bandwidth necessitates less efficiency and vice versa does not apply to TCB technology, say JBL. TCB systems have extended low frequency response and high efficiency, and the company claim that fewer systems are needed for a given application.

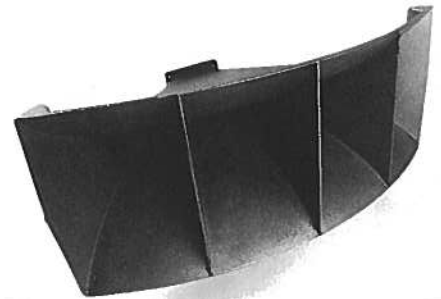
JBL have used the TCB concept to develop five new products. The JBL 4782 is designed specifically to augment the low frequency performance of the JBL 4716 Sound Power system in small auditoria. The 4782 system employs dual JBL 2204H 12" low frequency drivers and can be actively driven using an external electronic crossover and amplifier.

The JBL 4785 is a TCB system designed to be used in conjunction with any of the JBL Sound Power Series full range systems. It is intended for installation or touring applications in auditoriums and large halls where the application demands extended, powerful low frequency reproduction at high levels with little distortion. Employing dual JBL 2225H low frequency drivers, and requiring an external amplifier and electronic crossover, the JBL 4785 system will uniformly reproduce frequencies down to 28Hz. The 4788 sub-woofer system is a dual 18" woofer enclosure suitable for theatres, cinemas, clubs, discos and other fixed applications where deep, high output bass is necessary. The 4788 has a -3dB cut-off of 28Hz, a 2.83V, 1 meter sensitivity of 103dB and a 1200W continuous program power rating. Maximum SPL is 131dB, 1 meter continuous sine wave. The JBL

4782, 4785 and 4788 are constructed of Finnish birch plywood

The Control SB-1 and SB-5 are two new compact TCB implementations which provide powerful bass performance with Control 1, PRO III, and Control 5 monitors. To further reduce cabinet size, the sub-woofers use a compound woofer configuration with four woofers per enclosure. The compound woofer configuration allows the cavity sizes to be reduced by 50% further reducing the overall cabinet size. Both SB-1 and SB-5 have internal crossovers to enable easy and cost effective integration with Control monitors in many applications.

Clearer Sounds



A cellular radial horn loudspeaker which provides clear sound reproduction in acoustically difficult auditoria and open air venues is now available from Vitavox.

With a 330 Hz flare rate, the 90° x 50° RH330 horn provides an almost constant 90° horizontal dispersion pattern at all frequencies between 500 Hz and 10 kHz. The horn's four cell design reduces sound distortion by eliminating beaming effects associated with conventional radial designs. Optimum drive unit performance is ensured by the 42cm air column length. This applies virtually constant pressure loading to the pressure driver, minimising the risk of diaphragm fracture caused by acoustical unloading.

Manufactured in cast aluminium, the loudspeaker measures 600mm x 240mm x 440mm and weighs just 5.4kg. This compactness makes the RH330 particularly suitable for use in live sound touring rigs, outdoor music festivals, stage side-fills and studio control room monitors. For further details contact Vitavox on 01-952 5566.

Stanton Upgrade



Stanton Magnetics Inc. of Plainview, New York recently announced the upgrading of all their professional DJ cartridges and styli to "Club Series" specification. Specific improvements include expanded bandwidth, increased stereo separation and higher output. Model names and numbers remain the same throughout the range, however Club Series carts are clearly denoted by a new logo on the packaging. The Club Series is in stock now at Stanton dealers.

For further information, please contact Ian Kirby at Lamba on (0727) 40527.

A little piece of Magic

Lee Filters have introduced Colour Magic - a starter pack to introduce you to the versatile and colourful world of Lee's filter products.

The Colour Magic pack contain twelve sheets of high grade lightin filter, a cutter, and the formulae fo creating more than 50 other colours it's a palette of tones for the lighti professional.

Whether you want to bring a blush the heroine's cheeks, or a glow to sunset, or a wintry light to the cas ramparts - if it can be done w colour, it can be done with Lee Colour Magic.

Priced at just £7.50, Colour Mag an ideal introduction to the Lee ra and all its versatility.

And once Colour Magic has pr the performance of the Lee sys our pocket sized swatchbook will vide the key which will unlock the to the wider horizons of our wor colours and effects.



Lee CT's are right on target - every time

The Lee range of colour temperature filters is unrivalled in terms of accuracy and repeatable performance.

Lee Colour Temperature Blues and Colour Temperature Oranges are made using the first principles of colour physics, ensuring that each filter

delivers a performance which is spectrally correct - and that means the right colour temperature, and an accurate colour, every time.

You've heard it all before from manufacturers, haven't you? Team of professionals blah, blah, blah. . . . dedicated to one ideal, blah, blah, blah. . . . all highly skilled blah, blah, blah. . . . so for a change, we thought you'd like to see the Lee Filters team. They're having another great season.

We don't need to tell you we're the best

LEE Filters
LEE Filters
LEE Filters
LEE Filters
LEE Filters

A DIVISION OF **LEE** Colortran Ltd.

Central Way, Walworth Industrial Estate, Andover, Hampshire SP10 5AN,
Tel: (0264) 66245 England. Fax: (0264) 55058 Telex: 477259

Meet the family from downunder

DDX

The DDX-48 bridges the gap between wire-per-channel dimmers and digital control desks. The use of digital multiplexing allows up to 512 control channels to be transmitted through a shielded-pair cable. Each DDX will drive 48 dimmers and features a front panel bank select switch.



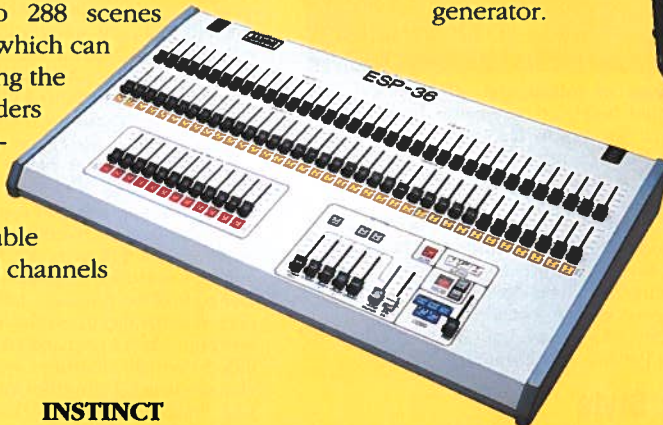
ROADPAK

Available with either analogue or digital inputs the Roadpak provides twelve 240 volt 2400 watt dimmer channels. The digital version accepts a DMX-512 control signal and features an inbuilt pattern generator.



ESP

The ESP offers all the capabilities of a standard two preset board along with the ability to program up to 288 scenes and 12 chasers which can be accessed using the twelve scene faders and comprehensive chaser controls. The console is available with 24,36 or 48 channels



INSTINCT

Available with 48 or 60 channels and offering the best of both manual and automated functions the console stores up to 864 scenes and 36 chases. Other features include; softpatch, memory card, timed crossfade, output hold and function display



Over two years ago, we created a breakthrough in computer driven lighting consoles: The ESP. The first console to offer big board features at an affordable price.

We didn't stop there. We followed the ESP with the INSTINCT - an even more powerful console which is already in use with designers, rental companies and in venues throughout the world. Now JANDS offers an entire family of lighting control equipment just as we have always done in Australia. Our product range includes

analogue and digital dimmer packs, integrated controllers and a DMX-512 demultiplexer.

JANDS

An Australian company

Tel: 61-2-516 3622 Fax: 61-2-517 1045

Distributor Enquiries: Jands Electronics Pty. Ltd.

578 Princes Highway, St. Peters, N.S.W. 2044 Australia

U.K. & Europe: A.C. Lighting Spearmast Industrial Park Lane End Road, Sands, High Wycombe, Bucks HP12 4JG

Tel: (0494) 446000 Fax: (0494) 461024

U.S.A.: T.M.B. Associates, 3416 W. Burbank Blvd.

Burbank California 91505

Tel: (818) 842 9652 Fax: (818) 842 1064

The 'Original' G12M



While designing the company's first musical instrument loudspeaker in the mid-sixties, Celestion engineers had no idea of the part they were to play in permanently altering the course of rock 'n' roll history. That loudspeaker, the G12M was responsible, according to Celestion, for reproducing the warm, reed-like, resonant timbres and creamy sustain associated with Eric Clapton's amplified sound at that time.

Unlike other designs of the period, the G12M, a direct outgrowth of Celestion's radio loudspeaker technology, exhibited a pronounced tendency to break up and distort simultaneously producing a marriage of rich, sweet harmonic overtones when amplifier and speaker were overdriven. For the first time players were able to interact with their loudspeaker cabinets and the air surrounding them to produce controlled feedback and almost infinite sustain.

Two decades later, Celestion has re-released the G12M in its original form. The same forming process, the same magnet, the same speaker coil, the same paper cone, even the same glue is utilised. The G12M is assembled by hand, as it was over two decades ago, and carries the same original logo. The company has also made advances in loudspeaker development. With the aid of laser beam assisted computer technology, a group of researchers at Celestion has devised new methods of evaluating loudspeaker performance, one of which will show speaker vibrations clearly and unambiguously in animated form. Celestion believes that utilising this new technology has enabled them to develop and produce a new generation of loudspeakers whose vibration modes may be regulated to produce superior sound qualities. For further information contact Celestion on (0473) 723131

The Midas Touch



Laser Grafix have announced full series production of their Midas Laser control and projection system following its successful installation at Kiss, the Batchwood Hall disco in St Albans.

The system is supplied with compact keyboard fitted with 16 pre-set keys which allow the immediate recall of any programmed effects. These can include beams, lissajous or digital pattern generation, logos, texts or sequences containing any combination of these with up to 16 effects per key. Modulation includes, rotate, tumble, spin, flip, wobble, invert, pulse and reverse direction.

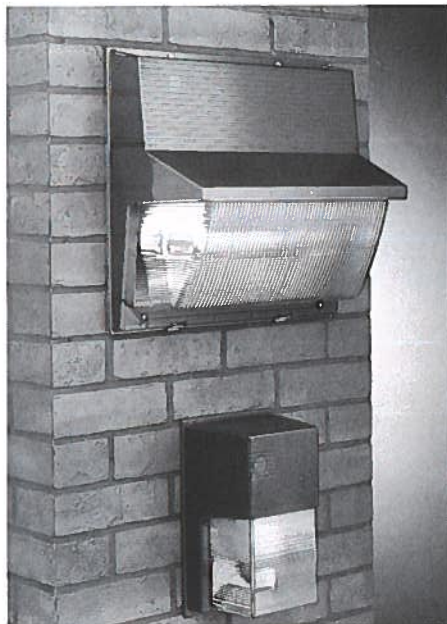
Mode selection is also available providing access to a further 16 keys, it is therefore possible to have 16 x 16 x 2 selection of patterns, logos or beams making a total of 512 effects. The modus operandi is to step through each effect using the keyboard until the desired one is located and then to 'store' it in the Midas memory.

Other standard features include, linear and astral diffraction effects wheel colour change,

gives 3 to 6 colours depending on the laser being used, audio input for sound to light stepping of sequences and sound modulation of the programmed effects. There is also an optional text facility using a digital input which requires an external QWERTY keyboard.

For further information contact Laser Grafix on (0763) 248846.

