

LIGHTING+SOUND *International*



WARNER'S STUDIO EXPERIENCE COMES TO THE UK

- Warner's new audio-visual retail outlet in Manchester
- Eleven page review of LDI 93, Orlando
- Steve Moles On Tour with Deep Purple and Runrig
- Corporate Creativity from Imagination
- Rock Corporation go Rave at Tokyo Dome
- EAW at 15: a company profile

DECEMBER 1993

E.S.P. (UK) LTD
Distributor for

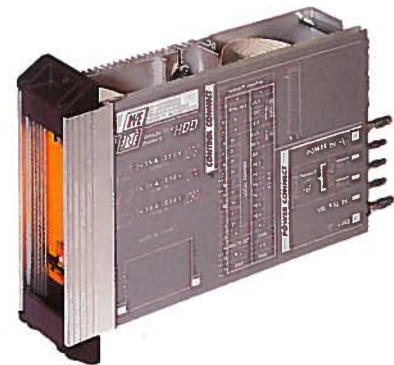


Ensures the Security of your show and
opens new frontiers in your Creativity



**HDD DIGITAL DIMMING
SYSTEM :**

- Pluggable dimmer module at full load
- Soft Patch
- Diagnostic functions
- 128 Backup looks
- Very easy to operate



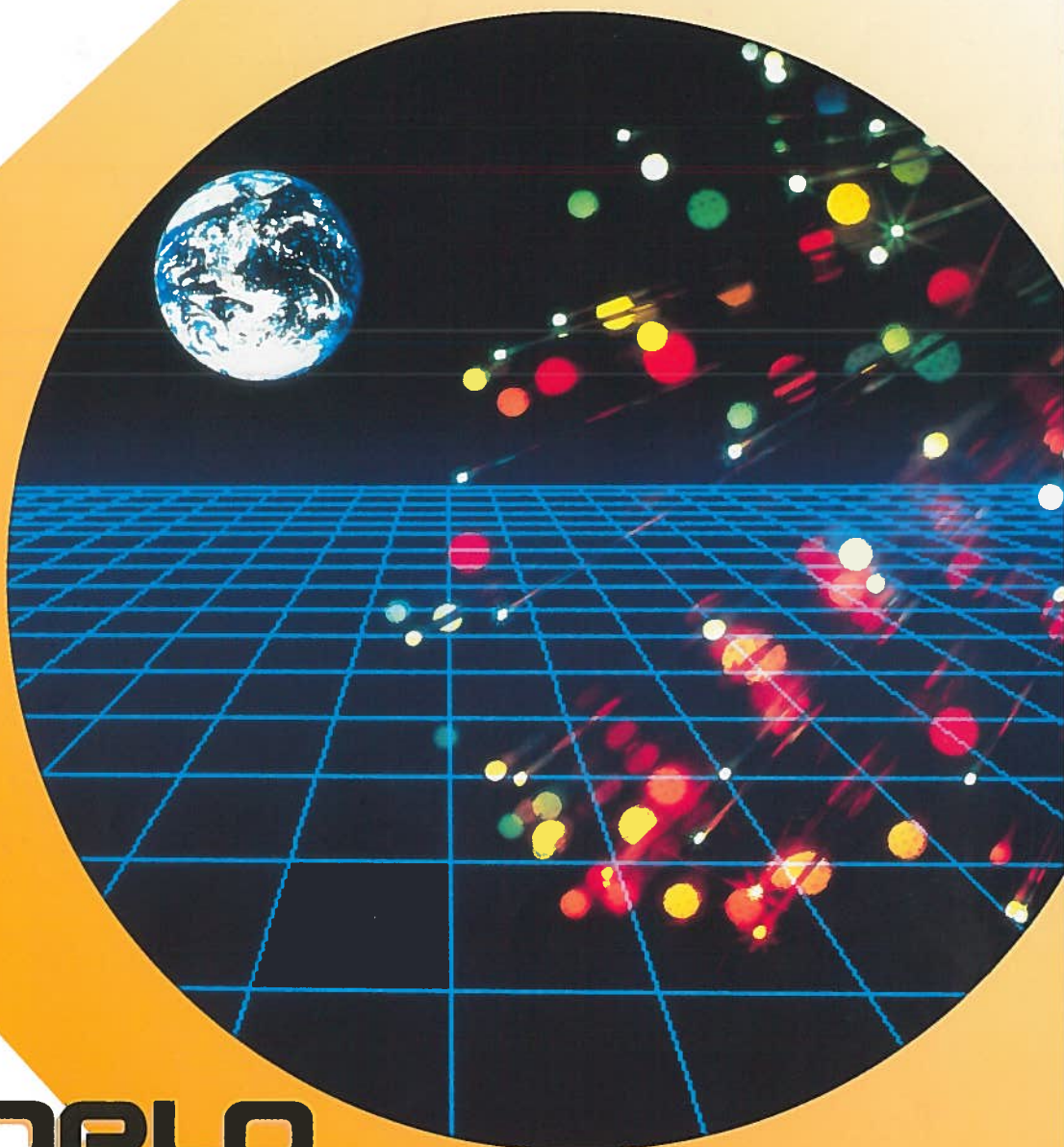
E.S.P. (UK) LTD
UNIT 5 - FURMSTON COURT -
LETCHEWORTH -
HERTFORDSHIRE SG6 1 EX
TEL : (0462) 482411 - FAX : (0462) 673856

RVE
23, rue Beausire
93250 VILLEMOMBLE FRANCE
TEL : 33 (1) 48 54 31 63
FAX : 33 (1) 45 28 67 53

Realisation P.C.G. 60 29 12 44

**FOR OTHER EUROPEAN
DEALERS CONTACT RVE**

**COME SHOW
YOUR PRODUCTS
TO
THE WORLD!**



WORLD LIGHTING FAIR in TOKYO '94

16-18 JUNE 1994

NIPPON CONVENTION CENTER (MAKUHARI MESSE) INTERNATIONAL EXHIBITION HALL

APPROX. 50 MINUTES BY TRAIN FROM TOKYO STATION / 40 MINUTES BY CAR FROM CENTRAL TOKYO AREA / 30 MINUTES BY CAR FROM NARITA AIRPORT

THE BIGGEST PROFESSIONAL LIGHTING TRADE SHOW FOR THEATER, STAGE, TELEVISION, FILM, EVENTS AND CONCERTS ETC. IN JAPAN EXHIBITIONS WILL INCLUDE SPECIALIST LIGHTING EQUIPMENT AS WELL AS A RANGE OF SPECIAL EFFECTS.

