

LIGHTING+SOUND *International*



A WISER AND MORE MATURE TOMMY RETURNS TO THE UK

PHOTO: DONALD COOPER

- Rock on Tommy: London welcomes the production home
- Industrial revolutions at the new Sound Exchange nightclub
- L+SI joins the action at Frankfurt and Rimini
- France's RVE Technologie profiled
- Fantasy Island: the rave comes of age
- Wembley Conference Centre undergoes a major technical upgrade

PLASA

APRIL 1996

P u t t i n g a s q u a r e s h a



e i n t o a r o u n d b e a m



The award winning PAL 1200

The Profile Automated Luminaire is Martin Professional's most sophisticated product yet, adding a totally new dimension to the growing list of remotely controlled attributes available to today's lighting professionals - remote framing*.

In addition, the PAL 1200 offers a hugely powerful, large diameter and intense profile beam, in conjunction with the most efficient color mixing system available today. Full CMY color mixing in combination with a special diffusion technique*, gives the smoothest shades and hues without a hot-spot. 5,600 degs K - 3,200 degs K color temperature correction filter is also incorporated.

Add D-size rotating gobos, zoom, focus, variable frost, pan, tilt, dimming and full DMX implementation, including 16-bit, and you have the world's most advanced automated luminaire - the PAL 1200.

Designed in collaboration with theatre technicians and designers, to star on stage, screen and in concert, it will be no surprise that the Martin PAL 1200 won the LDI'95 "best new lighting product" award.

Martin Professional - the choice of professionals

(Patents pending)*

Martin

Martin Professional UK Ltd

Martin House · Boxmend ind. Est. · Bircholt Road Parkwood · Maidstone · Kent
Phone: 01622 755442 · Fax: 01622 755447

LEE Filters GOBOS

The Lee Filters gobo range features more than 200 patterns, developed to complement existing ranges and to broaden the choice available to designers. Etched into high quality steel, all are available in the main industry standard sizes.



Stocked and distributed in the U.K. by

Lighting Technology
2 Tudor Estate, Abbey Road,
Park Royal, London, NW10 7UY
Telephone (0181) 965 6800
Fax (0181) 965 0950



Action Lighting North
46 Kansas Avenue, Salford,
Manchester, M5 2GL
Telephone (0161) 876 0576
Fax (0161) 876 0517

Lee Filters, Central Way, Walworth Industrial Estate, Andover, Hampshire SP10 5AN, England.
Tel: (01264) 366245 Fax: (01264) 355058

LIGHTING+*Sound* International

APRIL 1996

VOLUME 11, ISSUE 4

6 News In L+SI

A full round-up of the latest news from across the industry

42 On Tour



Steve Moles reviews an all-girl line up of Tori Amos and Eternal

44 Catalogue Collection

50 Tommy Returns

Rob Halliday welcomes the production of Pete Townshend's musical back to London

55 Fair Exchange

L+SI discovers the appeal of a return to industrial roots for the new Sound Exchange in Banbury

58 RVE Technologie

John Offord visits France's leading dimmer manufacturer

61 Technical Book Review

62 The SIB Story

Tony Gottelier and Lee Baldock report on the main event of the Italian lighting industry's year

67 The Road to Wembley

Jackie Staines outlines the technical upgrade at Wembley Conference Centre

71 Paradise Lost

Steve Moles explores a new trend in all-night dance parties at 'Fantasy Island' in Skegness

73 Equipment News

75 Frankfurt's Forte

Mark Cunningham tracks down the many new audio products and initiatives announced at the Frankfurt Music Fair

82 Abuzz in the Stalls

Ian Herbert assesses the artistic and technical merits of the latest West End offerings

83 Recruitment

84 Directory

89 International Directory

90 Profile

Steve Moles talks to sound engineer Robbie McGrath

The views expressed in Lighting and Sound International are not necessarily those of the editor or the Professional Lighting and Sound Association

ABC
AUDIT BUREAU OF CIRCULATIONS
BUSINESS PRESS

LIGHTING+*Sound* International

published monthly by the Professional Lighting and Sound Association

© Copyright Professional Lighting and Sound Association ISSN 0268-7429

Editor: John Offord

Deputy Editor: Ruth Rossington

Associate Editor: Tony Gottelier

Assistant Editor: Lee Baldock

Advertisement Manager: Barry Howse

Production Manager: Nicola Evenden

Production/subscriptions: Sheila Bartholomew

Advertising Co-ordinator: Jane Cockburn

Published from the PLASA Office: 7 Highlight House, St Leonards Road, Eastbourne, East Sussex BN21 3UH England Telephone: (01323) 642639 Fax: (01323) 646905 Internet: <http://www.plasa.org.uk/plasa/> E-mail: info@plasa.org.uk

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

The magazine is available on annual subscription

UK £45.00 Europe and rest of world £60.00 Airmail £85.00. Single copy price £3.50 plus postage

Editorial Advisors: Peter Brooks, Wyatt Enever, Mike Gerrish, Derek Gilbert, David Hopkins, Matthew Griffiths, John Lethbridge, Ian de le Vingne, Iain Price-Smith, Neil Rice.

Lighting + Sound International is published monthly for \$90.00 per year by The Professional Lighting and Sound Association, 7 Highlight House, St Leonards Road, Eastbourne, East Sussex BN213UH. Second class postage paid at Rahway, N.J. Postmaster: Send USA address corrections to Lighting & Sound International, c/o Mercury Airfreight International Inc, 2323 Randolph Avenue, Avenel, New Jersey N.J. 07001

PLASA
PROFESSIONAL LIGHTING
AND SOUND ASSOCIATION

EUROPE'S LEADING LIGHTS

The Vari-Lite European Network supplies the world's most advanced automated lighting systems for this continent's greatest performances.

To find out more about Vari*Lite[®] products, contact your nearest agent.

UK
Tel: 44-181-575 6666

FRANCE
Tel: 33-1-41 14 01 00

SPAIN
Tel: 34-1-518 8976

GERMANY
Tel: 49-221-58 20 88

SCANDINAVIA
Tel: 46-8-654 18 55

BENELUX
Tel: 32-16-60 7648

AUSTRIA
Tel: 43-1-60902

VARILITE***[®]

VARI**LITE* automated lighting equipment is made in the U.S.A.

Protected by U.S. Pat. Nos. 4,095,139; 4,392,187; 4,602,321; 4,688,161; 4,701,833; 4,709,311; 4,779,176; 4,800,474; 4,972,306; 4,980,806; 5,010,459; 5,031,078; 5,073,847; 5,186,536; 5,209,560; 5,278,742; 5,282,121; 5,307,295; 5,329,431 U.S. Design Patent No. D347,133 United Kingdom Design Reg. No. 2029499, 2033106

German Utility Model Reg. No. G9312884 3 and G9314158 5.

All other worldwide patents granted or pending.

Martin Double-Take

**DANISH MANUFACTURER
ACQUIRES JEM AND TRACOMAN**

During SIB '96 in Rimini (see report this issue), Martin Professional moved swiftly to quell the many rumours rife in the industry regarding their plans for acquisitions. At a hastily convened press conference, called to calm stock-market shifts caused by the speculation,



Martin Professional's Peter Johansen announces the acquisition of JEM and Tracoman at Rimini.

Peter Johansen confirmed that the Group intends to buy JEM Smoke Machine Company and its Pyrotechnic associate. In parallel, they will also take over their US distributor, Tracoman.

Both deals, which will be made mainly by way of Martin Group shares, are currently the subject of Letters of Intent between the parties. Final confirmation is anticipated by the end of April.

"Any further rumours linking the Martin Group A/S with any other potential mergers or acquisitions are denied and we have no intention of making any further moves of this kind in the foreseeable future," Johansen told L+S. "Owning Tracoman will significantly strengthen our position in the US, and with JEM alongside, we anticipate doubling sales of smoke machines and ancillary products."

It is Martin's intention to retain the JEM brand and to maintain the existing international distribution network and the marketing base in the UK. It is not expected that Nigel and June Morris will remain with the company, once the various obligations within the agreement have been met.

Tony Gottelier

The New Faces of ETC Europe

With the aim of giving the company's distributors and customers the highest degree of support at all levels, ETC Europe has set up a new European sales organisation. The first major appointment, commencing at the beginning of April, is that of David Catterall as Northern European sales director.



Bill Gallinghouse.



David Catterall.



Adrian Hicks.

Previously sales director for Zero 88, where he had been for 10 years, David brings substantial knowledge and understanding of the lighting industry to the company and takes on responsibility for the growth of the UK and Scandinavian markets.

Adrian Hicks also joins ETC Europe at the beginning of April as field project co-ordinator. He will be working alongside Mark Thompson, who has been with ETC Europe since it formed last year and who now takes on responsibility for sales support and quotations.

In a move designed to help the parent American company understand the intricacies of the European market, Bill Gallinghouse, vice-president of sales for ETC in the UK, is relocating to the UK for a year to act as European sales director. Gallinghouse, who takes up the appointment from May 1st, told L+S: "We are placing a lot of emphasis on the support which we give our sales and distribution in Europe. Americans traditionally have a reputation for being unsympathetic to other cultures, but we want to change that. We know that we must be sensitive to the European market and are developing a truly European operation, manufacturing products specifically for the European market and structuring the marketing and sales operation to a European perspective. My role will be to learn how the countries within Europe operate and ensure that knowledge is taken on board at all levels within the company."

Further ETC business developments are featured on page 8.

High End Counter Claim Against Vari-Lite

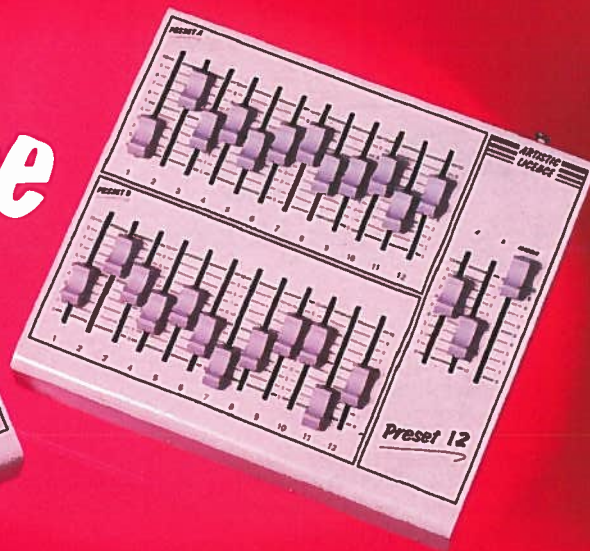
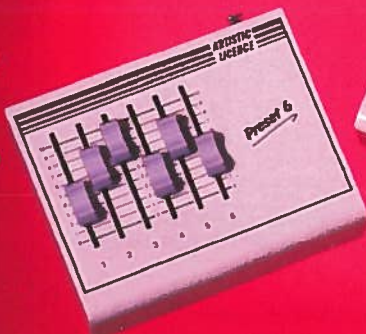
Following our lead news story last month on continuing problems between Vari-Lite and High End Systems, with the former filing an additional claim to its existing lawsuit with the latter, this month has seen the alleged patent infringement controversy take yet another turn.

On March 21st, High End Systems Inc filed a counter claim against Vari-Lite Inc, asking the Federal Court to determine that neither the patent, nor the trade secret claims filed by Vari-Lite are meritorious. High End has asked the Court for a judicial declaration that each Vari-Lite patent in suit is invalid, void, unenforceable and not infringed, further that there has been no misappropriation of trade secrets, and that Vari-Lite has no protectable trade secrets in the VL5 product.

Vari-Lite sought and received a postponement of its motion for a preliminary injunction, due to their counsel's unavailability.

The Presets by Artistic Licence

The Preset 6 and Preset 12 are small DMX512 output lighting desks with no frills! Perfect for controlling studio floor dimmers, outside broadcast lighting, house lights, pubs, clubs and much more.



<http://ourworld.compuServe.com/homepages/artistic>

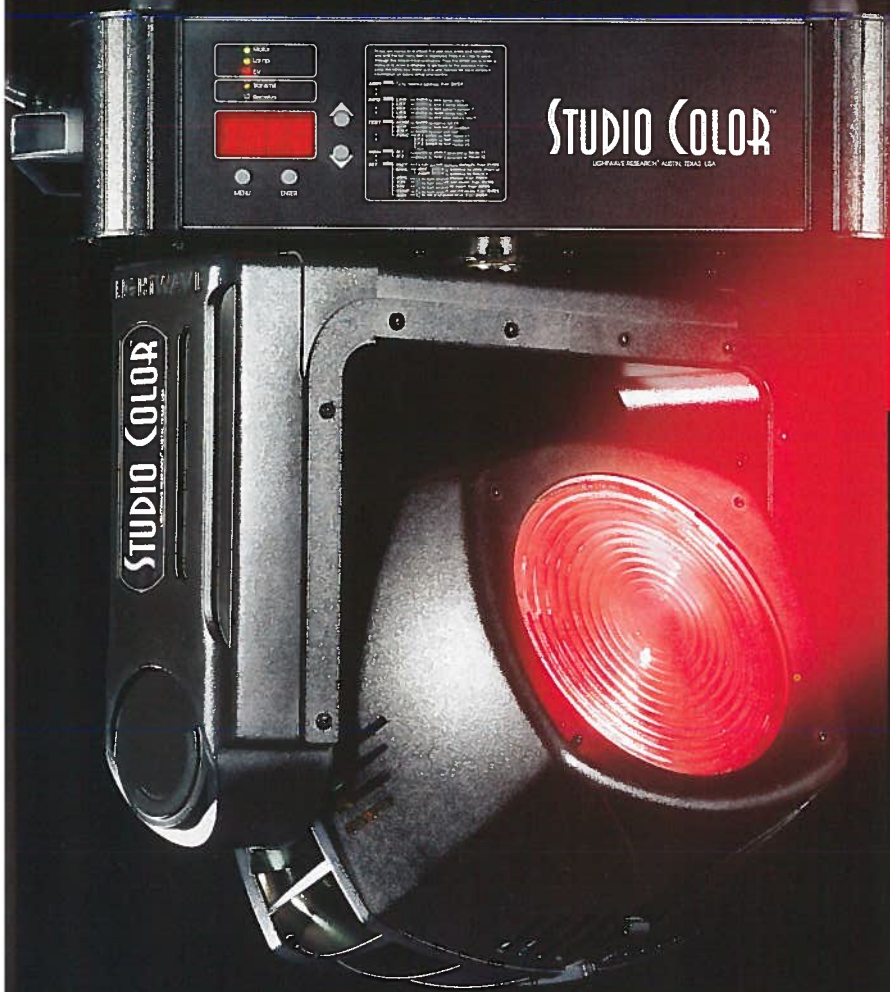
A2 Livingstone Court Peel Road Harrow Middx England HA3 7QT Tel +44 (0)181 863 4515

Check out the new

MOVERS AND AND

SHAPERS

of the lighting industry



STUDIO COLOR™



The **Studio Color™** automated wash luminaire is the ultimate color tool for today's lighting professional.



- Rotatable, variable beam shaping gives full control over soft-edge
- Smooth dichroic subtractive color mixing system
- 6 position color wheel with replaceable dichroic filters
- No fans—convection cooled for quiet operation via integrated heatsink/reflector combination
- High output MSR 575 discharge light source. 5600K color temperature
- Auto sensing supply voltage selection (100 to 240 VAC)
- Yoke movement of 380° pan and 240° tilt is user selectable for 8 or 16 bit control
- Color correction filters may be fitted in the color wheel. (Full CTO fitted as standard)
- Variable frost

specifications subject to change

STUDIO COLOR™

High End



SYSTEMS
LIGHTING WORLDWIDE

HIGH END SYSTEMS, INC.
2217 West Braker Lane • Austin, Texas 78758 USA
Tel: 512.836.2242 • Fax: 512.837.5290

HIGH END SYSTEMS GMBH
Technopark, Lohstrasse 22 • D-85445 Schwag, Germany
Tel: 49.8122.9903-0 • Fax: 49.8122.9903-33

HIGH END SYSTEMS SINGAPORE PTE. LTD.
Cencon 1, 1 Tannery Road 06-05 • Singapore 347719
Tel: 65.742.8266 • Fax: 65.743.9322

Catch up with High End Systems' latest innovations at our informative web site:

<http://www.highend.com>

ETC Inc Pinpoints Route to Growth

US manufacturer Electronic Theatre Controls, Inc (ETC), of Wisconsin, has acquired the Los Angeles-based research and development firm Entertec, Inc. ETC and Entertec have been associated since late 1992 when the two companies collaborated on the development of the Source Four high performance ellipsoidal spotlight and the Sensor dimming system. Since that time, they have continued to work together, developing additional spotlight and dimming products for the entertainment lighting industry.

ETC president, Fred Foster, explained the move: "ETC's relationship with Entertec has been productive. We have jointly developed several products which have revolutionised the lighting industry over the past few years. By combining the two companies, we will streamline communications and reduce the time in which new products reach the market. This will allow us to capitalise on the strengths of the companies."

Dave Cunningham, Entertec's founder and president, will continue to work with the new company on an exclusive consulting basis, whilst Entertec partner Greg Esakoff will become ETC's design manager and will be responsible for day-to-day operations.

At the ETC Europe Workshop which took place in Frankfurt on March 11 and 12, the company also revealed its extensive sales and marketing plans for Europe. The 30 dealers and distributors, attending from 20 countries, were told of the company's investment programme, part of which is being ploughed into a wide range of products designed specifically for the European market.

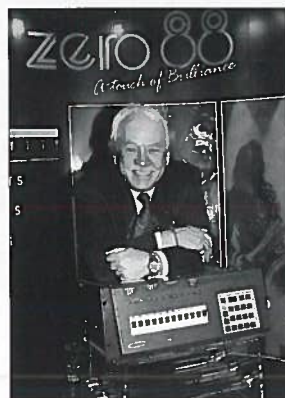
During the two day workshop, ETC's president Fred Foster signed an agreement with Ralph Jörg Wezorke, co-owner of Lightpower Showtechnik GmbH, confirming the company as ETC's exclusive distributor for Germany. Foster commented: "The appointment of Lightpower completes the establishment of a first class network of European distributors. Our philosophy is one of long-term relationships with employees and distribution partners alike, and I'm excited at our prospects for growth in European market."

Among the new products already produced specifically for the European market and shown at the Workshop were the Sensor CE dimmer rack, Obsession ML control console, which has just premiered on Broadway in *A Funny Thing Happened on the Way to the Forum*, the Express range of consoles and CE versions of the Source Four and Source Four Par.

Zero 88 Map out the Contours of a new Dimmer

Zero 88 gave the new Contour 12 digital dimmer a double launch platform last month, unveiling the product at both the Frankfurt Music Fair in Germany and SIB Rimini in Italy. The new, fully digital, dimmer has come to the market courtesy of the latest techniques, and has been designed in consultation with some of Europe's leading professional users. As a result, it has a host of features: 12 channels x 3kW per channel, two pole circuit breakers isolating both phase and neutral, automatic voltage sensing 90-260v, automatic frequency tracking 45-65Hz, auto-sensing DMX and analogue, neon 'load present' indicators and has been designed to be tolerant of mains supply faults such as lost neutrals or crossed phases. This 19" rack mounting, 4U high dimmer was well received on its first outing and Zero 88 have already received advance orders.

Pictured above, left, is Zero 88's Freddy Lloyd with the Contour 12 at Frankfurt, whilst, right, distributor Uli Petzold of LMP (left) joins Paul Fowler of Zero 88 for the Rimini launch.



JEM at Song Contest

JEM Smoke Machine Co Ltd, in conjunction with their Swedish distributor Primetime, will be responsible for four separate effects at this year's final of the European Song Contest, hosted by Norway on May 18th. Export sales manager, Bob Wells, has been in Oslo with NRK technicians, (Norwegian Broadcasting Union) and Health and Safety experts, laying down the plans. Four of JEM's new HOT Technology Hydrosonic machines will be used on the show which takes place at the Oslo Spektrum.

This is the first of many major contracts specifying the HOT 24 Hydrosonic machines which are now in production in JEM's Lincolnshire base. During the television spectacular, no less than 300 JEM Pyrotechnic effects will be fired. The show will also feature a mock North Sea drilling platform which forms the back-drop to one particular scene. Flame projectors and JEM's largest machine - 'The Roadie' - will bring this to life. Two JEM Heavy Fog 6500 machines will produce a 'sea of low lying fog'.

Another major project has just been completed at Legoland in Windsor. A specially modified Series 428 modular system has been fitted into one of the many Lego brick attractions. JEM Pyrotechnics were also commissioned by the Suffolk-based Shell Shock Firework Co for the opening ceremony.

As we went to press, news broke that JEM had been bought by Martin Professional. Full story, page 6.

Going Live Theatre

Soundcraft has successfully completed its first Going Live Theatre training course, covering a broad canvas of topics relating to theatre sound.

The course, which was sold out a month in advance, attracted 70 people from local theatres all over the country, many of them professional sound engineers. Convening at the Players Theatre in London, they spent two days in the company of Soundcraft's team of Going Live presenters and a large quantity of pro audio equipment.

As with all Going Live courses, the presenters were drawn from leading professionals working within the industry: Nick Sager left his Sunset Boulevard desk, Dimension Audio's Derrick Zieba took time out from The Brit Awards and Mike Weaver and Rick Sarsons provided specialist radio mic advice, whilst freelancers Ian Fishlock and John Greenough brought touring experience to the agenda.

To complement these, a second team of presenters were pressed into action, providing technical back-up for all the equipment-based lectures. David Harman (Soundcraft), Dany Cooklin (Turbosound) and Dave Hayden (BSS) handled matters relating to consoles, loudspeakers and signal processing. On the all-important topic of acoustics and system design, Peter Mapp carried all before him.

Anybody interested in attending future courses should contact Soundcraft on (01707) 665000.

Slick

A Touch of Distinction in the World of Trussing

The strongest
most comprehensive
trussing range
available

Portland Street North, Leek, Staffordshire ST13 6LA, England
Tel: 44 (0) 1538 372109 • Fax: 44 (0) 1538 381315

BBC TELEVISION - THAMES TELEVISION - ROYAL VARIETY SHOWS - GRANADA TV

PW Enterprises Ltd

Starcloths - Drapes - Sound - Lighting

Unit 11 Chelsea Fields Industrial Estate
278 Western Road, Merton, London SW19 2QA

PW Enterprises Ltd are THE Starcloth company. Managing Director George Wetherill is the original designer of modular Starcloths. His vast theatrical experience and design flair have been used to stunning effect throughout the entertainment and leisure industry.

For more information contact George, Perry or June on
Tel: 0181-646 6131 - Fax: 0181-646 5983

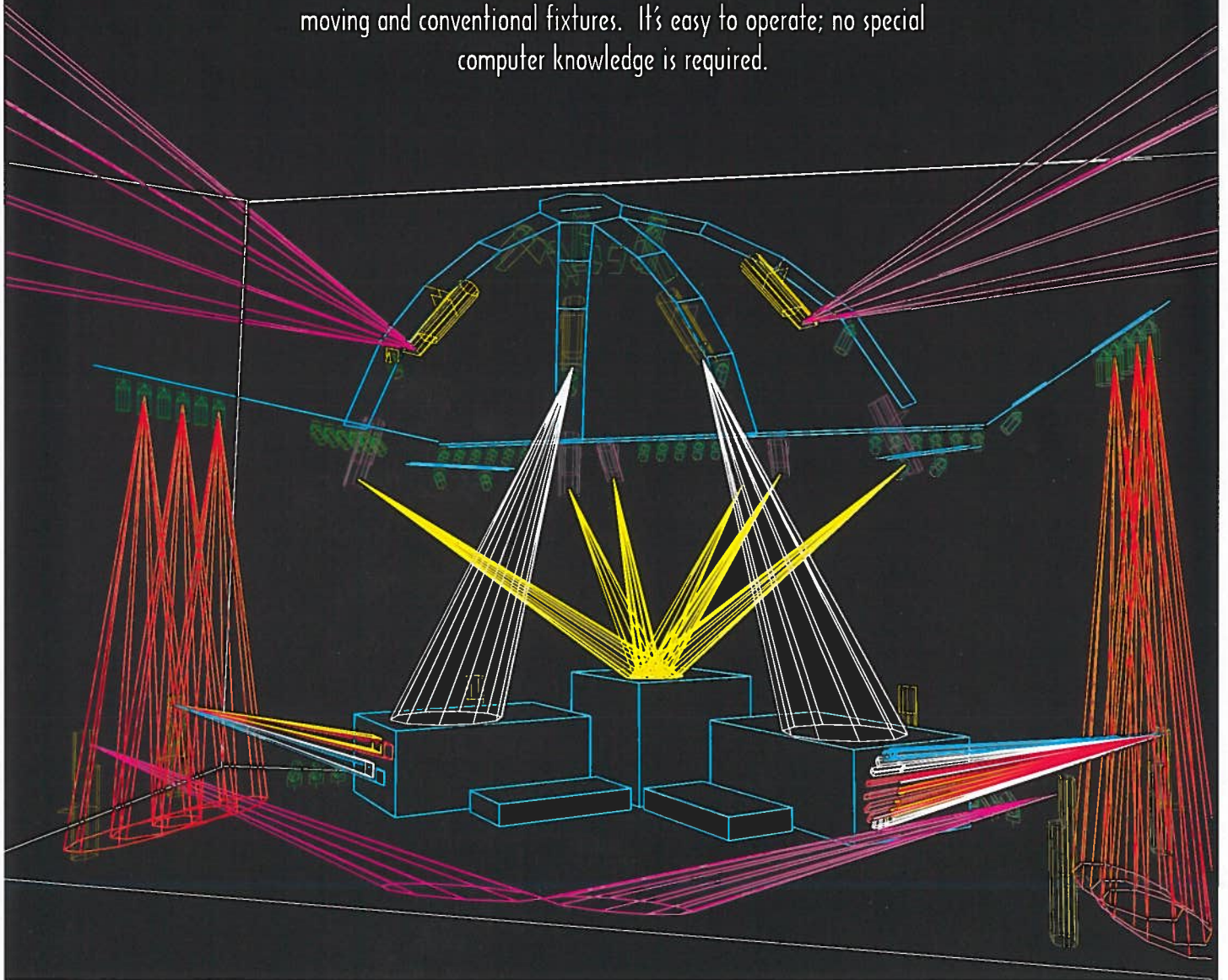
WE'RE RIGHT BEHIND YOU!

WEST END/TOURING - HOTELS - DISCOS - OPERATIC - MICHAEL HUREL SERVICES - CARLTON TV - TRADESHOWS - CLUBS/MARQUEES

WYSIWYG

An essential tool for all today's professional lighting designers and programmers

View your show in Real Time on a PC monitor as WYSIWYG Lighting Visualization Software demonstrates the movement, colour, intensity and gobo pattern of both moving and conventional fixtures. It's easy to operate; no special computer knowledge is required.



REAL TIME LIGHTING VISUALIZATION

CAST lighting


FLYING PIG SYSTEMS



Exclusive World Wide Distribution:

A.C. Lighting Ltd

Unit 3 Spearmast Industrial Park, Lane End Road,
Sands, High Wycombe, Bucks, HP12 4JG ENGLAND

Tel: +44 (0) 1494 446000 Fax: +44 (0) 1494 461024

Download a demo version from <http://www.flyingpig.com>

Controllers for Moving and Conventional Lights

Peel



Flip



Rotate



Ballyhoo



Sweep



Jands Hog

- WHOLEHOG operating system
- Fast, flexible programming & play-back options
- Installed personalities for most fixture types
- Instant access to console features
- Command line syntax, cue parts and split fade times
- Ideal for theatres, studios and touring

Special



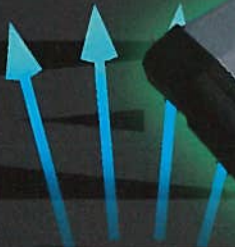
Spiral



March



Fan



JANDS

JANDS ELECTRONICS PTY LTD ACN 001 187 837

UK: A.C. Lighting Ltd
Phone: +44 (0)1494 446000
Fax: +44 (0)1494 461024

USA: A.C. Lighting Inc.
Phone: +1 818 707 0884
Fax: +1 818 707 0512

578 Princes Highway, St Peters, NSW 2044, Australia. Phone: +61 2 516 3622 Fax: +61 2 517 1045



Day of Wine and Roses

As an alternative to exhibiting at SIB '96 in Rimini, Mike Lowe of Teatro, the theatre lighting manufacturers, invited all his dealers to an Italian-style 'open house' at their premises in Castelfranco immediately prior to the show.

More than 30 dealers and their families, from around the world, accepted the renowned Lowe hospitality, the chance to meet the Teatro team, and the opportunity to see some new products, en route to Rimini. Each of the ladies carried off a red Teatro rose, the official symbol of this growing concern, while the men jealously guarded huge wedges of fresh Parmesan, for which this Anglo-Italian company has become almost as famous as for its luminaires.

For the past year, Teatro's product development programme has been dominated by colour changers, with not just one, but two, new designs. In line with their philosophy of offering a choice of high-specification products alongside budget items, the new Colourbox-2 and Versa-Disc cover both ends of the spectrum.

Colourbox-2 has been nearly three years in development and is specifically designed for theatres and other locations where silence is one of the main criteria of operation, combining the principles of a semaphore colour changer with scroller-type control technology. The product has three pairs of colour filters, with the free ends supported by thin rods. The two rods locate on pins attached to vertical tractor belts, which are driven in either direction by a micro-stepper motor, thus enabling each colour to be driven in and out of the beam individually, guillotine fashion. Alternatively, by continuing the direction of drive, both colours may be placed in the beam. When not in use, the colours are located outside the heat of the beam.

This arrangement is repeated three times, giving a total of six individual colours or pieces of diffusion media. Control is by single or three-channel DMX or analogue, and with an integral power supply and data distribution, installation is simple, without the need for external power supplies and data distribution. A palette of at least 20 usable colours can be achieved with the various combinations. The unit is now in production, is CE marked and is available in three versions successfully demonstrated during the open day: two versions suit most 1kW or 2kW spotlights, whilst another is specifically designed for the Teatro Diluvio 1000W floodlight.

By contrast, the budget-priced Versa-Disc is the ideal colour wheel and effects accessory for the smaller venue or school theatre. Designed in collaboration with Jack Exell at Lighting Technology, and based on a concept by Bob Clutterham, Versa-Disc is so simple it makes one ask why no-one has done it commercially before.

If you take six segments of colour filter, tape



Those Teatro dealers and Tony Gottelier who did not rush off to Rimini joined Mike and Penny Lowe and Andy Collier (Teatro UK) for dinner on the shores of Lake Garda at Desanzano. Below, the Colourbox-2 'guillotine-style' colour changer.

them together to make a disc, staple a 'beer mat' disc of cardboard to the centre and clip it onto a motor drive shaft in front of a spotlight and you have it - a colour wheel. Replace the colour wheel with a disc of black aluminium foil (Blackwrap), artistically slashed with random slots, and there is a moving effects wheel. You can also combine an appropriately cut disc with a suitable gobo and create all the standard theatrical illusions of fire, cloud, snow, rain, etc. The product will have its first public appearance at ABTT in April, where it can be seen on the Action Lighting stand under their product name 'Floppy Disk'.

Teatro have also re-designed their Parcan range of Par 64 and Par 56 lanterns to bring them into line with the new CE safety standards requirements and to incorporate an integral lamp rotator, rugged rolled aluminium front tube, and inclusive cable, as well as a new tilt-lock mechanism that is now so effective it will support the Teatro Colourbox-2 or any scroller, without 'drooping'.

Two other stalwarts of Teatro's educational range have also been upgraded for 1996. The 500W Riga floodlight and cyc system has acquired dedicated safety cable attachment points, an improved stirrup locking arrangement and a new holder for the range of glass colour filters available with this product range. The Comma 650W Fresnel and PC spotlights now have a rear handle to make focusing easier.

Despite skipping Rimini, which Mike Lowe describes as one of his best decisions yet, Teatro will be present at the ABTT trade show with all these products on view.

Tony Gottelier

A full report on all the companies that were at Rimini, starts on page 62.



L+SI Knows its Alphabet

L+SI has just been awarded membership of the Audit Bureau of Circulation following its first audit in February.

The ABC certificate is a quality mark that underlines L+SI's commitment to serve the industry as a whole. Achieving ABC is no easy feat and the month-long preparations in advance of the audit can be back-breaking. Before being awarded a standard certificate, the publisher has to prove the circulation claim, with comprehensive documentation that must stand up to the most rigorous verification auditing procedures. The enormous task of collating all this paperwork and coding the entire mailing list fell to Sheila Bartholomew (pictured right with the certificate), who manages the circulation lists for both L+SI and sister publication S+CSI. L+SI is one of just a few magazines in this industry to have been awarded an ABC certificate.



E\T\C

Concerts, conferences, indoor or outdoor events and theatre

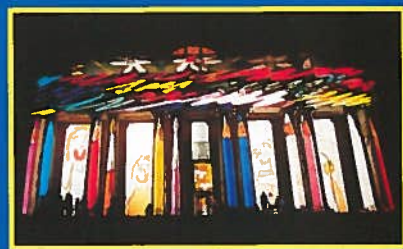
**AWARD WINNER
BEST NEW PRODUCT
Outdoor Event '96**



Planning an event of any kind in the future? First discover the range of new possibilities that you can offer to your clients using the P.I.G.I. system.



The P.I.G.I. unit is a slide changer, double scroller and lighting effects generator in one, equipped with a 5 or 7 kW light source. Only the P.I.G.I. system can slave together as many as 24 of these units to produce one gigantic moving effect.



The P.I.G.I. system has been used by:

The VJ Day Celebrations
The National Trust
Harvey Goldsmith 'The Planets'
Jean-Michel Jarre
Peugeot • Phillips • VW amongst others.

"When it comes to high power projection, only E\T\C know what they are talking about."

Jonathan Park

E\T\C Tel: 0181 893 8232
Fax: 0181 893 8233

E\T\C UK Ltd., Unit 2, Millfarm
Business Park, Millfield Road, TW4 5PY.

**SEE OUR NEW
ADDRESS DETAILS
BELOW**



THE GREAT AMERICAN MARKET

"A Hollywood Legend"

GamColor & GamFusion Filter, The Original Blackwrap, GamPattern Gobos...and More!

leprecon

"Pro Lighting Equipment"

Innovative & Affordable - Manual Series Memory & Lighting Control Consoles



"Spots Of Brilliance"

The Midget, SuperArc, StarkLite, SuperStar, and XLT Xenon Followspots



"The World's Most Advanced

Ultra-Violet/Blacklight Visual Effects"

UV Lighting Fixtures-Spots, Fresnels & Floods, Fluorescent Paint & Materials



"Technology Serving The Arts"

The Coloram, Aquaram and Scroller, ColorExpress Gelstrings, The AUTOPILOT System

BRINGING THE BEST OF AMERICA TO YOU!

USLIGHTS

**Tel: +44 (0) 1753 533001 Fax: +44 (0) 1753 533005
19 Buckingham Avenue • Slough • Berkshire • SL1 4QB • ENGLAND**

Production Arts Europe Opens



Herta Wasserberger (left), Sieglinde Staub (second, left) and Herman Sorger (second, right) of Ludwig Pani are joined at the opening by John McGraw (centre) and Steve Terry (right) of Production Arts.

Production Arts Europe officially opened for business on March 7th. The facility in London now has the largest inventory of Pani large format projectors and automated systems available for hire anywhere in Europe.

Current projects include projection systems for West End musicals *Martin Guerre* and *Miss Saigon* with White Light. The company were also involved with the recent Brit Awards at Earl's Court, and have lined up projects with The Nicki Campbell Show for BBC Glasgow, and corporate productions for Bacardi with Creative Technology.

"We have been very pleased with the response we've received from the European market," Anne Johnston, vice president, image systems told L+SI. "There is clearly a big demand for automated large-format projection systems on a hire basis.

Parent company, Production Arts Inc, based in the US, announced jointly with Electronic Theatre Controls Inc, that the two companies had been selected for a major lighting system renovation at the Metropolitan Opera House in New York. The control

system renovation is the first at The Met since 1979, and only the third system to be installed since its construction in 1963. ETC will be providing Obsession 3000 control consoles and Sensor dimmers, while Production Arts will handle systems integration, data network engineering and project management.



The faces behind Production Arts' UK operation: Paul Highfield, Anne Johnston and Glenn Wade.



Steve Terry outlines the features of a Pani projector in the demonstration room.



Ron Knell and Paul De Ville of Lighting Technology (left) and Jane Cockburn and Barry Howse of L+SI (right), flank Chris Popowich of the Central School of Speech and Drama.

Obie to Represent Coemar in US

Just before SIB '96 in Rimini, it was confirmed that The Obie Company of Torrance, California has taken over the US distribution of Coemar products. Previously the company's products were handled by Orion in the region.

Obie's already have a mixture of 1,200W and 2,500W NAT TMs, Coemar's periscope-headed projectors, on tour with Neil Diamond, a show which will be the subject of a backstage look for delegates to the Entech Show in Australia later this month. The Obie Company are also the manufacturers of the Xe-Scan, a 2kW xenon powered moving mirror luminaire.

C O N C E P T



S G M



REGIA 24

LIGHT DESKS

REGIA lighting control desks are the result of our experience gained in 20 years in the entertainment lighting field. Manufactured without any compromises using avant-garde technology, they can make the very most of the possibilities offered by scanners, spots, theatre luminaires, effects lighting, etc., ensuring absolutely reliability in every situation. The Regia range comprises: REGIA 8 - REGIA 12 - REGIA 24 - REGIA 256 - REGIA 256/36 and REGIA 512s36, each with different features suited to the most widely varied use. REGIA desks are built in compliance with current EEC norms.



P810

DIMMER PACKS

Ideal work-mates for the REGIA desks, SGM dimmers are reliable, sturdy and safe: built without cutting corners, they adapt to the hardest operating conditions without any problems.

SGM's range of dimmers comprises: P/810-D, P/610-D, P/610-S, P/82, P/161 and P/63.

Patrizio Ceotti - 0541/969109

SGM

ELECTRONIC LIGHT

via Pio La Torre, 1 (zona art. le Pirene) 61010 TAVULLIA - Pesaro - Italy
Tel. 0721/476477 (5 linee r.a.) Fax 0721/476170

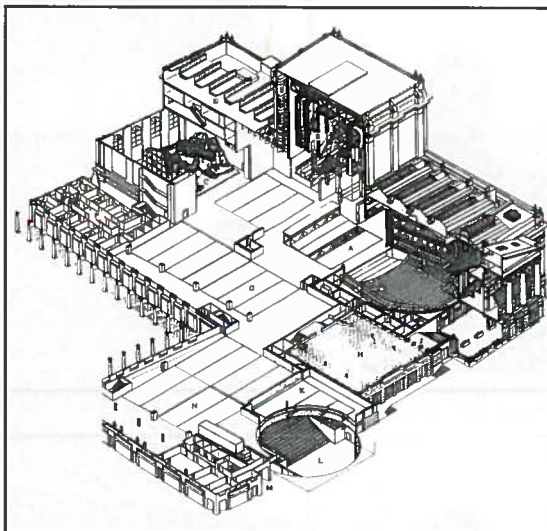
Plans Unveiled for ROH's New Home

Tuesday nights on BBC 2 proved something of a highlight in the winter months with compulsive viewing provided by the BBC's 'The House', a rather unsympathetic portrait of behind-the-scenes goings-on at the Royal Opera House in Covent Garden, London. The programme shed further light on the ROH's controversial plans to relocate to a new purpose-built facility (shown right) adjacent to their present site.

The scheme has attracted a great deal of opposition and angered local residents, not least because it involves the demolition of a row of early Victorian houses. In order to rebuild, the Opera House will have to close for three years, though Jeremy Isaacs, general director of the ROH, has underlined his determination to keep both the opera and ballet performing in London throughout this period. To do so, the company will need another subsidy over and above their already substantial grant. The Opera House has also been beset by problems in its various planning applications to Westminster City Council, who, having 'conditionally' granted planning permission last October, are still seeking further refinements to the design and have asked for the drawings to be re-submitted. As a result, the ROH is to produce revised proposals shortly, but not under a new application.

Controversy is familiar territory for the ROH who hit the headlines recently with their £55 million hand-out from the Arts Council's National Lottery Board towards the development project, and the BBC documentary will have done little to solicit sympathy for the company, almost certainly reinforcing the widely held view that the ROH is an elitist concern, despite its efforts to embrace a wider audience with subsidised events and live video-links of some performances to the Piazza.

The new scheme, which will cost £213 million, will retain the famous facade and auditorium of the existing ROH home, but will transform the backstage areas. The upgraded facilities will include a new studio theatre, new rehearsal rooms for the ballet company, new foyer and substantial



investment in high tech scene-shifting machinery.

The project will introduce a rear and side stage in a well tried configuration used by most modern opera houses. It will also provide a labour-saving 'wagon' system to facilitate rapid change-over between productions. The system will be linked to a purpose-built scenery storage facility, whilst a powered flying system for scenery (similar to that tried and tested in the new Gothenburg Opera House) will replace the existing manual one. The development of the site to the south of the Floral Hall provides the Opera House with the opportunity to construct a 500-seat auditorium.

The push for the redevelopment is not before time: the Royal Opera House has been advised that, for safety reasons alone, the theatre must close for 19 months for essential maintenance work. Much of the stage equipment has reached the end of its working life, as have areas such as the floor to the main stage. Most critically, there is a requirement to spend £25million on essential maintenance to the fabric of the building and to comply with new EU regulations in order the keep the Opera House open.

It is planned to open the restored and extended Opera House by the year 2000.

Ruth Rossington

The (ex) President's Men

News broke at the Frankfurt Music Show (see feature this issue) of HW International's involvement in a new enterprise by ex-JBL President, Walter Goodman. With son, Rob, Goodman is launching a new company, TS2, dedicated to designing and manufacturing quality, fully passive loudspeaker cabinets and 1" and 15" drivers from their Californian base, north of Tijuana. Peter Barnard of HW, who will be representing the products in the UK and other territories, told L+S: "This is a very exciting prospect. Walter retired from JBL about five years ago and during his time with the company he obviously amassed some impeccable contacts. At Frankfurt there are so many speaker manufacturers, so why should we get involved with another one? We would only get involved with a company if we thought it had something very special to offer and TS2 certainly does."

Mark Cunningham

Metro Take-over

Theatre and concert sound systems manufacturer Metro Audio has announced its take-over by former director Nigel Cunningham and ex-Allen & Heath UK sales manager, Richard Harris. Now trading from its Farnham, Surrey base, Metro introduced three new products to its extensive Professional Intercom System. The range now includes belt packs, loudspeaker stations, audible/visual call stations and a portable intercom unit for schools and small venues.

The company can now be contacted at Unit 13, Badshot Farm, Badshot Lea, Farnham, Surrey GU9 6NJ, telephone (01252) 318225.

Pulsar Appoint Northern Light

Pulsar have recently appointed Scottish-based Northern Light as a new reseller. The latter have been serving the Scottish entertainment industry for 25 years, and during that time have expanded from their Edinburgh base to an additional branch in Scotland and a new project office in London.

DMXEYE by XTC EVENT LIGHTING

Simple to use and foolproof.

Problems with space?

Fed up with costly call outs due to knob pressers?

No more!

The DMXEYE is a mini show recorder for situations where the same pre-programmed sequence of lighting scenes need to be triggered over and over again.

To program, just place in line between any DMX equipment and record.

The size of a box of chocs it can be hidden out of sight or bolted onto your scans.

Idiot proof and tamper proof!

ONLY
£350.00
(Exc. VAT & Delivery)

XTC Event Lighting Limited, Unit 3, Addington Business Centre, Vulcan Way, New Addington, Croydon, Surrey CR0 9UG. UK. Tel/Fax: +44 (0) 1689 800500



*Entertainment lighting:
Color filters and color
mirrors for lighting
effects, conversion filters,
UV-pass filters, gobos,
front surface mirrors.*

*Lasers:
Laser mirrors,
beamsteering
mirrors,
beamsplitters.*

Things may seem clear to you, but there's more than meets the eye.

Take a closer look. You'll soon see why more and more manufacturers of optical and electro-optical products are depending on Balzers' innovative thin film components. The reasons are crystal clear. Balzers' high-tech ingenuity, combined with a wealth of practical experience, guarantees outstanding quality at highly competitive prices. So no matter what kind of application you need, trust Balzers to put you at the cutting edge.

*Projection TV:
Dichroic
mirrors, UV
and IR blocking
filters, cold
light mirrors,
polarizers,
gradient filters,
transparent
conductive
coatings (ITO),
antireflection
coatings.*

*Lighting:
Color filters for
lighting effects,
cold light reflec-
tors, heat protec-
tion filters, UV
blocking filters,
neutral density
filters, antireflec-
tion coatings.*

*Compact Discs:
Metallization
systems.*

balzers

Putting things in the right light.