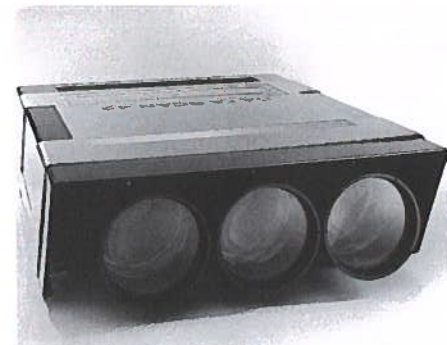
New Bulkhead Range



A new range of robust and attractively-styled, wall-mounted bulkhead luminaires has been introduced by Crompton Lighting, a Hawker Siddeley company, to provide economical exterior amenity and security lighting. Two basic models are available in the range, the Crompton Sidelite and the Crompton Sidelite Major. Both models are supplied complete with a factory-fitted, high-efficiency discharge lamp, and an optional built-in photo-electric switching device can also be provided for even greater economy.

For further information contact Jane Carter at Crompton Parkinson Ltd on 0604 30201.

Italian Style

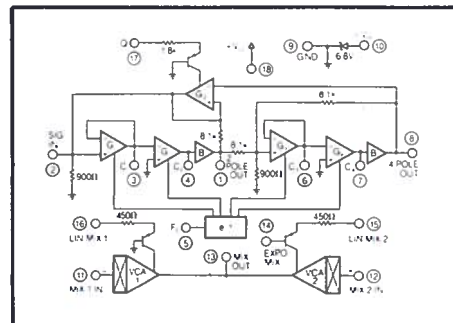


Video Projector Industry, one of the leading firms in the sector of Italian and European video projection, have recently developed three new products to complement their range of video projection systems. The first is the D.G. Four High Definition, a four-tube device which has a brightness of more than 1000 lumen and a horizontal scan frequency of 31,450 Hz, which allows a definition of 1250 lines. A version of this apparatus consistent with the American standard (1050 lines, 60 Hz) is planned.

Data Scan 42, is a video projector to be connected to a computer and will replace the Multiscan range. It has a brightness of 600 lumen, a self-locking vertical scan frequency of 50-120 Hz and a self locking horizontal scan frequency of 15-42 kHz. Data Scan is modular, and consists of a master card which supports the modules relative to the different functions. With an RS 232 input interface, remote diagnostics of the electronic components is possible. In this way, by using a modem and a telephone, it is possible to diagnose possible failures of the apparatus.

The final new product is a Data Graphic High Bright I.P.R., a four-tube video projector which features two blue tubes beside the usual green and red ones. Data Graphic High Bright I.P.R. has a brightness of more than 1000 lumen and a very good colour yield. Moreover, it has an input for direct connection to a personal computer with CGA graphic card. For further information contact: Video Projector Industry on 39 (461) 821 239.

Single-chip systems



Precision Monolithics Inc. has introduced two new integrated circuits which offer comprehensive music voicing capabilities from a single-chip package.

The SSM-2045 is a voltage-controlled filter combined with an uncommitted mixer/voltage-controlled-amplifier combination, while the SSM-2047 incorporates a 4-pole 2045-type low-pass filter plus three output voltage-controlled amplifiers giving individual-channel as well as mixable left and right stereo outputs.

The filter section of the SSM-2045 has exceptionally low noise, offset and control feedthrough, while the voltage-controlled amplifier gives built-in electronic Q control with the minimum of in-band loss at the oscillation point.

The mixer/amplifier section can be connected to the filter input for waveform mixing or to the outputs for mixing between 2- and 4-pole responses. AC coupling between the filter and mixer/amplifier sections is not required. The output voltage-controlled amplifiers on the SSM-2047 are low control feedthrough, full Class A devices connected in parallel to minimise noise and distortion build-up. Master gain and stereo pan pins are provided which feature exponential (dB/volt) characteristics. For further information please contact, Philip Bullus, PMI. Telephone (0276) 692392.

Output doubled



New from Planned Equipment Ltd is the A1150, a 150W amplifier suitable for 240V mains or 24V battery operation. It is half the width of a standard 19" cabinet and two units can be paralleled for 300W output with high quality reproduction and considerable savings in space.

Fitted with dual tone controls and capable of outputting 300mA at 24Vdc, the new unit has a bandwidth of 50-18,000Hz and a distortion rating of not more than 1%. Input is via an XLR connector, cooling by thermostat equipped fan. Two LED's are provided for VU indication. Its actual dimensions are 212mmW x 325mmD x 135mmH, and it weighs 12kg.

Making its world premiere at Sound '90, the AR1150 is one of the latest additions to the Bouyer range of quality electro-acoustic equipment. Further details from Peter Barnett at Planned Equipment. Telephone 01-841 6251.

ON TOUR

Carlona Forcer

The lighting for the current Wet Wet Wet 'Holding Back the River' world tour was a joint effort by many people. Dougie Souness (tour manager), Robert Gambino (production manager), Martin Lubach (Starlite operator) and Louis Ball (lighting designer) all contributed to one of last year's most spectacular light shows. The production team are particularly proud of the fact that they are the first people to use Skytrackers, placed on their side, in an indoor arena as part of a show. Many interesting features enhance the show, one being a 40ft fountain on stage (as far as I know, no stage hands have been electrocuted!). The show is scheduled to return to the UK in March, and I would certainly recommend a visit.

Alexander O'Neal played several sell-out dates in the UK last month, complete with his hovering bed! Definitely a show not to be missed, particularly as Steve Hall did such a good job lighting 'Mr Lurve' and his band. Moving pods gave the show an extra dimension and there was excellent use of colour. Totally unprompted by me, both this month's featured LD's have chosen to criticise designers who charge large sums of money for their designs and then don't actually tour with the show. It is a complaint which I often hear, and I would welcome your views on this subject.

Finally I was lucky enough to catch the recent Erasure show held at the London Arena. It was certainly one of the most overwhelming stage sets that I have seen for a long while - a sort of 'Santa's Grotto meets Day of the Triffids'. Still, I'm always one to encourage something new and different and the show turned out to be a huge success. Congratulations to Light & Sound Design of Birmingham.

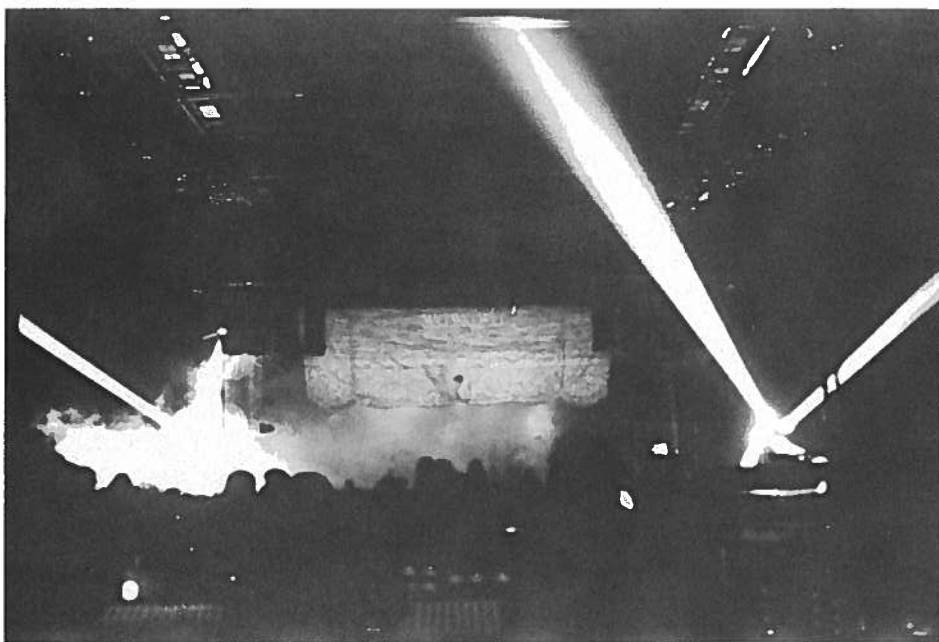
Wet, Wet, Wet London Arena LD: Louis Ball

Dougie Souness started in the world of touring as the 'guy who did everything' - a sort of driving electrician who could set up a drum kit! His first tour with the Wets was as their drum tech, but he soon moved on to production manager and then tour manager. Dougie's approach to arranging the lighting for the Wets was rather unconventional because, as he was involved in the actual designing himself, he did not see the need to pay a lighting designer a design fee.

"The band and everyone associated with them are very independent," Dougie explained. "I met a few lighting designers who were 'strict designers' and all they were interested in was coming up with clever ideas that were just variations of the same clever idea. Then they wanted to charge a fortune. I think that the fees lighting designers charge these days are ridiculous. If you feel confident in yourself to put together a good looking design and then to chase people to do it, then you should. For example, the Skytrackers which we



Dougie Souness, Robert Gambino and Louis Ball.



Theatre Projects' Skytrackers in action on the Wet, Wet, Wet 'Holding Back the River' world tour.

first used at the free concert given by the Wets at Glasgow Green last September. They were diesel powered, very hard to cue, and were just going up into the sky. I was convinced they would be more effective on their sides inside an arena, but met opposition at first even though there are electric ones which are more cueable. So I spoke to the people at Theatre Projects who analysed the problem and decided that they could rebuild them so that they could be turned on their side. I then spoke to Arrow Rigging who designed the special cradles for the Skytrackers, and here we are the first people to fly Skytrackers.

"One day the band and I were driving to Heathrow Airport when we saw a massive fountain and we wondered if we could get something similar onstage. Obviously, a 40ft fountain onstage makes people panic and think about the safety aspects of electricity. Robert Gambino and myself, in association with Water Sculptures, solved the problems and again here it is.

"The layout of the Par cans has been left to our LD Louis Ball and the programming of the Starlites is in the hands of Martin Lubach, the operator. They are the people on the boards and they do all the cues. When it comes to designing I'm not interested in paying anyone a design fee. We just told people what we wanted and if they said that it couldn't be done, we kicked their arses until it was done! In my opinion absolutely nothing is impossible, people should never say never. Unlike other bands, the Wets have a lot to say about which particular colours, sets and backdrops they like to use and they convey this to me. Then with Robert and the two board operators we put the show together.

"Last summer I was at the Cliff Richard Wembley Stadium show when I saw Louis and Martin working together and I thought that they were good. Hence they did the Glasgow Green show which was another good job and so now they are on this tour. I also went to see UB40 at Birmingham City Football Ground and I thought that the sound was absolutely amazing so we used that system. We've also got their sound engineer Steve Gonzo Smith, and we've got Paul Owen on monitors who has just finished a year with Metallica. I've always been a fan of spectacular shows. I'm a big Who fan and that's where I first saw the Skytrackers. They used them in 1982, just directed into the air, and here we are developing on that."

Louis Ball started in the music industry doing

sound for The Sensational Alex Harvey Band, then became involved in lighting and, about 12 years ago, joined Tasco. His first job as a designer was with UFO and since then he has worked with many acts including Judas Priest, Deep Purple, Black Sabbath and Eric Clapton. I asked him if he thought that Wet Wet Wet were a bit of a radical departure from the sort of bands that he was used to lighting: "They are more middle-of-the-road than the others, but then again I've also just done Climie Fisher. I've always done big lighting shows because it's 'rock and roll' but with the Wets it's the best of both worlds. It's an opportunity to use a big rig with a more mainstream band.

