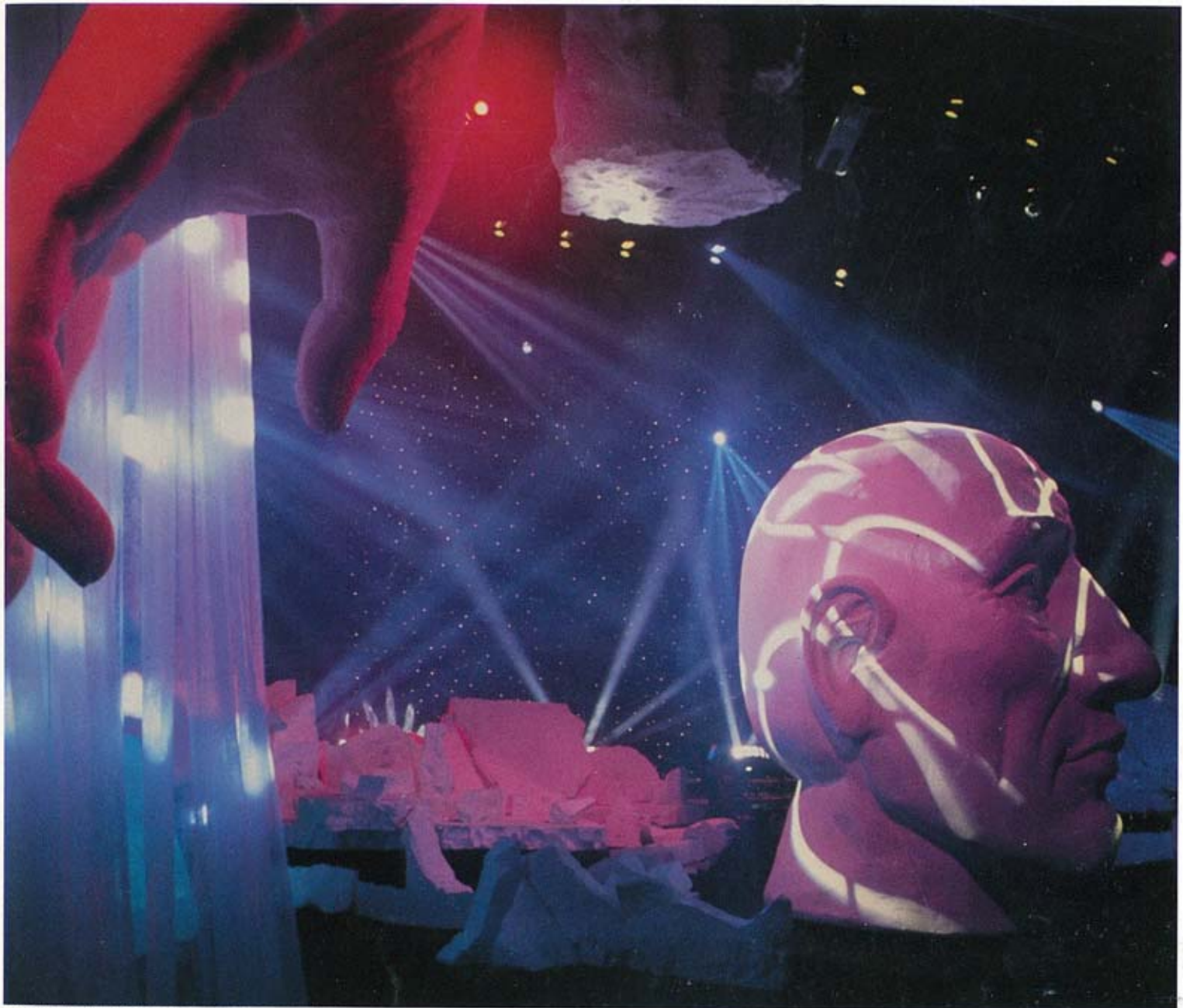


LIGHTING+*Sound* International



HIGH END SYSTEMS' AWARD-WINNING LIGHT SHOW AT LDI 92 IN DALLAS

PHOTO: AMY DAVIDSON

- LDI 1992 Dallas: L+SI's annual comprehensive Round-Up
- Smoke Without Fire: Graham Walne discusses Smoke Machines
- Company Profile: more Texas activity from Tomcat USA
- The Swan, High Wycombe: a report from the UK's newest theatre
- Brian Copsey: Radiomicrophone Licensing within the UK
- Francis Launch Première Searchlight

DECEMBER 1992

ANIMATOR

BRINGING YOUR MOVING LIGHTS TO LIFE

Animator 24, 48 & 72! and now ... The Animator 12.

For use in:

Concert Productions
Theatre
& T.V.

OPEN INVITE

During January and February we will be running free operator training courses on the

Animator range

All interested professionals are invited to attend - please contact :-

Andrew Stone on 081 961 9750

COMPUTLITE GB

2, Tudor Estate, Abbey Road, Park Royal,
LONDON. NW10 7UY.
tel 081-961 9750 fax 081-965 0980

ProSpot

ProSpot is a revolutionary affordable new moving light fixture. ProSpot can be purchased as a basic lighting instrument at a cost comparable to that of most mirror lights. At any time ProSpot can be easily upgraded to offer more features than a Vari-Lite 2B, Syncrolite or Summa Light. Invest in ProSpot and you'll be able to configure your own custom lighting fixture - now or in the future - by purchasing only the features that fit your needs...and your budget.



Standard Features

- 600 watt Osram HTI light source
- Configurable internal design
- 360° Pan and 270° Tilt
- Accurate Iris system
- Flexible lens system
- High grade DC servo motors

Configurable Features

Color System Options to Choose From:

- C9 - 9 Color dichroic wheel system, or
- CF - Fading dichroic color system

Pattern System Options to Choose From:

- P9 - 9 Pattern wheel system, or
- PR - Rotating pattern system, or
- PS - Soft focus zoom optic system

Additional Option:

- SF10 - Soft focus or diffraction system

All this from one light fixture investment.

ProSpot. It's hot!

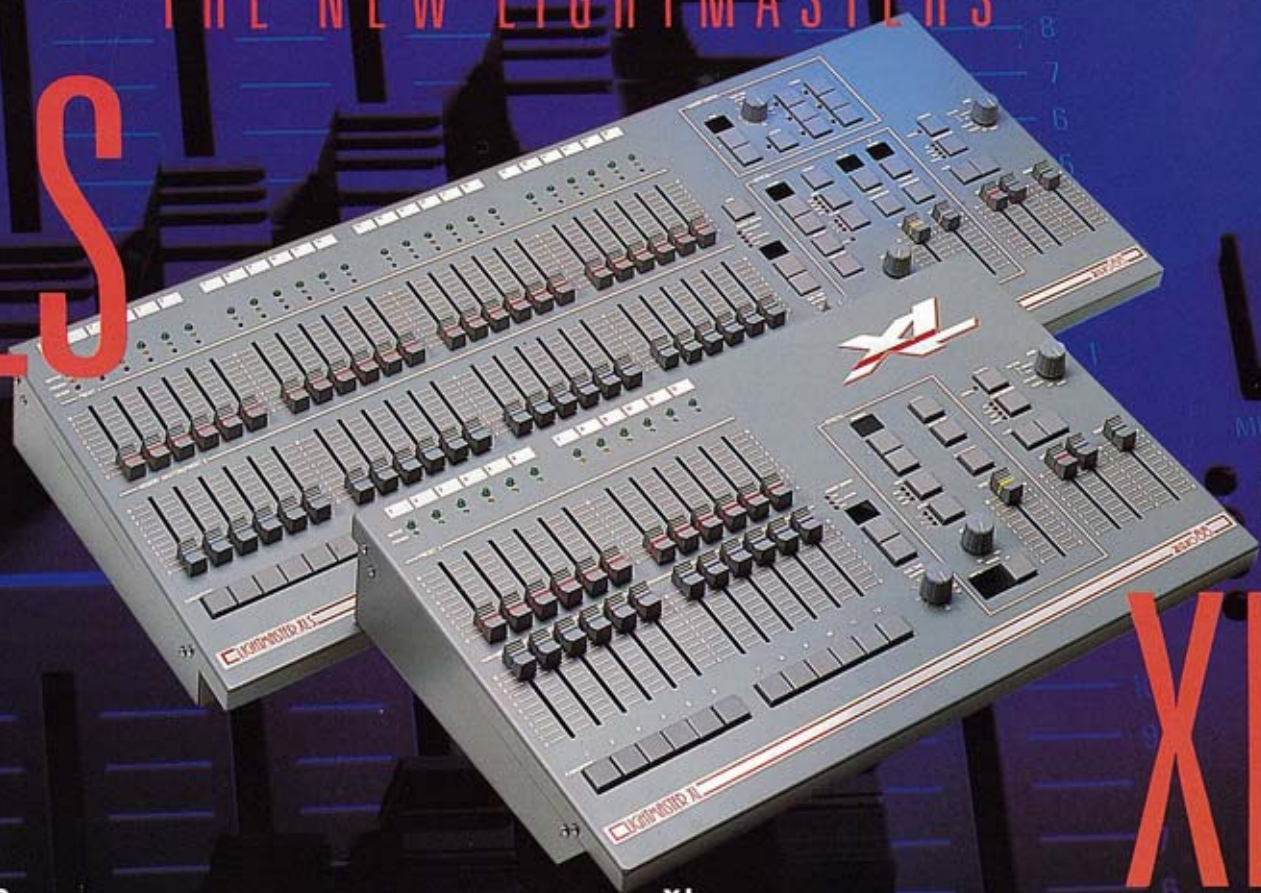
PanCommand®

930 Remillard Court, San Jose, CA 95122
Tel 408.297.7262 Fax 408.287.8178

The choice is yours

THE NEW LIGHTMASTERS

XLS



XL

XLS

- ▶ 24 CHANNELS 2 PRESETS
- ▶ 24 MEMORY SUBMASTERS
- ▶ 216 CUES plus 250 SEQUENCE MEMORIES
- ▶ 24 ADDITIONAL AUXILIARY CHANNELS - eg colour changers - WITH 54 SEPARATE CUES



- ▶ 2 FULLY PROGRAMMABLE INDEPENDENT EFFECTS SUBMASTERS
- ▶ DMX512 and +10V ANALOG OUTPUTS
- ▶ FULLY PROGRAMMABLE MIDI INTERFACE
- ▶ MEMORY CARD FACILITY

XL

- ▶ 12 CHANNELS 2 PRESETS
- ▶ 12 MEMORY SUBMASTERS
- ▶ 108 CUES plus 250 SEQUENCE MEMORIES
- ▶ FULLY PROGRAMMABLE EFFECTS
- ▶ DMX512 and +10V ANALOG OUTPUTS
- ▶ FULLY PROGRAMMABLE MIDI INTERFACE
- ▶ MEMORY CARD FACILITY

zero 88

Hart Road, St. Albans, Hertfordshire. AL1 1NA England.
Telephone: St Albans (0727) 833271
Facsimile: (0727) 43676

LIGHTING+ SOUND *International*

DECEMBER 1992

6 News In Lighting+ Sound International

Full round-up of all the sights and sounds from the industry

18 Fennia Dance Restaurant Helsinki



The vision behind a Rock Cafe in Viennese Baroque - John Offord discovers a jewel in Finland's capital city

22 Lighting Dimensions International

L+S picks up the new products, news and opinion from the Dallas Infomart

29 Francis Launch Première

John Offord visits Francis Searchlights at Bolton and finds a new industry collaboration

33 On Tour

Steve Moles reviews Roy Bennett's lighting for The Cure and the story behind Mark Fisher's set design for the current Simply Red tour

35 Tomcat USA

John Offord visits the Midland, Texas base of Tomcat USA

38 Feathering the Nest



Ruth Rossington visits The Swan Theatre, High Wycombe

41 Smoke Without Fire

Graham Walne Surveys the latest Equipment

46 Radiomicrophone Licensing

Brian Copsey on the UK Licensing Laws

48 Equipment News

A round-up of the latest in new equipment

51 International Directory

53 Directory of Suppliers and Services

58 Viewpoint

Kicking out Recession: John Offord sees interesting signs of recovery and observes Strand Lighting's battle for volume

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

LIGHTING+ SOUND *International*

published monthly by the Professional Lighting and Sound Association
© Copyright Professional Lighting and Sound Association ISSN 0268-7429

Editor: John Offord
Assistant Editor: Ruth Rossington
Associate Editor: Tony Gottelier
Advertisement Manager: Barry Howse
Subscriptions: Sheila Bartholomew

Published from the PLASA Office
7 Highlight House, St Leonards Road, Eastbourne, East Sussex BN21 3UH England
Telephone: (0323) 642639 **Fax:** (0323) 646905

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

The magazine is available on annual subscription
UK £45.00 Europe and rest of world £60.00 Airmail £85.00. Single copy price £3.00 plus postage

Editorial Advisors: Tony Akers, Peter Brooks, Wyatt Enever, Mike Gerrish, Matthew Griffiths, Kevin Hopcroft, Tony Kingsley, John Lethbridge, Ian de la Vingne, Iain Price-Smith, Neil Rice, Jackie Staines

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 BN21 3UH. Second class postage paid at Middlesex, N.J. Postmaster: Send US address changes to C and C Mailers PO Box 177 Middlesex, N.J. 08846, USA.

PLASA
PROFESSIONAL LIGHTING
AND SOUND ASSOCIATION

Join the Family.

For over 30 years PANI has

BP 2

set the standard in innovative

BP 5

lighting technology.

BP 1,2

8 Projectors and a wide range of

BP 2,5 *New*

effect accessories, from the BP 2

BP 4

to the most powerful Projector in

BP 6

the world - the BP 12 Platinum,

BP 6 Gold

give you the opportunity to make

BP 12 Platinum

your projection-dreams a reality.

We guarantee that you will have the power for the hour.

Call us or send a fax for more information.

Phone (43) (1) 521 08-0

Fax (43) (1) 526 42 87



Ludwig Pani, Company for Stage Lighting
A-1070 Vienna, Austria, Kandlgasse 23



PLASA Show Fills Up - All Sizes Catered For

When plans for the 93 Light & Sound Show are sent out by organisers Philbeach Events to prospective exhibitors in the near future, companies holding back on decision-making are going to be in for a surprise. Very little space is left on the plan, with 85% of all available sites now taken.

Latest bookings include a major space for Lightfactor and High End Systems who are doubling the size of their stand for next year's

event. The booking was agreed in Dallas at LDI and pictured above (centre) is Lightfactor's John Adams with Bob Schacherl (left) of High End Systems and show manager James Brooks-Ward of Philbeach (right).

Eleven new exhibitors have already booked space and plans are now well advanced for a special area for small exhibitors. Details will be announced in the near future. Your contact number for Philbeach is 071-370 8215.

LSD Redundancies at Gravelly Park

Sad news in early November was that Light & Sound Design of Birmingham had to lay off 43 people from their team at Gravelly Park in early November.

Managing director Steve Dawkes told L+S: "After completion of the Olympics contract it had been hoped that the extra staff and facilities taken on at Gravelly Park could be retained to service the television and film market. However, having had nine people in the field for up to four months, the feedback showed that this market is heavily depressed due to the recession."

For the good news from LSD see the Icon news story on page 10.



Rallying call at LDI last month: Steve Norman (left), marketing manager of Strand Lighting Inc, with Chris Waldron, managing director of Strand Lighting UK. (See Viewpoint page 58 and LDI report pages 22-28.)

Freddy Joins In



There will be just one new face on the PLASA executive committee for 1993 following the recent elections. Freddy Lloyd of Zero 88 Lighting won his seat after tying for first place with Celco's Colin Whittaker.

The complete nine-strong line-up for 1993 is as follows: Paul Adams (PA Installations), Tony Akers (Citronic Ltd), Andy Collier (Strand Lighting), Matthew Griffiths (TSL), Tony Kingsley (Avitec Electronics), Freddy Lloyd (Zero 88), Ian Sharpe (Ramsa Panasonic), Colin Whittaker (Celco) and Mike Wood (JEM).

The officers for 1993 will be elected at the January meeting of the executive committee.

À Bientôt, Claude



Claude Lanos (left) of Pulsar France with long-standing friend Jean Lebrét of Scenilux pictured at the launch of CP&P France in Caen recently. Claude retires from the industry at the end of this year (see full story and more pictures page 14).

Cartoon Action News

The Paintshop Crew
Are Very Enthusiastic
About Using
All ROSCO Paints
For Their Vivid Backdrops,
Cycs & Scenery Flats.

LIGHTING TECHNOLOGY

Action Lighting

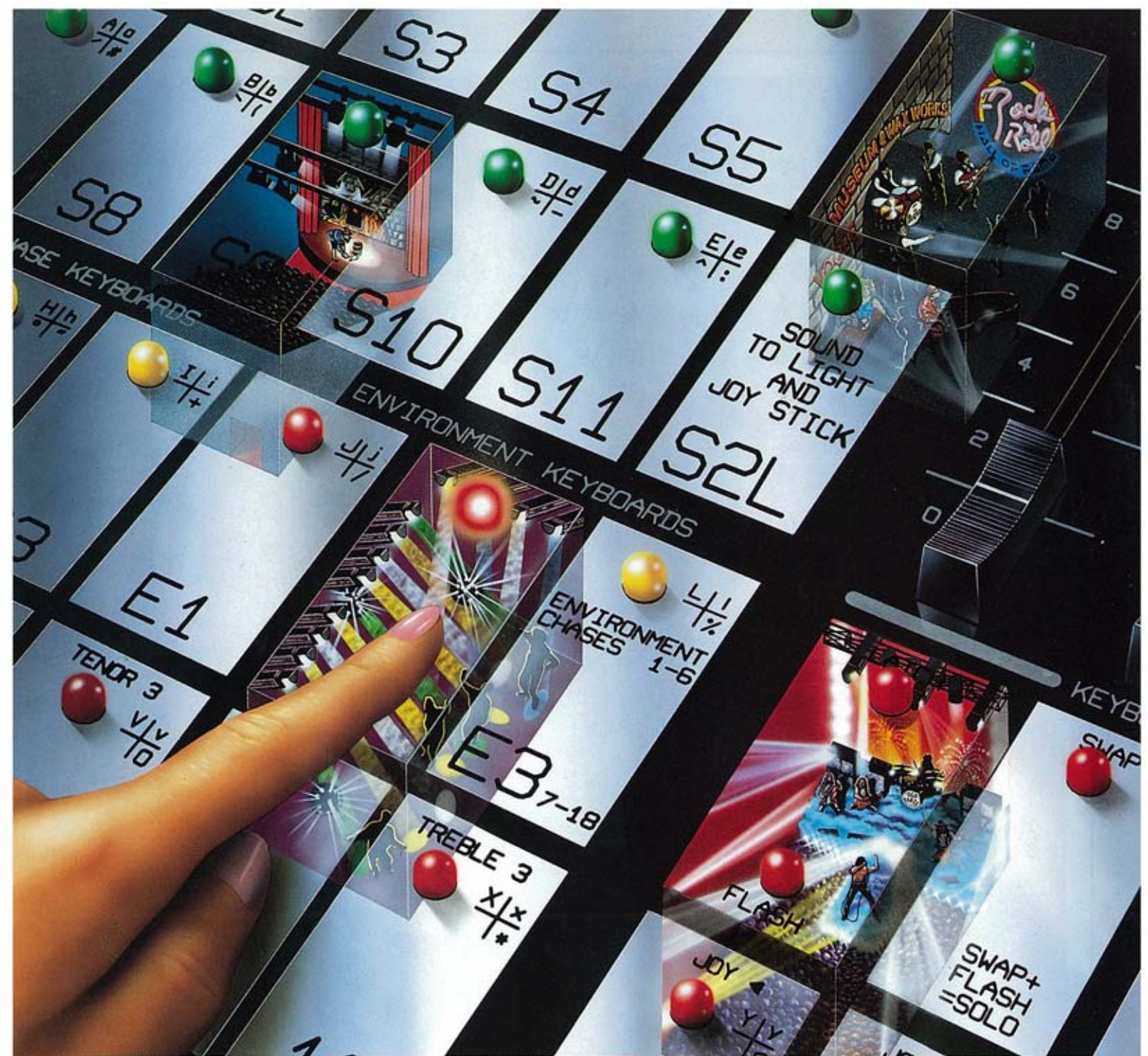
ROSCO SCENIC
PRODUCTS.

SUPER - SATURATED PAINT

COLORINE

FLUORESCENT PAINTS

London	Manchester
2 Tudor Estate	46 Kersos Avenue
Abbey Road Park Royal	Salford
London NW10 7JY	Manchester M5 2GL
Tel 081 965 6800	Tel 061 876 0576
Fax 081 965 0950	Fax 061 876 0517



FINGER ON THE PULSE

Imagine effortless control for Golden Scans, Par Cans, Strobes, Smoke Machines, Pinspots, Tubelights, Downlighters, Theatre Lanterns, Moving Rigging, Display Spots, Hydraulics, Floods, Multi-Mirror Lamps, Neon, Video Walls - in fact every product you could possibly ask for.

Now imagine a controller capable of doing all this simultaneously, with every effect in its own individually programmed and timed sequence.



PULSAR

Masterpiece is shown with optional case and monitor

The Masterpiece is in a class of its own, Pulsar's new generation of integrated multi-task controllers. Designed to achieve the most outstanding performance from each individual product, simulating all the independent controllers you would have previously required for the job, all under the instant touch of your fingertips. Now it requires no imagination to see that its power, quality and affordability, truly represent a Masterpiece of design.

United Kingdom
Pulsar Light of Cambridge Ltd
Henley Road
Cambridge CB1 3EA
Tel 44-(0)223 66798
Fax 44-(0)223 460708

France
Clay Paky & Pulsar
10 Avenue Du Fresne
14760 Brettteville Sur Odon
Tel 33-31 741001
Fax 33-31 734729

Germany
Clay Paky & Pulsar Vertriebs GmbH
An Der Talle 26
4790 Paderborn
Tel 49-5251 409051
Fax 49-5251 409931

Italy
Clay Paky srl
Via Pascoli 1
24066 Pedrengo (Bergamo)
Tel 39-(0)35 663965
Fax 39-(0)35 665976

POWER

With

SIMPLICITY

ESP III



ESP II has power, with a 68000 microprocessor and many of the functions of our acclaimed Event Lighting Console. ESP II also has something it's famous predecessor ESP offered. Simplicity.

Get your hands on ESP II and it all falls into place. The LCD Window prompts you while the Graphic Keypad spells out the functions available to you. Jands unique software allows you to work the way you want to, intuitively.

JANDS

Jands Electronics Pty Ltd, 578 Princes Hwy, St. Peters 2044 N.S.W. Australia.
Phone 61-2-516-3622, Fax 61-2-517-1045. (Australian Company Number 001187837)

WIDE MODE

- 48 Control Channels (ESP II-24)
- 96 Control Channels (ESP II-48)

SOFTPATCH

- Proportional to 512 Dimmers, 3 tables

MASTERING

- 10 Pages via 12 Scene Masters -ESP II-24
24 Scene Masters- ESP II-48
- 10 50 step chasers
- 100 random accessible effects memories
- 10 100 entry cue stacks, programmable dipless crossfade times
- Up to 498 memories

FEATURES

- One button recording and editing
- Random access to cues
- MIDI control
- Multiple chases via Scene Masters
- Set-up options

OPTIONS

- Analogue output (soft patched)
- M CARD storage



DEALERS

Austria

M Tec

Contact: Erwin Mittermann
Tel: 010 43 72 42 60860 Fax: 010 43 72 42 60740

Belgium

Stagelight NV

Contact: Jan Franck
Tel: 010 32 52 831726 Fax: 010 32 53 834054

Denmark

Highlight

Contact: Jakob
Tel: 010 45 31 831288 Fax: 010 45 35 8020020

Finland

RMC Showservice

Contact: Rabbe Hjelt
Tel: 010 35 80 5063010 Fax: 010 35 80 485871

TFP Markkinointi Oy

Contact: Fikret Saadetdin
Tel: 010 358 31 143 933 Fax: 010 358 31 133 077

France

SPL

Contact: Alain Jacquinet
Tel: 010 33 84 228961 Fax: 010 33 84 223521

Germany

Multilite Lichttechnik GmbH

Contact: Andreas Fahrman
Tel: 010 49 40 670 6154 Fax: 010 49 40 670 6159

Greece

Alpha Sound

Contact: Costas Constantinopolous
Tel: 010 301 361 2630 Fax: 010 301 360 6459

Holland

Jansen Jansen

Contact: Rob Berg
Tel: 010 31 20 6821 821 Fax: 010 31 20 6828 326

Israel

Mazuz Bros

Contact: Mazuz Zion
Tel: 010 972 3 476889 Fax: 010 972 3 476889

Italy

Spotlight Srl

Contact: Augusto Andraghetti
Tel: 010 39 271 4078 Fax: 010 39 274 4721

Norway

AVAB Norge AS

Contact: Kristian Heder
Tel: 010 47 2 113030 Fax: 010 47 2 112300

PA System AS

Contact: Svein
Tel: 010 47 2 679313

Portugal

Frei Audio

Contact: Fernando Frei
Tel: 010 351 1 9416870 Fax: 010 351 1 9419976

Slovenia

SST

Contact: Jernej Podbevsek
Tel: 010 38 61 301 434 Fax: 010 38 61 301 434

South Africa

B & R Dynamic/Intone Pty Ltd

Contact: Ian Blair
Tel: 010 27 11 402 3520 Fax: 010 27 11 404 1425

Spain

Spotlight SA

Contact: Hector Vidal
Tel: 010 343 4908117 Fax: 010 343 4903934

Sweden

Teaterteknik AB

Contact: Peter Hallin
Tel: 010 46 86 409290 Fax: 010 46 86 409394

Switzerland

TDS

Contact: Jean Jacques Schenk
Tel: 010 41 212 36300 Fax: 010 41 212 33982

United Kingdom

A.C. Lighting Ltd

Contact: Glyn O'Donoghue
Tel: (0494) 446000 Fax: (0494) 461024

News Shorts

Michael Stevens and Partners have sold 11 pairs of Tannoy Monitor Series loudspeakers to IPK Broadcast Systems for two major broadcast installations - the London News Network and new ITV Franchise holder, Meridian Broadcasting.

CLASS Limited have installed a new PAT (Portable Appliance Testing) system at their Wimbledon factory.

'Bigger, better and more stylish than ever' - that's the official line from **Raper & Wayman** on their new Professional Audio Catalogue which is packed with information for all audio equipment users and is now available from R & W, telephone 081- 800 8288.

Martin Professional of Denmark have also just published their second newsletter and copies are available from DNA Associates, telephone 071-437 3665.

Belfast-based **Walker Audio** have installed a new public address system in the Assembly Hall, Church House, Belfast. The venue system consists of a cluster array of three Toa MS1 cabinets, six delayed Toa F500 loudspeakers, with back-up from Toa amplifiers and graphic equalisers. A Soundcraft Delta mixer provides control.

A mammoth 70kW **EAW PA**, supplied and operated by Concert Sound and claimed to be the biggest in the world, is currently out on tour with Chris de Burgh. The show features a Midas XL340 console and two custom-built 40 channel Pro 40 desks for FOH mixing, an array of **Sennheiser** Black Fires, MKH condenser mics and Lantek amplifiers for the marathon 72 day jaunt.

JHE Hire of London have just completed the Mark Almond concert at London's Royal Albert Hall using a flown Court Acoustics 10k Black Box rig. Black Box is now 15 years 'old', and the new system 2000 has many improvements including even wider frequency range and higher output. Court product is also to be found at the Royal Festival Hall where a complete sound system with 24 channel mixer, GN60 crossovers, CN240 processing crossovers and PN1250C power amplifiers, the new compact System 250 and a complete SM750 stage monitoring system have been installed.

The **EMO Systems Rack Light** has become one of the Durham-based company's most popular products, and is currently on the road with guitarist The Edge and bass player Adam Clayton of U2 and Bryan Adams. Alpha Audio recently installed 15 Rack Lights as the Dominion Theatre for the production of the musical 'Grand Hotel'.

Lighting Dimensions (W.L.) in Dublin has taken delivery of a Celco Gold. The Celco desk is part of a stock upgrade which includes a 10 way motor control, Rainbow Scrollers and 1500 metres of Socapex cable. Andrew Leonard, general manager, told L+S that so far, events lined up for the new system include seven sell-out shows for Christy Moore at the Point, the T.S.B. Women's classic at the R.D.S. and Head to Toe Live (Ireland's equivalent of the Clothes Show), which will also feature Golden Scans and Superscans, shipped in from White Light.

Another Celco Gold has found its way out to Ireland and into the new warehouse of **Transam Concert Productions** who are one of the largest lighting and production companies in the country. The stock includes both Celco and Avolites desks, and the company's Waterford-base has full production facilities, a demo and training theatre and a sound stage.

Jersey-based **Envo-Tech** was responsible for the installation of all sound, lighting, fire alarm security, CCTV and electrical system at the recently-opened Raffles nightclub on the island. The lighting system includes Coemar and Tas effects lighting, a Jem fog machine and Multiform control units. On the sound side Toa loudspeakers and amps, Formula Sound mixers, and EV graphic equalisers provide the mix. A JBL overhead projector, eight Pioneer video monitors and a Citronic video mixer were also installed by Envo-Tech.



The successful **Sony/Electrosonic** videowall combination was again operating in Austria at the culmination of the Viennale '92 Film Festival in Vienna. A total of 49 Sony RVP 400 rear projection cubes (pictured above) with control provided by the Electrosonic Picbloc 3 processor and C-Through software were supplied by Austrian rental company Schweizer & Pilger. To assist further project co-operation Electrosonic have produced a reference document detailing over 100 Picbloc videowall hire companies throughout the world. A copy is available on request by telephoning (0322) 222211.

White Light has reported one of its busiest autumns ever with equipment supplied to a wide variety of tours, West End shows and conferences. Its current tour list includes the musical 'Annie Get Your Gun', which has just transferred to the West End, and the hit show 'An Evening with Gary Lineker'. White Light's 48 way Arri touring dimmers have been in demand for the tours of 'Rocky Horror', the RSC's 'Comedy of Errors', and the RNT's 'An Inspector Calls'. Meanwhile, White Light is enjoying success with West End running shows including 'Which Witch', 'Radio Times', 'Our Song' and 'Lost in Yonkers'. Looking ahead to 1993, they have already secured the contract to supply the lighting equipment for 'Crazy for You' which transfers to the newly-refurbished Prince Edward Theatre from Broadway in January.

Marquee Audio has supplied Delta Sound with their first Soundcraft Europa console. Delta has already put Europa to work on a range of events including use by sound designer Martin Pilton at the Southern Electric's annual meeting at the BBC, the United Distillers launch in Cannes, the British Video Awards at the Grosvenor House, and Vauxhall's all singing-all dancing production at the recent Motor Show.

Carlton Television, London's new week-day independent broadcaster, has integrated a **Yamaha DMC-1000** digital mixing console with an **SSL ScreenSound** to create an all digital audio post-production system. In its two smaller production suites Carlton has installed two **Soundcraft AVE Delta 8:4:2** mixing consoles equipped with stereo inputs. The audio monitoring line-up includes two pairs of ATC SCM50A active loudspeakers for monitoring in the main edit and sound dubbing suites, and two pairs of SCM10 passive nearfield speakers. Several pairs of JBL Control 1s have also been deployed throughout the facility.

Tannoy dealer **Ampsound** has sold 70 CPA5s and 10 of the new CPA5 sub bass loudspeakers to the Yorvik Viking Centre in York. The Contractors Series loudspeakers will replace the existing sound system which has been in place since the centre's opening in 1984.

Studiomaster is making the rounds with The Hydra Tech projects. The Eric Clapton world tour used a Proline 16x4x2 including the Hammond B3 with a specially enclosed and mic'd Leslie speaker cabinet. As soon as the Proline hit home base, it was immediately drafted into service on the recent Lionel Richie tour. While this was going on Greg Pillinganes has been out on the Michael Jackson 'Dangerous' tour with Hydra Tech's David Denson sub mixing on one of Hydra's Studiomaster 24x4x4 road desks.

Creative Technology has purchased a 20 cube Sony RVP-400QM videowall to supplement its extensive range of video display hardware that includes Light Valve, CRT and LCD projectors from Barco, GE and Sony.

FBT

ZONA INDUSTRIALE ENRICO MATTEI - 62019 RECANATI (Mc) ITALY
 Tel. (071) 7570421 Fax. (071) 7570410 Tlx 560868
 FBT 1 P.O. Box 104



**Mixing flair
 with
 functionality**

Exclusive UK distributor

audio-technica
 INNOVATION PRECISION INTEGRITY

Technica House, Royal London Industrial Estate,
 Old Lane, Leeds LS11 8AG

Tel: 0532 771441 Fax: 0532 704836



Hidden Icon - LSD Give the Name Away

As if to wind everyone up, as they did when they gave us the 'Queen' in September, Light & Sound Design Ltd gave a very sneak preview of their new automated lighting system at LDI in Dallas. It was in the form of an exceedingly fast and flashy video presentation that didn't give very much away. We can at least tell you it has a name - Icon - and that the system will go out on rental, a la Vari*Lites.

Copies of the video were NOT available, so we witnessed the interesting situation of attempts being made to 'video the video', presumably so those anxious to learn more in a hurry could slow down their machines in an endeavour to catch any hidden truths. We shouldn't have long to wait in any event, as we understand the system will be officially launched early next year simultaneously in the UK and USA.

L+SI managed to get some more information for you from LSD's US president, Nick Jackson. "Basically, the reason we've done it is because we believe that as a leader in generic lighting rental, we will preserve the tour company's future. We have to get to grips with technology and to be able to offer state-of-the-art equipment to our clients, from within the company, to maintain our position.