*Balzers Aktiengesellschaft
Dünnschicht-Komponenten
FL-9496 Balzers
Fürstentum Liechtenstein
Tel. +41 (0)75-388 41 11
Fax +41 (0)75-388 54 05*

*Balzers
Thin Film Components
46249 Warm Springs Blvd.
Fremont, CA 94539
Tel. (510) 651-1232
Fax (510) 651-1669*



WHOLEHOG II



**Power and flexibility for total artistic freedom:
From theatre to touring to television.**

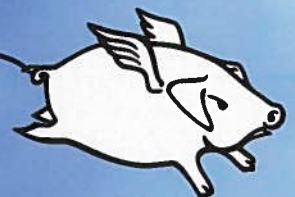
- ▶ **Integrated control of multiple fixture types**
- ▶ **Effortless programming of moving and conventional lights**
- ▶ **Unlimited timing options for complex cues and sequences**
- ▶ **Touch sensitive displays yield instant access to all functions**
- ▶ **Flexible windowing system provides constant feedback on 4 displays**
- ▶ **Built-in MIDI, SMPTE, and DMX In ensure total connectivity**

Distributed By: A.C. Lighting

America:
tel: +1 818 707 0884
fax: +1 818 707 0512

Europe & Asia:
+44 (0)1494 446000
+44 (0)1494 461024

Visit us on the Internet: <http://www.flyingpig.com/flyingpig>



ADB Well on the Way to a Century of Lighting



Above, part of the ADB team at the 75th celebrations, with just some of the many products launched over the years. Below, the directors, Lucien Van Nieuwenhuysen, Dirk Van Nieuwenhuysen, Mike Musso, Nicolas Mardaga, Raph Janssens and Daniel Jacob.

Belgian manufacturer ADB recently marked 75 years in the lighting industry. At a special reception at their Zaventem, Brussels headquarters in March, the company played host to its many distributors, clients and suppliers, at which Herbert Hess, the general manager of ADB, welcomed guests, and, in particular, Eric Van Rompuy, Flemish Minister for Economic Affairs.

ADB's success is built upon the company's determination to work with lighting professionals worldwide and to provide them with the best possible products - the results of extensive research and development. It now boasts a comprehensive range of stage and studio lighting equipment and control systems for both professional and semi-professional applications.



The company was founded in 1920 by Adrien de Backer - hence the name - and ADB began its life as a manufacturer of electrical equipment for laboratories. In 1925, the company expanded its range of products, applying rheostats to the

dimming of lighting in theatres, music halls and cinemas. Notably, the company was responsible for producing the first dimmer for the theatre at Malines: having served there for over 40 years, this equipment has now, quite rightly, been elevated to the status of a museum piece.

In 1932, the manufacture of variable autotransformers commenced, under the brand name Rheotor ADB, and the company remained for many years the sole Belgium manufacturer of this internationally known product.

By the late thirties, various types of spotlights were added to the manufacturing programme, and it wasn't too long before the company diversified into the design and manufacture of aviation lighting systems. In 1949, Grimbergen Airport installed the first ADB runway lighting system. Following its success, this grew to be a speciality for the company, and several decades on ADB has an enviable reputation in the field of aviation with their systems now being specified worldwide.

In 1987, ADB became part of the Siemens Group, which provided the company with the necessary foundation for them to become a key international player in the design and supply of lighting systems for theatres, cinemas and television studios across the world.

The ADB Group now spans the globe, both through its subsidiaries, production units and research and development centres in Belgium, France, Germany and the United States, and through agents in more than 100 countries. The Group employs over 500 people, more than half in Belgium and nearly 90% of its turnover comes from exports. Not a bad footing on which to begin the countdown to the Centenary celebrations.

the radio systems specialist

Wet Wet Wet
 TAKE THAT
 Rod Stewart
 M People
 Bjork
 simply red
 EAST 17
 DAVID BOWIE
 mike and the mechanics
 THE BRITS
 babylon zoo
 cirque du soleil
 VAN MORRISON
 alanis morrisette
 The White Room
 Annie Lennox
 ETERNAL
 PULP
 Gary Glitter
 tfi friday
 torvill and dean
 TOTP
 RIVERDANCE
 TWIX MIX
 VAN MORRISON

we think we've got something to shout about too...



hand held audio

telephone:
 0181-880 3243
 fax:
 0181-365 1131

Unit 2, 12-48 Northumberland Park, London N17 0TX

FANTASTIC FX FOR '96!

THE R-E FAN AND STAND



Quiet, yet strong!
 Variable 0-60 MPH
 More penetrating than an "E" Fan,
 Yet Half the Price!

THE DF-50 DIFFUSION FOGGER

Odor-Free, Reliable,
 Irritation-Free Hazer.
 FOG TESTED UNHARMFUL!



FANTASY FX SPRAY SMOKE

Odorless, non-toxic
 lasting haze effects from a spray can. Great for photos & FX!



THE HURRICANE

A 1/2 HP, 3-speed, 2900 CFM air mover. Stand allows for almost 360° tilting! Easily attaches to C-stand or any baby spud.

THE CFS 2000

LOW GROUND FOGGER
 Converts smoke from any water-based smoker into low-ground, thick, continuous fog (shown with MDG Mini-Max).



ZILZ International... Official European Distributor for CITC. Dealers welcome.
 Phone: (49) 221-583031 FAX: (49) 221-584399

C.I.T.C. 303 E. Gurley St., Prescott, AZ 86303 USA
 (520) 771-8268 • FAX (520) 771-8267

more sonic solutions from the first name in sound

Don't be mealy-mouthed with your sound system. Give it some bite. Give it some Impact.

Impact is the stunning new sound system range from Turbosound. Coming from the industry's cutting edge in serious systems, Impact's features bite a lot more deeply than the speakers you're used to.

80 • 120 • 180

sound bites



Turbosound.
Star Road, Partridge Green.
West Sussex, RH13 8RY, England
Telephone: +44 [0] 1403 711447
Facsimile: +44 [0] 1403 710155
H A Division of Harman International Industries Ltd.



BBC Animation

Studio 6 at BBC Television Centre recently played host to the Great British Song Contest to choose Britain's entry to this year's Eurovision Song Contest. The live production featured set design by Gina Parr with the lighting system designed by LD Mark Kenyon.

The set incorporated a wraparound screen across the back of the stage, illuminated by 18 High End Cyberlight SVs with custom-made DHA metal and glass gobos, controlled from a Compulite Animator 72 operated by Andy Dobbs.

The mainly scaffold set was lit with 20 VL5Bs and 12 Clay Paky Miniscans. The Animator is used almost exclusively by the BBC for moving light control, and is currently being put through its paces on 'Top of the Pops', 'Tomorrow's World' and a number of late night specials.

White Light North have just purchased a new Animator 48 as specified by lighting designer Joe Atkins for the UK tour of 'Ferry Across the Mersey' and Playlight have supplied an Animator 24 for the same designer's West End production of 'Elvis'.



Brit Row Gear Up

A major audio specification for the start of the Smashing Pumpkins tour has been completed by Britannia Row Productions.

Following a substantial purchase of Behringer dynamic effects (MBX 2100 Composer comp/limiter expanders, EX 3100 Ultrafexes, EX 1000 Ultra Subharmonic Processors, PEQ 2000 Parametric Equalisers and XR 2000 Intelligates) for the tour, Britannia Row has now confirmed an order for several new processor modules.

These include H3000 DSE Eventide harmonisers, a Lexicon 480 multi-tap reverb unit and Summit DCL 200 dual channel compressor limiters. Also arriving from the states for FOH sound engineer Bruce Knight is a Gamble EX56 mixing console. Meanwhile, Brozman is finalising the specification for award-winning sound engineer Jon Lemon's rig, which he will take on a world tour with the Cure, commencing in May.

Northern Swing

Northern Light recently supplied and installed a range of equipment at a new academy for professional golfers. The academy comprises The Swing Studios located at The Belfry, and an octagonal conference room facility within the adjoining hotel complex.

For the Studios, a light level of not less than 2000 lux was required to give a high enough shutter speed on the video cameras to allow the instructor to freeze the picture at different points in the swing. Cantata fresnel spots and Nocturne floods were used to provide a high level of light on the club and ball and to provide sufficient light to get clear pictures at all points of the swing. The lighting is controlled by a Strand Outlook control system with LD90 dimmers.

For the conference room, the company supplied and installed the production and house lighting, as well as audio-visual, sound and communications equipment, including LD90 dimmers. Outlook controls for the house lighting, a Softlink for production lighting control signal patching and a Strand GSX desk, with facility panels, sound racks and other equipment built by Northern Lights.

Compugraphics

Highlight House, St Leonards Road, Eastbourne BN21 3UH

Programmes supported include

- Photoshop - Serif Page Plus 3.0
- Microsoft Publisher - CorelDraw 6
- Corel Ventura 5.0 - QuarkXpress 3.3
- Pagemaker - Ami Pro and more

Files accepted on

- 230mb Optical - 4mm Tape Drive
- Email: 100025.3717@compuserve.com
- Syquest - 28.8 Modem

Printer files received by 3pm,
films delivered back next morning.
(applies to UK only)

Convenient way to pay



Credit accounts, subject to status

PC DTP Bureau

MAC files also
processed

Tel: 07000 BUREAU

2 8 7 3 2 8

Fax: 01323 738167



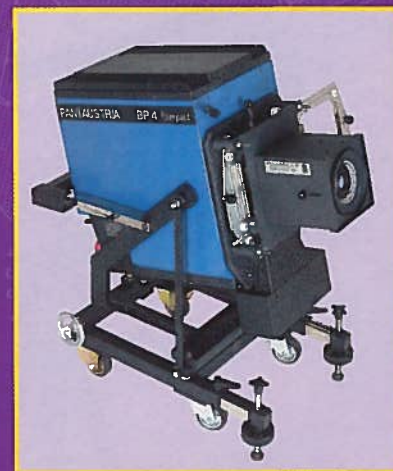
THE Compact Line



BP 2500 C - Halogen



BP 2.5 C - HMI



BP 4 C - HMI

The PANI „Compact Line“ is once again setting new standards in projection. Powerful light efficiency, combined with compact dimensions, offer greater scope for designers and operators alike.
NEW: ZOOM-OBJECTIVE 25 - 60 cm

For information call:
Tel.: 0043 - 1 - 521 08-0
Fax: 0043 - 1 - 526 42 87

Ludwig PANI - Company for
Stage Lighting and Projection
A-1070 Vienna, Kandlgasse 23



Turned On, Tuned In. . .

As the manufacturer of the in-ear monitoring system, the Radio Station, Garwood Communications' initial goal was to educate artistes and sound engineers of the benefits of the concept.

The process has now gained its own momentum and a fair percentage of the world's rock and pop are devoted users of ear-pieces. The latest phase, however, has involved substantial modifications to the system, allowing even greater ease of use in the field of international touring.

Due to legislation and the absence of a global harmonisation, frequency selection in any given country has been tight and confusing. In the UK, the legal operating frequencies on Channel 69 are between 854 and 862mHz. In the USA, the available frequencies range between 517 and 607mHz. The wide gulf between these extremes has given rise to the challenge of developing a single unit which will cover a broad range of frequencies. Technical director Martin Noar told L+SI: "The Radio Station IDS not only covers the range of frequencies available in each country, but it has been arranged in bands of frequencies dependent on the country."

The other major improvement concerns the signal loss inherent with RF cable. Until now, it has been equipped with a standard cable which has made it difficult for monitor engineers to place the aerial in the best position. The new version of the system will incorporate an active aerial which combines the transmitter RF. "Instead of the standard RF cable, the unit comes with a four core cable which carries the coded audio data along with data from the synthesiser," explains Noar.



The Garwood team: Chrys Lindop (seated), Andrew Fregley (left) and Martin Noar.

Feedback from the theatre industry has also resulted in a noise reduction system which has virtually removed the 'breathing' effect of compansion. The most significant development for theatre applications is the new LV-1 system - nicknamed the Luvvie! Although IEM had attracted the enthusiasm of theatre engineers, it was the size and weight issue which prevented its widespread use. The LV-1 has an identical specification to that of the Radio Station receiver, and will also feature the Garwood EQ switch. The main differences are that it is a single channel and single frequency unit.

Garwood will also be shortly announcing further notable developments in its IEM range.

Design Link

Moody/Ravitz Design Partners, Inc has acquired all the assets of Paradox Lighting Design. The company has now been renamed Moody Ravitz Hollingsworth Lighting Design Inc and Paradox founder Dawn Hollingsworth will join as principal working with the design team. Moody/Ravitz Design Partners Inc was founded in 1991 by James Moody and Jeffrey Ravitz, and together they have more than 50 years experience in the entertainment industry.

A-T's DIY Policy

Following the closure of Audio-Technica's German office in 1995, sales director Paul Maher unveiled the company's new policy towards the German market at a special meeting in Frankfurt.

He told L+SI: "We are actually supplying to German dealers direct from our UK base, having decided that we would not go with the traditional exclusive distributor arrangement which most others companies seem to do.

"Compared to the UK and USA, we have a very low profile in Germany, so this is regarded very much as an experiment and we are investing a lot of money and resources particularly for the German market in order to make it work."

Mark Cunningham



ARAMIS

*High performance
2500w HMI followspot
4.5-8° condenser optics
Digital fade control
Easy maintenance
High build quality*

**professional tools from
robert juliat**

Chantal Claret Robert Juliat

Tel: (33) 1 42 43 35 35

Fax: (33) 1 42 43 08 05

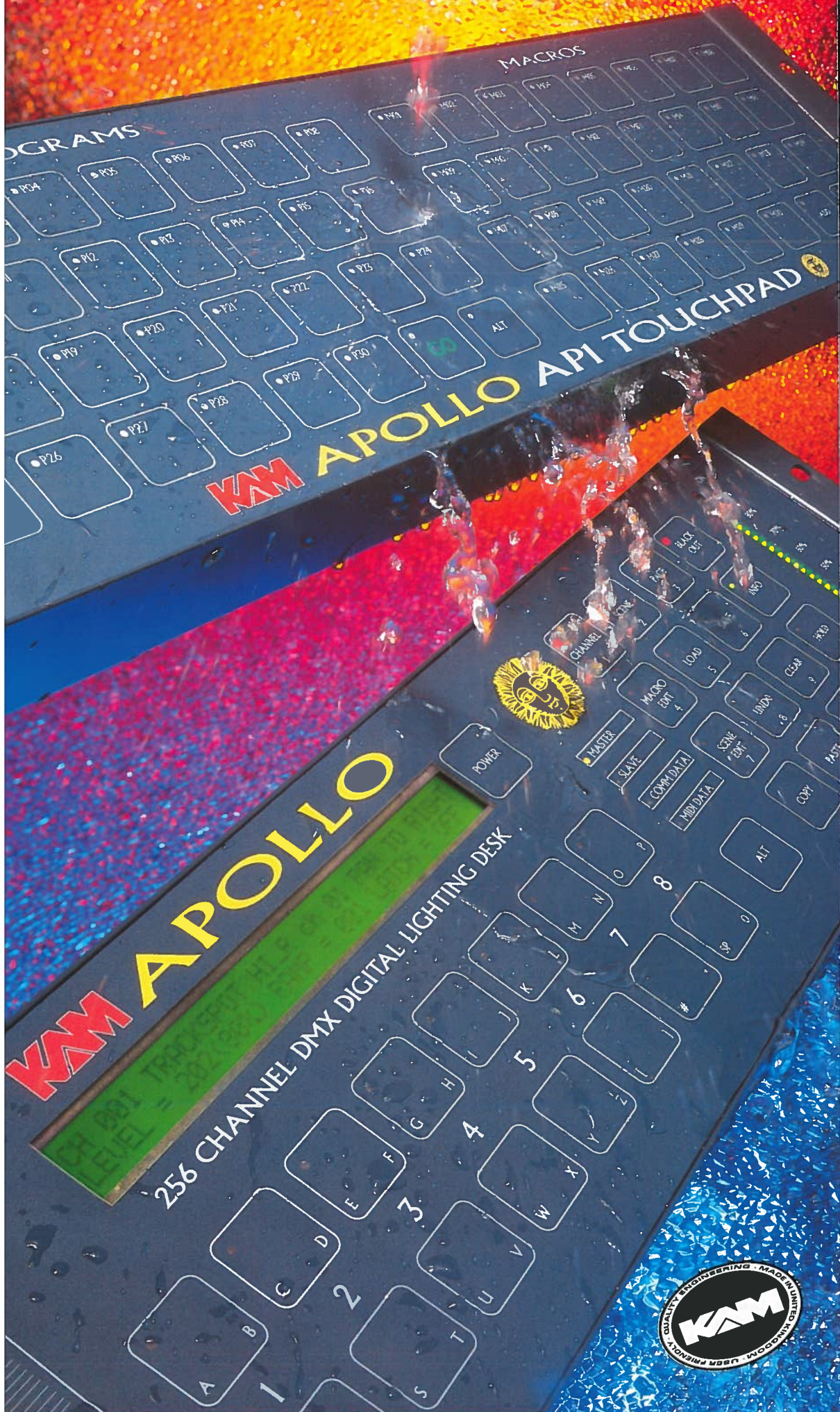
Tom Mannings Decoupe Ltd

Tel: (44) 181 505 8522

Fax: (44) 181 504 4755

email bigt@atlas.co.uk

YOUR WORST NIGHTMARE?...



... is solved by the KAM Apollo, a 256 digital DMX lighting controller with its totally liquid resistant top panel, your dream come true.

Simplistic in design, the control panel contains its own back-lit display, which provides the Lighting Designer with a real-time visual reference to each channel in either macro or programme formats.

The channels are easy to programme as the Apollo contains its own internal database which stores the DMX personalities of most common intelligent lights and effects.

Easy to operate, the Apollo controls all generic lighting from moving lights, parcans and neons to strobes and fog machines. Perfect for any nightclub, its powerful editing features enable the LD to generate incredible scenes and moving effects quickly via its ultra-sensitive direct-access touchpads.

For use in more creatively demanding environments such as in theatres or live events, the Apollo's sister controller the AP1, gives you even greater flexibility to express your creative skills.

To maximise the Apollo and the AP1, our specially designed windows compatible software is designed to enhance its programming capabilities and give the LD increased ease of use.

INTERESTED? YOU SHOULD BE!

- Please send me full information on the KAM Apollo
- Please contact me to arrange a demo of the KAM Apollo

Name

Address

.....

.....

Company

Tel:

Fax:

Please return to: Lamba PLC, Albion Mills, Albion Road, St. Albans, Herts, AL1 5EB. Tel: +44 (0) 1727 840527 Fax: +44 (0) 1727 837811



Major Install for New Stephen Joseph Venue

A number of PLASA members have been involved in the supply and installation of sound and lighting equipment at the new Stephen Joseph Theatre-in-the-Round in Scarborough. Stagetec (UK) Ltd have won the contract for the technical installation.

The building, a former art deco cinema, has been extensively modified and renovated to provide an impressive venue with two auditoria. Equipment supplied includes 240-channels of Compulite high density digital modular dimming which has been modified to provide a rise time of 450µs in order to ensure that the steel rigging mesh installed across the auditorium doesn't resonate. A new Compulite Photon lighting control desk has been supplied for the studio theatre, in addition to a cross section of 650W and 1.2kW Selecon luminaires, together with 12 Compulite Whisper colour scrollers. Sound equipment consists of 11 EAW JF100i full range loudspeakers, driven from four Chevin Quad 6 four-channel amps.

In order to meet complex sound effects requirements, some of the latest technology has been specified, including the new Denon DN1100R Mini-Disc recorders, Tascam DA30 DAT machine and Behringer DSP8000 digital sound processors. A sampler and hard disc recorder will also be incorporated in the system.

The venue opens at the end of April with the premiere of a re-work of Andrew Lloyd Webber and Alan Ayckbourn's joint production of 'By Jeeves'. A full review of the technical installation will appear in a future issue of L+SI.

Autopia Join EBD



Above, Autopia Terakat's sales manager, Russell Fell (left) and flight-case project manager, John Bradshaw (centre), pictured with Andrew Stanway of Vanquip.

EBD Systems Ltd has acquired the business and assets of flight-case manufacturer Autopia Terakat. The operation has been merged with the Vanquip division of Barton Storage Systems Ltd, which is also owned by EBD, operating from Autopia's existing address.

Autopia's John Bradshaw told L+SI: "This is an exciting and significant step for both companies, as the merger will enable Autopia Vanquip to offer an improved product range and better technical support."

The company will now be known as Autopia Vanquip Limited.

Green Room Completes Phase Two

Following an award of £750,000 of National Lottery money and European funding, Manchester's Green Room Theatre has been carrying out phase two of a massive technical refurbishment based on a top audio and lighting spec, prior to a May 3rd opening. First opened in 1987, the theatre has been dark since November to allow the development to take place.

Central to the lighting operation is the new Aviator T180 EPX playback lighting desk from Celco, supplied with the company's Fusion dimmers. Technical manager Steve Curtis has been a confirmed Celco user since he first specified a Gamma desk for the Sheffield Leadmill in the mid-1980s, followed by a Series 2 60-Plus at the Green Room in 1990. He was first shown the Aviator desk by Celco's Mike Rothern last spring and thought it would fit well into the specification, which includes a new lighting grid, board, dimmers, rig and PA system, with a sound and lighting room located to the rear of the theatre.

The Green Room's 60-ways of Green Ginger has now been replaced by 8 x 12-channel, 10amp Fusion installation dimmers. "It's useful in terms of the international work we are doing and the wide variety of lighting that comes in - 5ks, HMLs, fluorescents etc," explains Curtis. "Fusions are particularly good at matching the dimmer with the load. The ability to turn the dimmer into a switched load and still run it from the desk is also useful, because it puts the control in front of the operator."

Steve Moles



Stardraw 2D Stardraw 3D



"The **fastest** way to create professional lighting plots."



"The **fastest** way to visualise your lighting designs."

- * **FREE** symbols of all the popular **Truss** and **Lighting Fixtures**.
- * **ALL** the Rosco and Lee **GEL** Filters.
- * **Unlimited** Attributes for each Object.
- * **Reporting** and **Bill of Materials** weight and gel count.
- * **Import** DXF, CorelDRAW and FastCAD.
- * **Create** your own Gels and Libraries.
- * True **32 Bit** Program for Windows 3.11, Windows 95 and Windows NT.
- * A **Powerful Window** - A new package in its own right.

Our original, highly successful, 3D program was **Virtual Reality**, allowing you to "walk through" your lighting design.

Listen to what other people are saying:

"Extremely powerful" - Jon Pope, Lighting Designer.

"This could easily become the de-facto standard for Lighting Designs" - Rob Robinson, ShuttleCAD.

"Stardraw 3D is the fastest way of working in 3D" - Koert Vermeulen, Lighting Designer.

See us at stand 1057
COMDEX UK '96,
April 23rd - 26th

£295

Buy Stardraw 3D
and get Stardraw 2D
for Only £100

£595

Unconditional 30
Day Money Back
Guarantee.



Starlite Systems Technology Ltd.

Design, Manufacture and Hire of Automated Lighting Systems

Calena House, Caxton Street North, London E16 1JL. Tel: +44 (0)171 511 4400, Fax +44 (0)171 476 2922, E Mail: 100816,1133@Compuserve.com

©1994, 1995 Starlite Systems Technology Ltd. All Rights Reserved. ©Microsoft Windows is a registered trademark of Microsoft Corporation.

Prices do not include Postage or VAT. All Items dispatched by courier within 28 days.



DATAFLASH®

IT'S NOT

JUST A

STROBE

ANYMORE



DATAFLASH

ultra high power flash system

In 1988, High End Systems® introduced the Dataflash® xenon strobe fixture and controller, and gave designers the world's most advanced and powerful flashlamp system.

Now High End Systems unleashes **DATAFLASH® AF1000**, the next quantum leap in strobe technology. Brilliant new technical advances place AF1000 in a class by itself—not only as an ultra high power flash system, but also as a continuous illumination source and a pyrotechnic simulation device for creating lightning effects. **AF1000—it's not just a strobe anymore.**



- continuous illumination source
- lightning simulation device
- any number of fixtures may be selected to create programmed animation
- stand alone, standard, architectural, or special effect operation
- available in yoke mounted weatherized or non weatherized versions
- dedicated control systems available
- fully DMX-512 compatible



Dataflash® AF1000 LCD Controller



HIGH END SYSTEMS, INC.
2217 West Braker Lane ■ Austin, Texas 78758 USA
Tel: 512.836.2242 ■ Fax: 512.837.5290

HIGH END SYSTEMS GMBH
Tecnopark, Lohstrasse 22 ■ D-85445 Schwaig, Germany
Tel: 49.8122.9903-0 ■ Fax: 49.8122.9903-33

HIGH END SYSTEMS SINGAPORE PTE. LTD.
Cencon 1, 1 Tannery Road 06-05 ■ Singapore 347719
Tel: 65.742.8266 ■ Fax: 65.743.9322

<http://www.highend.com>

Lamba and Gemini Go Separate Ways

After several months of negotiations, Lamba plc and Gemini Inc have decided to go their separate ways. Gemini are currently looking at means of further penetrating the European market, a move started last year with the introduction of Gemini France, and their launch into the UK is a natural progression of this initiative.

Lamba, the sole UK distributor for Gemini's pro-audio range of products for over five years, initiated discussions in April 1995. As manufacturers and distributors of the KAM range, Lamba felt there was a conflict of interests and in the light of competitive market forces, the decision was taken for the two companies to part.

Lamba has been a leading distribution company for many years, claiming the successful introduction into the UK of Martin Professional and Numark DJ products. Both companies hope the move will leave room for the further expansion of their respective product lines.

Towering Performance

Over the coming months, the new Edwin Shirley Staging (ESS) Tower System will be cutting its teeth worldwide in a number of projects. The system will appear as a basic rock and roll stage in Japan and the UK, an 'in-the-round' stage in Ireland and as Jumbotron supports around the UK.

Following performances by The Eagles in Japan, ESS will be providing an 80ft wide stage for the Bon Jovi shows in Osaka in May, and is also currently working with Japan Stages, using the new tower system.

Preparations are also underway to build an 'in-the-round' stage at Croke Park in Dublin for the Neil Diamond show on the 18th May. It is becoming a familiar trend for bands to play at the grounds of their favourite football teams. Oasis, Manchester City supporters, are performing at Maine Road in late April, and ESS are providing an 80ft wide stage with a 15m trim height, built on the new Tower System.

After the effective use of the System to provide Jumbotron supports at cricket matches at Lords and the Oval last year, ESS will be touring the system around the country. The new Tower System will be used at the test matches between England and India and England and Pakistan, as well as at the one-day finals.

Chroma-Q Launch



Pictured above at the recent Frankfurt Music Fair (see main feature this issue) are A C Lighting's Nic Tolkien and Mike Falconer with the company's new colour changer (seen to the left of the computer screen). According to the company, the Chroma-Q will reach the market at a competitive price courtesy of a heavy investment in sophisticated injection-moulding tooling and bulk purchasing of electronic components, techniques normally associated with the computer or motor industries. Whilst targeting the professional rental market A C Lighting hope that the Chroma-Q will make colour changing a reality for the educational market and on productions with small budgets.

The A C Lighting stand at Frankfurt also featured Jands and Wholehog II lighting consoles, WYSIWYG lighting visualisation software, Power Lock connectors, Strong followspots, Procolor filters, Tomcat trussing, Diversitronics strobes, Gelstream colour changers, DF50 and Vision LE100 diffusion foggers and Vision stage luminaires.

Turbosound in Cinema

The Historic State Theatre of Minneapolis has installed a new sound system, which sets a worldwide precedent by deploying Turbosound speakers in a cinema for the first time.

Audio Independence, distributor of Turbosound products in the USA, has supplied an extensive list of Flashlight, Floodlight and Impact speakers. The 2,000 seater State Theatre has two discrete systems, each configured to address the main applications of the auditorium, film and live music.

The concert system features a main floor system, stacked left and right of stage, with each side stack containing two Floodlight mid/highs, two 2 x 18" subs and an Impact 120 front fill. For the balcony, two clusters are flown left and right, and each contains three Flashlight TFS-780H mid/highs, one Floodlight cabinet, four 21" bass cabs and a further Floodlight underhung enclosure. Bass is provided by four TSW-124 24" sub-woofers under the stage.

The cinema system features three identical speaker clusters, flowing left, centre and right behind the screen. Each consists of two Flashlight mid/highs, two Floodlight mid/highs and two 21" bass cabinets. The system crossover and delay control is provided by four LMS-700 digital system controllers.

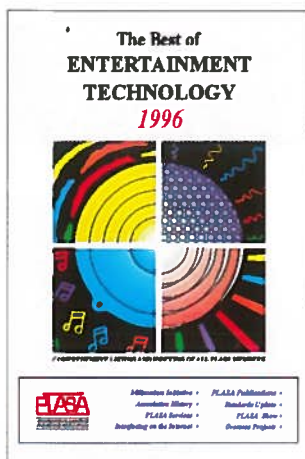
The cinema sound is further reinforced throughout the auditorium by a surround system, comprising 10 Impact 120s, hidden in old radiator bays, and 12 Impact 80s in a balcony system. This is the first time that Turbosound enclosures have been commissioned for a dedicated cinema sound system.

ABTT Looks to New Millennium

The Association of British Theatre Technicians (ABTT) has recently published the March edition of its house magazine ABTT Update. One of the main articles within the magazine covers the safety of British theatre auditoria and backstage areas. The article reveals that almost 90 per cent of British theatres have been burgled during the past two years, with 37 per cent of thefts occurring in the sound departments.

The ABTT have also announced that they will be hosting, for the first time, the Architectural Commission's annual meeting of the International Organisation of Scenographers, Theatre Technicians and Architects (OISTAT). The meeting of commissioners from OISTAT's 40 member states will take place in London from 19-22 May. It will include sessions at the Royal National Theatre, visits to the new Glyndebourne Opera House and Shakespeare's recreated Globe Theatre on Bankside.


The culmination will be an open forum entitled New Theatres for a New Millennium, and will be held at the RIBA Architecture Centre, 66 Portland Place, London W1 on Wednesday 22nd May. For further information, contact the ABTT in London, telephone 0171-403 3778.



THE PLASA 1996 INDUSTRY YEARBOOK IS NOW AVAILABLE

The Yearbook is an invaluable guide to the activities of over 400 PLASA members (both UK and International) and carries a profile of each company, together with detailed product listings, cross-referencing indexes and full contact details. It also covers the services offered by PLASA and the wide-ranging activities undertaken by the Association on behalf of its membership.

If you would like a copy of this publication, fax your request through to L+SI on (01323) 646905. If you would like further details on joining the Association, call PLASA on (01323) 410335.



Do you remember the videowall world before Electrosonic?

It was prehistoric. You needed a whole battery of synchronized video machines to produce different images simultaneously. Fortunately video display has evolved a long way since then.

Multiple image processing as we know it today was pioneered and developed by Electrosonic, who are the world leaders in advanced video display technology.

Our industry standard PICBLOC™ technology generates displays of

Powered by
PICBLOC



startling impact which can be installed easily just about anywhere. As part of a complex integrated set up or as a simple stand-alone.

Not only do we have the best products, but we provide the best technical advice, installation and after sales service anywhere in the world.

In fact, when it comes to creating a dynamic and memorable large screen display experience, no one in the world can match our experience.

ELECTROSONIC
V I D E O D I S P L A Y

No Experience Like It!

Optikinetics 'Clean Air' Clean Room

Optikinetics have completed their new 'clean air' clean room facility in their gobo design and production department. Multi-colour silk-screening onto glass is prone to dust contamination and demands a particle-free environment to achieve the image quality needed when using high powered projectors such as the K2 and K4 (or its predecessor the Solar 575).

In addition to the ever-growing range of standard effects wheels, cassettes and cartridges, the company now offer a custom gobo service to clients wishing to create and project their own images for display and entertainment applications. A fully equipped in-house Macintosh studio (pictured right) with a modem link, adds to the clean room production facilities for silk screening, chrome etching and photographic gobos, enabling rapid response for urgent requirements. Optikinetics also plan to produce standard and custom gobos for other effects projectors on the market. *A profile of the company will appear in the May issue of L+SI.*



PCM Bumper Start

Columbus McKinnon distributors PCM have made a successful start to 1996, having sold 68 Lodestar motors since the beginning of the year.

Meteorlites have added a further ten to their stocks, adding to their original Lodestar purchases made for the massive R.E.M. Monster tour last year, whilst The Royal Albert Hall will also benefit from the installation of a Lodestar system. A combination of one and two ton motors, PCM fitted special limiters to these in order to cope with the extra lifting height of 130 feet.

Export contracts for the last month include an order to the Far East for 20 hoists via Arena Studio and Stage Engineering, plus deliveries to Spain, Norway and Turkey.

HES Lights on Tour

Lighting designer Patrick Woodroffe has specified 28 High End Systems' Dataflash AF1000 xenon strobe fixtures on AC/DC's tour. Charlie 'Cosmo' Wilson is the lighting director out on the road, with Light & Sound Design acting as lighting contractor.

Collective Soul, with lighting by Brian Cohn, returns carrying two Cyberlights, six Intellabeams and six Dataflash AF1000s supplied by R A Roth. Robert Roth is also the LD and contractor for Toby Keith's tour on which the lighting includes eight Cyberlights and a number of Wybron Color Changers.

Finally, The Obie Company has supplied lighting designer Jon Pollak with six Cyberlights and 15 Intellabeams for the Lenny Kravitz tour.

Templine Power Up

Bristol-based generating company, Templine, is manufacturing extra generators and additional Twin Pack units to supply power for the largest gathering of ships and visitors in Bristol this century. The International Festival of the Sea is likely to attract more than one million visitors and countless exhibitors all requiring power for demonstrations, shows, catering and displays.

Templine's Twin Pack made its debut last year at the high profile boxing match between Frank Bruno and Oliver McCall in Wembley. Since then it has travelled to a wide range of events, including the International Snowboard Championships in Madonna, Italy.





Freedom

- 20°, 30°, 40° and 50° Fixed Beam Profiles
- 15° to 32° and 28° to 58° Zoom Profiles
- 575W and 600W Tungsten Halogen Lamps
- 115/120V or 230/240V Mains Input Voltages
- Light output close to our 1.2kW Turbo
- White crisp beam offering excellent imaging
- Interchangeable and fully rotating lenstubes
- Fully adjustable, axially mounted lamps
- Plug-in DMX Dimmer modules with CCT's LPC

230V input	..115V output
230V input	..230V output
120V input	..115V output

Telephone: 44 (0)181 770 3636

Clay Paky. The guiding light.



Clay Paky is the Pole Star in the Universe of show-lighting,

the only unmistakable reference point if you are looking for top performance and the certainty of perfect service. Clay Paky luminaires continue to change the face of show-business, with the amazing variety and creativity of the effects they produce, the accuracy of focus, the purity of the light beam and the striking precision of movement.

Through our philosophy of total quality, at Clay Paky we guarantee you the highest level of reliability and safety in all our products.

Wherever you are and whenever you call, Clay Paky is there to assist you with solid experience in professional lighting applications. Clay Paky means you can be sure of making safe, intelligent and profitable investments for the present and future of show-lighting.

Clay Paky, is your guiding light.

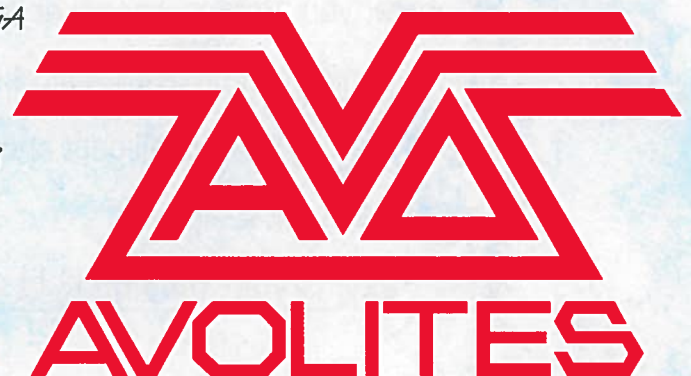
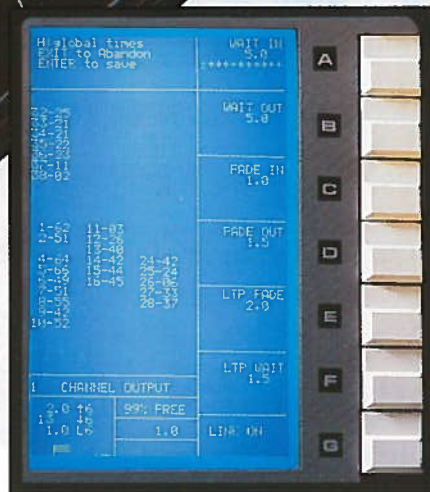


THE PEARL PURE POWER



- *SIMULTANEOUS CONTROL OF 30 INTELLIGENT INSTRUMENTS (SUPER SCANS, INTELLABEAMS, VARI*LITE 5's & 6's ETC.), 60 COLOUR CHANGERS AND FULLY LOADED DIMMER RACKS*
- *THREE DIMENSIONAL INTELLIGENT TRACKING SYSTEM FOR CONTROL OF MOVING LIGHTS*
- *15 SUB-MASTERS FOR CONTROLLING MEMORIES OR CHASES*
- *450 MEMORIES (OR CHASES)*
- *DEDICATED FOCUS (PALETTE) BUTTONS FOR POSITION, COLOUR, GOBO ETC.*
- *ANY CHANNEL MAY BE OUTPUT AS 16 BIT HIGH RESOLUTION DMX*
- *EASY PROGRAMMING, LABELLING AND ORDERING OF CUES*

- *SEPARATE ADD AND SWOP BUTTONS FOR MASTERS AND CHANNELS*
- *BUILT IN GRAPHIC SCREEN AND OPTIONAL COLOUR VGA OUTPUT*
- *STORE OR EDIT A MEMORY WITH TWO KEY PRESSES*
- *THREE CHANNEL SOUND TO LIGHT INPUT*
- *TWIN DMX OUTPUTS, DMX INPUT, MIDI PORTS, 3.5 INCH PC COMPATIBLE DISK SYSTEM*



1995 LIVE! AWARD WINNER FOR NEW LIGHTING CONSOLE

First Joint World ETF



World ETF exhibition debut: with eyes trained towards different cameras ESTA's Frank Stewart and Lori Rubinstein, PLASA's John Offord and VPLT's Rudi Braun and Florian von Hofen line up for a photocall at the recent Frankfurt Music Messe. Organised by VPLT, the three constituent member associations of the World Entertainment Technology Federation had linked exhibition stands in the foyer and between Halls 5.1 and 6.1.

Stage Accompany Raise Profile

Stage Accompany's SA Screen Series loudspeakers are proving increasingly popular in cinemas around the world.

Following the initial contract with Pathe Cinemas, installations have continued in Holland, Spain and Malaysia, with more business expected from the Asian market.

Stage Systems of Penang, Malaysia (a Stage Accompany distributor), has imported their first Cinema System. The SA brand is already well known in Malaysia, particularly in the club and karaoke sector, but is gaining popularity in the cinema market.

After his recent marriage to New Power Generation singer Mayte, Prince honeymooned in Hawaii, and took with him more than his bride. A complete Stage Accompany Performer system and SA monitor system was flown to the island for rehearsals. The system, which has already toured across Japan, will head to Australia shortly for the next leg of Prince's Gold World Tour.

Jade with the Diva

Soundtracs' Jade console has been used extensively by a number of recording artistes and producers picking up recent awards, notably Annie Lennox winning Best Female Singer at this year's Brit Awards and the Grammy for Best Female Pop Performance with 'No More I Love You's'.

The hit single from the album Medusa followed the success of Diva, and both album's were produced by Steve Lipson using the Jade console. Diva was made in a bedroom in Lennox's house, while Medusa was recorded at her home in Majorca, with additional production at Steve Lipson's Studio.

River Runs On

As part of the annual celebration of St Patrick's Day, Riverdance - The Show, a fusion of modern and traditional dance and music from Ireland, began an eight-performance run at New York's Radio City Music Hall in mid-March.

ProMix of Mount Vernon, New York has put together an impressive audio system for the production, featuring Crest Audio Professional Series amplifiers and two Crest Console FOH mixing boards. A combination of Crest 9001s, 8001s and 6001s will drive the new EAW 860 speaker system. The pair of Consoles handled FOH mixing for the show, which features a 10-piece orchestra and the Irish choir Anuna. A Crest Century Vx console acted as the master mixer, while a Century GTx sideframe, served as the slave.

Riverdance enjoyed both box office and critical success at Radio City and has already been a sensation in its native Dublin and in London, where it has returned for a six-month engagement. The producers of the show are in negotiations to bring the dance spectacular back to New York and a large Broadway theatre this autumn.

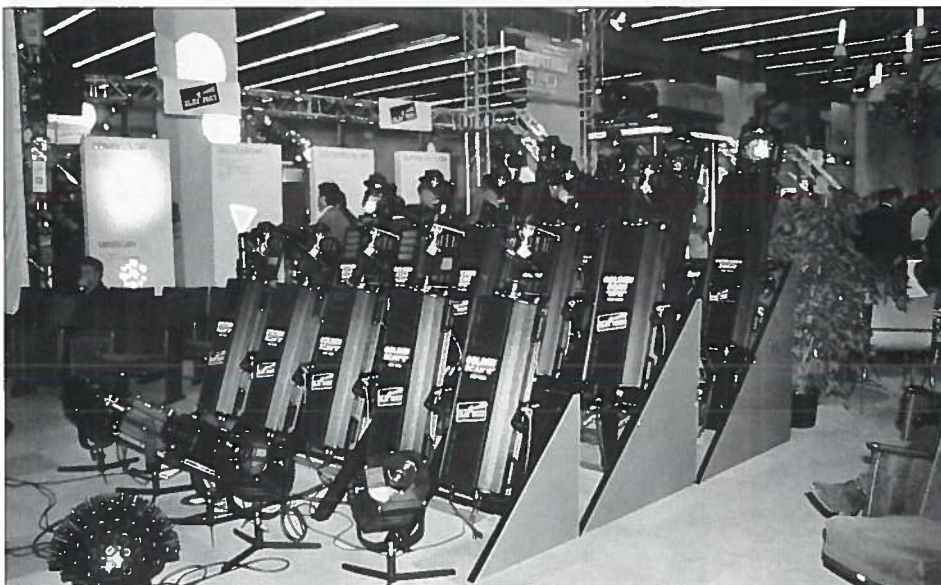


**PROFESSIONAL
ENTERTAINMENT
LIGHTING**



**TEL: 886-2-999-1906
FAX: 886-2-999-1955
TAIWAN R.O.C.**

Clay Paky's Massed Ranks at Frankfurt



Italian manufacturer Clay Paky mounted an impressive display at the recent Frankfurt Music Fair (a full round-up of audio at the show appears in our report, pages 75-81) when they lined up a battery of Golden Scans and Super Scans to create an eye-catching exhibit on the Lightpower and CP&P Germany stand which stopped many a visitor in his track. Further details on the Clay Paky product range appear in our coverage of SIB Magis in Rimini, starting on page 62.

Museum Pieces

Howard Eaton Lighting Ltd (HELL) has designed and built a number of products for the new Roman Gallery in the Museum of London.

These include fibre optic lighting for a number of mobile busts consisting of two 250W tungsten light sources and two fibre optic looms, one of which is fitted with recessed eye-ball fittings, whilst the other features a specially manufactured slim-line fibre optic stick light.

The company has also recently sold a further 10 fluorescent fittings to the Welsh National Opera as well as supplying a Soft Cue to the Victorian Arts Centre in Melbourne, Australia.

Chinese Cracker

The Yellow River Concert, the largest event of its type held in China, featured a huge array of Arx sound reinforcement products. The concert, held late last year in Guangzhou's Tianhe Stadium, commemorated the works of China's pioneering musical giant Xian Xinghai.

Cultural events in China are always of impressive proportions and this one was no exception, involving a massed choir of 15,000. A symphony orchestra of more than 500 musicians, a Chinese instrument orchestra of over 100, a stadium audience of 60,000 and, via China Central Television, a broadcast audience of an estimated two billion people in over 80 countries participated in the event.

The production crew were provided by Radio Guangzhou and Audio Production was supplied by Arx's Chinese distributor Dah Chong Hong. The System included 48 Arx 922 loudspeakers, 30 Arx 215 stage monitors, 30 Arx Maxisplit line splitters, over 90 Arx SX series power amplifiers and Arx EQ 60 equalisers.

Lightmasters Action

St Neots-based Lightmasters UK are busy working on a number of installation contracts following the opening on March 8th of the Sound Exchange in Banbury (see feature this month), where they designed and installed the extensive sound and lighting system. Current work includes a project in Rhyl with interior designers Gibson Morton Partnership; the opening of Scruples Bar will be followed a month later by a new discotheque for which it will act as a feeder.

Meanwhile, on the Isle of Wight, Lightmasters are in action at Gurnard Pines Holiday Village, where they are carrying out a large refit of the multi-purpose entertainment venue, scheduled to re-open on May 1st. The specified sound system will be based around a JBL Soundpower FOH PA and delay system, run from Crest amplification and mixed through a Spirit Live 3. The DJ system comprises Technics 1210 turntables and KAM twin CD player, with Pioneer multiple-play CD for daytime use, four Shure radio mics and Peavey stage monitors. The effects lighting will be based around instruments from Italian company FAL, who the company represent in the UK.