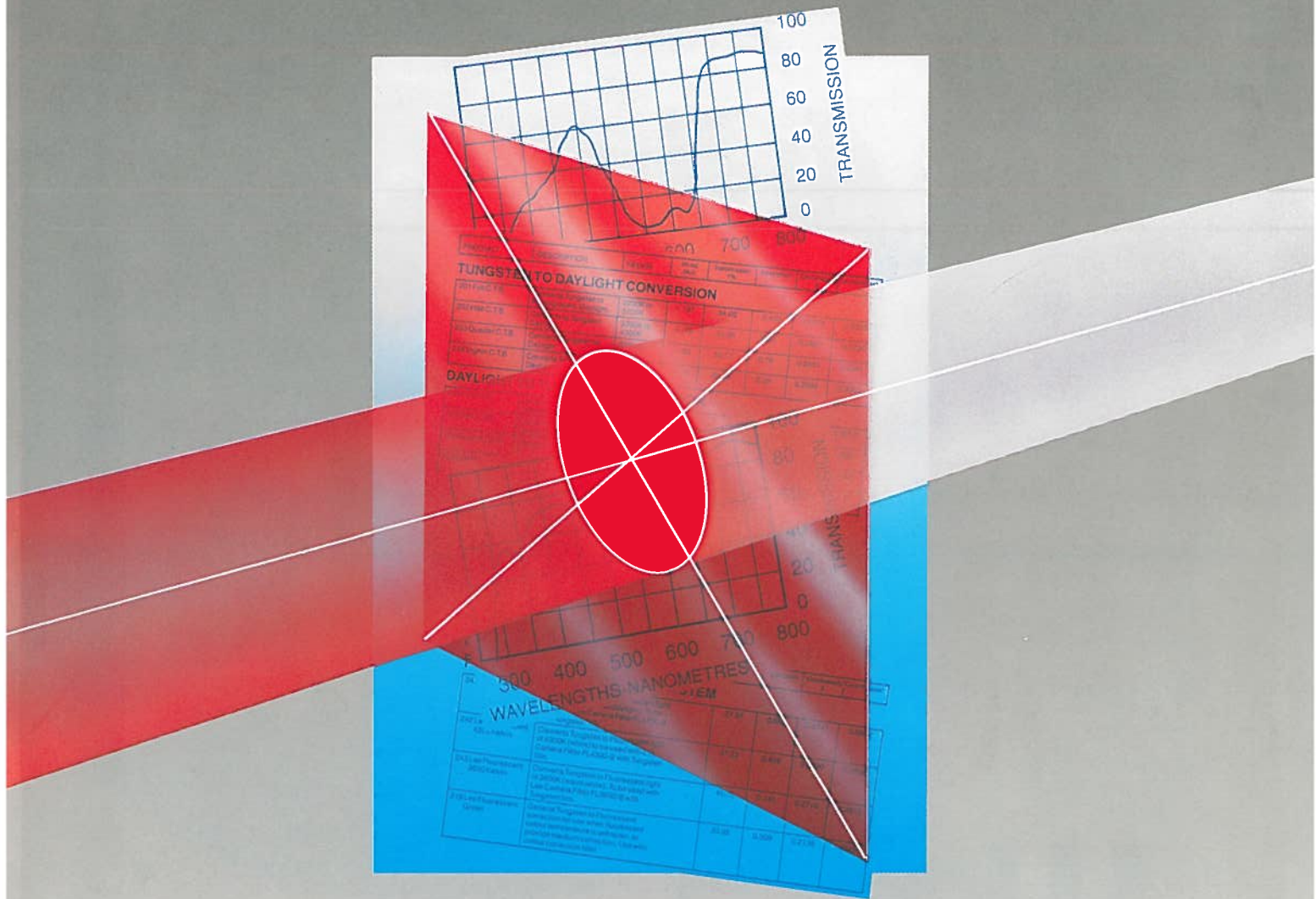
ORGANIZERS: ZENSHYOKYO

INQUIRIES: WORLD LIGHTING FAIR IN TOKYO '94 INTERNATIONAL OFFICE

ADDRESS: 5-28-20 Kyodo Setagaya-ku Tokyo 156 Japan

PHONE: 81-3-3706-5687 FAX: 81-3-3706-6766

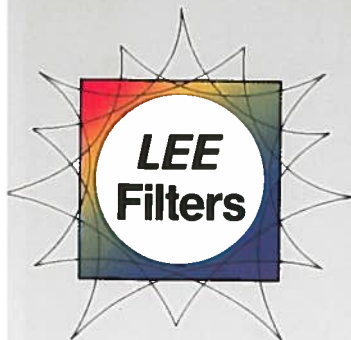
Light Engineering



There's a new dimension in lighting filter production. Called Light Engineering, it has been pioneered by Lee Filters.

Lee products perform with absolute accuracy and total consistency to meet the demands of the lighting industry. In achieving this, the company has developed a dedicated manufacturing system - supported by an immense technology database - which is unmatched by any other filter manufacturer or vendor in the world.

A system so sophisticated that it adds another dimension to lighting filter production. Light Engineering. So much more than the ordinary way of making filters.



Lee Filters, Central Way, Walworth Industrial Estate, Andover, Hampshire SP10 5AN England
Tel : 0264 366245 Fax : 0264 355058

Light Engineering. Another first from the original European.

LIGHTING+SOUND International

DECEMBER 1993

VOLUME 8, ISSUE 12

7 News In Lighting+Sound International

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

23 Shopping for Dreams

Tony Gotteller In Faux Movieland

25 Rock Corporation and Tokyo Rave



A special L+S report and picture story on the Kazuo Inoue designs for a 50,000 rave at the Tokyo Dome baseball stadium

28 On Tour

Technical reviews of Deep Purple, Gary Numan and Runrig

32 Corporate Creativity

L+S discovers what a little imagination can do for you

35 LDI 93, Florida



The LDI stand of Strong International.

Tony Gotteller, Peter Wynne Willson and Jonathan Gotteller round up the posse in Orlando

60 Made in America



Tim Frost visits EAW

50 Equipment News

51 International Directory

53 Directory of Suppliers and Services

58 Viewpoint

Peter Brooks: The Global Marketplace

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 Gotteller

Advertisement Manager: Barry Howse

Production: Sheila Bartholomew

Advertising assistant: Jane Cockburn

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 £3.50 plus postage

Editorial Advisors: Tony Akers, Peter Brooks, Wyatt Enever, Mike Gerrish, Matthew Griffiths, Kevin Hopcroft, Tony Kingsley, John Lethbridge, Ian de le 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 Rathway, N.J. Postmaster: Send USA address corrections to Lighting + Sound International, c/o Mercury Airfreight International Inc, 2323 Randolph Avenue, Avenel, New Jersey N.J. 07001

PLASA
PROFESSIONAL LIGHTING
AND SOUND ASSOCIATION

U.K

tel: 44-81-575 6666

FRANCE

tel: 33-1-45 07 97 09

SPAIN

Madrid tel: 34-1-470 23 30

Seville tel: 34-5-428 36 25

GERMANY

tel: 49-221-58 20 88

SCANDINAVIA

tel: 46-8-654 18 55

BENELUX

tel: 32-16-60 76 48

AUSTRIA

tel: 43-1-60902

The Vari-Lite European network continues to expand, bringing the ultimate automated lighting system to an ever widening audience....

For further information please call any of the above numbers or write to us at the address below.



Vari-Lite Europe Ltd.
20-22 Fairway Drive
Greenford
Middlesex
UB6 8PW

VARI-LITE automated lighting equipment is made in the U.S.A. Protected by U.S. Pat. Nos 4,095,139; 4,392,187; 4,602,321; 4,688,161; 4,701,833; 4,779,176; 4,800,474; 4,709,311; 4,972,306; 4,980,806; 5,010,459; 5,031,078; 5,073,847. All other worldwide patents granted or pending.

INTRODUCING THE ULTIMATE IN POWER



AVOLITES NEW DIAMOND II

The Most Powerful, Technologically Progressive Console Available. Featuring:

- ◆ 1,024 Expandable to 6,000 Control Channels
 - ◆ Provisions for External VGA Monitors
- ◆ 180 Channel Faders each with Add & Swap Buttons
 - ◆ Output Reduction on All Channels
- ◆ 30 Submaster Faders can Control Memories, Chases or Timed Fades
 - ◆ 100 Pages
- ◆ 8 Wheels for Automated Instrument Attribute Control
 - ◆ High Speed Processing of All Add Buttons giving Unsurpassed Response Times
- ◆ Intuitive Programming Features via Dedicated Buttons



AVOLITES LIMITED, 184 PARK AVENUE,
LONDON NW10 7XL, ENGLAND
TELEPHONE 081-965 8522
FAX 081-965 0290



AVOLITES AMERICA INC., FOXHOUND ROAD
KNOXVILLE, TENNESSEE 37918, USA
TELEPHONE (615) 922 1477
FAX (615) 922 5414

Orlando: Big Four Agree Show Limitations

Tony Gottelier reports - At a meeting held during LDI'93, the four companies who probably represent the industry's biggest exhibitors internationally (Clay Paky & Pulsar, Coemar, High End and Martin Professional), reached an agreement in an attempt to limit the seemingly exponential growth on their trade show expenditure.