"Icon has come about as a continual process of development, from colour changers and into more sophisticated equipment. The knowledge we've gained along the way from various products has been a great stepping stone for us to develop a moving light. We started developing it seriously over the past year.

"At this stage in time we felt there was a lot of speculation in the industry that were 'doing something', so even though the product is still going through very stringent testing, we are not launching it into the market just yet. We are simply presenting a preview of where we're at, and to show there is some justification to the rumours! Early next year we will be able to let people see it and give demonstrations and launch it in both the UK and in America.

"The structure is in place to manufacture the units at our Gravelly Park facility, and the system will be for rental. We have no intention of selling the unit. We estimate that we can produce around 60 luminaires a month, but this can be adjusted



Nick Jackson.

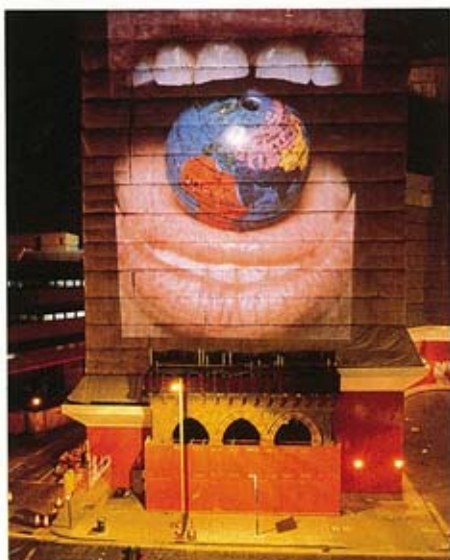
according to demand.

"The lighting units can be run from the control desk we've developed and you can also control other lanterns from the same desk. It's an integrated system. It's also a flexible system as it can be controlled from other desks and it's up to the lighting designer to make the decision. If he wants to be the person controlling everything then that's possible; if he wants to do it with a generic board plus a moving light board then he can do that too.

"The Icon is all-singing, all-dancing and has a 600W HTI light source. We've spent a lot of time on the optics to gain maximum efficiency - so we consider it's a very bright unit. It has many features such as spinning gobos, plus a zoom lens. It's possible to have a very narrow pin-spot beam or a very wide flood beam, with soft or hard edge. We've got ideas for other features, but when it is launched we are confident it will have a host of surprises.

"We also have plans for further lanterns, but this one unit will, we believe, be more versatile than any other individual lamp that's currently available. It gives a wider range of options to the designer in one unit, rather than having to have two or three different types.

"Along the way we've developed Icon with consultation and ideas from several lighting designers. We didn't rely totally on what we believed was needed; we wanted to test and explore comment from the end user, for obvious reasons."



Projection at St Pancras Station

During mid-November Anne Bean and Peter Fink presented a sequence of large scale projections on the facade of St Pancras Station. Coinciding with the 25th anniversary of the listing of the station, the projection, an impressive 900 metres square, featured a montage of images exploring the history of St Pancras. The images were projected onto a huge dust sheet which is covering the building whilst restoration work removes the signs of ageing.

Anne Bean is known for her video and documentary work and Peter Fink is known for his work on Canary Wharf, and more recently the riverfront promenade and Steel Wave at Newport. The technical aspects of the projection were handled by Alien products who used a 5kW xenon projector, and the realisation of the piece involved a narrative of 40 images, with a little help from the Museum of the Moving Image and electronic microscope photography.

ONLY CLAY PAKY IS BETTER THAN CLAY PAKY.



TIGER



PIN SCAN



CP SPOT



ASTORAGGI TWIN



BAZOOKA



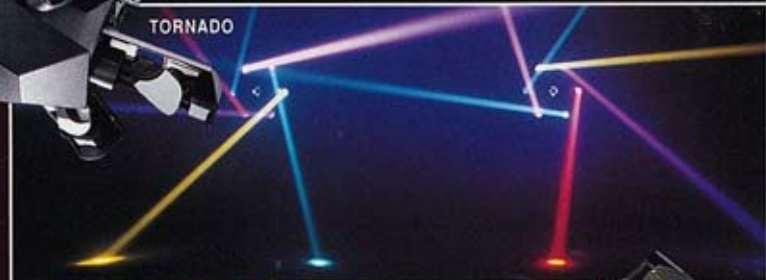
TORNADO



ATLAS



PIPER



PULSAR

Pulsar light of Cambridge

Henley Road, Cambridge, CB1 3EA.

Tel. 0223/66798 - Telex 81697

CLAY PAKY s.r.l. - Via G. Pascoli, 1

24066 PEDRENGO (Bergamo) Italy

Tel. 035/663965 - Fax: 035/665976

Telex 305242 CLAYPA I



PROFESSIONAL SHOW LIGHTING

Court
ACOUSTIC SYSTEMS

From Prince

(or rave to Raci)

perfect
...the sound



- 1 Black Box 2kw 3-way System 2000
- 2 SM70 2-way passive/bi-amp 750w Wedge Monitor
- 3 System 250 2-way 400w full range Compact System
- 4 LAB600 'Add on' sub bass for 1000w 'Gig' System
- 5 SN10 'miniflex' compact soft-dome System
- 6 SN20 2-way soft-dome Monitor
- 7 SN30 3-way passive or bi-amp Studio Monitor
- 8 TR750 Trapezoid 3-way 750w Full Range System
- 9 SLB500 18" folded horn/reflex Bass system

- 10 DLB1200 2x15" 1000w Bass System
- 11 System 1000 4-way 1000w system for rock, classical or recorded music
- 12 CN240 Processing Crossover + Limiter + Equaliser
- 13 GN30 inductor based laboratory standard 30-band Graphic Equaliser
- 14 GN60 inductor based laboratory standard 60-band Stereo Graphic Equaliser
- 15 PN1250 625 + 625w low distortion Power Amplifier
- 16 Court 'Lectralinear' series of low distortion high energy Drivers


COURT ACOUSTIC SYSTEMS
Lectra House, 119 Arthur Road, Windsor, Berkshire SL4 1JH

to Pavarotti

maninov)

l solution

OVERSEAS
DISTRIBUTOR
ENQUIRIES
INVITED



12
13
14
15



16

STIGS LTD

41RU 0753833524 Fax: 0753832812

...often imitated, but never matched

CP&P France Launched

With the retirement on December 31st of popular Claude Lanos, who has been 'Mr Pulsar' France for 17 years, the operation based at Bretteville-sur-Odon near Caen in Normandy becomes CP&P France under the wing of Bruno Souchaud. To launch the new company, to welcome Bruno, and to say fond farewells to Claude, Pulsar and Clay Paky management were in Caen *en force* for a special open day on December 2.

In common with other CP&P establishments, a good-sized showroom has been built where equipment demonstrations can take place and seminars and training meetings held. "We see it as a service operation," said director Ken Sewell, "and the products go along with that. With good stock control we have managed to reduce the necessary warehouse space to incorporate the showroom without having to expand the site."

As with other CP&P operations, the computer system is linked to Cambridge where Ken Sewell can keep a close eye on the sales and financial situation. "I can get complete reports nightly if required, and everything is tied in."

Continuing development of the sales structure will be an important part of Bruno Souchaud's immediate work-load.

Ken Sewell explained: "The distribution structure has to suit the industry structure, but everything will develop out of Caen. Whilst we're here we are continuing with policy meetings covering our operations not only in France but for the UK, Germany and Italy. We recently formed a committee - the first meeting was during the PLASA Show - where we all get together to co-ordinate sales and marketing policies and talk generally about new products."

The day-long open house event in Bretteville included a special presentation to Claude Lanos.



Claude Lanos welcomes in Bruno Souchaud.



Four-country representation: Ken Sewell (UK), Pasquali Quadri (Italy), Paul Mardon (UK), Claude Lanos (France), Günther Olbricht (Germany), Derrick Saunders (UK) and Bruno Souchaud (France).



Clay Paky's Angelo Cavenati (left) and Pio Nahum (right) with Günther Olbricht of CP&P Germany.

Age of Rock

Fisher Park and 4i are better known for their design work on rock and roll spectaculars such as The Rolling Stones 'Steel Wheels' tour and 'The Wall' in Berlin.

Their latest collaboration for the Natural History Museum's 'First Europeans' exhibition covers the story of the first human inhabitants. Fisher Park's conceptual scheme divides the exhibition into three stages from the establishment of the neanderthals in Europe to their eventual disappearance, and allows for redesign when the exhibition tours throughout Europe over the next four years. 4i's colourful graphics act as a reinforcement of the conceptual arrangement of the exhibition.

Crimewatch

Between Monday 23rd and Tuesday 24th November, a large quantity of camera and recording equipment belonging to Creative Technology was stolen. A reward of 8,000 is being offered for information leading to the full recovery of the property and the prosecution of the offenders.

Creative Technology's Graham Andrews or Andrew Hawker (telephone 081-874 7227) would like to hear from anyone, who feels they may have information about the stolen goods which include silver flightcases containing Ampex, Sony and Fujinon equipment. A full list of the stolen property is also available from Creative Technology.

Our apologies to Meteorlites who last month suffered at the typesetters' hands when the credits for the lighting equipment supplied to Imagination for their Holiday Inn spectacular at the Royal Albert Hall mistakenly went to Theatre Projects. Meteorlites supplied all the lighting inventory.

BACK BY POPULAR DEMAND



Presents

THE MINI DRY ICE BOX PORTABLE DRY ICE MAKER

☆ STILL A TOP INTERNATIONAL PERFORMER ☆
NOW APPEARING IN PRODUCTIONS WORLDWIDE



- ☆ RSC STRATFORD
- ☆ STAGE CREW SWEDEN
- ☆ THE LITTLE THEATRE LEICESTER/SOUTHPORT
- ☆ THE HARLEQUIN REDHILL - SURREY
- ☆ POLKA CHILDREN'S THEATRE LONDON
- ☆ THEATRE ROYAL PLYMOUTH
- ☆ PERTH THEATRE SCOTLAND

Featuring

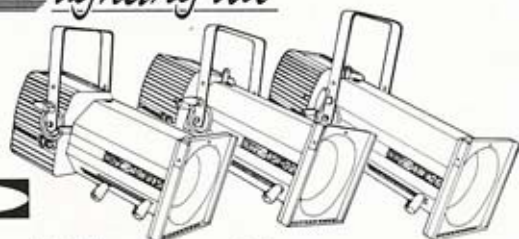
- No mains or battery requirements •
- Compact and lightweight design •
- Safe and convenient •
- Produces dry ice in just 40 - 60 seconds •

ABTT 'PRODUCT OF THE YEAR' 1989
AVAILABLE FOR SALE OR HIRE

For further details contact:
A & B Theatre Services
4 Norwich Road, Wheatley Park, Doncaster DN2 4QD
Telephone: (0302) 364808

RB Lighting Ltd

Main Supplier of



CCT Lanterns and Spares
Available from stock.

081-977 9665

RB Lighting Ltd, PO Box 34, Teddington, Middx TW11 9EU
Fax: 081-977 5687

19 Pin Connectors — socapex compatible

Aluminium die casting and black electroplated.
Max. rated current: 20 AMP
24K gilding pins.



DOUGHTY

Doughty Engineering Limited

CROW ARCH LANE, RINGWOOD, HANTS BN24 1NZ
Telephone: (0425) 478961 Fax: (0425) 474481

Faces at Lighting Dimensions

photos: Amy Davidson



Laura Cowen (High End), John Adams (Lightfactor Sales), Bob Schacherl (High End), Chas Herington (Zenith), Lowell Fowler (High End).



Bill Milo (High End), Bob Gordon (L.I.S.T.), Gerard Jongerius (Flashlight), John McDowell (High End).



High End's Bob Schacherl and Richard Belliveau with Tony Gottelier of Lighting and Sound International.



Reimund Reidel and Uli Petzold of LMP Lichttechnik.

Vari-Lite at Home

Many leading industry figures attended a special evening reception arranged by Vari-Lite Inc in their home city of Dallas during the recent LDI exposition

(for a full show report see pages 22-28).

Host for the event was president Rusty Brutsché. Lewis Lee's photocall captured some of those present.



Brian Croft of Vari-Lite Europe, Rusty Brutsché and Loren Haas of Vari-Lite Inc and Alan Thomson of Theatre Projects Services UK.



Jeff Johnson, Jim Bornhorst, Mark Fetter.



Loren Haas of Vari-Lite (left) with Mitch and Kathy Clark of Tomcat USA.



David Alley and Peter Morse.

International Lighting Expo

The International Lighting Exposition returns to the Metro Toront Convention Centre from June 21 st to 23rd next year. Over 130 manufacturers, including G E Lighting, Osram and Philips have already reserved space. The Illuminating Engineering Society of North America (IES) will once again be hosting their annual conference in conjunction with ILE and will present a series of seminars and lectures during this time.

Further details are available from Anita Schachter in Ontario, telephone (416) 890 1846.

SIEL 93

The eleventh SIEL and the eighth Theatrical Services Exhibition will be held jointly, at the Parcs des Expositions de la Porte de Versailles in Paris. Taking place from February 14th to 17th, the show will cover 22,000sq.m and bring together over 300 exhibitors. Further details are available from Bernard Becker Blenheim in Paris, telephone (1) 4756 5000.

Avitec Electronics (UK) have asked us to point out that the artwork they supplied for our 1993 wallplanner carried the incorrect phonenumber. This should have read (0462) 458961.

SOUND UK LTD.

5 BROOKLANDS CLOSE

SUNBURY-ON-THAMES

MIDDLESEX

TW16 7DX

TEL: 0932 772241 FAX: 0932 771399

APOGEE

AVITEC SYSTEMS
APOGEE SOUND

The Lighting Directors

Sachtler's new Director Series of luminaires is a comprehensive range of Fresnel lighting fixtures.

The Directors are no ordinary lights: their light output is exceptionally high and the fresnel lenses produce a very even light, controlled by a smooth running bearing-guided focussing system.

The precision electronics, advanced bulb and lens assemblies are safely enclosed in light-weight die-cast aluminium casings, built to withstand the inevitable vigours of a life spent on location or in the studio.

Formed into the casings are efficient light traps and convection vents - cooling is so good that bulb life may be considerably extended while light leakage is virtually eliminated.

Which all adds up to more light, where you want it, how you want it.

Accessories such as poles, stands, clamps and spigots are all part of the comprehensive Sachtler Director series, which comprises the following lights:

- Director 125D (HMI Daylight)
- Director 300H (Tungsten halogen)
- Director 270D (HMI Daylight)
- Director 575D (MSR Daylight)
- Director 1200D (MSR Daylight)
- Director 650H (Tungsten halogen)
- Director 1000H (Tungsten halogen)
- Director 2000H (Tungsten halogen)

Lens diameters available:

- 80mm,
- 130mm,
- 150mm,
- 200mm.

lighting

OpTex

OpTex, 22-26 Victoria Road, New Barnet, Herts, UK. EN4 9PF.

Tel: 081-441 2199.

Telex: 8955869 OpTex G.

Fax: 081-449 3646.



Sachtler

Imagination Sparkle

December 1st saw the switching on of Imagination's spectacular exterior lighting scheme at its award-winning premises in Store Street, London, and the launch of the Macmillan Nurses Christmas Appeal 'Help light the Tree in the fight against Cancer'. The tree in question is a giant Noble Fir which stands inside the soaring space of the atrium, at the heart of the building. Weighing a phenomenal three tonnes and standing approximately 80 feet tall (how did they get it in there? - ed) the tree is substantially larger than the one situated at Trafalgar Square, and is the tallest known Christmas tree in the country.

To support the Macmillan Christmas Appeal, Imagination are inviting the public to visit its tree weekdays 3-6pm, in exchange for a small donation.

Pro Audio & Light Asia '93

Business and Industrial Trade Fairs Ltd, the organisers of Pro Audio and Light Asia '93, have appointed Knights Management Services as their UK representatives for this exhibition.

More than 160 exhibitors and represented manufacturers from 16 countries took part in the 1992 event. The UK group of 21 companies were accommodated in a British area occupying almost 400 square metres of stand space, and the organisers report over 4,300 visitors attended from 35 countries. The 1993 event has qualified for DTI subsidies under their Joint Venture scheme and the Professional Lighting and Sound Association (PLASA) has agreed to become sponsor.

For further information contact Anna Pillow at PLASA on (0323) 410335 or Tony Andrew of KMS on (0323) 442747.

ABTT North Trade Show

The North Regional Committee of the Association of British Theatre Technicians have announced that their next trade show will be held in the Autumn of 1994 and not in October 1993 as originally intended. The change is designed to allow the show to coincide with Greater Manchester's year as City of Drama - 1994.

The trade show will be the fifth to be held in the region where it is established as an important link with the entertainment industry. In response to many requests from visitors, the organisers are trying to increase the coverage of firms from fields other than lighting and sound.

Manufacturers or distributors whose work is connected with the entertainment industry who wish to receive further information should contact the ABTT North Committee through Mike Brown, c/o The West Yorkshire Playhouse, telephone (0532) 442141.

TOPDECK

The **LIGHTWEIGHT** Alternative



- ✘ The Ultimate Medium Duty Platform
- ✘ Easy fixing for treads and hand rails
- ✘ Plug in Scaff tube legs
- ✘ 8ft x 4 ft deck only 49kg
- ✘ 8ft x 4ft deck



Only **£240** + VAT

TOPDECK
LOADBEARING STAGE PLATFORMS

Trade Discounts Available

For more details and a leaflet
Phone Mike Sweetland on:

061 834 8004



Nexo's Japanese Paradise

A Nexo speaker system is providing the sound at the Wild Paradise nightclub in Japan. The system was installed by the Osaka-based GENB company. Nexo supplied the processor-controlled MSID speaker system - a split system where bass and mid are mounted in separate cabinets - in response to the space restrictions imposed by the venue which did not allow the standard MSI configurations to be fitted.

Jersey's Legend

Jersey's latest multi-million pound tourist attraction, 'The Living Legend' features a range of sound and lighting equipment including wide screen multi-image projection, surround sound, motorised three-dimensional scenery, theatrical tableaux and spectacular lighting arrays. The company responsible for the creative concept, design and total implementation of the project was London-based audio visual specialists Sarner International. Sarner specified everything from lighting, sound, theme and layout as part of a £2m contract.

The bulk of the show takes place in a specially constructed environment, themed as the courtyard of an ancient manor house, where Sarner have installed a powerful JBL sound system as part of the theatrical experience. Four 4788 TCB sub-bass units have been built into the stage wall, whilst overhead, four 4726s have been flown from the lighting truss. The centre cluster comprises a 4648A speaker cabinet incorporating bi-radial horns with 2445J compression drivers.

Two further cabinets are flown at the rear of the auditorium. The final part of the main system consists of a further four 4670s positioned at the front to cater for the animated 'Talking Heads'. The speakers are driven by a combination of eight C Audio RA3000 and four SR606 power amplifiers whilst Audio Logic furnished the graphic equalisers, JBL the crossovers and ART the digital delay.

Martin Robozap wins Award

At the recent Sol 'Dance Aid Trust' music awards the Martin Professional Robozap MSR 1200 once again captured a top award when it was nominated 'Top Club Lighting Effect', the first time such an award has been presented. Martin Professional's UK managing director Ian Kirby stepped up to accept the award.

People

Following the resignation of **Alessandro Rossi** from Rank Lighting (Italy), **Fulvio Cotogni** has been appointed general manager, with effect from January 1st, 1993. Cotogni joins from Arri Italia where he has been managing director for seven years. **Ian Haddon** has taken on the newly created position of regional sales director and will be responsible for all trading operations in Europe. **Dennis Cantwell's** existing role will be expanded to include direct responsibility for financial and administrative operations throughout Strand's worldwide operations.

Citronic have enlarged their European sales group, with **Mike Gerrish** now heading up a four-strong team following Larry Dane's departure. Mike Gerrish will be joined by **Debbie McCaughan**, **Elaine Dinnage** and **Tony Allen** to promote the company's leading brand image further into the European DJ and club market sector.

Pro-Bel Limited is expanding its sales staff with the appointment of senior engineer, **Nick Pywell**, to the post of internal sales engineer.

Paul Weldon, previously chief electrician at Dublin's Olympia Theatre, has been appointed floor manager at Lighting Dimensions (W.L.) in Dublin.

Two departures have seen **Bob Cummings** leave Ohm and **Graham Moss** depart from Avitec.

Dave Morphy and **John Coppen** have joined forces to start new company Cirrolite. Formed in August of this year, the company carry a range of equipment including their own range of cracked oil machines (see feature this month) which they developed and now manufacture. Other products handled are the Kino Flo fluorescent lighting systems and Lightning Strikes effects lighting.

PROFESSIONAL LIGHTING

ShowCAD

FROM AXON DIGITAL DESIGN LTD

DIGITALLY CONTROLLED

FROM YOUR PC

PROFESSIONAL LIGHTING CONTROL ON YOUR PC

For all entertainment and architectural lighting applications with a remarkably low cost per channel

ShowCAD is a breakthrough in light show controllers and because it works on your PC it's affordable by anyone. Look at the features below and compare ShowCAD with anything else on the market with this amount of power, then contact Cerebrum Lighting for your copy of the ShowCAD colour leaflet.

- 1024 x DMX 512 Output channels
- Infinite scene capacity
- Infinite sequence capacity
- Unique method of programming moving lights
- Full compatibility with other control systems
- Full modem support option
- Free demonstration diskette available on request



Worldwide Trade Distributor:
Cerebrum Lighting Ltd., Units 4 & 5
Shannon Commercial Centre, Beverley Way
New Malden, Surrey KT3 4PT England.
Tel. 081-949 3171 Fax: 081-949 3649

INTERNATIONAL DISTRIBUTORS OF ENTERTAINMENT LIGHTING

FENNIA DANCE RESTAURANT HELSINKI

The vision behind a Rock Cafe in Viennese Baroque - John Offord discovers a jewel in Finland's capital city

Located adjacent to Helsinki's main railway station in the centre of the city, itself an object of considerable architectural interest, the complete building housing the noted Fennia Restaurant has just emerged from a three-year-long restoration programme carried out under the supervision of Finland's National Board of Antiquities and Historical Monuments.

The style of the 1910s has been faithfully maintained; the restaurant is dominated by pale colours, and has Corinthian columns, gilt sprigs and ornaments. Housed in the so-called Winter Garden, the dance hall has a framed opalescent ceiling rising to 10 metres above floor level. The colour scheme here is white with pale shades.

Eastway Sound and Lighting and light artist Ekku Peltomäki were asked to design the effect lighting and the moving elements on the dance floor, the background sound system for the entire restaurant, the sound system for the dance floor, and the facade lighting of the building itself.

"Surfaces of white and pale shades form a great challenge for the illuminator when 'scenes of lighting' are built," explained Ekku Peltomäki. "We therefore directed our attention to solutions that outline space and dramatise it. We have endeavoured to observe the cultural atmosphere of the space in contrast with the strong use of modern technology in all details of our design. It's a world of visions ranging



Fennia, Helsinki showing experimental lighting of the facade.

from symphony to techno."

The dance hall is shaped by elements which move up and down: 25 Dataflash units are laid in the pale pink opal ceiling and the unfolding central pillar hides eight Trackspots and eight Intellabeams, each mounted on its own lift.

Directly beneath is a fountain, and its appearance is designed to resemble a garden of lillies and tubular creations. The fountain can also host a 'burning fire'.

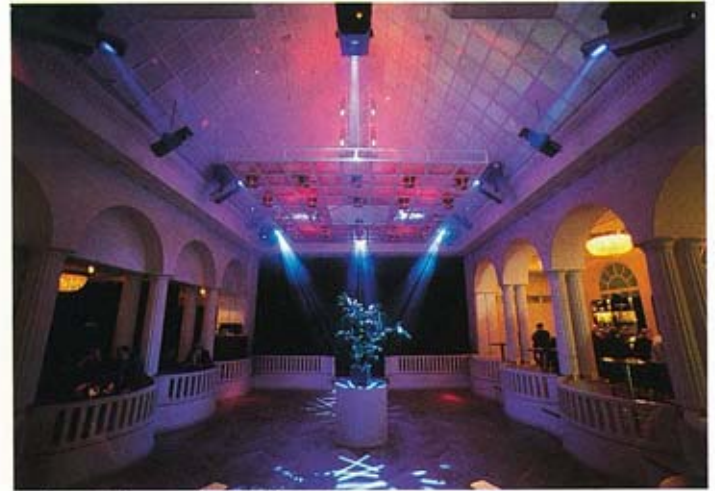
Control of the lighting and moving elements is in the hands of two computers designed exclusively for the venue by Eastway's own control experts Jyrki Peltonen and Jyrki Kauko. On the first PC the preset control commands for the High End Systems' control driver are stored in the programme. The four different control drivers' preset command numbers are simultaneously on the screen, as well as the number of the storage location that controls their steering, a plain text term for the programme, a linkage of the storage locations to another number of a storage location and the duration of running the programme. Programmes already stored in the preset memory storage locations of separate devices may also be assembled during use as new storage location numbers without having an effect on the current usage.

The second computer steers eight separate and independent winch motors which control the ceiling level and various operations of the central pillar. In addition to this, the device guides eight different lifts, each with an HX400 Intellabeam.

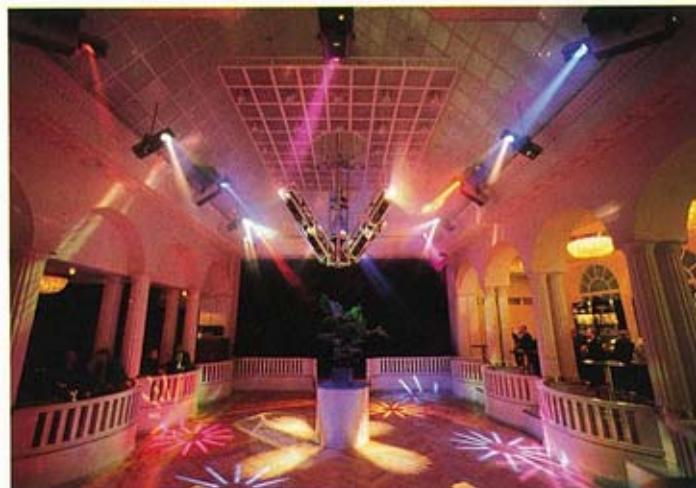
Ekku Peltomäki's future task for the Fennia project is to complete the lighting of the building's beautiful facade. If you've travelled in a car with Finland's famous light artist, as I



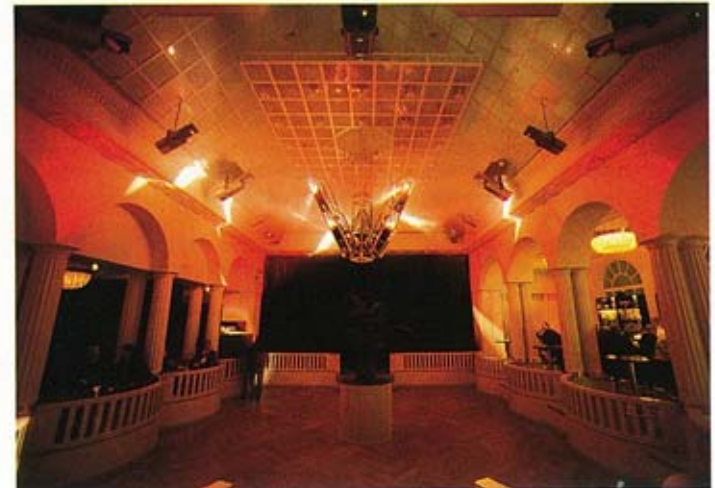
Rock symphony in the Winter Garden.



Techno-Culture and the fountain.



The 'Dance of Light'.



A Magic Bird with trussing cent-piece.

have, you will remember him pointing out all the various bits of Helsinki and elsewhere he'd love to shine his ideas at. It could be a group of trees, a cemetery, whatever. Interesting buildings are an obvious choice, and he'd evidently been casting his eye over Finnia's exotic charms for some time.

"The facade includes the royal apple, crown and sceptre, and underneath these the Finnish coat of arms, with a lion full of vigour," he explained. "In addition, it has plenty of ornaments and plaster casts of both aristocratic men and buxom, nude women." (Was the last the fatal attraction in this case?)

The building has been lit from two directions. Peltomäki's principal idea has been to light different details from below, and this was accomplished by attaching the lighting fixtures onto the building but at the same time hiding them as carefully as possible in various niches and on balconies. The other direction of illumination is 25 metres away from the front, and the purpose here is to light the facade softly so that light smooths the shadows and eliminates the excessive contrast between the illuminated and unlit yard.

As you will have already noticed from the illustrations accompanying this article, the Finnia concept comes across as an excellent example of how intelligent use of lighting instruments and control technology can aid artistic endeavour caught within the strict confines of a pre-determined architectural situation.

Designers/Credits:

Light effects and trussing: Ekku Peltomäki
Co-design of trussing: John Hickinbotham (Thomas)
Sound design: Reima Saarinen, Jyrki Hytti
Project manager/installation: Jyrki Kauko
Equipment, Fennia Dance Restaurant
Photography: Pasi Haaranen (PR Studio Ltd); Kaj Eriksson/Haka Ltd (Fennia by day)

Equipment

Lighting (facade)

58 Bega Par 50 300W
12 Bega flood wide beam 300W
12 Bega flood wide beam 1000W
12 Bega flood narrow beam 1000W
2 Bega flood narrow beam mercury vapour discharge 400W
12 Anytronic dimmer system with 12-channel control

Lighting (dance floor)

Control:
2 IBM PC 386 with custom software
1 High End controller for Intellabeams
1 High End controller for Trackspots
1 High End controller for Emulators
1 High End controller for Dataflashes
2 High End F-100 smoke machine remotes

Effects:

8 Intellabeams 400 HX



Fennia in daylight.

8 3m elevators for Intellabeams
12 Trackspots
25 Dataflash strobe units with reflector
2 F-100 smoke machines

Truss Effects:

Custom-built centre opening effect unit designed by Ekku Peltomäki and John (the jig) Hickinbotham of Thomas UK containing 8 Trackspots and Dataflash strobe.

Lighting for Live performance:

24 Thomas Par 64 cans

Sound Equipment

The JBL equipped and C-Audio powered 6,500W PA is designed to take care of the dance floor with 20 digitally delayed loudspeakers from the main PA covering the rest of the restaurant. This system makes it possible to create a really powerful sound to the dance floor but enables customers to be able to talk at ease in other parts of the restaurant.

Dance Floor:

1 Formula Sound PM-90 modular mixer
2 Technics SL 1200 turntables with Stanton 890
1 Denon 4000 double CD player
1 Technics SV-DA 10 DAT player
1 Tascam 103 cassette
1 AKG D 3700 S microphone
1 Sennheiser HD 25 headphones
1 ARX DDP-1 stereo limiter-compressor
1 ARX EQ60 2 x 30ch equaliser
2 ARX EC-1 3-way mono crossover
2 C-Audio RA 1001 amplifier
2 C-Audio RA 3001 amplifier
1 C-Audio TR 850 amplifier
4 Eastway/JBL HM 1x2" and 2x12"

hi/mid loudspeaker 1000W
2 Eastway/JBL SB 2x18" sub bass loudspeaker 1200W

Background System:

1 Yamaha D1030 digital delay
1 SSL linedriver 651
1 Pioneer PD 601 6 CD player
1 TEAC TX 3000 receiver
1 TEAC W 580 R twin cassette
1 C-Audio RA 3001 amplifier
18 Eastway 3000 100v/50W 2-way loudspeakers
2 Eastway 100v/500VA line transformers



Ekku Peltomäki of Eastway.

ETR SWISS

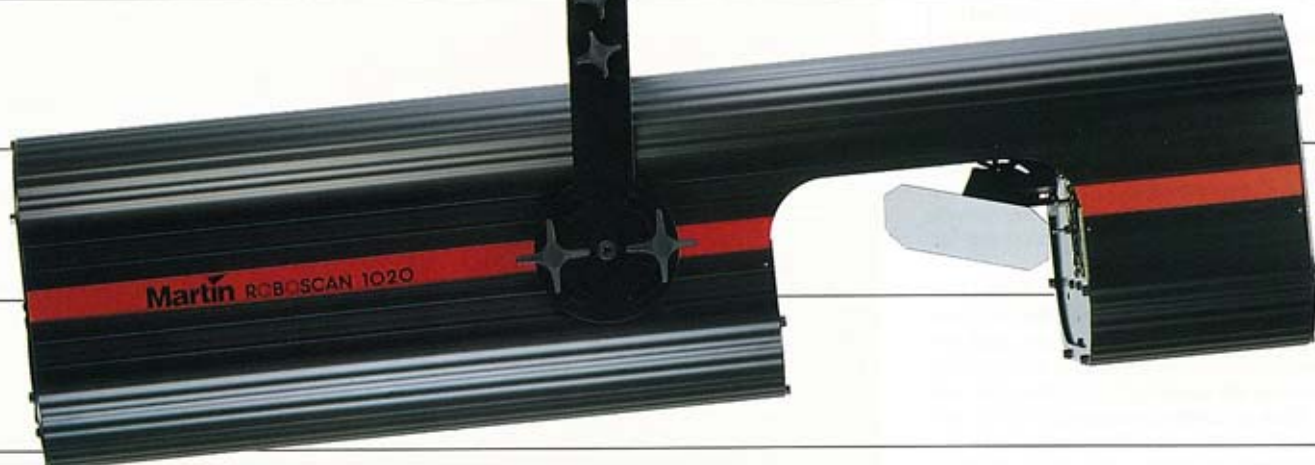
DP 1200 DIMMER

Twelve 5 amp channels, 2 "U" high, fan cooled, 1 or 3 phase operation, modular back panel



For more information, please contact: ETR Lighting, CH-6388 Grafenort, Switzerland, Tel. 0041 41/65 25 07 Fax 65 25 13
Germany: M&T, Musik&Technik, Marburg, Tel. 0 64 20/5 61
Austria: Technik Design, Wels, Tel. 0 72 42/6 66 33

THE INTELLIGENT LIGHT OF THE 90'S

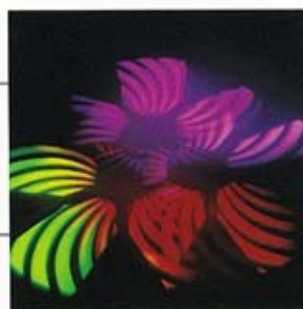


ROBOSCAN® 1020/1200 MSR

The Ultimate Projector

Just take a look at these features:

- 1200 Watt MSR discharge lamp – one of the most powerful lamps available.
- 175 degree pan in 0.028 degree steps (6208 different positions).
- 83 degree tilt in 0.056 degree steps (1472 different positions).
- Variable pan and tilt speeds.
- 2x9 dichroic colours plus white.
- Colour mixing – create your own colour shades.
- 2x10 motorized gobos.
- Gobo mixing – create your own gobo patterns.
- Motorized focus – keeps the gobo patterns knife-sharp.
- Motorized iris.
- Motorized dimmer.
- Multiplying prisms.
- The colour change, gobo change, iris control, dimmer control, focus change and prism change can all be performed at varying speeds.
- Variable shutter speed for strobe effect.
- Efficient fan cooling.
- Programmable via the 2032 controller, or 2208 controller.