"They're a good young band with lots of up tempo music as well as ballads, so you get the chance to make it a dynamic show. It's an action packed show with the Skytrackers, fountains and plenty of pyro's throughout. I've used the same truss configuration as in Glasgow, although show-wise it's obviously different because we're indoors. There are 600 Par cans, 60 Starlite Mark 1's and Mark 2's, 30 Molefay units, 12 spots, Leko's and ground-drops. The control is an Avo QM180. I've extended the rig out over the audience to try and involve them more in the show. It brings them closer to the band and makes the show look bigger. I did this with Judas Priest in America by continuing the aircrafts off the stage. There is a lot of grief putting them up but it's worth it in the end. At Wembley Arena Brent Council made us put netting underneath which was a real pain. We've used an Austrian curtain at the front instead of the normal tabs or some sort of kabuki, and it looks really good.

"Before this tour I did Climie Fisher on a very small budget although I was fortunate enough to have 12 Starlites and Martin Lubach with me. I got a tasteful little show out of it. It doesn't matter if you are doing a small production or a really large show like this as long as you can walk away at the end of the day and say, 'that was good and worthwhile'.

"I would say that my shows are quite ballsy. I like to use a lot of aircrafts and I'm renowned for using Molefays. I've also got a terrible tendency towards triangles and they always crop up somewhere. I don't mind ideas thrown at me from all sides like the Skytrackers from Dougie and the fountain from the band. I've done the generic design of the show with Martin on the Starlites, and, as long as it all comes together at the end of the day, I'm



From behind the lighting console where Louis Ball, lighting designer, orchestrates the lighting for Wet, Wet, Wet's performance.

happy. I'll always listen to constructive criticism. "I don't see that many shows although I liked what Allen Branton did for Bowie's 'Serious Moonlight Tour'. Unfortunately, the 'Glass Spider' show looked like a throw together. If you've got a lot going on you've got to concentrate on one project and if you're designing three or four shows at one time you can't possibly be 100% into the one you're doing then and there, it reflects in the show. When you are doing a tour every day you change something, and that's what makes it interesting. It's all very well drawing a design on

paper and putting it up in rehearsals, but on tour you usually have to make alterations and adapt your design to fit the venues."

Crew List
 Dougie Souness - tour manager
 Robert Gambino - production manager

Lighting
 Louis Ball - lighting designer
 Darren Hodge - dimmers
 Steve Arch
 Peter Bell
 Chalkie White
 Lamar Still

Chris Chew
 Craig Meredith
Starlite Crew
 Martin Lubach - operator
 Stuart Parker
 Fraser McParlane

Sound
 Steve Gonzo Smith - house engineer
 Paul Owen - monitor engineer
 Martin Hunt
 Steve Levitt

Equipment
 Tasco



Alexander O'Neal Wembley Arena LD: Steve Hall

After completing a degree in computer science, Steve Hall decided to pursue a career in lighting rather than get a proper job! Peter Clarke gave him a job working in Supermick's warehouse and he has been with them ever since. Steve's first tour as a lighting designer was for Roger Whittaker in Europe for ten weeks with two 3 ton trucks and three crew. Having survived that with no previous experience of life on the road, Steve decided that he could basically survive anything, there was no turning back. Following that, he went on a two week tour with John Ottway.

Many years and tours later, Steve found himself

designing the British tour for Alexander O'Neal which consisted of 12 sell-out arena dates. "The centrepiece of the set is the bed which is for the number 'If You Were Here Tonight'. It has been used on a previous tour, but then it was just wheeled out in a blackout by the stage crew. Now it 'magically' appears from the centre of the set and travels down the stairway to the front of the stage. I think it's wonderful and everyone in the crew has a good chuckle about it. It's very over the top but you need it in an arena otherwise, for the people at the back, it's just another pimple on a cow's backside!

"Before this tour all I knew about Alex was what the crew from previous tours had told me. Once I had got hold of some of his tapes I realised that I knew some of his stuff but, personally, it leaves me cold. It's OK but it sounds like a million other people. I don't find it difficult to design for him as

it's not like a Peter Gabriel show where you're exploring the in-depths of a song. It's a bit of a sledgehammer to crack a walnut situation where in the big numbers like 'Fake' and 'Criticise' you throw the kitchen sink in whilst for the slower, moodier numbers it's make it look pretty with the emphasis on Alex whilst not losing the band

"Obviously, with the Vari*Lites there's a lot of work with gobos. We've got the moving pods as well - hence moving lights on moving trusses. Essentially it's a three truss box built from Thomas Pre-rig and all the side sections are empty because I don't really like side light. There's not a lot of front light either, in fact it's really 75% backlight. 12 of the Vari*Lites, 48 of the Pars and 48 of the ACL's are mounted on the three pods which first saw light on the Level 42 tour last year. On that tour the pods moved laterally as well as up and down. That's been simplified on this tour to just



Alexander O'Neal performed to sell-out audiences across the country on his recent British tour.

up and down because of obvious budget restraints and the fact that you don't want to duplicate things. I try not to over-use them because once they've been seen a couple of times the audience knows what to expect. On some of the slow numbers you can tilt them a little so that when you're revolving the Vari*Lites with a gobo it means that you can tilt them up to the audience a little. Also, you don't get into any problems trying to mount the Vari*Lite at an angle and you don't have to do overkill with smoke because they are not straight down, you can still see the effect at the back.

"Originally we had a system of a set of tabs and a white shark's tooth at the back, as well as a star cloth. For various reasons that went and we were left with just the star cloth which is used for one number only. There is a big mirror ball up there which is cheap and cheerful but when you sling 16 Vari*Lites on it, it gives an effect which I'm very happy with. Usually the best effects are the tried and tested ones with a slightly new angle. Many things that a lot of people have spent lots of money on just don't work. We were intending to use the Vari*Lites for a bit more projection on this show but, for several reasons including inadequate rehearsal time, a lot of the more adventurous ideas got dropped for the sake of getting the show together in time. A lot of effort has been put into this show and hopefully it will be transferred into another tour next year.

"The design brief from BKO was largely that they just wanted it bigger and better than the last one. They were happy with the last tour that Tom Kenny did but Tom is now with David Byrne which is how I got the job. Tom gave me one or two hints as to what they didn't like, so I didn't make any major gaffs. I was given mainly a free hand in the design and when I suggested things like custom gobos and Vari*Lites they were very supportive.

"Suzanne Vega is doing a world tour in 1990 and I should be flying to New York in January to sort it out with her management. My all-time favourite is Frank Zappa and I was lucky enough to work on his last tour, unfortunately not as designer. I'd love to do him but I think it's highly unlikely that he'll work live again. I prefer to do smaller scale shows than this one because I find arenas too impersonal. I'd much rather work a theatre circuit where you can get more intimacy. If you haven't got so much equipment to work with you tend to have to make it work harder and so you're more creative. I like to work with people who are not afraid to try something that's not considered the norm. There are lighting designers whose work is consistently of a high standard. Alec Nisic with the Psychedelic Furs is always a good show. Peter Barnes keeps it fairly simple and he is known for his projection. Phay MacMahon is another good designer, as is anyone who supports Spurs! There are also some people who I think are thoroughly over rated in the business, their shows can often be done much better with much less. A personal bee in the bonnet is that I'm heartily against people obtaining large sums of money and then leaving some other poor sod to operate a show and sort out the mess after rehearsals. I find a show develops during the tour. On the last Suzanne Vega tour I was still changing things eight months into the tour because there was another way of looking at it.

"This show tonight is being videoed, but unfortunately the colours in the rig are deep, saturated colours and not at all what I would use if I was designing for video. But what can you do when they only give you one day's notice? I think that the band's management have stated that they want the video to look like the 'real' show with no compromise. Sometimes extra gear is ordered and after having done a few months touring with

a show you've suddenly got an extra truss and what do you do? Do you just make everything bigger or do you do something else with it? It never seems to work. Some of the best live videos that I've seen have been more down to the lighting cameraman adjusting and adapting to what's going on having seen the show a couple of times before. That's another thing, often the director of the video has never seen a complete show before filming. All too often the camera is in the wrong place which is silly because all they've got to do is listen to the LD calling the spots. I'm not suggesting they listen in real time but if they talk to the LD before, they'd get every cue in the show without having to think about it. All I'm interested in is an obvious end result which looks as close as possible to the original show which obviously for me means no close-ups."

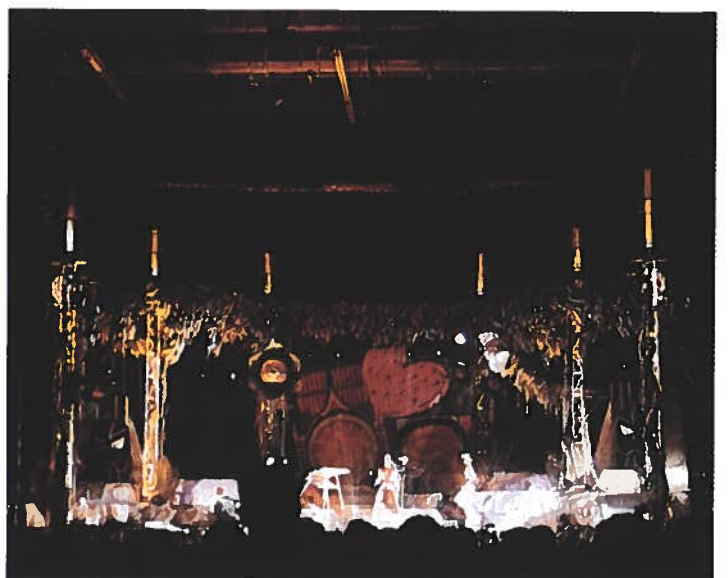
Equipment List (Supermick)

84way Avolites desk
2 x 72way Avolites dimmer rack
26 sections Thomas Pre-rig (8 empty)
8 corner blocks
284 Par 64's (chrome)
80 x 250W ACL's
12 x strip 8-lites Blinders
4 x truss mount Lycian HFI 400
Jem Heavy Fogger model 6500
60' x 20' starcloth
3 x pods
13 x 3m sections Tomcat Tower Truss
12 x 1 tonne Verlindes
14 x ¼ tonne Verlindes
Skjonberg Motor Commander + URC relay blocks

Crew List

Fraser Elisha (Vari*Lites)
Shaun Fuller
Robin Jellef
Bob Dunstan
Russel Jones
Ian Bracewell

Erasure in Concert - London Arena



Joe Jackson Hammersmith Odeon

Sound: Al Tucker/Scott Richards

It's three years since Joe Jackson last played in the UK. This time, there were just three dates, two at Hammersmith Odeon and one at the Glasgow Pavilion, before moving on to Germany and Belgium.

One reason, put by Jackson in a Channel 4 interview, was the disproportionate cost of touring with a ten piece band, set against limited record company support, and a realistic assessment of the potential audience. For, despite the limited appearance, the Friday night show was by no means sold out. He's certainly much more popular in the USA, where the band had been touring since June. Sound throughout the tour was by MSI (Maryland Sound Inc.), a US hire company who work in partnership with Britannia Row Productions.

The PA was a surprisingly modest set-up considering the clarity of JJ's louder, brassy big-band numbers. It comprised six and four of MSI's own hi +lo-pack 'boxes' respectively stacked and flown per side; that's 20 cabs in all. As usual, they were driven by MSI's racks of Ramsa and SAE power amps, and their own 'time-aligned' crossover.