Lightmasters have also announced that they have set up a wholesale division under the hand of Kevan Cambridge, to represent a number of sound, lighting and video brands.

Transtech Seminar

Transtech of Holzkirchen, Bavaria, are running a joint workshop and seminar for lighting professionals at the Novotel Hotel, Hammersmith, London on April 23rd and 24th. In addition to demonstrations of the memory control systems and dimmers seen at PLASA last year, key issues will be discussed, including networking and interfacing. The programme will remain informal, allowing plenty of time for discussion. Anybody wishing to attend should contact Clive Cartey, telephone (01884) 252590.

FLY WHERE

AUSTRIA

TECHNIK DESIGN
VERTRIEBSGES m.b.H.
WALLERERSTRASSE 49 - 4605 WELS
TEL: 0043 7242 66633 FAX: 0043 7242 74690

DENMARK

ANDERSEN & CO.
STRUENSEEGADE 13-15 - DK - 2200 COPENHAGEN N
TEL: 0045 353719 40 FAX: 0045 35371838

FINLAND

BERGENT OY
KIRSTINKATU 3 - 00530 HELSINKI
TEL: 00358 0 711022 FAX: 00358 0 764174

GERMANY

(THEATER - TV)
BEO BRACKMAN EN OKX
NIJVERHEIDSLAAN 3 - 1382 LE WEESP
TEL: 0031 2940 13646 FAX: 0031 2944 13921
(DISCO)

AMCON ELECTRONIC GmbH
CYRIAKUSSTR, 28 - 4787 GESEKE
TEL: 0049 2942 3380 FAX: 0049 2942 7380

GREAT BRITAIN

STAGETEC (UK) LIMITED
407 MONTROSE ENTERPRISE CENTRE
MONTROSE AVENUE - SLOUGH SL1 4TJ
TEL: 0044 1753 567500 FAX: 0044 1753 567501

GREECE

AUDIO CONTROL S.A.
83, MEANDROU STR. - N. PHILADELPHIA 143 41
TEL: 0030 1 2184235 - 2526545 FAX: 0030 1 2517825

HONG KONG

POWERSONIC (ASIA) LIMITED
ROOM 906
DECCA INDUSTRIAL CENTRE
12 KUT SHING STREET - CHAI WAN
TEL: 00852 28988925 FAX: 00852 28894257

ISRAEL

DANOR THEATER SYSTEMS LTD
3 HAROSHET ST.
NEW INDUSTRIAL ZONE - RAMAT HASHARON
TEL: 00972 3 540 1266-7 FAX: 00972 3 5409 0757

JAPAN

GONG INTERNATIONAL CO. LTD
2/12/8, MORISHITA KOTO-KU - TOKIO
TEL: 0081 3 5600 7763 FAX: 0081 3 5600 7764

TECHNICAL SUPPLY JAPAN CO. LTD

SHIKO BLDG 4F. 2-21-9, AOBADAI
MEGURO-KU, TOKYO 153
TEL: 0081-3-37917501 FAX: 0081-3-37917656

HUNGARY

LISYS
LIGHTING SYSTEMS STUDIO
LEHEL U. 48 - H-1135 BUDAPEST
TEL: 0036 1 120 9272 - 0036 1 269 8672
FAX: 0036 1 269 8673 - 0036 1 160 2577

NETHERLANDS

BEO BRACKMAN EN OKX
NIJVERHEIDSLAAN 3 - 1382 LE WEESP
TEL: 0031 2944 13646 FAX: 0031 2944 13921

NORWAY

DTT
DT TECHNIQUE A/S - FOSSVN. 20 - 0505 OSLO
TEL: 0047 22 714050 FAX: 0041 22 717272

SWEDEN

PARASOUND AB
A COMPANY IN THE SOUND SIDE GROUP
SKANEGATAN 57 NB - S-116 37 STOCKHOLM
TEL: 0046 8 6401348 FAX: 0046 8 642 77 99

TAIWAN

PROSOUND INC.
2nd FLOOR, No.967, 4 SEC., WEN HSIN ROAD
TAICHUNG, TAIWAN, R.O.C.
TEL: 00886-4-2420138 FAX: 00886-4-2420175

RUSSIA

BAYLAND INVESTMENTS LTD.
UL. BORISOVSKYE PRUDI
HOUSE 24/2, KV. 461 - 115612 MOSCOW
TEL: 007 095 148 5455 FAX: 007 095 148 9804

SINGAPORE

O'CONNOR'S SINGAPORE PTE LTD
O'CONNOR HOUSE
98 PASIR PANJANG ROAD - SINGAPORE 0511
TEL: 0065 4737944 FAX: 0065 4724508

SPAIN

BEN-RI ELECTRONICA S.A.
CTRA. DE HUMERA 80 CH - 7
28224 POZUELO DE ALARCON
MADRID
TEL: 0034 1 3523482 FAX: 0034 1 3524106



THE DIFFERENCE LIES IN A BRIGHT NEW IDEA

CHROMA

- 24 Dichroic colors CTO/CTB provided
- Inner dimmer, avoiding RF noise on the cables
- DMX512 and 0+10V interfaces provided (2CH)
- 1000W-G22 halogen model (45x22x46 cm - 12 Kg) 7000 LUX at 6m - 2m beam size
- MSR1200 discharge model (45x22x48 cm 24 Kg) 22000 LUX at 6m - 2.7m beam size
- Rainbow and strobe (1200/D) effects
- Narrow/wide fresnel or PC optics
- Silent cooling system, with thermal switch



TRICHROMA

- RGB trichromatic color fading system
 - Up to 9.500.000 color tones
- Inner dimmer, avoiding RF noise on the cables
- DMX512 and 0+10V interfaces (2/4 CH)
- 1000W-G22 halogen model (45x22x46 cm 12.5 Kg) 6500 LUX at 6m-2m beam size
 - Automatic color fading for architecture
- MSR1200 discharge model (45x22x48 cm 24.5 Kg) 26000 LUX @ 6m-2.7 m beam size
 - Narrow/wide fresnel or PC optics
- Silent cooling system, with thermal switch

FLY

Touring Tales

Indicative of a rather false start to the year Brit Row's Mike Lowe reported the company's best ever January followed by "certainly one of our worst February's". This view seemed typical of all the major supply companies, however, after a few nervous weeks all seems restored and touring schedules are filling up. The biggest fillip from lean times, diversification, has seen the expanding music TV market infiltrated with some vigour by established touring service companies. Meteorlites, a company long associated with TV work in general, leads the way with lighting on the new 'Hotel Babylon' show, with a substantial amount of PA and control equipment coming from SSE. Snapping at their heels are LSD, who lit a major charity Telethon in Paris in February and the 'White Room', with PA again from SSE. Vari-Lite luminaires, especially the VL5B and VL6, are popping up all over the place, and Top of the Pops must have used every type of moving light in existence. A brief respite from the weather was arranged for crew from TP/CPL and The SpotCo who braved the delights of the World Cricket Cup on the Indian sub-continent.

Following the break-up of 'Take That' both CPL and LD Simon Tutchener will be looking for something to fill the gap. However, lead singer Gary Barlow has talent and will no doubt be launching a solo career in the not-too-distant future. Simon has acted quickly and is heading off to the Far East and Japan with 'Swing Out Sister'.

SSE, who have diversified their in-house flight case manufacturing department into a sales operation, have sold 16 of their cases to Entec and have also picked up the PA gig for Pulp. They have also turned their hand to set design, building, and rental and the set they provided for the recent 'Eternal' tour proved a valuable lever in securing the PA contract.

Durham Marengi took the new Classical Spectacular design into the Docklands for rehearsals in March and then to the RAH to kick off the new season. His design features a group of five trusses rising up vertically from back-stage and spreading, like a canopy, above the orchestra.

Steve Moles

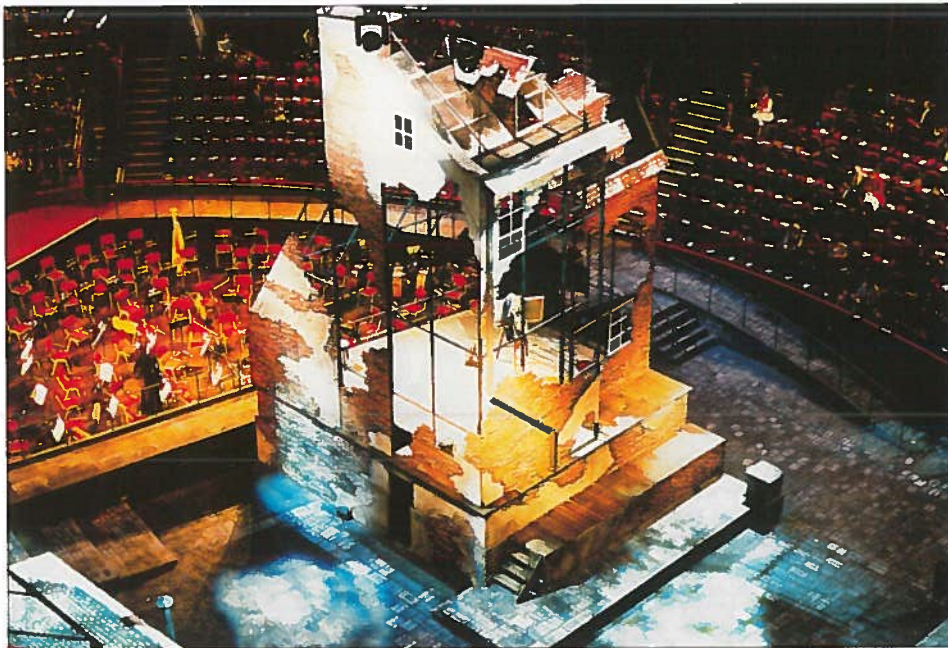
Lighting Master Class

The Broadway Lighting Master Class will run its annual four-day seminar in New York. As before, Jules Fisher is serving as the creative consultant, and leading industry professionals involved include Abe Feder, John Gleason, Gil Wechsler, Roger Morgan, Peggy Eisenhauer, Danny Franks, Wendall Harrington, Marc Weiss, Beverly Emmons, Bran Ferren, Ted Mather and Steve Cochrane.

The seminar will be held at John Jay College from October 10th to 13th. The cost is \$595, but delegates who register before June 30th will receive a \$50 discount. In addition to the seminar, there will also be representatives from a number of manufacturers demonstrating their newest products. For further details contact Kelly Sonnenfeld in New York, telephone +1 212-787-0389.

Wybron/US Lights Head West

Wybron Ltd/US Lights have moved premises. Their new address is 19 Buckingham Avenue, Slough, Berkshire, SL1 4QB, tel: (01753) 533001.



TP Across Europe

Theatre Projects recently supplied and installed innovative lighting rigs for the Ford stands at the recent Geneva and Brussels Motor shows, both designed by Imagination.

The main feature of the Geneva stand was a huge back wall featuring the Ford logo. To highlight the company's identity and draw out the intense background colour, lighting designer Steve Latham gave the wall a powerful wash, using seven 2.5kW Arri HMIs fitted with custom-made blue glass filters. In front of the wall, Ford's new range of cars was strongly downlit, using a circular ring of Par cans.

The Ford stand at Brussels, with lighting design by Mike Sobotnicki, won this year's 'Best Stand' award. The new stand offers the visitor a 'walk-through' experience of the Ford range, featuring a selection of informative displays and models en route.

TP also recently supplied lighting rigs for two high-profile musical productions - Puccini's *La Boheme* (pictured above) at the Royal Albert Hall and the touring production of Andrew Lloyd Webber's *Joseph*. Both rigs made extensive use of automated luminaires from Theatre Project's sister company Vari-Lite Europe with lighting design for the two shows handled by Andy Bridge.

Raymond Gubby's demanding, in-the-round production of *La Boheme* at the Albert Hall in February involved a relatively small, well-conceived lighting rig, offering a wide range of effects - yet the entire production was installed focused and plotted in just two-and-a-half days, by associate LD Alistair Grant, crew chief Nick Jones and the crew. The conventional lighting rig used over 100 conventional lights, mainly Par 64s, for general washes. These were supplemented by 17 ETC Source Four profiles, fitted with Rainbow colour scrollers.

Following its successful two-year national tour, the Really Useful Group's production of *Joseph* has been re-designed and adapted to tour a range of smaller theatres around the country with a shorter turn-round time between venues. This required a brand-new, compact set and lighting rig, both totally modularised.

Theatre Project's Mike Odam, associate lighting designer to Andy Bridge, worked closely on the project with Peter Marshall, Theatre Projects rental manager who co-ordinated the conventional and Vari*Lite equipment rental with Vari-Lite also extensively involved. This was a first-time collaboration in the theatre between all three companies at Fairway Drive. (Brilliant Stages created and built the new set.)



Celco Reorganise US Distribution

Celco have split their distribution arrangements in North America and appointed the fast-expanding Novatec to represent them exclusively in Canada. Group One, meanwhile, will continue to distribute Celco in the United States.

The deal was concluded at November's LDI Show, where Novatec placed a large order with the Dartford-based lighting console manufacturer, and at the end of February Celco business unit manager, Keith Dale, and technical product manager, Mike Rothon, flew to Canada to conduct a training seminar for Novatec's sales staff. They also demonstrated the Aviator EPX console to members of the television lighting department of the Canadian Broadcasting Corporation (CBC) and a group of the country's top lighting designers at CAST Lighting (originators of the WYSIWYG lighting design and programming software).

WOR **k₁** HORSE



No frills, no gimmicks, just a brilliant new professional mixer from the Soundcraft stable, that works as hard as you do.

k₁ Don't get saddled with anything less

SoundcraftTM

Call 01707-668143 for a Professional Information Pack

H A Harman International Company

AN AMERICAN CLASSIC



WHEN IT COMES TO
HIGH-PERFORMANCE SPOTLIGHTS,
THE LEGENDARY SUPER TROUPER™
HAS BEEN THE STANDARD
BY WHICH ALL OTHERS
HAVE BEEN JUDGED
FOR OVER 45 YEARS.
IT'S UNIQUELY AMERICAN.
DURABLE. RELIABLE.
UNQUESTIONING PERFORMANCE.

USED AROUND THE WORLD

AND IT IS THE SPOTLIGHT
THAT MAJOR PERFORMERS
AND TOURING ACTS
ASK FOR BY NAME.
NOW AVAILABLE...
THE NEW SUPER TROUPER II...
FROM STRONG INTERNATIONAL™.

OPEN MARCH 1996 GM PLACE
Amphitheatre
Vancouver, British Columbia



Hershey Theatre
Hershey, Pennsylvania



El Ahib Theatre
Dubai, United Arab Emirates



SUPER TROUPER

The Best on Earth

STRONG

FOR MORE INFORMATION CONTACT:

SOUTH AMERICA
ROCK & POP INTERNACIONAL
ZAPOLA 1625
(1426) CAPITAL FEDERAL
BUENOS AIRES, ARGENTINA
PHONE 54-551-1252

STRONG INTERNATIONAL
4350 MCKINLEY STREET
OMAHA, NEBRASKA 68112
PHONE 402-453-4444

FAR EAST FACTORY OFFICE
STRONG WESTREX COMPANY ASIA
ROOMS 3707-3708, 37/F, CHINA RESOURCES BLDG.
26 HARBOUR ROAD
WANCHAI, HONG KONG
PHONE 852-827-8289

EUROPE
A.C. LIGHTING LTD
UNIT 3, SPEARMAST INDUSTRIAL PARK
LANE END ROAD, SANDS
HIGH WYCOMBE, BUCKS
ENGLAND
PHONE 44-494-446000

ASIA
STRAND LIGHTING ASIA LIMITED
7/K., CORPORATION SQUARE
8 LAM LOK STREET
KOWLOON, HONG KONG
PHONE 852-757-3033

SOUTHEAST ASIA
O'CONNOR'S SINGAPORE PTE, LTD
98 PASIR PANJANG ROAD
SINGAPORE 0511
PHONE 65-473-7944

VISIT US AT OUR WEBSITE WWW.STRONGINT.COM

™1996 SUPER TROUPER AND STRONG INTERNATIONAL ARE A TRADEMARKS OF BALLANTYNE OF OMAHA, INC.™

BALLANTYNE ➔

Keep on Rocking at Rock Circus

Rock Circus, the multi-sensory rock attraction at Piccadilly Circus, is launching a new £500,000 production of the Music Revolution Show. Called the 'Story of Rock and Pop Lives', the show, set in Europe's largest revolving seated auditorium, traces the origins of rock music from its early beginnings to the multi-million pound industry of the 1980s.



Stereo hi-fi soundtracks with Sennheiser HDI 450 infra-red headphones.

Life-like animatronic figures of rock and pop legends are the centre-piece of the show. The new production brings the figures to life through state-of-the-art concert lighting, sound and special effects, including 20 screens, 700 lights and 24 speakers controlled by seven computers linked by SMPTE timecode.

The exhibition has also taken delivery of 1000 Sennheiser HDI 450 infra-red receiver headphones. Visitors wearing the Sennheiser headsets receive different dedicated soundtracks as they move from exhibition to exhibition.

People in the News

Graham Thomas has joined Cerebrum Lighting as international sales manager. Thomas, well known in the industry for his long association with trussing manufacturers Lite Structures, took up his new position on March 1st.



Graham Thomas of Cerebrum (right) pictured with Uli Petzold of LMP at the recent Frankfurt Show.

M&M has appointed **Nigel Sadler** as product manager for ETC products. Sadler, who has proved a key member of the M & M team since he joined the company in 1994, retains sales and dealership responsibility for smoke and gobo products.



Nigel Sadler.

Richard Moore has joined C Audio as international sales manager of the Cambridge-based amplifier company. Moore has been associated with JBL as regional sales manager for the past six years, and was with Toa for five years prior to that.

Steve Ramos has joined Le Maitre's sales team. He has been with the company for the past three years, working mainly in the service department, and has an in-depth knowledge of smoke machines and pyrotechnics.



Steve Ramos.

Biamp Systems, based in Portland, Oregon, have announced several staff additions and promotions. **Ron Camden**, formerly vice-president of sales has been promoted to vice-president of sales and marketing. **Louis Slamka** has joined the company as a senior design engineer, where he will concentrate on the expansion of Biamp's range of digitally controlled products. **Matt Czyzewski** has been appointed product support engineer to increase communications with industry consultants and to provide greater technical support for international distributors.

Mick Cocker joins Avolites as hire manager. His wide experience of the lighting control market and his expertise in this field will add an extra dimension to the Avolites team.

Kevan Shaw, principal of Kevan R Shaw Lighting Design, has been elected to corporate membership of the International Association of Lighting Designers (IALD).

Mar-Key Marquees Ltd are moving their warehousing and distribution centre to Lasham, near Basingstoke. With the move, the company have employed a new logistics manager, **Tom Clapham**, who will also be recruiting new staff in the Basingstoke, Reading and Oxford areas.

Total Fabrications have appointed **Peter Hind** as their structural engineer. Hind is a qualified Chartered Engineer and his responsibilities will encompass all matters relating to the structural engineering and technical side of the company.

We sell more Wireless Systems than anyone else in the World. Fact.

No one else touches us for a service and support network throughout the World. Fact.

Sennheiser Wireless. Ruling the airwaves.

Reigning all over the World

SENNHEISER

Sennheiser UK Ltd, Freepost, High Wycombe, Bucks HP12 3BR.
Tel: (01494) 551551 Fax: (01494) 551550

25 Years of Lancelyn

Lee Baldock visits Lancelyn Theatre Supplies

Oxford-based Lancelyn Theatre Supplies are this year celebrating 25 years in the lighting and theatre accessories hire and supply trade. This first quarter of a century has been, for the most part, a period of steady growth, and today the company have extensive hire and sales facilities near Oxford's city centre and a north-western branch on Merseyside, as well as their own manufacturing facility for stage accessories and a mill for producing curtains.

The man who started the company in 1971 was Scirard Lancelyn-Green, at that time a student at Oxford University, who recognised a growing demand for lighting equipment among the schools and colleges in the area. Scirard has since moved back to his home on the Wirral, heading up Lancelyn North West.

The bulk of the company's business remains in the educational arena, but today the work comes from all over the country. In addition to this, increasing amounts of conference and exhibition contracts are being taken on by the hire department, of which the supply and installation of the lighting for the Rolls Royce stand at the Paris Air Show is a recent example. While work of this nature appears to be on the increase, the sales department is still very much concentrated on the educational market. This is illustrated by the Lancelyn Catalogue, which goes out to every school in the country at the beginning of the academic year. Sales manager Richard Clarke explained: "There has been enormous change in the educational field over the last 10 years, with schools being in control of their own finances for the first time. Initially, it had a negative effect, because it made them too cautious and they didn't spend anything. Now they are enjoying the independence more and have the confidence to buy more equipment."



Some of the Lancelyn team. Pictured left to right are Erland Webb, Doug Fludd, Richard Clarke, Simon Pratley, Gordon Cooper, Tim Burt and Steve Cox.

Great importance is attached to giving helpful advice, which is an essential part of dealing with the amateur market. The staff, most of whom have solid technical theatre backgrounds, are prepared to advise schools and colleges on technical matters, something which goes a long way to developing the confidence that the amateur clients have in Lancelyn. Richard explained: "Because of their backgrounds, the staff know how to create the effects that the schools want - that is our main market. The advice approach works very well."

Another important part of the philosophy that has helped create and maintain such a wide and loyal client base is the company's willingness to service what is sometimes looked upon as 'obsolete' equipment. The company stocks an unusual range of spare parts stretching back through their history, so they are often in a position to help in ways that other companies would wish to avoid. Richard gave an example: "We went to a school where they had been told by another company that their dimmer was obsolete and needed replacing. It was only 10 years old and worked perfectly after we had given it a clean. People respond very well to that kind of service."

Allied to this is the idea that no job is too small

to be considered. Large, world-class supply and installation contracts are few and far between, and conversely, the smaller jobs - a new bulb here, a dimmer repaired there - are out there in their thousands. Richard explained this whole approach another way: "There's space underneath the bird table for the little birds to pick up the crumbs."

Having said that, Lancelyn are beginning to enter into territory usually reserved for the larger birds, with a number of exhibition contracts on the continent and a large consignment of equipment destined for a number of theatres in Kuwait. They also recently installed a lighting grid in a new gymnasium and sports complex at the headquarters of the Parachute regiment in Aldershot. All the signs are that the non-educational side of their business will continue to increase as time goes on.

On top of this, Lancelyn added another string to their bow last year. Walking through the retail shop, Richard was keen to show me the company's latest success - the Soundpack, which has been so successful that there were none left at the time of my visit. The packs, which come in five grades ranging from 'Junior' upwards, include everything needed for a small sound system. The idea is proving very popular, and the packs had evidently been snapped up quite satisfactorily.

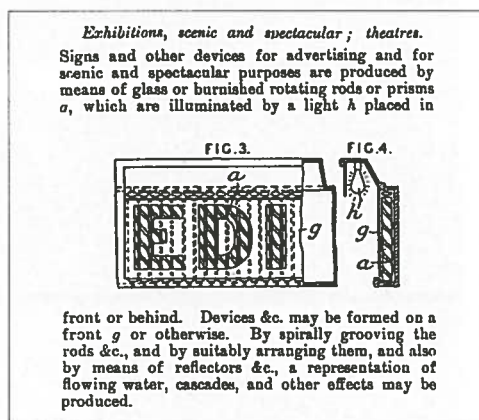
The hire department is headed by Roy Naraine, once of Donmar, who leads a very busy life, either crewing or supplying crews for the various events that his department supplies equipment for, as well as running the department from day-to-day. Roy told me: "We supply to a very wide range of clients, right across the board - professionals and amateurs, for jobs of varying size. And if the client needs a crew, we'll supply that too."

Roy regularly draws on the services of around 10 casual crew hands, but even so, the workload makes for what can often be an 18 hour day for Roy and his five permanent hire staff. It looks as though things are only going to get busier.

ONE HUNDRED YEARS AGO THIS MONTH

British Theatrical Patents 1801-1900

Intro to Patent 7511 of 1896 by F.P. Cox



With the advent of electric light it was only a matter of time before it came to be used in the advertising of theatres. The first person to do this was the famous manager John Hollingshead who set up an electric carbon arc outside the Gaiety Theatre in the Strand in about 1869. This attracted a great deal of attention but was soon withdrawn because it frightened the horses. Later, incandescent electric lamps were used to illuminate lettering, and this patent reveals the state-of-the-art in 1896. If the rotating prisms were triangular in cross-section, three different messages were available as each face was turned to view. A modern version of this idea is to be seen at the entrance to certain London underground stations.

Lightfactor Demo

The latest technology from High End Systems - the Studio Color wash luminaire - has received its first public showing in the UK at the Lightfactor sales HQ in Greenford.

The event was well attended by people from every walk of the lighting and production industry. The demonstration was run from the newly launched Light Processor QStore which attracted almost as much attention. The QStore is a device that stores and plays back DMX information. The Studio Color is now in full production and Lightfactor's first allocation of lamps have already been sold, with further stocks available from May.

Compaq Control

The Compaq stand at the Ideal Home exhibition won two major awards. The first was for the 'best stand over 100sq.ft', and the second for the 'best overall stand'. Maris Ltd were contracted by Moving Experiences to provide the show control equipment for the Compaq stand.

The shows were controlled with a combination of Stingers, the multi-tasking show controllers and a ShowBox. The three main shows and five pre-shows used a total of 10 laser disk players and a variety of other equipment involving DMX controlled lighting, revolves, an animated dinosaur, moving scenery and even a moving platform to create a show with impact.

The power behind the light



The industry standard to power all your lighting – Datapak

Lighting schemes need dimmers, sometimes many of them, controlling the environment and helping designers create atmosphere and mood. Datapaks are the ideal tool for this job.



Easy to install, reliable and cost effective, with both digital and analogue inputs. Their comprehensive specification meets the needs of all kinds of projects both large and small.

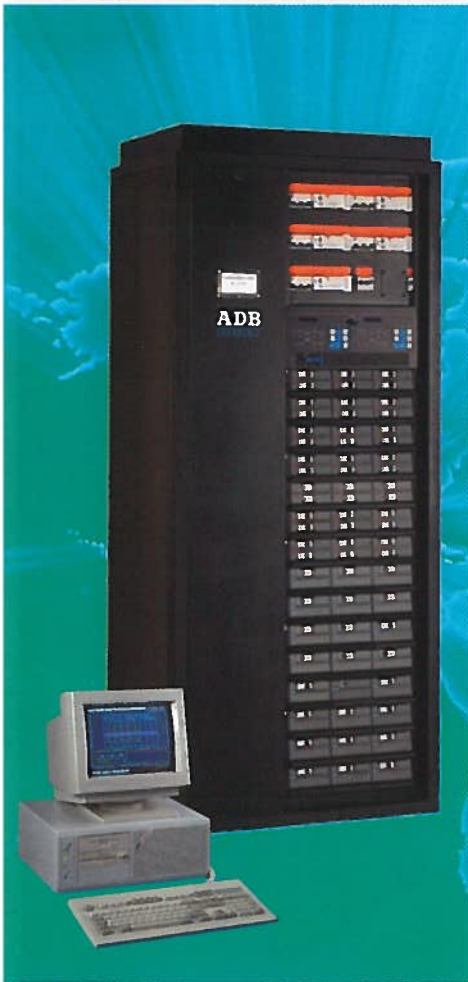
CHECK THESE FEATURES AND YOU'LL AGREE!

MULTIPLE INPUT FORMATS	Analogue 0 – 10 volt, PMX digital (RS232), DMX512
OUTPUTS FOR EVERY NEED	12 or 18 channels (5 or 10 amp) dimming and/or switching plus new 9 x 20 amp version
LOAD COMPATIBILITY	All fully inductive and/or resistive load compatible
EASY INSTALLATION	Wall mounting or 12 unit high 19" rack mounting format (483W x 533H x 150D enclosure)
EASY ACCESSIBILITY	All connections accessed via removable front panel
COMPREHENSIVE DIAGNOSTICS	Output monitor neons, fuse blown neons, digital status LEDs, input monitor LEDs, internal test switches
FULL APPROVALS	Full electrical IEC65 and EMC approvals

PULSAR LIGHT OF CAMBRIDGE LTD • Henley Road • Cambridge CB1 3EA • England • Tel: 44 (0)1223 366798 • Fax: 44 (0)1223 460708



Stage and Studio Lighting The Choice of Professionals



ADB - Your Partner for Light

Belgium	Tel : 32 / 2 / 722 17 11	Fax : 32 / 2 / 722 17 64
Deutschland	Tel : 06108 / 66 204	Fax : 06108 / 66 205
France	Tel : 1 / 41 17 48 50	Fax : 1 / 42 53 54 76
Great Britain	Tel : 01932 / 75 28 85	Fax : 01932 / 75 28 83

ADB
A Siemens Company

XTC Light up the Exhibition



XTC Event Lighting Ltd are specialists in the design, manufacture and installation of lighting systems for the exhibition, event, conference and live music industries. The company have just completed five major projects at the recent CEBIT show in Hanover, including a 1200sq.m stand for Intel (pictured above).

The company also design and manufacture distribution and dimmer systems and the new XTC DMXEYE controller, and with offices in London and Dusseldorf, they are well placed to service anywhere in Europe.

Media Conference

The emerging world of new media will be one of the topics debated at The Chartered Institute of Marketing's 1996 International Conference, taking place in London's Olympia Conference Centre on April 17th and 18th.

Michael Blakstad, executive chairman of the research company, Workhouse, will investigate how the creative use of new media can support the spread of the corporate message. Blakstad will be using his experience as a former director of programmes for TV South, as well as devising strategies for companies such as Nuclear Electric, Courtaulds, Barclays, RailTrack and United Distillers.

The session on Thursday 18th April is part of a 'breakout track' entitled: 'Employee Communications - The Pick and Mix Approach'. For details on the conference, telephone (01203) 230333.

More Martin Guerre

Following news last month that Stage Technologies has picked up the automation contract for Martin Guerre, White Light has now been awarded the lighting contract for the show which comes from the Cameron Mackintosh stable, and which will open at the Prince Edward Theatre in June.

David Hersey, who also designed the lighting for earlier Mackintosh productions *Miss Saigon* and *Les Miserables*, will again be the lighting designer. The rig for Martin Guerre includes 18 DHA Digital Light Curtains and 10 Pitching Digital Light Curtains, nearly 60 Rainbow scrollers and over 250 ETC Source Four profiles. The show also marks a number of West End lighting debuts, including the DHA Digital Beamlight, Strand Lighting's 550 control console and Martin's PAL 1200.

White Light will also be supplying the projection equipment and moving lights, working closely with Production Arts Europe Inc and Vari-Lite Europe Ltd. This project is one of many where White Light and Production Arts are collaborating. They have already installed new projection slide changers in Drury Lane for *Miss Saigon*.

The company is also enjoying brisk trade in tools for lighting designers as the software programme MacLux Pro is becoming a popular item in the stock of sales items available. Written by US lighting designer Claude Heintz, the software allows editing of the design in both the paperwork and on the plot, as well as a full range of lantern symbols and the ability to display multiple light beams in plan or section.

SOL Contact

In the February issue of L+S, we inadvertently added an extra '1' in the contact number for the organisers of the SOL exhibition. The correct telephone number for the exhibition office is (0973) 122484.

CONCEPT



SGM

SGM
NEW



VICTORY II

AUTOMATED LUMINAIRE

Two new gems have been added to SGM's wide range of scanners - the result of our lengthy experience in this field, the VICTORY scanners are a combination of smart lines, avant-garde performance, great light power and truly innovative technical ideas. 16 colours, obtained with carefully selected dichroic filters and used in 2-tone beams, adjustable speed rainbow effects and music sync.

7 gobos, of which 4 can be rotated at adjustable speed, rotating prisma at adjustable speed to obtain 3D images - adjustable strobe with a rate of up to 10 fps - 0-100% dimmer - frost lens - possibility of automatic operation and 16-bit control facility definitely give VICTORY scanners a well-deserved place among the top in their category.



COLOUR CHANGER

COLORLAB

COLORLAB 250 is part of the Victory series, and features all its quality and performance. COLORLAB is a highly versatile colourchanger suitable for any type of application and has: 16 colours obtained with carefully selected dichroic filters - 2-tone beams - adjustable speed rainbow effect - sound light - light combinations - adjustable speed strobe - 0-100% dimmer and frost lens. Can also operate automatically.

Pattizio Ccitt: 0541/969109

SGM
ELECTRONIC LIGHT

via Pio La Torre, 1 (zona art.le Pirano) 61010 TAVULLIA - Pesaro - Italy
Tel. 0721/476477 (5 linee r.a.) Fax 0721/476170

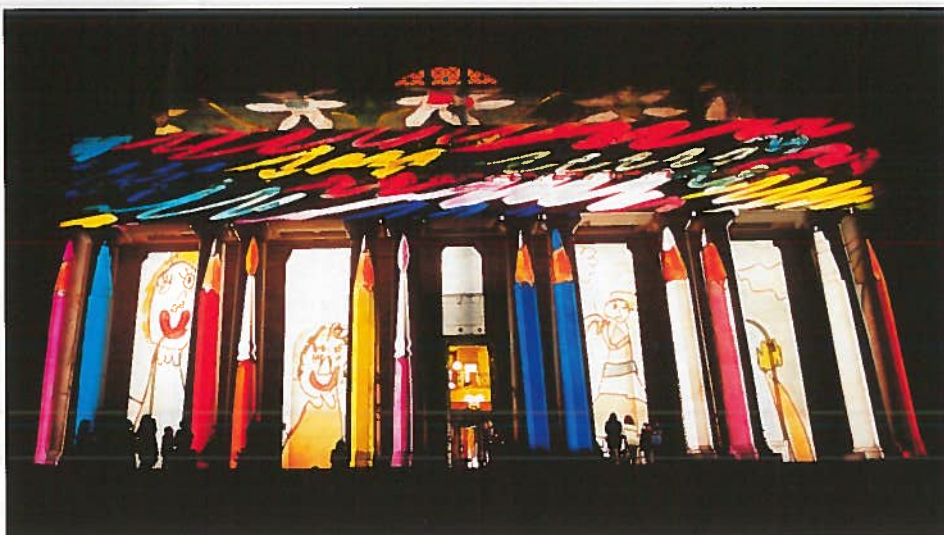
PIGI Goes to Cardiff

Cardiff residents were treated to a display of moving high power projection during early March.

In conjunction with National Gallery Week, the National Museum and Gallery of Wales in the centre of Cardiff staged a competition entitled 'Child's Eye View' in which children were asked to give their opinion of works of art owned by the gallery and to redraw them in their own way. To launch this event they decided to repaint the front of their building with projected images from the exhibition and with the theme of children's art.

ETC UK Ltd provided the projection equipment, and the images were designed by the company's Ross Ashton and produced by Pyramid Logic. Two pairs of PIGI projectors were fitted with double scrollers. Each was carrying two scrolls of images and a static framed mask effectively meaning that each projector could only project onto either the pillars or the background of the building, creating a 3D effect. Images of the drawings of the children were scrolled behind the pillars whilst the pillars themselves changed form from a pencil, to a crayon, to a paintbrush and back again to a pencil.

The entire concept was conceived, designed,



commissioned, produced, programmed and installed in just 14 days. "We were stretched to the limit," Esther Kooistra, ETC project co-ordinator told L+S. "But we proved to ourselves that we can work well under extreme pressure. However, I would not like to make a habit of it!" The final result

was a 'glowing mammoth fantasy of art and artists tools' that lasted for seven minutes. The show was fully automated and repeated every seven minutes from early evening until midnight during the week.

ETC held a demonstration of their PIGI system in early April at their offices in Hounslow.

In-Ear on Tour

Female vocalists in the headlines on both sides of the Atlantic are buying Garwood in-ear monitoring systems in preparation for tours this summer.

Multiple Grammy winner, Alanis Morissette, has become an in-ear monitoring convert, as has new star Joan Osbourne. The more established kd Lang is another Garwood customer and is presently beginning her European tour, whilst Mariah Carey has just purchased Garwood Radio Stations for her forthcoming tour, as has British singer Kiki Dee.

Navigator Interactive



Pictured on the LMP stand at Frankfurt (see report this issue) with Celco's Colin Whittaker is Alain Suard of Swiss distributors Spectra Light, who are on the verge of purchasing a second Navigator EPX on behalf of Swiss promotional company, Todaro. Todaro recently put together the complete rig for a Marlboro roadshow to tour Russia, incorporating interactive CDs, which hits the road in May. They plan to run two systems in parallel, hence the need for a second desk and a Celco Video Controller.

Toad in the Hole

One of London's leading nightclubs, The Frog and Nightgown, recently underwent an 'interior face-lift' involving the installation of a new dance floor and a total sound system upgrade to Martin Audio's ICT full range loudspeakers.

The installation, carried out by Soundforce, consists of four ICT300 loudspeakers which feature twin driver ICT technology, as well as three Ecler PAM 1400 amplifiers and an ICT control system.

Mac Chess Challenge

Mac Sound have won the contract to supply the complete sound system, together with all engineering services, production and operational staffing, for the tour of Chess, which opened at the Orchard Theatre, Dartford in March.

Sound designer Clem Rawling has specified a speaker system combining for the first time Meyer MSL2s and Martin Wavefronts to cater to the extensive range of music required by the production. An 80-channel Midas XL200 console with a single master control section will be used by the Mac for the first time on the 40 week tour.

Fast Food in Kuwait

Dominating the skyline of Kuwait City is the Liberation Tower, the antenna tower of the country's new telecommunications centre. Almost half-way up the tower, at 150 metres, is a revolving restaurant, the platform for which was designed, manufactured and installed by Glantre.

Constructed around the central tower, it has a diameter of 19.8m and weighs 47,000kg. It is fabricated from a series of radial frames connected by steel angle cross members, with drive and support wheel main beams. Supported by two railway-type rails, the platform has 36-inner and 24-outer support rollers, with 18 drive motor assemblies on the outer track. The restaurant has the option of either one revolution or half a revolution per hour.

Glantre is also involved in a second project in Kuwait, at the Al Sha'ab Leisure Park Plaza. This features a shopping mall, electronic games centre, food court, a multi-purpose hall, a five-star restaurant and a 524-seat theatre. Full cinema facilities are also provided, including two 35mm 1600W Xenon projectors and film sound rack with Dolby processor, amplifiers and monitor panel.

Nexo Earns its Stripes

Loudspeaker manufacturer Nexo is enjoying a busy start to 1996. Norwegian distributors, Professional Sound System AS has installed a Nexo sound system in Oslo's Zebra Club. The system comprises a number of PS15, L Sub 1000 enclosures, plus system controllers and is matched with Crown MA-5000VZ amps.

EML, Nexo's distributor in Belgium, has supplied two rental companies with sound equipment for tours. Stage Unit, based in Putte, added 18 PS15 and six LX1000 enclosures, together with six PS15 TD controllers to their front of house rig, for the Urbanus and Stef Bus tour.

VDB, from Aalst, purchased eight PS15 and four PS15 TD controllers to update their stage monitoring system. This set up to be used with the tour of Alternative Circuit and Deus.

Big Rig for Mega Disco

The 10,000 capacity KK Super Disco, which opened recently in Taipei, Taiwan, has been equipped with an equally enormous 55,000W Adamson sound rig, comprising 32 individual loudspeaker cabinets which are about to be joined by a further 32. Adamson's president, Brook Adamson said at the Frankfurt show: "Financially there was no limit and they built the place up from the ground as a disco at a cost of around US\$10,000,000.

"There are in the region of 1,000 Par cans in the venue, the walls are all double brick with about eight inches in between each layer and it is completely out of proportion to any other disco you'll see around the world.

"They originally built a very strange sculptural PA system which was a clone of the giant Community speaker. A mad Chinese welder built it in metal and painted it orange. Apparently it sounded a little rough, so they went for a new rig. The place is all welded steel construction and there are six unbelievably large curved trusses that go from the ground on one side of the stage, all the way across to the ground on the other side with a 30 metre distance between the two ends at the base level."

A Site for Sore Eyes....



<http://www.totalfabs.com>

TOTAL
FABRICATIONS

U.K. Office:
Units 3-4, Kingston Industrial Estate,
81-86 Glover Street, Birmingham, B9 4EN, England.
Tel: +44 (0121) 772 5234 Fax: +44 (0121) 772 5231

U.S.A. Office
1696 Walter Street, Ventura, CA 93003, U.S.A.
Tel: +1 (805) 676 3322 Fax: +1 (805) 676 1616


VERLINDE
Official Distributors

e-mail: info@totalfabs.com
Internet Address: <http://www.totalfabs.com>

ON TOUR

by STEVE MOLES

AND PRODUCTION NEWS

Tori Amos

Hull City Hall

LD: Simon Sidi

SD: Mark Hawley

If you've never heard it before, the music of Tori Amos is distinctly unfriendly on first appraisal. Complex in structure, swooping lyrically from the poignant to downright brutal, her's are certainly not the kind of songs that invite the listener to tap their toes. On first examination, they lack any familiar marker - an accessible melody, for instance, is not there for those seeking instant gratification. Fortunately, like making a new acquaintance, you may not immediately like what you hear, but there's something there that's intriguing and warrants perseverance: which is why I went to see this show twice before covering it in these pages.

SOUND

Sound engineer Mark Hawley and his accomplice on monitors, Marcel van Limbeek, both worked for Tori on her last tour. Over 14 months spent together developing her live sound proved a fruitful relationship and, in a slightly unconventional move, Tori invited the two men to build her own studio in a church (she was less than comfortable in commercial premises) and then to engineer her follow-up album 'Boys for Pele'.

The experience has proved both an asset and a poisoned chalice for them in terms of their return to live work. It's just weeks since the album was finished and with its personality still fresh in their minds, going from a controlled, if somewhat contrived, sound environment to concert halls is a challenge to say the least. Hawley has taken a purist approach but it appears to be the right one.

The piano and harpsichord are both lid up, open mic'd, with two big fat Neumann U87s in the piano and a pair of AKG 414s for the harpsichord, and therein lies his dilemma. The music demands such pick-ups, every timbre of her Bosendorfer is integral to the music. But - and it's a big 'but' - her vocals and the monitoring level she is comfortable with on stage, means that both sources are easily captured by the mics. (On a technical note, Tori is using SSE's new 12" profile monitor wedges, a wedge custom-built for vocal range.)

"She plays piano amazingly," Hawley explains, "and it should sound that way in the auditorium. That's the challenge." What he would ideally like is to have the Neumanns well outside the mouth of the piano, where the sound has really formed, but this is obviously not possible, thus the gain necessary to bring out these characteristics only contributes to the vocal cross-talk problem. Similarly, with her vocals, even her sharp intakes of breath are intended to be present in the mix, implicit to the emotion she conveys.

Like a classical piano concerto the composer had one intention when it was written, now perhaps centuries later you might hear half a dozen concert pianists interpret the original in six entirely different ways. Of course, what Tori is playing today is the original and thus both Hawley



A purist approach for Tori Amos.

"Similarly, with her vocals, even her sharp intakes of breath are intended to be present in the mix, implicit to the emotion she conveys."

and van Limbeek, having been there at the birth as it were, feel duty bound to reproduce it as faithfully as possible. (Whether her songs go on to become classics re-interpreted by others in the future remains to be seen, but the potential's certainly there.)

Hawley is using an Electro-Voice system supplied by SSE running from a Midas XL3. Despite being far and away his preferred desk it does present one problem for him: "I wish it had line inputs. To prevent signal loss down the multi (essential to pull out those extremities) I put all the sends from stage through Focusrite pre-amps to get them to line level.

"The signal then goes through a BSS splitter which sends it three ways: to Marcel, the D88s we record each show on, and myself," a signal which he then has to cut back down at the desk with the pad to use. Ever a compromise, Hawley seems to achieve his stated goal. On 'Blood Roses', for example, Tori Amos suddenly and with great passion, attacks the piano and, listening to the mix, it sounded like we could have had our heads inside the thing.

There are times when she screams the odd line and they can clearly be heard buzzing round the strings, but then if we threw away all the electronics that's what we'd hear anyway.

LIGHTING

It's second tour around for designer Simon Sidi as well. Fortunately, he's had a break in between, refreshing himself with designs and tours for The Stone Roses and Beautiful South. Equipment-wise he has been extremely generous to himself for this tour, four six-lamp bars, four pairs of Washlights

and Icons on four pantographs in the trusses, and three pairs of the same combination on the floor. This is a huge rig compared to the solitary six Icons he took out last time.

LSD are not only lighting suppliers, but are also responsible for the pantograph systems which have motorised ascend/descend functions and which also track across stage, courtesy of a manual tab track run to timed cues by crew men Danny Boking and Matthew Jensen. A more startling departure from the last design is the addition of projection, a colluded idea between Sidi and Tori.

Not content with convention, Sidi has made the projection a challenge for himself and system suppliers PSL. The screen is an irregular triangle making masking difficult (masking is not a function available on the Barco 8100 projectors being used) and the images he's selected are ones he found surfing the Internet, and subsequently modified using Power Point on his Mac computer.