Roboscan is a registered trade-mark of Martin Professional A/S.

International Martin Distributors

ARGENTINA
B & B Systems
Luis Viale 268
1414 Capital Federal

AUSTRALIA
Lights Audio Video Australia
285 Burwood Road
Hawthorn VIC 3122

AUSTRIA
Zitrona Musik Instrument &
Elektronik Vertrieb GmbH
Hertzstrasse 4
D-8047 Karlsruhe

BAHRAIN
Marshall Botique
P.O. Box 925 Government Avenue
Manama

BELGIUM
EVDV Trade BVBA
Dr. Persoonlaan 41
B-2830 Wilbebroek

BRAZIL
Microlight Servicos e Locs Ltd
Rua Cardoso Jnr. 327 A
Laranjeiras 22251
Rio de Janeiro

CANADA
Jam Industries Ltd
378 Rue Isabelle St. Laurent
Quebec H4T 1W1

CHINA
Sancore Musical
Instrument Co Ltd
Rm 716, Media and Culture Centre
2 Shen Nan Road
Middle Shenzhen

CYPRUS
V.H. Mallin & Associates Ltd
P.O. Box 321
Larnaca

CZECHOSLOVAKIA
High Key Public Trading Co
Univerzity 2
772 00 Olomouc
Samba Lighting Systems Spol.
Sportstrase 7
Bratislava 83104

DENMARK
Martin Danmark A/S
Vejlbyvej 68
8240 Risskov

EGYPT
Tatas
15 Merit Basha Street
Tahrir Square, Cairo

FINLAND
Elektronikkakeskus OY
Aloentie 5C
00370 Helsinki

FRANCE
S.L.D.
9 Avenue Ferdinand de Lesseps
91290 Mennecy

GERMANY
Zitrona Musik Instrument &
Elektronik Vertrieb GmbH
Hertzstrasse 4
D-8047 Karlsruhe

GREECE
SLS (Hellas) Ltd
P. Patrikios Sia Epi, Botasi Street 4,
Kanigos Square, Athens TT 106 82

HONG KONG
Trinity Engineering Ltd
Unit A, 3/F K.K. Ind Building
5 Mok Cheong Street
Tseikwan, Kowloon

HUNGARY
Samba Lighting Systems Spol.
Voder Utca 2
1035 Budapest III

ISRAEL
Lightone
20 Jabotinsky St, Ramat Gan
Israel 52505

ITALY
Etabela Electronics Sri
Via Milano 38/D
22070 Breganso (Como)

JAPAN
Promedia
Suite 203, 3-27-14 Minami-Senzoku
Ota-ku Tokyo 145
Media Face
Purazumaru F1102 3-14-34
Komaki Shinjuku-ku, Tokyo 141

KOREA
Daesun Industrial Co Ltd
5th Fl Daeju Building
132-19 Gungdam-Dong
Kangnam-Gu Seoul

MALAYSIA
Music Plaza SDN BHD
Lot 2F & 2G, Jalan 215
Off Jalan Templer
46050 Putrajaya

MALTA
Ito Int. Trading Company
White House Buildings
Mountbatten Street
Bata L-Bajda

NEDERLANDS
Fairlight
Rijnstraat 74
6686 MK Doornenburg

NEW ZEALAND
Kenderline Electrical Ltd
6 Fox Street, P.O. Box 42-029
Auckland 5

NORWAY
Telek A/S
Sverresgate 4
0652 Oslo

PHILIPPINES
Joint Venture
8 David Street
Cristobal Gardens
Quezon City

POLAND
Discotech
Marek Slowkowski
Mickiewicza 13/15 M21
01-517 Warszawa

PORTUGAL
Audium
Rua D. Joao V, 2-D Loja
1200 Lisboa

SINGAPORE
Audio Visual Land Pte Ltd
80-A Tanjong Lane
Singapore 1334

INOVA
Lorong 238/02-120
Geylang, Singapore 1438

SLOVENIA
Solcom Inzeniring d.o.o.
Pat do Solo 2
61000 Ljubljana
Slovenija

SOUTH AFRICA
Electrosonic SA
Suite 225, Northcliff Plaza
189 D P Malan Drive
Northcliff 2195
Fairland 2030

SPAIN
Ecler
Laboratorio de Electro Acustica
Venda 273 BLS
08038 Barcelona

SWEDEN
Bo Saverus AB
Box 521
Ribors Borge Vegen 14c
Malmo

TAIWAN
Rolling Stone
Music & Sound Co
P.O. 512
289, Sec. 4, Tien-Chin Road
Taichung R.O.C.

THAILAND
Lucky Musical Instruments Co.
645/16 17 Petchburi Road
Bangkok 10400

ADVANCE VISION LTD
36/1 Soi Attakamprast
South Satom Road
Bangkok 10120

TURKEY
3F Ses V.I. Sistemleri V.T. Ltd
Palanga Caddesi
M. Ibrahim Sok No: 4
60840 Orsakoy
Istanbul

UNITED ARAB EMIRATES
NMK Electronics Ent.
P.O. Box 3191
Sharjah

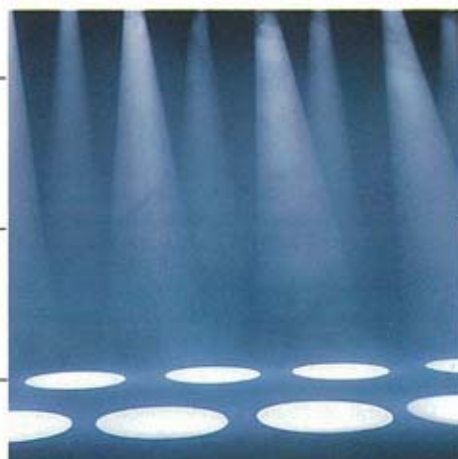
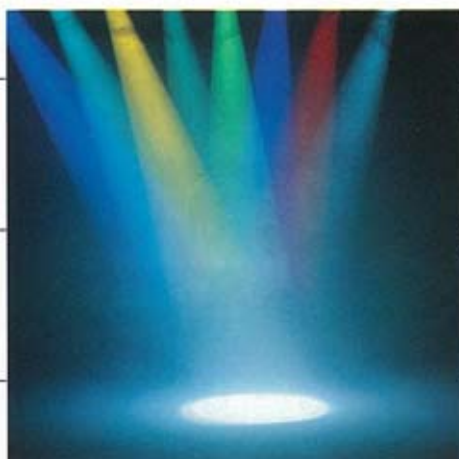
UNITED KINGDOM
Martin Professional
Unit 8 Mill Hill Business Estate
Aylesford, Maidstone Kent

USA
Tracoman Inc
South Florida Industrial Park
3015 Greene Street
Hollywood
Florida 33020

Throughout the 15 years we have been in the lighting industry we have had countless discussions with just about every professional in the business. This feedback of information has given us a very clear picture of what our ultimate projector had to be able to do. It was no easy task to combine all the required functions in one unit and yet keep the size and weight reasonable and the price affordable. But we did it!!

No other projector on the market has the combination of state-of-the-art features and extraordinarily high lamp power that characterizes the 1020/MSR1200. No other projector can position its waggly mirror so precisely, so smoothly and so quickly. Pinpoint your target to within tiny fractions of a degree!!

This is the flagship of the Martin Professional range of lighting equipment and yet the price is as low as the cheapest models of intelligent lighting projectors in other manufacturers' product ranges. How do we do it? By doing everything ourselves. Everything from the idea stage, through research and development to the production stage is carried out on our own premises under the personal supervision of the company's founder, Peter Johansen. You told us what you wanted and we delivered the goods!



The 2032 (32 channel) controller and the 2208 (8 channel) controller can be used to program all types of Martin intelligent lighting units to provide hours of richly varied lighting entertainment.

STATE OF THE ART IN LIGHTING - MARTIN!

STOP PRESS!

Martin Professional won the 1991 Disco Club **Manufacturer of the Year Award!** The Roboscan won the 1990 Disco Club Award for the **Best New Lighting Product.**



Martin

Martin Professional A/S,
 Vejbjergvej 6B, DK8240 Risskov, Denmark
 Tel: +45 86 21 44 11 Fax: +45 86 21 50 01
UK Distributor: Martin Professional UK
 Unit 8 Mill Hall Business Estate,
 Aylesford, Maidstone, Kent ME20 7JZ
 Tel: 0622 790164 Fax: 0622 790166

Martin distributors in the United Kingdom:

AJS Lighting & Stage
 Hegtown Industrial Est.,
 Crow Arch Lane
 Ringwood, Hampshire
 Tel.: 0425 470888

Disco Sales & Hire
 17/181 Lynchford Road
 Farnborough Hants
 Tel.: 0252 513713

Langley Sound & Light
 102/104 Meadfield Road
 Langley, Slough
 Tel.: 0753 43389

Sofistotech
 1438 Leeds Road
 Bradford
 Tel.: 0274 661405

Squire Sound & Light
 Unit 12 New Business Centre
 Arlesian Close
 Stonebridge
 London NW10
 Tel.: 081 451 5556

Technique Systems
 Unit 10 Linn Park Ind Est
 Drakemere Drive
 Glasgow
 Tel.: 041 634 2343

Contract Audio
 Unit F2D Bath Road Trading Estate
 Lightpill, Stroud, Glos
 Tel.: 0453 751865

Disco Supplies
 888 High Road
 Chadwell Heath
 Essex
 Tel.: 081 507 0119

Mobi Deque
 14 Charlton Village
 Charlton, London SE7
 Tel.: 081 856 4777

Southwest Lighting
 The Old Smithy
 Church Road
 Cookwood, Exeter
 Tel.: 0626 890806

Squire Sound & Light
 Units 24-25 Enterprise East
 Moorfield Road, Slyfield Green
 Guildford
 Tel.: 0483 502121

Tr Music
 234 Stafford Street
 Walsall
 West Midlands
 Tel.: 0922 613101

Cookes Sound & Light
 34 St. Benedicts Street
 Norwich
 Tel.: 0603 623563

D.S.D. Design
 127 Ballyninch Road
 Hillsborough
 County Down
 Tel.: 0846 683833

Pegasus Sound & Light
 23/25 Connongate
 The Royal Mile
 Edinburgh
 Tel.: 031 556 1300

Squire Sound & Light
 Unit 1 Queens Court Est
 Greet's Green Road
 West Bromwich
 West Midlands
 Tel.: 021 520 4545

Squire Sound & Light
 Unit 1 Mercury Park
 Mercury Way
 Off Barton Dock Road
 Trafford Park
 Manchester
 Tel.: 061 866 8075

Zap Sound & Light
 35 Parker Avenue
 Burnley
 Tel.: 0202 831707

D.D.S.
 100 Rose Lane
 Mossley Hill
 Liverpool
 Tel.: 051 724 6424

KC Sound & Light
 8 Southwell Road
 Nottingham
 Tel.: 0602 484663

P.S.D.
 Unit 9, Trillogan Ind Est
 Newquay, Cornwall
 Tel.: 0637 851454

LIGHTING DIMENSIONS INTERNATIONAL

News from the Dallas Infomart in Texas

Breakfast on the first morning of LDI 1992 for Strand dealers in North America meant being knocked into shape by regional sales manager Kam McCormick with the sort of offers you can't refuse: a good tuck-in at the ballroom of the Stouffer Hotel followed by a presentation of the highest fairground order. (If you'd have managed to get close enough to look straight into his eyes you'd have been a gonner.) They all loved it, and I hope Strand got the orders they were looking for.

The meat in Strand's presentation was their 'Century System', a new pricing package on a selected range of luminaires, manual and memory controls and dimmers. It's badged 'Euro System' in Europe (see Viewpoint this issue). Coupled with that they launched a new range of Leko luminaires at an 'unbelievable low price', firming up 60 years of tradition with the instrument that took its name from Levy and Cook of Century Lighting fame. (We plan to deal with the instrument in detail in our January Equipment News section).

A short way across the hall, another ellipsoidal was launched and this one had the cheek to win the LDI New Product Award in the lighting category. Electronic Theatre Controls' new 'Source 4', based around a new HPL compact filament halogen lamp source, was the centre of attraction on ETC for the run of the show. Again, more details on this in our January issue.

There wasn't too much to write home about under the heading of effects lighting in a general sense, but the High End Systems stand blew a few cobwebs away with the style of their overall show presentation. For the first time, for me at any rate, the black tent show became a real three dimensional event, where the lights were part and parcel of a much grander scheme. They'll have to put scenic design and architectural awards into the programme next year.

And talking of awards, I was glad I was present to hear Richard Pilbrow read Patricia Mackay's words of dedication to the late Wally Russell. (Pat couldn't cope with taking on the task, and I felt Richard found it a touch difficult too). Wally



The Dallas, Infomart - Texas' Crystal Palace.

received a posthumous 'Wally' award, but we all knew what it meant.

Around 7,000 attended LDI and we could have made good use of a fourth day. All the right people came by our LSI/PLASA stand, and there was just a glimmer of hope that we might be moving slowly out of recession, with the US leading the way.

John Offord



Injecting some fun. JEM's Jon Petts (left) and Mike Wood direct Roadie smoke at L+SI's camera.

Peter Wynne Willson looks at US theatre lighting consoles

As I eased into the large sleek Pontiac sedan in downtown Dallas, I was prepared for the odd surprise, in this case, being quietly throttled by the automatic seat belt, I could accept a stream of oncoming traffic in my lane, and had I been there long enough, I might even have been able to cope with the excruciating speed limit; but I definitely did expect to be (and was) able to drive away without an introductory seminar or video tutorial.

Equally, I feel that any lighting console should be transparent enough for a competent tec immediately to bring up a channel or two without reference to the manual. In this regard, many of the American manufacturers seem to do rather better than their European counterparts, in some cases it would appear that almost as much energy had been put into making the control surface and operation empirical, as had been invested in new and ever more complex features.

I recently encountered a situation where three weeks of plotting and rehearsal had been lost from a top range British board because a nifty embedded patch/chase feature once called, had unseen, tacked itself onto every cue that followed, thus filling the vast memory hold with excess baggage. Without warning the machine ran out of runway and crashed.

Short of listing a full spec of each controller, features have been chosen without a strict plan, consistency or indeed logic. I did not find a single console offering a version for our creative left-handers. If a manufacturer does accommodate LH operation, please send details to L+SI! I was surprised to see so few 'soft' based controllers, obviously the love affair with the control board of the smooth hardwood cheeks still smoulders. Surely soft will eventually win the day when the display and the control surface become one and the same thing, and it can be operationally and visually configured to be whatever board the LD



Kam McCormick (left) with Strand Lighting Inc's Peter Rogers, Bill Groener and Steve Norman.



Martin Professional's Peter Johansen with Gerard Cohen of Tracom Inc, their US distributor.



Nils Thorjussen of Flying Pig Systems demos the PLASA award-winning Wholehog system.



ETC's new Source 4 drew the crowds.



John Haupt of Disney World, Herman Sorger of Ludwig Pani and James Mulder of Walt Disney Engineering on the Production Arts stand.

desires. Perhaps next year we will see TFT colour displays integrated into consoles so that the ugly CRTs that hang off even the smartest ETC board may disappear.

Applied Electronics in their Commander series offer a 24 and a 48 fader control surface; each can be used as a two scene preset board or assign one channel per fader. The engine used in both versions can soft patch up to 96 dimmers. Basic features are in place plus an 80 character backlit LCD, fast bump buttons - but only one per two faders, two separate DMX ports each with its own driver and 180 full memories with ten year retention: simple operation with the minimum of controls. At \$2,300 for the 48 version, the construction is what used to be called 'workmanlike'.

Dove have developed a PC-based system with DMX and AMX i/o (and 0-10v i only). They wrestle with the problem of how to market a soft/firmware product in an industry which still seems to admire the megaboard hardware. Therefore the 'Starcard' and software can be purchased alone for, in Dove's view, the only mouse-based lighting controller available, or one of a small range of, 'workmanlike' consoles is offered, featuring 'sturdy carrying handle'.

ETA cater well for the smaller venue with the Imagination series, an eight channel basic analogue board with a remote foot switch option, through to a 24 channel DMX version with MIDI i/o/t, 152 programmable scenes, and real time adjustable crossfades and crossfade from manual to preset scenes. 24 tricolour LEDs give some indication of what is happening on the board.

Electronics Diversified have an entry level console (The Plus) at \$5k, En Act 200 and En Act 400 at \$10k and \$15k respectively. The latter two support two SVGA monitors for channel and cue information, fast access cursor controls over and above the simple arrow keys, 96 or 192 playbacks for channel, group, submaster or cue information, patch tables, programmable macros and, interesting for those of us who through ill luck or loss of concentration may lose hours of programming, there is an auto-record selection at chosen intervals and the control surface is clearly laid out.

Colortran introduced four new products, foremost amongst which is the Encore XL with an Intel 486 engine which supports 1024 channels, MIDI, colour monitor, printer, handheld remote and AMX192, should you want it. A 3.5" floppy will store 400 cues, 99/99 effects and 100 programmable macros per show. The surface is relatively clear with a large, illuminated 'Go' button and dual function wheel for level and rate



Lori Rubenstein of the US Theatrical Dealers Association with PLASA's Anna Pillow.

control. Product number four, the Medallion, was locked up in room 734 of a nearby hotel and not for mere mortals, but a hint of what we were missing came with a promise of significant innovations in terms of price for the level of features. Perhaps Colortran would care to tell us more.

The Melange, NSI's theatre lighting controller, has a cool light grey surface with eight faders, plus masters and a fearsome array of buttons. The back plane is equally exhaustive, sporting everything from mouse to macro remote and MIDI to memory card all under an overhang which protects the connectors well. A TTL monitor is supported with a selection of eight screens including help and house lights. The Prism is a console long enough to satisfy the most fader hungry operator. Available in March 1993 it has enough features specially suited to intelligent lighting including the ability to lock away motor positions to free up channels for levels. Each fader has an associated rotary potentiometer to adjust the maximum output signal voltage to any level up to 200%! The knobs lend to the already impressive board, something of the look of a mixing desk which according to Christina G is what most US operators wish their consoles to emulate - aesthetically of course.

Teatronics call their Quantum and Producer II+ boards computer assisted. The control surfaces have rather a seventies air to them but are well appointed, the Quantum with 48 dedicated submasters and high intensity lights as standard while inside a quiet thermostatically controlled fan takes care of cooling in high ambient temperatures. Any channel may be connected to any dimmers by simultaneous transmission of AMX-192 and DMX512 protocols.

The LD/250/500 also has a rather dated look for a memory board but is claimed to be easy to use. Interestingly it comes with LAN communications in place allowing the connection of remotes, portables, peripherals and hook up to say the stage manager's panel or house manager's station.

Leprecon have a MIDI based board, the LM-850, which again has styling that would make Pulsar feel proud. It even has some square buttons set diamond-wise. Having said that there is dedicated bank switching of the faders with three tiers of write on panels. The LPD2000 Cue Plus also takes good care of cue labelling with a device developed simultaneously but independently of Avo in about 1983 - the rolling platen - in this case a hexagonal prism which presents a flat to write on, flush with the surface of the board. Alongside 1000 preset memories this sleek but modular consoles 1000 dedicated colour change



Charlie Malings (west coast manager) with Jack Calmes, president of Syncrolite Systems.

memories which ignore B/O, DB/O etc. Proportional soft patching organises up to 96 faders across up to 1024 channels while colours are assigned to DMX levels. An interface to binary access caters for Intellabeams and 0-10v analogue modules may be added to the full complement.

ETC start with the Expression with 24 faders and follow with the Insight with 72/108. These are both full feature boards but their new Obsession console is true flagship material. Visually luxurious its system capacity boasts 1536 dimmers and control channels, 48 overlapping submaster faders, weight physical and 120 virtual faders, 1,000 cues, 250 groups, 100 effects all topped off with 128 simultaneous fades and no less than 2,000 macros/regions.

Lightronics make four small consoles. From 8 to 32 channels, these are rugged steel chassis affairs, the TL-3256 outputs DMX, stores 128 scenes, 16/32 chases, has audio and MIDI ports, soft patches 256 dimmers provides a (tiny) LCD display and a fully independent house lights control. It can take two 'data snapshots' so that chord need never be lost. The FC48 is an eight channel foot controlled beast, four scenes, four step chase, audio input and adjustable cross fades and chase rate.

The Great American Market's Access has been some while the easiest memory board for a novice to operate. Now the Access Pro brings more features on line while retaining the essentially CRT menu driven system. Features include 96 channels to 256 dimmers, 232 full memories, 24 overlapping Scenemasters, up to 136 full cues in time faders at one time and alpha-numeric labelling. And look at this! The output format is menu selectable between: AMX-192, DMX512, Analogue, C-156, K96, AVAB, EC-DMX and D-54. Some formats require optional connector/output electronics.

Easy Rider, the 'wash 'n go' playback only box, is programmed from an Access via a cue card and thereafter runs your ride or demo slavishly.

Now see this from **Entertainment Technology**. The Mac-360 is designed to handle intelligent luminaires, it will take 90 Intellabeams under its wing; with two wheels, a built-in track ball and 12 attribute buttons with write-on fields it does all it can to simplify the programming problems of this burgeoning market. It runs extensive self-diagnostics on power up and describes any error on the monitor, however this is backed up with a 5 bit LED code for error states. There is an extended plane at the rear top of the surface to accommodate an AT keyboard - it looks like a dog but is a whole lot handier than being locked away in a sliding drawer.



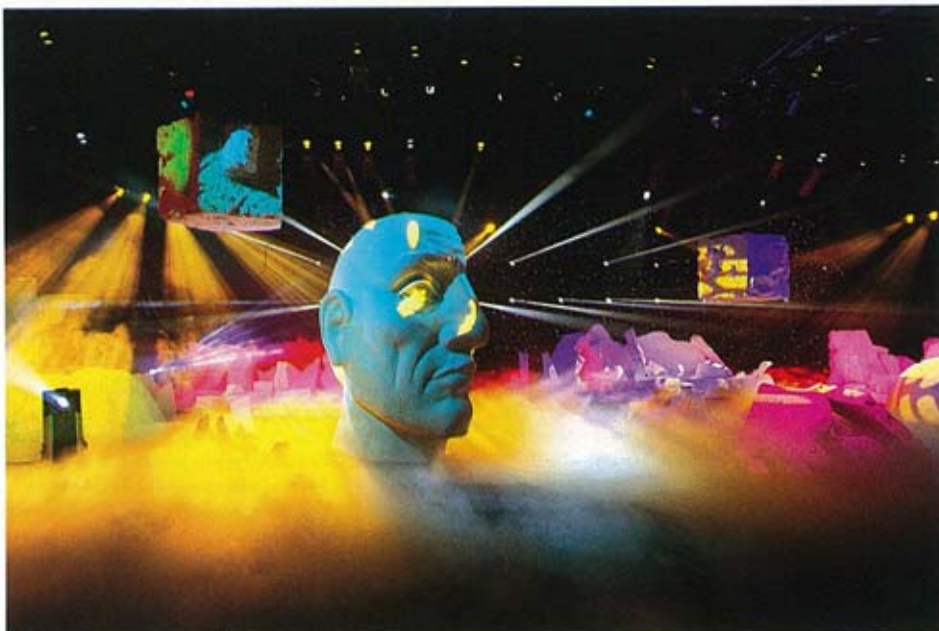
The combined stand of White Light and Modelbox was part of the PLASA group.



Richard Pilbrow accepts a cuppa from TP's Alan Thomson.



Entertainment Technology's Gordon Pearman points out the advantages of Intelligent Power.



Another scene from High End System's award-winning lightshow presentation. photo: Matt Scherzinger

See **Factor**, the big hire company from Long Island City, run by almost as big Bob See, demonstrated prototype real-time automatic performer tracking using ultrasonics/infra-red to direct various intelligent spots. (I wonder if he knows that I patented the system in 1981 Pat. 2106233B!) This feature is in the coming soon category for their Light Coordinator linking to any serial console. Currently it runs 500 fixture or dimmers channels, through 1000 cues and 20/250 chases. Any point can be simultaneously tracked by a number of fixtures with an XY facility. Dowsers channels take precedence over other I/L attributes all of which are subject to 'quick fix' patching and grouping. Given that 32 bit architecture is employed, I suspect that the jerky movement of the demo was down to some delay in the transducer system - to be removed. I think this 'outsider' development is one to watch. An advantage of a hire company's approach is evident in their choice of Penny and Giles faders - so expensive, but so serious.

Finally, after all these DMX outputting devices, spare a thought for the electrician/operators tracking faults in their signal lines. **Goddard Design** have the perfect stocking filler. The Li'DMXter will generate a DMX signal to check one or any group of channels by bump or level, receive and analyse DMX, check DMX cables even if both ends are not available, test the pin 4&5 optional link, verify the stability of the system

to lay those ghosts in the machine. Seven buttons and a 40 character display with menus provide all this. A new option will store up to eight 512 dimmer 'looks' with 0-30 second fade times. During playback, dimmer levels and a proportional grand master may be adjusted, and 'looks' may be cross-faded or bumped in any order. Looks good to me!

John Offord/Ruth Rossington cover the rest of the stands

There was a lot of interest around the **AVAB** stand for 'The Rack', their new modular digital dimmer system. Plug-in modules are rated at 4 1.2kW, 2 2.4kW, 1 6kW and 1 12kW. 'The Rack' features double DMX main links and one DMX back-up link. This can control 512 presets. Part of the compactness of the system has been achieved through doing away with all wired communication between the modules and the electronics of the rack. All control information is by infra-red transmission. Each module is equipped with a micro processor and there is full compatibility with the AVAB PC-link information feedback system. Hans Lau of AVAB America says that in addition to the normal rise and high rise time versions, there is also a sinusoidal, transistor dimmer version in the pipeline. Alongside these were the new Microspots which as the name suggests are mini (scale 1:10) versions of

spotlamps which operate on low voltage halogen lamps. This was to be the first of many working models at the show.

The **Access** multi-media control system, from **AMX**, is modular in design, with all components configured to meet specific requirements. At the heart of the system is the AXF-M/S CardFrame, which contains AXF control cards programmed to automate the complex functions of any number of devices. Using the AXP-EL touch panel, a single operator can control a full spectrum of media.

There was an interesting turn in the fibre optic market with new thicker cables in evidence on more than one stand (witness **Cable Lite**, **Lumenyte** et al). This homage to size could mean that fibre optics are about to give neon a run for its money, especially as the trend is towards polycarbonate tubing which is more resilient than glass and, of course, cheaper.

Camelont premiered a 20" Rainbow scroller which was used originally on a SkyArt for Theatre Projects and which has now been adapted to fit other large luminaires, and **Lighting Technology** were next door introducing the Oscar Lightpaint scroller and the Bruce-Brute eight light unit to the American market.

Creating a lot of interest in the late night bar chat was the new **Tigerscan** on the stand of **Clay Paky**. This is a multi-functional moving light effect that should find its way into quite a few clubs in 1993. Because Clay Paky always bring so much to each show, here in brief is just a sampler of what was on offer: the Tornado, a scanner with six moving mirrors; the Bazooka, a powerful waggly mirror projector with parallel and concentrated light beams; Tiger with Multi-Rotating gobos, a powerful, intelligent projector that works with five gobos; Tiger Multicolour, three models of colour changers; the Tiger liquid wheel, an automatic fluid effect projector; the Tiger Graphic, an automatic graphic effects projector - and so it goes on. In terms of intelligent effects lighting, Clay Paky are one of the most prolific companies in the business.

New on the **Clear-Com** booth was the **Que-Com**, a single channel intercom system for use in small theatres, and new main stations, shown earlier at NAB and now enhanced with detachable microphones.

Italian company **Coemar** demo'd the 'Versatile' (and picked up an award for the best lightshow in the process, designed by Carl Dodds and John Lindsell), a new light fixture that possesses two lamps thereby creating different patterns. It features a 1000W halogen lamp with a reflector to create a straight beam effect or 1000W Roundlux lamp to create conical beams. Also on display was the new **Samurai** light 1200 with external ballast and power supply built for touring. The ballast can



Winner of the 'widget' award: ECTS's rigid chain system.



Interesting Products' liquid nitrogen fogger.



Syncrolite's SS 7k automated searchlight.



A colour show from Phoebeus followspots.



Colour changer brigades on the PLASA group stands of Camelont/Rainbow and Lighting Technology.



Colour light graphics from Altman Stage Lighting.



The Tracomart/Martin stand.



John Fuller of Colortran with the Encore XL.

be placed in the trussing to act as a permanent fixture.

Diversitronics brought on-line the MLS-8M programmable touch pad controller featuring eight fixed program chases, eight programmable scenes with individual channel dim levels and programmable fade times. It also features latch/flash modes, six audio effects, two tap modes, full direction, fade, scan, dimmer, rate and speed control. The output level is 0-10V and the unit can accept serial inputs from a personal computer. Also on the stand was the Par 64 Strobe Cannon, now with new analog intensity control. A new single channel remote (RC-SC) features single flash, variable intensity and variable rate and a new four channel programmable PS4M-A with audio is also now available. Additionally, a new dome kit for the Par 56 Strobe Cannon which features both reflector beam flashing and 360 degree lamp line of sight was also launched at LDI.

Elite Systems were testing market response to a range of 2" Microscrollers, (yes, you read correctly) to which they will add the 4" Miniscroller, both manufactured in metal, but hopefully available in injection moulded plastic before too long. The former comprises two major subsystems, the scroller and a controller that supplies power and signal for a maximum of 12 scrollers. The controller can operate as a stand alone controller in a master/slave set-up and also responds to DMX512 signals from most lighting boards. Also on stand was the UAC (Universal Automated Controller Software), a Windows 3.1 based console for the digital control of colour changers, moving lights and dimmers without use of a light board. A graphical user interface simplifies programming - the programming format is capable of simultaneously controlling 432 cues, two chases and 240 fixtures, as well as the operational capability of simultaneously addressing multiple protocols. Robert Achlimbari (better known with his Rosco hat), together with partner David Agar formed the company in August of this year to develop this hitherto unexplored area, and if initial response is anything to go by, should fulfil their aim to exhibit at PLASA next September.

Two new hoists held their own on the **Hoffend** stand, one a self-climbing hoist, with a four lift connection, the second a studio hoist. Tom Young was also keen to draw attention to the D'Antonio

acoustic shell system that relies on interchangeable panels that either diffuse, absorb or reflect sound as required.

Jands Electronics have expanded their ESP II range to include a new 60 channel version. Like the 'Event' consoles, ESP II 60 features LCD windows above the scene masters (24 in all with 50 pages), enabling an eight character alpha numeric scene label to be assigned to each scene. The console is configured with two presets, and capable of running in 'wide' mode with the number of channels doubled. The number of chases has been expanded to 50, and a dedicated chase section enables speed and direction to be set and multiple chases to be run using the 'chase on scene master' facility. With the launch of ESP II 60, come some enhancements to the operating system of all ESP II consoles and it is now possible to add and delete cues in both the crossfade stacks and the effects facility. Jands have also upgraded the software for the Event lighting console with the release of version 2.0 which has a new 'Build Record' feature which allows memories to be built from other memories, and subsequent changes in the base memory to be reflected in the built memory. Other new features include macro functions, channel pre-heat, improved chase controls and linking cues.

Lighting and Electronics came to the show with a completely new range of products focused (literally) on the theatrical marketplace. The line is extensive and numbers amongst it fresnels, PCs, ellipsoidals, groundrows etc etc. According to Bob Partridge, general manager, the little item generating big interest was the re-introduced Ministrip shown in its new UL-listed form, which continues the trend for compactness and has the added advantage of having the dead lamp indicators out front which makes life easier - and that's the name of the game.

John McDowell and Johny Emch of **Great Performance Products** heralded in a new followspot and digital 12 channel dimmer.