Outfront mixing was by Al Tucker, a rock'n'roll veteran who's been on the road for 20 years, after a stint as a musician.

He was working with a 14 years old Harrison 'Alive' board that raises eyebrows everywhere it goes. The Alive was Harrison's stab at entering the PA console market, and while looking dated, it was well ahead of its time, containing VCA grouping which even today, has only been successfully implemented on a handful of PA consoles. Just as important, Al knew all the controls and tricks like the back of his hand.

Monitor mixing was undertaken by Scott Richards. With JJ's show being divided into three distinct sections, he had the unenviable task of holding in his memory three different allocations for each of the ten monitor sends needed to cover Jackson's 'big' band. Fortunately Scott had the new Ramsa console, he felt such flexibility would have been near impossible with the Soundcraft he'd used in the past.

Turning to the show, there was an intimate ambience from the outset; the stage was bare and stark. Joe Jackson quickly transformed the atmosphere to give the feel of a minimalist 'arts theatre' as he brought his songs alive in new arrangements, and by adding self-conscious biographical asides to explain old and new songs alike.

The first set contained all the old favourites like 'Is she really...'. The second and third 'acts' gave Joe a chance to air all the material on the current album, *Blaze of Glory*. The irony of this title is that when he first toured, he was in competition with the up-and-coming bands of the day, i.e. Dire Straits, Level 42, etc. Today, he finds he's competing with The Stones, The Who - the bands he grew up with.

Jackson's band was virtually the same as on the *Blaze of Glory* album, a mix of US and UK musicians. The latter (who were in the minority) shared a joke with the audience, raising mugs of tea from a Thermos as the American section knocked back something stronger. Overall, the Jackson sound is tighter than ever and his new material is capturing a wider audience.

However, there's still a chip on his shoulder. The Portsmouth boy working in exile in the US feels badly treated by the British music business and this grudge is vented in front of the faithful. "Thanks for turning up, I didn't know I had this many fans over here."

But he can't quite keep up the indifference towards his native country, and the most moving song of the evening was 'Hometown' where Jackson looked back on his youth in England with more than a hint of homesickness before leaving for Europe and then returning to the USA.

Ben Duncan

Transvision Vamp Hammersmith Odeon LD: Ian Cameron

Transvision Vamp, a band fast moving in the right direction, have recently finished their second UK tour - 'Velveteen'. I had the good fortune to see the show and chat with the LD Ian Cameron at Hammersmith Odeon in October.

Australian born Ian Cameron started his career working freelance for Tower Lighting and Kosmic Lighting down under. His first break came when on holiday in London. He met up with old acquaintance Nick Dornan, operations manager for Vari-Lite UK. This led on to Ian working as a Vari-Lite operator for two and a half years on such shows as ZZ Top, Moscow State Circus, etc.

It was back in Australia when his company supplied equipment to Dave Ridgeway of Negative Earth Lights for the Chris Rea tour 'Dancing with Strangers' that he and Dave struck up a friendship that was to give him a start as a full time mainstream LD. This was to come when Dave (out with John Farnham, another aussie connection) suggested him as LD for their Transvision Vamp 'Pop Art' tour. The band greatly appreciated his work and asked him to design and run the lights for the 'Velveteen' tour.

Ian is currently working on Chris Rea's 'Highway to Hell' tour, which should be a 'sell out' judging from the success of the single of the same name!

Getting back to the show. The tour started in Aberdeen and ran for 5 weeks, finishing in

Belfast's Ulster Hall. The extensive use of Raylights and ACL's made for a very snappy/up tempo feel. What really took my breath away was the creative use of the tightly strung white upstage scrim. The choice and use of colours along with the use of crisp shadows, rays focused at an acute angle from the rear, projectors and gobo rotators looked stunning.

One neat and simple effect was the use of a 2 feet diameter fan, on constantly in front of Wendy James, which as well as allowing her to keep cool during a very brightly lit performance, showed off her hair to great effect under the 'candy' colours of the backlights. The first hire system of the Avolites Gel Jets were a major feature of this show, appearing in every song.

Fitted to 12 truss pars and 4 floor cans they are used to preset colours and bump from colour to colour. Ian, like most LDs is always looking for varied work and to go from the raw energetic show of Transvision Vamp to the smooth subtlety of Chris Rea has been great.

It is interesting to note that Transvision Vamp are another band touring with corporate sponsorship (which seems to be flavour of the month at the moment). This was set up between Levi's and Simon Watson of Cinepop management. Although there is a feeling that sponsorship is 'selling out' I don't think that it is necessarily a bad thing if it can offset the costs of modern touring and keep bands on the road.

According to Ian: "The whole tour went extremely well, which must be partly due to the fact that all the equipment supplied by Neg-Earth was

like new, very clean and well maintained. When you consider the unavoidable problems of touring you can understand that reliable equipment is of the utmost importance."

With the band's current popularity I'm sure there won't be long to wait to see Ian's ideas for their next tour.

Transvision Vamp: Equipment List

- 10 x 8' sections Tomcat par truss
- 4 x 5' sections Tomcat par truss
- 2 x Tomcat 4 way corner blocks
- 5 x 10' 12" Tower truss
- 100' SCAFF tube
- 90' Tab Trac
- 4 Verlindel motors + Avolites controller
- 11 Bars 6 chrome
- 6 Bars 4 ACL chrome
- 8 6 x 16" Lekos
- 8 Sil 30 + 5RPM gobo rotators
- 2 Cadenza EP projectors + flame effect
- 2 Maxi Brutes
- 14 Floor specials
- 16 Avolites Gel Jet colour changers
- 8 Parscans
- 4 underhung follow chairs + spot throw Lycians
- AVO 72 Way rack + 30M 3 phase mains
- Celco 90 way Gold +100m triple remote on drum
- 6 x Thomas cyc lights
- 2 x Kodak 20/50 slide projectors
- 2 x 25 x 25' black velours
- 2 x 35 x 25' black scrims
- 1 x 40 x22' white scrim
- 2 x Terra strobes
- 1 x 200 amp custom mains distro (built by Berni Ltd)

Steve Warren

A Christmas Night on tour with L+S!

John Offord was behind camera at both Theatre Projects and Meteorlites' company celebrations



Meteorlites' chairman Ronan Willson (left) with Strand Lighting sales director Russell Dunsire.



Meteorlites' party entertainment from The Hot Dogs.



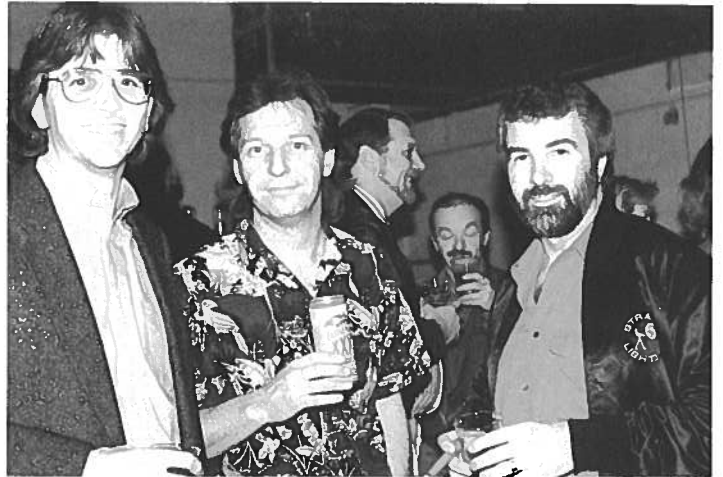
Self-styled rock'n'roll carpenter Bob Mardon (left) with brother Paul, technical director of Pulsar Limited.



Pip Munden and Dave Ridgeway of Neg Earth Lights with Steve Warren (right) of Avolites.



Chris Jordan (left), manager of Theatre Projects Sound with Rick Clarke and Steve Smith of The Sound Department.



Jim Holaday of Strand Lighting Los Angeles with Meteorlites' Geoff Benson (Hawaii division) and Alan Luxford from Strand London.



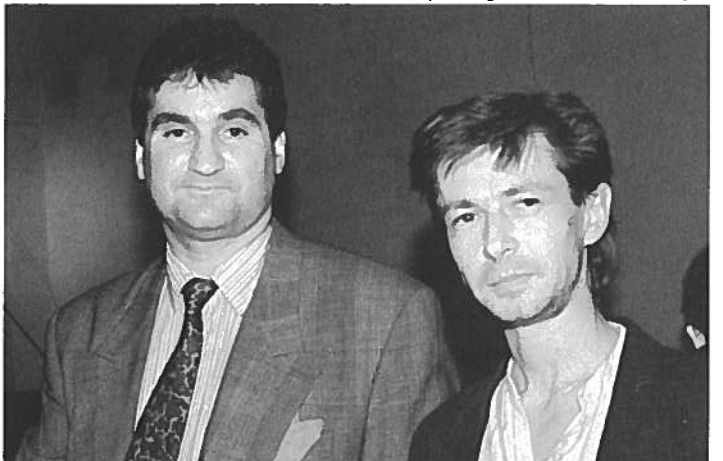
Simon Bruxner-Randall (left) and Richard Foulks (right) of Imagination with Tony Panico of Meteorlites (telling the story) and John Walters of Thomas.



TP party line-up (left to right): Alan Thomson (manager, TP lighting), Simon Bruxner-Randall of Imagination, John Singer (TP lighting rental manager), Karen Williams of Samuelsons Film Services and Daryl Vaughan of Vari-Lite Europe



Meteorlites' account manager John Cadbury (left) with new managing director Paul Turner.



Laser Grafix' managing director Mark Brown (left) and creative and services manager Brett Salmon pictured at the Meteorlites night-out.

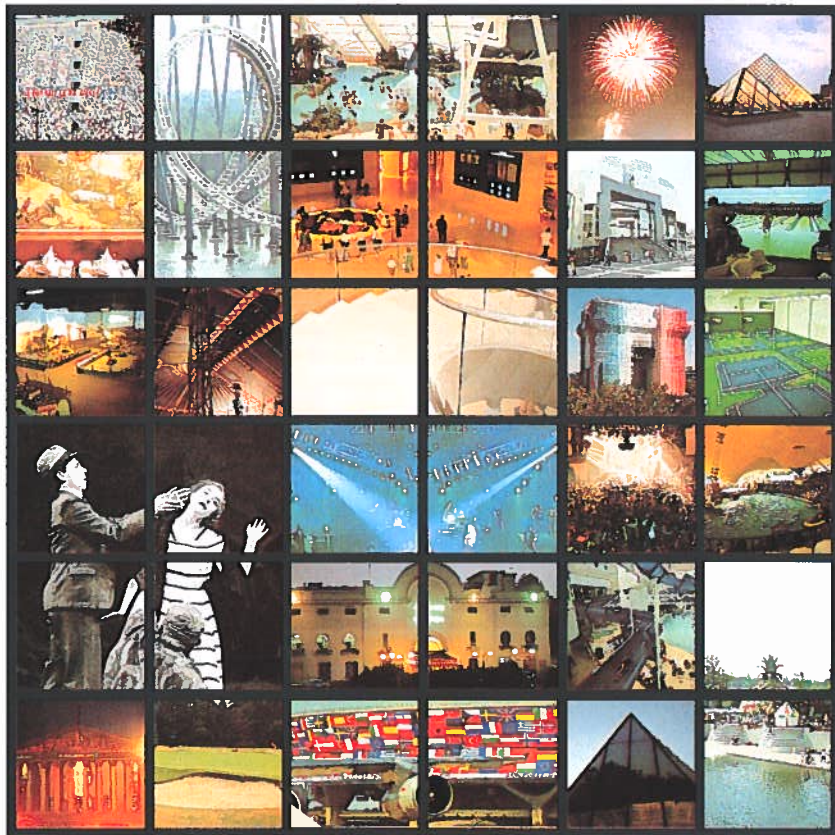
SIEL 90

8th INTERNATIONAL TRADE SHOW OF EQUIPMENT AND TECHNOLOGY
FOR ENTERTAINMENT AND LEISURE VENUES

&

5th THEATRICAL SERVICES EXHIBITION

February 17/20 - 1990
Parc des expositions Porte de Versailles - Paris - France



22 000 m² of exhibition area
20 000 professional visitors
300 exhibitors

HAVE MADE SIEL THE N° 1 EVENT IN EUROPE FOR:

Sound - Lighting - Special effects - Acoustical equipment - Stage machinery - Vending machines - Decoration - Animation
Scenography - Gaming machines - Venue security systems - Video - Radio - Theme parks equipment.