The meeting, apparently instigated by High End Systems' Bob Schacherl and Richard Belliveau, was also attended by Bruno Dedoro of Coemar, Peter Johansen of Martin Professional and senior representatives of Clay Paky and Pulsar, plus Neil Rice of Optikinetics as an observer.

L+S understands that the big four manufacturers, all producers of automated mirror projectors which have been traditionally presented in ever more lavish light show environments, reached a substantial mutual understanding on three points affecting future exhibition policy. Major involvement of the companies will, in future, be limited to four shows per year which were designated as PLASA, LDI, SIB Rimini and Pro Audio and Light in Singapore. For all other shows, if there is a financial contribution from the manufacturers, then a stand size limitation of 60sq.m was agreed.

While the four companies say that there was a consensus that it was the mega light shows which are at the root of the problem, they do not seem ready to divest themselves of these productions just yet. Instead, as a first step, they decided that in future they would not participate in or accept

any awards offered by show organisers for this purpose.

Bob Schacherl, president of High End Systems, commented: "It was apparent to all of us that the fundamental requirements for putting on a light show were perpetuating the exponential growth we have witnessed in stand sizes. A classic case of the tail wagging the dog. By limiting expenditure on trade shows we hope to concentrate more resources on R&D, which should benefit the industry as a whole. Hopefully, this consent between us will start a trend that other manufacturers will follow."

Bob makes no secret of the fact that High End would have preferred a positive agreement to dismantle the lightshows at some point. He told L+S later that the four had agreed on the formation of a sort of super-exhibitors' association with plans to meet and discuss points of mutual interest during each of the four major shows.

Speaking from the hospitality suite on the top deck of Martin Professional's 5,400 square feet stand, Peter Johansen told L+S: "Frankly, we would prefer to see the London show alternate with Rimini, but since that doesn't seem possible for now, this was the best solution. We agree that the egocentric nature of the awards system encourages unnecessary excesses."

Ken Sewell of Pulsar Light, UK distributors for Clay Paky and their partners in CP&P added: "We feel that the trend towards bigger and better light show productions distracts the customers from a true comparison of the products."

Shaping up for 94

Many leading PLASA companies spilled out a great deal of good news during our end of November ring-round of 30 or so members.

Arri GB's Tim Burnham said: "We are clearly seeing a recovery, but it is also mixed. The UK is good, Europe is rather flat, but Asia is spectacular. It is interesting that the UK rental area for film and video production is doing well, as this is always a good commercial indicator. We certainly feel bullish about 1994."

Bev Bigham of **Lighting Technology** told L+S that '93 will be their best year ever, with sales significantly up on 1992. It was the same story at **Pulsar**, where Ken Sewell said: "November was our second best month ever. So far this year we are at least 30 per cent up compared with the same point in 1992."

November 30 was champagne day (literally) for **Zero 88 Lighting** with Freddy Lloyd more than delighted that they'd just completed their best ever month on record. At **AC Lighting** they were "going mad" according to Glyn O'Donoghue. "We were 40 per cent over target for November," he reported. A Far East sales boom has meant **Citronic** have already gone 40 per cent over their projected 1993 sales figures and had to take on 25% more production staff to cope with demand.

Strand Lighting has had "major successes in each of the company's three global regions," said David Brooks, "with important new initiatives and products launched at PLASA and LDI. In the USA the Strand Century Dealer programme doubled

continued on page 20



**SOUND
DEPT.**

**SOUND IDEAS
SOUND DESIGN
SOUND SALES**

33 Beaumont Street, Oxford OX1 2NP
Telephone (0865) 516800
Facsimile (0865) 514461

SOLE UK
DISTRIBUTORS FOR



Community

biamp

ASHLY

Quam

TOPDECK The *LIGHTWEIGHT* Alternative



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



Only **£240** + VAT

X
TOPDECK
LOAD BEARING STAGE PLATFORMS
Trade Discounts Available

For more details and a leaflet
Phone Mike Sweetland on:

061 834 8004

SEE FACTOR[®]

INDUSTRY INC.

37-11 30th Street
Long Island City, NY 11101
Tel: 718-784-4200 ♦ Fax: 718-784-0617

*Providing production services
for over 20 years...*

Introducing

Light Coordinator[®]

Our solution for the 90's

In 1989 there became
a need to operate many
types of moving fixtures,
fixed lighting
and scrollers
simultaneously
with
one
desk.
Its now 1993
and we
couldn't
wait any longer . . .



**Now available
for sale and rental**

U.K. Rental Agent

**NEG EARTH
LIGHTS**

Unit E, Penny Road
London NW10 7RW
England
Tel: 081-963 0327
Fax: 081-963 0039



Avitec Silks

A recent major refit at Silks nightclub in Lisburn included a new sound, light and video system, which was supplied and installed by Avitec. PSD Electronics were responsible for the lighting structure design and manufacture, and also added input to Avitec's lighting design, as well as creating background ambient colour mixing utilising primary neon colours behind glass block walls around the dance floor and the bar. A 4 x 4 Videowall surrounded by eight additional single monitors is mounted above the bar - all monitors are Seleco and the videowall electronics are Ramwall from Laserpoint.

Five custom hexagonal steel structures are clad in anecoil polished aluminum, linked by Ladderlite, and the comprehensive lighting array features multi-channel neon (supplied by Disco Neon), Lynx 100SX spots, Kremesa Dichrolights, scanners and wavers, Opti strobes and Mode Arcline, with intelligent lighting provided by Martin Pro 218s. The centre hexagon has folding petals from which emerges a Martin Centrepiece. Lighting control is a Pulsar Masterpiece which also controls all the environmental lighting. Re-used lighting includes Coemar Spartans and Lampo Harvesters. Jem Club 20 remote heads in the rig provide the smoke.

The Speaker configuration is all Cerwin Vega - L36 'Junior Earthquake' folded horn bass cabinets combined with D32D mid/highs, with C-Audio and re-used Crest amplification, AB, Cloud and Symetrix limiting equalisation and C-Audio crossovers. Avitec's standard front end configuration of Technics 1200s(re-used), Cloud CXM and Denon 2000F is utilised.

Lighting Technology New Division

Due to continued expansion of the installation activities of the Lighting Technology Group, a new division has been formed, to be called Lighting Technology Projects, which will commence operations on 1st January 1994. The overall level of projects business in the Group is now approaching £2m per annum and the new division will combine all the existing installation activities of Compulite GB, LT Engineering and Turnkey Projects, as well as the areas of commercial project work previously undertaken by Lighting Technology.

This new division, under the joint control of divisional managers Bruce Kirk and Andrew Stone, will be based in newly refurbished premises at 720/721 Tudor Estate, housing office, workshop, service and warehouse space and utilising the existing telephone and fax numbers.

Areas of activity will include supply, installation and servicing of lighting equipment for both theatre, T.V., education and commercial/architectural use, sound and AV equipment, stage machinery and drapes together with the manufacture and servicing of lighting, electrical, audio and electronic specialist products in the workshop or in the field.

The new division has just been awarded major contracts for the complete supply and installation of all lighting sound and stage machinery for two auditoriums at the new Custom House Arts Centre in Newcastle and floodlighting of the exterior facia of Olympia.