High End, not content with one stand at the show, took two: one for a dialogue of light and one for some light dialogue. The main stand was one of the most impressive at the show with a huge array of Intellabeams, Emulators, Dataflash and Color Pros combining to create a spectacular lightshow. Lightwave Research's newest automated lighting unit, the Tracksport, was also in

there demonstrating its advanced optical design, and its range of classic patterns and colours. Adding to the atmosphere was the new Coldflow LCO2 exchanger module, which produces a low lying cloud effect that dissipates as it begins to rise. Also hard at work was the Touch Dimmer 12, a rackmountable lighting controller which offers 12 dimmable outputs, ten matrix presets, ten chase presets of 127 steps, real time delay and crossfade modes, total MIDI compatibility and back-up, master/glove capabilities and the ability to assign any chase to any matrix. Of course, for High End the real business was going on on the second stand, and it might even be true to say that the really serious stuff took place at the High End party on Saturday night at the Anatole.

For **Lowel-Light**, their first-born was re-born at LDI with the 1992 version of the Lowel-Light, a product that had revolutionized location lighting some 30 years earlier. Now shortened to the L-Light, the new version can accept a variety of lamps, has a refined home-plate, a new barndoor system with clip-on doors, and new Gel-jaws with which to clip gels to the barndoors.

Three things grabbed attention on the **LSC Electronics** stand. The first was the Multisplit DMX512 splitter, a self-contained data repeater which accepts a DMX512 input and provides ten fully buffered outputs. The second and third are the MEGAdmux and MEGAmux. The former is a 96 channel digital to analog demultiplexer, housed in a 2u rack with the option of locating output connectors on the front or rear as desired. A selection of output connector panels are available and at this stage Socapex 37 pin and computer style DB connectors are available with other styles of connector to be added later. A 0 to +10v output is standard, although an optional internally fitted inverter card is available for 0 to -10v applications. A feature of the MEGAdmux is its ability to snapshot, or store, output levels into non-volatile memory, which can be replayed at the touch of a button. The MEGAmux works in reverse converting analogue to digital and like its partner, its input panels can be located front or rear, comes with a selection of connector panels with more to be added later.

Martin and their US distributors **Tracomart** launched two new products at the show. The Roboscan Pro 1220, is a re-working of the Pro 1020, designed for the touring market. In addition



Keith Dale of Celco with hands-on the Aviator.

to its predecessor, the 1220 features reduced power consumption achieved via integral phase compensation, improved optics and a totally modular construction. The CD Interface for the 2032 controllers allows the timecode information present on all compact discs to trigger pre-programmed scenes in the 2032. So all you need is a CD and a few thousand pounds worth of lighting gear and you're away. There was an interesting insight on the stand of Tracom regarding the current trend in disco installation. In direct contrast to the UK, the US seems to have leapfrogged into the realm of total control, and Jim Kane was able to cite at least five recent installations that are using massive amounts of intelligent lighting, in tandem with the Xylo Turbine system, as the first step in a move to total control.

White Light and Modelbox were fronting the British presence at the show with the latter responding quickly to industry feedback on its award-winning software package 'Laplight', launched at the 1992 PLASA Light and Sound and on show with additional plan-drafting facilities at LDI. The software now offers drawing file import and export using the DXF file format, making it compatible with a wide range of drawing and CAD programmes including AutoCAD, Generic CAD and Autosketch. Plans are drawn as required, brought into Laplight where the lights are added, the final composite being output as DXF file for final editing in the drawing programme. Laplight employs user-defined symbols for the lights and since it performs all its graphic functions using the DXF file format, this means that it will often be able to integrate with a users' existing way of drafting - effectively adding full lighting database functions



A C Lighting's Nick Tolkien with Jack Schmidt of Strong and their prototype 1000W followspot.



Light Coordinator tracks the frisbee (left) on the Wybron stand.



Jim Gordon of PanCommand with the new Pro-Spot.

to already familiar home-grown lighting utilities. Over 1,400 lights are included on the Laplight database and there is the opportunity to simply add new lights as required.

Luxart were there with the Microlux 1000 a three-dimensional CAD system which allows the user to make beam angle studies, helps calculate the desired level of footcandles and generates the lighting plot and the lists of equipment associated from a library of symbols. Argus Software had a design tool that can be adapted to architectural lighting design, and there were numerous other example of CAD at work on various stands, including 'LightsUp', on the stand of Water Fountain Software, a software programme that will produce and print scale lightplots, and a graphical user interface to produce standard required paperwork.

Mole-Richardson had on stand the 20,000 watt Big Mo 20kW SolarSpot, a new quartz lighting fixture with a 243/4" fresnel lens, that is one hell of a size. If more is required, then perhaps the 24kW Molemo Molepar (who thinks up these names?) would be better with its four piece frame, two piece yoke, and six four-light (Par 64) modules all demountable for ease of transport from one location to the next.

For Lite Puter the show was a chance to introduce the new A-407, a four channel sound to light chaser that offers 16 patterns and is operated by four program switches, and alongside it the P404D, with four channel dimmer power outputs.

On the PanCommand stand, the guided tour was conducted by sales manager Ron Puccetti. Top of his hit list was the new ProSpot, a configurable moving light fixture which can be purchased as a basic lighting instrument and

subsequently upgraded as required to become more advanced feature orientated. For the techno hungry, it features a 600 watt Osram HTI light source and has 360 degree pan and 270 degree tilt. There are two colour system options and three pattern options to choose from in the configurable features department. Next on Ron's list was the ColorFader, a colour system with the ability to dissolve or bump directly to and from any colour in the spectrum, as opposed to preselecting 10 to 24 colours as is standard. All this is courtesy of a clever little idea of punching holes in ever increasing numbers through the gel so that to the eye the colour change is completely smooth, and the variations apparently limitless. Using the same technology as Pan Command's PC Spot, it should eliminate the need to purchase costly colour scrolls. Pan Command will be the subject of a special feature on L+SI's early next year.

Desmar introduced quite a number of new light fixtures from DeSisti, most notably the 6,000W HMI softlight, and two fresnels, a 200W HMI version and a 650 quartz-halogen unit.

Those colourful people Unipar were creating a nice little light show by virtue of their transparent par lamps. And guess what - a baby version, the MiniPar, is on the way and should go down a storm.

The combined forces of Ness/Optec were hard at it in the noisy hall with DichroFlowers, Moonflowers, and a whole range of effects lighting and fog machines performing for the punters. So too were TAS whose centrepiece was the Mini Ultra Scan, an intelligent light unit that features 10 gobo patterns, 10 dichroic colours, dimming and strobing, and all controllable via DMX512 or analog 0/+10V.



David Agar and Robert Achlimbari with the Elite Systems' Microscroller.



Loren Haas (right) of Vari-Lite shows the new VL5 luminaire.



The stand of PLASA members Xylo Ltd.



Peter Marshall and Alan Thomson (right) of TP watch John Tadesco of Phoebus at work.



L+SI's John Offord (centre) with Frances Thompson and Michael Garl of Tomcat Inc.

Laserlite had the FX LCS-2 laser system, operating from an integrated Windows-based software programme which facilitates multi-tasking. Also on show was the MM-2 with pan and tilt moving mirrors used in conjunction with scanned or beam effects which allows for wide pan and tilt action beyond the 45 degrees allowed by scanners.

Laser Media unveiled the brand new 'Controller' - a laser touch-sensitive controller for manipulating graphic scanning functions, beams and effects. The system can be programmed to store scenes and playback selected sequences through a beat sequencer. It also features cross-fading beams technology and full colour video monitoring of graphic and volume effects.

UK company Abstract picked up new distributor, American DJ Supply Co for LDI. At the show they took a £300,00 order from them and further orders for over 1,000 Hypermoon units, a product new to the US, but launched earlier in Europe as the Mastermoon. Abstract have also made inroads into South America and Asia and the new year should see a new distributor in Japan being signed up.

Madison-based Meteor Light & Sound launched a new range of effects by Obvious FX which included the Pirata and Duetta with further products to be added to the range in the not too distant future. Not to be outdone Meteor had their own range of newbies including the Blazer, Magnum and a new DMX512 monitor.

It didn't seem to ease up one moment for Charlie Richmond and his company Richmond Sound Design who were showing the MMC-16 MIDI to contact converter and the Stage Manager MIDI Show Controller, which now features automatic cue patch transfer and timed sequence capture of messages from external MIDI and MSC devices.

Jack Schmidt and his company Strong had the first showing of a prototype 1000W followspot, an



Hoffend showed their motorised studio hoist.

upgrade of the 700W and direct competitor for the 1200HMI in the marketplace. It has the advantage of having xenon source as opposed to HMI and will be on the market in January.

From now on legs are for tables, or so Wenger would have us believe with the launch of their Colisys stage system which uses height-adjustable columns instead of legs, trusses (which will span up to 12 feet) and deck frames, the combination of which can create flat, tiered or raised stages as desired.

On the stand of TMB Associates, there was an interesting dimmer development from UK company Cyberlight headed up by Paul and Dick Ollett, formerly of Avolites. The Cyberlight MIDI Dimmer (110V to 240V) combines the functions of lighting controller and dimmer unit. Lighting patterns may be set on the front panel, or by commands over the MIDI link. Once programmed, the patterns are selected by MIDI program change commands or by means of the front panel switches. Technical-wise it offers 6 or 12 channels of light output, and up to five Cyberlights (giving 60 channels) may be controlled by one MIDI channel. There are plans in the new year to extend the Cyberlight range to include analogue 0-10V, DMX512 or MIDI Show Control input, with 2,000W per channel and rack mounting options.

Following its first showing at PLASA, Vari-Lite had their new VL5 centre stand, as you might have expected. The company has also announced a new marketing strategy to provide customers with several options designed to make Vari*Lite equipment more accessible. The new VL5 can be controlled from DMX-512 consoles and conventional dimmers. Their VLD dimmer interface allows control of analogue or DMX-512 dimmers and instruments from Vari*Lite Series 200 control consoles. Finally, the S100-DMX converter allows control of VL1 spot luminaires from DMX-512 consoles.



Marshall Bissett and Colin Waters of TMB Associates of Burbank California - PLASA's newest international members.

A smaller console is now available for the Alstar Moving light system from Altman Stage Lighting, as is a wash unit with colour fade system.

Electrol Engineering showed their MD421 19" rack-mountable dimmer in three module sections, with each section is in fact a self-supporting self-contained dimmer, available in 4 x 1.2kW, 2 x 2.5kW or 1 x 6kW. All modules are compatible and can be mixed. Other equipment shown included the ComPatch, a self-contained six channel SMX decoder.

In addition to their manual controls for installed or touring work, Skjonberg Controls showed their CHC-8, a 30 channel computer hoist control now available in an eight-channel package. Their Load Cell monitor, with digital gauges, provides weight readings of rigging at floor level.

Production Arts Lighting of New York had the AS-100 image scroller, which controls up to 100' of 7" wide film in the gate of a Pani projector. The film can be speed controlled over a 70 to 1 range, and can be stopped at any one of 64,000 positions over the 100 foot length.

Tech Lighting are Xenon people and showed units requiring no external power supply, the first 'one-piece' Xenon and a new joystick control ability for both indoor and outdoor applications.

Xenotech of Hollywood featured their Automated Britlight Mark III version, a fully programmable five axis Xenon searchlight with tilt, pan, focus, colour changer and douser. It operates on DMX-512 and has a power range from 2000W to 7000W. They also had their range of UV blacklight projectors including the 4000W long throw.

Staying with the big lights, Phoebus had the debut of their Ultra Arc Titan long throw followspot which features a 1200W HMI light source and motorised dimming shutters in 9", 14" and 20" sizes.

The usual British faces were in evidence at LDI, either on the PLASA/DTI joint venture group,



Rosco's Stan Miller (left) with Augusto Andraghetti of Spotlight Milano.



Steve Warren of Avolites with Barry Hovse of Lighting and Sound International.



CCT Lighting's Don Hindle, George Chapman and Al Pfeiffer.



Vari-Lite's Andy Meldrum with Richard Pilbrow on the Theatre Projects stand.



Steve Watts of Abstract with Graham Thomas of Lite Structures.



Lighting designer Paul Dodd with Jack Kelly of Celco Inc.

AVITEC

DISTRIBUTORS OF A COMPREHENSIVE RANGE OF QUALITY PRODUCTS INCLUDING:

FAL

KREMESA

LED

METEOR

RAMSA

CERWIN VEGA

Express delivery Worldwide • In-house Service Department
Sound and Lighting Design Service
Contact us now for information on the latest in professional lighting and sound equipment

Avitec Electronics (UK) Ltd 30/31, Watworth Road, Hinchin, Herts SG4 9EX
Telephone: (0462) 458951 Fax: (0462) 433019
Trade Sales only Avitec Distribution Ltd
Telephone: (0462) 422599/420910 Fax: (0462) 431019

Wybron's Widget

It must be nearly 25 years ago that I saw an automated followspot on trial in Japan - a clever idea that didn't really work. The servo-driven spotlight faithfully tracked a transponder tucked inside the performer's bra, and the beam reflected every twitch she made. The trouble was, the machine didn't know the difference between a slight shift on the same spot, which it should ignore, and the start of a move across the stage which it shouldn't, of course. So the intuitive damping effect of a human operator was absent, and the light jittered around driving everybody absolutely crazy.

Now scroller maker Wybron have taken a fresh look at this technology and LDI was the venue for the launch of a concept model automatic tracking system, with a number of Golden Scans and Intellabeams following (more or less) a frisbee on a pendulum, as it swung around the stand.

Of course, this is not a trivial task. Wybron's system relies on three detectors which use a combination of infra red and ultrasound to triangulate the position of a transponder (attached to the object being followed) and feed resulting information back to a black box, which in turn provides information to a moving light controller.

Naturally, the controller needs to know the position and trim height of the projectors and combine this with the coordinates being received from the black box to compute X and Y values for each moving light. To make this useful, it has to be capable of handling a good quantity of fixtures, probably distinguishing between several transponders, and of course, it must be fast enough to follow every conceivable movement, as well as being smart enough to avoid the pitfalls of the doomed Japanese followspot. The processing power and software development required to get this right are truly formidable.

As shown, the Wybron system relies on See Factor's Light Coordinator moving light console to drive the projectors, but owner Keny Whitright told me that they plan eventually to produce a black box which will sit in the DMX line from any console and 'simply' take control of the pan and tilt parameters of a given number of moving lights, when so instructed. This would mean that the show console could drive the lights for normal effects work and then hand over to the tracking system to follow an artiste for a particular section of the show, while still retaining control of colours, gobos and so on.

It's a very neat trick and the concept model worked tolerably well. But don't underestimate the amount of work needed to get from where Wybron were at LDI to having a product ready to use on your next tour.

Tim Burnham

where PLASA and L+SI were also present, on their distributors base or their related 'inc' company homes. Celco were, appropriately, on the Celco Inc booth with Keith Dale doing his usual but always impressive 'hands-on from the back of the board' job, in this case with their Aviator, first launched at PLASA. On this, and various other locations, but still with Celco Inc., were Optikinetics, Pulsar and JEM.

On the PLASA group area the combined UK Samuelson outfit of Theatre Projects Services, Brilliant Stages and Vari-Lite Europe gave everyone they liked a cup of Harrods afternoon tea at 4 o'clock prompt. The venue became even more popular when it was noticed that cheese and cucumber sandwiches were included in the deal. Notable visitors included the original founder of all Theatre Projects, Richard Pilbrow, whom we noticed taking tea with current TP's Alan Thomson. The people from over the road at Light & Sound Design were also friends for the duration of the event for the same reason. (The notable news from LSD was the video 'launch' of their new Icon - see separate news story, up front this issue).

Avolites became Avolites Inc for LDI and had their Rolacue Sapphire, again direct from PLASA. Managing director Ric Salzedo was over from England with the always shining and very bronze

Steve Warren doing the front-of-house routines.

Le Maitre were present with their new distribution company Genco of London Ontario in Canada who, according to managing director Rick Wilson, were working exceedingly hard on promoting the company's lines in North America and already turning in some good results.

And last, but not least, back to the US with Tomcat USA Inc who, on their usual large stand, had the assistance of StageCraft for the scenic element. (See major feature this issue which also features the new Vari*Lite automated trussing system, pages 35 to 37).



Irena Samsonova from ICO crystals and optics and Colin Hammond.



Louis Farina of Lycian relaxes in the followspot operator's chair.



Luciano Salvati of TAS with Coemar's Bruno Dedoro.



Laserpoint's Sussi Christiansen with Joseph Perlman of the General Video Corporation.



Tea for two: Alan Thomson of TP and Nick Jackson of LSD.



Philbeach's James Brooks-Ward with Neil Rice of Optikinetics.



Mike Goldberg of M&M with Lighting and Sound International's Ruth Rossington.



Clive Salmon and Dan Imfield, both from Thorn Lighting.



Lighting Technology's Garry Nelson with Peter Johns from LSD.

FRANCIS LAUNCH PREMIÈRE

John Offord visits Francis Searchlights at Bolton and discovers a new industry collaboration

Francis Searchlights began the century (the company was formed in 1901) as electrical contractors specialising in theatre lighting. They look like finishing it as strong players in the entertainment and presentation business, with a great deal of recent development moving to architectural and display lighting.

Francis' first searchlight, circa 1933, was designed for use on fire engines and various marine searchlights followed with intense equipment development during and after World War II. In 1948 they produced their famous Suez Canal searchlights which enabled helmsmen to target the canal banks at night and aim their prows dead centre.

The call back to show business was given a major boost when PLASA members Lighting Technology Group needed special fittings for use on the Lloyds Building in London. "My connection with Francis started when I commenced selling them projector lamps," explained LT's Bev Bigham. "When the Lloyds project came along we needed narrow beamlights and there was nothing available in the lighting kit of general manufacturers. Francis were able to produce special stainless steel luminaires to match the steel of the

building with the wattages we required. From then on, and after such a good reaction, we realised that this was going to be a useful tool for specialist architectural highlighting. At the same time we were talking to them about xenon searchlights for premiere opening nights, and our conversations were going in parallel at that time.

"Obviously the two areas are quite separate and the light sources are quite different," continued Bev Bigham. "Francis' product tends to use an optimum light source to give maximum performance for a given wattage, whereas when you go into floodlighting you've got to trade that against having a decent life. Searchlight usage in marine situations is very short but when a unit is on for six hours a night it has to be a different light source."

Important factors with exterior lighting are finish and durability and here Francis can score from years of experience. "They have always had a superb paint finish on their lights," said Bev Bigham, "and the materials used are designed to sit out in the worst atmospheres - out at sea - and survive. Our approach on the light source is two-fold: life and the colour of light. Basically we decide in conjunction with

the designer of a scheme what colour light they want and then we sort out the source that's required. We then discuss it with Francis and 'shoe-horn' it into an appropriate unit. There's a new breed of lower wattage metal halide lamps which are very easy for us to engineer and cause Francis the minimum of problems."

Francis' latest searchlight, the Première, has a 7kW xenon source. "It's a top of the range unit," said technical manager John Orentas. "It's the most compact light source you can get and it's also the best colour, because the spectrum is almost identical to sunlight. The technology was developed for the American cinematograph industry - it's a powerful source without any flicker."

Bev Bigham: "It's not the most efficient - the new HMI light sources produce four times as much light per watt, but they have a much bigger arc, and therefore the beam is less controllable. For the situation where you're looking for perfection in the beam then it has no rivals." As if to put you off further, the unit is expensive and a direct current power supply has to be available, 60 amps and 40 volts, and it has to be ignited at 50,000 volts initially. The optics are also special, with an electro-formed



Première Premiered

Francis Searchlights' new 7kW searchlight, the Première, had its 'launch' in late September when boat-borne Walk the Plank theatre company (see L+SI August) called in at Salford Quays during the Manchester Festival for its final show of the season. They had been sponsored by Francis with searchlights and signalling equipment for their 1992 tour of UK coastal venues. (Walk the Plank's ex-Norwegian ferry 'Fitzcarraldo' is pictured above at Salford Quays with the 'Première' centre stage.)

The Première is vertically mounted utilising a universal joint which enables a 60 degree cone of movement, plus or minus 30 degrees from



the vertical. Movement is achieved by the use of electrically powered linear actuators. The complete unit is hard-wired and supplied with a BS 6040 standard socket ready for connection to a 380/415v three phase power supply. The 7kW xenon lamp has a life of 500 hours and the front lens is manufactured from toughened safety glass. With instant lamp strike and re-strike no warm-up period is required. The aluminium barrel has forced air cooling of the lamp chamber utilising high-power fans and ducting. The exterior is a stove enamelled marine grade paint finish.

Data sheets are available from Lighting Technology Group (081-965 6800) or Francis Searchlights (0204-27196).



'Walk the Plank' reception. Pictured at the launch of the Première searchlight are (left to right) Tom Needham (sales and marketing manager), Christine Ashton (UK sales) and John Nunnerley (managing director) with Bev Bigham of the Lighting Technology Group.

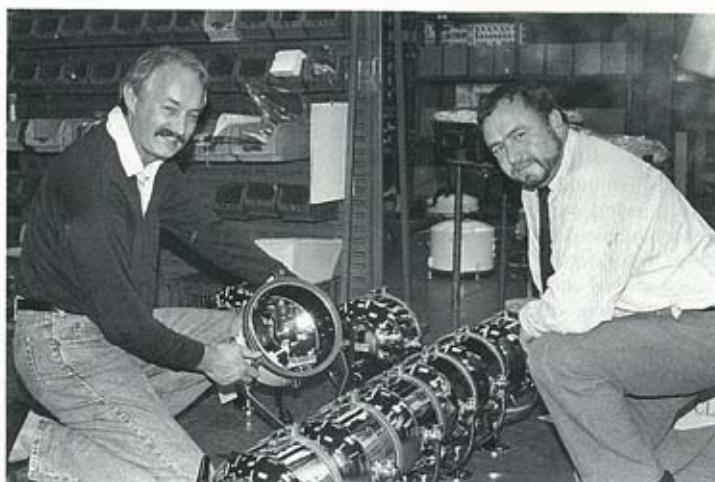


Francis Searchlight's technical manager John Orentas shows a high quality reflector from the new Première 7kW searchlight.

nickel reflector involved.

The real point behind any Lighting Technology-Francis Searchlight collaboration is about the right tool for a particular project. John Orentas: "Essentially we employ the same 'quality' approach we are used to adopting with marine and defence industry work which we've been in for so many years. As Bev Bigham has indicated, it's often a trade-off with lamp-life against sheer power, so each project has to be looked at on its own specific requirements."

The growing involvement with the presentation industry has been a god-send to Francis. "The marine industry and military applications are finite," explained John Orentas, "whereas the spectacle lighting industry is wide open. "Every arena in the US has a full set of spectacle lights and we're at least five years behind them."



Bev Bigham (left) of Lighting Technology and John Orentas from Francis show the 230mm units, versions of which have been used in numerous non-marine applications, most frequently for architectural high-lighting. Lighting Technology recently installed 70 units incorporating GE Lighting 150W Arcstream sources at the new Crawley Shopping Centre.

Now and again we come up with something innovative.

The new Selecon PC 1200 is the latest addition to an outstanding range of luminaires. A new plano-convex lens, manufactured from heat resistant Pyrex B and developed by Selecon has less of the variations found in cast lenses, and consequently gives a clarity of beam and a crisp edge which is similar to a slightly diffused profile.

The simple and safe lamp access, interchangeable lenses and easy maintenance are just some of the additional features that make Selecon luminaires the choice of both professional and amateur lighting designers.

The dual rotating shutters and unique no metal-to-metal lens movement are the result of the innovatory design engineering for which Selecon has become famous. But the one thing there's nothing new about is Selecon's reputation for value.

With superior beam quality, less spill and up to 50% more light output, we're sure that you'll find the complete Selecon range is simply the best news around.

For more details and specifications, please contact us at Selecon NZ Limited, 26 Putiki Street, Grey Lynn, Auckland 2, New Zealand. Telephone (64) 9 3601718 Fax (64) 9 3601719

SELECON

UK Distributors:

M & M Lighting, London Tel: 071-284 2504 Fax: 071-284 2503

AJS Theatre Lighting, Ringwood Tel: (0425) 470888 Fax: (0425) 471398



Now.



And again.



And again.

CAMELONT LIMITED

rainbow

COLOUR CHANGERS

Statement from the Directors of Camelont Limited

Rainbow Colour Changers are manufactured by Camelont Limited - the design, logo and name of the product are protected and as such can only be used by Camelont Limited or by companies who have the written permission of Camelont Limited.

Rainbow Colour Changers are available in North America through

Canada *Westsun Inc, 2 Liberty Street #100,
Toronto, Ontario MK6 1A5
Telephone: 416 516 8746
also at Vancouver & Winnipeg*

USA *Rainbow US, Suite 426,
3525 Del Mar Heights Road
San Diego CA 92130
Telephone toll free 1-800-373-7246*

If it doesn't have the Rainbow Colour Changer logo,
it's not a Rainbow Colour Changer

rainbow

COLOUR CHANGERS

Rainbows evolve. Other scrollers just change.

Camelont Ltd, Unit 2, Cameron House,
12 Castlehaven Road, London NW1 8QW.
Tel: 071-284 2502 Fax: 071-284 2503

ON TOUR

The Cure

Manchester GMex

LD: Roy Bennett

70 Vari*Lites (2Bs and 4s), a mass of Par 64s and eight-lights with over 120 Colormags (all formats except the giant Mega Mag) and eight smoke machines might sound like the lighting equipment for 'Genital Death Spasms Jerk Around the Globe' but in the restrained hands of Roy Bennet they never once appeared brutal or insensitive to the many, and often tortured, emotional songs of Robert Smith and The Cure. For a band whose physical activity on stage never approaches the often frenzied behaviour of its audience a varied and sympathetic light show is essential, for it's the lighting, and the atmosphere it creates, that provides this band with a vehicle in which to give a truly live performance.

The set is slightly chaotic; trusses are inclined across the stage, dressed with corniced edges, and have apparently cracked and crumbling plaster ceilings between them which are pierced by pillar-like tubes of illuminated silk. These latter, *continued on page 34*

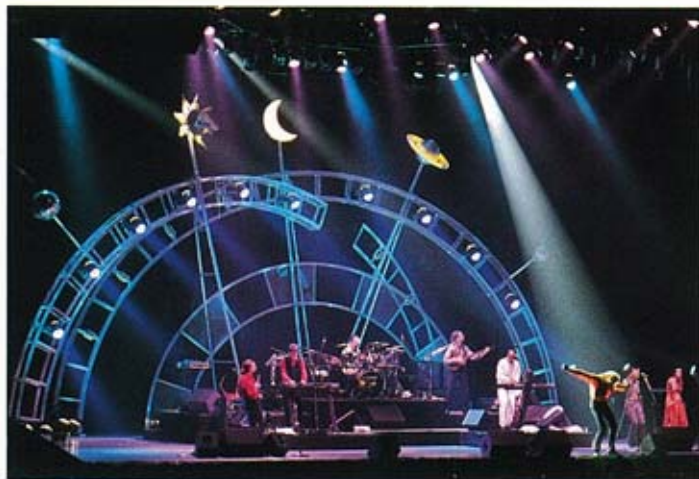


The Cure at Manchester GMex.

Simply Red at Wembley Arena

This month sees the culmination of one of the most talked about tours this year - that of the Simply Red 'Stars' tour. It went out early in the year, came back in the summer with a new look, and after a brief break was back on the road in early November with yet another completely redesigned show. It features a Fisher Park designed set built by Brilliant Stages. The Vari*lite inventory includes 38 of the new VL5 and 33 VL2B luminaires. It's a spectacular show

with a unique design which starts in the round on a rather understated stage, creating something of a club atmosphere. Part way through Simply Red transfer to a much larger stage previously hidden from the audience. Here the lighting, co-designed by Patrick Woodroffe and Vari*lite operator Mark Payne, really comes into its own and the set, comprised of simple curved trussing structures which act as both a focus and a carrier for the Vari*lites, is lit with electric intensity. The PA system for the tour was supplied by SSE Hire and is based around an Electro-Voice system with Midas control. **Photos: Phil Dent**



**FIT EITHER
AND YOU'RE IN BUSINESS
FIT NEITHER
AND YOU
MIGHTN'T BE.**

Venues throughout the country are in jeopardy because they contravene the strict regulations on noise and safety laid down by the local governing body.

Formula Sound can offer approved products specifically designed to solve these problems.

The Sentry - a microphone driven unit for controlling noise pollution.

The Guardian CX4 - for interfacing your existing audio system to the fire alarm and providing maximum noise level control.

Level control modules - for use in our PM-90 mixers.

Can you afford to ignore this?

For further information:-



Committed to Excellence

FORMULA SOUND LTD, Stuart Road, Ashton Road, Bredbury
Stockport SK6 2SR, England Tel: 061-494 5650 Fax: 061-494 5651



MORE WATTS~LESS BUCKS

WP-1200 200w x 200w £456.00

RAMSA

WP-1400 400w x 400w £551.00

(Professional user prices exc. VAT)

Panasonic
Professional Audio Systems

(Rated power into 4 ohms)



RAMSA WP-1000 SERIES POWER AMPLIFIERS - THE FOUNDATION OF A GREAT SOUND SYSTEM!

Spectacular value for money, and with the performance, quality and reliability synonymous with the Ramsa brand name.

Call now for your demonstration or a comprehensive colour brochure.

AVITEC

AVITEC ELECTRONICS (UK) LTD
80/81 Walsworth Road, Hitchin, Herts SG4 9SX
Telephone: 0462 458961 Fax: 0462 431019

Trade enquiries welcome to
AVITEC DISTRIBUTION LTD
Telephone: 0462 422599/420910
Fax: 0462 431019

AVITEC - MAIN DISTRIBUTORS FOR RAMSA'S COMPLETE RANGE OF SPEAKER CABINETS, POWER AMPLIFIERS, MIXERS AND MICROPHONES

seemingly insubstantial devices, are on occasions used to striking affect and can appear visually strong and solid like real architectural pieces, or soft and organic like young trees.

As ever it is the thoughtful manipulation of lighting that achieves this. In an era when managers eyes move straight to the bottom line it is worth noting how cheaply such strong effects can be accomplished.

To either side of the stage hang several large inverted conical spirals, though not such strong stage props, they do define the stage-edge, in a somewhat incongruous way, as befits the show. The strongest visual aspect is the back-drop, a full-width rear projection screen with a soft diaphanous silk cloth hung across its front. The silk has loose folds randomly sewn into it which are gently agitated by fans positioned either side of the stage.

Three Hardware Xenons (two backstage and one front of house) project many images onto these two surfaces, and by careful selection of projector position and focus, bold well defined images can be shown on the screen, or alternatively, by transferring the image across to the flapping silk, soft textured effects making the stage seem submerged underwater, can be realised.

The rig and stage set are littered with strobes, mirror strobes, terra strobes in packs of four, and strobefays all with ubiquitous LSD colour changers on the front. In the rear corners are the whimsically named Sex Pods, resembling six-foot salt cellars lying on their sides. These pods contain a 5k fresnel (with colour mag of course), the domed front of the 'cellar' rotates and is cut through with jagged slots producing fractured beams of light not dissimilar from Ridley Scot's beloved gently rotating giant extractor fans with strong back lighting as featured in both 'Blade Runner' and 'Alien'.

During 'Never Enough' Roy uses the whole orchestra of strobes and sex pods to devastating effect, whilst two contra-rotating wheels of parallel lines projected from the front of house turn the stage set to elastic. It is a quite remarkable and slightly disorientating display.

Roy runs all the conventional lighting himself

ARK LIGHT THEATRE LANTERN RESTORATION

COLOUR MATCHING TO DECOR
SPARES, T/H KITS

2 Partridge Close, Upper Bruntingthorpe
Leicestershire LE17 5QY

Tel: (0533) 478336

- Sachtler Reporter & Producer Open-face Lighting
- Sachtler Director Fresnel Lighting
- Rifa-Lite Softlights
- Rosco Products
- Optex Filter
- Optex Schwarzpack Dimmers and Desks
- Bytecraft Digital Dimming Systems
- ADB Lighting Dimming and Control Systems
- PAG Batteries and Chargers
- All Aspects of Studio Design and Consultancy

Many other industry-standard products available - please contact Optex Lighting

Optex lighting

Optex

22-26 Victoria Road, New Barnet, Herts, EN4
9PF. Tel: 081-441 2199. Fax: 081-449 3646.

from a Celco Gold. Bereft of his patent leather Doc Martins he operates the multiplicity of smoke machines using foot switches beneath the console and also he takes care of all the strobes via a bank of Optikinetics controls that he occasionally re-programmes during the show. Gary Westcott, long time side-man to Roy, operates the Artisan console, and has a special wish for Christmas: doubling the size of the cue memory in the Artisan. So great are the demands for 'looks' on a complex visual show like this, that he runs out of space long before he has exhausted his supply of ideas; he's not alone there.

If you wish to see further examples of their expertise the two of them will be working together again on Madness, leading up to Christmas and again with Depeche Mode in the New Year.

Britannia Row's Flashlight PA is run by John

Lemon on a Midas Pro and, though perhaps not at the cutting edge of technology for consoles, does produce a very sweet sound. Certainly within the confines of the Manchester GMex, a building with all the acoustic finesse of Kings Cross Station, he was able to keep control of a musical style that, if left unbridled, can quickly deteriorate into soup. John is especially enthusiastic about the BSS Varicurve he uses and the level of control it gives him in the hardest environments, no doubt we shall be seeing more of these as Brit Row are certainly planning on increasing their stock in the New Year.

My biggest delight of the evening, after listening to a bold and exhilarating show, was to discover, upon leaving the building, that there wasn't the slightest hint of ringing in my ears.