To complicate matters further, Sidi then added clips from some of Tori's existing videos, took the whole lot to CineSite in Soho and digitised and modified them all on a Flame machine (making most into 10 minute loops) and then re-converted them onto conventional tape. "Paddy Collier at PSL did an amazing job," said Simon. "He beat that 'it can't be done' syndrome, and he also conceived the simple roadworthy PC-based control system that, through manipulation of the chroma-key function of Power Point, neatly solves the masking problem."

The images are presented as effect rather than eye-food, in the same way you might use a gobo: swirling images of shoaling herring or gently lapping water add an atmosphere, rather than impose a presence. Sidi's approach to lighting too is coloured by atmosphere rather than imagery. With only a solitary performer (though there is an occasional guitarist) and the two instruments to light, he works the spaces and angles, variously lighting from on high, only from the floor, or with pantographs lowered and all clustered to one side of the stage.

The claustrophobic 'Amsterdam' with the straining whine of distant slide guitar weaving in and out is fenced in by rotating shafts of mauve Icon beam at a shallow angle. The light and cheerful 'Cornflake Girl' is given space and air with a combination of sunny yellow from the Washlights and bright mid-blues from the Icons paired on the floor. One of Sidi's most striking, and yet simply executed, ideas is for the show opening when he has two star cloths lit, one back and one mid-stage, adding an unusual dimension of depth. The mid-stage cloth is reversed towards the audience, the maze of wiring picked out by strong UV lighting gives the appearance of constellations drawn in as they are in old maps of the night sky.

It's a show that requires some intellectual commitment from the punter, and not always a show that's comfortable and cosy. On my second visit, Tori performed her own interpretation of Kurt Cobain's 'Teen Spirit'. A more tortured, chilling version I could not imagine. She painfully tore out the lyrics like slowly ripping flesh. It was a tribute to Mark Hawley's craft - but most especially to Tori's delivery - that this was so tellingly conveyed.

Eternal

Sheffield City Hall

LD: Roger Serle

SD: Andy May

Eternal are a well known pop group; in the truest sense of the word 'pop', their mandate lies in the realms of singles sales and a largely sub-teen fan base. Taking such a band into the realms of live performance can be a risk; how will they fare out of the studio, be it TV or recording, is the leading question. There's no doubting their ability to perform - slick, well choreographed routines on Top of the Pops bear witness to this - but can they sustain these standards for over an hour? A packed house of excited young girls certainly hoped they could. Pre-show, the normally reserved librarian atmosphere of the Sheffield City Hall was a buzz of screech and chatter.

SET/LIGHTING

Tour manager Roger Serle, not averse to pushing a few lighting faders himself, took the chance to design the stage set before some monster was imposed upon him. "The first sketches were literally done on the back of the proverbial fag packet while we were doing TOTP. My main concern at the time was to design a stage that would create a good platform for the girls and the band. The set also needed a quick-change room as the circuit we would be doing (theatres and town halls) meant that often there would be no convenient room close to stage for this purpose. The centre platform being 16' high and 8' square was essential for the space it created beneath it."

In a relatively new venture for the company (begun last October), SSE are providing the set, largely based upon modular decks that are part of their new rental stock. Made with Top-deck extrusion the 8 x 4 and 4 x 4 platforms sit atop standard 2" scaff pipe legs and all sections are interlocked by a simple clamping system for stability.

The set is multi-layered; the two percussion platforms to each side of stage sit half on, half off the base level and can thus slide on and off stage giving the overall width flexibility Serle was seeking. The fact that he has also been a lighting designer in the past may explain why he chose to adorn the set with vertical sails of white filled cloth, a neat break-up to the grey set and a great target area for Peter Barnes' lighting rig, which uses a mix of gear from Meteorlites and Vari-Lite Europe.



Eternal at Sheffield City Hall.

A simple 40 x 30 box with 30 Pars on the front and rear-most chords has two horns extending just five feet either side downstage for audience lights. The up-stage end of the box has a 'V' of Mini-beam super-imposed with a mix of VL5s and VL6s spaced along it, whilst the rear and sides are dressed with a full black star cloth and a small scenic gauze straddles the centre portion to give some depth to gobo projection on the rear. It's a simple rig with some fairly obvious functions to fulfil. "There is a need for a lot of movement," said Barnes. "Sometimes, it has quite a discotheque feel, but I have to be careful not to overdo it. I once saw a Vegas dance revue where the lights never stopped panning and tilting for the whole 90 minutes. It got tiring. As a result, I occasionally leave a look static for a whole song so I can then give a big lift to the following one."

Renowned for his use of primaries, Peter Barnes' lighting design is strong on colour and, true to his word, movement is limited to the necessary, rather than the gratuitous. The stage and set are lit for effect with wash on the band and backing vocalists teased in from the Pars, the backdrop is almost constantly coloured for sharp relief. It's the kind of show that makes you think - this would look great on TV - it's slick, neat and leaves a strong image on the eye.

SOUND

Sound, like set, falls to the services of SSE. Freelance sound engineer Andy May (also to be found twiddling the knobs for Dina Carroll) has a system largely composed of MT2 cabinets. "I did try using an array of mainly MT4 cabs to start with, but they were just too 'in your face' for this group." Not wishing to pin 12-year old girls to the back wall seems prudent reasoning, but it hasn't

stopped Andy from tomenting a running gag about the thick heavy bass sound he gets from the system. Mixing from a Yamaha PM4000, he has 13 channels of drums and 12 of percussion to deal with, but just one of bass and that from a keyboard.

It's a situation that makes for a certain vulnerability, as was evidenced a few days earlier when the keyboard crashed: "It completely destroyed the show," said Andy. "There's nothing there to take its place." That aside, Andy has one other main problem to deal with. The set design usually forces a stage

extension at the front, placing the girls and their radio mics largely downstage of the PA stacks. To exacerbate this, monitor man Mike 'Bunny' Warren has a pair of side fills and 16 Beta wedges dotted around stage for a band of just five, plus three backing vocalists, making for a raucous stage level at best and certainly a bit hefty when you learn the girls are all using In-Ear systems.

For much of the time the audience was singing along at the top of their voices in that pre-pubescent higher register, so it was difficult to know what was going on up the top end. What sounded earlier on like a nice fat thick Motown rhythm band at a loud but comfortable level, was, by the show's end, lost as the ear became desensitised by the screaming.

One final and important note on the sound. The girls, Easter, Kellie and Vernie, wanted to play the live role to the hilt. There are no sequencers, no click tracks and no tapes in this show - what you see is what you get. An honourable sentiment by Eternal: Easter in particular has a sterling voice full of character and nuance, the other two could probably do with some breathing and projection tuition, but hopefully this is what they wished to learn from taking the live route.

In the end this was a very neat, slick show and not just in terms of presentation. As production manager Chris Vaughan said: "Start at eight, up and running by 12 o' clock. Not bad for a two truck production?" Probably seems like a holiday to him after 27 trucks on the last Take That outing.

STEVE MOLES ALSO WRITES FOR L+S'S
SISTER PUBLICATION
SOUND+COMMUNICATION SYSTEMS
INTERNATIONAL. IF YOU WOULD LIKE TO
RECEIVE A SAMPLE COPY CALL (01323) 642639


GUARANTEED
ColorExpress™
GELSTRINGS from WYBRON
Acton Business Centre, UNIT G04, School Road, Park Royal, London NW10 6TD
TEL: 0181-838 2254 • FAX: 0181-838 2253

mittel
gobo range
NEW CATALOGUE NOW AVAILABLE
AGENTS REQUIRED WORLDWIDE
RB Lighting Ltd
RB Lighting Ltd • Unit 10 • Teddlington Business Park
Station Road • Teddlington • Middlesex TW11 9BQ
Tel 0044(0) 181 977 9665 • Fax 0044(0) 181 977 5687

CATALOGUE COLLECTION

To obtain the latest catalogues and product literature from any of the companies advertising on these pages simply post or fax the slip, indicating your choice(s) by ticking the relevant numbers.

1



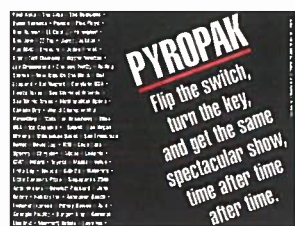
Pulsar Light of Cambridge Ltd
Contact: Derrick Saunders
Tel: (01223) 66798
Fax: (01223) 460708

2




Light 'em Up!
PHOEBUS MANUFACTURING
2800 THIRD STREET, SAN FRANCISCO, CA 94107
Tel: 415-550 1177 • Fax: 415-550 2655

3




Pyropack Precision Pyrotechnic Products - the largest worldwide dealer network for sales and tour support services
LUNA TECH
Tel: (49) 4353 643
Fax: (49) 4353 1014

4



DHA MOVING EFFECTS HANDBOOK
DHA Lighting Ltd
258-260 Watlington Road
London SE14 3BQ
Tel: 0171 771 2900
Fax: 0171 771 2901

5




SGM PROFESSIONAL LIGHTING EQUIPMENT
Strada Romagna 307
Tel: 0721 476477
Fax: 0721 476170

6



THE TOTAL PACKAGE
Lighting, Sound and Rigging
Glantre Engineering
Tel: (01734) 64 00 00

7



RCF's new Professional Sound System Catalogue, featuring the complete range of RCF Loudspeaker Systems. Monitor Series - Espace - Process Control & Power Amps.
RCF (UK) Ltd, 2 Blenheim Court, Hurricane Way, Wickford Business Park, Wickford, SS11 8YT.
Tel: (01268) 570808 • Fax: (01268) 570809

8

XTBA for DMX512

XTBA supplies DMX512, encoders, decoders, soft patches, splitters, merge units, DMX testers, FX controllers, dimmers, control systems and all things DMX512
Tel: 0171-700 0996
Fax: 0171-609 8281

9



Lighting Technology
Theatre & Studio Lighting Catalogue
Studio, Theatre and Club Catalogue, lamps, lighting, special effects.
Tel: 0181-965 6800
Fax: 0181-965 0950

10



The Rainbow Colour Changer Range
The comprehensive range of Colour Changers from Rainbow.
M&M 0171 284 2504

11




BRINGING THE BEST OF AMERICA TO EUROPE
Tel: 01753 533001
Fax: 01753 533005

12



DeSisti Lighting (UK) Ltd
All your needs in TV, Films & Video Lighting, supplied by
Tel: (01842) 752909
Fax: (01842) 753746

13



ETC EUROPE
Product Catalogue
Innovative Lighting Systems
A complete range of lighting control products and low energy luminaires
Tel: 0181-896 1000
Fax: 0181-896 2000

14



Rubber Box Co.
Rubber Box Co specialises in lighting distribution boxes. Made from rubber, they are double insulated and designed for outdoor usage to IP57
Tel/Fax 01282 830965

15

1985
PROFESSIONAL AUDIO RANGE
HW
INTERNATIONAL

Covering all the existing product ranges from Shure, Pro Acoustics, 3G, Ultimate Support, QSC and HW, our latest catalogue also includes technical specifications.
Tel: 0181-808 2222
Fax: 0181-808 5599

16

LINK
All you need for audio + video professional installations.
Tel: +39 6 4072831
Fax: +39 6 4073138

17

Lighting Program
Photo Optics
'94/95

OSRAM

OSRAM'S latest Photo-Optic Catalogue includes technical information on their full range of HMI[®], HTI[®], and HSR[®] lamps.
Tel: 0181-904 4321
Fax: 0181-904 1178

18

For more details of the Selecon Acclaim range of luminaires
Contact: **Graham Fathers**
Selecon UK
Tel: 01428 714015

19

DIVERSITRONICS, INC.
Award winning DMX strobes with HYPERFLASH™ now available from A.C. Lighting Ltd
Tel: (UK) 01494 464000
(Int.) 44 1494 446000

20

PRODUCTION ARTS
USER'S GUIDE
for
LARGE-FORMAT
PROJECTION
SYSTEMS
1996 Edition

This newly edited edition contains the latest in application tips from projection experts worldwide. Includes detailed applications information on the complete PANI projection system with computerized automation, as well as the PIGI system from E/T/C Audiovisual.
Tel: +44 (0) 181 896-1777
Fax: +44 (0) 181 896-1888

21

LODESTAR MOTORS
Lodestar Chain Motors
PCM
(A division of Pfaff Silverblue Limited)
UK agents for Columbus McKinnon USA
Tel: 0151-609 0101
Fax: 0151-609 0200

22

STAGE TECHNOLOGIES
Specialists in automation and control systems for theatre and leisure venues.
Tel: 0171-354 8800 Fax: 0171-359 1730

23

PA INSTALLATIONS
Leading by example in the design, supply and installation of sound, lighting and audio-visual equipment to the leisure industry, from conception to realisation.
Tel: 01554 752490 • Fax: 01554 777848

24

A budget 650 watt colour changer from Rainbow
Contact: **M&M**
Telephone: (44) 0171 284 2504
Fax: (44) 0171 284 2503

25

UNITED KINGDOM DISTRIBUTORS
Trade Suppliers of Professional Sound, Lighting and Special Effects Equipment
Tel: (01926) 314878
Fax: (01926) 883120
Mobile: (0860) 544934

26

PLAYLIGHT, FREEPOST MR9555,
Manchester M16 8HB
Tel: (+44) 0161-226 5858
Fax: (+44) 0161-232 9510

27

JYG Product Guide
Confidential Trade Price List Winter 1995

Tel: 01708 741613 Fax: 01708 741579

28

CM LODESTAR MOTORS
The Columbus McKinnon Lodestar motors brochure gives the entertainment industry a backstage look at the quality, durability and flexibility CM Lodestar chain motors offer. From lifting sets and backdrops to flying light grids and sound equipment, CM Lodestar chain motors adapt to countless staging environments.
Contact:
CM Theatrical Products Division, USA
Tel: 716 696 3212
Fax: 716695 0122

29

LASER SCIENCE
"Breathing new life into laser lighting technology"
Nu-Light Systems Ltd
Tel: 01925 243075
Fax: 01925 243077

30

THE ALISCAFF CONNECTION
Primary manufacturers and suppliers world wide of aluminium couplers (scaff clamps), aluminium snap hooks and many other aluminium fittings to suit both 2" (50.8mm) and 1 1/2" (48.4mm) tubes.
Stockist of pressed steel and drop forged scaffold fittings, aluminium scaffold tube, pipeclamps and couplers for all sizes of tube.
UNIT 2 HOTSPUR IND EST., WEST ROAD, TOTTENHAM, LONDON N17 0XJ
TEL: 0181 808 5005 FAX: 0181 801 9851

31



rosco
PRODUCTS FOR PRODUCTION

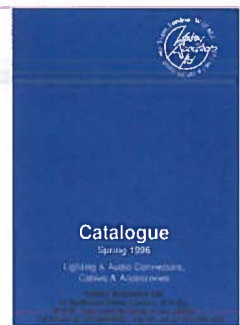
For all Rosco product catalogues and more detailed data sheets:
Tel: 0181 659 2300
Fax: 0181 659 3153

32



MA SCANCOMMANDER
The Scancommander from MA is one of a complete range of lighting control systems call M&M 0171 284 2504


33



Catalogue
Spring 1996
Lighting & Audio Commission, Culture & Accession

For all your audio and lighting cable, connector and custom wiring requirements contact Richard Vickers or Sean Downey
Tel: 0181-964 8000
Fax: 0181-964 1010

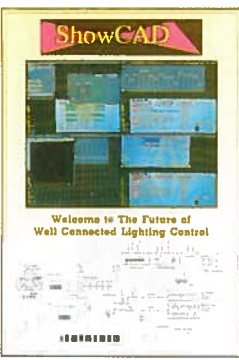
34



THEATRE BLACK PRODUCTS
BRIDON LIFTING SYSTEMS
THE COMPLETE RIGGING COMPANY

Sales, Hire, Design, Installation, Training
Tel: 01744 20921
Fax: 01744 24059

35



ShowCAD
Axon Digital Design Ltd
Tel: +44 (0) 1929 423222
Fax: +44 (0) 1929 427232

36



THE CATALOGUE 92/93
MIDNIGHT DESIGN

The Midnight Design 150-page sales catalogue contains updated information on lighting products, special effects, and consumables.
Tel: 0171-498 7272
Fax: 0171-498 8845

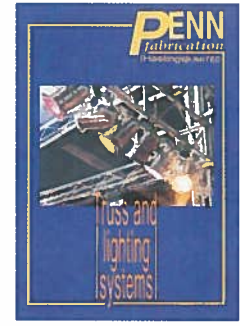
37



STAGE ELECTRICS
1996 CATALOGUE

The 160-page Stage Electrics Hire Catalogue with detailed information on lighting, sound, A.V., rigging and mains distribution systems.
Tel: (0117) 982 7282
Fax: (0117) 982 2180

38



PENN fabrication
Truss and lighting systems

Penn Fabrication's new comprehensive trussing and lighting catalogue is now available.
Tel: +44 (0) 1424 718576
Fax: +44 (0) 1424 718572

39



Martin pro
MARTIN PROFESSIONAL NEWS
Product Guide Enclosed

Martin Professional A/S,
Nordlandsvej 114, DK-8240
Risskov, Denmark
Tel: +45 86 21 44 11
Fax: +45 86 21 50 01

40

TRIPLE E
TRACKS AND AUTOMATION

Our comprehensive range for both sales and hire is featured in the new **TRIPLE E** catalogue now available.



Triple E

B3 Tower Bridge
Business Complex
Clements Road
London SE16 4EF.
Tel: 0171-237 6354
Fax: 0171-237 7650

41

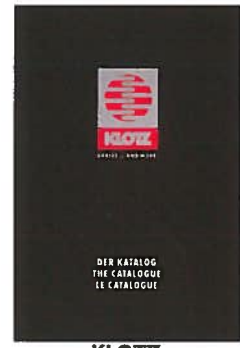


FORCE
By Wharfedale

Professional needs are met with the FORCE range by Wharfedale, featuring high power handling in compact models coupled with compatible sub-bass units. Adaptable for discotheque, theatre small band PA keyboard and organ uses

Contact:
Adam Hall Ltd
Tel: 01702 613922 • Fax: 01702 617168

42



KLOTZ
DER KATALOG
THE CATALOGUE
LE CATALOGUE

Professional audio cables pre-made leads and multi-core systems

Contact:
Adam Hall Ltd
Tel: 01702 613922 • Fax: 01702 617168

43



Thomas
PRODUCT RANGE 95/96

Tel: 01386 553002
Fax: 01386 552321

44

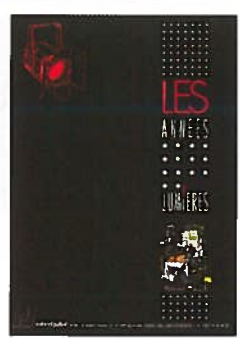


RADAV
THEATRE SERVICES LTD
Nice people to talk to

THE BIGGER BOOK
1996

HIRE and SALES
From AKG to ZERO 88
Tel: 0181-886 1300
Fax: 0181-882 2865

45

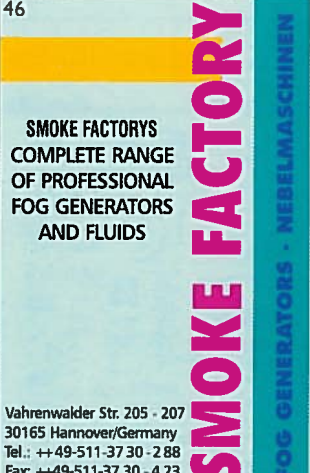


LES ANNEES LUMIERES

Robert Juliat Catalogue 1995

Full details on the new range of HMI and tungsten profiles, HMI followspots, HMI digital dimming shutters and other theatre luminaires
Contact: Tom Mannings of Decoupe Ltd
Tel: 0181-505 8522 Fax: 0181-504 4755

46



SMOKE FACTORY
COMPLETE RANGE OF PROFESSIONAL FOG GENERATORS AND FLUIDS

Vahrenwalder Str. 205 - 207
30165 Hannover/Germany
Tel.: ++49-511-37 30 - 2 88
Fax: ++49-511-37 30 - 4 23

SMOKE FACTORY
FOG GENERATORS - NEBELMASCHINEN



**SOUND
DEPT.**

CATALOGUE

Importers and Distributors of Pro
Audio & Commercial Sound Equipment
including Ashly, Astatic, Biamp, Carver,
Community & Sound Advance Systems
Tel: (01235) 555622
Fax: (01235) 536654



ALTMAN

Ellipsoidals

For Free Brochure:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304



ALTMAN

Borderlights

For Free Brochure:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304



ALTMAN

Fresnels

For Free Brochure:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304

OPTIKINETICS



OPTIKINETICS LIMITED
Head Office: 34 Chesham Road, Uxbridge, Middlesex, England
Telephone: 01895 411413 Facsimile: 01895 406642
North American Office: 20000 Rockwell Road, Rockville, MD 20850, USA
Post Box 300 375 0741 0741 Fax: 01895 406642

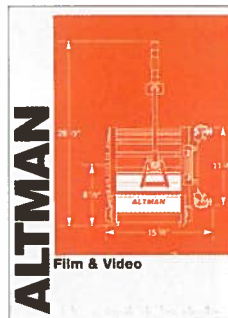
Tel: 01582 411413 • Fax: 01582 400613



ALTMAN

Open Face Units

For Free Brochure:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304



ALTMAN

Film & Video

For Free Brochure:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304



ALTMAN

Follow Spots

For Free Brochure:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304



LEE Filters

GOBO PATTERN SELECTOR

The Lee Filters Gobo Pattern Selector
features more than 200 gobo styles - many
of them new - in industry standard sizes.
Tel: (01264) 366245
Fax: (01264) 355058



ALTMAN
THE QUALITY OF LIGHT
1995
MINI CATALOG

For Free Mini Catalog:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304



SHAKESPEARE SERIES
600

ALTMAN
THE QUALITY OF LIGHT

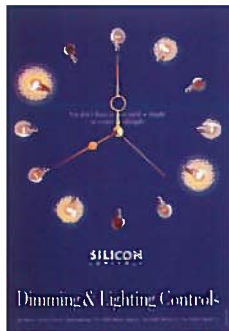
For Free Brochure:
ALTMAN STAGE LIGHTING CO. INC.
57 ALEXANDER ST., YONKERS,
N.Y. 10701
Tel: 914 476 7987
Fax: 914 963 7304

ALTMAN STAGE LIGHTING CO. INC. now offer a new Mini Catalog
along with seven tri-fold
brochures as supplements
to our main catalog.
AS FEATURED ON THIS PAGE

The tri-folds contain descriptions
and pertinent data on our
Ellipsoidals, Shakespeare
Ellipsoidals, Follow Spots,
Borderlights, Fresnels, Film and
Video Fresnels & Open Face Units.

The Mini Catalog has
information on our complete line
of products including
accessories, hangers and
attachments, distribution and a
large informative glossary.

**TO RECEIVE ALL ALTMAN
PRODUCT INFO TICK BOX 70**



SILICOR

Dimming & Lighting Controls

High quality dimmers and
lighting controls since 1979.
New range for
architectural applications.

Fax: (Belgium) 32,93,86,83,71.

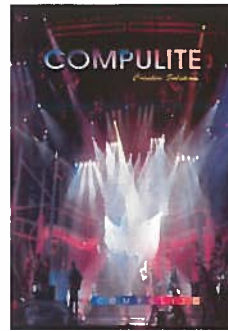


STAGETEC
SOUND & LIGHTING
PRODUCTS

PRICE LIST
JULY 1995

Stagetec provide a complete
Sound, Lighting & Staging
design, supply
and installation service.

Tel: 01753 567500
Fax: 01753 567501



COMPLITE
Professional Lighting

Complete range of lighting
control, dimmers, colour scrollers
and associated products.

Tel: 01753 567500
Fax: 01753 567501



MULTIFORM
CLUB
LIGHTING
SYSTEMS

To receive Multiform's latest
club and stage lighting
catalogues

call (01825) 763348
or fax (01825) 763310



47

The complete product information guide featuring specifications and full colour photographs of the entire range of sound and lighting control equipment

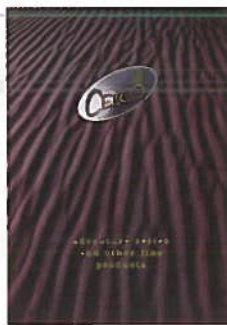
Tel: (0115) 9394122
Fax: (0115) 9490453



48

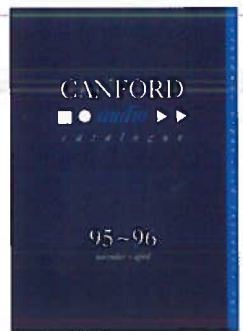
WYBRON LTD
Technology Serving the Arts

Tel: 01753 533001
Fax: 01753 533005



49

The Adventure Brochure fully describes all of the lighting control and video processing products available from Celco
Tel: +44(0)1322 282218
Fax: +44(0)1322 282292
E-Mail 10043.303@Compuserve.com



50

Essential for every audio professional
Tel: 0191-417 0057



51

Varilite introduces the Series 300™ automated lighting system

Tel: 0181 575 6666
Fax: 0181 575 0424
or see the International Directory for our European sub distributors



52

Updated colour catalogue from Italian manufacturer Griven, showing their wide range of innovative effect lighting. Also included are 'intelligent' lighting, stage luminaires, followspots and sky trackers.
Tel: +39 (0) 376 779483
Fax: +39 (0) 376 779682



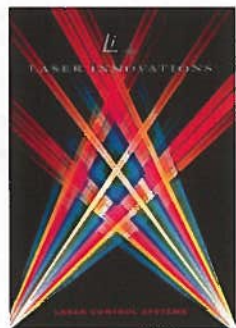
53

White Light's latest price list contains the vast range of lighting equipment currently available from both London and Halifax. It also contains projection charts, reference guides and other useful information.

- A comprehensive range of lighting control equipment to suit most applications.
- World-wide dealer network.
- Showroom and Training Centre.
- Multi-language brochures available.



Tel: +44 (0)1633 838088
Fax: +44 (0)1633 867880



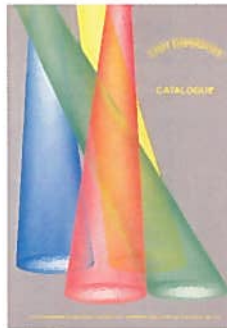
55

LASER INNOVATIONS
Manufacturers of laser control systems
Tel: +44 (0)1440 712007
Fax: +44 (0)1440 712707



56

High End Systems
Tel: 512 836 2242
Fax: 512 837 5290
UK Enquiries: Lightfactor Sales
Tel: 0181 575 5566
Fax: 0181 575 8678



57

Light Engineering have a unique range of lighting, sound & special effects products, also a vast array of component parts, lamps & accessories.
Tel: (44) 0181 520 2336
Fax: (44) 0181 509 1332



58

For a free Lee Filters information package, please telephone (01264) 366245 or fax (01264) 355058

Please arrange for the following catalogues to be sent to me: (Please tick those required)

April 1996

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Name _____
 Company _____
 Job Description/Title _____
 Address _____
 Telephone _____

We endeavour to forward your details to the relevant companies as soon as possible.

SHHHH!

(PLASA 96 IS INTRODUCING A SUPER QUIET AREA ESPECIALLY FOR PUBLIC ADDRESS, BGM AND INSTALLATION SPECIALISTS.
FOR MORE INFORMATION PHONE THE PLASA HOTLINE: 0171 370 8231, EXHIBITOR OR 0171 370 8299, VISITOR.)

PLASA
LIVE
at
EARLS
COURT
8-11 SEPTEMBER 1996
RUNNING ALONGSIDE THE BRITISH MUSIC FAIR.

TOMMY RETURNS

Robert Halliday welcomes the production back to London

Like the deaf, dumb and blind kid whose story it tells, the musical **Tommy** has had a confused upbringing. Conceived by The Who in 1969, it was then dubbed a 'rock opera' and performed by them in concert. In the seventies, it became a film, an outlandish beast directed by Ken Russell and starring Roger Daltrey and a host of other stars. As The Who faded, the show lay quiet for a while.

Now, re-born for the nineties, it is still not quite sure what it is - the Tommy leather jackets, bearing departmental labels such as 'wire choir', try hard to clutch at the show's rock and roll roots. But the five Tony Awards that this new production garnered on Broadway, and the show's current London home, The Shaftesbury Theatre, give the game away. Tommy is now - maybe always has been - a musical, and a visually stunning one at that, as the photographs accompanying this article testify.

Of course, that may have been what Pete Townshend intended when he wrote it, though it almost certainly wouldn't have been seen as 'hip' to be dabbling with musical theatre while at the peak of a rock career. But it took Des McNuff, then director of the Lajolla Playhouse at the University of California in San Diego, to produce a version of the show that actually worked as a staged musical performance. McNuff succeeded because he had the nerve to ignore the most familiar face of Tommy - the film - and to work with Townshend to adapt the piece into a stage show with at least something of the structure of a regular musical.

Success at Lajolla led to a larger Broadway production, then to a US tour, a production in Germany and now, belatedly, to the show's return to its 'home', London. Given the production's success in the States the delay - the Broadway version opened in mid-1993 and closed last year - seems odd, but is no doubt attributable to the problem of finding a suitable theatre in the city. Musicals, especially this one, are expensive to run. Expensive shows need large audiences. And all of the theatres with large enough capacities are already full, occupied by long-running musicals. London has run out of large musical venues, which is why a certain composer is now calmly discussing building one of his own. Tommy's cause was also not helped by a change of management, the original London producer losing interest when a free theatre meant one of his own shows - Martin Guerre - could move out of the musical traffic jam.

The Shaftesbury still isn't quite big enough. The arrangement of the mixing desk area - with racks stacked up to the ceiling to release more seats for sale - shows that the theatre will have to be stuffed full of people, every night, for the show to recover its money. Sold-out previews



"The show Tommy is a triumph. The images created on stage are stunning, but the show works because they are never simply stunning for their own sake, but move the story along."

and a raft of rave reviews suggest that the show's new producers, Pola Jones, Joop Van den Ende and Robin de Levita, might just pull off a commercial success. Their technical teams have already pulled off a success in getting the show to fit into the theatre's stage.

Leading that effort was production manager Ted Irwin, working in association with the show's American production manager Gene O'Donovan. Both men receive a 'technical supervision' credit on the show's poster, an Americanism that, though he won't admit it, Irwin seems to have enjoyed! To earn the credit, he had to cram John Arnone's set design into a theatre both narrower and shallower than its Broadway home. He also had to install the complex automation system the set demands, and do so with a minimum of noise and no overnight working. These last constraints were enforced by the residents of the apartments that adjoin the Shaftesbury's stage wall, and who had successfully complained about the noise generated by the venue's previous show, **Return to the Forbidden Planet**.

SET

The overall structure of John Arnone's set isn't that complicated - a black floor and an open metal framework of truss, with truss towers supporting overhead truss runs and Foy flying

track tucked in for scenes where the 'older Tommy' hovers over his younger incarnations. For the most part, the back of the set contains projection screens used to display a battery of images that set locations and moods.

In one climactic moment as the 'revived' Tommy addresses the crowd, the screens fly out, the truss suddenly creating the feel of a huge arena. The floor also contains a series of cross-stage tracks, used to carry furniture, props and door and window frames on and off stage. These include sofas, chairs and beds for Tommy's parents' house, the frame of the aircraft that carries Tommy's father off to war, a psychedelic medical table and scanner for one of Tommy's visits to the doctor and, of course, pinball machines, including the one for the 'Pinball Wizard' sequence.

This is a giant, chromed 'bucking bronco' type, spinning and swaying machine, armed with explosions from Pyrro Vision. Other scenic elements include the front door to Tommy's house, which rises from the floor, and a variety of flown window frames, sometimes used realistically and sometimes in an abstract manner inspired by surrealists such as Dali and Magritte.

The scenic items set locations - but Tommy rollocks along. Some of the scenic elements are only on stage for seconds at any given time, but in that time will help progress the story. To accomplish the required transitions, all of the scenery tracks are automated so that things can appear not only quickly, but at an accurate, repeatable rate so they can wend their way through a stage full of people. The trans-Atlantic production management meant that the search for suitable suppliers could go rather wider than usual. Eventually Edge & Bratton Scenery and

Display of Canada were chosen to build and automate the set. Irwin, and indeed, many others involved with the show, have been deeply impressed by this company's work, which has coupled high-quality scenery with tracking and drive systems run from their own PC-based show control system. The same system is also being used on the German production of Tommy.

Production electrician Simon Needle has also been very impressed by the scenery company; the set is full of wiring, with lights in the towers, the pinball machines and many other elements of scenery - yet everything turned up wired in suitable cable to a suitable plug, and so could be up and running very quickly.

Although the scenery proved relatively straightforward, Irwin had other problems to deal with. Most notable of these was the lack of wing space - the set is roughly the same size as the New York version, with most of the lost width being in the wings. Each track has several scenic items switched in and out of it, and each of those items has to go somewhere when not on stage. As a result they had to go up, lifted on chain hoists attached to the undersides of the fly floors. This is now quite common on big shows in cramped West End theatres, but Tommy takes it to a new extreme, with sofas triple-stacked in mid air at some points and lightning-fast changes during short scenes. At certain moments of the show, the wings and surrounding corridors are complete chaos as scenery is shuffled around and the cast pile off for rapid costume and radio-mic changes.

The scenic work also continued out into the auditorium, with the box fronts being clad in black and red to allow the entire audience to move inside a pinball machine during the show's most famous number.

PROJECTION

The opening 20 minutes of Tommy are simply astonishing. You are introduced to the major characters in the show - see Tommy's mother and father meet, father go off to war, parachuting behind enemy lines where he is held prisoner. You see his mother assume her husband is dead and so take a new lover, then his father return and shoot the other man. This prologue throws the show at you with wave after wave of energy, and makes the story completely clear - yet none of the cast utters a sound. The story is told by action, music, scenery, lighting, sound and, vitally, projection. Anyone looking for a true definition of 'multi-media' would do well to use this sequence as an example - especially since, unlike the current raft of so-called multi-media CD-Roms, this sequence does have some real people in it, as well as all the technology.

In these opening minutes the projection shows passing time (as year numbers changing on the back screen), plummeting missiles for the start of war and falling parachutes as the father jumps into Germany. During the rest of the show the projection acts as both a naturalistic guide to time and location, and a surrealistic view of the world, often in strong, lurid colours, seen from inside Tommy's head. For much of the evening it is the dominant design element - to the extent that, in the 'arena' scene when the projection screens fly out, it dominates even by its absence. It is the work of American designer Wendall Harrington, who has been a projection designer for theatre for around 15 years while also working as a graphic designer to support herself. The original idea





for using projection in the show came from director McAnuff and designer Arnone, but they quickly realised the complexity of the undertaking and so sought help.

That first production at Lajolla was relatively simple in projection terms - Harrington brought in the concept of going "inside Tommy's head", and also her view of projection as a "3D medium, rather than just static images as many set designers tend to think of it".

"By the time the production moved to New York, 'experimentation' had allowed people to say 'this is what we want', and so it grew. And because the colouring is based on the costumes and the costumes are fairly realistic, the projections could get more bizarre, more psychedelic because there was something on stage holding the reality," Harrington explains. The New York production also brought in a new lighting designer, ex-pat Chris Parry. "When Chris came on board I just gave him the colour chips and he ordered his scrolls based on them. There was a great deal of collaboration, and it all worked out really well."

Now finally able to work in theatre projection full time, Harrington is supported by a "great team who do all of the work while I direct!" This includes Bo Eriksson, who creates and manipulates images in Paintbox and Photoshop, and researchers including Yolanda Jeffrey in England. Since Broadway, the show has been programmed by Paul Vershbow; his speed allowing the original version to be programmed in just three days.

Each new version of the show has seen some changes to the projection, sometimes to incorporate new technology. Thus where the Broadway production had just one Pani with a slide changer and some Xenon 35mm projectors on the circle front bar, as well as the Kodak E3s lighting the 18-section screen upstage, the Shaftesbury's circle front has been specially re-inforced to take three Pani BP2.5 Compacts with ETC PIGI sprocketed film scrollers. Upstage, 56 Kodak Ektapro 4010 300W projectors backlight the rear screens. Some artistic changes have also been made, with a new set of projections defining the move into the Isle of Dogs 'Acid Queen' section of the show. In all, the show features around 2250 images, with over 10,000 slides made during production in New York.

For the UK, the show was re-plotted using the Dataton control supplied, along with the rest of the projection and video equipment, by Creative Technology. Indeed, Harrington seems to have enjoyed her brief spell in the UK, hoping to return and possibly to collaborate again with Richard Eyre, with whom she worked on the American production of the National's *Racing Demon*.

VIDEO

As well as Harrington's still and animated projections, Tommy also features both live and pre-recorded video sequences designed by Batwin+Robin Productions and replayed on a 'pros arch' of 35 Barco 2850 monitors, with a second line of 13 monitors that can fly in and out mid-stage; the monitors are all controlled by Electrosonic's Picbloc system. Recorded images, replayed from Pioneer LDV4300 laser disk players, include spinning and somersaulting Tommys, while four Sony SSC-M370 cameras built into hand-held period camera shells allow the 'superstar' Tommy and his fans to be broadcast live. The problem is that the monitors are, to some extent, too dominant with those around the pros, especially, tending to pull the audience's eye away from the real action on stage. They do, however, round off the complete multi-media experience. Both video and projection are controlled by the same operator, John Perks.

LIGHTING

Lighting designer Chris Parry, best known in this country for his epic designs for Royal Shakespeare Company productions such as *The Plantagenets*, took over the lighting for Tommy as it moved to Broadway and subsequently picked up a Best Lighting Tony award. Led by the colouring of the costumes and projections, the lighting moves quickly from cool, almost monochromatic looks for some of the naturalistic scenes to bizarre, strangely lurid and, at times, almost psychedelic colours. From here it occasionally even ventures into 'rock and roll' lighting, with small Par cans and strobes lighting through the cast and out into the auditorium.

With Parry tied up on other projects and only able to spend a few days checking up on the complex lacework of the lighting in London,

recreating his work fell to associate lighting designer David Grill and Vari*Lite programmer Victor Fable. Fable has programmed the show since New York, while Grill came on board at the start of the US tour. Grill was only meant to get the tour up and running but ended up travelling with the show. He has subsequently tidied up the New York show and re-lit the Toronto and German productions.

For the tour the show moved to an ETC Obsession 600, and the London production is running from an Obsession 1500 controlling around 800 channels. Grill is a big fan of the desk: "I can't say enough good things about it. The processor is lightning fast - you hit a cue and boom, it's gone". And, though it isn't yet a common product in this country, the Shaftesbury crew have been impressed by what they've seen.

ETC (via distributors M&M) have also been taking over the rest of the rig; the tour started a move to their Source Four profile and that transition has been completed in London by the addition of 48 Source Pars to the 210 profiles. Other changes include the use of 28 of Arri's tiny 2k Fresnels, as well as Iris, Orion and Coda floods, Wildfire UV floods, Par 56 and Par 16 lamps, an assortment of single and twin-spin gobo rotators (the singles throwing aeroplane propellers onto the pinball backcloth, the twin-spins doing a surprisingly effective snow effect) and four DHA Digital Light Curtains, used without their scrolls for one slow live move as a bar flies out. The London rig has been supplied by White Light.

Wybron scrollers top 66 of the lamps, chosen for their ability to handle the huge number of colours the show demands - the 21-colour scrolls contain 17 colours, plus four repeated colours allowing instant frame-to-frame access.

The show's Vari-Lite rig has also been upgraded over the years, from Broadway's 13 VL2Bs and four VL4s to 17 VL2Cs and four VL5s. The VL2Cs also work much harder in the show; every production has had two front-of-house and two on-stage hard-edge followspots (Pani 1200Ws in London); Broadway also had two over-stage beamlight followspots. There was no room for these on tour or in London, so all of the picking up and highlighting work that they used to do now relies on Vari*Lites and precise positioning of the actors.

The result looks wonderful - the VL2C might have been invented to light someone wearing a white suit! The VL5s have replaced the VL4s so that they can fit inside a piece of scenery - the fit is so tight that the 5s have to be run without top hats. During the production period, Fable used an Artisan to allow quick access to the lamps for correcting focus positions; the show is now run from a Mini-Artisan triggered from the Obsession's MIDI output via Richard Bleasdale's SAM control program running on a Macintosh, with the Shaftesbury's house crew looking after the rig.

Grill is very happy with the look of the show in London, remarking that it is "slicker, because I've had time to do finessing that I never normally get to do. It's probably the cleanest the show has ever been". He is also quick to praise his team, led by production electrician Simon Needle, with Martin Chisnell as assistant lighting designer, Mark Ninnim as VL technician and the Shaftesbury crew. In turn, Needle and his team were also impressed by Grill's knowledge of the show, and the accuracy with which the rig was designed. Grill's

knowledge of the rig, and the quick-to-focus Source Fours meant that the entire show was focused in just two days, despite having to use bosun's chairs to get to sections of the rig.

The result of all of their work is an excellent piece of lighting, with both the fine detailing and the big colour washes pulled off with great success, giving a show that has an aesthetic all its own; the use of the Vari*Lites as specials through act one is superb. Strangely, the moments when they are used as obvious moving lights - the chases for the pinball machine - aren't as effective, perhaps because this kind of usage has become so common in the three years since the show was created.

SOUND

Sound designer Steve Canyon Kennedy's work for Tommy has marked something of a career shift for him. Until then better known as the sound engineer for the Broadway productions of many of Martin Levan's shows, including *Cats* and *The Phantom of the Opera*, the 'legend' has him being recommended as a designer by another sound engineer who was complemented by Pete Townshend and Des McAnuff on the sound for *The Music of Andrew Lloyd Webber*. As a result, Kennedy designed the sound for the show at LaJolla and subsequently in New York, winning the New York Drama Desk sound award for his efforts.

His subsequent success as a designer meant that he could only manage a brief flying visit to London, sandwiched between the start of the US tour of *Carousel* and the opening of a new musical based on the film 'Big'. Taking charge on his behalf was Jon Weston, who mixed the show at LaJolla and has been associate sound designer ever since; sound engineer Jem Kitchen was responsible for installing the London production, which is operated by David Ogilvy with Matt Dando and Helen Stevenson looking after the multitude of radio-mic changes.

The Broadway production of the show was based around a Cadac E-type console, and the show's Cadac link continues here, though the desk has been changed to a J-type supplied, along with the rest of the rig, by Autograph. Although not the largest of the breed in the West End, the 66-input desk is perhaps the most complex, since 38 of the inputs have Cadac's motorised 'flying faders', and it is also equipped with the company's Programmable Routing Modules. These allow effects to be routed, under computer control, to any of the desk's subs, matrices or aux sends, so both recorded and 'live vocal' effects can be shifted quickly round the desk, and so round the theatre. The versatility of the J-type's frame also allowed it to be arranged into an inverted 'L' shape with effects equipment stacked to the roof to the operator's left, all helping to free up extra seats for paying punters.

Live signals arrive at the desk from Sennheiser radio microphones, and from an



eight-piece band in the open pit. Effects are sourced from MiniDisk, and a battery of processing is then used, notably Valvtronics GainWriter 3 units on the guitars. Crest 7001 amplification works alongside BSS delays and the BSS Varicurve EQ system, which are used to correct the sound for the theatre before it is thrown out through a rig of Meyer UPA-1C, UPA2-C and USW-1, Renkus-Heinz CM81, EAW JF80 and JBL Control 1 loudspeakers. Rigging the speakers presented the team with what Weston describes as an "interesting architectural challenge", since the theatre's side boxes curve out in front of the pros booms and the extra cladding on the box fronts and the 'fake pros' of TV monitors made finding the perfect speaker locations difficult.

Kennedy, Weston and Ogilvy then had to tread the delicate line between giving the audience a loud rock and roll concert, and the sound of a musical where every word has to be heard for the story to remain clear. That opening prologue sequence, devoid of dialogue, allows the show to start with the loud rock feel, the lively energy of the excellent band through the sound system contributing in no small part to the constant onwards drive of the first 20 minutes. Thereafter things become more problematic; from mid-centre of the stalls it was often very easy to tell who was singing, but less easy to actually make out the words. Strangely, reports on the show's sound vary enormously and seem to be closely tied to seating location.

This may be a result of an 'American' approach to sound which is different from the route often taken by British designers who will carefully optimise a system so that it sounds, as far as possible, the same from every seat in the house with the sound 'image' tied back to the location of performers on stage. The approach here seems to have been to produce one 'mix' from the main loudspeakers and then let it do its thing out in the auditorium. Those seated where it works rave; those seated elsewhere

either just appreciate the sound's raw energy or grumble about missing lyrics depending on their point of view and, almost certainly, on how well they already know the show. If you have a rough idea of the plot, there are enough visual clues to drag you through the rest.

The live sound is backed up by the effects, which, like the projection, cover the whole range from falling bombs to a barrage of pinball machine sounds, sampled from vintage machines and then layered on top of each other. Unfortunately, what should be a couple of stunning 'anti-sound' moments, when the show drops down to complete silence as a counterpoint to the rest of the action, are spoilt by the background howl of Vari*Lites, projectors and automation equipment - another reason that David Grill is considering a change to the quieter VL6s. So far, however, the neighbours haven't complained about the noise!