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

WEST END/TOURING - HOTELS - DISCOS - OPERATIC



Starcloths - Drapes - Sound - Lighting

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

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

For more information contact George, Perry or Dave on
Tel: 081-646 6131 - Fax: 081-646 5983

WE'RE RIGHT BEHIND YOU

LWT - MICHAEL HURLL SERVICES - CARLTON TV - TRADESHOWS - CLUBS/MARQUEES

Grand Master 100% Memory left: 81x Sub Page 1

Cue List	Up	Down	Wait	Link	Follow	Label	Submaster List	Sub X	Label
96	EF	2	3.5	D	15		1	FL	
97	EF	1	1.5	D	Hold		2	FL	
98	EF	2	1	D	13		3	FL	
99			5				4	FL	
100			0				5	FL	
101			0				6	FL	
102			0				7	FL	
103			0				8	FL	
104			0				9	FL	
105			0				10	FL	
150			2				11	42	
151			1				12	60	
152			0				13	83	
200	EF	0	0	D	Hold		14	FL	
250			0				15	FL	
400			0				16	FL	
450	EF	0	0	D	Hold		17	FL	
550			0				18	FL	
556	EF	0	0	D	Hold		19	FL	
700			5				20	FL	

Fader A/B	Cue	Fader C/D	Cue
100%	Complete	100%	Effect Rate 56

ARRI

1051:	1066:	1091:	1116:	1141:	1166:	1191:	1216:
1052:	1067:	1092:	1117:	1142:	1167:	1192:	1217:
1053:	1068:	1093:	1118:	1143:	1168:	1193:	1218:
1054:	1069:	1094:	1119:	1144:	1169:	1194:	1219:
1055:	1070:	1095:	1120:	1145:	1170:	1195:	1220:
1056:	1071:	1096:	1121:	1146:	1171:	1196:	1221:
1057:	1072:	1097:	1122:	1147:	1172:	1197:	1222:
1058:	1073:	1098:	1123:	1148:	1173:	1198:	1223:
1059:	1074:	1099:	1124:	1149:	1174:	1199:	1224:
1060:	1075:	1100:	1125:	1150:	1175:	1200:	1225:
1061:	1076:	1101:	1126:	1151:	1176:	1201:	1226:
1062:	1077:	1102:	1127:	1152:	1177:	1202:	1227:
1063:	1078:	1103:	1128:	1153:	1178:	1203:	1228:
1064:	1079:	1104:	1129:	1154:	1179:	1204:	1229:
1065:	1080:	1105:	1130:	1155:	1180:	1205:	1230:

Select channel numbers

Cue/Type	Up	Down	Link	Follow	Label
96	EF	2	15	3.5	

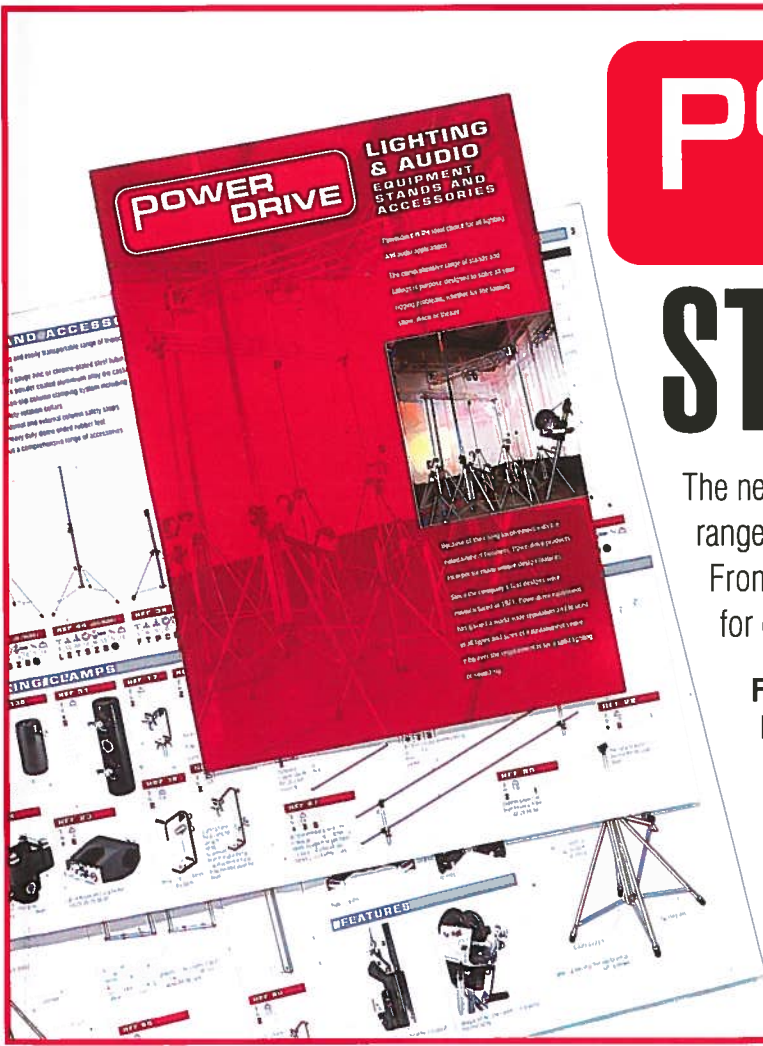
S1 S2 S3 S4 S5 S6 S7 S8 Flash

Imagine a console so powerful that it drives up to 1200 dimmers, colour changers or moving light parameters at blinding speed, and at ultimate DMX resolution. That runs up to 26 simultaneous effects. That talks MIDI, SMPTE and DMX. With two digital wheels for rate override, levels and pan/tilt control.

Now imagine that this console is as reliable and easy to use as the desks you already know. Imagine 3 from ARRI.

ARRI (GB) Ltd, 1-3 Airlinks, Spitfire Way, Heston TW5 9NR
Tel 081 848 8881 Fax 081 561 1312

Imagine 3



POWER DRIVE

STANDS ALONE

The new Powerdrive brochure features our comprehensive range of audio and lighting stands and accessories. From 31cm to 5.9m high, we've got the right system for every application.

FOR YOUR COPY OF THE NEW POWERDRIVE BROCHURE AND LIST OF DEALERS CONTACT:



EXCLUSIVE WORLDWIDE DISTRIBUTION

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

WYBRON

The word, "better," is not in our vocabulary. "Best" is. Ever since we invented rolling colour changers more than 10 years ago, we've worked



7-inch Model

To provide our customers with the finest and most technologically advanced units available. The best. **When you talked, we listened. And then we acted.** Our first colour changer was the innovative Colormax. It introduced

the whole concept of scrolling to the lighting industry. You said, "Great. But how about something even smaller, lighter and less expensive?" So we brought out the Colorwiz. "**Faster,**" you said.

How about seconds with "The Scroller," make them



10-inch Model

eleven colours end-to-end in less than two seconds? (Or five our eight and nine light units?) We did it and we named it, and you snapped them up just about as quickly as we could and "faster" took on a whole new meaning. **End of Story?**

Not by a long shot. Having sold more changers, it would have been easy to rest. But we didn't. That's why we developed the only direct-drive colour changer on the quietest, fastest and best ever. **And finally, Overnight.** It seems only natural, after colour changer concept, that we should string made. It's called, "ColorExpress™" and using a unique



5K Coloram Model

than 18,000 colour on our lighting laurels. "The Coloram Family™" market. It's the **the perfect gel string.** having pioneered the also offer the best gel

we can guarantee a string for any style

ColorExpress™ perfect gel
GEL STRINGS from WYBRON colour

Nine Light Model

10-inch Coloram Model



changer, in any sequence and in any length. Furthermore, on orders received by noon, we can guarantee same day shipment. For more information write, call or fax our sales office. **Our best to you.**



Wybron, Inc.

The ones the pros use. And use. And use.

4830 List Drive, Colorado Springs, CO 80919, USA • Tel: (1) 719 548 9774 • Fax: (1) 719 548 0432
Acton Business Centre, Unit GO4, School Road, Park Royal, London NW10 6TD, England.

ColorExpress: Tel: 44 (0) 81-838 2254 • Fax: 44 (0) 81-838 2253

Colour Changer Sales: Tel: 44 (0) 932 770333 • Fax: 44 (0) 932 771399

Brilliant Stages in the Pink

The mega-technology tour of 1994 promises to be the Pink Floyd World Tour, announced as L+SI went to press. With the legendary past performances of the band, and with Mark Fisher of Fisher Park and lighting designer Marc Brickman involved, expectancies will inevitably be high, and this was confirmed when Floyd announced their plans at a press launch hosted by Brilliant Stages at their premises in Greenford.