Steve Moles



Theatre and Night Club Lighting & Sound Specialists

COME TO US FOR AN
EXCELLENT DEAL
ON YOUR
SUPPLIES OF

**LAMPS, LIGHTING EFFECTS, SMOKE
MACHINES, PYROTECHNICS AND
SOUND EQUIPMENT**

WE ALSO REPAIR AND SERVICE ALL
LIGHTING AND SOUND EQUIPMENT

Westway House,
56/58 Spital Street, (0322) 288938 Day
Dartford (0322) 223866 Night
Kent DA1 2DT

Partners

Jeffrey Sprigmore ∞ Guy Heselden

Set Lighting and Design

Sofisco tech
PLASA 1440 Leeds Road, Tel: (0274) 661405
Bradford BD3 7AA Fax: (0274) 666463

Martin MODE ELECTRONICS
ROBOSCAN Jamo
audio-technica Trantec
Numark STANTON
TRIFIBRE Containers HH OHM
PHILIPS ABSTRACT

FOR THE SUPPLY, INSTALLATION & REPAIR OF ALL YOUR
LIGHTING, SOUND AND EFFECTS EQUIPMENT.

WHAT DO YOU GET WHEN YOU MIX
TOMCAT, TRUSS
and
CM Lodestar MOTORS?



A SMART IDEA
TOMCAT is a stocking distributor for
CM LODESTAR Motors & Hardware
expect smart ideas.

TOMCAT

P O Box 550, Midland TX 79702 USA
Tel: (915) 686 7029 Fax: (915) 683 5426

BUILDING IT BIG IN TEXAS

John Offord visits the new facility of Tomcat USA

Making a special trip to Midland, Texas from L+SI's base at Eastbourne, Sussex, England isn't something you'd consider as part of the normal run of events. However, taking an add-on day for the trip to Dallas for LDI was certainly possible - and at £48 for the return air flight from Dallas to Midland it was a snip. The promise of traditional Texas hospitality won the argument without much difficulty.

What's more I travelled out of Gatwick on a less than half-full plane with four seats to myself. And I'm delighted to report that the rest of the L+SI/PLASA team followed on the same flight next day - the heaviest on record for the Gatwick-Dallas run - which was full to capacity.

Tomcat USA, manufacturer of staging, lighting and ground support systems, and headed by Mitch Clark, had moved premises a few weeks before my arrival, and they were just a wee bit proud of it and keen to show it off. Their 'old place' a couple of miles away was styming development, so the decision had been taken to purchase the freehold of the new 23,000 square foot facility. It gives Mitch and his 30-strong team the chance to go for considerable expansion, and with a tripling of turnover across the past three years since the parting of ways between Tomcat Inc and the British Tomcat connection, it was an obvious step.

Mitch Clark's credentials in the event business go back to a six year stint as manager of the Midland Center, a local complex dedicated to conferences, functions and events. Well-known in show promotion circles he was approached to assist with an outdoor event where a 'roof-top' structure was required for the lighting rig and stage.

After making enquiries for a covered ground support system, he ended up calling Tomcat in the UK. The resulting system was so popular it



Mitch Clark shows the new Vari*Lite automated trussing system.

was rented out over and over again and eventually sold. In due course more and more systems were sold, together with the 'extras' such as Verlinde hoists. Tomcat Inc commenced operations as a result.

"We began manufacturing on a limited basis," explained Mitch Clark, "some of the product coming from the UK in semi-assembled form and we undertook much of the finishing and final assembly. We grew from there, focusing on custom fabrication work and special projects. Until the last year or so the roof top systems were a large part of our business, but the product range has since grown significantly. However, custom fabrication is the mainstay of the business, now more or less equal with our range of standard items.

give them quality. Everything we do is certified by structural engineers and we use only American Welding Society certified welders. Another factor of importance is that we carry product liability insurance - not everyone does. All these things combine. We have continually sought to improve product quality and everything goes out of here clean and properly examined."

A totally new product Mitch and his team rushed me into the warehouse to see, within a few minutes of arrival, was the Vari*Lite automated trussing system. A first unit was about to be loaded for the road journey to LDI in Dallas where it would be hung aloft, complete with luminaires. They wanted me to see it from close quarters, clean and shining, while it was still on its wheels and touching the



A structure for Clemson University, South Carolina . . .



. . . and for Sea World, Orlando.



Mitch Clark, president of Tomcat USA.



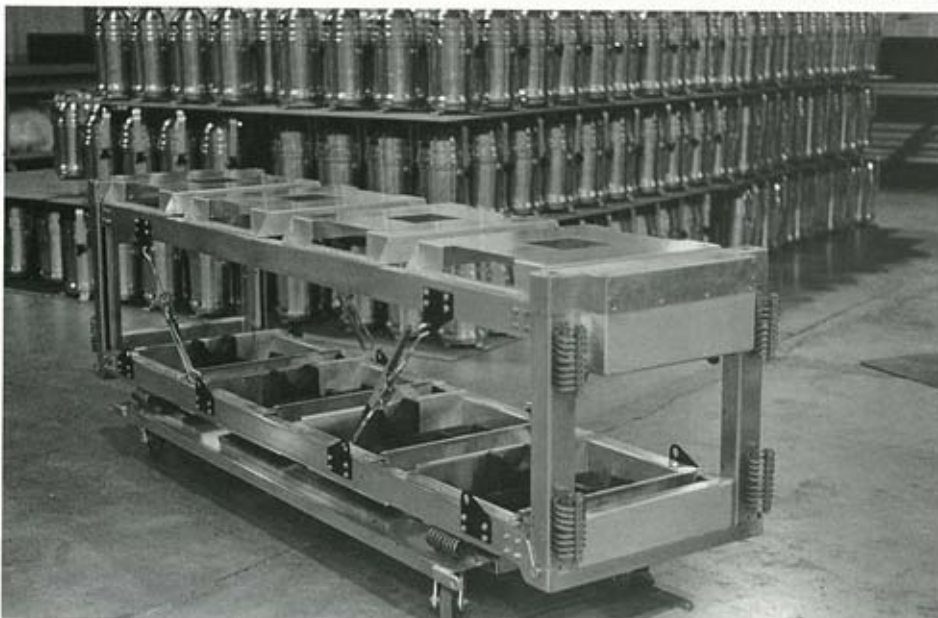
Richard Hartman (left) and Neville Lee, designer of the roof-top system, on the Tomcat stand at LDI, Dallas.

ground.

Tomcat was selected by Vari-Lite Inc to manufacture the system, which was developed by Vari-Lite engineers to provide a quick deployment system for their entire range of luminaires. A frame-within-a-frame concept allows automated luminaires to travel safely under rigorous touring conditions. Shock

absorbing helical isolators protect the luminaire-carrying frame from the abuse of road travel and daily loading and unloading.

The outer frame is the actual load-bearing truss. It is similar in size to other standard pre-rig style lighting trusses, and is specially designed to permit the fully loaded automated truss sections to ride vertically in transit for the



A close-up of the inner frame unit of the new Vari*lite automated trussing system.



Denise Wade - sales.

most efficient use of truck and storage space. After unpacking and assembly, the low profile caster-bearing assembly is removed and a touch of a button lowers the luminaires into the operating position.

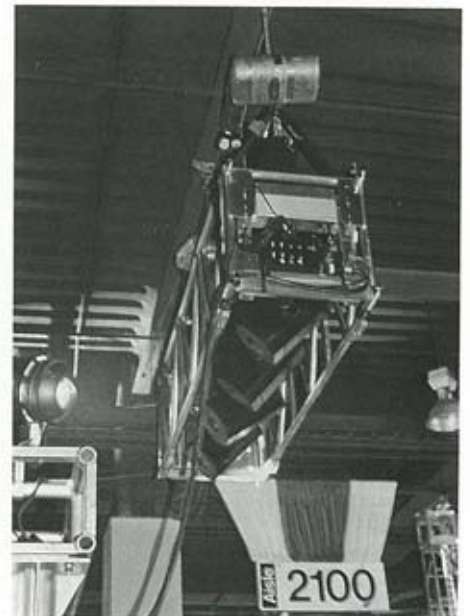
The Vari*Lite automated truss is designed to carry four VL2B spot luminaires, five VL4 wash luminaires, ten VL5 wash luminaires, or various combinations of units. It will be available for purchase from Tomcat USA.

"One of the projects that assisted us in coming to a working relationship with Vari-Lite was the work we undertook for Genesis with the Jumbotron screens for their latest tour," continued Mitch Clark (see illustrations, page 92, L+SI September). "The concept called for 56 modules to hold the Sony units which locked together to form the screens. We also fabricated the tracking system for which Unusual Rigging then adapted their computerised control system. We also fabricated the moving light pods that tracked diagonally across the set on cables.

"I am sure the quality of our work on a complex project put us right on the map as far as Vari-Lite were concerned."

Consultant Richard Hartman, one of the leading world names in rigging, if not the considered guru on the subject, frequently works closely with Tomcat USA on varying projects for his leading concert tour and other clients. He was 'in house' during my visit, and joined in the conversation.

"I get involved with projects all around the world and during my travels I came across Tomcat as a very good source of supply for fabricated equipment, with good back-up. That's why I chose to steer many projects their way - because I can trust the output. As an



The complete unit with luminaires.

independent contractor and consultant as part of a British company (RHA Ltd) I rely on them a lot when we're in this part of the world. I rely on their engineering capabilities, their design team and the speed at which they can fabricate - which in this business is an important factor.

"I was dealing with U2 recently and they were changing things continually during the tour and it required feeding things into the tour along the way and having to leave equipment at various locations along the route. It was like hitting a moving target! To make these timely arrivals I needed to rely on Tomcat.

"Mitch's company has grown in this part of the world, so for my situation in the UK it's good because it is able to branch out again from here. From the States we are expanding into Mexico, South America and the Far East. From the UK we can take on the emerging former Eastern block countries and the Middle East. I think the English language US/UK link and the nature of the music business, which in turn dictates the 'scenery' business, is going to be dictated by Britain and the States into the future. The continuing liaison between British and American technologies is a mainstay. For these reasons I think Tomcat is an up-and-coming company with a lot of potential. It produces what has come to be the fruit of this liaison between the UK-US market."

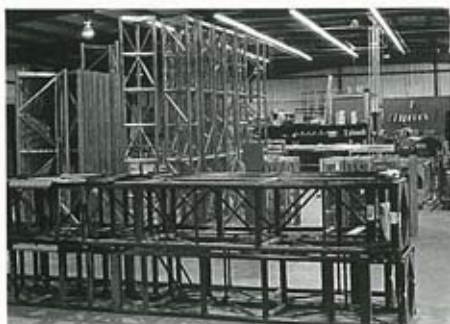
In addition custom fabrication, its standard products of the Parcans, truss systems and so on, Tomcat also distributes Columbus McKinnon (CM) Lodestar hoists, servicing and testing them in-house. They also distribute various stage rigging supplies such as spansets, steel slings, shackles and motor control systems. In wiring they're a distributor for Pyle National, Olflex, Socapex and Veam and also distribute Hubbell and Cam-Lok.

"In January we plan to host a CM hoist maintenance seminar here for anyone who is interested," said Mitch Clark.

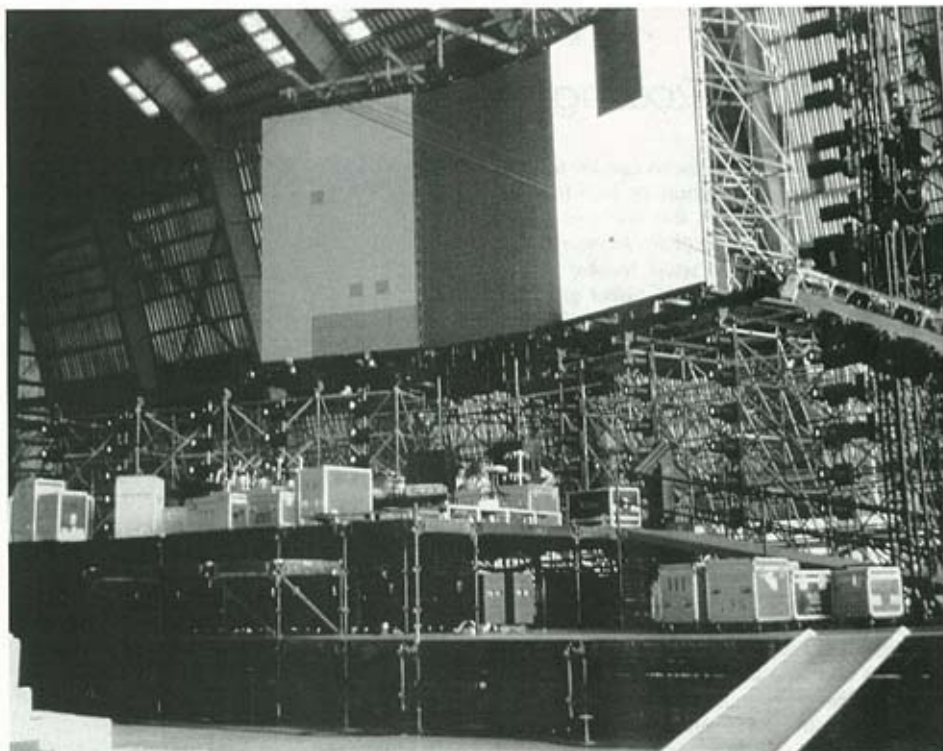
This comment seemed to me typical of the wide-ranging approach Mitch Clark and his team are adopting, and it appears to be something that's happening as a natural course of events as their business grows. Now neatly locked into the elite circus of the international touring industry, with a nice additional line in US theme parks and arenas - and there are more than a few of those about in the States - it would seem all Tomcat have to do is offer more of the same.

There's certainly the space in Texas for Tomcat to grow as the industry grows, and Richard Hartman has a confident feel about the future about the touring industry in general.

"What's starting to happen is that the ground rules are being established for an orderly society within which to have concerts. This is a big step forward in marketing the mobile entertainment business and taking it into secondary markets. I also see a lot of sponsorship money becoming available to make it work, and this will open up the way for both the talent and the equipment makers."



Part of Tomcat's new 23,000 sq.ft facility at Midland, Texas.



The Genesis set showing screen units (above) and below during build-up at the Texas Stadium in Dallas, May 1992.



Kelly Vaughan, operations manager.



Scott Clark, production manager.

FEATHERING THE NEST

Ruth Rossington visits The Swan Theatre, High Wycombe

The origins of Wycombe Swan can be traced back to 1947 when a group of four friends recently demobbed after the war put their money into the conversion of an old swimming bath in Frogmoor into a small theatre - The Intimate Theatre. 45 years on, rather grander notions have been put into practice with the building of Wycombe Swan, built by Wycombe council and run by management company Wycombe Arts Management Ltd, a subsidiary company of Hetherington Seelig, the latter having had considerable experience running the Beck Theatre at Hayes. Incidentally, the Swan will be the first theatre in the country to have outside management from the start.

On the steep approach into High Wycombe from the M40, the theatre can be picked out in the hub of the town centre looking something like a cuckoo fledgling that has barged and jostled its way into the nest. Close up, as one reviewer described it, it bears more than a passing resemblance to an "oversized coffee cream cake". So much for the architect's attempt at relative inconspicuousness.

For all its gaucheness on the outside, inside it could rival any other regional theatre in the country, and so it should with an original spend approaching £11.87m, and now almost certainly nearer £15m. With the arts under pressure to tighten their collective belts, it's good to know that there is still investment in the culture structure for all our sakes. From conception, through gestation to a well attended birth in November, it took just over two years to resurrect the dreams of the Wycombe four.

From the outset it was made clear that the Swan would be a multi-purpose venue to be put to use as a receiving house for a variety of events and shows. The main auditorium is a good deal lighter than is usual, and for my book a little too much so for straight drama. Still, I am assured that when the house lights are down, the Queen could shuffle by in her tiara without turning heads.

The auditorium, with fixed tiered seating for 1,000 on three levels, faces a conventional proscenium with a slightly larger than usual opening to providing extra space for concerts and events requiring a bit more arm length. To reduce the opening to a manageable width for drama, permanent proscenium portal towers are installed, suspended from the grid and



The Wycombe Swan.

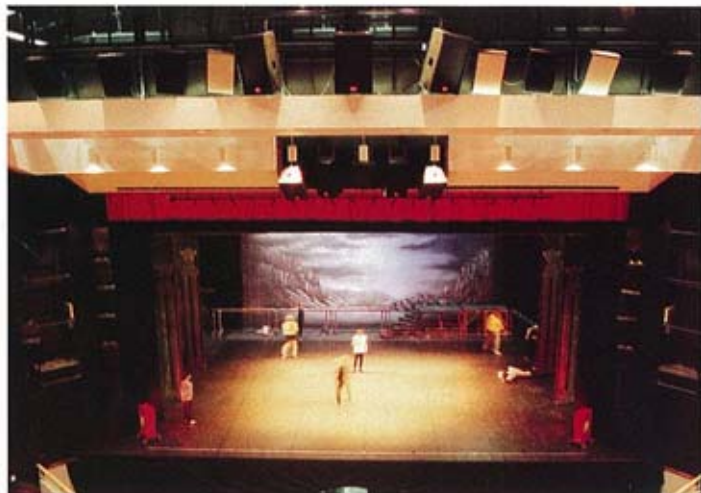
stabilised on the stage floor.

The remainder of the installation follows copy book notations, with conventional safety curtain, single purchase counterweight flying with space to add motor flying in the future, cloth storage below stage, modular removable floor sections, counterweight and motor up/downstage bars, and a forestage suspension grid.

Many of the features were designed around one original premise - that it be good for film projection, which sadly met its demise half way through the project - hence the large proscenium arrangements.

As a result, the lighting and sound control rooms are palaces of technical innovation with space to swing a cat and more besides, which cannot be said for the depth of the stage which is very tight - a squeeze dictated by two constricting roads, and the insistence, by the District Council, on a sizable public car park. As a result the terracing is steep quite high, and the foyers are restricted. As Peter Angier of theatre consultants Carr and Angier admitted, the stage is a good deal shallower than he would have wished, but manageable for all that.

The production lighting desk is a Comulite



The line-up of JBL speakers configured as a split central cluster with additional speakers on the proscenium arch and auditorium bridges.



The main auditorium.



A packed house at The Swan.

Applause console, supplied with a monitor, cable riggers control and a stand alone back-up desk. Both are permanently active with each sending a DMX signal to the dimmer room where a dual de-multiplexer decodes both signals and drives the dimmers on a highest-takes-precedence basis. So, should the unthinkable happen, one grand master is faded down (or in an extreme case the DMX line is disconnected) and the other faded up.

Ten Green Ginger wallrack dimmers are installed in the second floor dimmer room, with a total of 164 x 10A and 36 x 25A dimmer circuits. The processing of the two DMX512 signals is carried out by a Compulite dual de-mux. The non-dim system is a custom control panel located in the lighting control room driving a modified Green Ginger Wallrack. Each of the non-dim circuits is protected by a 30mA RCD fitted in the rack in

addition to a 10A MCB fitted externally in a distribution board.

A bi-directional digital multiplex based on the DMX512 standard provides communication between the control panel and the rack allowing status reports to flow from one to the other. The majority of the luminaires installed are those of Italian company Teatro and include 60 Tratto 1200W profiles, 10 2000W Acuto profiles, 40 1200W Tratto F fresnels, 10 2000W Acuto F fresnels, six 4 x 1000W Diluvio cyclorama floodlights and six 4 x 500W Diluvio groundrows. In addition, 20 Thomas Parcans also take their place at the Swan.

The sound control room, situated at the rear of the stalls, contains the majority of the sound and communications equipment stacked in five 19" racks. An amplifier room located to one side of the proscenium at auditorium bridge

level contains two racks of amplifiers and signal processing to feed the auditorium loudspeakers.

The complete sound system comprises eight JBL 4731A full range enclosures, ten Control 12 SRs, two 4745A bass cabinets and eight JBL G730/731 loudspeakers. Glantre configured the system as a split central cluster of full range cabinets with additional speakers on the proscenium arch for sidefill and stereo imaging, and also on the rear of the back auditorium bridge to provide cover at the back of the upper circle.

In addition, eight JBL G730s and G731s were supplied to cater for any further loudspeaker requirements, which Glantre converted into powered units for portability by the addition of their own custom power amplifier modules. The system is driven by a combination of five C Audio SR 404 and three SR707 dual power amplifiers which are housed in an amplifier room to one side of the proscenium arch at auditorium bridge level, along with nine ART programmable equalisers used for setting the system equalisation. These are remotely controlled from the control room at the rear of the stalls by a master station via a MIDI link.

The IEQ controller for the programmable equalisers is lodged in the control room, as are two Audio Logic SC31 graphic equalisers and ADD-2 digital room delays from Audio Digital. Controlling the mix is a modified 24 channel Allen & Heath Saber Plus PA mixing console. A larger than standard frame was used in order to create space for a custom control panel to be inserted containing the remote controls for the two Revox tape machines, a Tascam CD player and cassette deck.

Glantre also fitted a dual ring intercom and cue-light stations. Other modifications include the replacement of A&H's standard faders with Penny and Giles conductive faders, and the adaptation of the PFL monitoring facility to allow the operator to listen to PFL in one ear and the ring intercom in the other of the dual muff headset.

Glantre have supplied multicore cables, connected to a panel at the base of the equipment rack housing the main 16 row patch panel, to allow the desk to be used either in the control room or at the rear of the stalls. In addition to the mixer connections the main audio patch panel has 144 microphone lines and 35 line level loudspeaker lines to sound socket boxes, inputs and outputs to source equipment such as tape decks and various inter rack tielines.

Local signal processing in the form of two 31 band graphic equalisers, and two audio distribution amplifiers are also on the patch



Allen & Heath's Saber Plus PA mixing console slightly modified for use at The Swan by Glantre.



Compulite's Applause console in what was intended to be the projection room.

panel. The Saber console has eight matrix outputs and four of these are used to drive the main auditorium speaker system. A two ring intercom system with over 90 socket outlets around the theatre provide some means of voice communication, with a 15 station performance telephone system available for point to point communication between technical areas.

The stage managers desk can be plugged on either side of stage or at the rear of the stalls. It is equipped with cuelights, intercom, paging and pushbuttons for bar bells and buzzers. Intercom calls may be made using the intercom headset or using a hand-held microphone. A small rehearsal desk has similar but limited facilities on it including ring intercom, cuelight mastering and working lights master control, and may also be connected to any of the three points above.

An infra red system for the hard of hearing is provided using six Sennheiser infra red radiators fed by two show relay microphones.

As mentioned earlier the reflections from the very light finishes in the auditorium allow good coverage of the signal with no noticeable loss throughout the auditorium. The system may be expanded in the future for use as a simultaneous translation system.

There is also a Shuttleound ACS system to assist the compromise between speech and music. The venue is essentially good for speech, so any compromises to be made are at the music end.

What is fascinating about the Swan as you wander round the technical areas, are the carefully thought out details, none of them highly technological, but nevertheless, almost as important as all the wizardry which takes the credit. For instance Carr and Angier have designed the fly galleries so that there are no vertical members hanging, which is of course, popular with the flymen, but not the structural engineers.

There are hinged kick-boards in the galleries (now part of the ABTT rules), to aid access to hanging lamps, but at the same time prevent small objects falling to the stage below; concrete coverings on the walkways for hushed offstage promenades, and, an almost perfect copy of the now obsolete Strand Junior footlight, suspended upside down to act as lighting for the fly galleries.



Green Ginger wallrack dimmers.

In addition to that which is to be found in the Swan itself, there is technical innovation at work in the adjoining Town Hall which, having undergone a major facelift, has now been transformed from its former mantle - a once grim civic function-house - into an airy and flexible space that will work in tandem with the main theatre.

The installation comprises two JBL 4731A full range enclosures, two 4745A bass cabinets

and two 4716 mid/high boxes driven by two C Audio and two SR power amplifiers. Lighting-wise there is a team that is rarely seen together, namely Teatro luminaires, and six Martin Roboscans.

Lite Structures trussing is a permanent feature in the Town Hall and has become a design element rather than a functional hideaway. A Celco Pathfinder has also found its way into the equipment inventory, acting as control for the above lighting, the combination of which bodes well for a healthy interchange between disco, touring and theatre.

No doubt the Wycombe Swan will witness all three.

Cast List:

Architect/Quantity Surveyor:

Buckinghamshire County Council

Executive Architect:

Sheppard Robson

Theatre Consultants:

Carr & Angier

Structural and ME Engineer:

BDP

Production Lighting/Sound & Communications

Contractor:

Glantre Engineering

Stage Rigging Contractor:

Richmonds (who took over from other Kemp

Group contractors, Rae Stage and Kemp

Engineers who are both in receivership).

Electrical Contractor:

Darke & Taylor, M&E

Acoustics:

Shuttlesound



**Midland
Theatre
Services**

for

lighting

sound

special effects

sales

service

hire

**Junction 1
Industrial Estate
Dartmouth Road
Smethwick
Birmingham B66 1AX**

Tel: 021 525 4545
Fax: 021 525 2413




Approved Contractor

HAPPY XMAS

and a

**PROSPEROUS NEW YEAR
WITH
TEATRO**




TEATRO Srl
via Inghilterra 2, 46042 Castel Goffredo (MN) Italy
Tel: (0) 376 780702 Fax: (0) 376 780888

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: 081-808-5005
Fax: 081-801-9851

**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 Chiswick showroom, from subtle backgrounds to fibre optic fireworks. Leaflets available.



Trade & Export call PAUL RAYMOND
Par Opti Projects Ltd
Unit 9 The Bell Industrial Estate
Cunnington Street, Chiswick Park, London W4 5EP
Telephone: 081-995 5179
Fax: 081-994 1102 Telex: 933718 PAROP G

SMOKE WITHOUT FIRE

Graham Walne Surveys the Latest Equipment

"If your taxi driver has grey hair, ask for the old Troxy Cinema Stepney, then sit back and listen to memories of one of the largest cine-variety theatres of the thirties. Younger drivers need to be asked for The London Opera Centre, Commercial Road, the building's function from 1963 until next year." This quotation is taken from an article I wrote in *Tab* in 1977 which chronicled my experiences lighting operas in the old cinema's vast auditorium. The article did not mention that the venue was almost on the bank of the Thames and, as was common in those days, the auditorium was frequently filled with haze as London's Pea Souper fog penetrated the building. So accustomed were we all to this, that it was unremarkable until one evening when it cleared. Suddenly, I couldn't see the light beams any more and everything looked boring and clean. The judicious use of the smoke machine rectified the situation. It was my first experience of the magic which this device can add to a performance.

The experience was not uncommon, and the then editor of *Tab*, Francis Reid, has retained the memory in the latest edition of his 'Stage Lighting Handbook' wherein he says: "No longer do we have the spectacle of the stage criss-crossed with stabbing searchlights on foggy evenings." Francis attributes this not so much to the Clean Air Act as "the increased prohibition of audience smoking and the advent of air conditioning."

I'm not sure if anyone really knows when the smoke machine made the transition from producing smoke for its own sake (backing up say a flame effect), to generating a useful haze in which the light patterns became part of the design itself. Certainly, the concert/rock world built much of its early images on this technique. Patrons queuing hours to see their favourite group might literally not see them at all but hear them from within an immense cloud. Today the theatre and rock worlds are much closer as concert artistes are clinically highlighted by intense followspots. Theatrically, I would have thought Richard Pilbrow would have to be one of the first lighting designers to use lightbeams as part of the design. His lighting for 'Blitz' in 1962 made considerable use of 24v beamlights whose patterns in the smoke perfectly complemented the painted clerestories in the backcloth.

One drawback of using smoke to enhance the lightbeams is the question of maintaining consistency for the required period. Early machines were unable to do this and



Le Maitre's Powermist.

consequently audiences were treated to growing clarity during the scenes. This also presented a problem for lighting designers as light levels increased once there was no smoke to absorb them. Like most problems this one is not new and writing in his classic lighting book in 1932 Stanley McCandless remarked on the need for smoke or moisture to reflect the light. Early experiments with moisture perhaps reached their height with Svoboda's light curtains whose beams were enhanced by sprays of water and oil. This again finds a contemporary equivalent in the use of cracked oil machines where moisture, not smoke, is the reflectant.

I haven't used cracked oil but presumably this also avoids problems with smoke detectors. I recall lighting an opera in a new theatre which had been built as part of an office block. We were the first company to use smoke in the building and so tested it at an early rehearsal and warned the security that the theatre's smoke detectors might go off. They didn't. However, about half an hour later, the ones on the eighth floor did because apparently the heating and ventilation system was interconnected. So, please test your smoke well

in advance and ensure that all the auditorium air handling plant is working. If outdoors, find out what the prevailing wind direction is and plan accordingly.

Today, smoke machines, and I use that term as a generic for all the foggers and dry icers too, are considerably sophisticated by comparison to the smoke box which was around when I began my professional life 25 years ago. This device contained an element below a tray onto which smoke powder was scattered. It worked but was very difficult to time.

Perhaps it was always so. That historical lighting bible, Terence Rees' 'Theatre Lighting in the Age of Gas' tells us that William Randle, who was employed at the Princess's Theatre in 1863, described himself as 'an artist in fireworks' and was so credited by The Daily Telegraph no less. Randle, and his rival Thomas Newbiggin, used coloured smoke to signify different effects. Red, white, green, blue, yellow, crimson, lilac and purple were all ready available according to which ingredients were used. Newbiggin however added "on no account should chlorate of potash be ground along with the sulphur, as ignition . . . might ensue."



The Rosco 1000.



Martin's Junior 700 fogger.



The Heavy Fog 1500 with ZR410 from JEM.



The Scotty, manufactured by the Smoke Factory and handled by M&M.

Real flames were regularly employed in the last century to prevent actual fire or to produce smoke and unsurprisingly, many theatres burned down and audiences complained that reality was being taken too far. French theatres seem to have fared better because firemen stood by in the wings with hoses at the ready. Elsewhere in Europe Richard Wagner tried to substitute steam but the noise was too intrusive although at Covent Garden a traction engine standing in Floral Street was used successfully. Finally, Mr Rees tells us that as audiences became increasingly sophisticated, coloured fire became a joke effect and was seldom used.

Theatre certainly has a continuum in its skills and techniques. For example, 'The Stage' newspaper recently carried an article by 'Smoke man' who had apparently spoken at a conference in the year 2025. He was described as the leading British smoke designer, an

occupation which he said did not exist until the 1990s (clearly he hadn't read Mr Rees' book) but it was not until 2005, a breakthrough year, that the 'first smoke designer credits appeared (for once London coming in ahead of Broadway). There was even mention that PLASA had become PLASSA, the Professional Lighting Sound and Smoke Association. Ridiculous? There's no smoke without fire . . . or is there?

The Survey Itself . . .

We sent questionnaires (twice!) to 19 companies whom we considered were either manufacturers or agents for smoke machines. Our survey includes responses from 13 of those companies (three others said they were no longer involved in this area). The forms comprised the following questions.

1. The name of your company as you want it to

appear.

2. The brand name of the machine in question.

3. Please indicate whether you are the manufacturer of the machine or the agent/distributor.

4. Is the machine suitable for battery operation?

5. If yes, does the machine come with a recharging unit?

6. What mains voltage does the machine require?

7. What is the power of machine in watts?

8. What is the warm-up time?

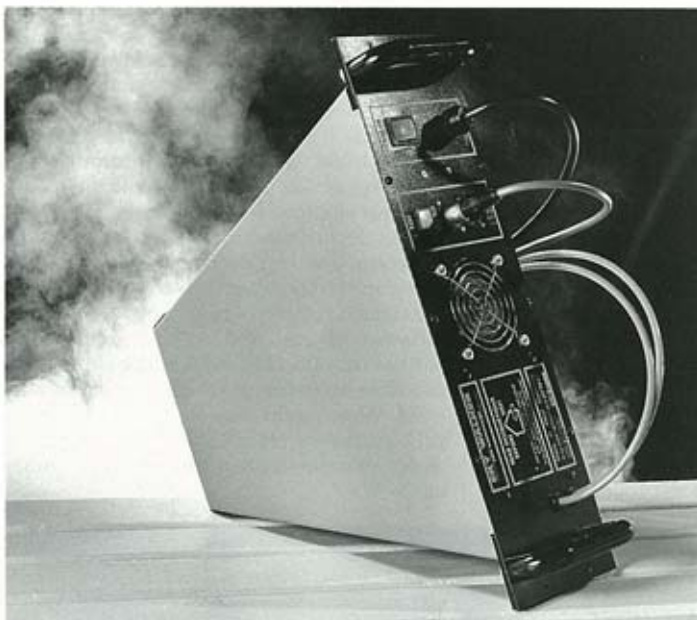
9. Is a radio remote available?

10. Can the remote be operated through lighting control systems?

11. Does the remote control speed, intensity and on/off?

12. For how long can the machine continuously produce smoke?

13. What is the fog output in cubic feet per



The Fire behind the smoke

For more details, please contact M & M Lighting Limited, Unit 2, Cameron House, 12 Castlehaven Road, London NW18QW. Telephone 071 284 2504. Fax 071 284 2503.

SMOKE FACTORY FROM **M&M**

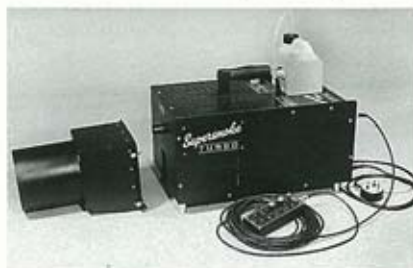
What will they think of next?