Tommy is a triumph. The images created on stage are stunning, but the show works because they are never simply stunning for their own sake, but move the story along, sometimes by clearly pointing to a location or time, sometimes by offering a surreal view inside the mind of Tommy or the people around him. They also work with the humans in the show rather than dominating them: in the midst of that stunning opening sequence of lighting, projection and sound, one of the most startling moments is when soldiers actually launch themselves out of the plane. This is simply accomplished - they line up with their parachutes on then, one by one, jump through a hole in the floor. But this comes after the location has been set by scenery and projection, and the image is then continued by a dissolve to a scrolling projection of falling parachutes; the resultant whole is much greater than the sum of its parts.

The show grabs you as it starts and, apart from a few moments in the second act, never lets up. Those changes are made possible by the slick automation, but that slickness means you are practically never made aware of it - only on one occasion, when some stage crew enter to clear some extra props, is the 'magic' momentarily broken. The show is highly polished, and it is strange to think that most of the rehearsal period in London was spent getting the new human beings up to speed; practically every other element in the show arrived on floppy disks from earlier productions.

Surprisingly, even the critics seem to have taken to it, since the show avoided the mauling that cut short the run of the last big sixties musical revival, *Hair*. The Shaftesbury's location, more central than Hair's home at the Old Vic, seems to be pulling audiences in. And it would seem to herald something of a rock-opera revival; the show's spiritual descendant, *Jesus Christ Superstar*, is scheduled for a new production in the autumn.



DIAL SOUND & LIGHT



UNIT 4G, EUROWAY TRADING ESTATE, BRADFORD BD4 6SG
Tel: 01274 651600 Fax: 01274 651190

Panasonic
The way ahead.



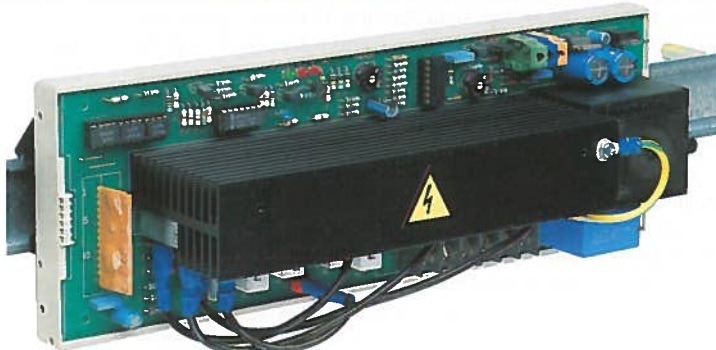
Sun Parks



Antwerp Hilton



Conrad Hotel

CE

A (R)EVOLUTION IN DIMMER TECHNOLOGY
 Silicon Controls **new MOS FET dimmers**

- 30% less interference
- 50% less weight
- 100% less acoustic noise

Totally silent dimming: no triacs, no thyristors, no chokes. Increased reliability through constant monitoring and electronic protection for: overcurrent, short circuit, overvoltage, open circuit, cold switching. Automatic load tracking: the dimmer adapts instantly to any type of dimmable load: resistive, inductive, electronic ballast etc.

Available in 800, 1400, 2700 and 3700W power ratings.
 Silicon controls dimmers and control systems since 1979
 pioneering MOS FET dimmers since 1992

Lighting Control Systems by

SILICON
CONTROLS

FAIR EXCHANGE

L+SI discovers the appeal of a return to its industrial roots for the new Sound Exchange in Banbury

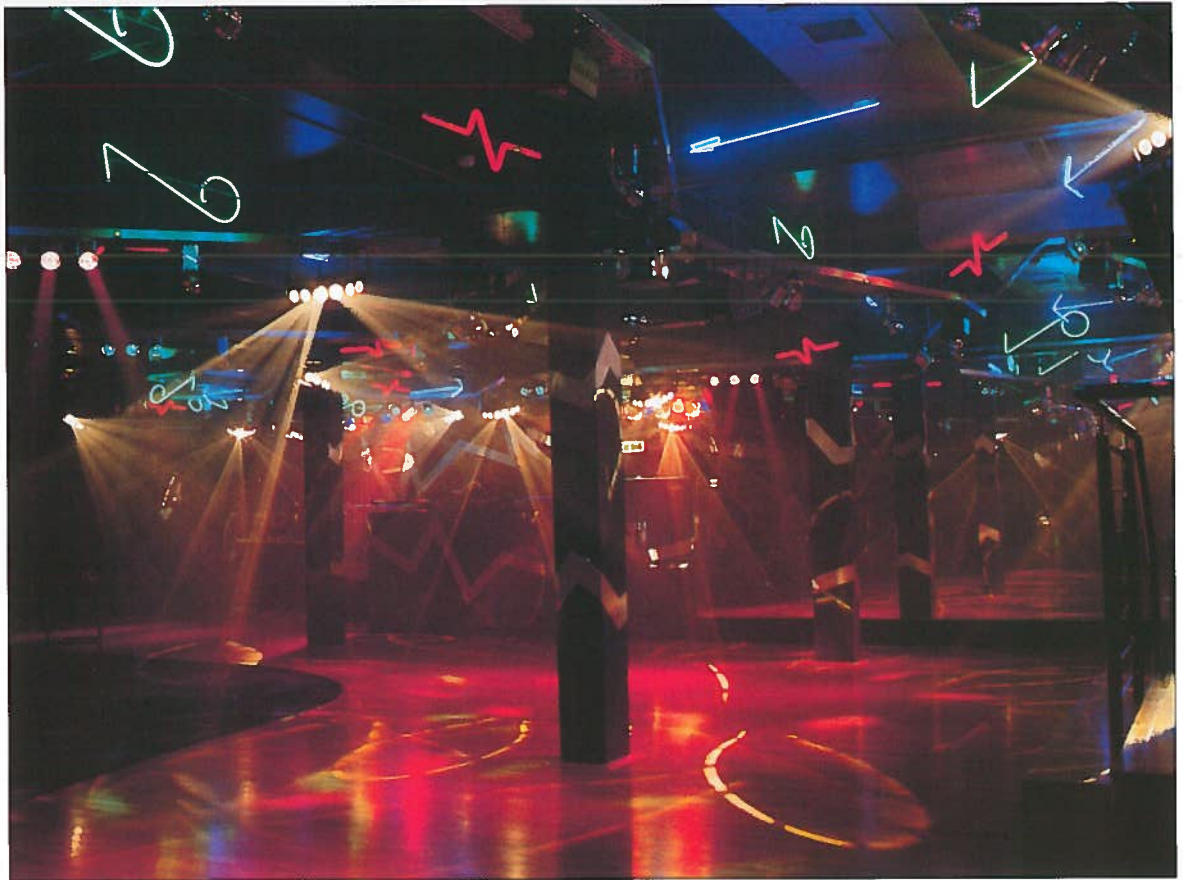
Most nightclubs spend a great deal of time and money disguising the fact that they owe their heritage to a former cinema or warehouse. Through creative interior design, a large chunk of the budget being thrown at sophisticated lighting and sound systems, and an imaginative bit of marketing, most clubs manage to distance themselves from their less than salubrious pedigree. However, such vanity is not an issue for the new Sound Exchange in Banbury, which has gone to great lengths to draw its industrial legacy to the surface and to flaunt it for all it's worth.

The venue is one of two telephone exchange buildings purchased at auction by Peter Brewer, managing director of the operators Halix. The second exchange, at Watford, was developed, almost simultaneously, into offices, but in Banbury Brewer had long harboured the idea of building a leisure centre, complete with pub, disco restaurant and ten-pin bowling facilities.

The Banbury complex took shape over two years, but while the bowling alley idea was dropped, Peter Brewer leased out the Exchange pub on the High Street to Wetherspoons, and the leisure club to Parkers, while retaining operation of the discotheque. The cost of building and equipping the discotheque, with the provision of extra fire escapes and a new entrance, was in the region of £800,000.

Operations manager, Steve Winstone, himself undertook the club design as part of a giant in-house building operation. Operating off a 1am licence - the legacy, he believes, of another club losing its 2am licence - the 800-capacity venue exposes its girders and ducting shamelessly. "The original idea was to be totally industrial, with graffiti on the walls. But then we thought it was worth more than that and so we designed a club of which Banbury could be proud."

As a result, the walls feature a series of mechanical murals (courtesy of local artist 'Digger'), linked to the main rag-rolled wall theme by a continuous zig-zag. Bar tables and stools, from Morris of Glasgow, fill the off-floor void in this 11,000ft space, purple-carpeted by County Interiors, with Abbey Flooring supplying the dancefloor and RT Harris the electrics. One man, Paddy O'Keefe, painted the entire club single-handed while Andy Innes was



The £800,000 spend has paid off for the Sound Exchange in Banbury which now has a high-tech lightshow (above and below), state-of-the-art sound equipment, and, a nice line in humour with its novel use of electrician's trays.



responsible for the wiring and Gary Brown undertook the carpentry. When it came to nominating the sound and lighting contractor Steve Winstone scoured the trade press, invited four or five companies to tender, and duly awarded the contract to James Foster of Lightmasters UK.

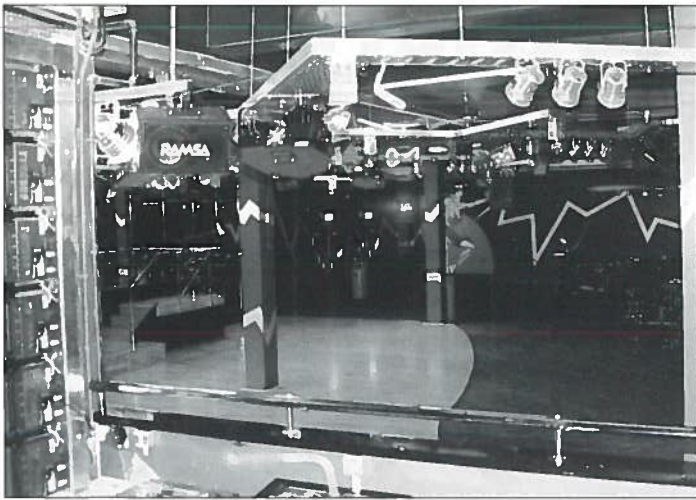
"I liked him from the moment I met him for his commitment and flair in helping us achieve the end result," explains Steve. "His lighting design was exactly what we were looking for, and following a visit to the company's showroom in St. Neots, we knew we'd made the right choice.

James Foster takes up the story: "We first

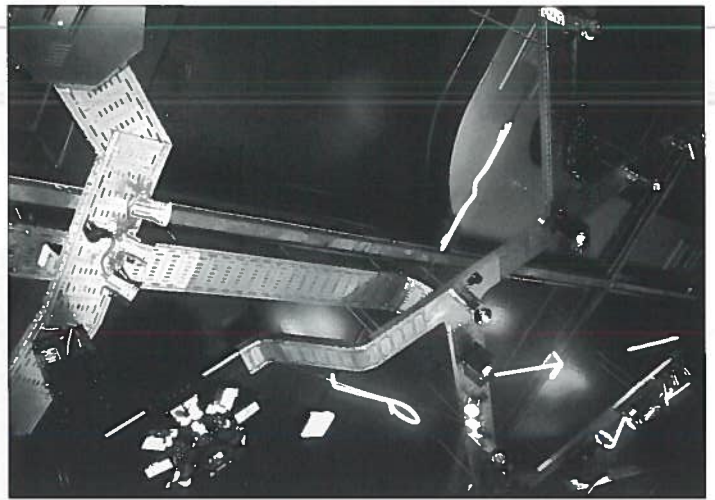
came to look at it 18 months ago when we saw it as a shell. They wanted to keep the industrial ducting and maintain a wide open dance space." He specified a JBL sound system comprising eight I745 bass cabs arranged strategically around the floor and the eight I330 mid-highs, with eight Ramsa 80s as fills. Locked away in the amp room was racked an expanse of Crest amplifiers - eight CA9s and two VF650s, with Cloud, Behringer and dbx signal processing.

Maintaining an industrial feel with a high tech lighting system was a little more complicated, but a piece of ceiling design ingenuity by Foster not only saved the owners of the Sound Exchange a fortune in trussing and trunking, but added substantially to the industrial aesthetic of the building.

The vast lighting grid, which curves around the dancefloor in this 800-capacity L-shaped room, is a 100-metre racetrack of 'stepped' galvanised utility electricians trays, bolted together in three metre lengths like a giant Scalextric to suspend the galaxy of Par 36s, 56s and the FAL beam effects; others, such as the neons, come off catenary wires at different levels inbetween the sections. Since the cabling



View from the mixing console area.



The undoubtedly unique ceiling montage of electrician's trays.

can be laid discreetly onto the trays no additional trunking was required.

Even the JBL I330 mid-high cabinets benefit, as Foster explained: "The thing about this galvanised equipment is that when we make up the flying frames for the speakers, generally they would be fixed to the ceiling or hidden, but here we can expose them as part of the industrial feel."

The entire electrical installation was carried out by Chris Williams and his crew, who, as ever, produced a 'spot-the-cable' challenge. Having wanted to use the cable trays for some time, the industrial feel of the Sound Exchange suited Foster's needs perfectly. "The cost of custom-building a rig for a ceiling this size would have been massive - £10,000 instead of a few hundred pounds." Even the Anytronics

"The Sound Exchange in Banbury has gone to great lengths to draw its industrial legacy to the surface and to flaunt it for all it's worth."

switch and dimmer packs are wall-mounted next to the DJ podium to tie in with the theme.

The club's sound man, DJ Ussherman, has Technics SL1210s, a Denon DN 2000 twin CD player and a Pioneer twin cassette deck, mixed through a Cloud CXM mixer, while at the Pulsar Masterpiece 108 lighting console, with screen drivers, are light jocks 'H' and La A1.

Strident lighting is provided by the neons - a mix of musical notes, flashes and zigzags - together with a battery of 10 Anytronics

Superstrobes, with the industrial 'smog' provided by a pair of Jem Club 20 smoke machines. Off at the side are six FAL HMI 575 Roulettes and four Supermillefiori flower effects, complete with high-powered ultra-violet, and a mixture of smaller effects including Static Scorpions, mini Octopuses and the major HMI 1200 Nebula centre-piece to provide a contrast of different beam effects.

Initially operating as a weekend dance venue, the plan is to gradually vary the mix and stage live sixties and seventies theme nights, alongside kid's afternoons in the summer and so on. Steve Winstone is certainly delighted with the outcome. "There's been a lot of enthusiasm all round for this project because Banbury needs something like this."

THE GRADAV EMPORIUM

A most diverting range of sales goods including:

RADIO MICROPHONES

STAGE BLOOD AND MAKE-UP

PAINT FOR SCENERY AND UV USE

LIGHTING & CONTROL EQUIPMENT

PYROTECHNICS AND SMOKE GUNS

SOUND & CONTROL EQUIPMENT

HEADSET COMMUNICATIONS

CONNECTORS AND CABLES

LAMPS AND GOBOS

PLEASE CONTACT US FOR YOUR FREE CATALOGUE

Nice people to talk to

613-615 GREEN LANES, PALMERS GREEN
LONDON N13 4EP

Phone: 0181-886 1300 Fax: 0181-882 6517

The Premier Inverted Hoist/Motor

NOW STOCKED IN THE UK



- ◆ Black powder coat finish ◆
- ◆ Up to 40 metres lift - high duty factors ◆
- ◆ Protector ® overload protection ◆
- ◆ 110 volt controls ◆
- ◆ Upper/lower adjustable limit switches ◆
- ◆ Motor suitable for use in UK, Europe or USA ◆
- ◆ Capacities ½ to 3 tonnes ◆
- ◆ Fast speed units available ◆
- ◆ Single phase versions available ◆
- ◆ For Inverted Use ◆

Contact for motors/spare parts/service:-
PCM,

**A Division of Pfaff Silverblue Mechanical Handling Ltd,
Prenton Way, North Cheshire Trading Estate,
Prenton, Wirral L43 3DU**

Tel: 0151-609 0101 Fax: 0151-609 0200

SECOND TAKE

John Watt's View from Beside the Camera

In the days when lighting men were regularly involved in news and current affairs programmes (it's now all fixed rigs and bland pictures or worse), we always thought that there should be a caption which read: "We apologise for the poor picture quality which is due to journalists entirely beyond our control." Recent experiences have proved this to be as true as ever, but the thought also strikes me, as I sit here scribbling these notes, that maybe by definition I'm on the edge of being a journalist too (I'll ignore the editor's snort). There is really little common ground between the two occupations except maybe that a fair proportion of each are freelance and, maybe more importantly, both work to real deadlines.

I am approaching one of the deadlines which all lighting people face. If I can pull it off, the producers will think they picked the right man who worked diligently to produce the goods. If I don't, they will assume I didn't apply myself and that they got it wrong. What bothers me most is that I have done everything in the way of preparation that I can think of, but we may yet fail to pull it off, given that TV production is a team game and some key player may have peaked too early. There is also the 'X' factor - in this case, the studio is new to me, and I can't help but worry that I have missed some essential technicality or work practice that will pop out of the woodwork and bite me on the leg when I least expect it.

I always think lighting has more than its fair share of ironmongery (less than its fair share of high-tech electronics too. Do your friends think that every lamp can pan, tilt and focus remotely? Mine do!) and this engineering really governs how much and how quickly you can duck and weave as the director's whims shape the production. I know grids and suspensions are a hobby-horse of mine and, occasionally, manufacturers seek my advice (and then ignore it), but there are a remarkable number of variations to consider. Most studio planners think that the nearest six feet to where you want it will do, but they haven't tried lighting a long

corridor with irregular headers running diagonally across the studio or reloading a spring pantograph up a telescope when you can't get the outriggers out.

However, I have visited my next studio ahead of time and it looks OK. More importantly, Herbie, the gaffer (why didn't my mum and dad call me 'Herbie' or 'Slam' as in Slam Stuart, the bass player. Maybe they thought 'Watt' was enough to get me into lighting), looks as though he will cope with most of my funny ways - so watch this space.



"I'm sure I'm not alone in mourning the loss of these minority appeal specialist programmes on the terrestrial channels - it seems the mass audience is the only God."

Most of the pages of L+SI describe the big time, be it concerts, theatre or disco. TV is no exception - you only have to look at *Gladiators* or *Stars in their Eyes* or almost any game show to see healthy amounts of state-of-the-art gear being put to effective use. But at another level, programmes are being produced for the cost of the colour filters on some game shows. I'm sure I'm not alone in mourning the loss of these minority appeal specialist programmes on the terrestrial channels - it seems that mass audience is the only God. Take heart. If you are interested in gardening, decorating, dogs, golf or soft furnishings, they are there on satellite during the day and much more fun than **15 to 1**. Budgets are around £3,000 per half hour and it shows. Not surprisingly, it shows in the lighting and in the way the programmes are shot, but it's surprising how much can be achieved with a bit of careful daylight manipulation and a couple of red heads in the right hands. We lighting men should never forget that a pleasant human face talking

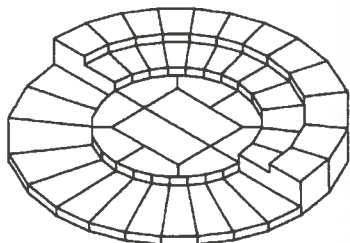
compensates for a lot of smart camera tricks and computer graphics.

As already touched on, this is more to do with relationships than technology, and heaven alone knows how complicated they have become now that policemen are looking so very young. I notice particularly the attitudes of the newer set: I was recently working on a job at a London Studio and had made what turned out to be an outrageous request for a ground plan from the designer, who told me that the only existing one was in Wandsworth 'somewhere' and couldn't really understand why I wanted one. He went on to explain that he wouldn't be there anyway as he was doing a gig in New York, but his assistant would be, and he would fax me a sketch of the set. I duly met the assistant who explained he would not be there for the recording day either, but would be sending his assistant!

This turned out to be an 18 year-old who reminded me of a stage brace with hair and boots. Whilst on site, the telephone rings and I reach to answer it. On the other end is the construction shop with a query. "Anyone seen the designer?" I cry, and she duly arrives to take the call, just pausing long enough to give me a withering look and to inform that she is "the art director, not the designer".

And yet, whilst attending one of those industry bashes recently, I was reminded that the business is pretty well off for young dynamic people who work and play hard. The STLD ran a go-karting evening for its sponsors and this brought out the best and the worst in these people. Competitive attitudes were unleashed aplenty, without any recourse to discounts and list prices. Never were so many right feet pressed firmly on the floor regardless of tight bends and traffic conditions. Rear-view mirrors were not provided and would have been redundant anyway. I had the doubtful pleasure of being overtaken on a bend by a tall pretty lady going so fast that she completely 'lost it' and managed to broadside in front of me with the inevitable pile-up ensuing. No harm done except a laddered pair of tights and a few rude words (tights mine, rude words hers). It would be unkind to mention the company, but if you are ever down Spitfire Way, Hendon, just ask for Dee.

ALISTAGE



All the shapes, all the sizes!
Available for both hire and sale.
Limited only by your imagination.

Various heights catered for, specials manufactured on request, units tested to 9.88 kN/M². Accessories include guardrails, straight and spiral steps, ramps and fascia.

Unit 2 Hotspur Ind Estate - West Road,
Tottenham - London N17 0RJ
Tel: 0181-808 5005 Fax: 0181-801 9851

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.

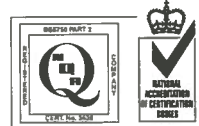
Examples of our fibre optics may be viewed at our London showroom, from subtle backgrounds to fibre optic fireworks. Leaflets available.



Trade & Export call Paul Raymond.
Par Opti Projects Ltd
67 Stirling Road
London W3 8DJ.
Tel: 0181-896 2588 Fax: 0181-896 2599

HIRE AND SALE
Of Sound, Lighting and Effects
IN THE MIDLANDS

Central Theatre Supplies



0121-778 6400

RVE - FRENCH FOR DIMMER

John Offord visits the production facility of RVE Technologie at Lizy-sur-Ourcq

I really don't want you to get too obsessed about playing this little game, but next time you want something different to keep the kids out of your hair when driving through France, just ask them to check out how many varieties of those multitudinous fluorescent green chemist signs they can spot in a given period.

The real purpose of the project is to indicate in the first place just how many of the things there actually are, and second to highlight the fact that almost all them have a control unit manufactured by RVE.

Aside from this national presence, the company has also been involved with two prestige projects (amongst many) that you're almost bound to visit: the Pyramid at the Louvre in Paris (500 x 3 and 5kW dimmer installation 15 years ago) and Eurodisney Resort, by far their biggest project to date.

RVE was founded by Roland Vulpillat in 1969, and, as I've already indicated, specialises in the design and manufacture of dimming and control systems for the entertainment and architectural markets. Vulpillat had, in fact, immersed himself in electronics and semi-conductors by 1966 and from that time had begun to look at possible areas of application where his knowledge and skill could be profitably employed.

Research led him to the area of stage and dimming equipment and almost simultaneously to the control of fluorescent lighting and he established a company to develop each market. RVE's first-ever piece of dimming equipment found its way to the House of Culture in Poitiers and although sales grew steadily, it wasn't until the late seventies that the company made a breakthrough into the bigger league with a major installation at the Teatre de la Ville in Paris.

The architectural business showed a parallel development, but ran three years or so later and by the mid-seventies had also broken into its market in real terms.

Today, with RV Electronique SA as the 'holding' company, Promotion Electronique specialises in electronics for neon signs whilst RVE Technologie is the operation that takes care of by far the largest part of the group's output and its leading-edge products in stage lighting control. It comfortably claims at least 50 per cent of the home market and currently 29 per cent of all sales (the accuracy of the figure is typical of RVE and of the precision they apply to everything they do) of all sales are export-bound to at least 35 countries.

Prior to attending the SIEL expo in Paris in February, I drove to Lizy-sur Ourcq, a small town to the north-East of Paris that also happens to house Europe's largest state-of-the-art printing factory - on the other side of the valley from where RVE's clinically clean operation is based. It handles all the company's design, research and development, manufacturing and after-sales service operations.

Roland Vulpillat is a typically French-style Renaissance man - just as likely to turn the discussion from technology to wine and food and back to technology again, whilst holding



RVE's premises at Lizy-sur-Ourcq.

the latest piece of RVE control trickery and making notes on a serviette. (The promised gifts did turn up in Eastbourne too, just as I was sure they would. A neatly packed RVE-labelled carton containing a bottle of Vin Jaune - a special wine from Vulpillat's home region of the Jura - and a dimming unit. And I'm not going to let on which I was most excited about).

The point illustrates well the dedication of RVE, not only to good products, but to extremely good organisation. "A major factor in the performance of RVE is the speed of implementation from the time a customer puts in an order to the point when we begin manufacturing," explained Vulpillat. "In most cases this can be achieved between 40 and 72 hours if this is required, and the process is aided by our specialist technical support staff at Villemomble (RVE's sales office on the outskirts of Paris, and close to Charles de Gaulle Airport)

which opens a project file and prepares production plans in our own factory terminology."

The premises at Lizy-sur-Ourcq are, like the majority in our industry, an excellent example of the best of today's high-tech engineering and electronics establishments. Everything has been very carefully thought out and the latest in equipment and systems are on hand to ensure it all works smoothly.

Product development has followed the same carefully planned path. "We have to deal with a very specific market," continued Vulpillat, "and it is a market which has the characteristics of the users. The end-user tells us what the requirements are, and so the products we manufacture are not purely the work of an engineer. The research and development is always the result of the requirements of the market, and not the other way round."

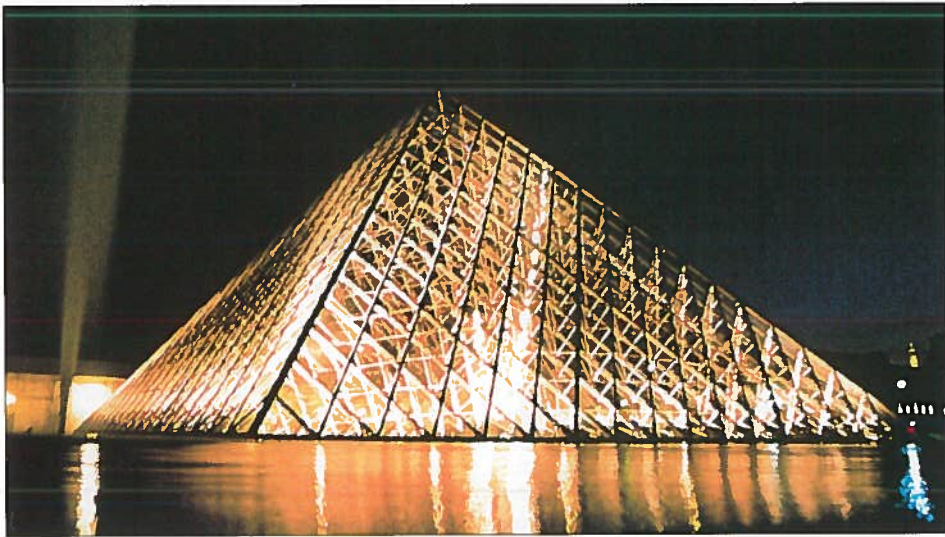
RVE dimming products are constructed within custom-designed aluminium profile, allowing for virtually unlimited manufacturing combinations and good product appearance, in addition to the obvious heat dispersal advantages. Huge stocks of all basic profiles also mean that the chance of any delay from subcontractors is eliminated from the equation.

The essence of our conversations as I toured the production, research and development facilities in the company of Roland Vulpillat and



Above, HDD dimmer cabinets at the Opera de Nancy et de Lorraine (pictured right).





500 3kW and 5kW RVE dimmers were installed in the Pyramid at the Louvre, Paris.

Stéphane Colin, who takes care of RVE's exports, was one of being prepared for almost any eventuality as far as any customer requirement was concerned.

RVE see the annual PLASA Show in London as the most important international product launch-pad and last September showed their HDX and HDL dimming systems for the first time. (They were launched into the French market five months later at SIEL in February).

The HDX is a lightweight pluggable transistor system available in 19" 4U rack size and in cabinet, flight case and portable formats. It has full short-circuit and overload protection with automatic reconnection, reverse phase control to remove lamp noise, lamp life-time extension and electronic noise filtering. HDX also has an electronic patch, PC mode and fault diagnosis facility, in line with the established HDD range of dimmers.

The HDL digital/analogue dimming system is totally modular in design, comes in various power versions and is available in both cabinet and flight-cased formats. The units can be unplugged and swapped under load with newly inserted modules instantly updated with patch and curve information. Facilities include electronic soft patch, curve selection, fluorescent setting, DMX level check, local control and up to eight presets and chases.

In addition to these important new dimming products, RVE saved the launch of their new memory lighting control consoles for SIEL, and one of these was pictured in our report from Paris in our March issue. Available in 24, 48 and



The latest from RVE: Matthieu Vulpillat (right) and Stéphane Colin launch the company's new lighting consoles at SIEL in Paris in February.

96 channel versions, the desks are designed for use where there is the mixed requirement for manual, memory and special effects. There are level indicators on each channel, flash sub and general master, chase and sequence facilities, 99 pages of 36 submasters, an EXAM function for a quick overview of stored data, submasters and chasers, various test functions and a user guide facility, DMX output with analogue option, MIDI facilities and a VGA video output option. There is also a 512 dimmer proportional patch, five curves per dimmer, trigger functions



Roland Vulpillat with the first RVE 5kW 220V dimmer.



The HDX pluggable transistor dimmer was launched at PLASA in London in Sept 1995.

and cue card saving system.

To complete the picture, RV Electronique have a subsidiary company - Diafora, the French manufacturer of Colourart digital colour-change units which are available in 1k, 2k, 5k and 5/10k Minibrute versions, and, if I remember correctly, a waterproof 1k unit that was well-immersed at a recent SIEL show.

Although RVE have successfully stretched their selling tentacles world-wide, the UK market has been a difficult one for them to crack and following a four-year period of hard work during which sales grew steadily, if not spectacularly, their distributors ESP are now confident of eventual success.

ESP's David Stressing commented: "Despite being a long-established company, the RVE name was almost unknown in the UK. Extensive marketing has remedied this, but above all, the word has spread that the quality and reliability of the RVE product range is now recognised as the best on the market. Comments from installation engineers on the benefits of working with a system that is accessible and clearly and logically laid out through to the electricians' 'I never have to touch them' certainly help the situation."

Installations in the UK include the Royal Academy of Music, the University of North London, the Adventure theme park and a host of other venues and numerous systems are involved on the touring scene, most particularly with ESP's association with the 'Holiday On Ice' world-wide tour where 16 racks are involved. "Despite the fact that their feet are always on ice and in climates from the Far East to Scandinavia in the dead of winter, we've never had a call-back for any dimmer supplied across a five-year period," continued David Stressing.

"The wide and ever-increasing range of dimmer systems available in the RVE range, from the new HDX through to the six channel Stager, ensures that we are able to target all areas of the market in terms of size and budget. With the addition of lighting consoles I am sure we will see continued growth of both ESP and RVE in the UK market."

Worldwide, Stéphane Colin visits all corners of the globe in his mission to establish RVE products, and his and the company's success was evident when I visited the operation. Systems destined for Chile, the Far East and Poland were ready for crating and despatch, and, as you would expect, the credit list of major installations is growing all the time.



Also launched at PLASA 95 was the HDL dimming system.



Stéphane Colin, Roland Vulpillat and Jean-Luc Poullain at RVE HQ.

Experience in both stage and architectural markets means RVE can not only use a cross-over of expertise, but in the growing leisure arena tender for an ever wider range of control equipment, be it for hotel and conference centres, cruise ships, TV studios, sports halls or theatres.

And Roland Vulpillat will be making sure the company's technological advantages will be put to the most enterprising use. "In the theatre we may use 48 to 500 channels or more, whereas in the architectural field we tend to use well under 48. "It would therefore be a disappointment not to give this market the advantages of the technical breakthroughs we have gained in the scenic market. This is why we have created and introduced products for the architectural field which, amongst other things, allows separate controls for safety features, and



Part of the huge aluminium profile stock-holding at Lizy-sur-Ourcq.

include elements within their design which are from the top end of our leading theatre lighting products."

Throughout RVE's expanding catalogue of lighting control products there is a built-in and highly comprehensive range of components and facilities that allows not only for a broad range of interchangeability and up-grading



François Prince, chief executive of Promotion Electronique, the neon lighting division.

within the manufacturing processes, but also for a great degree of flexibility for the installer and user. In addition it means, quite naturally, that the company can attack the market on an ever-widening front backed up by an all-important breadth of experience from its own expert team of design and research specialists.



The Diafora 'Colourart' digital colour changer.



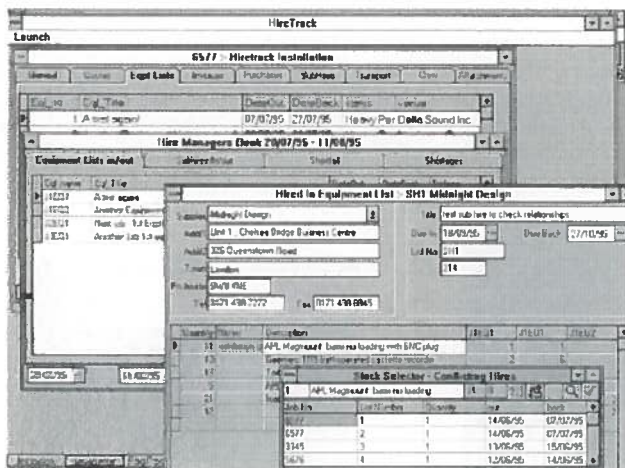
Arnaud Soulet, development engineer.



Philippe Covolato, production supervisor.

Hire Track

Hire Software



Paramount House,
162-170 Wardour Street
London W1V 3AT
Tel: (0171) 700 5000
Fax: (0171) 700 5599



NAVIGATOR
SYSTEMS

email: navigator.co.uk

URL: <http://www.ftech.net/~navigator/>

NORTHERN LIGHTS

TEL: 01524 845584 • FAX: 01524 845583

CX FROM Cloud

CLEARLY BETTER SOUND

CXM MODULAR MIXER
CXF FIXED FORMAT MIXER
CX233 MIXER/ZONER
CX335 COMPRESSOR/LIMITER
CV AMPLIFIER RANGE
PROFILE DISCOTHEQUE CONSOLES
.....

WORLDWIDE DISTRIBUTION
TRADE AND EXPORT TERMS AVAILABLE

NORTHERN LIGHTS

89 SCOTFORTH ROAD, LANCASTER LA1 4SD

TECHNICAL BOOKS IN REVIEW

MINIDISC

Roger Verlinden
Focal Press February 1996
ISBN 0240 51444 0
112pp Paperback £12.99

The MiniDisc is the first real consumer application where the medium is not a tape, but a disc, with all its benefits. Developed by Sony Broadcast, and now selling in significant quantities, there is a need for a book on the format for audio engineers, technicians, as well as students on audio courses. Written by Sony's own technical support staff, this claims to be the definitive book on the subject.



Aimed at making readers acquainted with the MiniDisc technology, the book goes through the mix of early, as well as recent developments. Psycho-acoustics are also covered, as are the technologies relating to existing digital audio electronics and data processing and storage, including compression and decompression for this new format.

Written by the same team who produced Digital Audio and Compact Disc Technology, this is the first book on this new technology.

THE VIDEO STUDIO

Alan Bermingham
Focal Press Third Edition
ISBN: 0240 51392 4
1994 Paperback £13.99

The Video Studio is an indispensable guide for anyone contemplating setting-up a professional installation of approximately 150sq.m or less, be it studio or location based.

From assessing precise requirements and estimating the scale of investment required, this book takes the reader through studio construction including services, acoustics and scenery, choice of camera systems and vision signal distribution.

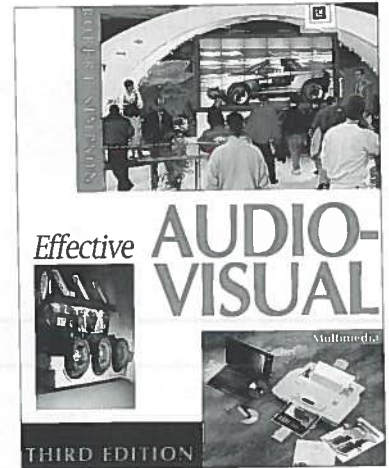
EFFECTIVE AUDIO VISUAL

Robert Simpson
Focal Press 3rd Edition
February 1996 - ISBN 0240 514165
256pp, paperback £25.00

This book is a user's guide for anyone who wishes to know more about audio-visual equipment and techniques.

The publication discusses AV techniques including overhead projection, slide-tape, multi-image, film, video and the increasing use of the computer. In this extensively rewritten third edition, the computer is shown to be not only the basis of computer graphics and interactive AV, but also essential to the effective use of traditional methods, and is fast becoming an effective show delivery platform in its own right. Some of the applications covered are business presentations, visitor centre displays, conferences, training sessions, museum exhibits and multi-media applications.

Contents: choice of audio-visual media; preparation of visuals; the role of computer graphics; commissioning an audio-visual programme; making audio-visual shows; audio-visual in business presentations; audio-visual in conferences; audio visual in training; audio-visual in selling and public relations; audio-visual in exhibitions; audio-visual in museums and visitor centres; the presentation room; interactive audio-visual; slide presentation systems; multi-image programming; video production; computers in audio-visual; lenses; screens; the audio in audio-visual.



THE VIDEO ENGINEER'S GUIDE TO DIGITAL AUDIO

John Watkinson

NVision, which designs and manufactures a wide range of digital audio products, has published 'The Video Engineer's Guide to Digital Audio'. The Guide, which NVision hope will promote wider usage of digital audio, provides invaluable information covering all technicians and students need to know about digital audio.

Written by John Watkinson, an independent consultant with over 20 years engineering, teaching and publishing experience in digital and analogue technology, the Guide offers an understanding of the techniques required to make a safe (and painless) transition to digital.

It has been written specifically for engineers in easy to understand terms and provides detailed information on conversion to digital audio, levels and metering, transmission, synchronisation and routing, with a full glossary of terms and diagrams.

The Guide is available by request from NVision distributors Boxer Systems, tel: (01923) 894141.

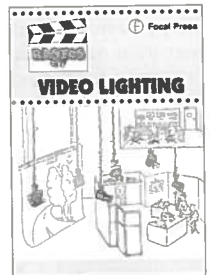
BASICS OF VIDEO LIGHTING

Des Lyver and Graham Swainson

Focal Press
ISBN: 0240 51414
November 1995
128pp paperback £9.99

Starting at the beginning with the make-up of the lighting team and who does what, the book continues through to the simple electricity needed to understand the camera and the lights and then on to basic lighting in the studio and on location.

If you are a student who wishes to learn about all aspects of lighting a video production, this is the book for you. There are hints and tips to help choose equipment to fulfil a particular need, and enough about the planning, selection and positioning of lights to make your own production professional.



Available from May
for a limited
period only



Technics

Technics Gold
SL1200 LTD
Special Limited Edition

Includes
FREE Headphones
worth £150 and
Commemorative Gold Plaque

DIAL SOUND & LIGHT

UNIT 4G, EUROWAY TRADING ESTATE, BRADFORD BD4 6SG
Tel: 01274 651600 Fax: 01274 651190

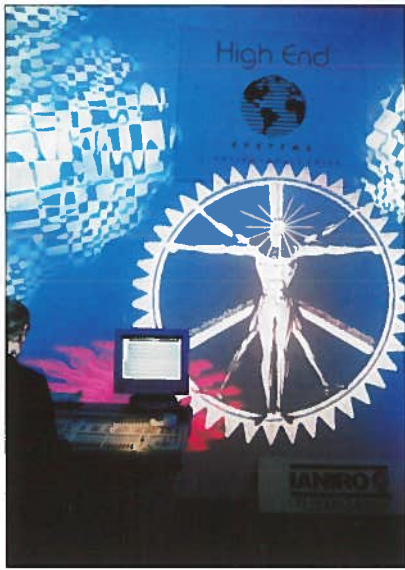
BELLA FIGURA AT SIB

Tony Gottelier and Lee Baldock report from Rimini on the annual event of the Italian lighting industry

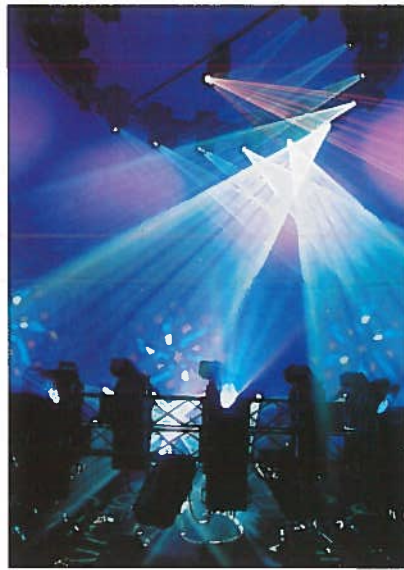
The Rimini Show was as exuberant as ever; as always replete with exotic 'creatures of the night' braving the dangers of daylight and wallowing in the ogling attention of exhibitors as they flaunted their largely exposed bodies in the daily 'bella figura' promenade. Such strutting sexual arrogance, like the mating dance of birds of paradise, is part and parcel of the Italian way of disco, where venues customarily attract huge numbers, sometimes up to 15,000 at a time. How to stand out amongst that lot, all trying to out-do each other, is the burning question of the witching hour.

One organisation which seemed to have found the answer, was an AIDS Awareness promotion running in the clubs - getting to them at the coal-face as it were - as was witnessed one morning when passing between the halls. One of these gorgeous creatures oozed up to Rod Bartholomeusz with the opening line: "Do you make love?" Quicker to think on his feet than most would have been in the same circumstances, back came the instant riposte, "What, now?", upon which he was immediately impaled with an AIDS ribbon while two condoms were pressed into his hot little hand. If that isn't coming straight to the point, what is?

It is this national predilection for the aforementioned *bella figura* - very much an ego/self-pride-driven thing - which translates itself so much into the Italian way of doing all things connected with the entertainment biz, and which shows itself in the same exuberant way that the exhibitors tackle this show each year. Vast stands, which get vaster and showers of new products mark the event, though this year the story is more to do with less on the product front. This would seem to be a direct result of the massive distraction and enormous



A row of Cyberlights decorate the display wall on the High End Systems stand.



The centre section of Coemar's 360 degree light show presentation.

resource required from manufacturers to get their products through the labs to prove conformity to the new EMC safety standards.

If there was a common denominator or trend to be found, it was a move in the lighting department for more exuberance, colour and creativity - with coloured and laser-etched dichroic gobos, prisms, and the rotation of both, leading the way. All the leading automated players are on this bandwagon now, and not before time. It is really good to see a bit of subtlety kicking the 'wham bam thankyou ma'am' of yesterday's lighting performances into touch. One newcomer to the scene in Europe, who made his presence felt in Rimini, was Gene Brummet of **Spectrum Imaging Laboratories** which is making its forte producing such dichroic specials and unusual colours from its base in Round Rock, Texas.

The other trend, if we can call it that, was the move by those manufacturers previously committed to moving light via dynamic mirror devices, towards moving yokes. Both **Martin** and **Fly** are following **High End** into that seemingly shark-infested sea. We also found two Italian companies offering moving Par cans,

one of whom was **Lite Beam**, who say they have answered specific client requests, though one can hardly see the point: this is territory which has also proved a quagmire for many others in the past. Since you can buy several Pars for the price of a yoke, why would anyone want to do it that way?

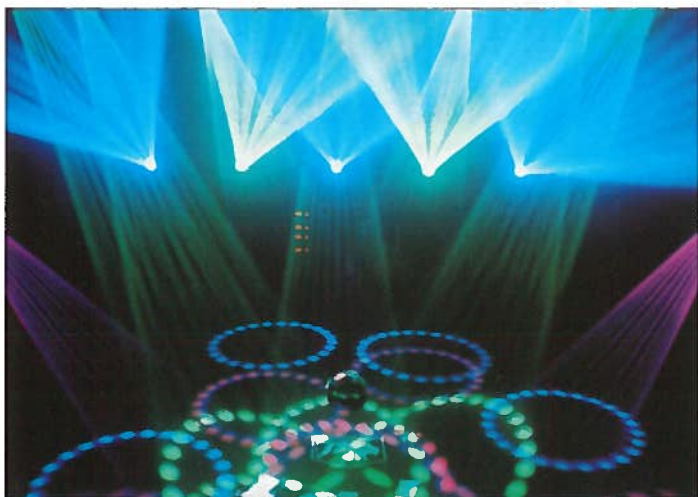
One other new toy making its first appearance, so far with **Martin** and **Pulsar**, is the CD-ROM as a marketing tool. More interactive than video and capable of storing a vast amount of imagery, though the quality would not stand up to large screen viewing - **Martin Professional** offered a virtual walk-through of their impressive factory and, on another disc, a product-by-product compendium,

while **Pulsar** used a virtual showroom as their starting point for a product search. Good fun, and a pointer to the future.