Over 100 journalists, photographers and crews attended the launch while others across Europe watched by satellite as the plans for the spectacular tour were unveiled - 29 shows in 18 countries starting in July. The extraordinary and complex stage sets devised by Fisher and Brickman, who is also assuming the role of show director for the tour, will be built by Brilliant Stages. "The whole concept is so immense, I think we'll be working on nothing else for months!" commented Brilliant Stages' Charlie Kail. Considering they have the capacity for three full arena sets at Greenford at any one time, that is some indication of the scale of the project. The stage is apparently one of the largest ever devised, and alternate versions will, of course, be required to keep ahead of the tour. It is estimated that 48 artics will be required with 120 riggers taking three days to erect each structure.

Brickman's lighting design, devised with input from the band, apparently makes no use of video, instead concentrating on 'an array of extraordinary special effects' including lasers. "Everyone involved in the creation of the show meets on a weekly basis in brain-storming sessions to produce what we hope will be the ultimate live spectacle," according to the Floyd's Dave Gilmour. Production management is by Robbie Williams.

Faces from LDI



Lighting designer Jonathan Smeeton with Light & Sound Design's Peter Johns.



Strand Lighting had their usual high-profile presence at the Show.



Chris Parry's Action Lighting brought to LDI products from both Selecon and M&M/Camelont.



David Hersey of DHA (left) with Steve Terry of Production Arts and Pani projection.



First outing for the recently-formed AC Lighting Inc and many well-known industry names.



Martin double act of MD Peter Johansen and R&D manager, Finn Kallestrup.



Neil Rice of Optikinetics (left) with Tracey Hoyt and Richard Belliveau of High End Systems.



A full range of truss from UK company Slick Systems International.

APOGEE

SOUND UK LTD.

5 BROOKLANDS CLOSE

SUNBURY-ON-THAMES

MIDDLESEX

TW16 7DX

TEL: 0932 772241 FAX: 0932 771399

ARTIST SYSTEMS
BY APOGEE SOUND

ARTIST SERIES

Hi-ENERGY



NEW BREED

ON THE
WORLD'S
TOP
STAGES



audio-technica®

□ INNOVATION □ PRECISION □ INTEGRITY

Tel: 0532 771441 Fax: 0532 704836

UK and Europe triumph in LDI awards

As with the Oscars and Emmys, it has become traditional for the Brits to go to the USA and beat the Americans at their own game. At this year's LDI such accolades could be extended to the rest of Europe, as the show organisers gave their most prestigious awards to a clutch of companies and individuals from the old Continent.

'Lighting Designer of the Year' was awarded to Chris Parry, the Englishman responsible for the lighting of Pete Townsend's rock opera 'Tommy', currently a smash hit on Broadway, and for which he has already pocketed a Tony award. Well known for his work on a range of other productions in the UK, both at the Royal National Theatre and the RSC, Chris has previously received a Tony nomination for Les Liaisons Dangereuses on Broadway.

'Best new Lighting Product' was scooped by Coemar for their NAT2500 projector, and the 'Caterpillar' light shown by Lighting Technology which received a special commendation in the 'Widget of the Year' category (both are detailed elsewhere in this issue). Lighting designers David Hersey and Richard Pilbrow were both apparently taken with the Caterpillar, "though they hadn't quite worked out what they were going to do with it yet". In fact, the category prize was collected by Marshall Bissett, another Englishman, for MUT Enterprises' redesigned G-clamp handle, which his TMB Associates distributes in the US.

'Best' of the major light shows went to Martin Professional and their distributor Tracomán for the Roy Bennett-designed extravaganza, with the American Company Pan Command getting an honourable mention for their clever product presentation in a more restrained environment. Lobo's excellent graphics carried off best laser show, though their high-def video wall interface could have taken an award on its own. Martin and Tracomán also carried off the trophy for 'best booth' in one category, with the Americans Vanco, Tomcat and the Celco Inc/Clay Paky/ Pulsar combination getting the prizes in other sectors. Vari-Lite Inc also got a special mention in this section.

As it was announced that next year's event would



The Tracomán/Martin stand walked off with one of two Best Lightshow awards. Gerard Cohen (Tracomán), Peter Johansen (Martin), and LD Roy Bennett collected the award from LDI's Paula Millstone.

take place in Reno, not everybody's favourite city for the show from previous experience, other awards and commendations at LDI'93, some for promising pre-production items, went to Vari-Lite for the AR500, their new architectural luminaire, and for the VL6; to DeSisti for their Light Bar; High End for the Cyberlight and the Status Cue, their first proper lighting desk; to ETC for their excellent lighting-control-via-digitizer tablet, much heralded by Tim Burnham in the UK over the past few years and applauded by Richard Pilbrow following his earlier forecast at Showlight; and to Wybron for the Autopilot, first shown experimentally last year, but substantially functional this time.

Surprisingly, for a lighting exhibition, awards are also given for sound innovations and these were carried off by Gary Rydstrom for soundtrack production on *Terminator 2*, *Jurassic Park*, and *A River Runs Through It*; VegaNet, a Medialink-based wireless-microphone control system, was best product; with special pre-production mentions for EAW's KF virtual array speakers and Richmond Sound Design's DS Perser, a digitally-based sound processor capable of executing up to 200 million floating-point operations per second in a digital audio pathway 128 channels-wide. More details on these and other products first seen at LDI are on pages 35-46.

January Show Battle

Two London exhibitions are all set for an attract-the-visitor battle in January. The Live! Show, set to take place at the Royal Horticultural Halls near Victoria on January 18th and 19th has a head-on clash date-wise with the Outdoor Event 94 and Live Music Production show being held at Wembley from January 18-20th. The organisers of the latter have billed their show as 'the leading exhibition for producers of live music events' and claim that 260 companies covering nearly 70 different categories will be exhibiting. They are also going to the extent of having entertainment stage and 'street' performers working around the exhibition itself.

The organisers of the Live! Show 1994, promoted by MLP Exhibitions and Live! magazine, claim that their event is 'the only trade convention for the live performance industry!' At this event product demonstrations for lighting are planned for a central stage and in a special first floor theatre for sound.

Details for the Wembley show 0203-694393; for the Live! Show 0727-843995.

Harman acquire AKG

Harman International Industries has acquired 76% (with a future option to purchase the remaining shares) of AKG, leading manufacturers of microphones, audio headphones and other professional audio products. Its principal subsidiaries include AKG USA, AKG UK, and audio products sold worldwide under the brand names BSS and Turbosound. Dr Sidney Harman, chairman and chief executive of Harman, told L+SI: We believe that under Harman management AKG will begin to realize its substantial potential."

Pulsar on Course

During 1994 Pulsar will be expanding their Customer Support Training programme to offer seminars to their end-users. Based upon the success of the original Masterpiece seminar programme, the new schedule will now include the following subjects:

Masterpiece Intensive: A single day course for the Masterpiece range. Covering all aspects from inter-connecting systems through to advanced automated programming. This course will give attendees a detailed understanding of the enormous capabilities of Masterpiece range. A certificate and programmer's card will be issued on completion of the course.

Product Awareness: The Clay Paky & Pulsar range currently stands at over 450 products! If you are ever unsure about any of the products this is the seminar for you. The day will start initially with an outline of the complete range and develop into a hands-on session where products are made available for evaluation.