To receive your **FREE INVITATION** for SIEL 90
please return the coupon below to :


BERNARD BECKER
BLENHEIM

22-24, rue du Président-Wilson - 92300 Levallois-Perret - France
Tel.: (33) 1-47 56 50 00 - Fax: (33) 1-47 56 12 67

COMPANY _____

ADDRESS _____

NAME _____

SURNAME _____

Contact for UK exhibitors Debbie CARLTON at 01727 1929 (London). Fax 01727 0834



L.S.



PROFESSIONAL LIGHTING AND SOUND ASSOCIATION

ABRACADBRA (SALES) AND HIRE LTD.
314 Nelson Road, Whitton, Middx TW2 7AH.
Tel: 01-898 1127

A.C. LIGHTING LTD.
Unit 4, Spearmast Industrial Park,
Lane End Road, Sands, High Wycombe,
Buckinghamshire HP12 4JG.

ACTION LIGHTING LTD.
367 Uxbridge Road, London W3 9RH.
Tel: 01-993 1684

ADAM HALL SUPPLIES LTD.
3 The Cordwainers, Temple Farm Ind. Estate,
Sutton Rd, Southend-on-Sea, Essex SS2 5RU.

ADDA SUPER CASES LTD.
P.O. Box 366, Cambridge, CB4 5AX.
Tel: (0223) 233101

AJS THEATRE LIGHTING & STAGE SUPPLIES LTD.
Hightown Ind. Estate, Crow Arch Lane,
Ringwood, Hants BH24 1ND

ALLEN & HEATH
69 Ship Street, Brighton BN1 1AE
Tel: (0273) 23346

ANYTRONICS LTD.
Unit 6, Hillside Industrial Estate,
London Road, Horndean, Hants PO8 0BL

ARRI (GB) LTD.
1-3 Air Links, Spitfire Way, Heston,
Middlesex TW5 9NR.

ASTRALLOY INTERNATIONAL LTD.
Unit 1, Manor Road, Leeds LS11 5PZ.
Tel: (0532) 465331

ASTRON
Unit 2, Barrowmore Estate,
Great Barrow, Cheshire CH3 7JS.

AUDILEC LTD.
6 Hornsby Square, Southfields Industrial
Park, Laindon West, Essex SS15 6SD.

AVENUE ARTISTES SOUND & LIGHT LTD.
47 The Polygon, Southampton SO1 2BP.
Tel: (0703) 227077

AVITEC ELECTRONICS (UK) LTD.
80/81 Walsworth Road, Hitchin,
Herts SG4 9SX.

AVOLITES PRODUCTION CO. LTD.
184 Park Avenue, London NW10 7XL.
Tel: 01-965 8522

BATMINK LTD.
Glastonbury Warehouse, Silver Street,
Glastonbury, Somerset BA6 8BT.

BOSE (UK) LTD.
Unit G2, Trinity Trading Estate,
Sittingbourne, Kent ME10 2PD.

CALNE CABINET MAKERS LTD.
Redman Road, Porte Marsh, Calne,
Wiltshire SN11 9PR.

CANFORD AUDIO
Crowther Road, Washington,
Tyne and Wear NE38 0BW.
Tel: 091-417 0057

CCT THEATRE LIGHTING LTD.
Windsor House, 26 Willow Lane,
Mitcham, Surrey CR4 4NA.

CELCO LTD.
1-3 Bellingham Road, London SE6 2PN.
Tel: 01-698 1027

CELESTION INTERNATIONAL LTD.
Foxhall Road, Ipswich, Suffolk IP3 8JP.
Tel: (0473) 723131

CEREBRUM LIGHTING (SALES & HIRE) LTD.
The Stage and Effects Lighting Centre,
168 Chiltern Drive, Surbiton,
Surrey KT5 8LS.

CHRIS JAMES & CO.
Unit 7, North Western Commercial Centre,
75 Broadfield Lane, York Way,
London NW1 9YJ.

CITRONIC LTD.
Halifax Road, Bowerhill Estate,
Melksham, Wiltshire SN12 6UB.

CLOUD ELECTRONICS LTD.
140 Staniforth Road, Sheffield S9 3HF.
Tel: (0742) 447051

COLIN EADES PARTNERSHIP.
83 Tilehouse Street, Hitchin,
Hertfordshire SG5 2DY.

CYBERDESCENCE LIGHTING LTD.
63 Lancaster Road, New Barnet,
Hertfordshire EN4 8AS.

DHA LIGHTING LTD.
3 Jonathan Street, London SE11 5NH.
Tel: 01-582 3600

DIAL SOUND AND LIGHTING
Unit 4G, Wharfedale Road, Euroway
Trading Estate, Bradford, West Yorks BD4 6SG.

DISCO & CLUB TRADE INTERNATIONAL.
35 High Street, Sandridge, St. Albans,
Herts AL4 9DD.

DISCO MIRROR LTD.
Suite 2 Waterloo Place, Watson Square,
Stockport, Cheshire SK1 3AZ.

DISCOMIX CLUB LTD.
PO Box 89, Slough, Berks SL1 8NA.
Tel: (06286) 62726

DISCO NEON SIGNS
51 Dunster Road, Keynsham, Bristol BS18 2QB.
Tel: (0272) 864818

DONMAR LTD.
Donmar House, 54 Cavell Street,
Whitechapel, London E1 2HP.

EFFECTS LIGHTING (LEICESTER) LTD.
All Saints Road, Leicester LE3 5AB.
Tel: (0533) 516662

ELECTRONIC LIGHTING AND MUSIC
Unit 8, Scorrier Workshops, Redruth,
Cornwall TR16 5AU.

ELECTROVISION LTD.
Charity Farm, Arch Lane, Garswood,
Nr Wigan WN4 0XL.

EUROLIGHT LTD
Unit 1, Maple Industrial Estate,
Maple Way, Feltham, Middx TW13 7AJ.

Fax: 01-751 3334 Telex: 888941
Contact: Nick Mobsby

EXCITING LIGHTING & DECOR
9 Silverbirch Crescent, Bangor, Co. Down,
Northern Ireland BT19 2EX.

FANTASIA SOUND & LIGHTING
Unit 3, Bacon House Farm, Little Horwood,
Buckinghamshire

FARRAHS
Unit 7, St. Georges Industrial Estate,
Richmond Rd, Kingston, Surrey KT2 5BQ.

FORMULA SOUND LTD.
Stuart Road, Ashton Road, Bredbury,
Stockport, Cheshire SK6 2SR.

GENERAL ELECTRIC USA.
6-8 Prospect Way, Royal Oak Industrial
Estate, Daventry, Northants NN11 5PL.

GLANTRE ENGINEERING LTD.
2 Cremyll Road, Reading, Berks RG1 8NQ.
Tel: (0734) 509711

HARMAN (AUDIO) UK LTD.
Mill Street, Slough, Berks SL2 5DD.
Tel: (0753) 76911

HARRISON INFORMATION TECHNOLOGY LTD.
Unit 3, Button End Industrial Estate,
Harston, Cambridge CB2 5NX.

HAZEL GROVE MUSIC COMPANY LTD.
Bulkeley House, Stockport Road, Cheadle,
Cheshire SK8 2AA.

HI-PROFILE CONCEPTS LTD.
Station House, Station Avenue, Helsby,
Cheshire WA6 0AG.

HILL AUDIO LTD.
Hollingbourne House, Hollingbourne,
Maidstone, Kent ME17 1QJ.

INFINITY INTERNATIONAL
Unit 6D Newmarket Lane, Felxex Ind.
Estate, Leeds LS9 0SH.

JAMES THOMAS ENGINEERING LTD.
Station Approach, Pershore Trading Estate,
Worcestershire WR10 2DB.

JASCO LIGHT & SOUND LTD.
Unit 5, 315 Summer Lane, Hockley
Birmingham B19 3RH.

J.E.M. SMOKE MACHINE CO. LTD.
Vale Road Industrial Estate
Boston Road, Spilsby, Lincs PE23 5HE.

R.G. JONES SOUND ENGINEERING
Beulah Road, Wimbledon, London SW19 3SB.
Tel: 01-540 9881

KELSEY ACOUSTICS LTD.
28 Powis Terrace, London W11 1JH.
Tel: 01-727 1046

KENNETH BURR ASSOCIATES
171 London Road, Dunton Green,
Sevenoaks, Kent TN13 2TA.

LAMBA PLC
Albion Mills, Albion Road, St. Albans,
Herts AL1 5EB.

LASER CREATIONS LTD.
55 Merthyr Terrace, Barnes,
London SW13 9DL.

LASER MAGIC
5 Courtlands, Church Hill, Newhaven,
East Sussex BN9 9LU.

LASERPOINT LTD.
44/45 Clifton Road, Cambridge CB1 4FD.
Tel: (0223) 212331

LASER SYSTEMS LTD.
Unit 11, Llanerham Park, Cwmbran,
Gwent NP44 3AX.

LE MAITRE HOLDINGS PLC.
316 Purley Way, Croydon CR0 4XJ.
Tel: 01-686 9258

LEAMINGTON SIGHT & SOUND
Unit 17, Rigby Close, Heathcote Ind.
Estate, Leamington Spa, CV34 6JT.

LEE COLORTRAN INTERNATIONAL
Manchester Road, Kearsley, Bolton,
Lancashire BL4 8RL.

LIGHT ENGINEERING LTD.
64 Eden Road, Walthamstow, London E17 9JY.
Tel: 01-520 23367

LIGHTFACTOR LTD.
11 Fairway Drive, Fairway Industrial Estate,
Greenford, Middlesex UB6 8PW.

LIGHTING AND SOUND SERVICES
237 Chester Road, Helsby,
Cheshire WA6 0AD.

LIGHTNING SOUND AND LIGHT
410-412 Beanwood Road, Warley,
Birmingham B66 4EX.

LMC AUDIO SYSTEMS LTD.
Unit 10, Acton Vale Industrial Park,
Cowley Road, London W3 7QE.

LONDON ACOUSTICAL DEVELOPMENTS LTD.
8 Hartfield Road, Wimbledon, London SW19 3TA.
Tel: 01-946 6063

LUTON SOUND & LIGHTING LTD.
75 & 86-88 Wellington Street, Luton,
Bedfordshire LU1 5AA.