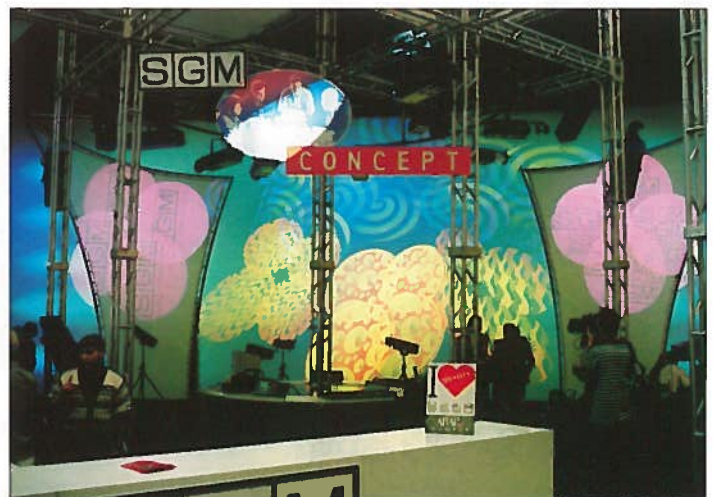
The light show award would go to **Coemar** for their excellent 360 degree presentation, if it wasn't for the fact that **Lobo**, that other German laser company, produced a show which totally blew everything else into oblivion, with its combination of iridescent, coloured, coherent beams, water and a sound system that could fell a forest of trees from 1000 metres. The **FLY** stand got our award for being the most attractive and relevant to what the company was actually selling. Indeed, it was the first stand we visited on arrival and was still the one with the most pull at the end.

For those of you who want to get the potted version before turning straight to the next article, significant new products were found from **Coemar**, **Fly** and **Martin Professional** and these can be found below.

On the control front, the irresistible pull of the PC to provide the power to control, brought Dutch newcomer **CCS** into direct competition with home-grown **ShowCAD**. Though their **Colibri** system doesn't seem to bring anything



Part of Paul Dodd's impressive light show on the FAL stand.



The SGM Elettronica stand, the first sight to greet visitors to the Fiera.



A scene from Sagitter's light show, programmed by Mick Martin on ShowCAD.

much new to the genre, and judging by the number of staff on stand they possibly underestimate both the size of the market and the inherent consumer resistance, they do get full marks for slick presentation and a friendly human interface, though low marks for the lack of printed information of any substance.

The normally innovative **Clay Paky** were the first major to put EMC before the temptation to splash out with the new products, but made up for it by giving much the best party of the week. Both they and their bedfellows, **Pulsar**, have been heavily EMC pre-occupied, in fact Paul Mardon proudly told me that getting the whole Pulsar range through has taken two man-years of solid effort. Nevertheless, he has also found the time to combine, what were previously two internal control boards in CP scanners, into one smaller single board, thus allowing more room for improved airflow, etc.

Coemar, were another company EMC'ed out, though, typically, Bruno Dedoro also found the time to introduce a rack of new products. First, for all of you who thought that the NAT acronym stood for the periscopic mirror system, prepare to be disabused, for now we have NATs with one-dimensional mirrors as well. These are the mms, not for millimetres but for Mirror Movement, whereas the original TM stands, not for Trade Mark as the rest of the world assumes, but for Total Movement. Confused? You will be!

This has resulted in the NAT mm 1200 zoom 15/30 with rotating and fixed gobo combinations, rotating prisms, frost and CMY colour mixing and the more basic NAT mm 1200 DX offering seven colours and five rotating gobos. They have also come up with Comet, an animated version of their famous Versatile, which delivers seven beams, from seven mirrors, onto seven mirror faceted effects devices. This uses a new short arc 400 MSR lamp from Phillips, and seemed to be seriously under-powered, which makes it odd that Coemar aren't using the 700W version of the same lamp which was described to me as 'awesome'. They also introduced a new range of lovely gobos, some of which are described as 3D.

FAL gave us a retro-show courtesy of the redoubtable Paul Dodd, at which the



Carla Rinaldi on the stand of Studio Due.

multi-faceted Proscan 1200, with its rotating gobos and prisms was amply demonstrated. Paul has supplemented belt drives on this effects machine for extra quietness since last year. Roulette is a new HMI 1200 or 575W driven scanner with five rotating gobos and nine colours, while Scan, with similar lamp options, offers seven fixed gobos and nine colours as does Gyro 2, which is a forward projector with nine colours and five gobos. Galactica is a new centrepiece based on the HMI 575 lamp with eight colours and 16 gang-controlled mirrors and, unbelievably in 1996, analogue control! The same applies to Spectra, a budget dichroic colour changer and Starburst, an HMI 575W moonflower with three colours and an optional scanner head. Skyliner is a new outdoor tracker in 2.5kW and 4kW HMI versions. On the small effects front, FAL have used three different rotating gobos

"If there was a common denominator or trend to be found, it was a move in the lighting department for more exuberance, colour and creativity."

and a colour wheel to develop three different units based around the 250W ENH lamp. These are evocatively called Mambo, Rumba and Salsa - all singing, all dancing huh? Lastly there is Zeus and Eclipse, two versions of the ever popular multi-beam fan effect.

The **Fly Chroma** and **Trichroma**, compact colour changing and colour mixing 150mm fresnels with integral dimmers, available in 1000/1200W halogen as well as 700 (MSD)/1200 (MSR) discharge versions, have proved useful, and now Daniel Canuti has developed an extended range of wash luminaires based on them. This means not only an optional scanning head with remote iris thrown in, but also, ultimately, a moving yoke. Models are also available with framing shutters, and there is a PC version with remotely variable beam angles. Other accessories are a mechanical 17-28 degree beam angle adjustment unit, a barn door attachment and a range of interchangeable optics, plus a four unit



Colour Spots from Ryger Electronics' new Defender range.

flight case. Altogether a neat integrated colour changing system which deserves considerable success, even in Fly's native Italy, where colour wash is less than popular for some unaccountable reason.

High End Systems, while present under their Italian agent, lacked significant presence from headquarters in Austin where, no doubt, a bunker attitude has set in while they fight off the invaders from elsewhere in Dallas. This, of course, may be part of the game-plan because, whatever the outcome of the courtroom battle, it is bound to be a major distraction for all concerned, and more so for the ingenue litigant. Even in litigation-happy America, one would have hoped that men of goodwill could solve these problems over a glass or several of the local moonshine, but sadly that does not seem to be possible anymore.

Meanwhile, it remains to be seen what the American exporter will do about EMC and this must be an issue for all US companies in the industry, comparable to conforming to UL for Euro' manufacturers. As always, the huge abstract projections generated by Cyberlight continued to impress everyone who passed by or through their aisle-spanning stand.

One company which stands to gain from the above fracas, whatever the outcome, though they are not directly involved at all, are **Martin Professional**, who only need to stand and wait as their competitors battle it out. Mind you, they had different fish to fry at Rimini with the gossip-machine working overtime on which company they were *not* going to take over. Those that were candidates, according to the rumours, read like a 'Who's Who' of the business, until the official announcement put a stop to the chatter by pinpointing JEM and Tracomani (see news this issue). Nevertheless, this left us with the curious situation in the aftermath, with JEM present on the Clay Paky stand, for they are the smoke machine company's Italian distributors.

Product-wise at SIB, Martin entered, undeterred, those dangerous waters and previewed a robotic, colour-mixing luminaire with movement based, for the first time, on a driven yoke, rather than on a dynamic mirror. Though what we saw at Rimini was a spotlight, we are aware that the MAC 1200 started out life



L+SI's Tony Gottelier (left) and a still-reeling Rod Bartholomeusz of Lite Smiffs (right) with a friendly native.



Left to right: Koji Ichikawa of GENB, Freddy Lloyd and Paul Fowler of Zero 88, with Zero's new digital dimmer unit, the Contour 12.



AC Lighting's Mike Falconer shows the company's new Chroma-Q colour scroller. In the background is Mark Ravenhill.



Pulsar's Ken Sewell (left) with Ben Weijters of Clay Paky GmbH on the Clay Paky stand.

as a wash luminaire, so we believe that there is a strong possibility of two models, and this was hinted at by Peter Johansen, though we await confirmation.

The MAC 1200 we saw incorporated Martin's colour mixing system which uses the Cyan, Magenta, Yellow (CMY) proportional mixing technique and, in addition, included a separate colour wheel with four interchangeable colour positions, plus open white. The lamp used is the 1200 MSR, for which Martin have developed a hot-spot elimination process as first seen on the PAL 1200, so the luminaire delivers a surprisingly even field. Despite this, and as the result of clever optical design coupled with the MSR lamp, the MAC 1200 delivers an intensely bright beam of light which Martin claim to be the most powerful of any moving head in the industry today.

The standard beam angle of the profile version of the MAC 1200, as shown at SIB, is 28 degrees, which can also be dispersed by a switchable frost filter, or narrowed by a choice of beam-angle gobos so that emulation of hard-edged and Fresnel-type beams is also possible. There is also room for some gobos and, in addition, remote focus and a mechanical, full-range microstepping dimmer is provided.

Control is always a bit of an issue with Martin as they maintain the dual personality of their own RS-485 system, as well as more recently offering DMX512, though in hybrid form using three-pin XLRs as per the Italians, but with pins two and three reversed. If you are not aware of this it can cause problems in mixed installations. Consequently, their PC-based 3032 controller, which was originally designed to run the Martin protocol, is now available in a rack-mounting version branded 3064 with assignable outputs to either protocol. Meanwhile the Belgian-designed CASE controller, reviewed at a previous Rimini, and now manufactured and distributed by Martin, remains a DMX512 system and appeared at the show in a fancy, faux-marble case. Both could control the multi-parameter MAC 1200.

AC Lighting were showing their new low-cost DMX-controlled colour changer, the Chroma-Q. This 16-frame unit features an injection-moulded plastic case, and each has opto-isolated individually addressable DMX



Lorena Boccola (left) aided by her younger sister on the stand of Italian manufacturer Lampo.

connections. The price is kept low, say AC, by the combination of mass production and advanced operating software cutting down on the number of components, and the company say they have proved very popular, both in Frankfurt and Rimini.

Avolites were once again thriving as part of the UK group, with interest in the Diamond II and Pearl consoles as strong as ever, while the Graphics Tablet remains an almost indispensable tool alongside the 'gems' of the Avo' range. Batmink, UK distributor for Italian manufacturer Lampo, and a successful first-time exhibitor at SIB last year, was again taking its place on the UK island.

Lee Filters introduced a comprehensive new range of 27 colour, control and effects filters which are being added to their already extensive range. These additions include 11 new effect colours, four new colour temperature control filters and six new diffusion media, including a waterproof fabric diffusion material, available as Grid Cloth or Light Grid Cloth, which can be sewn or grommetted to produce large diffusers for attaching to frames. New colours include 039 Pink Carnation, 071 Tokyo Blue, 322 Soft Green and 345 Fuchsia Pink. Also new is the 274 Mirror Gold reflector.

Nearby, Maris Ensing was displaying his array of show control and DMX control equipment. This range included the very clever Pico, a pocket-sized unit which can report on DMX status, act as a programming tool, or, by transferring text by DMX along one channel, can provide written instructions of cues to the inexperienced operator.

On show on the Nu-Light stand were the new range of laser display products from Laser Science. These include the Laser Triscan, which features 32 preset patterns, an internal



David Ambrose of Electrosonic (centre) joins Keith Dale (left) and Colin Whittaker of Celco.

microphone for sound or light modulation, 20 degree pattern scan angle and a total of three scanners. The Laser 3DFX also boasts 32 preset patterns, and has four scanners with a total horizontal pattern scan of 130 degrees. It also has its own master controller, and has been designed for both installation and portable applications.

Another member of the UK group, Lite Structures, debuted their new 'Lite Deck' staging. Manufactured from high grade 6082 T6 extruded aluminium box sections, with the familiar round lacing from the company's other products, the Lite Deck, with square, rectangular and quadrant formats, makes for a versatile, lightweight and robust system. Lite Structures also played host to Advanced Lighting, manufacturers of high-quality star cloths used in many US shows, including the Broadway production of *The King and I*.

In the hall adjacent to the UK group, a new trussing company made its first appearance at the show. Italian manufacturer Selvo Line were showing their broad range of truss, clamps and accessories, as well as their own broad range of furniture for bars, restaurants and gardens.

Celco took up the role of next-door neighbours to the PLASA stand, and were kept busy with interest in their consoles, the EPX range Explorer, Aviator, Pathfinder and Navigator. Colin Whittaker and Keith Dale revealed that Celco are currently working on a larger, more powerful console, to be launched at PLASA in the Autumn. Watch this space to catch up on developments in that direction.

Zero 88's smart new stand was home to the equally smart new Contour 12 digital dimmer. Zero's Paul Fowler explained that the development of the Contour had resulted from users' requests for a digital version of the successful ID dimmer packs. The 4U size Contour has been designed to offer clear information on dimmer operating status, even at some distance, with 12 single function buttons and integral LED indicators, and a slight tilt to the front panel to meet the eyeline of the user.

Features include two pole circuit breakers isolating both phase and neutral, automatic voltage sensing from 90-260V, automatic frequency tracking from 45-65Hz, neon 'load present' indicators, slow rise time suppression filters, tolerance of mains supply faults and fully



Left to right: Paul Topliss and Graham Merritt of Lee Filters with Avolites' Shahid Anwar.



The three LDs to use ShowCAD on the Sagitter stand: Paul Dodd of Fal (left), Douglas Nelson of Geni (centre) and ShowCAD's Mick Martin.



On the attractive Fly stand, Fulvio Cotogni (left), Strand's European market development manager, is pictured with Daniel Canuti of Fly.

isolated DMX input with status indication.

UK exhibitor **James Thomas Engineering** introduced their new Baby Tower system. This consists of a small ground support tower designed to lift loads of up to 500kg to a maximum height of seven metres, in a three or four-tower configuration. The Baby Tower is made up of modular lengths of 10cm x 6mm wall thickness tube to provide an adjustable height. The system has the advantage of being very lightweight, and will pack away quickly into a relatively small space.

Paul MacCallum of **Wembley Loudspeakers** was unfortunately absent from Frankfurt, and hence from Mark Cunningham's report on that show, but we managed to catch up with him here, where he was displaying the PTP Series of professional pressed chassis drivers. There are 10 drivers in the series, ranging from the 250 PG and 250 LS models, which are 10 inch units aimed at the electric guitar and keyboard markets respectively, to the 18 inch 450 LSB bass transducer, which features a seven inch vented magnet assembly and extended pole piece, and a 300W power rating.

Spotlight were showing a new range of Mini Spots, aimed at applying technology used previously in television studios and theatres to the architectural lighting market. The three lamps in the range are the mini Fresnelle, mini PC and the mini Profile. The Fresnelle features an 80mm diameter lens, a choice of either 300W halogen, 150W halogen or 200W discharge lamps, and beam spread adjustment from 11 to 54 degrees. The PC has an 85mm diameter special plano-convex lens and a beam spread adjustment of 8 to 64 degrees, while the Profile has an optical condenser system, four adjustable and rotatable shutters, gobo and colour frame runners, a 70mm front objective lens and interchangeable objective lenses for varying beam spread. All the units have extruded aluminium housings and are designed to be highly resistant to damage from exterior forces.

Sharing the Spotlight stand were **Lighthouse Holland**, who were demonstrating the first PC version of the advanced lighting design simulation software, Highlight. This package enables both set and lighting designer to create realistic three-dimensional full-colour models of their combined work, with excellent simulation of reflection and transparency, allowing them to make design alterations simply and quickly and view these changes instantly on screen. The time saving advantages of this attractive package are obvious, and in addition, the software features the facility for budget control at every stage of the design process. What's more, it has been deliberately priced within a quite accessible budget range.

A relative newcomer to the lighting industry, seen by many for the first time at last year's PLASA Show, is UK manufacturer **Mad Lighting**, who are doing the trade show rounds with admirable enthusiasm for a company that is little more than a year old. They reported a good response to their range of affordable, high quality disco lighting effects, including the MADScan range of scanners, and their own dedicated DMX controller, the MAD 1, which will control all of the company's lighting units.

Abstract launched their new DMX controller for their range of intelligent lighting fixtures. The typically-named CE Controller has been very thoughtfully designed, with ergonomics and ease of operation the top priority, and includes a host of attractive features and facilities.

Italian lighting manufacturer **Sagitter** once again played host to the talents of Mick Martin and Rowland Hughes from Axon Digital Design, who are now operating under the 'ShowCAD' banner. Mick's show for Sagitter

was one of three at SIB to be programmed with ShowCAD, the others being Paul Dodd's show for Fal, and, on the Geni stand, the show programmed by Douglas Nelson. However, only the multi-faceted Mr. Martin can lay claim to writing the music for his show as well. Sagitter's Infinity scanner was launched at Rimini last year, but now boasts some improvements, including a very smooth dimmer and what Rowland believes to be one of the best reds available. New from Sagitter this year was a followspot based on the Infinity, called Tracer. This is essentially an Infinity without the head, with the addition of a control bar at the rear.

Griven again had their range of discotheque centrepieces and effects, with the addition of the Scanvision and Midscan scanners. Both the Scanvision I and II are available with either 575W HMI or 1200W HMI lamps, and feature a range of gobos, colours and effects. The Midscan is a smaller unit, available with a 300W HTI lamp. Two new effects were introduced - the Circus and the Splendid. The former projects two rays of coloured light rotating on two independent axes, while the Splendid is a centrepiece effect producing 16 beams of dichroically coloured light from a single 575W or 1000W HMI lamp source. Griven also introduced two new outdoor effects: the Imperial, a searchlight with a 4000W Xenon light source, and the Spillo, a 1200W outdoor projector.

Studio Due, who last year launched the Stratos Hi-Res motorised spot fixture, added to the range this year with the Stratos Color. This colour mixing version of the above features mechanical dimmer and frost and strobe effects, as well as the option of an electronic ballast. The other new lighting effect from Studio Due was the Crown, which uses a multi-mirrored reflector to produce 12 equal beams of coloured light from a short arc 400W HMP light source. The unit has seven colours plus white, is rotatable at varying speeds in both directions and is DMX controlled. In the area of DMX control, the Control Show 512 was also launched by the company, designed specifically for control of the Stratos range of effects.

Lampo, another of the Italian manufacturers, added to both its theatre/studio and discotheque lighting ranges with product launches in Rimini. On the theatre and studio side, a new range of pole-operated Fresnels was on show, ranging from 575W to 2kW. For the discotheque market, Lampo's main new launch was the 2.5kW Columbus AS112 scanner. This very powerful unit features all the gobo and colour effects of the smaller AS98 Columbus scanner, with the addition of an effects wheel with four glass gobos and an extra colour filter to allow 72 colour shades. Other new lighting effects include the Titanus and Peter Pan coloured starburst effects, which include dichroic rotating prisms.

Coef launched a total of five new products at the show, with the redesign of their Performance 200 range of small scanners. The role of the Performance will now be covered by two models, the Performance 200 Show and the Performance 200 Disco. The Show model boasts a completely redesigned optical system which gives an increased light output from the 200W MSD source. Other effects include eight rotating gobos, 36 colours plus bicolours, two rotating prisms and rainbow effect. The Disco model is aimed at the smaller discotheque application, and includes basic features in its compact housing. Also launched were three new colour changers - two Colordisco models, available with either 200W MSD or 250W halogen lamps, and the Colorshow 200, which



Derrick Saunders and Jane Dorling of Pulsar.



Nicolo Oliva of Spotlight (left), with Nic Tolkien of AC Lighting.



Maris Ensing with the DMX and show control equipment from Maris Ltd.



Pictured on the Clay Paky stand, from left to right, are Siew Kim Tan and Teo Kim Puah of Hawko Trading, with Clarence Anthony, editor of Singapore-based E-Line magazine.



Pictured on the Batmink stand are, from left to right, Paul Goodman (Batmink), Eitan Zilkha of London-based Sapphires Audio Systems and David Churches, also of Batmink.



Kathinka and Gerald van Tongeren of Lighthouse Holland demonstrate the Highlight set and lighting design software.

provides a very wide beam angle for interior projection effects.

La Novalight introduced their new Move-It fixture, which as the name might suggest, is a yoke-mounted colour changing luminaire. The unit provides a high-powered beam of light that is coloured by multiple dichroics, using a colour mixing system that the company claim is the first of its kind.

On the **Geni** stand was a new DMX controller, the MasterMind 96, which was in use with the new Stratus 2 and Nimbus 2 scanners. The 3U size controller has 96-channel DMX output and stores six show memories of up to 300 steps each. Of the two new scanners, the Stratus 2 boasts the strongest range of effects, with a long-life 200W MSD lamp behind 14 gobos (static and replaceable), a total of six rotating effects and nine dichroic colours plus white. The fixture covers 170 degrees of pan, 90 degrees of tilt and includes 10 high precision stepper motors.

New from **Ryger Electronics** was the Defender range of lighting effects, consisting of the Scanner, Wolf, Tunnel and Colour Spot. All four models have 10 colours (nine dichroic) and the Wolf, Tunnel and scanner versions have 10 gobos. The Wolf uses a revolving barrel mirror and the Tunnel has a cone-shaped mirror which gives eight beams of light. The Colour Spot is a single spot lamp with 10 gobos as an extra option. Two new controllers were also introduced by Ryger. The Foot Effects controller, which has four flash/latch pads giving 100W per channel to a maximum of 3120W total unit load, is aimed at the small band or solo artiste. The PPC400 is a pre-programmed controller aimed at the small club or disco, controlling up to eight heads in either manual or fully automatic mode.

From Greece, **SLS (Hellas)** introduced their new DMX controller for their Follow-Me automated tracking system, which was first shown at Rimini last year. Follow-Me uses a minimum of four ceiling sensors to cover an area of 15sq.m, up to a maximum of 16 sensors covering an area of 1,000sq.m. The difference now is that the system is self-configuring, so that by simply targeting nine positions on the stage (illustrated on the controller screen) with one transponder and the lights, the system



The Trichroma Yoke: Fly's new yoke-mounted version of the colour-wash luminaire.



Debbie Clayton of Nu-Light and Gary Morris of Laser Science, with some of the Laser Science range of laser effects.

automatically calculates the set-up of all ceiling sensors. With DMX control, it is also possible for the performer's position on the stage to be linked with smoke machines, sound or other effects. However, the tracking appeared a little shaky, so there is still some room for improvement to what is a promising system. SLS also introduced a new dichroic six-colour changer, Panchrome, which uses the ENH light source.

Italian company **Space Cannon** were showing for the first time their Keen Light, a 700W HSR multi-effect yoke-mounted luminaire aimed at the mid-range application. The unit features 10 colours, plus white, five rotating gobos and five dichroic glass gobos.

Ariane, from France, were displaying a new range of side-emitting fibre optic cabling, called Magic Line. This comes in lighting lengths of two, four or eight metres, along with a black, sheathed length to separate the lit cable from the lighting source if required.

Programmi & Sistemi Luce, represented in the UK by United Kingdom Distributors, were introducing several new discotheque lighting effects. These included a DMX controlled scanner, called the Autoscan (the Italians must be running out of names for scanners by now, surely), with a respectable array of gobos, colours and effects, and the Storm centrepiece effect, which uses eight Par 36 50W lamps to create a swirling beam effect in eight static colours.

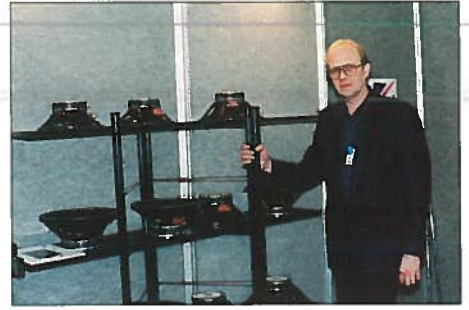
SGM Elettronica launched their two new



Martin Professional's new Mac 1200 yoke-mounted colour-changing spotlight.



A merry throng on the Avolites stand. L-R: Steve Warren and Shahid Anwar of Avolites, Pino (Audiolink), Paul Topliss (Lee Filters), Maris Ensing (Maris Ltd) and Tony Shembish, also of Avolites.



Paul MacCallum with the new PTP series of professional pressed chassis drivers from Wembley Loudspeakers.

scanners, the Victory I and II. These have new optical systems which greatly enhance the output obtained from the 250W lamp source. Features include 16 dichroic colours, rainbow effect, three static and four rotatable gobos, the speed of which can be varied to produce the effect of three-dimensional projection. The SGM stand was among the most well presented at the show and, positioned right by the entrance, it was the first thing that most visitors saw. As can be seen from the picture accompanying this piece, the projection effects achieved were quite something.

LED launched two new scanners and a range of three new smoke machines this year. The scanners, the Livescan and Livescan 2, are both available in 575W or 1200W versions, and accept digital RS232/423 or DMX512 input. They feature microprocessor-assisted stepper motors, a watchdog system for automatic reset and 10 standard colours with rainbow effect. Dedicated controllers can control up to 16 lights. The range of three smoke machines includes the Jr Fog, weighing in at 7kg, The Mr Fog and the largest of the set, the Lord Fog, which weighs 11kg.

German Light Products (GLP) introduced the Patent Light, which consists of a rotating head unit containing a moving mirror. This unusual construction allows for a wide coverage, and with the head able to rotate at a maximum of seven times per second, makes some unusual effects possible. The unit includes four rotating and two fixed gobos, colour wheel and high-speed shutter. The speed of the movement is matched by the slickness of the 25,000-step motors.

Last, but not least, no Rimini Show would be complete without mention of the Rose & Crown, our own particular time and culture warp, where indeed time tends to stand still until the wee small hours (know what I mean Chris?).

Somehow, we all imagine that the good old R & C opens up exclusively for SIB and remains firmly shut in the meantime and it came as quite a shock to find that, in fact, the place is normally jammed with Italians with barely space between the bodies for the slimmest British imbibers. Hey ho.



Adrian Brooks of Lite Structures (centre), with Paul Streitz of Advanced Lighting Systems (left) and Paul Vandendahl of Lite Structures France.

IN CONFERENCE

Jackie Staines Outlines the Technical Upgrade at Wembley Conference Centre

Imagine the logistics of a major refurbishment programme in a venue that books up so far in advance that it is impossible to go dark for more than a few days at a time. This is the major headache currently being experienced at Wembley Conference Centre as they update and renew equipment and facilities of the Grand Hall in order to move towards the next millennium.

The refurbishment will run over approximately three years to deal with this problem, and much of the work will be done as rolling projects, fitting in around the Grand Hall bookings. The areas to be improved include the stage floor, addition of draperies and a cyclorama, auditorium seating and carpeting, production sound and further additions to the now fully installed, commissioned and working stage lighting system.

The specifications for the new lighting system were drawn up in 1992 and, during the following two years, various system components and complete manufacturer packages were considered to find the best solution to those requirements. The control desk was to replace the ageing, but fully working, MMS, which sadly could no longer be maintained. However, a straightforward feature-for-feature replacement was deemed no longer suitable and the specification stated that the control desk should utilise modern technology and thus enhance the saleability of the Grand Hall from the technical specification angle. Some of the features specifically required by the conference centre included minimum channel capacity in the region of 600-1000, 500 memories, separate memory and channel control, two playbacks, manual or auto fade, grand master and blackout controls which would not affect motion control facilities, advanced submaster functions (a minimum of 24), programmable effects, macros, motion control, DMX 512 protocol, floppy and hard disk library storage and advanced back-up facilities. In addition, the whole system should be of the highest build quality, with the service and product development commitment from a reputable and well-established manufacturer.

Other requirements for the lighting system as a whole were that it should provide maximum compatibility, flexibility and ease of use for incoming clients whether they wished to use their own equipment, the in-house equipment or a mixture of both, and to allow a variety of operating positions and lighting peripheral device plugging points throughout the venue. The installation therefore required data cabling to allow all the various pieces of lighting equipment to be easily rigged anywhere without needing excessive temporary cabling, data boosters or mergers.

Several lighting control desks were investigated at trade shows, during factory visits or even loaned to site for trial until the choice was narrowed down to two systems from two different manufacturers. Both companies have been established for



A view of the auditorium, Wembley Conference Centre.

"Imagine the logistics of a major refurbishment programme in a venue that books up so far in advance that it is impossible to go dark for more than a few days at a time."

three-quarters of a century and have the backing of big, multi-national corporations behind them, so there was little sway in terms of longevity and reputation of the manufacturer. The choice of control therefore fell to the one that most closely fitted the original specification - ADB's Vision 10.



The stage as seen from the control room.

As any who have undergone major refurbishment will know, you get the best possible price and service if a whole 'package' of equipment is bought from the same company. In the case of Wembley, they also required new dimmers, a DMX network and some additional luminaires to supplement the existing stock.

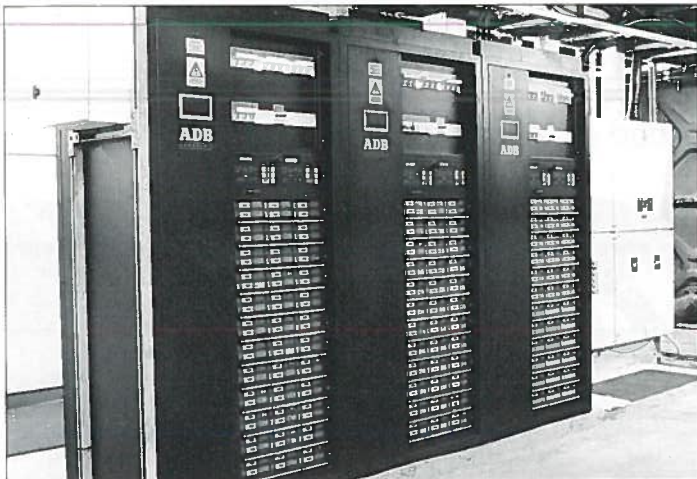
Both Eurorack and Eurodim were considered to replace the STMs - both new products carrying the advantages of being intelligent

digital thyristor fired dimmers with dual DMX inputs, onboard memory storage, dimmer law choices and testing facilities. They eventually decided on the top-of-the-range Eurodim 2, mainly because of its compliance to BBC dimming, filtering and suppression standards, but also because of the additional benefits of dual control electronics, diagnostics and modular construction, thus allowing future expansion or changes in the choice of modules.

A partial luminaire package has been supplied, with a view to adding to this in the future. It was considered wise to put the available funds into the dimming, knowing that more luminaires can easily be purchased in the future. ADB 1kW condenser optic profiles, 2 and 5kW Fresnels and colour scrollers suitable for all three sizes of luminaires have been supplied, with the intention of adding 2kW profiles, 1 and 2kW PCs and more scrollers.

With the supplier and the equipment now chosen, the logistical nightmare began with scheduling the installation work and hand-over date. Vision (and the compact version to be used as either a back-up or a live desk) could be installed at virtually any time, but the MMS could not be removed until some Vision training had taken place. Installing the dimmers would naturally mean a certain period of time when there would be no permanent dimmers in working order and some changes to the wiring structure also meant that the permanent socket outlets would also be disabled for a time. If the venue was able to go dark for a couple of weeks, none of this would have been a problem, but because of the constant use, ADB had to provide a board operator/supervisor for the first week of shows on Vision.

Wembley installed temporary dimmers and cabling during the same week and the ADB installation engineers had to take a day off when



The ADB Eurodim dimmer cabinets and Proteus switchgear.



Assistant technical manager Steve Lee with the Vision 10 control console.

Royalty was present! The electrical installation itself was a relatively straightforward matter of 'out with the old and in with the new'. To accommodate the load of additional dimmers, a second supply was run into the dimmer room and both supplies utilise new Proteus switchgear. The old installation had many paired dimmer circuits, 34 of which were on changeover switches allowing circuits either front-of-house or on-stage. All these changeover switches have gone and more circuits have also been gained by doing away with the old dedicated independent circuits. Eurodim modules set to a non-dim curve can cope with virtually any load, even the massive starting currents associated with HMIs, so independents are no longer necessary. The total number of dimmers has changed from 118 to 198, so the Grand Hall is now capable of receiving much larger rigs without incurring additional costs or wiring problems.

The DMX network installation was more complicated. The venue required it to work in three different ways: firstly, to allow four different positions for the Vision control desk (control room, side stage, front auditorium, rear auditorium), secondly, to allow both Visions (main desk and back-up/live) to communicate fully with each other and the dimmers, whether in-house or temporary, and thirdly to allow DMX patch zones throughout the lighting areas for local DMX plugging of

scrollers, moving lights, etc.

These requirements have resulted in a DMX patch system which, at first glance, looks quite complicated, but is actually very straightforward to use. The two Vision desks are linked together by a dedicated 'Syncro' line which enables them to be used as main desk with fully tracking back-up, master/slave or fully independent of each other, depending upon the show requirements and whose staff is to be operating which equipment. The desks can be situated either side-by-side or in completely different locations. One desk could be dedicated to controlling the in-house dimmers only and remain in the control room, whilst the other controls extra dimmers or moving lights and is situated in the auditorium, for example. Each DMX patch position allows the choice of which desk is to control which dimmer input and the master patch bay activates the required peripheral patch zone(s) and provides data boosting when necessary.

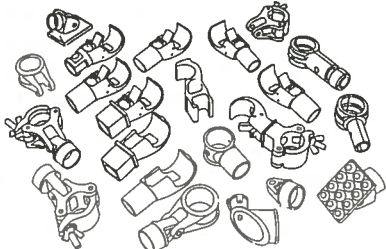
With this system, any DMX desk can be situated in any of the four available lighting board positions and control any DMX dimmers and devices situated anywhere in the venue, whether permanent or brought in for a specific event. With the new equipment and some new concepts to be learned, it was decided that ADB should provide training, not only on the new equipment but on principles ranging from crewing, understanding and testing DMX, to

the basics of lighting design. There is also an ongoing commitment to training in order to support product improvements and future updates. There was much for the staff to learn about Vision, Eurodim and the DMX network and because of recent changes to the staffing structure, some of the previous audio-visual staff needed to be trained as lighting technicians. A short course was devised to introduce all the staff to the new equipment and also to make sure that all the new lighting technicians are equally capable of all aspects of the job. They are all now fully interchangeable and as a team can accommodate any staffing requirements for the various events at the centre, from AGMs to product launches and rock concerts.

The combination of new equipment, staff training, technical advancement and the versatility of the new installation will enhance Wembley as an ideal venue for any event. It is now proposed that client packages are to be devised, incorporating staging format, lighting and sound packages and staffing levels so that every client, however technical (or not), will know in advance exactly what they are getting in terms of technical support when they hire the venue. This should result in continuity of standards for all clients each time they visit. Of course, technical requirements and staffing levels can always be tailor-made to suit non-standard events when necessary.

ALISCAFF

Primary manufacturers/suppliers worldwide of aluminium couplers (scaff clamps), aluminium snap hooks and many other aluminium fittings to fit either 2" (50.8mm) or 1.29/32" (48.4mm) tubes
Ask for collage of full range - Custom design work undertaken



ALISCAFF LTD

Unit 2 Hotspur Ind Estate
West Road, Tottenham
London N17 0RJ
Tel: 0181-808 5005
Fax: 0181-801 9851

Wilkes Iris Diaphragm Co Ltd

WORLD LEADER

ILLUSTRATED BROCHURE AVAILABLE

In manufacture and supply of Iris Diaphragms, our reputation is second to none. Our wide range, suitable for all applications, are used extensively throughout the TV and Theatre industry by many of the leading companies.

For more information, please contact:

Widco Works, London Road,
Bexhill-on-Sea, Sussex, England
Telephone: (01424) 217630 Fax: (01424) 215406

HIGH PERFORMANCE AT A LOW COST

THE MINI DRY ICE BOX
PORTABLE DRY ICE MAKER
PRODUCES DRY ICE IN LESS THAN A MINUTE!

- RSC - BARBICAN & STRATFORD
- LOUGHBOROUGH TOWN HALL XMAS PANTO
- ON TOUR WITH ME & MY GIRL

(PRODUCT OF THE YEAR ABTT 1989)
NO MAINS OR BATTERIES REQUIRED
COMPACT AND LIGHTWEIGHT
SAFE AND CONVENIENT
SALE OR HIRE • AVAILABLE FROM

4 NORWICH ROAD, WHEATLEY PARK,
DONCASTER DN2 4QD TEL: (0302) 364808

Come - See The Light!

With its microscopic particles of food grade mineral oil, the DF50 Diffusion™ Fogger creates a safe, subtle haze which enhances your light beams, adding a new dimension to your lighting design



Exclusive European Distribution:
AC Lighting Ltd
Unit 3, Spearmast Industrial Park
Lane End Road, Sands, High Wycombe
Bucks, HP12 4JG, England
Tel: +44 (0)1494 446000 Fax: +44 (0)1494 461024

NIOSH Approved
CAL OSHA Approved

Your next
advertisement
could die from
poor circulation.

Don't let it. Before you book an advertisement, ask to see the publication's ABC Certificate.

No ABC. No guarantee.

Please send me more information about the ABC and its activities.



Name: _____

Position: _____

Company: _____

Address: _____

Tel: _____

Fax: _____

Audit Bureau of Circulations Limited,
Black Prince Yard, Berkhamsted, Hertfordshire HP4 1AD
Tel: 01442 870800 Fax: 01442 877407

37

carefully
selected colours now available.

HT+

for colour changers and high
temperature applications



TOTAL CONTROL

If you are lighting theatre, rock & roll, television or video, the new Pro Color Filter range is for you. With six specialist designer reflectors, 83 effect and eight soft cosmetic colours, 14 diffusion and 21 colour correction filters
Pro Color gives you total control.



World-wide distribution and dealer opportunities:

AC Lighting Ltd
Unit 3, Spearmast Industrial Park, Lane End Road,
Sands, High Wycombe, Bucks HP12 4JG, England
Tel: +44 (0) 1494 446000 Fax: +44 (0) 1494 461024

PARADISE LOST

Steve Moles explores a new trend in all-night dance parties at 'Fantasy Island' in Skegness

It has to be the perfect marriage: an event that largely takes place in the imagination of the audience, staged at a venue where the imagination has been fully realised. Imposing rave culture upon a theme park environment is rather like putting a group of eight year old boys in an unguarded chocolate factory. A dream come true for the boys, but watch-out - someone might get sick.

Thus, for understandable reasons, when Gary Bangham and Bogey of the Active Corporation first proposed to the District Council of Skegness and the local police, that they stage an all-night dance party at the 'Fantasy Island' leisure complex in nearby Ingoldmells, the local authorities were cautious to say the least. In fact, the proposal was turned down initially, but after the parry and thrust of a High Court action by the owners of Fantasy Island, a try-out event was arranged for New Year's Eve 95/96. This proved successful, and with immediate fears allayed, a second, larger event has just been staged.

The complex, enclosed beneath a huge glass pyramid, is a £25 million development designed to cater to the needs of the family holiday-makers who inhabit the 30,000 or so mobile homes that cluster around this part of the East coast. In the off season, the complex still opens for some weekends, as the facilities it offers are substantial enough to draw in the crowds.

Rides include a Log Flume and Roller Coaster, as well as more conventional fairground-style attractions such as Twin Spins, Twisters and Waltzers. For the more sedate, there is a Seaquarium ride, a monorail, and the inevitable arcades of video games. The heart of the Fantasy Island Pyramid is dominated by 'Dragon Mountain Descent', an enormous mound of fake rock three storeys high, woven through by an unusual water slide - a sort of wet helter-skelter - that is descended on a small sledge allowing users to ride fully clothed. Uniquely, Fantasy Island also claims to house the only IMAX screen equipped with hydraulic automated ride seating outside the USA.

Being a family oriented complex, the whole area is amply served by fire exits, bars, toilets and restaurants of the fast-food variety, all themed around the 'Fantasy Island' concept, with plenty of faux rock, pirates coves and shivering of timbers.

For the rave (and perhaps this is the event that will finally lay to rest the bad connotations inherent in that much maligned word), every facility of the complex is open and running. For the 10,000 people the event is licensed for, gone are the days of rip-off £2-00 mini bottles of mineral water and extortionately-priced rubbish food and fags.

This is not the normal disused warehouse on a barren industrial estate, converted for the night, but a purpose-built pleasure zone with



The Dragon Slide at Fantasy Island.

health and safety built-in for those enjoying the facilities. The nine main areas that comprise the core complex are separated into various Techno, Chill-out, Jungle and other such zones, as is the norm for Rave culture. With an eye to over-excitement, a medical area is also set aside equipped with hospital beds and staffed by two doctors and six nurses.

The whole evening also differs in one other fundamental way from the more normal rave.



LSD's Icon desk sits in control in the main area, bordering the Pyramid.

Instead of drawing in a hotchpotch of suppliers for lighting and sound - as is so often the case, with many of the different zones kitted out by competing companies with mis-matched gear - this event has taken the rock and roll route. Perhaps because of his background with The Packhorse Case Company and thus his contact with the touring industry, production manager, Steve Kane, has used LSD and Blue Box as sole suppliers of lights and PA respectively for the entire complex.

Jim Mills from Blue Box headed up a four-man team of sound technicians and, with the help of what he refers to as "six excellent local stage hands", installed a substantial amount of kit. The two main areas bordering the Pyramid, the so-called Mix Mag and Renaissance rooms, each had eight Turbosound Floodlight and eight bass cabinets all driven off C-Audio and ES4000 amps.

The main Pyramid room had a larger system of the same equipment, comprising 12 of each type of cabinet. The Techno room, in one of the more cave-like environments, had a set of six TMS 4s with 118s for the bottom end. Blue Box also supplied all necessary equipment for the DJs: Tascam DA30 DAT machines and lots of single and double-headed Denon CD players, plus substantial monitor systems. Two DJs elected for somewhat over-the-top tri-amped TMS 4s, whilst a third used PSM115 monitors from Function 1.

Not surprisingly, officers from the Environmental Health department strayed on the side of caution. 100dB was the level agreed between production and the EHOs - rather over conservative considering the surroundings, but as a further nine licences have been applied for



'Fantasy Island' - plenty of faux rock, pirates coves and shivering of timbers.

to run later this year, perhaps one step at a time is the wise way to proceed.

A single row of bungalows, originally built as holiday homes, are the only permanently occupied dwellings within a mile or so of the complex: but even these nestle behind a large earthen rampart taller than their roof-tops, the so called 'Roman Bank', and are well isolated from the source area. Were the caravans and mobile homes in occupancy then it might be a different story, but in truth the PA system, although audible outside the buildings, was hardly obtrusive, and easily drowned out by the engine noise of a passing car. John Bide, inspecting officer for the Environmental Health Department of East Lindsey District Council, said: "Generally, we didn't have too many problems and levels were kept to, although we did have difficulties with the bass emissions up to midnight."

For the Pyramid room, this focus on bass proved a disaster, as Jim Mills explained. "The officers from the EH department monitored the systems regularly all night (a printed read-out every minute, to be precise) - as you can imagine, it was obvious early on that the 100dB limit was easily exceeded. The producers took the decision to have everything below 100Hz taken out of the system altogether. To a large degree, this had the desired effect, but made the system sound like a large transistor radio.

"We received a lot of complaints from disgruntled punters who quite naturally were missing the thump, thump, thump that is so much a part of this music. We would rather have maintained a full mix at a lower level." The monitoring equipment used by EH took linear, flat and peak measurement of sound rather than 'ear weighted' which as Bide explained, "gives a more consistent indication. Ear weighted tends to be more tolerant of the lower frequencies." Hence the decision to pull out the sub 100Hz frequencies.

Luckily, EH monitoring in the other rooms was less stringent, and although the level often exceeded 100dB, the more moderate, less bass-heavy musical styles used here kept attention focused on the Pyramid room.

"Imposing rave culture upon a theme park environment is rather like putting a group of eight year old boys in an unguarded chocolate factory."

There is certainly justification for environmental monitoring and it is right and proper that, having agreed a limit, the officers should enforce it. There does, however, seem to be a need to loosen the reins here somewhat. After all, when Fantasy Island is in full swing during the summer season there's no doubt that the cumulative output of the facility easily exceeds 100dB. All right, so it doesn't go on all night, but it is every night 'til late for several months of the year. Steve Kane contacted the Eastern Division of the Lincolnshire Constabulary every hour during the event to monitor noise complaints, of which there were none. Since the event took place, he has spoken to all the concerned authorities: "I've been congratulated on the production with special mention on the safety and medical aspects." With less than a dozen people arrested over the two events, and in view of the above comments, there does seem cause for Environmental Health to relax the limits a little.



One of a trio: LD Peter 'Fats' Parchment.

No such limitations on the lighting, but for LSD the labyrinthine nature of the complex and the fantasy decor made not only for a designer's dream, but also a bottomless pit for equipment. With so many areas to light and control, three designers were brought in to share the honours: Martin Nicholas of Wet, Wet, Wet fame, Peter 'Fats' Parchment who has been cutting his teeth with Fish, and Mark Cuniffe, automated lamp programmer extraordinaire who has most recently been seen at the Brit Awards and the Prince's Trust at the RAH. The equipment list is too lengthy to detail here, but the fact that there were 55 Icons, 24 Washlights, 17 Intellabeams and over 100 strobes, including substantial quantities of Terrafridges and Dataflash, gives some feel for the event. The connecting halls were defined by 300 feet of Arcline, plus an array of effects projectors, 5ks and Mini-Moles tucked in every nook and cranny. Truss was in abundance, as were rectangles with screens to give projection surfaces for the many gobo devices, and some excellent animated graphics from Laser Electronics, plus several abstract floor-standing truss shapes to bring lighting down out of the roof and into the crowd.