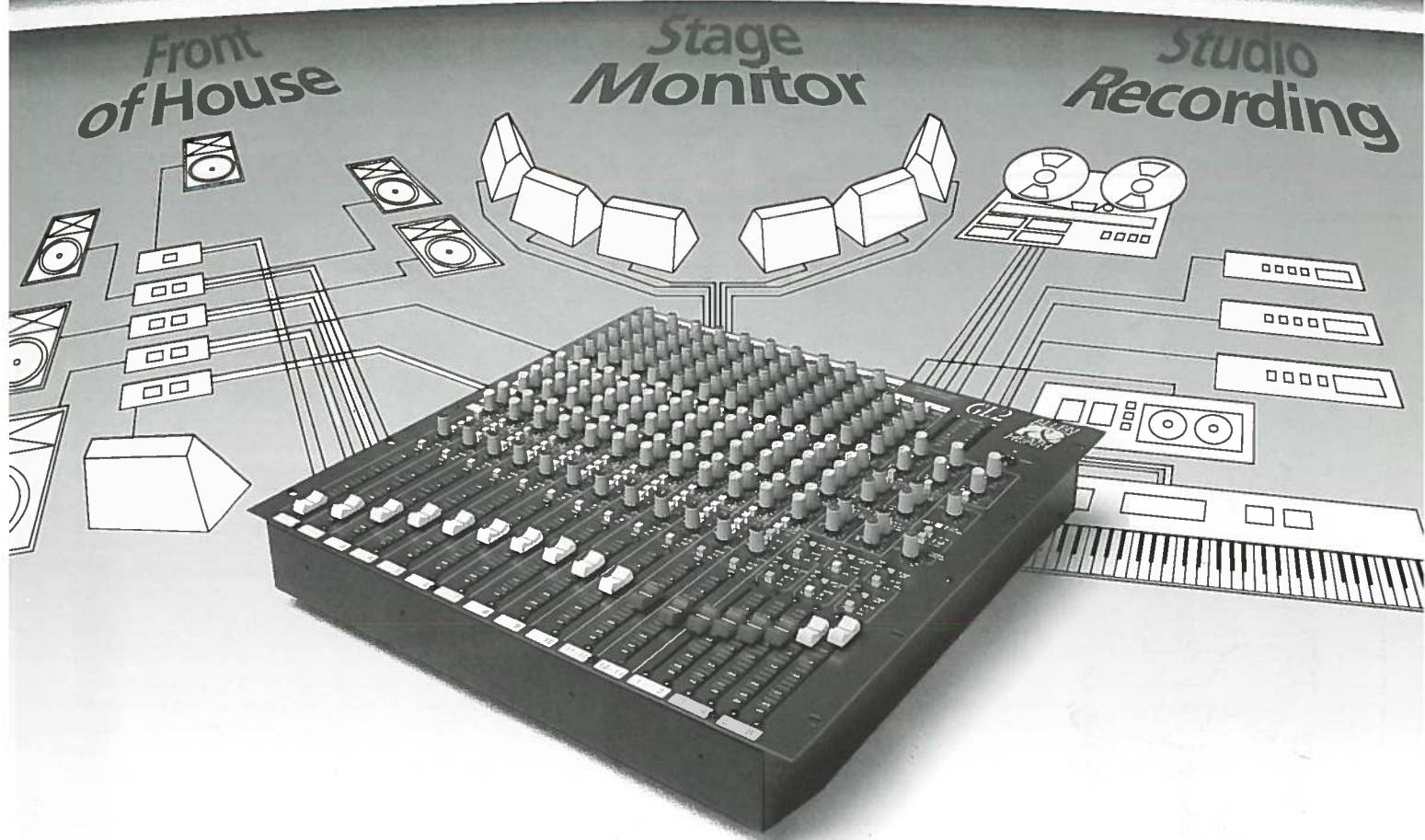
Project Presentation: The seminar will demonstrate the various computer tools available to assist in preparing presentation. These will include: CAD (Computer Aided Design), Advanced WP (Word Processing) and a paper-less fax system.

Service - First Aid: Designed to encompass in the field first line support and maintenance. Aimed at the semi-technical person, it will cover basic trouble shooting and maintenance ranging from individual product to multi-product installations.

Service - Advance: Designed to give the service engineer insight into electronic systems, it is for the technician who trouble-shoots to component level.

Pulsar training is open to anyone. For further details and the dates of the seminars please contact Sabrina Marengi at Pulsar on (0223) 66798.

Expand your horizons.



The *GL2* from Allen & Heath

A remarkable multifunction mixer for Front-of-House, Stage Monitor, and Studio. The ultimate in flexibility, this compact rackmount unit reveals a world of new opportunity – the ability to adapt.

In basic format, the GL2 is an 18:4:2:1 system for quality Front-of-House mixing. But at the touch of a button it's instantly configured as an 18:6 Stage Monitor mixer. Another button and you're set up for 4 track recording. No fuss, no compromise.

And no limitations for the future. Our truly unique SYS-LINK™ system gives the GL2 the means to grow.

This is a desk with the power to simply expand as your needs develop.

Designed and built by experienced sound engineers, with the superb specifications and build quality you'd expect from Allen & Heath – this desk knows no bounds.

For further information and your nearest Allen & Heath dealer, call Harman Audio on 081-207 5050.

**ALLEN
&
HEATH**

*UK Distributor: Harman Audio, Unit 2,
Borehamwood Industrial Park, Rowley Lane,
Borehamwood, Herts WD6 5PZ.*

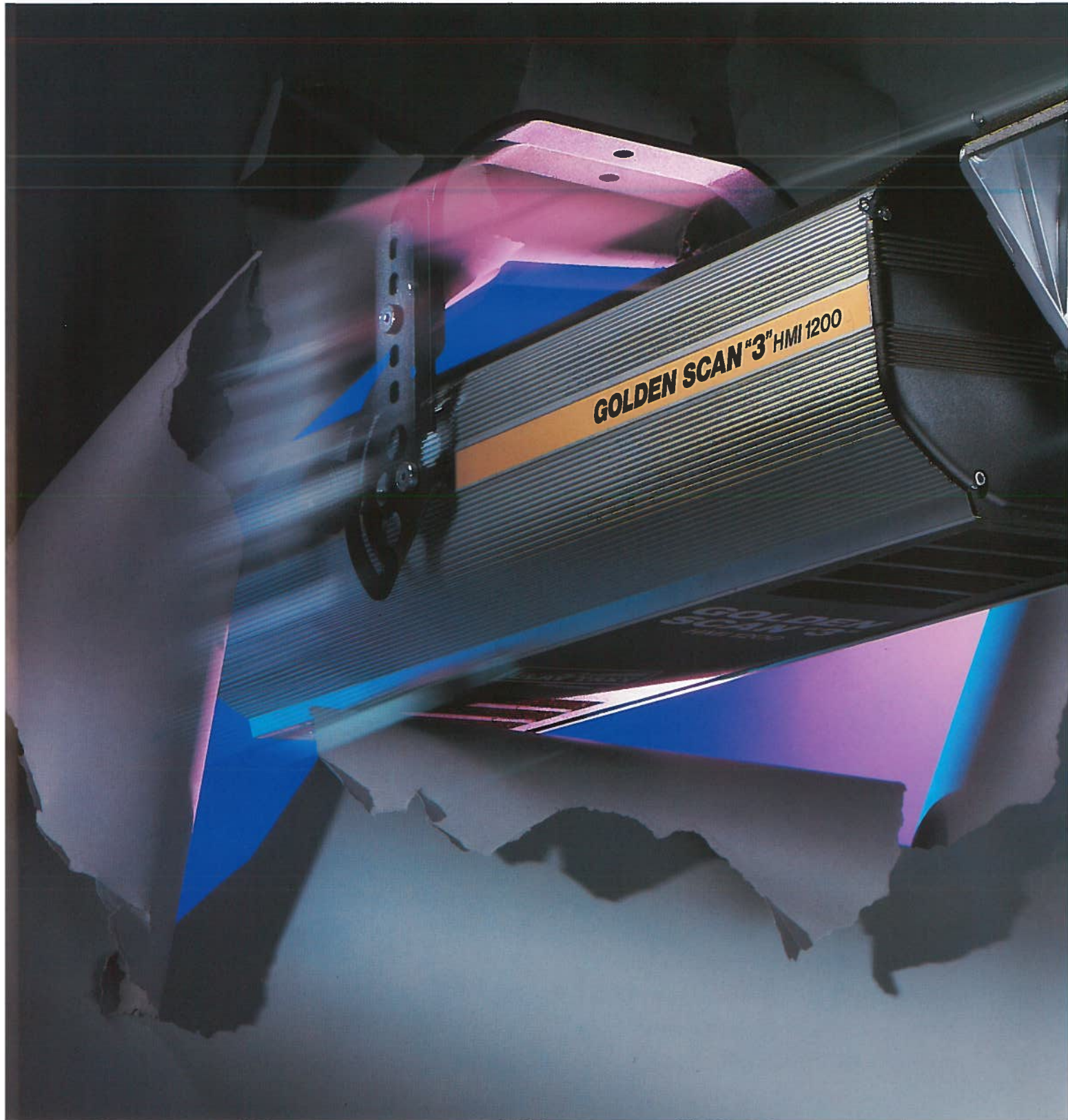
*Manufacturer: Allen & Heath Ltd, Kernick Industrial
Estate, Penryn, Cornwall TR10 9LU, England.*