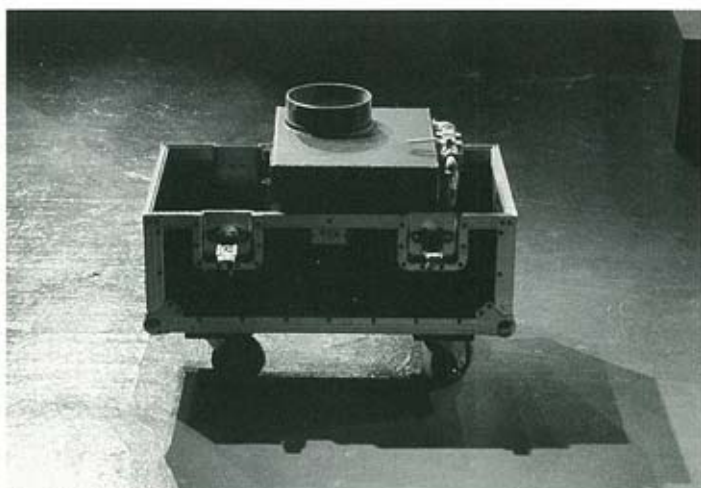
NEW

SUPERSMOKE 3000 TURBO

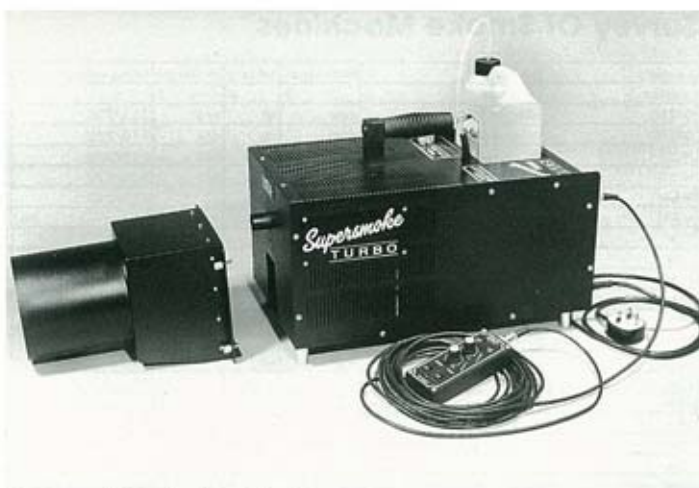
Experience the performance of this superb new machine - with conventional or 'air boost' operation, independently controlled via a 0-10v remote. Like all our products, the Turbo 3000 is built to a high standard. Distributor and export enquiries welcome.



UNIT 43, BARNS COURT, TURNERS HILL, ROAD,
CRAWLEY DOWN, WEST SUSSEX RH10 4HQ.
TEL: (0342) 718399



Cirrolite's Cirrus.



Supersmoke Turbo from The Effects Co.

minute?

14. How many nozzles does the machine have?

15. What is the maximum length of hose supplied?

16. Is the machine described as 'low noise' or similar in your literature?

17. How many types of fluid will the machine accept? i.e. short-lasting/longer-lasting/cracked oil.

18. What is the fluid consumption in litres per hour?

19. Can the fluid be fed from a source external to the machine?

20. Does the fluid come in scented varieties?

21. Can the machines be attached easily to a dry ice/low smoke machine?

22. Have any awards or national/international tests been carried out on your product? If so what?

23. Weight.

24. Is a flight case available for the machine?

25. UK list price for the machine.

26. List any extra items not included in the basic price.

The tables show the replies - which have only been edited in a few cases where space was at a premium; otherwise spaces have been left blank where the questions were unanswered.

In considering the performance of machines perhaps it would be first useful to appreciate how one works . . . basically oil is injected into a coil under pressure. This oil is then vaporised by heat generated from an element around which the coil is wrapped. Some combustion takes place but since insufficient oxygen is present for full combustion only smoke is produced. Hopefully, the output figures of the machines will be some guide. Lightwave Research did not answer this question and said "there is no international standard for

measuring this parameter." Nevertheless, I have tried to tabulate the volume produced at full output with continuous running. Note that some machines understandably have a very high consumption of fluid at full output (and note that different manufacturers use different time scales for this section). Many machines can have remote tanks which means that they can operate practically without limit. Remote control is also listed both for radio and lighting control which here is assumed to be 0-10. The survey also shows what facilities the remote offers. M & M also offer Time Warp which can be programmed to give intermittent bursts at regular intervals. I was pleased that the companies were honest about the noise levels, a vital factor on a small stage. Note also the weight of the larger machines which is considerable. Some machines are portable however and the M & M/Smoke Factory is

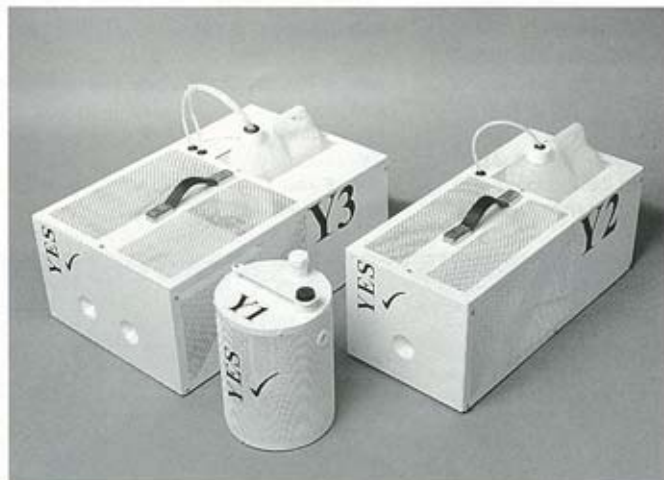
YES ✓

BRITISH BUILT FOG MACHINES!!!

UNBEATABLE PRICES!!!

LEADING EDGE TECHNOLOGY!!!

BACKED UP WITH A FIVE YEAR WARRANTY!!!



YES ✓

**Greenhill, Wootton Bassett,
Wiltshire SN4 8EH.**

Tel: (0793) 771916 Fax: (0793) 772574

Distribution by:

AUSTRALIA: L.A.V.A. AUSTRALIA PTY LTD

P O Box 551, Gladesville NSW 2111, Australia

Tel: (02) 816 4444 Fax: (02) 879 7377

BELGIUM: BVBA LIGHT TECHNOLOGY SPRL

Weefstraat 17, 9810 Eke, Belgium.

Tel: (32) 91 85 6831 Fax: (32) 91 85 5265

FRANCE: S.E.D. FRANCE

30 Rue De L'Ancienne Passerelle, F 59590, Raismes, France.

Tel (33) 27 25 4838 Fax: (33) 27 25 4839

IRELAND: CONTINENTAL LASERS (UK) LTD

Unit B105 Portview Trade Centre, 310 Newtownards Road,

Belfast BT4 1HE.

Tel (44) 232 458658 Fax: (44) 232 458658

GERMANY: MvM FOGMACHINES & FOG FLUIDS

Nachtigallenweg 6, D-5463 Unkel, Germany.

Tel: (49) 2224 78838 Fax: (49) 2224 73572

NETHERLANDS: JAC VAN HAM

Geluid & Beeld BV, Kraaivenstraat 13, 5048 Tilburg, Netherlands

Tel: (31) 13 638585 Fax: (31) 13 638435

SWEDEN: BELLALITE LJUSDESIGN AB

Morners Vag 122, S352 46 Vaxjo, Sweden

Tel: (46) 470 14600 Fax: (46) 470 47662

UNITED KINGDOM: J.Y.G. LTD [Main UK Distributor]

Unit D10, The Seedbed Centre, Romford, Essex RM7 0AZ

Tel: (0708) 762696 Fax: (0708) 732291

UNITED STATES OF AMERICA: CELCO INC

80 Sea Lane, Farmingdale NY 11735, U.S.A.

Tel: 516 249 3662 Fax: 516 753 1020

DISTRIBUTION IN OTHER COUNTRIES WELCOMED.

Survey Of Smoke Machines

company	product	man/agent	battery	recharger	mains voltage	power watts	warm up	radio rem	rem/light	functions	continuous	output cu ft	nozzles
question 1	2	3	4	5	6	7	8	9	10	11	12	13	14
OPTEC	Blizzard 2	man	no	n/a	110/220	1kw	8 min	yes	yes	all	3 min	15k	1
OPTEC	Blizzard	man	no	n/a	110/220	1kw	10 min	no	n/a	all	3 min	15k	2
NESS	E2 Junior	man	no	n/a	110/220	700w	2 min	no	n/a	on/off	1 min	1k	1
NESS	E2 Fogger	man	no	n/a	110/220	1kw	5 min	no		on/off	2 min	2k	1
M&M	Smoke factory	agent	no		220/240	3kw	4 min	yes	yes	all			2
M&M	Smoke factory	agent	yes	yes	240	100 w	5 min	yes	yes	all	30 min on batt.		1
SGM	Varismoke	man	no		110/220	1k8w	3 min	yes	yes	all	minw/max 45 sec	100 sq mt	1
JEM	ZR20	man	no		110/220/240	1kw	10 min	no	yes	time, on/off	45 sec	14k	1
JEM	ZR41D	man	no		208 or 220/240	2k5w/5kw	10 min	no	yes	all	continuous on 5kw	40k c ft/m	1
JEM	Club 20	man	no		110 or 220/240	1kw	10 min	no	yes	time, on/off	45 sec	14k c ft/m	1
JEM	Smoke Detector	man	no		110 or 220/240	1kw	10 min	no	yes	all	45 sec	14k c ft/m	1
JEM	Habana	man	no		110 or 220/240	1kw	10 min	no	yes	time, on/off	45 sec	14k c ft/m	1
JEM	Le Fog	man	no		110 or 220/240	1kw	10 min	no	yes	time, on/off	45 sec	12k c ft/m	1
JEM	Fogger	man	no		110 or 220/240	750w	10 min	no	yes	output/on/off	45 on full	10k c ft/m	1
JEM	428 System	man	no		110 or 220/240	1kw/head	10 min	no	yes	time, on/off	45 sec/head (8 max)	14 c ft/m/head	1/head
JEM	Roadie	man	no		208 or 220/240	10kw	10 min	no	yes	time, on/off	1-2 min	200k c ft/m	4
JEM	Heavy Fog 1000	man	no		110 or 220/240	3kw	15 min	no	yes	time, on/off	45 sec	10k c ft/m	1
JEM	Heavy Fog 1500	man	no		208 or 220/240	2k5 run, 16a start	15 min	no	yes	time, on/off	continuous + smoke	60k c ft/m	1
JEM	Heavy Fog 2500	man	no		208 or 220/240	7k5 running	15 min	no	yes	time, on/off	continuous	40k c ft/m	1
JEM	Heavy Fog 6500	man	no		208 or 220/240	12k5run/1/3 phase	15 min	no	yes	time, on/off	continuous	70k c ft/m	1
JEM	Water Cracker	man	no		110 or 220/240	1kw	none	no		on/off	continuous	10k c ft/m	1
CIRROLITE	Cirrus	agent	no		110/220/240	1.1kw	none	yes	yes	on/off	continuous		1
ROSCOLAB	Rosco 4500	man	no		110/240	3kw	5/10 min	no	yes	yes	varies with output	c 4k5 c ft/m	3
ROSCOLAB	Rosco 1500	man	no		110/240	1kw	5 min	no	yes	yes	varies with output	c 1k5 c ft/m	1
ROSCOLAB	Rosco 1000	man	no		110/240	250w	65 sec	no	yes	no	varies with output	c 1k c ft/m	1
ROSCOLAB	Rosco PF1240	man	no		110/240	250w	65 sec	no	yes	yes	varies with output	c 1k24 c ft/m	1
SAFEX-CHEMIE	Safex Fog Grtrr	man	no		230/110	3kw max (3 models)	8/9 min	yes	yes	yes	high/3_med/no limit	4k5 c ft/min	1
LE MAITRE	Showmist	man	yes	yes	variable	3kw	1 min	yes	yes	variable	indefinitely	400k c ft min	6
EFFECTS COMPANY	Supersmoke 1000 (pump)	man	no		110/240	1k2w	7 min	no	yes	yes	4.5/5 min	variable	1
EFFECTS COMPANY	ditto (aerosol)	man	no	no	110/240	1k2w	7 min	no	no		2/3 min	variable	1
EFFECTS COMPANY	Supersmoke 3000 Turbo	man	no		110/240	1k4w	7 min	no	yes	yes	4.5/5 min	variable	1
LIGHTWAVE RESEARCH	F100 Performance Smoke	man	no		100-120/200-240	1k5w	5.5 min	no	yes	yes	varies with output		1
YES	Y1	man	yes	no	110/220or220/240	750w	5 min	in 1993	no	no	40 seconds	700 c ft/min	1
YES	Y2	man	no		220/240or110/220	1k5w	7 min	in 1993	yes	yes	40 seconds	1500 c ft/min	1
YES	Y3	man	no		220/240or110/220	3kw	7 min	in 1993	yes	yes	45 seconds	4500 c ft/min	1
MARTIN PROF UK	Martin Magnum 1200	man	no		240	1k2w	1-2 min	no	yes	yes	unknown	unknown	1
MARTIN PROF UK	Martin Junior 700	man	no		240	2k4w	1 min	no	yes	yes	unknown	unknown	1
MARTIN PROF UK	Martin Magnum 1600	man	no		240	1k6w	5-6 min	no	yes	yes	unknown	unknown	1

battery operated.

The Yes company pointed out that the questions omitted to ask for a country of origin which they felt could be useful to highlight machines made in circumstances where safety checks were minimal. Most companies however do have safety test information available and notably Yes listed nine separate organisation checks which is why the table says 'too many too list'.

Rosco's fluid is well know for its Academy Award, a fact useful to me on one occasion when I was trying to persuade opera singers to endure it. Smoke fluid used to leave terrible deposits on costumes and scenery and especially on the floor where it was dangerous. Considerable improvements have been made in recent years and modest use will not present any problems. Jem also note that their Water Cracker does not leave a deposit "unlike existing cracked oil". Safex's machines also used water-based fluid. Please note that whilst only two pure cracked oil machines are listed, the SGM Varismoke is also listed as taking cracked oil and most of the Jem range will

produce haze; see also their Water Cracker. Jem also produce a range of coloured smoke as do Blakes Fireworks and Le Maitre. In response to the question about scented smoke Lightwave Research pointed out that all scents and colouring agents are carbon based, which is known to produce stubborn residues that will lead to premature failure of the heat exchangers via the blockage.

In this regard it is also worth noting that PLASA has published some initial research on smoke machines and plan to publish a safety code in the near future. Finally, take note of A & B's award winning dry-ice maker which without battery or mains can produce blocks in 40-60 seconds.

The notes which accompany the table relate to Jem machines and are as follows:

note 1 This is a split version of the ZR20 allowing the smoke head to be mounted a distance from the fluid tank. Two heads may be run from one tank unit.

note 2 This is a split version of the ZR20 allowing the smoke head to be mounted at a distance from the fluid tank. System

incorporates an infra-red sensor system to maintain preset smoke density.

note 3 This is a compact version of the ZR20 allowing the use of either fluid bottles or aerosols for low noise.

note 4 This is an aerosol machine which, in the standard version, allows operation while hot whilst unplugged from the mains.

note 5 This is a fully modular system designed for permanent installation. Up to eight individually controlled heads may be run from the comprehensive programmable controller. All heads connect to a central 50 lt tank.

note 6 This is a very high output machine fitted with a powerful fan capable of throwing the smoke up to 100 feet.

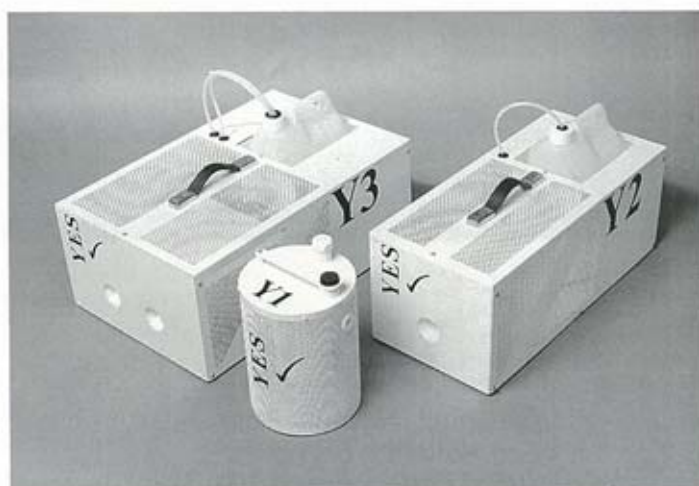
note 7 This is the smallest Heavy Fog machine and represents the most achievable from a 13A plug.

note 8 This is a stand-alone Heavy Fog chiller unit and needs to be used with one or two conventional Jem machines such as ZR20 or ZR41D.

note 9 This Heavy Fog machine is completely self-contained.



E-2 fogger from Ness.



The Yes range of smoke products.

hose length	low noise	fluid	consumption	ext fluid	scented	dry ice	awards	weight	flight	price £	excludes	notes	product
15	16	17	18	19	20	21		22	23	24	25	26	
	yes	light/heavy		no	yes	yes	n/a	14 kg	no	310 bp	remote		Blizzard 2
n/a	yes	light/heavy		yes	yes	yes	n/a	14 kg	no	510 bp			Blizzard
n/a	yes	2 heavy/light		no	yes	yes	n/a	3 kg	no	150 bp			E2 Junior
n/a	yes	2 light/heavy		no	yes	no	n/a	5.5 kg	no	235 bp			E2 Fogger
n/a	yes	four types	0.5 litre ph	yes	yes	yes	UK tests	4 kg	yes	750	remote		Smoke factory
	yes	1	500 ml ph	yes	no	yes	UK tests	2 kg	yes	650	remote		Smoke factory
	yes	short/long/cracked	1 tr ph	yes	1 only	no		9 kg	yes	615			Varismoke
5m	no	haze/std/long	5 lt/h at full	yes	14	yes	LFB &c	10 kg	yes	396	ducting adaptor		ZR20
5m	yes if low	haze/std/long	10 lt/h at full	yes	14	yes	LFB &c	18 kg	no	850	ducting adaptor		ZR410
5m	no	haze/std/long	5 lt/h at full	yes	14	no	LFB &c	12 kg	no	545	ducting adaptor	extra head.	note 1 Club 20
5m	no	haze/std/long	5 lt/h at full	yes	14	no	LFB &c	12 kg	no	656	ducting adaptor	extra head	note 2 Smoke Detector
5m	yes if low	as above + aerosols	5 lt/h at full	yes	14	yes	LFB &c	10 kg	no	425	ducting adaptor		note 3 Habana
5m	no	std/aerosols	4 lt/h at full	no	6	yes	LFB &c	7x5g	no	290	remote version	£348	note 4 Le Fog
n/a	yes if low	haze/std/long	3 lt/h at full	yes	14	no	LFB &c	6x5g	yes	228			Fogger
5m	no	haze/std/long	5 lt/h/head	yes	14	no	LFB &c	7x5g/head	no	2200	ducting adaptor	£346 each head	note 5 428 System
n/a	no	haze/std/long	30 lt/h at full	yes	14	no		160kg	own frame	3600			note 6 Roadie
n/a	no	all H/F quick to long	5 lt/h at full	yes	14	yes!		40 kg	yes	1290			note 7 Heavy Fog 1000
5m	no	all H/F quick to long	10 lt/h at full	yes	14	yes!		110kg	n/a	2990	ducting system		note 8 Heavy Fog 1500
5m	no	all H/F quick to long	10 lt/h at full	yes	14	yes!		110kg	n/a	3990	ducting system		note 9 Heavy Fog 2500
5m	no	all H/F quick to long	15 lt/h at full	yes	14	yes!		210 kg	own frame	4999	ducting system		note 10 Heavy Fog 6500
n/a	yes	aquahaze, not oil	1 lt/h at full	n/a	n/a	no		40 kg	own frame	1499			note 11 Water Cracker
n/a	yes	long/cracked oil	extremely low	no	no	no	coshh	80 kg	yes	poa	tba		Cirrus
4m	yes	all Rosco fluids	100 cc's/m	yes	yes	yes	MSDS/Academy	18x2g	yes	1025	ducting hose/adaptor, remote		Rosco 4500
4m	yes	all Rosco fluids	30 cc's/m	yes	yes	yes	MSDS/Academy	8x2g	yes	500	ducting hose/adaptor, remote		Rosco 1500
4m	yes	all Rosco fluids	20 cc's/m	yes	yes	yes	MSDS/Academy	7x37g	yes	325	ducting hose/adaptor, remote		Rosco 1000
4m	yes	all Rosco fluids	20 cc's/m	yes	yes	yes	MSDS/Academy	8x2g	yes	1300	ducting hose/adaptor, remote		Rosco PF1240
6m	regulable	7 types water fluid	145 ml/min (3k)	yes	yes	yes	tech oscar 1985	14kg	yes				SafexFog Gnrtr
12'	no noise	all types	maximum	yes	yes	yes	S.Africa award	8kg	yes	325			Showmist
10m avail	yes	haze/standard	variable	no	no	yes	yes	10.5kg	no	330	EC100/200 controllers,ducting adaptor & fluid		Supersmoke 1000 (pump)
10m avail	yes	aerosols	variable	no	no	yes	yes	11kg	no	350	ducting adaptor, 2" ducting		ditto (aerosol)
10m avail	yes	haze/standard	variable	no	no	yes	yes	18.5 kg	no	595	EC300T controller,ducting adaptors, fluid		Supersmoke 3000 Turbo
option	quiet	see note 12		yes	no	yes	MSDS	15kg	yes	US\$875	remote extensions & smoke distribution system		F100 Performance Smoke
no	no	Y1 long lasting	5 litres	yes	yes	no	too many to list	3k5g	yes	99.99			Y1
5m avail	no	short/long lasting	10 litres	yes	yes	yes	too many to list	12k5g	yes	355			Y2
5m avail	no	short/long lasting	20 litres	yes	yes	yes	too many to list	20k5g	yes	710			Y3
none	no	Martin only	0.12 Litre/ min	yes	yes	yes	Danish	8 kg	no	244.63			Martin Magnum 1200
none	no	Martin only	0.04 Litre/min	yes	yes	yes	Danish	7 kg	no	195.73			Martin Junior 700
none	no	Martin only	02 litre/min	yes	yes	yes	Danish	11 kg	no	342.51			Martin Magnum 1600

note 10 This Heavy Fog machine is completely self-contained and is the largest available. Also fitted with motorised louvres for wave, cloud and sea effects etc.

note 11 This is a completely new machine which produces a fine, almost invisible haze ideal for defining light beams. Unlike existing cracked oil machines, the Jem machine does not use oil so there is no build-up of deposit.

note 12 applies to Lightwave Research whose reply to the question about fluid types is as follows:

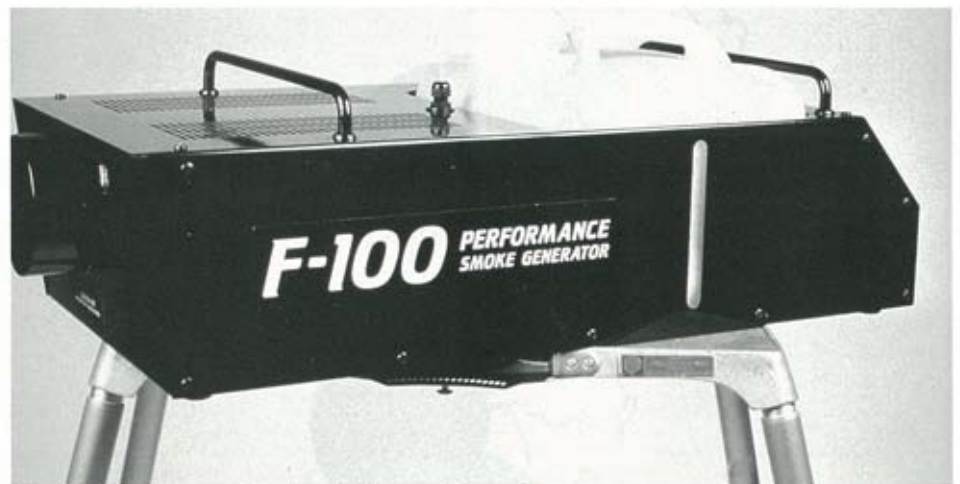
A) Atmosphere HQ - the original high quality formula. HQ provides an initially dense white cloud which gradually disperses into a long lasting fine mist used primarily as a lighting enhancement medium, HQ is capable of producing immense volumes making it the ideal formulation for large venues.

B) Atmospheres stage formula - this formula delivers a less dense initial medium creating only a fine mist.

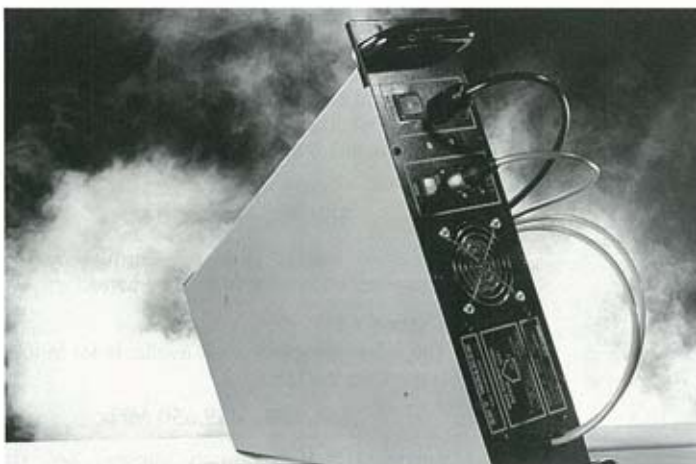
C) Cold flow formula - when used with the cold flow low lying smoke convertor manufactured by Lightwave Research, this formula produces a pure white low lying cloud effect which

dissipates as it begins to rise. The Cold Flow formula may also be ideal for applications which require a quickly dissipating medium such as film and television productions or fire and safety training.

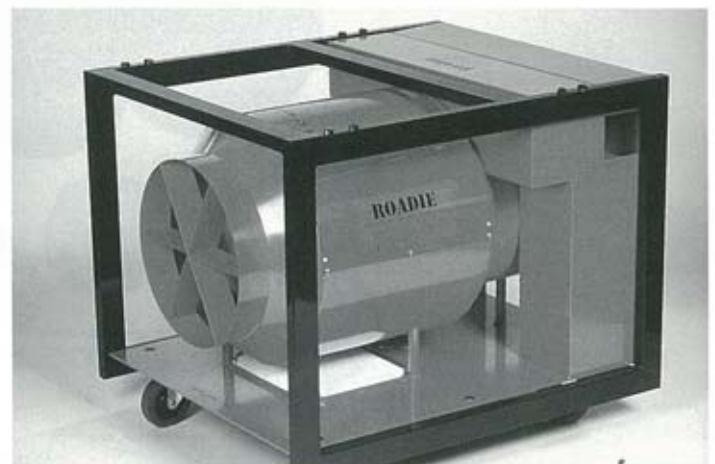
Lighting and Sound International will publish additional information from other manufacturers as it becomes available. Readers should note the ranges produced by Diffusion, Theatre Magic and Sapro.



The F-100 smoke generator from Lightwave Research.



The Smoke Factory's Skywalker.



JEM's Roadie.

RADIOMICROPHONE LICENSING

Brian Copsey on the UK Licensing Laws

The following information is based on the licensing aspects of radiomicrophones. Consultation with your supplier or manufacturer will be necessary to produce systems which will work without mutual interference.

Radiomicrophone licensing can be best considered in three separate but interlocking parts. These are: Fixed Sites, Deregulated Equipment and Regulated Equipment. In all cases an MPT type-approval is required for the equipment, to ensure that the radiomicrophones meet a minimum technical standard to guarantee non-interference with other users of radio equipment.

As well as the type-approval, the equipment **must** operate on the correct frequencies as listed in publication RA161* and RA162*. Note that many imported radiomicrophones have no type-approval number and operate on illegal frequencies. This creates two distinct problems, the first being that the equipment is illegal and the second being that the user and possibly others are subject to prosecution under the Wireless Telegraphy Act.

Penalties are a fine of up to £5,000 and/or six months imprisonment on summary conviction or on indictment an unlimited

fine and two years imprisonment and forfeiture of equipment. Immediate termination of use and confiscation of equipment are at the discretion of the Radio Investigation Service.

The second problem caused is that the frequencies used by imported equipment are often in use within the UK by other services such as the Cellular Telephone and Band Three radio. Whilst it is possible for radiomicrophones to interfere with these services, it is even more probable that these services will interfere with the radiomicrophone receivers, causing the transmission by the cellular system to be broadcast via the public address system to the audience. The result of constant interference with an artist's performance may initially be considered amusing by some of the audience, but it could equally result in crowd disturbance at some venues.

Fixed Sites

These are considered as structures with walls and a roof.

These licences are for the named building only and enable a range of channels to be used, dependent on geographical restrictions. Equipment must be type-approved to MPT 1350 and have a power output of a maximum

of 10mW for handheld or 50mW for body-worn equipment.

From 1st April 1993 the use of Channel 35 by the Fifth National Channel has caused rearrangement of frequency allocation. In general terms, major centres of population other than London, Birmingham and Cardiff will be unable to use Channel 35 and will have the use of Channel 69 frequencies as part of the fixed site licence (refer to accompanying map for more information). The system will take into account the site location when allocating licences.

Those areas still able to use Channel 35 may purchase an additional licence to cover Channel 69 frequencies at an extra cost of currently £90.00 per annum.

If the licence is taken out by the building owner or management company and a contract is in place with either of these parties, it is then valid for the contract holder and those under contract to perform on the licensed premises.

In many cases theatres or other venues have, for various reasons, chosen not to take out a licence for the premises. If another company or individual takes out a radiomicrophone licence for those premises the licence is only valid for that company and those under contract to it. Recent policy changes in frequency allocation have resulted in the major part of spectrum for indoor use of radiomicrophones being allocated in bands, designated by band edges, rather than the previous system of spot frequencies. This enables the manufacturer or supplier to select a band plan to obtain the maximum number of channels their equipment may operate on without mutual interference. This will also enable interleaved sets to be used in adjacent areas.

Major changes are as follows:

VHF spectrum available from 1/12/92
173.700 - 175.100 MHz

provided that all primary transmissions are contained within the frequency band, spot frequencies 176.400 and 177.00 are unchanged.

UHF Spectrum available from 1/12/92
Channel 22 - 24 available within 15 km radius of Ordnance Survey National Grid Reference TQ300805 (Charing Cross).

478.700	479.650	480.200
480.400	497.500	497.700
498.480	498.785	499.615
500.280	502.455	502.695 MHz

Channel 35

The following spectrum is available providing that the location is not within the radii of the exclusion zones shown on accompanying map plus 49N1302W12 Jersey (Channel Islands) for a radius of 1.0 Km.

583.355 - 586.835
588.300 - 589.250 MHz

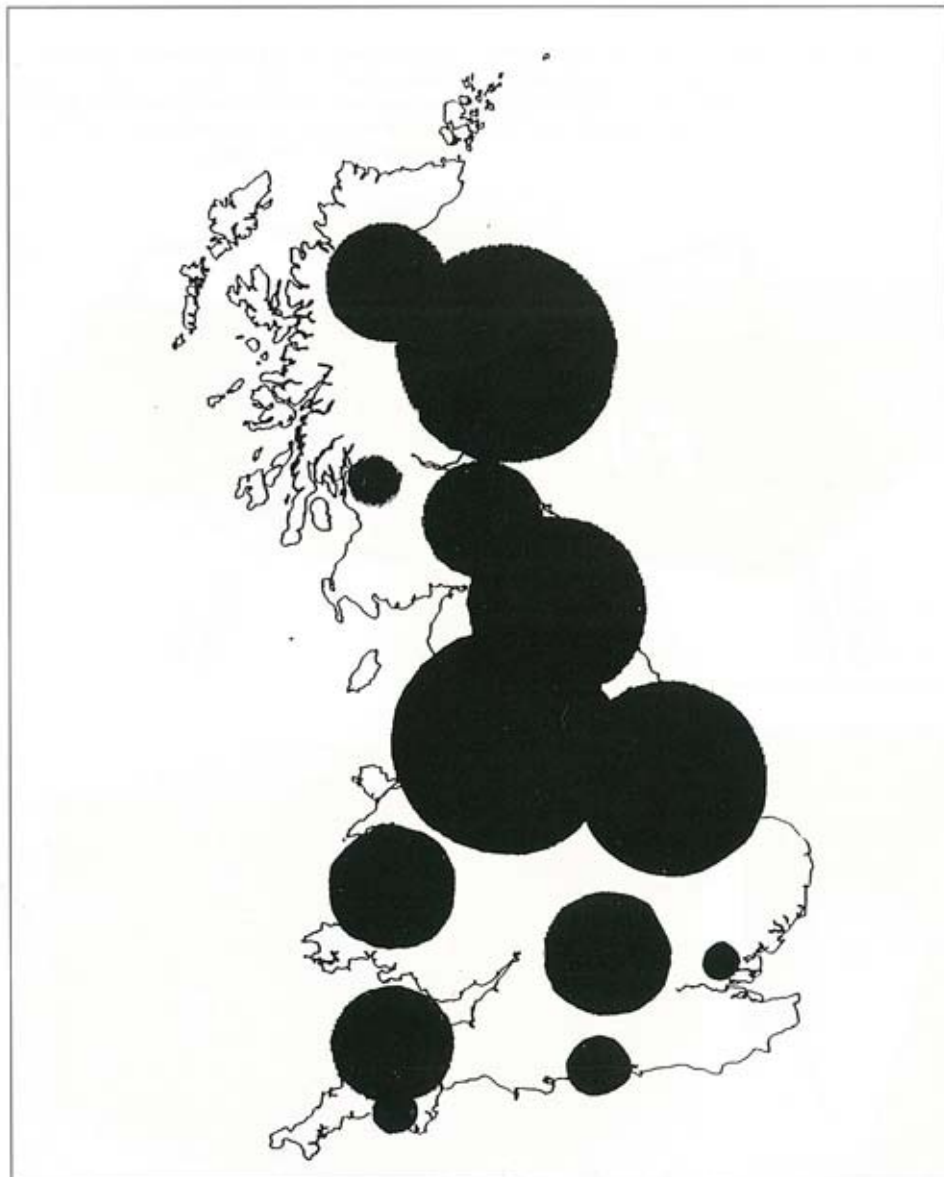
providing that all primary transmissions are contained within the frequency band.