LYNX LIGHTING LTD.
5 Oxford Road, Pen Mill Trading Estate,
Yeovil, Somerset BA21 5HR.

LYTEMODE LTD.
3 Dawson Road, Mount Farm,
Milton Keynes MK1 1LH.

MALHAM LTD.
65-75 Malham Road, London SE23 1AJ.
Tel: 01-699 0917.

MARQUEE AUDIO LTD.
Shepperton Studio Centre, Studios Road,
Shepperton, Middx TW17 0QD.

MARTIN AUDIO
Cressex Industrial Estate, 19 Lincoln Road,
High Wycombe, Bucks HP12 3RD.

MARTIN SOUND & LIGHT.
125 Blackstock Rd, London N4 2JW.
Tel: 01-354 2254

METEORITES PRODUCTIONS LTD.
4 Elstree Way, Borehamwood,
Hertfordshire WD6 1BS.

DIRECTORY

Lighting + Sound
Equipment Sale/Hire
Installation and Design

TSL

Theatre Sound & Lighting
(Services) Ltd

U.K. DISTRIBUTORS
FOR

Clear-Com
Intercom Systems

67 DRURY LANE,
LONDON WC2B 5SP
Phone 01-836 7877/8

Southwest Lighting

Manufacturers of Pin Spots,
Moon Beams, Helicopters,
Stage Cans, Scanners etc.
Dealers required.

The Old Smithy, Church Road
Cockwood, Exeter, Devon
Tel: (0626) 890806
Fax: (0626) 891465
Showroom open Mon-Sat 10-5

DHA

- Library and Custom made Gobos and Slides.
- Screen Printing onto various Materials.
- Standard and Custom Fibre-Optic Effects and Equipment.

For further information contact:
DHA Lighting Ltd.
3 Jonathan Street, London SE11 5NH
Tel: 01-582 3600 Fax: 01-582 4779
Telex: 935639 GOBOCO G

The Fibre Optic
Lighting
People

We manufacture and distribute all fibre optic lighting materials - Parglas harnesses and conduits, Parflex polymers, light sources, theatre curtain washers, spot ball and bullet lenses, side emitting fractured fibres, ceiling fittings and large bore fibre optics.

Examples of our fibre optics may be viewed at our Chiswick showroom, from subtle backgrounds to fibre optic fireworks. Leaflets available.
(Visitors by appointment)

Trade & Export call PAUL RAYMOND
Par Opt Projects Ltd.
Unit 9 The Bell Ind. Est.
Gunnington St.
Chiswick Park
London W4 5EP
Tel: 01 995 5179



ARRI

IMAGE IMAGINE

The world's best lighting controls
and the most reliable.

DONMAR



25 YEARS
SILVER JUBILEE

DONMAR LTD 54 CAVELL STREET WHITECHAPEL LONDON E1 2HP
TEL 01 790 1166 FAX 01 790 6634

Dial Sound & Lighting

Wholesale Distribution for

CITRONIC **BOSE** **RAMSA**
SOUNDSHOP
OPTIKINETICS zero 88
ROSCO **coemar** **PULSAR**
POWER DRIVE **TECHNICS** **JBL** **Le Maitre**
MODE ELECTRONICS

and other leading brand names

Specialist supplier of Mini Light Tube

INSTALLATION DIVISION — SHIPLEY DIAL LTD.

DIAL SOUND AND LIGHTING
Unit 4G Wharfedale Road, Euroway Industrial Estate,
Bradford BD4 6SG.

Telephone: (0274) 651600 Fax: (0274) 651190

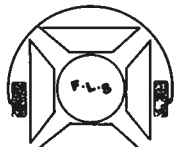
RAPER & WAYMAN

Audio Systems Design & Installation

Public Address & Sound Reinforcement for
Conference, AV & Live Sound
Presentation in Theatres,
Halls, Clubs & Studios

Equipment Sales & Hire
Full Service Facilities

01-800 8288



FUTURIST LIGHT & SOUND

HIRE
0924
455586

SALES
 **Strand Lighting**

SERVICE
0924
468183

HOYLE HEAD MILLS,
NEW STREET
EARLSHEATON, DEWSBURY
WEST YORKSHIRE. WF12 8J

LIGHTING HIRE SALES SPECIAL FIX

STAGE CONTROL LTD.

STATION PARADE,
WHITCHURCH LANE,
EDGWARE, MIDDX. HA8 6RW

TEL: 01 952 8982
TELEX: 924896

NORTHERN LIGHTS

Sound & Lighting

Distributors

Trade representation for

DATA DISPLAY
OPTIKINETICS
POWERDRIVE
ANYTRONICS
LE MAITRE
MULTIFORM
FABTRONIC
ZERO 88
PULSAR
AVITEC
CLOUD
SHURE
MODE
ICE

89 Scotforth Road, Lancaster.
Tel: 0524 62634.



Professional lighting
suppliers for Entertainment,
Leisure and the Arts

Jeff Demail, Sales Manager
tel: (0204) 391343

SPOT ON FOR QUALITY



Sound, Lighting and Special
Effects for leisure, promotion,
entertainment and the arts.

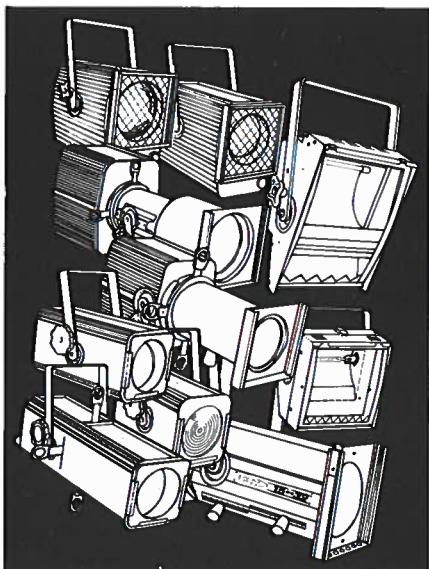
- First class technical back-up.
 - In-depth stocking at the best prices.
 - Speedy mail order and export service.
 - Field sales and installations.
 - OPEN MON-FRI 9.30-5.30. SAT 9.30-4
- Brochure on request.

LUTON SOUND & LIGHTING

75 & 86-88 Wellington Street,
Luton, LU1 5AA, England.
Telephone: 0582 411733
Telex: 825353/825562 CHACOM G LITECO
Fax: 0582 391102

STAGE LIGHTING SALE HIRE

- 500W FLOODS
- 1000W FLOODS
- VARIABLE BEAM PROFILE SPOTS
- FRESNEL SPOTS
- PEBBLE CONVEX SPOTS
- DIMMING AND CONTROL
- COLOUR CHANGE
- EFFECTS
- RIGGING EQUIPMENT



Export Sales - Trade Shows

Mon-Fri 9.30 am - 5.30 pm.

CCT theatre lighting limited

WINDSOR HOUSE, 26 WILLOW LANE, MITCHAM, SURREY, CR4 4NA TEL: 01 640 3366 TELEX: 946648

THE ATPTRE
THE ATPTRE
THE ATPTRE
MARQUEE
SOUND
SOUND
SOUND

EQUIPMENT HIRE

CONTACT: STUART MILLER

01-439 8421

SUITE 5, 3-5 BATEMAN ST., SOHO,
LONDON W1V 5TT



W.B. Group

cover the complete
lighting spectrum
from film to TV.,
theatre to disco
special & motorised
effects

Only the best is good
enough

W.B. Group

4 Tenter Rd., Moulton Park Ind. Est.,
Northampton NN3 1PZ

Tel: (0604) 499331

ELTEC

Manufacturers of
Drama Lighting Control Systems

Eltec Drama Lighting, Unit 2, Cain Valley Trading Estate
Llanymylyn, Powys SY22 5DD Tel: (069 184) 8801

The Professional People

Lighting sales and hire to the
Entertainment, Conference,
Exhibition and Leisure Industries.
From Sales Conference to Car
Launch, Fashion Show to
Exhibition Stand.
Contact the specialists in lighting.



**MUSHROOM
LIGHTING**

76 Tenter Road, Moulton Park Industrial Estate,
Northampton NN3 1AX

Telephone: (0604) 790900 Facsimile: (0604) 491118

LIGHTING HIRE & SALES

Philip L. Edwards
(Theatre Lighting)

5 Highwood Close, Glossop,
Derbyshire SK13 9PH.
Telephone: 04574 62811.



Big Screen
Video projection equipment
&
TV Monitors
(Grundig, NEC, Thomson,
Sanyo).
New & Reconditioned

ENQUIRIES

VIDEO MONITOR SERVICES
01 350 1098

MICO

LIGHTING

The specialist for
LAMPS used in the
THEATRE and
ENTERTAINMENT
industries.

Excellent Trade terms
available.

Mico Lighting Ltd.
Troydale Lane, Pudsey,
Leeds, West Yorkshire.

Telephone: (0532) 567113

Fax: (0532) 572358

Telex: 556469 (MICO G)

FOR SPEEDY INFORMATION
TO LIGHTING + SOUND
Telefax (0323) 646905

Lancelyn Lighting

Lighting Hire & Sales

Equipment from all
major manufacturers
Hire of Outdoor Equipment
including Staging and Seating
Special Effects, including
smoke machines, snow machines,
projection, pyrotechnics, etc.

HIRE: Oxford (0865) 722522

SALES: Oxford (0865) 511522

Hire and Sales Northwest:
051-334 8991

TRAFALGAR LIGHTING LTD.

01-443 4960
LIGHTING
SALES-HIRE
SECONDHAND KIT
BOUGHT & SOLD
01-443 4960

NIGHT FLIGHT

Sound and Lighting

THE BIG ONE IN SCOTLAND

Installation, Design,
Hire, Repair and Service
0389-79261

The Newest Disco Shop in
town is now Open, with
the leading names in
Disco equipment for sale
or hire

Open Mon to Sat 10 till 6:30

WEMBLEY LOUDSPEAKER COMPANY LIMITED

deuce

Professional Loudspeaker
Repair
Specialists for all Makes
of Power Units

also
Manufacturers of 'Deuce'
Mini & Maxi Cube
'B Line'
(the ultimate professional
18" Bass 500 Watt Loudspeaker)

Sound Systems custom designed and
manufactured for all sizes of venue.
Mobile Systems from 100 Watts to 20k

Unit 4, Askew Crescent Workshops
Askew Crescent, London W12 9DP

Tel: 01-743 4567

Fax: 01-749 7957

P.A.music

Lighting, Sound and Special Effects
172 High Road, East Finchley
London N2 9AS

Tel: 01-883 4350 01-368 9232

Northern Light

Lighting & Sound Equipment Hire & Supply
Technical Equipment for the Leisure & Entertainment Industry

Sale • Installation • Hire

Stockists for Strand, Hall Stage, Roscolab, DHA,
Tecpro, Allen & Heath, Bose, Tannoy, Toa, AKG,
Le Maitre, Slick Systems Trussing.