Engineered for Perfection

H A Harman
International
Company

Only Golden Scan is better than Gold

Voted Best Lighting Effect worldwide four years running: only Golden Scan can say this. And now, from the same team, comes the result of this unparalleled technical success. A projector whose innovative features will set the new standards for scanner



CP&P
Clay Paky & Pulsar

FRANCE

CLAY PAKY & PULSAR srl
10 Avenue Du Fresnois • 14760 Bretteville Sur Odon
Tel. 33 - 31 741001 • Fax 33 - 31 734729

GERMANY

CLAY PAKY & PULSAR VERTRIEBS GmbH
An Der Talle 26, • D-33102 Paderborn
Tel: 49 - 5251.409051 Fax: 49 - 5251.409931

NETHERLAND

JAC VAN HAM LICHT, GELUID & BEELD bv
Kraaijenstraat 13 • 5048 Tilburg
Tel. 31 - 13.63.8585 • Fax 31 - 13.63.8435

SPAIN

SHOW TRADING sl - Centro Comercial Ind. Pentasa, 3
Juan Ramon Jimenez, s/n - Nave 270 • 09007 Burgos
Tel. 34 - 947.213494 • Fax 34 - 947.235878

PULSAR

**PULSAR LIGHT
OF CAMBRIDGE** Ltd

Henley Road
Cambridge CB1 3EA - U.K.
Tel. 44 - (0) 223.66798
Fax 44 - (0) 223.460708

den Scan

Golden Scan "3",
technology.



Golden Scan "3"

30% more light output from the same lamp • Rotating gobos, interchangeable, fully programmable with accurately repeatable positioning • Frost filter, to produce a hard-edged focus or a soft-wash • Fully dimming, 0 to 100% • No less than 24 colours, 24 bicolour beams and rainbow effect • Prism for multiplying projected images • Shutter and strobe with twice the speed of previous models • Increased resolution in mirror stepping • In addition: interchangeable optics and iris • A special version is available which has been developed for professional touring applications (better portability, power factor correction, graduated yoke, etc.).

What about the control system?

Golden Scan "3" uses 6 control channels and is designed to operate with all industry standard protocols: DMX 512, 0-10V analog and PMX (Pulsar's RS 232/423 protocol), so you can be confident that your lighting desk will operate Golden Scan "3".

But the ideal controller is **MASTERPIECE** from Pulsar, who produce the electronics for Golden Scan "3" and whose experience of controlling scans means that Masterpiece offers every feature you might need. Effortless control of Golden Scans, Par Cans, Strobes, Smoke Machines, Pinspots, theatre projectors, moving structures, window spots, neon lighting, video walls - you name it - Masterpiece should control it.

What's more each effect can be controlled individually or simultaneously

in its own timed and programmed sequence. What more could you ask?



Masterpiece

CLAY PAKY s.r.l. - Via G. Pascoli, 1
24066 PEDRENGO (BG) Italy
Tel. 035 / 66 39 65 • Fax 035 / 66 59 76



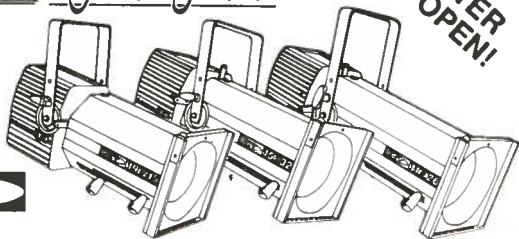
PROFESSIONAL SHOW LIGHTING

RB Lighting Ltd

NEW
SALES
COUNTER
NOW OPEN!

Main
Supplier
of

CCT



CCT Lanterns and Spares available from stock.

081-977 9665

RB Lighting Ltd, Unit 10, Teddington Business Park,
Station Road, Teddington, Middlesex TW11 9BQ.
Fax: 081-977 5687

Citronic Booms into Far East

Mike Gerrish, sales and marketing director of Citronic, has announced major new orders for the company's professional studio, DJ and club ranges from the emerging Chinese music industry. In the wake of PLASA 93, new customers and large orders have been won from Taiwan, South Korea, the Philippines and Indonesia. "The greatest compliment that any UK audio manufacturer can receive is to win orders from the South East Asian market," said Gerrish. "The business has boosted our projected 1992 orders by 40% and necessitated the company taking on extra production staff to cope." The company is now seeking formal representation in Japan to complete its penetration of the South East Asian market.

ShuttleCAD Data Service

ShuttleCAD's Data Service - thousands of pre-drawn parts which make high-quality system drawing and documentation easier (see September feature) - continues ahead of schedule. With the latest quarterly data release 10 new manufacturers were added and six supporting manufacturers added new product data to their range. There are now 30 manufacturers aboard the Data Service, or some 4000 system parts.

Brian Marsh, ShuttleCAD technical support manager responsible for liaising with manufacturers, is convinced that ShuttleCAD has the full support of the industry. "Manufacturers are literally swarming around ShuttleCAD. Wherever we go in the world now, the leading players know who we are and what we're doing. ShuttleCAD Technical Support has had to quadruple its staff to cope with the demand from manufacturers wanting to join the service."

Marquee for Forum

Marquee Audio has just completed a contract for The Conference Forum, one of London's most prestigious venues, to design and install a new sound system for the Chaucer Theatre, the Forum's keynote presentation area.

Commenting on the installation, Lynda Forest, event manager, told L+S: "We wanted high quality sound reinforcement, but we also needed Marquee to overcome some existing acoustic problems and to enhance the theatre's clean aesthetics by keeping the equipment out of view. The speakers had to be allocated behind vertical grilles on either side of the stage, and although their options were limited by the size and shape of the space, Marquee's solution has earned nothing but praise."

The new system supplies sound reinforcement for the 350-capacity theatre as well as a control room up-grade, and was designed to replace and enhance the Forum's previous equipment by magnifying its speech reproduction capabilities. It includes a DDA S Series console, JBL Sound Power speakers, HH VX series power amplifiers and BSS FDS 360 crossovers. A pair of Yamaha D1030 delays were installed to correct a persistent problem of early reflections in the back of the theatre caused by the control room overhang.

TOA Hampden Park

The recent installation of public address equipment from TOA at Scotland's national football ground, Hampden Park in Glasgow, has further enhanced the company's moves to dominate the UK stadia market. The past two years have seen TOA's PA and pro-audio equipment fitted at 25 other major soccer grounds around the UK - including Manchester United, Sheffield Wednesday and Glasgow Rangers - bringing in excess of £1m worth of business from just one market sector.