Channel 69

The following spectrum is available for indoor use within the U.K.

856.100 - 859.650 MHz

providing that all primary transmissions are contained within the frequency band.



Map of Great Britain showing the exclusion zones for radiomicrophone use.

Radiomicrophones for use anywhere in the UK

Microphones on these frequencies may be used at a fixed site in addition to or in place of the frequencies allowed in RA 161*.

Deregulated equipment

This equipment operates on a maximum of 2 mW erp (as opposed to 10 mW handheld or 50 mW body-worn for licensed equipment) and must be type-approved to MPT 1311 or 1345. The following spot frequencies must be used: 173.800, 174.100, 174.500, 174.800 and 175.00 MHz. No licence is required. This type of microphone has many thousands of users in pubs, clubs, amateur dramatics and churches throughout the UK.

Regulated Equipment

This equipment must operate to MPT 1350 with a maximum power output of 10 mW handheld and 50 mW body-worn. 10 frequencies are available and are licensed on an individual frequency basis. Each frequency currently costs £100.00 per annum (1992) which gives the licence holder the ability to use as many radiomicrophones simultaneously throughout the country as he may require. These frequencies are also available from some Hire Companies who hold the appropriate licence and will issue a free permit (Sap 10*) to the hirer.

191.900	200.300	208.300
216.100	854.900	855.275
855.900	860.400	860.900
861.750 MHz		

In addition to the 10 frequencies on an annual licence, one frequency 199.7MHz is available as a high power (1 watt) radio-

microphone or audio link frequency on a seven day licence at £40.00 per seven days. (1992)

Additional Frequencies available from ASP FM

ASP FM was set up to provide a quick and simple method of licensing exclusive radio frequencies for the entertainment industry.

The spectrum available is split into two separate licensing types. These are:

- 1) annual licences such as radiomicrophones and talkback systems for theatres and other fixed sites.
- 2) frequencies for short term use which are booked in multiples of seven days. These frequencies may be used for constant-carrier talkback systems, high quality audio links, vision links and similar activities.

Frequencies available are booked on a first-come first-served basis on the computer system which sterilises an area around a

licensed site giving exclusive use of the frequency for the duration of the licence.

Further details are available in RA 161* and RA 159* or by telephoning 0296 770458 to discuss your licensing requirement.

Brian Copey is a company secretary at ASP FM who administer licensing on behalf of the Radio Communications Agency, and was part of the Radio Mics & The Radio Communications Agency panel for the PLASA Light and Sound Show Seminars which took place at Earls Court 2 in September of this year.

*all information sheets are available from
ASP FM Ltd
Edgcott House,
Lawn Hill, Edgcott,
Nr Aylesbury,
Bucks HP18 0QW
Tel (0296) 770458
Fax (0296) 770423

English Spoken Here.

Laser technology is complex, but hiring it needn't be. In plain English we'll discuss what The London Laser Company can do for you; and we will deliver, because we have a vested interest in your success. For friendly advice - in English - just call us.

CONFERENCES
 EXHIBITIONS
 PRODUCT LAUNCH
 TV & FILM

LONDON LASER
Company

UNIT 5, 4A MANORGATE ROAD, KINGSTON, SURREY, KT2 7AW TEL. 081 - 974 6175

WARNING: USING AN ILLEGAL, UNAPPROVED RADIO MICROPHONE MAY SERIOUSLY DAMAGE YOUR BANK BALANCE AND/OR YOUR FREEDOM



FOR FURTHER INFORMATION ON OUR RANGE OF DTI APPROVED RADIO MICROPHONES PLEASE CONTACT :-

TRANTEC
S Y S T E M S

30Wates Way, Willow lane, Mitcham, Surrey CR4 4HR
 TEL : 081-640 0822 FAX 081-640 4896

Turbosound Musician Series



Turbosound has introduced the Musician Series, a new line of compact speaker systems. Comprising the TM-101, TM-102 and the TM-105, the range has been designed primarily for use as a portable PA system.

The TM-101 is a full range/mid high enclosure employing a specially developed Precision Devices 10" low-frequency driver matched with a 1" high-frequency compression driver in a ported trapezoidal enclosure. Power rating is 150 watts RMS. The TM-102 features the same design as the TM-101, but employs a larger 12" Precision Devices low frequency driver and has an increased power rating of 200 watts RMS. The TM-105 is a low frequency unit that may be used in conjunction with the TM-101 or TM-102 to create a three-way system and provide further low-end response. The TM-105 has a power rating of 300 watts RMS and uses a Precision Devices low frequency driver in an optimally tuned ported enclosure of compact dimensions. The trapezoidal shape of the cabinets allows them to be stacked or flown together in arrays.

For further details contact Turbosound in Partridge Green, telephone (0403) 711447.

Flight Cases for Tannoy

Custom-built flight cases for Tannoy's PBM6.5 loudspeakers are now available from Trifibre Containers. After repeated calls from producing studios, the aluminium cases were designed and put into production with the idea of withstanding tough transportation handling. Padded nylon bags are also available.

Contact Trifibre in Leicester on 0533-538366.

A & H Total Control

Allen & Heath have introduced a software update for their GS3 Series Studio consoles. 'Total Control' is the name given to the latest development of console-to-MIDI integration where the console's mute automation key functions are accessible to external devices in real time via MIDI.

With 'Total Control' the console mute sequencer is controllable from a synthesiser keyboard or sequencer, making fully bi-directional programmable control available for the first time. GS3 owners in possession of consoles below the serial number 571411 can obtain 'Total Control' free of charge on request from their dealer. Allen & Heath's GS3V automated console, includes all the features of 'Total Control'.

For further details contact Harman Audio in Slough, telephone (0753) 576911.

Yet More from Canford

Three more products have been added to Canford Audio's giant range: Peerless television mounts, Coles 4101 microphones and SQJ series cable.

The Peerless range offers a comprehensive range of television monitor mounts for both wall and ceiling. A steady stream of enquiries led to the decision to include the legendary Coles 4038 studio ribbon microphone and the 4101 'lip' microphone into the range. The SQJ series is a flexible multi 'starquad' cable suitable for all microphone and line level applications which offers a high level of immunity to external noise.

For details on all products and/or a copy of the massive Canford catalogue call 091-415 0205.

Rosco E Colour

Rosco have launched a brand new international filter range. Called E-Colour, the range comprises a complete selection of correction and effects colours, and consists of 24 colour correction filters for balancing different light sources, 15 diffusion materials, four relection materials and 71 colour effects filters. The E-Colour range is available in 48" x 25' rolls as well as 20" x 24" sheets and complies with the new BS3944 standard.

For a free swatch book and further details, contact Rosco in London on 081-659 2300.

ETR's LC-4-P Control



ETR Lighting of Switzerland's new LC-P-4 unit is a four channel lighting controller with built-in power pack, switching 1000W per channel. Connected to standard 240v mains, the manufacturers recommend it as an ideal controller on stage for small stage and medium bands and entertainers. It has a foot control with eight foot switches controlling all functions.

Functions comprise a chaser with selectable direction, and control of the chaser by the oscillator or an audio-signal using either the built-in microphone or the external input. Two multicore outputs and a slave output make the connections with the lamps and additional power supply easy.

For details and list of special features contact ETR Lighting in Grafenort on (41) 41 652507.

Beyma High Power

Following the successful showing of the CP800Ti compression driver at PLASA, Beyma have launched an 18" G480 high power loudspeaker. The speaker is 800 watts and is fitted with a Double Spider 5" edgewound voicecoil.

For details contact Beyma in London, telephone 081-749 7887.

Electrosonic's Imagine

A new range of lighting control products - Imagine - has been launched by Electrosonic. The result of two year's work by a 12 strong team of development engineers, it builds on the success of the Electrosonic Sceneset concept.



The Imagine system with a close-up of the dimmer module below.



The heart of the system is a new ES9100 Sceneset unit which can control 128 dimmer channels over 1,024 scenes. Eight ES9100 units can run on one control bus giving a system capacity of 1,024 dimmers. The intelligent Imagine dimmer is suitable for all commonly encountered loads, including electronic transformers, and is designed to meet EN50 081-1 and 082-1 EMC standards. The all digital dimmer uses a powerful microprocessor that allows 12 bit firing resolution and provides complete load and thermal monitoring.

Both the Sceneset and the associated dimmers come in compact thermo-plastic housings. Each dimmer module contains two 20A dimmers, is only 211mm x 44mm x 219mm and weighs only 1.5kg. Bi-directional RS485 communication is used both between the Sceneset and its associated dimmers, and between the Sceneset and the new Scene Commander remote control panels. This allows distances of up to 1000m between the components of a complete system.

The various elements of the lighting scenes are programmed using either the hand-held Scenemaker or the computer-based Sceneplanner software. Either of these programming devices may be used off-site or in the lighting control room. Alternatively, it is also possible to programme the system at the installed position of the Sceneset unit. Neither the Scenemaker nor the Sceneplanner programming device is required to be present once the system has been programmed and the memory stored and copied into a Scenesoft smartcard. For further details ring Electrosonic in Dartford on (0322) 222211.

Litton Expand Capacity

Litton Interconnection Products has announced details of a new production facility for standard and custom-made cable assemblies for the lighting and sound equipment industries. This new capability comes in addition to the company's extensive connector ranges formulated for use in a variety of television, film, theatre and outdoor touring event applications.

By combining Litton's new cable harness service with the flexibility of its standard connector design and production facility, the company is able to supply complete standard connection systems incorporating cables, connectors and any customised fixings or harness components.

These products can be adapted to clients specific needs to provide individually tailored interconnection solutions. Litton say the service eliminates the need for clients to manufacture cable or harness assemblies.

With long experience in the industry has seen them work alongside operators and equipment manufacturers on the design of special connectors. They say that research into materials and their suitability coupled with up-to-date testing techniques has enabled the company to guarantee their products to an unprecedented level of operational safety and long term reliability.

For more information telephone Litton in Glenrothes on 0592-774018.

A-T Radio Mics



Two new DTI approved true VHF diversity radio microphone systems have been launched by Audio-Technica. The ATW systems (1235 and 1236) are billed as 'true pro products at very competitive prices'.

Designed by Audio-Technica's US laboratory, the new mics have been extensively road tested to ensure that the sound quality and real life performance are up to standard over the 60m minimum range. Low noise full diversity circuits and wide dynamic range companders ensure a clear stable low distortion signal with superb audio quality, say the company.

For full details contact Audio Technica in the UK on (0532) 771441.

Sound Out Psilentform

Useful for many areas of the music industry, 'Psilentform' is a new modular acoustic barrier system with a weighted sound reduction index, R_w , of 40dB. It was originally developed for the construction industry. It comes in the form of blocks size 600mm square by 300mm, each weighing 15 kilos, and they can be finished in colour of your choice. They are locked together by a tongue-and-groove system.

For more information telephone distributors Dovencote in Addenbury on 0295-810751.

Trantec Receivers



Mitcham-based Trantec Systems have added the S101 single channel VHF receiver to their range of radio microphone products. It features two LED bargraphs, for R.F. Carrier and audio levels, an HF boost switch, optional control relay output, balanced XLR and unbalanced jack outputs, very low spurious and harmonic radiation, multiple channel use, optional 19" rack mounting and operation between 11 and 18 volts DC.

Also from Trantec come three new versions of their hand-held transmitters, the S1XMTX, S158MTX and the S258MTX. The first is an omnidirectional hand-held unit ideal whilst the S158MTX and S258MTX are based on the standard S1MTX and S2MTX units but fitted with the Shure SM58 capsule and grille.

For full details call Trantec in Mitcham on 081-640 0822.

Simda Launch 3462

Paris-based Simda has announced full production of their 3462 projector, the successor to their 2200 unit. A prototype of the 3462 was first shown at Photokina in 1990.

The unit offers a 400W lamp, random access and RS232 interface and has built-in software that tests the unit before projection and continues to test and correct it throughout the entire projection period. Lamp voltage, for instance, is checked 50 times a second. The 3462 comes with two 36V 400W lamps and automatic lamp change. Lamp alignment and focus adjustment are possible without moving the projector, and is fitted with a 12 PIN DIN industry standard connector.

For details contact Alien Products in Surrey on 0932-872454.

Aviator's Special Faders

Control specialist Penny & Giles Studio Equipment has created a new, futuristic design of endless belt digital fader, which was unveiled on Celco's new Aviator lighting console at the PLASA Light & Sound Show. Featuring an optical quadrature encoder, connected to console's 32 bit transputers, the E-belt design allows fader positions to be stored with the highest level of accuracy.

Penny & Giles, part of Bowthorpe plc, completed the whole design, tooling, testing and manufacturing process within eight months of agreeing the final specification.

The E-belt incorporates an LED display mounted behind a translucent belt, through which the LEDs glow to indicate the current fader position. The visual impact of the device adds to the futuristic design of the Aviator console, which breaks completely away from the more traditional approach. An extremely high performance fader, with direct digital output, was required for the console, in support of its immense parallel processing power.

David Hoare, technical manager at Penny & Giles, explained the details. "Celco presented us with an exciting challenge, involving a significant evolution of our existing and larger endless belt design. Although the principle was the same as the earlier Penny & Giles product, Celco's specification resulted in developments in manufacturing technique, digital output technology and belt mechanics. We are delighted with the end product and very pleased at the level of positive response which Celco's new console received at the PLASA Show. The E-belt would appear to combine flexible ergonomics with excellent operator feedback - even in the dark!"

According to Penny & Giles considerable interest in the new design has been shown in the audio and video industries, particularly for use within automation systems.

For more details contact P & G in Gwent by telephoning (0495) 228000.

Knobs in Parts

The range of hand-wheels now available from Knobs Ltd of Walsall has been extended to include low-cost two-part components using thermoplastic mouldings with a lightly textured matt black finish. The wheels are designed for light/medium duty and have a nominal diameter of 50mm and can be delivered from stock in various threads and projections. They can also be supplied to order with special bolt lengths including threaded parts in stainless steel and other materials.

For full details contact Knobs Ltd in Walsall, telephone 0543-675500.



UNUSUAL
RIGGING
LIMITED

- Rigging and supply of equipment and personnel
- Design and manufacturing of specialised equipment
- Drafting services
- Permanent installations
- Consultancy and maintenance contracts
- Equipment rental
- Equipment sales

4 Dalston Gardens Stanmore

Middlesex HA7 1DA

Tel: 081-206 2733 Fax: 081-206 1432



Wilkes Iris Diaphragm Co Ltd

Wideo Works, London Road,
Bexhill-on-Sea, Sussex, England
Telephone: (0424) 217630
Fax: (0424) 215406

Wilkes know a thing or two about iris diaphragms - they have been manufacturing them for over a century. In recent years they have carried that wealth of expertise into the Theatre and TV markets, and now supply some of the industry's leading companies. Find out why by calling Wilkes today



Pro audio sales
System design
Installation
Export

0932-566777

041-810 3375

Scenist from Polaron



Compli integrated and discrete lighting control systems offer great flexibility whilst allowing creative design, say Watford-based distributors Polaron Controls.

The new Compli Scenist 2045 is a microprocessor-based programmable lighting controller with integral dimmers for the control of four separate lighting channels. Basic features include four complete 800W dimmers in one enclosure, two units can be programmed together to provide eight channels, any channel can be programmed to be non-dim, tungsten, tungsten LV and fluorescent loads are controllable, push button control of raise/lower with one-second to one-hour fades with instant override, alarm system input and electronic panel lock. Scene and raise/lower remotes are available.

Polaron Controls can be contacted on 0923-240272.

New Power Amplifiers from Court

Court Acoustics have promised a New Year launch of a power amplifier. According to the company, the PN2000 1000W + 1000W will incorporate some unique design features in a 2u case, weighing around 15kg, and it doesn't have a switching power supply.

It also features true power meters calibrated in 50 watt steps to 500 watts, or 100 watt steps to 1,000 watts depending on which mode is employed. The PN2000 is a universal amplifier, so it will replace all previous models.

Also from Court, their new ultra compact TR500 trapezoid two way system has some unusual features and a pair of these 'bookshelf' type speakers will handle around 1,000 watts!

For further details on Court Acoustics' products, contact them in Windsor, by telephoning (0753) 833524.

Topdeck

Based on an aluminium extrusion, Topdeck is a new medium duty portable stage system, measuring 8ft x 4ft and weighing 49kg and is only 3" high without legs. Accessories such as treads, hand rails and even lighting booms can be bolted anywhere along the side of the decks. The sides bolt into the corner castings which also grip the scaff tube legs.

For further details contact Mainstage in Manchester, telephone 061-834 8004.

Proscan from APG

Low-priced 'Proscan' scanner units have been launched onto the market by APG Design of Croydon. The system is fully controllable, in both horizontal and vertical axis, from any lighting boarding producing a standard plus or minus 0-10 volt analogue output. Servo motors are employed to produce high or low speed scans with a high degree of accuracy say APG.

The basic unit can also be mounted, via a G-clamp, in front of any existing lighting unit where the beam size fits within the scanner's 6" (15cm) mirror.

For full details contact APG Design in Croydon on 0426-959697.

Artistic Solution

Artistic Licence have developed Archive which allows a Q-Card to be copied to the hard disc on your PC, freeing the card for re-use. If the show normally stored on the Q-Card is needed again, Archive will copy it back to the Q-Card.

The unit also provides a unique annotation facility. Any show saved to disc can include a notes file, documenting the Q-Card contents.

Archive will run on any PC with E/VGA graphics and a spare slot for the Q-Card Reader. It will work with any Fujisoku compatible Q-Card which includes Celco, Jands and MA.

Further information and demonstration discs are available from Artistic Licence in London, telephone 081-961 9520.

Lasercool Chillers

A new range of Lasercool chiller units are available from Laser Production Network. They do away with the need for a mains water supply and are fully compatible with most commercial lasers available today, say the manufacturers. There are four units in the range.

For full details contact Laser Production Network in Miami, telephone (305) 754 6885.

High Power Amps from Crest

Crest Audio have introduced the 10001 and 10004 Professional Series Amplifiers. The 10001 is a two channel amplifier, capable of delivering 2,200 watts per channel into 4 ohms, and 3,500 into 2 ohms, 20Hz to 20kHz in a 4U rack format, whilst the 10004 is a four channel amplifier based on the same design, capable of delivering 1200 watts per channel into 4 ohms and 1400 into 2 ohms, 20Hz to 20kHz also in 4U.

Both amplifiers retain features such as IGM (Instantaneous Gain Modulation), clip limiting, auto ramp signal control, full thermal, DC and short circuit protection. Additionally, they incorporate surface mount technology that reduces circuit board size. Both amplifiers are compatible with NexSys, Crest's computer-based control, monitoring and diagnostic system.

For more details contact Crest in Hove, telephone (0273) 25840.

PSA Power Amps

Pic Systems Limited's new PSA power amplifier range has been developed for use in both installation and hire markets, with extensive field testing and objective listening tests in both areas. The company say their design team's objective was to provide a package of reliability, audio quality and a manufacturing standard unrivalled in the market place.

The range consists of PSA500/800/1000/1200/1600 and 2000 with the numbers relating to power rating both channels driven into four ohms. PSL has a 'continued improvement' policy with new products in the pipeline to be launched in 1993 and 1994.

For further information contact PSL in Bristol, telephone (0272) 790376.

19" Equipment Cases

CP Cases have launched an all-aluminium protective hand-carry case for 19" rack-mountable equipment. The 'Strato' is a cheaper and more functional unit than CP's now discontinued GRP glass fibre case. Finished in gunmetal grey, the Strato has removable front and back lids for easy access to equipment, key lockable catches, and an easy-grip and a steel-reinforced handle. Vertical racking and fixings are included.

For details contact CP Cases in Isleworth, telephone 081-568 1881.

POWER MIST

T U R B O

REMOTELY CONTROLLED FLUID SMOKE MACHINE



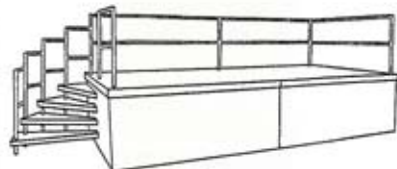
Probably the smallest high-powered unit on the market

- ▶ Hand-held remote
- ▶ Optional 'variflow' remote for variable smoke output
- ▶ Fail-safe shutdown
- ▶ Portakit available for ease of handling Powermist and its 5 litre fluid bottle

Le Maitre
lighting and effects

Le Maitre Lighting and Effects Ltd
316 Purley Way, Croydon, Surrey CR0 4XJ
Tel: 081-686 9258 Fax: 081-680 3743

ALISCAFF PORTABLE MODULAR STAGING SYSTEM



See us on stand 156 at Outdoor Event
Wembley 19-21st January 1993

Available for both hire and sale, the system offers a flexible, robust but lightweight solution for all your staging requirements. Standard deck units are 2.44M x 1.22M (8' x 4'), with legs available to give platform heights in increments of 200mm (8"). Each unit is rated at a S.W.L. of 1000 Kg with a safety factor of 3:1. Units can, if required, be custom-made to your requirements. Accessories include fascia, guardrails, ramps and both straight and spiral staircases. Canopies are available if required.

ALISCAFF LTD
Unit 2 Hotspur Ind Estate
West Road, Tottenham
London N17 0RJ
Tel: 081-808-5005 Fax: 081-801-9851

INTERNATIONAL DIRECTORY

World-wide contact information for import/export, concert touring, exhibitions, etc.

AUSTRALIA

L.S.C. ELECTRONICS P/L
4-6 Junction Road, Surrey Hills
Victoria, AUSTRALIA 3127
Tel: (61) 3 836 9111
Fax: (61) 3 830 5187

AUSTRIA

SYLVANIA
Special Products Group
Licht GmbH
Tel: (49) 9131 996 222 Fax: (49) 9131 996 418
MTEC Vertriebsges.m.b.H
Tel: (43) 7242 60 860 Fax: (43) 7242 60 740
LTV
Tel: (43) 222 83 81 27 Fax: (43) 222 84 87 43

LUDWIG PANI
A1070 Vienna, Kandlgasse 23
Tel: (1) 521 08-0 Fax: 526 4287
Range of follow-spots and projectors
Exclusive Agent for Strand

BELGIUM

SYLVANIA
Special Products Group
Sylvania N.V. SPSSG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
PPV Lighting N.V.
Tel: (32) 2 648 70 45 Fax: (32) 2 648 69 97
Luxillag
Tel: (32) 2 242 59 28 Fax: (32) 2 242 11 54
Masson-Dragnet N.V.
Tel: (32) 2 366 17 20 Fax: (32) 2 366 20 12
PPV Lighting N.V.
Tel: (32) 2 648 70 45 Fax: (32) 2 648 69 97

litestructures
Astralite Bilite Quatralite Minilite
LA ROY B.V.B.A. TEL 091 86 12 99

EVER RADIO VIOLETTE
Rue de Ribaucourt, 154-156, 1210 Brussels
Tel: (32) 2 428 31 00 Fax: (32) 2 428 21 65
Disco and stage equipment - Import and Export

Trilite
Tel: (02) 4283100 Fax: (02) 4282165

VARI*LITE
VARI-LITE BENELUX
Tel: (32) 16 80 83 11 Fax: (32) 16 60 88 61

CANADA

Trilite
Tel: (613) 836 5856 Fax: (613) 836 6491

DENMARK

SYLVANIA
Special Products Group
Sylvania N.V. SPSSG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
BICO A/S
Tel: (45) 42 84 54 45 Fax: (45) 42 84 20 55

FINLAND

EASTWAY
SHOW SERVICES OY/UTD
ATOMITIE 5 B HELSINKI
Tel: 358-0-503 1022 Fax: 358-0-503 1023
Professional lighting and sound equipment and services in a place you never thought they would appear. Thomas, Sky-Tracker, Celco, Avo, Verlinde, Yamaha, EV, JBL, etc.

TFP MARKKINOINTI OY
Import and Export of Lighting and Scenic Equipment. Exclusive distribution in Finland for Jands, CCI, Rosco and Tomcat. Always interested in new product ranges for theatre, concert and television.
Contact: Juha Ihanamaki, telephone INT +31-143993. Fax INT+31-133077. Address: Hatanpaanvaltie 4A, 33100 Tampere, Finland

SYLVANIA
Special Products Group
Sylvania N.V. SPSSG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Electro Power OY
Tel: 358 0 17 54 00 Fax: 358 0 65 93 95

FRANCE

litestructures
Astralite Bilite Quatralite Minilite
S.E.D. FRANCE TEL 27 25 48 38

Clay Paky and Pulsar Sarl
10 Avenue du Fresno, 14760 Bretteville sur Odon
Tel: (31) 741001

SYLVANIA
Special Products Group
Sylvania N.V. SPSSG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Loplux
Tel: (33) 1 34 10 43 43 Fax: (33) 1 34 10 49 63
ESL
Tel: (33) 67 69 27 17 Fax: (33) 67 69 00 89
Voit Image
Tel: (33) 1 30 86 21 75 Fax: (33) 1 39 14 63 16
Animation Lumineuse
Tel: (33) 1 64 56 03 40 Fax: (33) 1 64 56 06 04

VARI*LITE
VARI-LITE FRANCE
Tel: (33) 1 45 07 97 09 Fax: (33) 1 45 07 96 79

VARI*LITE
VARI-LITE FRANCE
Tel: (33) 1 45 07 97 09 Fax: (33) 1 45 07 96 79

Trilite
Tel 20 31 85 06 Fax 20 78 18 37

GERMANY

Clay Paky and Pulsar Vertriebs GmbH
An Der Talle 26, 4790 Paderborn
Tel: 05251/409051 Fax: 05251/409931

VARI*LITE
VARI-LITE GERMANY
Tel: (49) 221-582088 Fax: (49) 221-5801979

The complete range of professional lighting equipment for: Stage, Touring, Discotheque, Trade Shows and Exhibitions.
LMP Lichttechnik
Gildestraße 55 W-4530 Ibbenburen Germany
Telefon 05451 59000

AMPTOWN LICHTTECHNIK GmbH
Wandsbeker Str. 26, 2000 Hamburg 71
Tel: (49) 40-64600440
Fax: (49) 40-6412503

SYLVANIA
Special Products Group
Licht GmbH SPSSG
Tel: (49) 9131 99 62 22 Fax: (49) 9131 99 64 18
Coemar
Tel: (49) 731 60 12 05 Fax: (49) 732 62 852
Eckert Bühnenlicht
Tel: (49) 202 59 20 58 Fax: (49) 202 59 15 03
Feldmann
Tel: (49) 8142 53 037 Fax: (49) 8142 86 97
Haerle
Tel: (49) 7391 80 81 Fax: (49) 7391 55 21
Kobold Licht
Tel: (49) 8171 70 81 Fax: (49) 8171 20 367
Lightronik
Tel: (49) 40 85 60 41/2 Fax: (49) 40 851 27 09
LMP
Tel: (49) 5451 59 000 Fax: (49) 5451 59 00 59
LTM GmbH
Tel: (49) 221 49 10 23 Fax: (49) 221 49 10 25
Panther GmbH
Tel: (49) 89 613 10 07 Fax: (49) 89 613 10 00
Richard Schahl GmbH
Tel: (49) 89 79 70 97 Fax: (49) 89 791 16 72
Stellens Lighting GmbH
Tel: (49) 40 31 13 35 Fax: (49) 40 31 72 95
Steingke
Tel: (49) 931 46 971 Fax: (49) 931 46 58 88
Stiers GmbH
Tel: (49) 89 22 16 96 Fax: (49) 89 231 704 25

litestructures
Astralite Bilite Quatralite Minilite
LMP LICHTTECHNIK TEL 05451 59000

TOUR SERVICE LICHTDESIGN
Hanse Str. 9,
D-4800 Bielefeld 11
Tel: 0 5205 22 800 Fax: 0 5205 22 889
Concert, stage, TV and industrial lighting
Design and Production Services
Representative of PanCommand systems

Trilite
Tel: (0221) 534081 Fax: (0221) 534083

GREECE

SYLVANIA
Special Products Group
Sylvania N.V. SPSSG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Omikron
Tel: (30) 1 363 79 79 Fax: (30) 1 363 67 61

HONG KONG

VARI*LITE
VARI-LITE HONG KONG
Tel: (852) 715-7878 Fax: (852) 761-1593

ENGINEERING IMPACT LIMITED
6/E Bk 2, Tien Chu Cir.
IE Mok Cheong St. Kowloon
Tel: (852) 711-0222 Fax: (852) 761-0633

ITALY

SYLVANIA
Special Products Group
Sylvania N.V. SPSSG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Tecnitron Electronica
Tel: (39) 831 39 21 36 Fax: (39) 831 39 28 41
Teclumen srl
Tel: (39) 376 77 92 00 Fax: (39) 376 77 93 83

litestructures
Astralite Bilite Quatralite Minilite
SPOTLIGHT S.A.R.L. TEL 39 2 714078

TEATRO
Teatro Srl, via Inghilterra 2
46042 Castel Goffredo (MN), Italy
Tel: +39 (0)376 780702
Fax: +39 (0)376 780888
Manufacturers of stage lighting. Profile, fresnel, PC, flood, cyclorama, followspot
'With a touch of Italian elegance'

Trilite
Tel: (031) 773539 Fax: (031) 773798

JAPAN

litestructures
Astralite Bilite Quatralite Minilite
H.I.TO TEL 81 33 667 3268/9

NETHERLANDS

SYLVANIA
Special Products Group
Sylvania N.V. SPSSG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Ultrax Lamps Lighting B.V.
Tel: (31) 20 65 33 663 Fax: (31) 20 65 33 672

LIGHTING SOUND RIGGING**Flashlight®**

Flashlight Utrecht Holland B.V.
Gietijzerstraat 5,
3534 AV, Utrecht
Tel: 030-44 48 42
Fax: 030-44 76 06



Tel (013) 638585 Fax (013) 638435

JANSEN & JANSEN**light sound & rigging**

Isolatorweg 36, 1014 AS
Amsterdam-Sloterdijk, Holland
Tel: (32) 20 6 821 821
Fax: (32) 20 6 826 326

litestructures

Astralite Bilite Quatralite Minilite
STAGE TELEPHONE 03402 45780

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 Puttill Street, Grey Lynn, Auckland 2, New Zealand.
Tel: 64 9 3601718 Fax: 64 9 3601719

NORWAY**SYLVANIA****Special Products Group**

Sylvania N.V. SPSPG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Lars Farnes A/S
Tel: (47) 2 16 29 30 Fax: (47) 2 16 47 39

**litestructures**

Astralite Bilite Quatralite Minilite
AVAB NORGE A/S TEL 47 2 11 30 30

PORTUGAL**SYLVANIA****Special Products Group**

Sylvania N.V. SPSPG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Sylvania Electronica LTDA
Tel: 351 1 4186 217 Fax: 351 1 4186 825

**SPAIN****CM**

THE WORLD'S LEADING HOIST FOR STAGE APPLICATIONS
THE LARGEST STOCK IN EUROPE FOR YOUR IMMEDIATE NEEDS

MAX lighting

TEL: 34-1-6665323
FAX: 43-1-6665265

Trilite

Tel (1) 3270966/1536 Fax (1) 3049165

**VARI*LITE
VARI-LITE SPAIN**

Tel: (34) 1 470 23 30 Fax: (34) 1 479 58 25

litestructures

Astralite Bilite Quatralite Minilite
SPOTLIGHT S.A. TEL 34 3 4008117

SWEDEN**VARI*LITE
VARI-LITE SCANDINAVIA**

Tel: (46) 8 654 1855 Fax: (46) 8 652 8358

AVAB

Västra Hamngatan 1, 411 17 Goteborg
Sweden. Tel: (46) 31 179240

SYLVANIA**Special Products Group**

Sylvania N.V. SPSPG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Teaterteknik AB
Tel: (46) 8 640 92 90 Fax: (46) 8 640 93 94

**litestructures**

Astralite Bilite Quatralite Minilite
TEATERTEKNIK A.B. TEL 08 40 92 90

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 Trouppers, Panis, Avco, Celco, Thomas, Veriinde, Strand, CCT, Sky Trackers and searchlights
At the heart of Europe!