Manufacturers of Socket Boxes, Working Light and Specialised control systems

Edinburgh 031-553 2383
(Fax 031-553 3296)

Glasgow 041-440 1771
(Fax 041-445 4406)

Strand Lighting

- Stage & TV Lighting
- Lighting Control Equipment
- Effects Projectors
- Colour Filters
- Dealers throughout the UK

Grant Way (off Syon Lane)
Isleworth, Middlesex TW7 5QD

015603171



Hire • Sales • Service

- ★ Lighting
- ★ Curtains
- ★ Cables
- ★ Make-Up
- ★ Books
- ★ Sound
- ★ Track
- ★ Connectors
- ★ Scenics
- ★ Pyrotechnics

Theatre • Disco • Display • Architectural

Hightown Industrial Estate,
Crow Arch Lane, Ringwood,
Hampshire BH24 1ND

Sales 0425 470888 Hire 0425 470088

LHS

Leslie Hire & Sale

For
**Stage and TV Lighting
and Stage Equipment,
phone**

01 871 5132

L.H.S. Limited The Business Village, Broomhill Road,
Wandsworth, London SW18 4JG
Telex 917003 LPCG



Entertainment and Display
Lighting Manufacturers

Full brochure and
price list available
Lighting for all your needs
Quality products manufactured

Contact: Sue Riley
62 Tenter Road,
Moulton Park Ind. Estate,
Northampton NN3 1AX
Telephone: (0804) 790785
Fax: (0604) 47403



SPOT ON THEATRE SERVICES

- ★ Supply & Hire of Stage Lighting Equipment & Effects
 - ★ Design & Consultancy Work Undertaken
 - ★ Complete Mechanical & Electrical Installations (NICEIC) Make-Up, Curtains, Rostra Supplied
- ILKLEY (0943) 602979
ILKLEY (0943) 830574
KEIGHLEY (0535) 606255
21A LEEDS RD, ILKLEY LS29 8DP



AUTHORISED WHOLESALE
DISTRIBUTORS

FOR TOA

zero 88 LeMaitre
PULSAR CITRONIC
GLAY PAKY coemar

OPTIKINETICS

J E M BOSE
MODE ELECTRONICS

POWER
DRIVE

STARDREAM AUDIO VISUAL
Party House, Mowbray Drive,
Blackpool, Lancs.

Telephone: (0253) 302602
Telex: 67426 PARTY G
Fax: (0253) 301000



LIGHTING

HIRE
DESIGN
ENGINEERS
London 01-891 4755



Lighting Controls
Stage Management Systems
Patching Systems
Paging and Relay Systems
Full Installation Service

Eurolight Ltd.
Unit 8, Maple Industrial Estate
Maple Way,
Feltham TW13 7AW
England
Telephone: 01-751 6400
Telex: 888941 LCCI LITESYM

FOR ALL
YOUR
CONTROL
REQUIREMENTS



Manufacture, Supply
and Installation
of Lighting and Sound
for Clubs and Discotheques

FULL DESIGN SERVICE
Trade/Export Enquiries Welcomed

Starlight Design (Light and Sound) Ltd
9 Alms Hill, Bourn, Cambs CB3 7SH
Telephone: 09544 8841/2/3
Fax: 09544 8846
Telex: 827547 CG BUS G Attn Starlight



Lighting Hire & Sales

Equipment from all
major manufacturers
Hire of Outdoor Equipment
including Staging and Seating
Special Effects, including
smoke machines, snow machines,
projection, pyrotechnics, etc.

HIRE: Oxford (0865) 722522
SALES: Oxford (0865) 511522
Hire and Sales Northwest:
051-334 8991

CHARLES FISHER

STAGING LIMITED
EXHIBITION and CONFERENCE
DESIGN and CONSTRUCTION

Specialists in Something
Different

Straw House Farm, Kirkby Road, Ripon, North Yorkshire HG4 3JU.
Tel: 0765 701604 Fax: 0765 701389

THEATRE LIGHTING AND CONTROL FROM LEE Colortran International

- ★ **Windsor** luminaires – unique modular design gives eight Profiles, a Fresnel or a PC from just 15 basic components.
Notable features include:
Quick-fit lens tube; Rotating gate; Easy lamp change.
- ★ **Club Light** range – luminaires ideal for smaller stages, clubs and education venues.
- ★ **Master** series dimming and control – including versatile Powermaster dimmers and TriMaster control desks.
- ★ **Lee Filters** – by the roll or sheet.
- ★ **Replacement lamps** – stockists and distributors of all leading lamps.

**LEE Colortran
International**

Manchester Road, Kearsley, Bolton, BL4 8RL.
Tel: (0204) 73373
Trade Counter at: 1 Wycombe Road, Wembley, Middlesex, HA0 1QN.
Tel: 01-902 8835

A Lee Panavision International Company

black light

Scotland's lighting company
The lighting specialists with nationwide
network of service centres

031 551 2337
24 HOUR 7 DAY
031 257 432
FAX 031 257 402

HIRES AND SALES

DEALER FOR CCT
ARRI
ROSCO
ZERO 88
COEMAR
LE MAITRE
DURAPLUG
POWERDRIVE



- ★ Sound and lighting equipment hire
- ★ Le Maitre special effects stockist
- ★ Installation service and one night stands available
- ★ Special promotions
- ★ Competitive rates and efficient service

Call us for colour
brochure and price lists

STAGE TWO LTD
197 Watford Road, Croxley Green,
Herts WD3 3EH
Watford (0923) 30789

MAKE SURE YOU COLLECT YOUR COPY OF THE NEW 1989 LIGHT ENGINEERING CATALOGUE FROM OUR TRADE COUNTER AT 64 EDEN ROAD, LONDON E17 OR RING 01-520 233617 FOR YOUR FREE COPY BY RETURN

WOTAN **coemar** **SATEL** **coemar**

LIGHT ENGINEERING

CATALOGUE

WOTAN **coemar** **SATEL** **coemar** **CELESTION** **WOTAN** **coemar** **SATEL** **coemar** **CELESTION**

LIGHT ENGINEERING 64 EDEN ROAD, LONDON E17 TELEPHONE 01-520 233617



WHITE LIGHT
 57 Filmer Road · London SW6
 Tel: 01-731 3291
 Telex: 295811
 FAX: 01-371 0806

**THEATRE LIGHTING
 HIRE AND SALES**

Our prices are competitive
 please ring for price list or quote

NORTHERN BRANCH
 CORPORATION STREET, SOWERBY BRIDGE
 Nr. HALIFAX, WEST YORKSHIRE HX6 2QQ
 TEL: (0422) 839651
 FAX: (0422) 839773



LIGHTING SALES/HIRE
 Designers, Technicians and Installers
 to the Entertainment and Promotion Industries

NEON LITE ASSOCIATES
 Unit 1, Clovelly
 Chapel Road, Meppershall, Bedfordshire SG17 5NQ
 Tel: 0462 811843 Fax: 0462 817352



TEATRO creative lighting

**fresnels, PCs, floods, profiles,
 pars, cyclights, followspots:
 300W - 2.5kW**
'with a touch of Italian elegance'

Action Lighting, London 01-992 7821
 BEMCO Ltd, London 01-874 0404
 Dial Sound & Lighting, Bradford 0274 651600
 Mushroom Lighting, Northampton 0604 494886
 Odeum Light Sound, Surrey 0403 752775



Chris James

CHRIS JAMES & CO LTD
 Unit 7
 North Western Commercial Centre
 75 Broadfield Lane, York Way
 London NW1 9YJ
 Tel: 01-284 2221/2 Fax: 01-284 2156

**HI-PROFILE
 TECHNICAL SERVICES**

Sound/Lighting - A.V. - Rig Work
 Installation - Maintenance
 Indoor/Outdoor - Design
 One Off Control Systems

Sub Contract/Electrical
 Electronic Engineering
 Short or Long Term
 World Wide Service

phone **PHIL BRAITHWAITE**
Tel: (09282) 3604
Fax: (09282) 5377

Part of HPC Leisure Group Ltd.

For annual advertising rates
 in the **DIRECTORY** section of

LIGHTING SOUND
International

telephone
(0323) 642639

BIT BOPPER

THREE STEPS TO HEAVEN...

Three systems to suit your space and budget requirements:
BAMBINO, CLUB OR PROFESSIONAL

Three ways to invest in the future of interactive entertainment:
BUY, LEASE OR HIRE

TECNATION DIGITAL ATMOSPHERE LTD
THE WORLD LEADERS IN DIGITAL SOUND-TO-LIGHT GRAPHICS

23 The Nursery, Sutton Courtenay, Abingdon, Oxfordshire, OX14 4UA
 Tel: (0235) 848755 Mobile: (0831) 491137 Fax: (0235) 847596

Specialist Technical Equipment and Services for the Entertainment and Allied Industries

GERRIETS ANNOUNCES

PRO-CYC

A DIFFERENT PROJECTION SURFACE

A CREAM-WHITE SURFACE
WITH A 180 DEGREE VIEWING ANGLE

ULTRA-SONICALLY WELDED
IN 1.40m VERTICAL SECTIONS

OUR 'FOR LIFE' WELDED EYELETS

A SUPERB COLOUR RESOLUTION
& FAITHFUL TONE REPRODUCTION
FOR FRONT & REAR PROJECTION

OUR 'BLUE STREAK' MAKING SERVICE
TO ANSWER YOUR DEADLINE

AND
LOWER PRICES
WHAT MORE COULD YOU ASK?

Call us for a sample

01-232 2262 tel
01-237 4916 fax

Unit 18, Tower Workshops,
Riley Road,
London SE1 3DG.

VILLA AUDIO

Professional Systems House

POWERFUL SMALL PA TO COMPLETE HIGH POWER INSTALLATIONS

Hi-Tech Expanders - Samplers -
Computers - Software

HIRE: Self Drive Electrovoice PA -
Radio Microphones - Backline - Studio
Outboard - Portastudios -
Mixers - Samplers - Synthesizers

2 MEADOW VIEW COTTAGES, CHATHAM GREEN,
LITTLE WALTHAM, ESSER CM3 3LF

CHELMSFORD (0245) 361694
MALDON (0621) 868523



Hall Stage Products

Limited

offer a complete range of
Stage and Scenery Hardware
Rigging Gear, Pulleys & Curtain Tracks
for the discerning designer

For the latest literature write or
telephone

Chris Hitchens

HALL STAGE PRODUCTS

The Gate Studios, Station Road,
Borehamwood, Herts WD6 1DQ.

Telex: 8955602 PERLUX G

Telephone: 01-953 9371/2.

TRIPLE E-LTD FROM CURTAIN UP TO PRODUCT REVEAL UNI - TRACK IS THE SOLUTION

We sell and hire the most sophisticated and
comprehensive track system available on the
market. Even the most complicated system
tailored to meet your requirements, whether
manual or motorised may be hired

WE ARE THE TRACK SPECIALISTS



01-237 6354

UNITED KINGDOM DISTRIBUTORS

Appointed sole uk-distributors for Program/Sistem



Trade Suppliers of Professional Sound,
Lighting and Special Effects Equipment
Telephone: (0926) 314878
Fax No: (0926) 883120
MOBILE No: (0860) 544934

Situated in the heart of England gives us the right con-
nections to serve you via the
M1, M6, M65, M69, M42 and the M40 with these
facilities.

- Wholesale trade supply to retailers, installers, contractors etc.
- Extensive stock on all major manufacturers and some minor ones too.
- Some own brand products, concentrating on quality and availability.
- Manufacturers trade prices used, sometimes bettered considering delivery service.
- Vehicles travelling the country carrying orders and stock.
- Regular personal contact.
- Regular visits averaging 5/6 weeks to Wales, S.E., S.W., London, East coast, N.W., N.E., Scotland and of course the Midlands.
- No delivery costs when orders coincide with visits (nominal in between times).
- No minimum orders.
- Use of our technical staff - for enquiries and help.