Perhaps the most remarkable aspect of this event was the way in which it ran, as Jim Mills from Blue Box noted: "It was just like doing a rock and roll show." Power for both PA and lighting was provided in-house (administered by Shaun Pierce of Pierce Hire) and was readily available at many points throughout the complex, thus avoiding the thorny issue of how to get lengthy mains runs through public areas. Proper catering (Michelle Maxwell) was provided on site for the crews, as was on-site accommodation in the adjacent mobile homes, all of which made the job convenient and comfortable for all those involved and, as mentioned earlier, no skimping was done on the stage hands who proved themselves to be professional and adept.

For sustaining a light show for the best part of 12 hours, the operating honours were largely split between the three designers. Mark Cuniffe spent 10 hours the previous two nights programming an enormous array of cues for the Icon systems (there were three desks in all). "I had intended to use a standard disk of mine," he said, "that contains 112 different shutter and colour chases and build from that. But in the end, I realised it would be better to build a show from scratch. I laid out the desks so anyone could operate them (all had double matrix panels) with defined effects under certain buttons, clearly marked. In fact, everyone on the lighting crew operated at some point in the night as I was able to run all of them through the basic button sequences beforehand."

In conclusion, it may have been a little contrary to the underground ethos of the rave culture, but then why shouldn't these all-night revellers be treated to comparable facilities with other mass public events? The promoters should be applauded for the absence of rip-off prices and the high quality presentation. They quite obviously eschewed maximum profit in favour of longevity.

The only real danger I see is that the facilities are so attractive, and the potential for amusement so varied, that we might soon see men in corduroy trousers and Marks & Spencers sweaters dancing the night away, myself included.

EQUIPMENT NEWS

Virtua a Reality



Soundtracs have introduced the Virtua console, a fully digital 48-channel mixer, featuring 4-band fully parametric EQ, compressors and gates on every channel, eight auxiliaries and eight groups. The mixer is suitable for a broad range of production environments.

Virtua is a stand-alone unit requiring no external computer and provides a touch-sensitive motorised fader control surface, combined with high resolution VDU and LCD display. The internal architecture is 32-bit floating point with 20-bit conversion on the outputs. The console provides full dynamic automation and snapshot recall of all functions, LCRS panning and professional digital interfacing in a variety of formats including ADAT optical, S/PDIF and AES/EBU.

An external rack of A-D and D-A convertors connects to the desk optically with standard 32 mic-line inputs on balanced XLR/Jack, eight group outputs, eight aux outputs and 16 direct outputs. An additional 16 inputs can be used as eight stereo effects returns or monitor returns.

Another new arrival from Soundtracs is the Topaz Maxi 8, a fully-functional front-of-house console which can be reconfigured as a stage monitor and matrix mixer by the simple push of a button. Available in 24 and 32-channel versions with up to 28 mono inputs and two stereo inputs the Maxi 8 provides eight busses, four band quasi-parametric EQ and eight auxiliary sends simultaneously from each channel. Currently in production, the consoles are scheduled to be available by the end of April.

For further information contact Soundtracs in Epsom, telephone 0181-388 5000.

Glass Menagerie

M&M has developed a new process which enables glass gobos to be produced for the first time using the company's Gobomaker Kit.

Photographic quality artwork and pictures with resolutions in excess of 1,200dpi can be reproduced. As the image is supported on a bed of glass, 'floating' images, such as a logo set in a circular outline, can also be created, something that is impossible to achieve with a metal gobo. A microscopic layer of aluminium on one side of the 1mm thick, heat-proof silica glass, dissipates the heat to the edge of the gobo, enabling it to withstand temperatures in excess of 500 degrees C. As a result, the gobos can be used in very high powered lanterns and, as they remain in focus at all times, can remain in situ for hours at a time.

For further information contact M&M in London, telephone 0171-284 2504.

Adventure Upgrade

Celco have begun shipping the EPX upgrade kits for their Adventure Series range of lighting consoles. The kits come as software-only for the Aviator, with both hardware/software options for the other desks. EPX was designed for Celco's Aviator, which offers control of 512 channels and DMX512 patch configuration, 1000 cues and 25 lists of 999 entries each. Able to control any moving lamp, the console can automatically set the DMX512 patch by selecting the appropriate fixture from the integral moving lamp library.

For further information contact Celco in Dartford, telephone (01322) 282218.

Flat-Pack Trussing

Total Fabrications have launched the Fold Flat truss system. The truss comes in standard versions of 600mm x 600mm, three metre lengths and folds flat to a quarter of its width. Other features include a connector design which makes for faster set up times and greater load bearing capacity.

Fold Flat truss can be integrated into the new heavy duty roof structure and also interfaces directly into the new four tonne TF Tower System. For further details contact the company on 0121-772 5234.

Bid for Freedom

Launched at the PLASA Show last September, CCT Lighting's Freedom range of profile spotlights have been enjoying a high profile at the recent SIEL show in Paris and Pro Light and Sound in Frankfurt.

Freedom takes either a 575W, 115V or 600W, 230V lamp with optional unit dimmers. The range includes four fixed beam angle profiles plus two variable beam angle units and also a wide angle version. Each unit gives the light output of between 1000W - 1200W, as offered by conventional profile spotlights. Each dimmer can be daisy-chained for DMX with channel selection from 1 - 512, and 'local proportional control can be used on each dimmer using a selector switch.

For further information, contact CCT Lighting in Sutton, telephone 0181-770 3636.

In QCommand

The QCommander automated lighting control system from LightProcessor is a multi-function console for a wide range of applications, designed to control moving lights, effects projectors, colour scrollers, dimmers and other DMX devices.

All functions are menu driven from the LCD display and the surrounding 'softkeys'. The 256 DMX channels may be set up as a standard dimmer on an LTP or HTP basis, or as part of an automated lighting fixture or chase sequence. The programming of moving lights is simplified by the push-button selection of each fixture attribute. Three different moving light types may be in a QCommander at one time, the personalities being uploaded from a PCMCIA memory card. MIDI show control and an RS232 port are also fitted.

For further information contact LightProcessor in London, telephone 0181-575 8828.

Avolites Software

Avolites have introduced new software for the Sapphire and Pearl consoles. Sapphire 96 introduces time-saving features for use on both desks. Several Diamond II features have been ported to the Sapphire, the most requested being 'chase unfold'. This allows the steps of a chase to be replayed across the playbacks as if they were memories. Memory fade times have been enhanced with the addition of two new 'replay' modes. The first allows the setting of fade-in and fade-out times for HTP channels and fade times for LTP channels, and the second provides manual control of LTP channels.

The number of memories available has been tripled while more efficient memory usage has quadrupled the storage capacity. Script files are a new feature, allowing automation of the desk from an external source. The Graphics Tablet has had 'spread' and 'circle' functions added. Spread takes pre-selected instruments arranged in a shape and expands the shape that the lights represent, whilst Circle forms the selected instruments into a circle, allowing it to be expanded and rotated.

For further details contact Avolites in London, telephone 0181-965 8522.

One in the Eye

The XTC Lighting's DMXEYE is a mini show recorder primarily designed for lighting control in situations where the same sequence of lighting scenes need to be triggered by a turn-key operation. By sitting in the line between any standard DMX lighting console and the dimmers or moving lights, the DMXEYE can record a complete show and store it in its internal memory, along with the times the lighting cues occurred. By setting the key switch protected mode to playback, the DMXEYE will then continually loop through the captured lighting scenes at precisely the rate at which they were recorded. For further information contact XTC in Croydon, telephone (01689) 800500.

Transtech T20-M



Transtech GmbH have introduced the updated, CE marked T20-M lighting control system, which features 120 channels, multi-functional digital fader wheel, crossfade system with splitfade, colour monitor, standard interfaces and disk drive.

The T20-M is a lightweight unit, housed in an impact resistant enclosure, suitable as a backup and as a remote control. Also from Transtechnik comes the DMXlink, a two-in-one proportional merger for DMX commands which can translate the programmes of guest consoles into the existing DMX infrastructure. (The company's Tom Weber is pictured above with the new system at the recent Frankfurt Music Fair).

For further information, contact Transtechnik in Germany, telephone +49 8024 9900.

When You Need To See The Light



Not The Fog.....

Consider this: The light you project onto a stage can only be seen by the audience when reflected by surfaces. Most of the light travelling through the air is unseen - wasted. The Vision Light Enhancer 100 creates microscopic size particles of food grade mineral oil which are suspended in the air forming a finemist. Almost undetectable, the

particles partially reflect the light, enabling the audience to see the projected beams without the distracting fogging effect of conventional systems. The mist is harmless and due to the size of the particles requires far less fluid than conventional 'Smoke Machines'. Best of all, the Vision Light Enhancer is priced with the budget-conscious in mind.

VISION

LIGHT ENHANCER 100

Exclusive Distribution:

AC Lighting Ltd

Unit 3, Spearmast Industrial Park, Lane End Road,
Sands, High Wycombe, Bucks HP12 4JG, England
Tel: +44 (0)1494 446000 Fax: +44 (0)1494 461024



FRANKFURT'S FORTE

Mark Cunningham tracks down the many new audio products and initiatives announced at the Frankfurt Music Fair

By the time you read this report it is likely that the blisters my feet acquired after four days at the biggest and most important music show in the world have settled down, and once again I can walk without wincing.

Ailments aside, this year's Frankfurt Fair was nothing short of spectacular, certainly in terms of the sheer volume of new products featured in the Pro Light & Sound halls. Over 95,000 visitors passed through the venue, and of the 1,500 exhibitors from 50 countries, around 400 represented the Pro Light & Sound industry to set a new record.

Musically, the show marked the re-emergence of the legendary blues hermit, Peter Green, who played his first gig for many years in the main hall. On the equipment front, however, it appeared that the overriding design and marketing theme among many manufacturers was one of compromise.

If I had a fiver for each stand which launched budget entry-level versions of top line products which were either established or prohibitively expensive, I would have little need to buy my weekly Lottery tickets. The other thing of note was the staggering amount of loudspeaker manufacturers represented at the show, many Continental and hoping (with varying degrees of success) to attract a UK distributor. And everyone was thankful that it only happens once a year!

BIG, BLACK AND LOUD

Notable for its provision of a sound system on the Galleria stage by the MI halls at the show, **Axys** is a Netherlands-based company which deals in both studio monitoring and live sound reinforcement. At a show where it became difficult to distinguish between the laudable virtues of many loudspeaker manufacturers, Axys was notable for its pioneering achievement in what can best be described as 'followspot sound' with its column array speaker system.

On the surface, the system appears traditional, but this could not be further from the truth. Each column houses 16 4" loudspeakers and eight built-in amplifiers which receive their signal from a remote Octarray Digital Directivity controller which steers the angle of the array's sound beam and controls both the vertical opening angle and the



Turbosound's Martin Reid (centre) and David Bruml (right) with Far East distributor David Clowes of Expotus at the launch of the Impact amplifier/speaker package.

azimuth of the beam. Gerrit Duran, president of **Duran Audio**, the marketing arm behind Axys, said: "We have installed these systems in Amsterdam Skiplip Airport, Laurens Cathedral in Rotterdam and the Central Railway Station in Budapest.

"The product is really designed for areas of poor acoustic intelligibility, and the whole point with these arrays is to avoid sonic reflections from walls, but direct the sound only where it is meant to be heard. We are currently working on a similar system for the National Football League in the USA."

Whispers circulated during the show, telling of a new high-end concert PA series from **JBL** which may be making an appearance in the UK soon after Beta testing is completed. Meanwhile, visitors took note of JBL's MR Series of speakers. The MR922, 925 and 938 have 250-300W power handling capabilities throughout the line and feature re-engineered crossover networks that include SonicGuard non-intrusive speaker protection. They have crossover slopes which reduce distortion and interaction between drivers, and feature a new small format compression driver, constructed using pure titanium with a Kapton former. The new composite material for the flat front bi-radial horn renders the product virtually indestructible.

Celebrating its 25th anniversary this year, **Martin Audio** launched its new WM45 mini monitor which has been designed for the small cabaret or acoustic act and complements the rest of the Wavefront range. It is a very personal monitor which can be positioned at either a 30_

or 60_ angle. The new W8 Compact is a compact version of the W8 with identical crossover points and control, with the exception of a single 12" instead of the W8's double 12". Used with the new WSX sub-bass unit it provides a formidable system for dance music.

Bill Webb, Martin Audio's engineering director, said: "The WSX follows the tradition of a long folded horn. There are not many in the industry because people have gone for compact size. The ideal is a long folded horn because it gives maximum efficiency with about 105dB and peaking at 138dB. As you get down to 40Hz, you really need a 7" horn which requires a big mouth area. We build the long horn into the single unit and when we start to couple them up, in a block of four, the mouth area is restored. It's very efficient because four cabinets can be driven from one amplifier."

After an informative press reception hosted by new MD Arturo Vicari, **RCF** introduced several new products in its Unlimited Sound range. They were the small Monitor 3 (in black or white), the MX-8d eight-channel mixer, N850, 450 and 350 drivers, MFA-200, 500, 900 and 1200 Mosfet stereo amps, BS-500 powered sub woofer and RX-400 diversity VHF receivers.

Volt's MD David Lyth gave a run-through of an effective demonstration of heat damage to loudspeakers. On one side of the display was a radial loudspeaker and chassis with another loudspeaker and chassis on the opposite side, both with identical magnets, coils, cones and rear suspension. They were each placed in a small box where they became hot and were fed 100W - the normal amplifier feed when a speaker is cold.

Lyth explained: "Halfway through the exhibition, the normal loudspeaker stopped working and its magnet had reached a temperature of 82_C and when it was working and stabilised it was drawing 42W from the amplifier. The radial speaker had a magnet temperature which stabilised at about 60_C and it consistently drew around 58W from the amplifier. It was running cooler and gave 1.5dB extra output, so using this type of driver will mean the difference between a 3.5 and 5kW rig."

Carlsbro launched a new range of powered mixers and re-designed PA cabinets for low end use. The new mixers, available from May, are the Cobra 1200 (three channels/100W), Cobra 1400 (four channels/100W), Marlin 1500 (six



Celestion's Richard Wear (right) and UK sales manager, Stuart Brown, with the Road Series.



The new Spirit Folio SX mixer found an aquatic base at Frankfurt.



Duran Audio's Hans Nijssen (left) and Gerrit Duran with the innovative Axys range.



Numark's Nick McGeachin got down to some serious mixing.

channels/150W) and Marlin 3000 (six channels/300W). One new product, the Alpha 850 8" dual cone, 50W loudspeaker has been added to the range.

The Bass Injection bass reinforcement system tube, available in the UK through Arthur Barnes, was displayed on the **Eminence** stand. It features the company's Optimax bass reflex design which improves the bass and sub-bass frequency response through a regular diffusion of the acoustic pressure. Available in four versions (2 x 200W, 2 x 300W, 2 x 400W and 2 x 600W), the tubes incorporate a double coil loudspeaker which allow the use of both output channels of an amplifier to drive the same speaker, and Eminence is now selling direct to Japan.

Court Acoustic Systems brought over its LX club range introduced at Frankfurt last year. Allan Coleman said: "We have concentrated on getting it into a full production unit, testing it thoroughly and making improvements in terms of appearance and the drivers used. We have a new crossover unit dedicated to the LX range, the CX1, which handles bass, sub-bass and full range. That will be ready to go into production in late April, and takes the place of the current CN 240." Coleman added that Court plans to develop a full range system to replace its established TR750.

New from **PAS** for Frankfurt was the TOC line which uses concentric loudspeaker design and is aimed at the hire and installation markets. President Larry Doran said: "All products have a very accurate phase response so they array nicely and have high vocal intelligibility. They come in both active and passive versions and are very compact with high SPL."

Francisco Noguera of **DAS Audio** ran through the features of the new Sound Machine/Sound Touring 2000 series, stating: "Last year we started testing the neodymium compression driver and we decided to design a double 15" cabinet with just enough space to fit inbetween the compression driver. The one advantage is that if the professional who adopts it uses it with the CT4 controller it can deliver the full range to the ST-215 double 15" only without the need for a sub-bass."

The UK arm of German company, **Monacor** (which has 23 subsidiaries) was formed last October in Newport Pagnell and now distributes the whole Monacor product line



Ken Berger, president of EAW, announces the launch of EAW International, based in the UK.

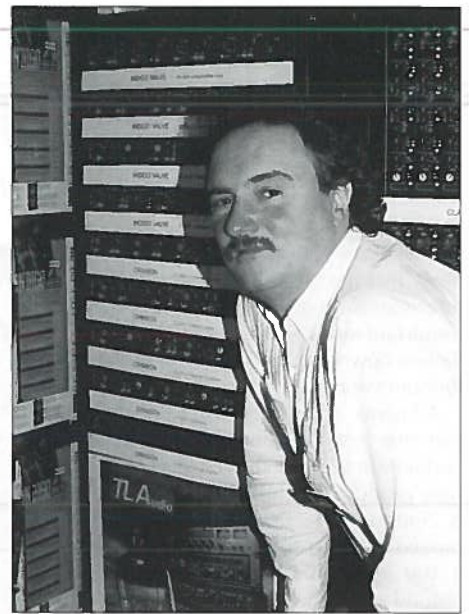
including lighting and general audio products. At Frankfurt, four new cabinets were introduced. Two (12" & 15") are budget vinyl covered and the others (12" & 15") are carpet covered.

Celestion held a press conference to launch its new Road Series loudspeakers which are designed for portable applications for the musician and possibly the mobile DJ. On first hearing, the products give a very natural response. A particularly innovative material is used for the cabinet construction which has a proprietary moulding process, delivering a double skin to give an acoustic stiffness, but remaining light-weight. The KR Series, featuring the KR4, KR8, KR10 and KR sub unit, was also demonstrated. These speakers are designed for background reinforcement - the KR sub with a dual voice coil is designed to work with two KR4s and an integral crossover.

EAW announced the formation of EAW International. The company, based in High Wycombe, will be run by Julian Young as director of sales. The move is part of EAW's strategy to forge a stronger presence in Europe. A modern approach to its stand design complemented the introduction of the FL103 High Output Ultimate Fidelity System, designed for theatrical sound design and multimedia use. A three-way design with vocal-dedicated subsystem, the FL103 has within its mid-range system a 6.5" cone transducer in a vented sub enclosure which reduces distortion at crossover from the 15" woofer to the mid driver. As witnessed in prototype trials at l'Opera de Lyon and the Lido de Paris, the result is a smooth power response without compromising power handling or reliability.

Another new addition, to the **Linear Activation** (LA) range for nearfield monitoring applications, is the LA118 which uses a high powered 18" driver in a vented enclosure.

Together with its own roster of mics, wireless systems, outboard, power amps, consoles and loudspeakers, **Zeck Audio** displayed on its stand a range of its distributed lines by Eichler Prosound and Kuhnle. The Pascal 2000 Picco Active Miniature Audio System from Eichler delivers a sound quality and punch normally only associated with its large systems. With its integral control circuitry and modern, high-gloss black look, the system appears to be



Indigo and Crimson were the colourful product names for TL Audio's Steve Gunn.

ideal for the small club or restaurant. New from Kuhnle are the 1U Eightgate and Eightcomp dynamic processors which each provide one stereo and six mono channels in relatively simple to control, low-cost solution packages. Meanwhile, among the many new microphone products from Zeck on display were the ZM9 dynamic microphone for guitar backline, drums and vocal applications, and DSLM clip-on lavalier mic, for use with Zeck's d.a.i.s.y VHF wireless system.

With a Stars and Stripes backdrop and a jaw-dropping(!) acoustic duo performance demo to boot, the virtual sub-continent hired at Frankfurt by **Mark IV Audio** included the launch by **Electro-Voice** of several new products in its popular T-Series of high-spec speakers. All in all, the T-Series now provides a startling array of system choices, all designed to meet the rigours and critical sound requirements of touring. Also new, and following in the footsteps of the RE2000 microphone, is the RE1000 - an externally-biased, high voltage condenser mic which offers improved dynamic range and lower noise than the electret transducers of most condensers.

Dynacord's Alpha Concept systems have been designed to provide maximum efficiency and premier status sound in permanent installations. There are at present two speaker systems: the Alpha X-1 is a horn-loaded, active three-way loudspeaker system, and the bass reflex tuning of the double 15" drivers, coupled with a constant directivity horn, packs punchy reproduction of low-mid frequencies down to 80Hz. Mid-high frequencies are handled by a 2" high performance driver with a true constant directivity horn (900 x 400 or 600 x 400) and the highs are delivered by two diffraction or ring radiators (900 or 600). Complementing the X-1 is the Alpha B-3 sub woofer for extreme sub-sonic SPL. It incorporates two 18" Planar Waveguide technology sub woofers, the construction of which limits the diaphragm's excursion to guarantee faithful impulse reproduction, low distortion and excellent dynamic capabilities.

Dynacord's first Alpha installation is now in full swing mode at the Aladin club in Bremen, Germany where six X-1 and six B-3 systems are in place, delivering a maximum SPL of around 140dB at 10 metres during testing in February.

Other Mark IV specialities included the omnipresent XL4 live console among its **Midas** range, as well as the **Klark Teknik** DN4000 dual channel, programmable five-band parametric equaliser and delay line. At the show Mark IV also announced that it is to distribute ADA's EASE 2.1, the system design and acoustic analysis programme, and EARS 1.1, the binaural auralisation system, throughout its worldwide customer base.

Reminding me of home was Southend-on-Sea's **Acoustic Sound Systems** which completed the building of its new compact PA system just hours before the long haul to Germany. Compatible with its large MX500 and MX1000 systems, ASS's new 500 and 1000W loudspeaker cabinets contain almost identical components to the larger system, although they are intended for shorter throw applications, while retaining the same sound and power characteristics. Tony Rossell said: "There are lots of large rigs out there that have the main system flying and other smaller boxes that might normally hang underneath or at the sides bear no relationship to the big boxes. We have produced a smaller system with identical speakers.

"The only difference is that the mids are 2 x 10" instead of 2 x 12", but the 10" speakers have the same magnets and coil structure as the 12" speakers." The cabinets on show were snapped up quickly by a "famous restaurant-cum-live venue in London" and Rossell predicts that the compact smaller brothers in the MX family will become more popular than the larger equipment.

Designed for use in small theatres, churches and clubs, as well as acoustic instrument reinforcement, the compact and powerful X-act loudspeaker system from **Master Blaster** combines a 10" and 1" high frequency driver and integral power amp, providing flat frequency response over a wide dispersion area. Preparing itself for the 21st Century was **Linear Products** which previewed its new Millennium Range of Custom Sound power speakers in advance of a late 1996 launch.

Eight new loudspeaker products have been launched for 1996 by **Beyma**. These include the M-300 15" and 12" bass speakers, CP-850/Nd 2" and CP-360/K 1" high frequency compression drivers and TD-700 loudspeaker

funnel with constant radiating direction, the latter having a constant angular coverage of 90° x 40°. The new, versatile MAX Series loudspeakers from **d&b audiotechnik** were revealed ahead of their UK launch in the autumn. The series, which can be driven by any high quality power amplifier, incorporates the MAX coaxial two-way 15" and 2" loudspeaker cabinet and the passive bassMax sub woofer extension cabinet which is equipped with a 15" driver and passive crossover. MAX is ideal for stage monitoring use and as a powerful fill in demanding rock and roll applications when suspended beneath a flown d&b 402 Series system.

The Installation Series of high end full range, sub woofers and close range loudspeaker systems was on the **Mach** stand, all providing quality facilities for permanency in discos, theatres, concert venues and clubs. The Mach Background Series includes various permutations of sub woofers and satellite speakers for wall or ceiling mounting in bars, cafes and other areas where background music needs to be heard. Of the many **Jamo** speaker products was the Atmosphere with its two-way bass reflex system, equipped with a 130mm woofer and 25mm dome tweeter, and overload protection, and available with either a black or white front metal screen. Jamo announced that its annual production of loudspeakers is now more than 1,000,000. Its range of PA and Pro Ex disco/installation speakers has been joined by the new hand-painted ART series.

A demonstration of the Auditorion sound simulation system was the main attraction on the **Bose** stand. As detailed in our profile of the installation in Blackpool Winter Gardens (see page 48), Auditorion allows prospective clients to listen to the performance of a sound system from the earliest design stages, well in advance of installation. Also of interest were Bose's small installation speakers, such as the Freespace 6 Business Music System, as well as the Panaray LT (Long Throw) system which consists of the 1802 low frequency, 3202 mid/high frequency and 4402 mid/high frequency speakers, offering the clinically clean hi-fi sound synonymous with the Bose name.

A new modular loudspeaker flying system was launched by **ATM FlyWare** in conjunction with **Autograph Sales**. The MEGS-3x4 is

purpose-designed for clusters of large cabinets requiring track or pivotal attachment hardware. The first major products to take advantage of the system are the TRAP 40 loudspeakers from Renkus-Heinz and Martin Audio's W8 Series.

SMALL, BLACK AND POWERFUL

The new CE-marked ST 1000, 1000W per channel (into 4 ohms) power amplifier from **C Audio** was unveiled at Frankfurt, presenting a cost-effective high power solution in the company's entry level ST Series. Designed for the installation and small PA market, the ST 1000 provides long-term performance and top, reliable quality within a rugged 3U package.

The first professional two channel power amplifier from **Lab Gruppen**, the LAB 3000, was introduced. The LAB 3000 uses a regulated switch mode power supply and switched output stage to deliver more than 1500W per channel into 4 ohms and 1800W per channel into 2 ohms.

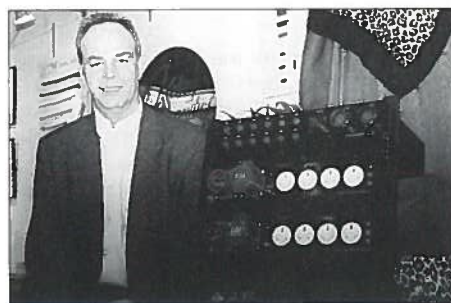
A package based around the Impact loudspeaker range was presented by **Turbosound**. It comprises the new 2U chassis IA-1400 Impact stereo power amplifier which delivers 600W per channel into 4 ohms amplifier and has built-in electronically balanced limiters. Martin Reid of Turbosound commented: "When you want to upgrade, instead of getting rid of the old system, you buy an active crossover card that you plug in and it turns it into a high pass out running the Impact 120s and a low pass signal out to put into a full range amplifier."

Ecler showed its range of power amps: the PAM 300, 600, 2000, 2600. The company also introduced an active two-way stereo or three-way mono crossover with an integral compressor/limiter. Featuring balanced inputs and outputs, the FAP-30L has a switchable subsonic filter and ground lift switch, and the compressor/limiter is independently selectable for each channel. Crossover frequencies are selected via a combination of switches on the front panel. Ecler's new mixer, the MAC 90 has been designed for discos and small PAs. It has eight channels, plus an extra channel for aux sends with cross-fading and balanced input.

Cloud Electronics' new electronic crossover is the CX2300 active filter - a further development on the theme of its previous



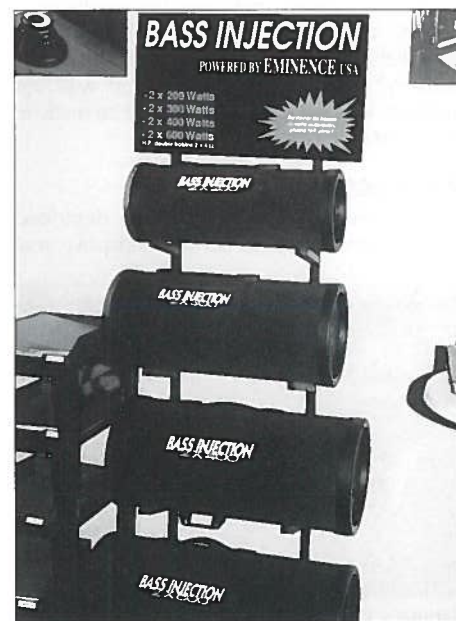
Simon Curtis of Denon in demonstration mode with the Rolec CD Index System.



Richard Vickers of Kelsey with the PD Series.



Not the new Village People, but the Nady team!



Bass, the final frontier for Eminence with this injection bass reinforcement system tube.



Roy Millington with Cloud's CX2300.

model, the AX2300. Director Roy Millington explained: "It is two or three-way with up to 82 different filter options, balanced input and output, and comes complete with a security cover and padlocks. It has the usual mute invert switches, and once it has been installed it can be set up and left in situ." Cloud's other new item was the CXA6 six channel amplifier which now has remote VCA, peak limiter and 100V line transformer options.

Two mixers which stood out of the **Formula Sound** range were the System 2000 modular mixer for broadcast, discos, and clubs, and the PM-90 modular stereo mixer. The latter is the successor to the industry-standard PM-80 and is suitable where any combination of stereo and mono inputs is required.

Part of **PSL's** EF amplifier range, the EF3000 now has compressors as standard with an option for crossover with which one can vary the desired frequencies. It also features the new SCP, a short circuit protection device which calculates the impedance. If it is 1 ohm or less, the amplifier will assume it to be a short circuit and will automatically power down. PSL's Roger Skuse said: "The beauty of the system is that it does not affect the signal path and it costs very little to achieve."

Formerly known as Prof Sound of Spain, **Audience Delight** exhibited its range of PA products, including amps and loudspeakers, manufactured for Europe in the Netherlands. AD's new range perform under digital microprocessor control with a number of newly patented features. Jurgen Eicker, Audience Delight product manager for Dutch group Janshen-Hahnrahts, said: "AD equipment is currently in place at venues across Europe including the Metropole in Berlin, the Rotterdam Stadium and many techno discos."

QSC announced that its Powerlight 4.0 amplifier is now in production and ready for delivery. Although the 5.5 version was not available to view at the show, it will be ready in the second half of 1996.

PROCESSING

Doran Oster, president of **Sabine**, described his company's Real-Q 31-band adaptive real



A small selection of mixer products from the diverse General Music range.

time analyser/equaliser as a "one-of-a-kind product". Available for the first time within a few weeks of Frankfurt, the Real-Q prototype was originally previewed at last year's show, although it has since been subject to redesign and Disney has become one of the earliest investors in the system. Despite some similarities to the BSS Omnidrive and Meyer

"This year's Frankfurt Fair was nothing short of spectacular, certainly in terms of the sheer volume of new products."

Sound SIM system, it is currently the only product in the world which can sense changes in the sound equalisation of an auditorium caused by the audience or changes in humidity or temperature, and then adjust for them.

Real-Q comes in one, two or three channel versions, and provides complete real-time analysis and other parameters that would normally be used for setting up an auditorium's sound. Sabine also showed the FBX-Solo - a miniature, lower-cost version of the patented FBX-901 - which controls feedback on a single input channel by placing a narrow 1/10 octave adaptive digital filter directly on the resonating frequency.

BSS Audio had a selection from its popular outboard processing range, including the Omnidrive and Varicurve systems, DPR-901 II Dynamic Equaliser and TCS Series Time Correction systems for signal delays. No new products have been introduced since the New York AES in October, but there have been advances in system software with Windows control.

Two controllers for the **GAE Pro Stage** range were launched, but the company's major products were the Sound Shaper EQX22, the Digital Signal Controller DSC10 and the Optimiser EQX24. GAE product manager for **HW International**, Peter Barnard said: "These are all designed and built in-house. The beauty of EQX22 and 24 is that they provide active



Jon Ridel with Soundcraft's 'Ghost'.

control for bass, mid and top boost within a passive system structure."

t.c. electronic announced the development by Stockholm's HF Media Solutions of user interfaces for its M5000 digital signal processor and TC 2290 digital delay and effects control processor to cater for visually impaired sound engineers and musicians. The units have been equipped with a Display Reader card which converts information into ASCII characters which can be read with the aid of a braille display. Showing alongside the recently launched **LA Audio** V8 eight-channel Tube Signal Conditioner and C8 eight-channel Compressor II, Classic Compressor II, Classic Equaliser, Classic Channel and the 4 Family range of gates and compressors.

The **SCV EQ2315** - a 2U rack-mountable dual 1/3 octave graphic equaliser - was also new at Frankfurt, while for the installation market, the MX41 installation mixer, MX61 boardroom mixer, DA82 distribution amplifier and EX62B expander/mixer added up to an inspired display of 'hot out of the factory' products.

A new product line from **Focusrite**, the Green Range, looks set to follow in the successful footsteps of its now legendary Red and Blue ranges. A more affordable group of products, the first three items in the Green Range are the Focus EQ - a mono pre-amp with a built-in equaliser for mic and line signals, the Dual Mic Pre - a dual channel microphone pre-amp, and the Voicebox - a single channel mic pre-amp with an equaliser and dynamic stage.

Peavey presented a pair of new graphic equalisers as part of its Q Series. The 3U sized Q231F offers 2 x 31 frequency bands, while the Q215F works on 2 x 15 bands. The exclusive Feedback Locating System is one of several attractive features of both units. The Peavey CS 3000G power stage was also a relatively new product. Intended for pro sound systems, it delivers 3000W RMS in bridged mode at 4 ohms.

In association with its German distributor, **Audio Network**, **Chevin Research** showed a



Sabine's Gary Miller (left) and Doran Oster extolled the virtues of the Real-Q real time adaptive analyser/equaliser.



HW's Peter Barnard has a major contract to supply Bass Academy installations and the distribution of TS2 systems.



Garwood introduced four new in-ear monitoring products including the Antenna distribution amplifier.

Now All You Need Is An Idea.

No matter how unfinished. No matter how ambitious. The amazingly versatile Litestructures range of products will make your concept a reality.

And it'll do it for a very realistic price.

The Litestructures system is the world's best-designed family of interconnecting aluminum truss components – for stage, convention center or showroom.



Every aspect of real-world usage has been considered and planned in – from fabulous strength to weight ratios, to the ability to intermix modular and custom components, to the availability of any powder-coated finish at a minimal charge (with black, white or silver at no extra charge).

Our Astralite range – based on a triangular element structure – is the de facto standard for light & sound suspension. For maximum

load-bearing, there's our four-tube Boxlite or Quatralite range. For cost-conscious applications, our ladder-style Bilite range. And for the ultimate in aesthetic simplicity, our new Livelite range – essentially an Astralite system with an integral live electric track for cable-less

installation of even your most power-hungry lighting.

Litestructures. Bring us your ideas. We'll bring them to life.



 **litestructures**

Durkar Low Lane, Durkar, Wakefield WF4 3BQ, West Yorkshire, England
Tel: 44 (0)1924 240800 • Fax: 44 (0)1924 254083

prototype of its new digital signal processor - the first of a range which will become public later this year to complement the company's low weight high power A Series amplifiers, all of which were on display at the show. All Chevin products now carry the CE mark and a number of recent on-the-road successes have included The Pogues' European tour and last summer's Black Crowes 'Hoard Tour' in the USA. The VP12 voice processor from Rane had already been shown in prototype



Visitors queued for demonstrations on the Spirit stand.

at NAMM, although it was available for viewing in finished form at Frankfurt. It has a studio-grade mic stage, balanced line input, low and high cut filters, two channels of parametric equalisation and a de-esser in the compressor/limiter.

Valve outboard specialists, **TL Audio** announced the significant growth in hire companies purchasing its equipment for rental, and launched its new Indigo Series of valve mic pre-amps, equalisers and compressors, all lower-cost versions of the TL product line.

A group of prototype products, the solid state Crimson Series, was on show but will not become available until August. International sales manager Steve Gunn said: "All TL products are valve-based, but we have taken the main facilities from them and made a solid state equivalent again to reduce the end user price."

Garwood's new flagship in-ear monitoring system, the Radio Station IDS, made its first European appearance after its launch at NAMM. The advanced frequency synthesis technology allows frequency settings to be selected according to the country. The system has the new Active Antenna which removes the common problem of signal deterioration inherent with long lengths of cable.

Superseding the mid-range IEM system, the PRSII, is Garwood's System 3 offering quality stereo transmission on a single frequency, while for the thespians among us, the LV1 (or Luvvie) is a new, lightweight and discreetly worn IEM system designed for theatre use. American IEM competitor, **Nady** has risen to demand for a more affordable in-ear product, responding with the Personal Ear Monitor. Export manager, Kenny Yu said: "We felt it necessary to come out with something at a budget level. So the Personal Ear Monitor is designed for musicians, people who have hearing problems and language classes. It works within the 72-75mHz range because it

was originally designed for use in the USA. It is ready to export now and should be available in the UK very soon."

MICROPHONES

Following on from its success with the WMS-900 wireless microphone system on major tours with Simply Red, Rod Stewart and Wet Wet Wet, **AKG** has acknowledged areas of the sound reinforcement market which have found UHF technology prohibitively expensive and has now developed the WMS-300 - a quality UHF radio system that is at last genuinely affordable. Transmitting into receiver units in the UK, it is switchable to 16 sub-channels within any UHF frequency band, and eight systems can run simultaneously without any intermodulation.

For theatre applications, the system is available with the AKG CK77 miniature lavalier microphone. The HT 300 hand-held transmitter has three capsule options which are quickly and easily changed. AKG's flagship WMS-900 system was used throughout the Brits in February.

Beyerdynamic launched several new additions, including the S600 UHF hand-held transmitter, to complement the successful NE 600, the MCE 84 electret condenser studio microphone and limited editions of the M88 and M500 classic microphones.

Sennheiser launched its new, affordable 1081 and 1083 UHF wireless systems featuring 16 switchable UHF frequencies. At the transmitter end of the systems are the BF 1081 dynamic super-cardioid radio microphone and BF 1083 pocket transmitter with sub miniature clip-on microphone. The BF 1081 receiver works within the 40-20,000Hz range and the systems are supplied with all necessary accessories. Shure has extended its wireless system range with the introduction of the LX3 single antenna receiver which has a five

segment display for level control. A new body pack, the T1, effectively replaces the TIP which was used in conjunction with the Presenter and VPL/93 systems.

Paul Maher of **Audio-Technica** stressed the importance of the company's new structure for German distribution and showed the latest addition to the Midnight Blues microphone series, the MB4000C capacitor microphone. AT's new product for Frankfurt was the AT4041 microphone which supports the 4000 series condenser family.

MIXING CONSOLES

Creating much interest on the **Soundcraft** stand was the new Ghost mixing console which, although predominantly designed for studio applications, should become highly popular among live sound engineers. UK sales manager, Jon Ridell believes that one of biggest selling points of the Ghost is its EQ section. "There are two fully parametric mids and we've put in two shelves - 12kHz and 60Hz - and made them fairly shallow slopes."

Available from April, the Ghost has two stereo and four mono auxes which are switchable on to six busses, and there is a MIDI muting system for both the channel and the monitor. There are also 128 stores switchable internally as snapshots. For live applications, a version of Ghost without the computer facilities has just been announced and following hard on the heels of the April shipping date will be a moving fader version employing Soundcraft's C3 automation system as used in the K3 and DC2020.

Sharing space with Soundcraft in the not insignificant **Harman** area was **Spirit** and its new Folio SX and Folio Notepad mixing products. Notable for its display in a fish tank (I'm still waiting for the punchline), the SX is a 20-channel, 19" package with 100mm smooth-operating faders, available either for desktop applications or as a rack mountable option. It has 12 mono channels as standard, the first eight of which have direct outputs pre/post switchable from the front panel, and four stereo inputs.

The SX, designed by Graham Blyth, has direct mic, line and insert inputs, and the UltraMic mic amp providing a 60dB range to give plenty of headroom. There is a 100Hz high pass filter, three band EQ with one mid sweep, three auxiliaries with an aux master section with AFL listening. It is in pilot production in London and will be in volume production by early May.

Spirit's Folio Notepad is a small, simple mixer with four mono and two stereo channels within a striking industrial design. The company also launched its Absolute Zero monitors providing an ideal system for bar and club installations, as well as being designed for studios.

Studiomaster had a range of live sound FOH



David Lyth of Volt stands with the heat demonstration system.



Behringer's new 32-channel MX 3282 Eurodesk console.



Two mixers stood out of the Formula Sound range - the System 2000 and the PM-90.



Compressors come as standard with PSL's EF3000 amp, pictured with Roger Skuse.

and monitor consoles, including the Trilogy range of 166, 206 and 140EX desks. Features include three band EQ, mid sweep, main and group balanced outputs, six balanced aux sends, four stereo aux inputs, PFL and solo monitoring, expandable TR-Link system and an internally modular external power supply. There are three live sound consoles in the Diamond Pro 2 range - 8-3, 12-3 and 16-3 - which feature three band EQ with mid sweep, main balanced outputs, four balanced aux sends, two stereo aux inputs and PFL monitoring within a robust steel construction.

In danger of being overlooked due to the wealth of studio products on the **Tascam** stand was the compact M-08 mixer for PA and installation applications. With four mono and two stereo inputs, each channel is equipped with two band EQ, two aux sends, a mute and PFL switch.

Klingenthaler Musik-elektronik - **KME** - showed a wide selection of PA and backline equipment. Of interest to clubs was its DJ Mixer 2 professional disco mixer, the follow-on product to Mixer 1. It is equipped with XLR or jack combi-connectors for mic/line and what was described by the KME team as "a new mix feeling" is derived by a switchable, electronic talk over with controls for damping, time, threshold, a VCA-controlled crossfader and calibrated LED chains.

General Music of Italy proved just how diverse its product roster is with a selection of digitally-controlled PA systems and mixers. Its new Pick System mixer has been designed for self-contained solo musicians, as well as multi-media presentations.

Behringer showed its 32-channel, eight buss, eight aux MX3282 Eurodesk console which should be available in July and is aimed at the low end user.

Bringing eight group facilities down to the price level of most four group consoles is the new GL3000 eight group, eight aux, dual function desk from **Allen & Heath**. Offering exceptional features, both as a FOH and monitor mixer, the GL3000 is available in either 16, 24 or 32 expandable (via Sys-Link) channel frame formats, while a non-expandable 40 channel frame version was also launched.

For FOH applications, the desk provides eight sub groups, two stereo returns and two matrix outputs on faders and a mono output for centre fills or subs. For the monitor engineer, the desk has eight stage feeds and a stereo mix is incorporated for in-ear monitoring.

Crest Audio presented its Century LMx monitor console which can configure its 22 outputs singly or universally for mono or stereo pair operation. In-ear monitoring is considered with the console's extremely low noise and distortion factors, and automatic fade-in of spatial acoustics.



Chiayo's Raymond Tsai and Reinhard Waltl of distributor ARS Akustika with the Chiayo range.

BGM/DISCO

Denon launched two new CD products. The first was the DN2500F remote control unit which works in conjunction with the DN2500 twin-tray CD transport system, and is positioned in price between the DN2000F Mark II and DN2700. The main feature improvements over the 2700 include key control, a form of master tempo which was once wrongly presumed to be the exclusive domain of Pioneer. The 2500 continues to include the integral sampler which is now more accurate and stable, and it also features reverse sample which is ever more popular among DJs.

The second new product is the revolutionary RC 1214 Rolec CD Index System, designed for Denon UK to exclusively drive the DN1400F and DN1200F 200 compact disc changers. The two disc drives in the DN1400F allow tracks to be pre-cued to play back to back without any gaps in the music. The issue, said Simon Curtis, is one of control at an attractive price.

A new line of CE-approved mixer products from **Numark** was premiered with two models on show and three more to come and all are CE approved. The DM1800X is a fully featured 19" rack mount mixer which has three-way EQ. Each EQ band has a cut switch which will cut the EQ by 20dB - a valuable feature for techno mixing. A gain and PFL control is on each channel, plus a pan for special effects (an effects send is promised in its final version). There are five line inputs, three phono inputs, two outputs and a mono/stereo control on the zone output. Its smaller brother is the DM1260X Master Mix which follows the unique design of the best-selling DM1100X. It has PFL, transform buttons, an effects send and, again, cut switches on each of the EQ bands. Export sales director, Nick McGeachin said: "We have purposely got away from the presence of house EQ - we only have channel EQ. That's a big issue these days but I think that if we are honest some of the end users have a wrong perception of gain and EQ, and they force it. The problem can be poor monitoring."



The Auditorion demo on the Bose stand pulled in the crowds.

ACCESSORIES

Kelsey Acoustics introduced two PD Series AC panels both with 32 amp BS4343 inlet and outlet connectors to link on to other rack units. It will come as standard with a trip on the front with an optional RCBO for earth leakage. There are three 13 amp sockets on the front and seven on the back. The second unit also has a BS4343 in/out with an optional RCBO, three 13 amp sockets on the front and 20 IEC outlets on the back.

Both units have a Martindale-style LED indication panel for mains status and should have sufficient sockets to allow the user to plug up most racks. It will be available by the end of April. Kelsey's Richard Vickers reported that eight panels have been successfully used on the current Simply Red tour. A prototype of an active line splitter system was also on show, along with the Kelsey range of cables and connectors, patch bays and cable crossover.