SYLVANIA**Special Products Group**

Sylvania N.V. SPSPG
Tel: (32) 16 80 03 69 Fax: (32) 16 81 89 45
Background
Tel: (45) 21 36 68 68 Fax: (45) 21 36 78 88
JBS
Tel: (45) 24 41 53 07 Fax: (45) 24 41 32 72



Sylvania Light GmbH SPSPG
Tel: (49) 9131 99 62 22 Fax: (49) 9131 99 64 18
Digi Light Show
Tel: (41) 31 961 60 40 Fax: (41) 31 961 40 10
Minilux AG
Tel: (41) 56 74 13 66 Fax: (41) 56 74 13 62

**litestructures**

Astralite Bilite Quatralite Minilite
A.S.L.ELECTRONICS TEL 061 35 22 20

UNITED KINGDOM**litestructures**

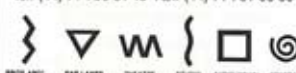
Astralite Bilite Quatralite Minilite
CEREBRUM LIGHTING TEL 081 949 3171

litestructures

Astralite Bilite Quatralite Minilite
LITESTRUCTURES TEL 0924 200622

SYLVANIA**Special Products Group**

Sylvania Lighting Ltd SPSPG
Tel: (44) 274 59 59 21 Fax: (44) 274 58 06 32
AC Lighting
Tel: (44) 494 44 60 00 Fax: (44) 494 46 10 24
Action Lighting (North) Ltd
Tel: (44) 61 876 05 76 Fax: (44) 61 876 05 17
Arri (GB) Limited
Tel: (44) 81 848 88 81 Fax: (44) 81 561 13 12
CP Lighting
Tel: (44) 81 547 05 00 Fax: (44) 81 547 08 84
DC Lighting
Tel: (44) 235 77 07 15 Fax: (44) 235 77 07 20
International Lamps Ltd
Tel: (44) 992 55 44 11 Fax: (44) 992 58 77 66
Lamp Company (The)
Tel: (44) 932 23 10 10 Fax: (44) 932 23 25 87
Lighting Technology Group
Tel: (44) 81 965 68 00 Fax: (44) 81 965 09 50
MGC Lamps Ltd
Tel: (44) 473 46 18 75 Fax: (44) 473 24 00 81
Mico Lighting Ltd
Tel: (44) 532 55 71 13 Fax: (44) 532 57 23 58
Primarc (Marketing) Ltd
Tel: (44) 734 59 67 77 Fax: (44) 734 50 59 64
Strand Lighting
Tel: (44) 81 560 31 71 Fax: (44) 81 568 21 03
Specialist Lamp Distributors Ltd
Tel: (44) 71 708 07 51 Fax: (44) 71 708 22 51
Specialist Lamp Distributors Ltd
Tel: (44) 61 873 78 22 Fax: (44) 61 873 80 89
Technical Lamps Ltd
Tel: (44) 81 979 66 52 Fax: (44) 81 979 90 07
Valiant Electrical Wholesale Ltd
Tel: (44) 71 736 81 15 Fax: (44) 71 731 33 39

**Trilite**

Tel (0582) 411413 Fax (0582) 400613

USA**VANCO**

VANCO STAGE LIGHTING, INC.

New York
Tel: (914) 942 0075 Fax: (914) 942 0099
Orlando
Tel: (407) 855 8060 Fax: (407) 855 8059

TMB ASSOCIATES

PRODUCTION SUPPLIES & SERVICES

2915 Floyd Street, 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) 686-7029
Fax: (915) 683-5426

**STRONG INTERNATIONAL, INC.**

FOR THE WORLD'S BEST FOLLOWSPOTS
4350 McKinley Street - Omaha - Nebraska 68112
Tel: 402-453-4444 - Fax: 402-453-7238

THE SCROLLER™

SETTING THE STANDARD FOR RYLLING COLOUR CHANGES

WORLDWIDE SALES:
Wytron US 818/880-9329 Fax: 818/880-9107
AC Lighting UK 0494-446-000
Fax: 0494-461-024



Tel (516) 249 3662 Fax (516) 753 1020

HMI Lighting**DAYMAX®**

• Stage • Film • Disco • Theatre
ILC Technology Inc
Sunnyvale, CA 94089
Tel: 408 745 7900 Fax: 408 744 0829

To advertise your services to the international market contact
Barry Howse on +44 323 642639

**CONDITIONS FOR
ADVERTISEMENT IN
LIGHTING+ SOUND
INTERNATIONAL**

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

DIRECTORY

Lighting + Sound
Equipment Sale/Hire
Installation and Design

TSL

Theatre Sound & Lighting
(Services) Ltd

U.K. DISTRIBUTORS
FOR

Clear-Com

Intercom Systems

67 DRURY LANE,
LONDON WC2B 5SP
Phone 071-836 7877/8

BDS

CASES

Designers and manufacturers
of flight cases

BDS Northern - Tel: 061 873 8181
BDS Southern - Tel: 071 624 2134

LIGHTING HIRE SALES SPECIAL F/X

STAGE CONTROL LTD.

STATION PARADE,
WHITCHURCH LANE,
EDGWARE, MIDD. HA8 6RW

TEL: 081 952 8982
FAX: 081 951 4178
TELEX: 924896

LIGHTING HIRE & SALES

Philip L. Edwards (Theatre Lighting)

5 Highwood Close, Glossop,
Derbyshire SK13 9PH.
Telephone: 0457 862811.

The Fibre Optic Lighting People

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

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



Trade & Export call PAUL RAYMOND
For Opti Projects Ltd
Unit 9 The Bell Industrial Estate
Cannington Street, Chiswick Park, London W4 5EP
Telephone: 081-995 5179
Fax: 081-994 1102 Telex: 933718 PAROP G

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 071-790 6624
SALES 071-790 1166 FAX 071-790 6634

IEC
APPROVED
CONTRACTOR

Dial Sound & Lighting

Distribution for

CLAY PAKY

FEENEY

BOSE

zero 88

ABSTRACT

OPTIKINETICS

ROSCO

RAMSA

TECHNICS

Panasonic

POWER DRIVE

CITRONIC

PULSAR

MODE ELECTRONICS

TEATRO

JBL

Le Maitre

and other leading brand names

DIAL SOUND AND LIGHTING

Unit 4G Wharfedale Road, Euroway Industrial Estate,
Bradford BD4 6SG.

Telephone: (0274) 651600 Fax: (0274) 651190

LIGHT & SOUND Productions

EQUIPMENT RENTAL
& SERVICES

6 Vine street, St. Helier,
Jersey, Channel Islands.
Tel. 0534 78351
(0860 740584)

NIGHT FLIGHT

Sound and Lighting

THE BIG ONE IN SCOTLAND

Installation, Design,
Hire, Repair and Service
0389-79261

P.A.music

Professional
Hire & Sale
Lighting-Sound-FX-Video
172 High Road, London N2
081-883 4350



FUTURIST LIGHT & SOUND

HIRE
0924
455586

SALES
Strand Lighting

SERVICE
0924
468183

HOYLE HEAD MILLS,
NEW STREET
EARLSHEATON, DEWSBURY
WEST YORKSHIRE. WF12 8JJ

NORTHERN LIGHTS

Sound & Lighting

Distributors

Trade representation for

PULSAR

POWER
DRIVE

MODE ELECTRONICS

OPTIKINETICS

Le Maitre

MULTIFORM

Cloud

ANYtronics

Martin

89 Scottforth Road, Lancaster

Tel: (0524) 845584

DHA

- Library and Custom made Gobos and Slides.
- Screen Printing onto various Materials.
- Standard and Custom Fibre-Optic Effects and Equipment.

For further information contact:

DHA Lighting Ltd.
3 Jonathan Street, London SE11 5NH
Tel: 071-582 3600 Fax: 071-582 4779
Telex: 935639 GOBOCO G

ANYtronics

manufacturers of
high quality:-

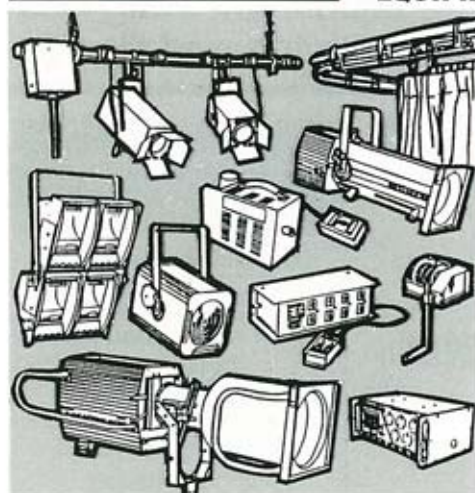
- ★ Strobes
 - ★ Lighting Control Equipment
 - ★ Amplification
- trade & export
enquiries most
welcome

Anytronics Limited
Units 5 & 6 Hillside
Industrial Estate
London Road, Horndean
Hants PO8 0BL, England

Tel: (0705) 599410
Fax: (0705) 598723

CCT

FOR ALL YOUR STAGE EQUIPMENT NEEDS...



- Complete range of stage lighting
- Control systems
- Colour change
- Optical effects
- Stage equipment
- Spot bars
- Rigging
- Stage curtains
- Maintenance & Engineering services
- Mobile service teams

HIRE & SALES

4 Tudor Court, Brighton Road,
Sutton, Surrey SM2 5AE
Telephone: 081-770 3636 Fax: 081-643 9848

AKAI • ALESIS • AMPEX • APHEX • AUDIO LOGIC
MUSICRAFT
 LTD.
 LONDON'S LEADING PRO DJ SHOP
 SALES AND INSTALLATION
 OF PA, STUDIO AND
 LIGHTING SYSTEMS
 Our West End Showroom is at:
 238 EDGWARE ROAD, LONDON W2 1DW
 Tel: 071-462 9729/2896 and 071-723 1629
 Fax: 071-706 2872
 SHURE • NUMARK • KLOTZ • JBL • HILL

**FOR SPEEDY INFORMATION
TO LIGHTING + SOUND
Telefax (0323) 646905**

MICO

LIGHTING

The specialist for
LAMPS used in the
THEATRE and
ENTERTAINMENT
industries.

Excellent Trade terms
available.

Mico Lighting Ltd.
Troydale Lane, Pudsey,
Leeds, West Yorkshire.

Telephone: (0532) 567113
Fax: (0532) 572358
Telex: 556469 (MICO G)

The Professional People

Lighting sales and hire to the
Entertainment, Conference,
Exhibition and Leisure Industries.
From Sales Conference to Car
Launch, Fashion Show to
Exhibition Stand.
Contact the specialists in lighting.



**MUSHROOM
LIGHTING**

76 Tenter Road, Moulton Park Industrial Estate,
Northampton NN3 1AX
Telephone: (0604) 790900 Facsimile: (0604) 491118

LIGHTEC ELECTRONICS

MANUFACTURERS AND
DISTRIBUTORS OF LOW COST
QUALITY LIGHTING EFFECTS

DEALERS REQUIRED
THROUGHOUT EUROPE

LIGHTEC ELECTRONICS

CHURCH ROW, PRESTON
LANCASHIRE
TEL AND FAX:
0772 883864

To advertise in this
feature contact
Barry Howse on
(0323) 642639

ELTEC

Drama Lighting Control Systems

Now made by

THEATRE CRAFT

Phone 051-334 0831

For list of stockists

TRAFALGAR LIGHTING LTD.

081-443 4960

LIGHTING
SALES-HIRE
SECONDHAND KIT
BOUGHT & SOLD

081-443 4960

Le Mark GROUP

we design and produce
BAR CODED LABELS

- Featuring
- HEAT RESISTANCE •
 - PROTECTIVE SURFACE •
 - TAMPER EVIDENT •
 - ADHESIVE SELECTION •
- For Advice and Free
Catalogue
Tel: 0480 494540
Fax: 0480 494206

also

PRINTED VELCRO
CABLE STRAPS
PEEL CLEAN STUDIO VINYL
SELF ADHESIVE TAPE

The Le Mark Group
Stephenson Road, St Ives,
Huntingdon,
Cambridgeshire

Central Theatre Supplies

021 778 6400

PLASA

Member

WEST MIDLANDS
DEALER

FOR

zero 88

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 (0865) 722522
SALES: Oxford (0865) 722468
Hire and Sales Northwest:
051-334 8991

WENBLEY LOUDSPEAKER COMPANY LIMITED

deuce

Professional Loudspeaker
Repair
Specialists for all Makes
of Power Units

also
Manufacturers of 'Deuce'
Mini & Maxi Cube
'B Line'
(the ultimate professional
18" Bass 500 Watt Loudspeaker)

Sound Systems custom designed and
manufactured for all sizes of venue.
Mobile Systems from 100 Watts to 20k
Unit 4, Askew Crescent Workshops
Askew Crescent, London W12 9DP
Tel: 081-743 4567
Fax: 081-749 7957

NIGHT FLIGHT

Sound and Lighting
**THE BIG ONE IN
SCOTLAND**

Installation, Design,
Hire, Repair and Service
0389-79261

Northern Light

Lighting & Sound Equipment Hire & Supply
Technical Equipment for the Leisure & Entertainment Industry

Sale • Installation • Hire

Stockists for Strand, Hall Stage, Roscolab, DHA,
Tecpro, Allen & Heath, Bose, Tannoy, Toa, AKG,
Le Maitre, Slick Systems Trussing.

Manufacturers of Socket Boxes, Working Light and Specialised control systems

Edinburgh 031-553 2383 Glasgow 041-440 1771
(Fax 031-553 3296) (Fax 041-445 4406)

HOWARD EATON LIGHTING LIMITED

DESIGN AND MANUFACTURE
OF SPECIALIST LIGHTING EQUIPMENT AND EFFECTS

LIGHTING DESIGN CONSULTANCY

DIGITAL DIMMING SYSTEMS

Telephone: (0273) 400670 Fax: (0273) 401052

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

081 560 3171

ADDA SUPER CASES LTD.

The Specialist Case Company

Cases manufactured in
Quality lightweight fibre
Durable Polypropylene
Flight cases in Aluminium

Custom Design Service

P O Box 366, Cambridge CB4 5AX
Tel: (0223) 233101
Fax: (0223) 233080

SMITHFIELD ELECTRONICS



LIGHT & SOUND
SYSTEMS SALES &
INSTALLATION

As well as being U.K. distributors of Matamp,
McGregor Amplification, Scott Sound Systems,
Labtek and Starlight we carry an extensive
stock of equipment from the ranges of most
major manufacturers

SMITHFIELD ELECTRONICS
3 Ermine Road, Hooles, Chester CH2 3PN
Tel: (0244) 349158 (0244) 349062
Fax: (0244) 347331

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
(0245) 361694

POWERRENT

GENERATORS-CABLE TRANSFORMERS

Hire or Sale—New or Used
1 to 3000 KW-50/60 Hertz

Silent Sets—Mobile—Multi Voltage
24 hr. Emergency Service Worldwide
Depots throughout UK and USA

Main Depot:

Telephone: (0304) 813555
Telefax: (0304) 813502 Telex: 965324 Pnwr G

Specialist Outside Engineers
LIVE AID U.K. & U.S.A. • GENESIS 1987 EUROPEAN TOUR
AIDA EGYPTIAN OPERA • RUSH U.K. TOUR 1988
BRUCE SPRINGSTEEN EUROPEAN TOUR 1988

Over 40 years' experience in
ENTERTAINMENT POWER SUPPLY

THE COMPLETE POWER SERVICE GROUP

"Our name speaks for itself"

LHS

Leslie Hire & Sale

For
**Stage and TV Lighting
and Stage Equipment,
phone**

081 871 5132

L.H.S. Limited, The Business Village, Broomhill Road,
Wandsworth, London SW18 4JQ.
Telex 917003 LPC G

LIGHT & SOUND Productions

EQUIPMENT RENTAL & SERVICES

6 Vine street, St. Helier,
Jersey, Channel Islands.
Tel. 0534 78351
(0860 740584)

NUO LIGHT SYSTEMS LTD.

DISTRIBUTORS OF EFFECT
LIGHTING AND CONTROL
TO THE LEISURE INDUSTRY

ALSO

EXCLUSIVE UK IMPORTERS
OF FLY AND LA NOVALIGHT

Nu-Light Systems Ltd,
Puritan Buildings
Halton Road
Runcorn, Cheshire
Tel: (0928) 580761
Fax: (0928) 581946

STARDREAM



S.A.V. LIMITED
AUTHORISED WHOLESALE
DISTRIBUTORS
FOR

NJD TOA
ZERO 88 LeMaitre

PULSAR Hill

SONY. REVOX

JEM BOSE
MODE ELECTRONICS

POWER DRIVE TEATRO

Party House, Mowbray Drive,
Blackpool Lancs.
Tel.: (0253) 302602 Fax.: (0253) 301000

W... LIGHTING

LIGHTING

HIRE
DESIGN
ENGINEERS

London 081-891 4755



837 Garratt Lane
London SW17 0PG
Tel: 081-944 1400
Fax: 081-944 0141

- ★ Sales
- ★ Service
- ★ Hire
- ★ Design
- ★ Manufacturing
- ★ Installation
- ★ Consultancy

"Experts in Sound
and Light"

CHARLES FISHER

STAGING LIMITED
EXHIBITION and CONFERENCE
DESIGN and CONSTRUCTION

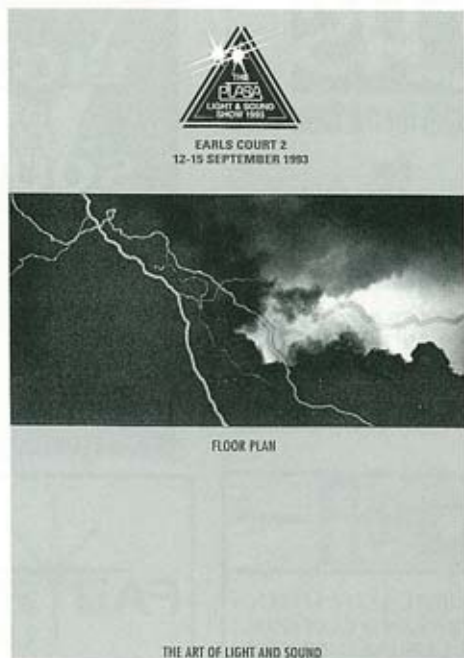
Specialists in Something
Different

Straw House Farm, Kirkby Road, Ripon, North Yorkshire HG4 3JU.
Tel: 0765 701604 Fax: 0765 701389

LASER GRAFIX

THE CREATIVE FORCE IN LASERS

UNIT 15, ORCHARD ROAD
ROYSTON, HERTS SG8 5UD
TEL: (0763) 248846 FAX: (0763) 246306



**SHOW BROCHURE
NOW AVAILABLE**
Ring Philbeach For Your Copy
on 071-370 8215

**TALES OF THE UNEXPECTED
NO. 3**



**Professional lighting
for the entertainment industry
... and much more.**



WHITE LIGHT

57 FILMER ROAD LONDON SW6 7JF
TEL: 071-731 3291 FAX: 071-371 0806

NORTHERN BRANCH
TEL: 0422 839851 FAX: 0422 839773
LIGHTING DIMENSIONS (WL) LTD.
TEL: DUBLIN 530204 FAX: DUBLIN 530808

**SALES — INSTALLATION — SERVICE
OF PROFESSIONAL LIGHTING
AND EFFECTS EQUIPMENT**

**190 PAGE CATALOGUE LISTING 1,000s 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: 071-498 8845
Tel: 071-498 7272

NOVA

**MANUFACTURERS OF
QUALITY STAGE
LUMINAIRES AND AURORA
LIGHTING CONTROL
SYSTEMS**

**AGENTS REQUIRED IN
SOME AREAS**

Novalight (International) Ltd
Foxes Bridge Road
Forest Vale Ind. Est.
Cinderford,
Glos GL14 2PQ
Telephone: 0594-823197
Fax: 0594-826045



LIGHTING SALES/HIRE

Designers, Technicians and Installers
to the Entertainment and Promotion Industries

NEON LITE ASSOCIATES

Unit 1, Clovelly
Chapel Road, Meppershall, Bedfordshire SG17 5NQ
Tel: 0462 811843 Fax: 0462 817352



**PROFESSIONAL LIGHTING
AND SOUND ASSOCIATION**

JOIN US!

For full details
and a Membership
Application Form
please write to:

Sheila Bartholomew
PLASA
7 Highlight House,
St. Leonards Road,
Eastbourne,
BN21 3UH

**UNITED KINGDOM
DISTRIBUTORS**

Appointed sole UK distributors for ProgramSistem

Trade Suppliers of Professional Sound,
Lighting and Special Effects Equipment
Telephone: (0926) 314878
Fax No: (0926) 883120
MOBILE No: (0860) 544934

Situated in the heart of England gives us the right con-
nections to serve you via the
M1, M6, M43, M10, M42 and the M40 with these
facilities.

- Wholesale trade supply to retailers, installers, contractors etc.
- Extensive stock on all major manufacturers and some minor ones too.
- Some own brand products, concentrating on quality and availability.
- Manufacturers trade prices used, sometimes bettered considering delivery service.
- Vehicles travelling the country carrying orders and stock.
- Regular personal contact.
- Regular visits averaging 5/6 weeks to Wales, S.E., S.W., London, East coast, N.W., N.E., Scotland and of course the Midlands.
- No delivery costs when orders coincide with visits (nominal in between times).
- No minimum orders.
- Use of our technical staff - for enquiries and help.

If you are not being offered these facilities at the moment, but would like to end would like to know more, we will be only to pleased to hear from you.
**Rigby Close, Heathcote Industrial Estate
Leamington Spa CV34 6TJ England**

Northern Light

Lighting & Sound Equipment Hire & Supply
Technical Equipment for the Leisure & Entertainment Industry

Sale • Installation • Hire

Stockists for Strand, Hall Stage, Roscolab, DHA,
Tecpro, Allen & Heath, Bose, Tannoy, Toa, AKG,
Le Maitre, Slick Systems Trussing.

Manufacturers of Socket Boxes, Working Light and Specialised control systems

Edinburgh 031-553 2383 Glasgow 041-440 1771
(Fax 031-553 3296) (Fax 041-445 4406)

Specialist Technical Equipment and Services for the Entertainment and Allied Industries

TRIPLE E

CURTAIN AND SCENERY TRACKS

A comprehensive range available for sale or hire, from a wall plaque to a 500-metre system for a product launch at the N.E.C.

ABTT Award winners
1984 "Product of the Year" -
Purpose-made LOOSE PIN HINGE

1988 "Product of the Year" -
UNTRACK system with linear motors
Catalogue available on request



Triple E Limited

B3 Tower Bridge Business Square,
Clements Road, London SE16 4EF
Telephone: 071-237 6354
Facsimile: 071-237 7650

THE TOTAL PACKAGE

- Lighting, sound, communications, rigging, audio visual, conference and projection.
- For theatres, halls, studios, leisure and presentation.
- In-house electrical contracting service.
- Schemes prepared.
- UK and worldwide.



GLANTRE ENGINEERING LTD.
2 Cremyll Road,
Reading, Berks
0734 509711
Fax: 0734 505808

THINK

Dramatec Effects Ltd

CONTROL

- Products to get you moving
 - From simple AC, DC and Linear motor drives to computer controlled sets
 - The Electronic Control Experts

15 Hunton Bridge Hill, Hunton Bridge
Kings Langley, Herts WD4 8PX
Tel: 0923 263751
Fax: 0923 261727

THEATRICAL AUTOMATION

SHERMANN UK

HIGH QUALITY LOUDSPEAKER SYSTEMS
BUILT IN THE UK, IN USE WORLD-WIDE

SHERMANN GX-SERIES 1
From super-compact PA cabinets and subs to modern touring systems.
SHERMANN GX-SERIES 2
Fully equipped touring systems
SHERMANN MX-SERIES
From compact desk-tops to 3-way mains
SHERMANN UK
27 Mochdre Ind. Estate
Newtown, Powys, UK SY16 4LE
Tel: 0686 622626/622166
Fax: 0686 622616

EDC ELECTRONIC DESIGN CENTRE

THEATRE & STUDIO CONTROL SYSTEMS

We design, manufacture and install

- Hoist Control Systems
- RF and Infra-Red systems for movement and DMX control
- Variable Speed Drives
- Wireless Cueing Systems
- Curtain Control Systems
- Standard Position Control

Modules for most applications
We can provide solutions to your control problems however large or small
EDC Ltd, Unit 1, Bentley Industrial Centre
Bentley, Farnham, Surrey GU10 5NJ
Tel: 0420 23355 Fax: 0420 23757

GERRIETS

GREAT BRITAIN LIMITED

MADE TO ORDER & CUT GOODS SERVICE

ALWAYS IN STOCK:

FILLED CLOTH

SHARKSTOOTH GAUZE

SCENIC COTTON

BLACK WOOL SERGE

plus

PROJECTION SCREEN MATERIALS IN SINGLE & DOUBLE WIDTH

And much much more call us

071 232 2262

FOR SPEEDY INFORMATION TO LIGHTING + SOUND
Telefax (0323) 646905

BOB MASSEY ASSOCIATES
Technical Theatre
Courses, Advice, Planning, Design and Consultancy
9 Worrall Avenue, ARNOLD
Nottingham NG5 7GN
Tel/Fax 0602 673969

FOR YOUR DIARY

PLASA LIGHT & SOUND SHOW 1993

EARLS COURT 2,
LONDON

SEPTEMBER 12-15TH

7 WESTERHAM TRADING CENTRE THE FLYERS WAY WESTERHAM KENT TN16 1DE

Tel: (0959) 562254
Fax: (0959) 564564



THE EFFECTS CO.

contact us for full details of this great range of special effects smoke machines and pyrotechnic equipment and accs.

Now Available

we design and produce
BAR CODED LABELS

Featuring

- HEAT RESISTANCE
- PROTECTIVE SURFACE
- TAMPER EVIDENT
- ADHESIVE SELECTION

For Advice and Free Catalogue
Tel: 0480 494540
Fax: 0480 494206

also

PRINTED VELCRO CABLE STRAPS
PEEL CLEAN STUDIO VINYL
SELF ADHESIVE TAPE

The Le Mark Group
Stephenson Road, St Ives,
Huntingdon,
Cambridgeshire

To advertise in this feature contact
Barry Howse on
(0323) 642639

transtechnik

- LIGHTING CONTROL CONSOLES
- MODULAR THYRISTOR DIMMERS
- CUSTOM ENGINEERED TOTAL SYSTEMS

For TV studios, Theatre Stage, Concert Hall installations with transportable systems for outside presentation events

Otterlinger Weg 11 8150 Holzkirchen Germany Tel 0 8024 30080 Fax 300830



RAT
the music stand specialists

R.A.T. (Music Stands) Limited
41 High Street, Brentford, Middx, TW8 0BB.
Tel: 081 847 3331, Fax: 081 568 1059

VIEWPOINT

John Offord Kicking Out Recession

A bit late for an L+SI autumn statement on the economy, perhaps, but returning to the UK from a busy and optimistic LDI convention in Dallas, the news was announced that third-quarter American gross-domestic-product-growth showed a 3.9% annualised improvement. 'Positively blooming' was how one leader writer described the situation.

Now some people joke that members of the US business community are a bit lost for words and ideas when their pants are down around their ankles, but we all know how well they can motor when the US economy is hitched up and ready to go. To me, the mood 'over there' seemed several degrees more positive than in the UK (most particularly) and Europe. There is also an interesting absence in the States, by and large, of the over-insight(ed) poorly researched press hatchet jobs and little or none of the journalistic moralising and glum story-lines we have to put up with here in the UK. The general attitude is more positive all round, and you can feel there is energy being expended to get the climate right.

So, there is at least some hope that America will begin to lead the world out of its present recessionary mess, providing GATT doesn't get in the way, of course. Witnessing the number of non-US Americans present at LDI and the orders being shipped south, there is evidence that the South and Central American economies are also on the move.

And it isn't all gloom in the UK either. Specific to our industry, our own PLASA Light & Sound Show at London in September was the best yet in terms of presentation, quality and visitor count. Exhibitors, given the headroom to do it, had the nerve to designer-style some optimism into the equation.

But now I want to tell you a story. Early one morning at LDI in Dallas, an international company called Strand Lighting decided to do something a bit different; something they figured they could only do well in the States. They brought a full team of actors in the form of their senior management team, they dressed them up and gave them banners, and when the doors opened on the first day of the event, their rally was already in full flow.

They gave their US executive vice-president William ('I have a dream') Groener John Major's soap-box, rehearsed him in Ross Perot style, and gave him a script with words abducted from JFK and Martin Luther-King to help launch them to higher sales. It was all good for a giggle, but it obviously had a very serious side. The intention was to kick a bit of volume into the business.

Strand Lighting's marketing director David Brooks gave me the background, and it comes, coincidentally, as a part-answer to questions raised in Robert Halliday's Viewpoint in our November issue.

"It is the buyer that ultimately regulates price in a free market - not the manufacturer. Look at memory controls. Today's low price tag represents



Dallas razzmatazz: Strand Lighting's volume business lobby at LDI.

tremendous value bringing powerful features within the affordability of even the most modest budgets. And let's not confuse these specialised direct action machines which instantaneously change lighting states, with the still comparatively ponderous reaction from a mass produced PC. Consider also the exceptional value of a spotlight like Strand's new Leko.

"It is volume that is the key to lower production costs and this works through to lower prices to the end user. But if price were the only consideration then everybody would be driving a Skoda. Volume has enabled us to invest in more complex tooling which also enables elegantly designed products of consistent high quality to be made more efficiently. Distribution completes the picture providing local service and support." Strand has recently been active in Europe and in the USA endeavouring to break the vicious circle of cost to volume pricing to offer a better deal for its customers. The aim is to work with dealers to offer products at attractive prices to the end user to stimulate sales.

"Around 200 dealers throughout Europe, the USA and Canada are currently involved in launching a new pricing package on a selected range of luminaires, manual and memory controls and dimmers. Called 'Euro System' in Europe and 'Century System' in North America, two ranges of products each represent a complete system for smaller-scale performance spaces."

A massive effort is being made by Strand Lighting, by far the biggest operator in our industry, to kick recession out of the window. Leaflets in 14 languages have been mailed or

inserted in journals to reach 150,000 people across Europe. The number goes up to 250,000 for the USA and Canada. Then you have to add on all the point-of-sale material, custom literature, and so on.

Strand are going for it in a big way. One has to applaud their investment and their effort and the up-beat attitude behind the programme and its implementation.

Let's hope that it has some spin-off for the industry as a whole in the form of more spirited and positive thinking, emphasising the plus points with a bit more enthusiasm.

John Offord is editor of L+SI and chief executive of PLASA. Despite GATT he still loves France.

LIGHTING SOUND
International

sends
Seasonal Greetings
and Best Wishes
for a
Prosperous New Year
and a
Successful 1993

ADVERTISERS INDEX

A&B Theatre Services	14	Clay Paky	11	Lighting Technology	6	Optex	16/34	The Effects Company	42
Aliscaff	40/50	Compulite	IFC	London Laser Co	47	Pan Command	3	Tomcat	34
Apogee	15	Court Acoustics	12/13	Ludwig Pani	5	Par Opti Projects Ltd	40	Trantec	47
Ark Light	34	Doughty Engineering	14	Mainstage	16	Pulsar	7	Unusual Rigging	49
Audio Technica	10	ETR	19	Marquee	49	R B Lighting	14	Wilkes Iris Diaphragm	49
Avitec	28/33	Formula Sound	33	Martin Professional	20/21	Selecon	31	Wybron	IBC
Celco	OBC	Jands	8/9	Midland Theatre Svcs	40	Sofiscotech	34	Yes	43
Cerebrum	17	Le Maitre	50	M&M Lighting	42	Teatro	40	Zero 88	* 4

FASTER,

Now...scrolling speeds of nearly 20 frames per second for seamless crossfades.

QUIETER &

Now...the only color changer with a gearless direct drive that's virtually noiseless.

MORE COLORS.

Now...command up to 32 color frames on a single variable length gel string.

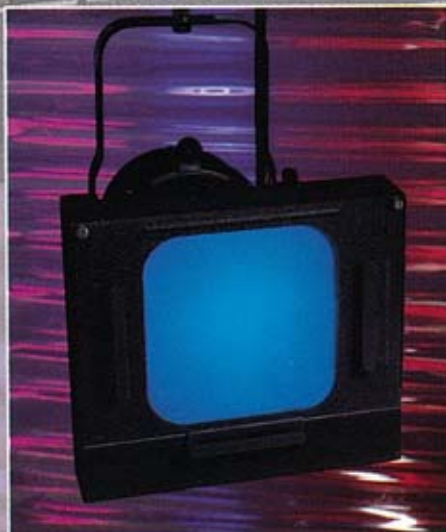
THE COLORAM™ is not your ordinary color changer. It is simply the best in the world. And now you can get it from Wybron today...OR you can wait for others while they try to imitate it.

Please direct
all enquiries to:

WYBRON INC

1096 Elkton Drive,
Suite 200,
Colorado Springs CO 80907

Tel: 719 548 9774
Fax: 719 548 0432



Also from Wybron
ColorExpress
EST. 1978

The only gel strings
with **Guaranteed Quality**
and **Guaranteed Same Day**
shipment for any color changer
in any sequence, any length.

180 control channels
Aviator T180
1024 dmx channels

180 control channels
Aviator R180
1024 dmx channels

360 control channels
Aviator T360
1024 dmx channels

360 control channels
Aviator R360
1024 dmx channels

720 control channels
Aviator R720
2048 dmx channels

ALL CONSOLES

Fault tolerant

1000 cues
100 sequences
100 multi-part cues
25 lists

Multiple 32 bit transputers
16 bit storage and calculation
8 bit dmx 512 (1990) output
16 bit dmx high resolution output

Add and swap buttons on all channels and playbacks

Channel workspace for programming and modifying control channels

Compact feature to organise channels

Digital faders on all presets and playbacks

Dimmer workspace for programming and modifying dmx levels and patch

Exclusive assignment on control channels and cue playbacks

Fade times between 0.3s and 99.9h

Flash eprom memory storage

High contrast, wide view, custom LCDs on workspace and playbacks

Lock assignment on control channels and cue playbacks

Midi show control

Modular construction

Keypad and / or fader entry of parameters

Output scale and limit controls

Optional multiple colour CRTs or LCDs

Optional remote control c/w off-line legend editor

Rate playbacks (excluding R180)

Removable flash eprom cards for memory back-up / transfer

Scrolling cue playbacks

Scrolling sequence playbacks (excluding T180)

Scrolling presets

Soft presets

Storage compartment

Ten segment output level display

Twenty segment fader position display

Twin flash eprom card slots

User definable legends on dimmers, dimmer curves, fade profiles, channels, cues, lists, multi-part cues and sequences



the worlds' finest lighting console

CELCO

A Division of Electrosonic Ltd
Hawley Mill, Hawley Road,
Dartford, Kent, DA2 7SY, England
telephone: + 44 (0) 322 222 211
facsimile: + 44 (0) 322 282 282