If you are not being offered these facilities at the moment, but would like to and would like to know more, we will be only too pleased to hear from you.

Rigby Close, Heathcote Industrial Estate
Leamington Spa CV34 6TJ England

STAGEFLOOR DUO

Instant Layflat

The flooring that will
go down and not
let you down!!

Phone us for samples
of our exclusive
product.

Enquiries welcome from
European/USA distributors.
We are looking to expand
our agency network.

CRAIG-LOUTH ASSOCIATES
15 Lansdown Place, Frome
Somerset, England BA11 3HP
Tel: (0373) 61809

THE TOTAL PACKAGE

- Design, supply and installation of lighting, sound, communication, stage equipment, rigging, AV, conference and projection systems.
- For theatres, studios, halls, clubs and commercial presentation.
- Full in-house electrical contracting service.
- UK and Worldwide.



GLANTRE
ENGINEERING LTD.
2 Cremyll Road, Reading, Berks.
0734-509711

CHARLES FISHER

STAGING LIMITED

EXHIBITION and CONFERENCE DESIGN and CONSTRUCTION

Specialists in Something
Different

Straw House Farm, Kirkby Road, Ripon, North Yorkshire HG4 3JU.
Tel: 0765 701604 Fax: 0765 701389

K·E·L·S·E·Y ACOUSTICS LTD

AUDIO &
LIGHTING
CABLE,
CONNECTOR
& CUSTOM
WIRING
REQUIREMENTS

CALL, FAX OR WRITE FOR
OUR CURRENT CATALOGUE.

KELSEY ACOUSTICS LTD.,
28 POWIS TERRACE, LONDON W11 1JH
TEL: 01-727 1046 FAX: 01-243 0211



Specialist Suppliers
to the Lighting, Sound,
TV and Theatre Industry.

products include:

PEEL CLEAN
'TOUR LABELS'
SECURITY
'HIRE LABELS'
PRINTED
'CABLE TAPE'

Main distributors of Standard
and Specialist Self-Adhesive Tapes

For UK & Export
Tel: 0480-494540
Fax: 0480-494206

unit 24, stephenson road, st lves,
huntingdon, cambs pe17 4wj

For annual advertising rates
in the DIRECTORY section of

LIGHTING+SOUND

International

telephone

(0323) 642639

VIEWPOINT

A Declaration of Independence

Andre Tammes

The importance of lighting design has come to be more widely appreciated in recent years. However, there still seems to be widespread confusion about who lighting consultants are and what exactly they do.

In the usual way of these things, there are any number of groups and individuals now claiming to be lighting design consultants. In many cases the claim is misleading. Consultants in the true sense must be free to specify whatever equipment the project requires without being tied to a particular manufacturer's product range.

For lighting design to develop and advance as a profession in which equipment is merely the means to an end, it is absolutely essential, in my opinion, that those responsible for designing our lit environment are not involved in the sale or manufacture of lighting hardware. They must be genuinely independent.

Currently there are only around half a dozen independent lighting design consultancies, such as Lighting Design Partnership, who operate in the UK working on a fee-paid basis. In the United States, where the discipline of lighting design is further advanced, there are more than 50. Consequently, there are 400 American members of the International Association of Lighting Designers (IALD), whilst the UK figure is only 14.

Here, whilst daylight design is the domain of the architect, artificial lighting design has largely been delegated to the electrical services consultant, and frequently onwards to the lighting manufacturer. Now that there is a growing sense of awareness of the key role lighting design consultants can play in determining the way a building looks and feels, I think it is vital that the value of independence is generally understood.

If this does not happen there may be a real danger that the activities of the profusion of commercially-tied 'consultants' may bring the entire discipline into disrepute, cancelling all the progress of recent years. No one manufacturer can supply all the right equipment for any given project and the unfortunate results of mixing commercial interests



Andre Tammes.

with visual design are all too evident within our built environment.

An independent consultancy can provide tailored solutions. The client buys its time. The manufacturer generally does not have this to offer, he is constantly dealing with many sales projects at any time. However as an independent consultant I am paid to invest time in integrating activities with architects, interior designers and the other members of the design team.

As a result independent consultancies are in a position to provide lighting solutions which have been evolved as an integrated part of the totality of the project, and not merely bolted on as an afterthought. An independent consultancy can balance a practised and aesthetically-informed understanding of how light works with the technical expertise to translate this into technical specifications.

Whilst an independent consultant operates

in close touch with a project, a manufacturer has a drawing office full of designers who rarely see the building or come into contact with the physical reality of a project. Obviously if the designer responsible for creating the luminous environment is physically divorced from the client and the team working on the building the result will inevitably be an unrelated lighting scheme. I feel the lighting designer should be on board from day one, and in practice only an independent consultant can do this.

It is now being recognised that a building's lighting is a subject of such importance that to tackle its provision in any other way is inadequate. It is something which cannot be properly addressed on a purely commercial basis. The benefits of involving lighting design consultants are there to be had, but only if the value of independence is properly understood.

Andre Tammes is a founding member of the Lighting Design Partnership, one of the world's largest independent lighting design consultancies. Its clients include leading architectural practices, retail and leisure designers, hotels, historical monuments and religious buildings around the world.

Andre Tammes is Britain's only representative among the seven judges of the International Association of Lighting Designers (IALD).

VIEWPOINT

If you have a view to offer on any aspect of the lighting and sound industry, why not air it in this column?

Send your Viewpoint to:

The Editor

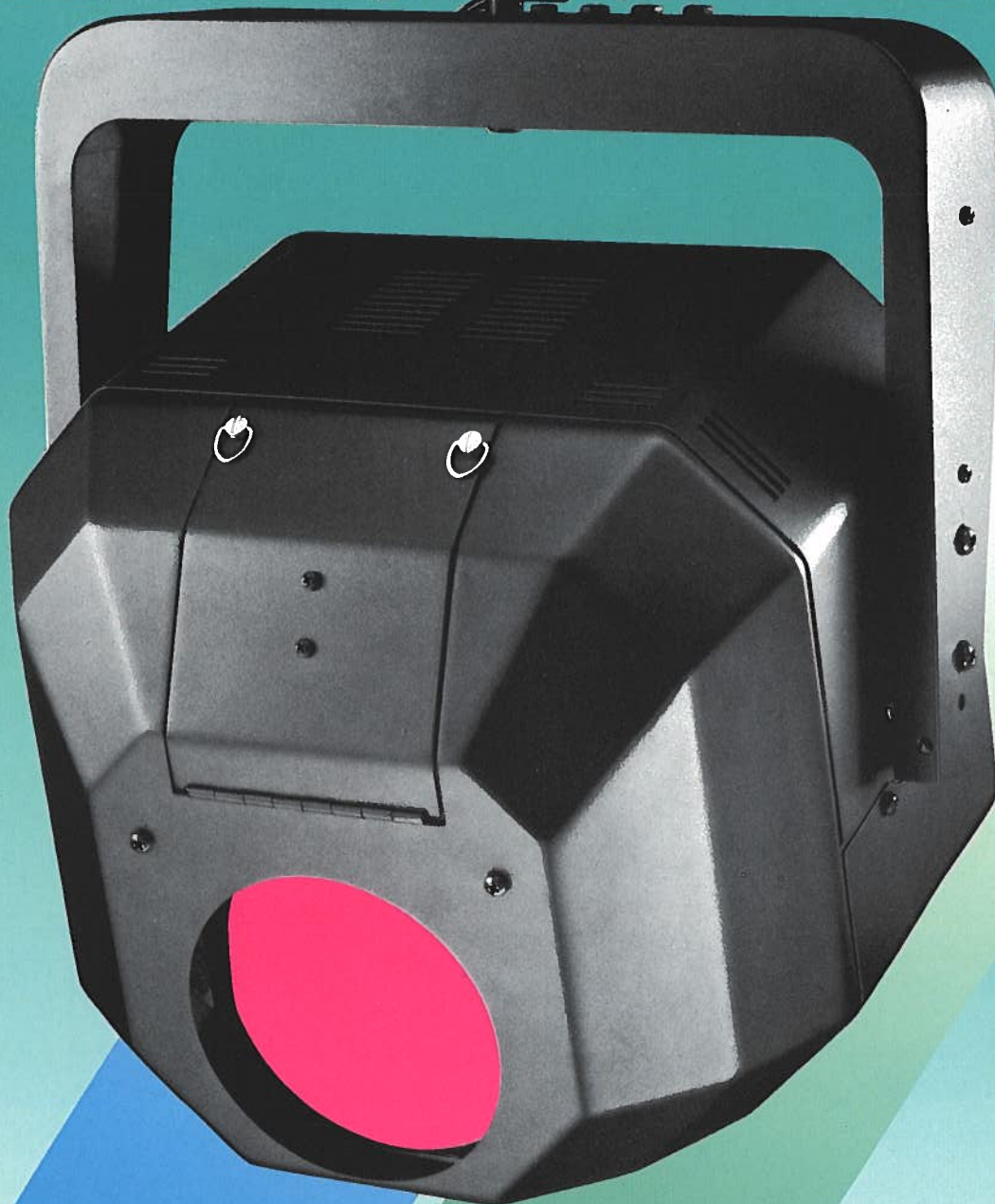
Lighting and Sound International,
7 Highlight House,
St Leonards Road,
Eastbourne
East Sussex BN21 3UH.

Index to Advertisers

A & B Theatre Services	11	Doughty Engineering Ltd	11	Pan Command Systems	31
ADB	6/7	Farras	63	Par Opti Projects Ltd	52
Allen & Heath	9	Hardware House	58	Pulsar Ltd	59
Ark Light	9	Jands	67	SIB/MAGIS 90	33
Astralloy	25	Laserpoint Ltd	84	Siel 90	74
Avitec Electronics Ltd	35/62	Laser Magic	58	Teatro	30
Avolites Production Co	53	Lee Filters	66	Theatre Projects Services	42/61
Celco Ltd	4	Le Maitre Lighting & Effects	8	Theatre Sound & Lighting	52
Cerebrum Lighting	25/61	Lightwave Research	57	The Great American Market	26
Clay Paky/Pulsar	16/17/18/19	MAC Sound	29	The Sound Department	20
Coemar	49	Marquee Audio Ltd	55	Tour Service Lichtdesign	83
Collins & Endres	10	Midnight Design	8	Unusual Rigging Ltd	58/36
Concert Light Systems	14	M&M Lighting	3/63	Vari-Lite	2
DHA Lighting	60	Optikinetics Ltd	3	Wigwam Acoustics	33

For details of
advertising in
Lighting + Sound
International
ring Alison Hunt
on (0323) 642639

pc-spot



PanCommand®
See the Difference

... now available in Europe from

Tour Service Lichtdesign KG
Friedrich-Hagemann-Str. 22
D-4800 Bielefeld 17
West-Germany
Tel. 0521/28 60 60
Fax 0521/29 61 03

THE DAWN OF A NEW AGE IN LASER CONTROL



Aquarius, the new generation of laser control desks:

- 8 channels, with over 500 high quality graphics on each.
- 12 parameters for pattern control: each one infinitely variable.
- Waterproof, illuminated keyboard.

• Standard model includes disk drive, MIDI, tape control and RS232 interface.

- Wide range of animation/ effects programming, including flip, rotate, zoom, moving background and cross fade.
- Down range effects capability – also controls lighting dimmers and smoke machines.

Full details on Aquarius from:

LASERPOINT