Keyboard legend Rick Wakeman was spotted discussing the wide range of **EMO** products on the company's stand with sales manager Mike Reay. EMO, which is now contactable on the Internet (emo.co.uk), featured its recently launched E580 eight-channel 1U DI box, as seen last September at PLASA. With distribution from **Adam Hall**, Palmer introduced the 19", 1U rack format PRM-LD active four-channel module for the construction of pro stage box and splitter systems.

Among the brand new products from **Sellmark Electronics** was a low profile, conductive plastic track fader which is also available in a motorised version. Other revelations included low-cost carbon faders, 9mm carbon and conductive plastic rotary pots, and a new design offering combined jack and XLR loudspeaker sockets.

**FURTHER FEATURES FROM
FRANKFURT APPEAR ACROSS THE
NEWS PAGES OF THIS ISSUE**

ASTROCLOTHS... For Effect

Starcloths

Fibre optic background effects for the stage and entertainment industry.

- Theatre • Product Launches • Conferences • Corporate Events
- Discothèques • Social Clubs • Film & Television • Concerts • Exhibitions

Peacloths also available

Manufactured at our Manchester production facility, all products are flame retardant, conforming to BS 5867 Part 2.

MAKE A COST EFFECTIVE DECISION -

buy direct from the manufacturer. Astrocloths can be purchased or hired.

For advice or a quotation please contact :-

Playlight FREEPOST - MR95555
Manchester M16 8HB
Manchester: 0161-226 5858
London: 0181-965 8188



ABUZZ IN THE STALLS

"Do you think it's all right?" The question asked early on in *Tommy* has had a pretty straight answer. The critics have been almost unanimous in their raves, with the interesting exception of the *Daily Mail's* Jack Tinker, who was not seduced by this highest of hi-tech stagings. Rob Halliday will tell you the technical details of how this success was achieved starting on page 50 in this issue. All I want to confirm for you is that the show's achievement is most definitely a technical one. The cast is more energetic than talented, the band more competent than exhilarating, the plot (in spite of help from director Des McAnuff) no more coherent than it ever was, and the improvements Pete Townshend has made to his lyrics are at best questionable, at worst, ghastly. But the staging is stunning.

The strange thing is that what has won over the critics is just what they failed to respond to in some previously notable musical flops. Mike Batt's slide visuals for *Hunting of the Snark* were an imaginative landmark in musical theatre design, and much of the smoothness of the critically derided *Copacabana* came from the slide work of Chris Slingsby, another Snark veteran. Step forward Wendall K Harrington, whose superbly marshalled Tommy projections give us the entire Second World War in a five-minute opening burst of black and white magic and don't look back from there on in.

John Arnone's set design is largely there to provide a flat floor for dancing and a frame for the slides and filmstrips, enlivened only by some judicious moments of flying (indeed one moment when Tommy himself is flown - thank you, Foy) and quite a lot of wheel-on, wheel-off apparatus that does its job very well. The wardrobe mirror and the various larger and larger pinball machines that are central to Tommy's miraculous story go through their paces much more convincingly than any of the human props. The videowall work is nothing special, but it comes at a moment when you feel the production team has begun to worry that the constant changes on stage and slide-screen have become monotonous. Let's give them a new gimmick is the cry, so on comes the wall. They could have been more confident of the effectiveness of their earlier efforts - and saved some budget into the bargain. Still, you won't regret a visit to Tommy, not least for all this explosive technical excellence. You'll enjoy what you see, hear and even feel - but I doubt if it will touch you.

Whereas the transfer of *Company*, a musical about a man who somehow refuses to be touched by all the emotional whirlpool around him, should do the trick. As Rob explained last issue, it's quite likely in Sam Mendes' production that this chap's a lighting designer, though we'd better not generalise from it about the profession's collective sex life. Mark Thompson has virtually recreated the Donmar Warehouse on the Albery's stage, so that for a short time last month there were three chances to enjoy versions of the same space in London: the real thing, then the Rob Howell *Glass*



Pete Townshend's *Tommy* at the Shaftesbury Theatre.

Menagerie transfer at the Comedy, and now Company. To have all the depth and much of the height of the Donmar space, but offered to you in a straightforward front-on form, with the band where they should be, in the pit, works well for the musical.

As promised, a gleaming array of chrome cans hangs over the stage, and Paul Pyant has a field day with specials. For the West End he's been given two followspots, too. I completely

"You won't regret a visit to Tommy, not least for all this explosive technical excellence. You'll enjoy what you see, hear and even feel - but I doubt if it will touch you."

failed to grasp the deeper significance of the colour checkerboard on the upstage wall, partly because it wasn't in use for most of the show. I don't know, either, whether the sound has been upped from the float mic system in use at the Donmar, but the Albery effect is excellent. Where Tommy is rightly an electronic show, with almost grotesquely amplified voices that could have gone even further away from natural sound, the gently realistic, bitter-sweet Company needs to conceal its sound assistance as much as possible, and (as at the Donmar) the Albery staging does just that.

Now that Trevor Nunn has been announced as Richard Eyre's successor at the National, the

Donmar's Sam Mendes (who had his name put forward for that job as many times as he said he didn't want it) is being touted as Adrian Noble's successor at the RSC.

Assuming that Mr Noble won't want to stay for ever, Mendes would indeed make an interesting successor and be more suited to the artistic input of that post than to the inevitable 'politicking' of the South Bank. Although the RSC slot is seen as junior to the National, which makes Trevor Nunn's move, and Peter Hall's before him look like promotion, the running of even a retreating RSC is in many ways a more complex operation.

It will be interesting to see what the technical repercussions will be of the changes due in our two big national companies, with both the Nunn regime and the more Stratford-centred RSC up and running before the end of next year.

Nobody will be able to accuse the blessed Trevor of turning the National into a home for big musicals, with *Night Music* already due to run solo in the Olivier this summer and likely to give way almost directly to the return of *Guys and Dolls*. We might even be able to hope that he will make it home for small musicals, like the charming *Bakers Wife* he staged a few years back, or even *Aspects*. Certainly he'll be taking over a house in very good working order: a staff that can alternate Night Music with *Mother Courage* in the Olivier, and change the all-over Cottesloe sets of *Stanley* for Richard Hudson's equally complicated rig for *The Ends of the Earth* overnight must be getting it right.

The RSC situation may need a little more fine tuning. What is presumably the last ever original RSC show on the Barbican main stage, *Les Enfants du Paradis*, didn't turn out to be much of a calling card for their London technical staff, any more than the cumbersome *A Patriot for Me* before it. With the Barbican becoming simply another receiving point for tours coming out of Stratford, one wonders whether the Corporation of London will put in their own year-round crew to run it.

Meanwhile, Will Weston is easing into David Brierley's job and we can expect Stratford's stagings to remain in safe hands technically. Artistically, we must wait and see.

Ian Herbert

Ian Herbert is editor and publisher of *Theatre Record*.

LONDON LASER

Company

EXHIBITIONS
CONFERENCES
PRODUCT LAUNCH
TV & FILM
OVERSEAS

FOR THE VERY BEST IN LASER ENTERTAINMENT.....CALL NOW

SALES HIRE DESIGN PRODUCTION

CANBURY HOUSE, 24 TOLWORTH CLOSE, TOLWORTH, SURREY, KT6 7AW
TEL 0181 399 1754 FAX 0181 399 0931 MOBILE 0836 766599

RECRUITMENT PLUS



The M&M Group Limited

distributor of

ETC ~ Rainbow ~ Smoke Factory

require a young and ambitious in-house client contact with a good knowledge of lighting control, dimming and luminaires.

Sales experience and marketing skills are essential.

Salary negotiable.

Please contact Mike Goldberg,
Studio 12, Cameron House, Castlehaven Road, London NW1 8QW.

TO ADVERTISE IN
THIS SECTION
CONTACT

BARRY HOWSE

OR

JANE COCKBURN

TELEPHONE:

(01323) 642639

FAX:

(01323) 646905

PROJECT ENGINEER (CONTROL SYSTEMS)

Glantre Engineering are specialist contractors carrying out installations of lighting, sound, audio-visual and rigging systems for theatres, theme parks, cruise ships, studios and presentation facilities world-wide.

We seek to recruit experienced engineers with a background in professional system design, installation and commissioning. Good product and systems knowledge is essential while some audio, video and lighting experience would be advantageous. The position is based at our Reading offices with opportunities for site work in the UK and overseas.

A competitive remuneration package is subject to negotiation; good working conditions and career prospects are offered.

Application form, job description and further details available from:

Lynn Rankin
Glantre Engineering Ltd
20 Richfield Avenue
Reading
Berkshire, RG1 8EQ.
Tel: (01734) 640000
Fax: (01734) 640064

GLANTRE



CUSTOM THEATRE SERVICES

AREA TECHNICAL SALES MANAGER

- Custom Theatre Services specialise in the design, supply and installation of Stage Lighting, Engineering, Curtains and Communications Equipment to venues throughout the UK.
- Due to expansion of the business a position for an Area Sales Manager has become available, a position which offers good career prospects for the right candidate.
- A good engineering background with a strong up-to-date working knowledge of Entertainment Technology gained within the theatre is required.
- Knowledge of Health and Safety requirements and recent sales experience visiting Architects, Consultants and Clients would be an advantage.
- A competitive remuneration package including a company car is subject to negotiation.
- Apply first in writing with full CV to:

The Managing Director
Custom Theatre Services
The Ropewalk
Station Road
Ilkeston
Derbyshire DE7 5HX

ALL APPLICATIONS WILL BE TREATED IN THE STRICTEST CONFIDENCE.

DIRECTORY

Lighting + Sound
Equipment Sale/Hire
Installation and Design



PRODUCTION SERVICES FOR:
• CONFERENCES •
• CORPORATE VIDEO •
• EXHIBITIONS •
• THEATRE •

TEL: 0171 371 5020
FAX: 0171 371 0503

STUDIO 9, 75 FILMER ROAD, FULHAM, LONDON SW6 7JF



Designer and manufacturer of
protective cases and bags

CP London, Tel: 0181-568-1881
CP Manchester, Tel: 0161-873-8181

**LIGHTING
HIRE
SALES
SPECIAL FIX**

STAGE CONTROL LTD.

STATION PARADE,
WHITCHURCH LANE,
EDGWARE, MIDDX. HA8 6RW

TEL: 0181-952 8982
FAX: 0181-951 4178

LIGHTING HIRE & SALES

Philip L. Edwards
(Theatre Lighting)

5 Highwood Close, Glossop,
Derbyshire SK13 9PH.
Tel Fax: 01457 862811.

* The *
Fibre Optic
Lighting *
* People *

We manufacture and distribute all fibre optic
lighting materials, Par glass 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
London showroom. From subtle backgrounds to
fibre optic fireworks. Leaflets available.



Trade & Export call Paul Raymond

Par Opti Projects Ltd

67 Stirling Road

London W3 8DJ

Tel: 0181-896 2588 Fax: 0181-896 2599

DONMAR Ω

ELECTRICAL CONTRACTING

LICENSING CERTIFICATION

NATIONWIDE SUPPLY & SERVICING:

ARRI, GREEN GINGER, PULSAR

STRAND LIGHTING & ZERO 88

Technical Support Mon-Sat until 23.00 hrs.

DONMAR LTD. 54 CAVELL STREET LONDON E1 2HP

INSTALLATION & SERVICE 0171-790 6624

SALES 0171-790 1166 FAX 0171-790 6634



SOUND & LIGHTING

Stereo Sound & Effects
Lighting Specialists

CLAY PAKY

zero 88

ROSCO

Panasonic

PULSAR

JBL

DENON

FEAVEY

ABSTRACT

RAMSA

POWER DRIVE

MOORE ELECTRONICS

SHURE

DAEWOO

BOSE

OPTIKINETICS

TECHNICS

CITRONIC

TEATRO

LeMaitre

JEM

Unit 4G Wharfedale Road, Euroway Ind. Estate, Bradford BD4 6SG.

Tel: (01274) 651600 Fax: (01274) 651190



VARIA TEXTILES LTD

STAGE PRODUCTS:

- Scenic Gauze
- Cyclorama Cloth
- Opaque Satinette
- Back Projection Screen
- Dance Floor
- Velvet
- Stage Cloth
- Making up service

Tel: 0181-5498590 Fax: 0181-5498290

NORTHERN LIGHTS

Tel: 01524 845584 Fax: 01524 845583

89 SCOTFORTH ROAD LANCASTER LA1 4SD

CXM MODULAR MIXER — CX233 MIXER/ZONER

CXF FIXED FORMAT MIXER



CX122 MIXER/ZONER — CX335 COMPRESSOR/LIMITER

CV AMPLIFIER RANGE — PROFILE DISCOTHEQUE CONSOLES

WORLDWIDE DISTRIBUTION

TRADE & EXPORT TERMS AVAILABLE

**Entertainment
Hire Software
& P.A.T.**

Testing Systems



Paramount House
162-170 Wardour Street
London W1V 3AT

Tel: (0171) 700 5000

Fax: (0171) 700 5599

email: navigator.co.uk

URL: <http://www.tech.net/~navigator>

ESP (UK) LTD

**DIMMERS
STANDS &
TRUSSING
SNOW EFFECT
MACHINES
COLOUR
CHANGERS
HIRE & SALES**

TEL: 01462 482411
FAX: 01462 673856

ANYtronicS

manufacturers of
high quality:-

- ★ Strobes
- ★ Lighting Control Equipment
- ★ Amplification

trade & export
enquiries most
welcome

AnytronicS Limited

Units 5 & 6 Hillside

Industrial Estate

London Road, Horndean

Hants PO8 0BL, England

Tel: (01705) 599410

Fax: (01705) 598723

WELD-FAB STAGE ENGINEERING LTD.

DESIGN & MANUFACTURE OF TRUCKING SCENERY, REVOLVES, LIFTS, ROSTRA FLOORING & TIMBER FINISHING FOR TELEVISION, THEATRE & EXHIBITION SERVICES VARIOUS EQUIPMENT AVAILABLE FOR SALE OR HIRE.

PLEASE CONTACT BRIAN SKIPP FOR DETAILS

HARBOUR LANE WORKS, GARBOLDISHAM
DISS, NORFOLK IP22 2ST.

Telephone: 01953 688133 Fax: 01953 688144

STAGE-TRACK LIMITED

ALL STAGE EQUIPMENT DESIGNED

AND INSTALLED. SPECIALISTS IN

CURTAIN TRACKS, PILE WINDING

WINCHES, SUSPENSION PULLEYS,

SCREEN FRAMES ETC.

PHONE NOW FOR BROCHURE!!



HARBOUR LANE WORKS,
GARBOLDISHAM, DISS,
NORFOLK IP22 2ST.

Tel: 01953 688188

Fax: 01953 688144

POWERENT

"SILENT MOBILE GENERATORS
5Kva - 1500 Kva 50/60 Hz
CABLES TRANSFORMERS ETC."

Complete Distribution Systems
Specialist Location Engineers
Depots throughout UK & USA
24 Hour Service Worldwide

Tel: - 01304 - 813555

Fax:- 01304 - 813502

Telex:- 965324. Power G

NU LIGHT SYSTEMS LTD

The worldwide sales and marketing
team of LASER SCIENCE
also

UK distributors for FLY and
LA NOVALIGHT effects lighting.

Nu-Light Systems Ltd,
Unit 1, Athertons Quay,
Off Liverpool Road,
Warrington
Cheshire WA5 1AH.

Tel: (01925) 243075/6

Fax: (01925) 243077



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

0181 560 3171

LET'S GET TECHNICAL

IF YOU'RE LOOKING
FOR INFORMATION
ON ANY SUBJECT,
YOU MAY NOT HAVE
LOOKED IN THE RIGHT
PLACE. PLASA'S
TECHNICAL BOOK SERVICE
OFFERS A WIDE RANGE
OF BOOKS COVERING ALL
ASPECTS OF THE INDUSTRY

TELEPHONE (01323) 642639

TELEFAX: (01323) 646905

VILLA AUDIO

Professional Systems House

THE COMPLETE PRO-AUDIO SERVICE

Hire
EV Deltamax concert system.
Bi-Amped monitors, Soundtracs
boards. Large dry hire stock.

Installations
Theatre, Clubs, Churches, Hotels

CHELMSFORD
(01245) 361694

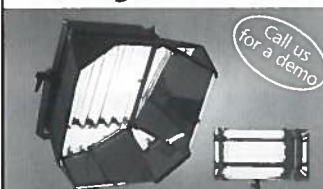
The
Fibre Optic
Lighting People



Par Opti Projects Ltd
67 Stirling Road, London W3 8DJ
Tel: 0181-896 2588
Fax: 0181-896 2599

BALCAR

They're so cool
they're hot!



The extensive range features all these benefits

- VIRTUALLY SHADOW FREE
- DIMMABLE TO 10% WITH CONVENTIONAL DIMMERS
- DRAWS 8-10 TIMES LESS POWER THAN EQUIVALENT TUNGSTEN FIXTURES
- FULL SPECTRUM - DAYLIGHT & TUNGSTEN BALANCED TUBES AVAILABLE
- UP TO 15,000 HOURS LAMP LIFE

and here's the best bit...

VIRTUALLY NO RADIANT HEAT

For enlightenment call

0181 441 2199
Fax: 0181 449 3646

Optex



RAT

the music stand
specialists

R.A.T. (Music Stands) Limited
41 High Street, Brentford, Middx, TW8 0BB.
Tel: 0181 847 3331, Fax: 0181 568 1059

CALL THE BIGGEST NAME BACKSTAGE NOW FOR...

- ✓ Curtains, Tracks & Systems
- ✓ Lighting Bars & Luminaires
- ✓ PLC Based Control Systems
- ✓ Scenery Fittings & Pulleys...
and Much, Much More!

Service, Installation and Insurance Inspection
by Dedicated Engineering Teams

0181 953 3611 & 9371

HARKNESS HALL LIMITED



The Gate Studios Station Road
Boreham Wood Herts WD6 1DQ England
Fax: (+44) 0181 207 3657

Tel: (+44) 0181 953 3611 / 9371



SENNHEISER RADIO MICROPHONES

30 Frequencies available
multi-channel systems our speciality

TASCAM DA-88 A-DAT MACHINES

with time code generator/reader

SLICK TRUSSING

ZARGE LADDERS

RAINBOW SCROLLERS

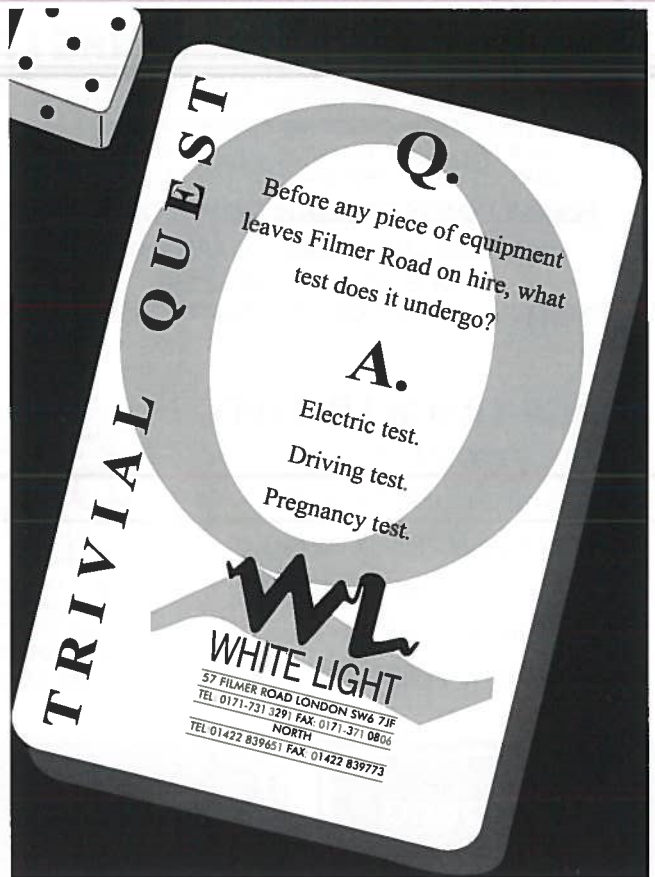
DF 50 FOGGERS

RAT MUSIC STANDS

PLEASE CONTACT US FOR YOUR FREE CATALOGUE

Nice people to talk to

UNITS C6 & C9 HASTINGWOOD TRAD. EST.
HARBET RD. LONDON N18 3HR
Phone: 0181-803 7400 Fax: 0181-803 5060



SALES — INSTALLATION — SERVICE
OF PROFESSIONAL LIGHTING
AND EFFECTS EQUIPMENT

190 PAGE CATALOGUE LISTING 1,000's OF
TECHNICAL PRODUCTS INCLUDING:-

PULSAR
MAGLITE
ANYTRONICS
LE MAITRE
AEROTECHNICS
ROSCO
OPTIKINETICS
LEE
JANDS
GAM



Unit 1, Chelsea Bridge Business Centre,
326 Queenstown Road,
London SW8 4NE
Fax: 0171-498 8845
Tel: 0171-498 7272



- ◆ The complete gobo service
- ◆ Projection slides - all formats
- ◆ Animation effects
- ◆ Fibre optic equipment
- ◆ Digital Light Curtains

• 284-302 Waterloo Road • London • SE1 8RQ • UK •
Tel. +44 (0)171 771 2900 • Fax. +44 (0)171 771 2901

PLASA '96
LIVE AT EARLS COURT
SEPT 8-11

For Details Ring P&O Events 0171-370 8179

P.A.music Lighting • Sound • FX • Video
Hire & Sales
Whatever you are
running We can help
you make it a Success.
0181-883 4350



DRAMA EQUIPMENT
Eltec Lighting Controls

Internally Wired Bars
Rostra & Scenery Kits
Braces, Weights etc

TRADE ENQUIRIES
TEL: 0151-334 0831 • FAX: 0151-334 4047

HARLEQUIN
PERFORMANCE FLOORINGS
BRITISH HARLEQUIN PLC
Kent House • High Street
Farningham • Kent DA4 0DT
Telephone 01322 865288 • Fax 01322 864803

Stage •
Dance •
Event •
Show •
Display •
Television •

CUSTOM MADE
FLITE KASES
THE ULTIMATE
PROTECTION PACKAGE

AUTOPIA
VANQUIP

TEL: 01633 873118 FAX: 01633 873051

* * *
The Fibre Optic Lighting People
 * * *
 (PAP)
 Par Opti Projects Ltd
 67 Stirling Road, London W3 8DJ
 Tel: 0181-896 2588
 Fax: 0181-896 2599
 * * *

FOR SPEEDY INFO TO LIGHTING + SOUND
Telefax: (01323) 646905 or Telephone: (01323) 642639

Trafalgar Lighting
 Light - Sound - Power


**Hire - Sales
 Design
 Installation**


**Phone 0181 887 0082
 Fax 0181 887 0072**


CCT LIGHTING

- STAGE LIGHTING
- CONTROL EQUIPMENT
- TURNKEY PROJECTS
- FULL DEALER NETWORK

CCT LIGHTING LTD
 4 TUDOR COURT, BRIGHTON ROAD,
 SUTTON, SURREY, SM2 5AE, U.K.
TEL: 44 (0)181 770 3636
FAX: 44(0)181 643 9848


DORIS


CYRIL


& ROGER

Are Waiting To Hear From You At
LIGHT ENGINEERING
 64 Eden Road London E17 9JY
 Tel: 0181-520 2336
 Fax: 0181-509 1332

L L Lancelyn THEATRE SUPPLIES

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 (01865) 722522
 SALES: Oxford (01865) 722468
 Hire and Sales Northwest: 0151-334 8991**


HOWARD EATON LIGHTING LIMITED

SKY-TRACKER®
 Providing a unique lighting spectacular for any special event



THEATRE PROJECTS
 Lighting the Way Ahead
0181-575-5555

mico LIGHTING

The specialists for LAMPS used in the THEATRE and ENTERTAINMENT industries.

Excellent Trade terms available.

Mico Lighting Ltd.
 Troydale Lane, Pudsey, Leeds, West Yorkshire.
**Telephone: (0113) 2567113
 Fax: (0113) 2572358**

CONUNDRUM

T	S	O	H	G	A	T	N	I	A	R	T
H	U	R	R	I	C	A	N	E	R	B	A
A	L	B	E	X	Q	I	F	F	B	R	M
B	T	A	R	I	A	N	F	F	A	A	A
U	B	J	I	H	L	X	D	E	L	M	R
R	U	A	B	C	L	E	R	C	E	B	B
B	S	C	L	O	E	E	D	T	D	L	L
L	T	A	L	L	H	P	I	N	N	E	E
E	S	N	T	P	S	P	S	I	A	S	L
S	H	A	T	T	E	R	T	S	C	H	B
H	O	E	L	T	T	O	B	O	A	N	C
G	S	R	L	L	A	B	E	Y	E	E	V

Here are some of the hot items associated with HELL this month.
 Can you find them?

CHANDELIERS	CANDELABRA
HURRICANE	SHATTER
EYEBALL	SPECIAL
MARBLE	BOTTLE
EFFECT	BUSTS
GHOST	TRAIN

Northern Light

Technical Equipment for the Leisure and Entertainment Industry

SALES • INSTALLATION • HIRE
 Manufacturers of Socket Boxes, Working Light and Specialised Control Systems.

EDINBURGH
 Tel: 0131-553 2383
 Fax: 0131-553 3296

LIGHTING & SOUND EQUIPMENT HIRE & SUPPLY
 Stockists for Strand, Hall Stage, Roscotab, DHA, Tecpro, Soundcraft, JBL, Amcron, Yamaha, AKG, Le Maitre, Slick Systems Trussing.

GLASGOW
 Tel: 0141-440 1771
 Fax: 0141-4454406

- CUSTOM LIGHTING AND EFFECTS ■
- DMX DISTRIBUTION ■
- CUE LIGHTS AND S.M. DESKS ■
- DIGITAL DIMMING ■

**TEL: 01273 400 670
 FAX: 01273 401 052**

Specialist Technical Equipment and Services for the Entertainment and Allied Industries

*"From Shakespeare
to Simply Red,
from Los Angeles
to Leipzig,
you're always on
the right track with us!"*

Triple E's systems are the first choice for theatres, venues and productions the world over. Praised for their *design, versatility, ease of use and installation*, the systems are in a league of their own, providing smooth, error free operation every time a curtain or piece of scenery needs to be tracked.

With a range of top quality products, and backed by considerable expertise, Triple E has the solution for all your operational requirements.



The Triple E Group
B3, Tower Bridge
Business Complex,
Clements Road,
London SE16 4EF.

The Triple E Group

Tel: 0171 237 6354 Fax: 0171 237 7650

Glantre Engineering offers a worldwide service in design, supply and installation of systems for the performing arts and entertainment.

Glantre's capabilities extend from lighting, sound and rigging for theatres, film and TV studios, through conference and AV to packages for cruise ships, theme parks and leisure attractions.

Contact Carolyn Cerrino at 20 Richfield Avenue, Reading, Berkshire, RG1 8EQ

Tel: +44 1734 640000

Fax: +44 1734 640064



GLANTRE ENGINEERING LTD

GLANTRE



Leaders in
entertainment
technology on
land and sea.

TRANSFORMERS

- ★ LAMINATED TRANSFORMERS
- ★ LOW PROFILE ENCAPSULATED
- ★ TOROIDAL TRANSFORMERS
- ★ From 2VA to 1500VA
- ★ 100V LINE TRANSFORMERS
- ★ CUSTOM ENCLOSURES
- ★ Design, Development, Production
- ★ Large & Small production runs, at very competitive prices
- ★ Short delivery
- ★ BABT LISTED
- ★ BS5750 APPROVED

DAREN ELECTRONICS LTD

23-29 OWEN ROAD, DISS
NORFOLK IP22 3HQ
TEL 01379 644233
FAX 01379 650118



Certificate No. 06412



MOTOROLA CERAMIC SPEAKERS

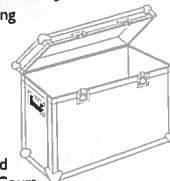
PULSAR DEVELOPMENTS LTD
MARLOW, ENGLAND
TEL: (01628) 473555
FAX: (01628) 474325

Quentor Cases

Quality custom-built
transportation cases
made **FAST!**

Phone (01603) 721604

We specialise in making transit cases fast. For a simple briefcase or for complex rackmounts call Quentor - you'll be glad you did!



Quentor (EC) Limited
Unit 10 Fitzmaurice Court,
Rackheath Industrial Estate, Norwich
NR13 6PY.

Tel: (01603) 721604 Fax: (01603) 721992

P.J.LIGHTING (Products)

Trade Supplier

Manufacturer of stage & disco lighting equipment.

Parcans, Pinspots, stands, Par-Bars, Equipment Stands etc.

Tel: 0121 515 2125 Fax: 0121 515 1625

Unit 14, 35/37, Nursery Road, Hockley, Birmingham, B19 2XN.

Automated SEARCHLIGHTS - we design & build to sell or hire

(single or
multi-beam)

Skylites International
TEL/FAX: 01376 584799 Mobile: 0378 709989

Also for Hire:
12 WWII Anti-
-aircraft
SEARCHLIGHTS



FABRONIC LIGHTING

Manufacturers of a complete range of quality effects lighting for the leisure industry

PROFESSIONAL LIGHTING FOR
PROFESSIONAL PEOPLE

For a full brochure and price list call the
Sales Hotline

01604 790765

54-56 Tenner Road, Moulton Park Ind Estate,
Northampton NN3 1AX
Fax: 01604 492856

THE SOUND LIGHT WORKSHOP
GAYWOOD FARM,
HOLE LANE,
EDENBRIDGE
KENT TN8 6SL

Tel: (01732) 866551
Fax: (01732) 866552



LEISURE

THE EFFECTS CO.

contact us for full details of this great range of special effects smoke machines and pyrotechnic equipment and accs.

Now Available

RENTAL BULLETIN BOARD

Now Available

GLADIATOR FOLLOWSPOTS 3KW
MEGALITES (9x2Kw)
ETC SOURCE FOURS
WYBRON AUTOPILOT
4KW DMX SKY-ART SEARCHLIGHTS
WHOLEHOG II CONTROL DESKS
JEM ROADIE SMOKE MACHINES

IRIDEON AR 500 LUMINAIRES
CADENZA DMX P.A.L.S.
THOMAS SUPER RIG TRUSS
RCD MAINS DISTRO SYSTEMS
AVOLITES DIAMOND II DESKS
SCANCOMMANDER CONTROL DESKS
ALTMAN ZIP STRIPS

**THEATRE
PROJECTS**

Lighting The Way Ahead
+44 (0)181-575-5555



WEMBLEY
LOUDSPEAKER

deuce

B LINE

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 A4, Askew Crescent Workshops
Askew Crescent, London W12 9DP

Tel: 0181-743 4567
Fax: 0181-749 7957

INTERNATIONAL DIRECTORY

World-wide contact information for import/export, concert touring, exhibitions, etc.

AUSTRALIA



**L.S.C.
ELECTRONICS P/L**

7 University Place, Clayton,
Victoria 3168, AUSTRALIA
Tel: (61) 39561 5255
Fax: (61) 39561 5277

AUSTRIA

LUDWIG PANI

A1070 Vienna, Kandlegasse 23
Tel: (1) 521 08-0 Fax: 526 4287
Range of follow-spots and projectors
Exclusive Agent for Strand

VARI*LITE®

VARI-LITE AUSTRIA

Tel: (43) 1 609 02 Fax: (43) 1 609 0220

BELGIUM

VARI*LITE®

VARI-LITE BENELUX

Tel: (32) 16 60 76 48 Fax: (32) 16 60 88 61

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Tel: (03) 4892856 Fax: (03) 4890562

CANADA

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Free Tel: 800575OPTI(6784) Free Fax: 800OPTI(6784)575

12 MONTHS
ADVERTISING IN
THIS SECTION COSTS
AS LITTLE AS

£244.00

CONTACT
BARRY HOWSE
OR JANE COCKBURN
FOR MORE DETAILS

TEL: 01323 642639
FAX: 01323 646905

FRANCE

VARI*LITE® VARI-LITE FRANCE

Tel (33) 1 41 14 01 00 Fax (33) 1 45 07 96 79

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Tel: (1) 43 76 00 30 Fax: (1) 48 93 81 83

Controlite

PML & WashLight

SONOSS - 59160 Lomme
Tel: 20925091 Fax: 20923377

GERMANY

AMPTOWN LICHTTECHNIK GmbH

Wandsbeker Str. 26, 22179 Hamburg
Tel: (49) 40-64600440
Fax: (49) 40-64600445

VARI*LITE®

VARI-LITE GERMANY

Tel: (49) 221-582088 Fax: (49) 221-5801979

LMP GILDESTASSE 55
49477 IBBENBUREN
Tel.: (49) 5451-59 00 20
Lichttechnik Fax: (49) 5451-59 00 59

TOUR SERVICE LICHTDESIGN

Hanse Str. 9,
33689 Bielefeld

Tel: 0 5205 22 800
Fax: 0 5205 22 889

Concert, stage, TV and industrial lighting
Design and Production Services
Representative of PanCommand systems

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Tel: (0221)9532340 Fax: (0221)95323519

Controlite

PML & WashLight

Amptown Lichttechnik GmbH - Hamburg
Tel: 40-64600440 Fax: 40-64600445

HONG KONG

Controlite

PML & WashLight

The Creator Ltd - Hong Kong
Tel: 852-26936238 Fax: 852-26064189

ITALY

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Tel: (031) 773539 Fax: (031) 773798

JAPAN

Controlite

PML & WashLight

Technical Supply Japan Ltd.
Tel: 03-37917501 Fax: 03-37917656

NETHERLANDS

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Tel: (020) 6332307 Fax: (020) 6332044

LIGHTING SOUND RIGGING

Flashlight®

Flashlight Utrecht Holland Sales B.V.
Tractieweg 190
3534 AP, Utrecht
Tel: 030-44 48 42
Fax: 030-44 76 06

JANSEN & JANSEN



light sound & rigging

Isolatorweg 36, 1014 AS
Amsterdam-Sloterdijk, Holland
Tel (31) 20 6 821 821
Fax (31) 20 6 828 326

NEW ZEALAND

SELECON

Manufacturers of high quality stage and
display luminaires - Zoomspots, Fresnels,
PC, CYC, Floods, L Voltage, Metal Halide
Display Spots. Dealer enquiries to: 26 Putiki
Street, Grey Lynn, Auckland 2, New Zealand
Tel: 64 9 3601718 Fax: 64 9 3601719

NORWAY

Controlite

PML & WashLight

ARTlight a/s - 0488 Oslo
Tel: 22-220005 Fax: 22-713616

SPAIN

VARI*LITE

VARI-LITE SPAIN

Tel: (34) 1 518 8976 Fax: (34) 1 518 6719

SWEDEN

VARI*LITE®

VARI-LITE SCANDINAVIA

Tel: 00 46 8 654 1810
Fax: 00 46 8 654 1819

AVAB

Salsmästaregatan 32B
422 46 Hisings Backa Sweden
Tel: (46) 31 585200
Fax: (46) 31 582999

SWITZERLAND

POWER LIGHT

Fabrikmattenweg 8, CH-4144 Arlesheim
Tel: (41) 61 701 82 28 Fax: (41) 61 701 8338
Equipment rental and services. State-of-the-art
lighting equipment for TV, stage and concert
productions, exhibitions and product launches
throughout Europe. Xenon Trouters, Paris, Avon,
Celco, Thomas, Veritide, Strand, CCT,
Sky Trackers and searchlights
At the heart of Europe!

USA

VANCO

New York
Tel: (914) 942 0075 Fax: (914) 942 0099
Orlando
Tel: (407) 855 8060 Fax: (407) 855 8059

TMB ASSOCIATES

PRODUCTION SUPPLIES & SERVICES

2102 W. Kenmore Ave.
Burbank, California 91504
Tel: (818) 842-9652
Fax: (818) 842-1064

TOMCAT®

Staging, Lighting and Support Systems
Serving your tour and fabrication
needs in the USA
Tel: (915) 694 7070
Fax: (915) 689 3805

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Free Tel: 800575OPTI(6784) Free Fax: 800OPTI(6784)575

DAYMAX®

Metal-Halide Lamps

• Stage • Studio • Disco • Film •

ILC Technology, Inc.
399 Java Drive
Sunnyvale, California 94089
USA

408-745-7900/Fax 408-744-0829



STRONG INTERNATIONAL, INC.
FOR THE WORLD'S BEST FOLLOWSPOTS

4050 McKinley Street, Omaha, Nebraska 68112
Tel: 402-453 4444 Fax: 402-453 7238

THE COLORAM

Wybron Inc

The ones the pros use.

And use. And use.

TEL: 719-548 9774

FAX: 719-548 0432

UNITED KINGDOM

OPTIKINETICS

EFFECTS LIGHTING EQUIPMENT AND STRUCTURAL SYSTEMS
K2 EFFECTS PROJECTOR Trilite™
Tel: (01582) 411413 Fax: (01582) 400613

Controlite

PML & WashLight

White Light - London
Tel: 171 7313291 Fax: 171 310806

Steve Moles interviews Robbie McGrath, sound engineer

Born in 1954 Robbie McGrath had a typical Dublin up-bringing. Being one of five boys, Mum had her hands full, while Dad escaped to the local bus company where he worked as a conductor. "School started with the Christian Brothers in Stillorgan," said Robbie, laughing, "where basically we were beaten from 9 'til 3.30 each day," and it wasn't until secondary school that Robbie formed the first inklings of what was to be his destiny.

"A new order came over from America called the Marionists. They taught at the college in Lochlan Town. Their's was a very open, humanist style of teaching. They introduced me to a new side of myself; to be honest I don't think I'd have gone into rock and roll without them." Like many others in the business, Robbie had developed an interest in music and was regularly playing drums in local semi-professional bands before he left school.

On finishing school, Robbie apprenticed at a local jewellers - working by day at the shop and touring the clubs and pubs of Ireland by night, often returning to Dublin just in time to open the next morning. (He did, incidentally, complete his three years and is an accredited jewellery maker and repairer).

This was around 1972 and he regularly rubbed shoulders with the likes of Horslips and Thin Lizzy, both up-and-coming bands at the time, and Horslips' drummer, Eamon Carr, told him that they were about to break the dance-hall circuit with a lengthy summer tour. "Put me down for sound," he said, liking the idea of a tour and, like most musicians of that era, having a reasonable idea of how to cope with the primitive sound technology that existed then. "I used to mix from the side of stage. I had an eight-channel WEM desk, pre-AudioMaster days, with just enough channels for the vocals and violin." Although he still wanted to be a drummer, before he knew it Robbie had a flat in Belgravia and was on tour with the band in the US and Canada.

By 1976, he was spending all his time either touring, or in the studio making demos. "I realised I had an ear," he adds modestly, "and decided I could do it." Then in what was an unusual, but highly significant, step for that era, Robbie enrolled at Queen's University, Belfast where a certain John Connolly ran a course for sound technicians and engineers. "I learnt all

about compression ratios and parametric eqs, equipment that just didn't exist on the road at the time."

During the course, Thin Lizzy came to Belfast and played a big festival show at Dademont Park. For these type of events, John Connolly would take his students along to work back-stage as technical back-up fixing



Robbie McGrath at the recent Simply Red concert at Wembley Arena.

"As he was about to embark on a tour, Paul McGuinness offered him the job of tour manager for a young Irish band, U2. The rest is history, except that Robbie wasn't part of it."

amps and making sure nobody got electrocuted. The Boomtown Rats were also on the bill, and in one of those rare opportunities that only presents itself when you're up to your neck in wires and valves, their manager Fatchna O'Kelly, who knew Robbie but hadn't seen him since those early club days in Dublin, made him an offer. "It's all going really well for the band, do you want to handle their sound?"

As Robbie comments: "Living in Belfast in '76 was like being in Beirut - a war zone. So I rang him the following week and within days I was on a plane to England and then down to a big house in Chessington where the whole band were living. It was a family thing, but I can tell you it certainly wasn't like the Partridge Family."

As the band's success grew and they progressed from club to theatre to arenas, Robbie found himself not only mixing, but tour manager as well, something he continued to do until 1981 when he realised it was a thankless task. "When grown men call you and complain that they don't like the view out of their hotel window . . . well that's when I decided to stick to just sound." This was to prove a barbed decision for Robbie, but one that illustrates that occasionally it's healthy to buck fate and be true to yourself. Just as he was about to embark on

a tour with Echo and the Bunnymen, Paul McGuinness called him and offered him the job of tour manager for a young and emerging Irish band, U2. The rest is history, except that Robbie wasn't part of it.

In hindsight it's proved to be both a courageous and correct decision. Since 1982 when he turned the job down, Robbie's career as an engineer has gone from strength to strength mixing for bands as varied as AC/DC, Tears for Fears, The Stranglers, Sinead O'Connor and many more, most recently for Simply Red. During the intervening years between he has also made one further decision that is a clear demonstration of the mettle of the man and one that others in the business would do well to heed. "In the mid-eighties, I did a 14 month non-stop tour. When it finished my personal life went down the drain and I was almost an alcoholic. I felt the chill wind of separation.

"This was not what I wanted. I'd always had this vision of being an old man in a rocking chair one day with grandchildren round my feet. I wanted to have a relationship again and so I came off the road and spent six months pulling myself back together." Since then he's always contrived to work with bands who pace their tours, both AC/DC and Simply Red for example, despite lengthy runs, work a few weeks on and then at least a fortnight off. It has worked. Not only is Robbie a sought-after engineer, but he regained the heart of Fiona Pretty. They now have three children.

ADVERTISER'S INDEX

See also Directory Pages

A&B Theatre Services 68
AC Lighting 9/69/70/74
ADB 16
Alistage 57/68
Artistic Licence 6
Avolites 28

Balzars 15
CCT Lighting 26
Celco OBC 56
CITC 17
Clay Paky 27/IBC
Compugraphics 19
CTS 57
Custom Theatre Supp 83
Dial 53/61
Electrosonic 25
ETC 11
FLY 30/31

Flying Pig 16
Glantre 83
Gradav 56
Hand-Held Audio 17
High End Systems 7/23
Jands-Hog 10
Kupo 29
Lamba 21
Lee Filters 4
Light Opera 90
London Laser Co 82
M&M 83

Martin Professional IFC/3 60
Navigator Systems 60
Pani 19
Par Opti Projects 57
Pfaff 56
PLASA Show 49
Playlight 81
Pulsar 37
PW Enterprises 8
RB Lighting 43
Robert Juliat 20
Sennheiser 35

SGM 13/39
Slick 8
Soundcraft 33
Starlite Systems 22
Strong 34
Total Fabrications 41
Turbosound 18
Vari-Lite 5
Wilkes 68
Wybron 12/43
XTC 14

Clay Paky. The guiding light.

So powerful is the Clay Paky intelligent colour changer, a handful of these units will replace the job of dozens and dozens of conventional luminaires, creating an enchanting range of atmospheres with dynamic changes in colour. The perfect complement to moving mirror projectors, colour changers giving you the highest technology and reliability, and the right choice for all lighting situations, whatever your budget.

Polycolor



Combicolor 300



Tiger CC



CHARACTERISTICS	POLYCOLOR	COMBICOLOR 300	TIGER CC
Lamp	HMI 575/1200	HTI 300	HMI 575/1200, 36V 400W Hal.
Standard lens aperture	14°	20°	21°
Optional lenses	—	10° - 6°	13°
Colour wheel	—	6 colours + white	7 colours + white
Second colour wheel	—	6 colours + white	—
Adjustable rotation speed	—	*	*
Two-colour beams	—	*	*
Rainbow	—	*	*
RGB system	*	—	—
Max. No. colour combinations	Infinite	49	8
Gobos	—	1 fixed; 2 interchangeable E-size	—
Frost effect	*	*	HMI only
Reducer apertures	—	5	—
Dimmer	*	*	—
Stop - Strobe	*	*	*
Mounting bracket adjustable to 100°	*	*	*
DMX 512, RS 232 (PMX) digital control, analogue 0-10 V	*	*	*
Number of control channels	6	4	3-2 (400 W lamp)

Distributor United Kingdom:

PULSAR LIGHT OF CAMBRIDGE Ltd

Henley Road - CAMBRIDGE CB1 3EA

Tel. + 44 (0) 1223.366798 - Fax + 44 (0) 1223.460708

CLAY PAKY SPA

Via G. Pascoli, 1 - 24066 PEDRENGO (Bg) Italy

Tel. + 39.(0)35.654311 - Fax + 39.(0)35.665976



PROFESSIONAL SHOW LIGHTING

expand your horizons



navigator epx

*moving light console, 60 lamps plus
svga monitor output, trackball and
keyboard included*



pathfinder epx

*concert / theatre console, 60 channels
svga monitor output, chase-maker and
other effects, keyboard included*



explorer epx

*concert / theatre console, 120 channels
svga monitor output, stack-maker and
other effects, sophisticated time fades
keyboard included, optional floppy drive*



Celco
Hawley Mill, Hawley Road, Dartford, Kent DA2 7SY England
telephone + 44 (0) 1322 282 218 facsimile + 44 (0) 1322 282 292
Celco is a division of Electrosonic Limited