Terminal and Music Bank Join Forces

Terminal Studio, the purpose-built rehearsal facility near London Bridge, has joined with neighbouring Music Bank, a division of Hilton Sound Plc, to provide a complete one-stop production service. Terminal is now fully operational in its new premises - the five rooms include a showcase studio and a 50 x 30ft production size studio.

Master Class Stage Rigging Course

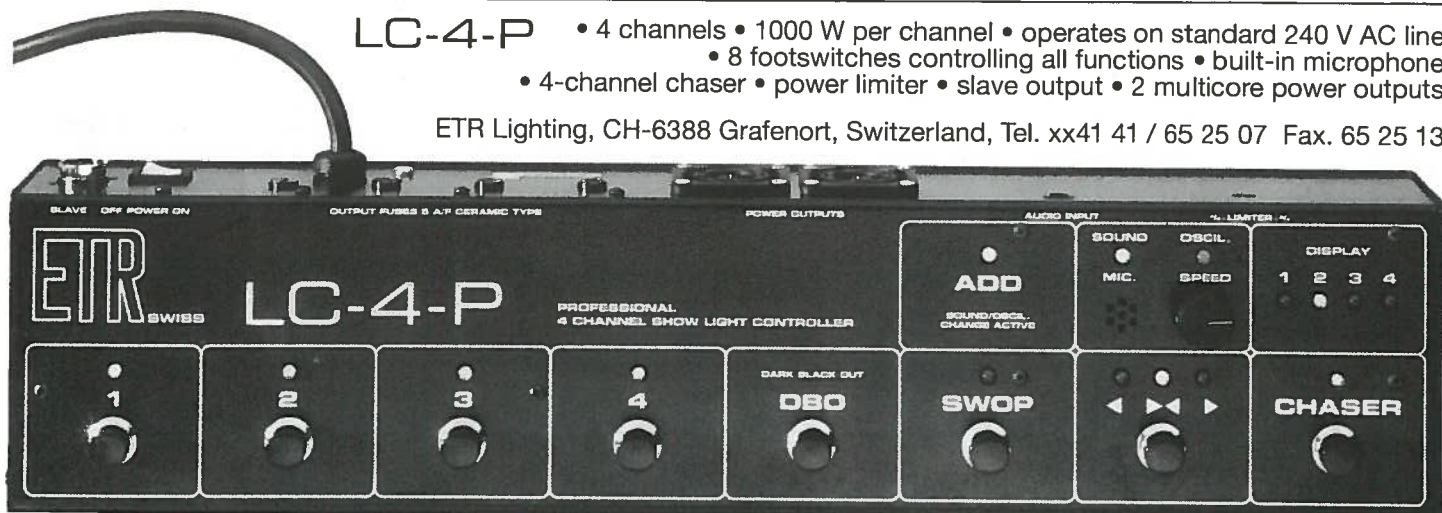
The next international Master Class in Stage Rigging (level 1) will be held in Munich, Germany from the 20th-28th February and involve 16 classes over the eight day period. The course is for riggers, both beginners and professionals, in the entertainment industry who wish to improve their skills and knowledge. The lecturers on the course will be Dr Randall Davidson, Jay Glerum, Rocky Paulson, Randy Longerich, Rinus Bakker, Reg Drew and Mark Armstrong. The course has been run successfully over a period of eight years in America and was run in Europe for the first time at Edinburgh in March 1993. For details contact Mark Dixon in Germany on 8161-42190.

Martin F2's Go East

Martin Audio have recently supplied F2 Systems to Hong Kong and Korea, further strengthening the worldwide network of F2 Users. New Sound Studio, Martin Audio's authorised distributor for Hong Kong, have chosen the F2 System for their newly formed hire company, and their distributor for Korea, Seki Electronics Co Ltd will use their F2 System for in-house demonstrations to promote the F2 to hire and installation companies.

LC-4-P • 4 channels • 1000 W per channel • operates on standard 240 V AC line
• 8 footswitches controlling all functions • built-in microphone
• 4-channel chaser • power limiter • slave output • 2 multicore power outputs

ETR Lighting, CH-6388 Grafenort, Switzerland, Tel. xx41 41 / 65 25 07 Fax. 65 25 13



WWG in LDI Success

Wynne Willson Gottelier, the UK-based lighting design and development team founded by Peter Willson and Tony Gottelier, is basking in the glory of its success following tributes paid to their product concepts at LDI'93. Two products, both of which had substantial WWG design input, were singled out for awards during the Orlando show.

The Caterpillar light, designed by Peter Willson, received a special commendation in the novelty product category known locally as 'Widget of the Year'. The product features in-built animation which makes it wiggle in two axes, had already been snapped up by London-based Lighting Technology who will handle worldwide sales and distribution. Fellow professionals who fell for the charm of the Caterpillar's organic movements included headline theatre lighting designers David Hersey and Richard Pilbrow. WWG also reported that staff of the New York architectural lighting designer Jules Fisher were equally fascinated and enthusiastic about the product.

The second prizewinner was the NAT TN2500 automated luminaire manufactured by Coemar in Italy, which was awarded 'Best New Lighting Product' by the judging panel. WWG were responsible for the design of the unusual periscopic animation for this instrument, which was undoubtedly what caught the judges' eyes. The NAT offers controlled positioning of its beam into a fully spherical envelope.

Peter Willson, head of WWG's R&D department responsible for these two innovative concepts said: "These awards are fitting reward for years of largely unrecognised effort. Normally, it is sufficient for our developments to come to reality, as with our previous work for numerous other manufacturers in the entertainment lighting industry. However, it is especially pleasing for one's efforts to be praised by one's peers."

Busy, Busy, Busy

Samuelson Concert Productions and Vari-Lite Europe are enjoying a spectacularly busy autumn/winter season of work for an expanding roster of clients. Among SCP's shows in the last half of 1993 are Cliff Richard, Deep Purple Dream Theatre, Gary Glitter's Christmas shows, Hothouse Flowers, Iggy Pop, Julian Cope, Little Angels, Midnight Oil, Paul McCartney, Salt n' Pepa, Take That, The The and The Cult.

Vari-Lite Europe is equally active. Current West End productions include Carousel, Grease, Hot Stuff, Joseph, Miss Saigon and Sunset Boulevard. On the rock'n'roll front is Deep Purple (see On Tour), Cliff Richard, UB40, Tears For Fears, Wet Wet Wet, Whitney Houston and Elton John in Africa. The company has also won the lighting contract for the UK debut of a new Walt Disney concept. Audiences at Disney's latest cartoon blockbuster Aladdin at the Odeon Leicester Square are treated to a 'pre-film show', a live stage performance by actors dressed as characters from the movie.

Sofiscotech
 ELASA 1440 Leeds Road, Tel: (0274) 661405
 Bradford BD97AA Fax: (0274) 666463

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

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

Roy Bennett Lights for Martin

In what may well turn out to be the final chapter in the 'prizes for light-shows' saga (see news story on show limitations page 7), Martin Professional and their US distributor Tracoman, scooped leading lighting designer Roy Bennett to design their performance at LDI'93.



LD Roy Bennett.

Roy Bennett, whose name has been synonymous with Prince's stage shows for many years, and more recently with his stark lighting statements for The Cure, put the show together in Martin's Denmark showroom prior to the LDI exhibition.

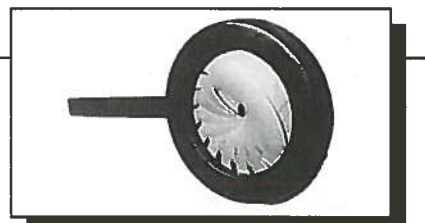
"I had never been to an industry trade show in my life prior to this one, though I am always interested in the technology, which was one of the attractions for taking the job on. I thought that it would help me to get closer to the actual product," Bennett explained.

The item of most interest in this context was clearly the Pro 1220 which is the company's top-of-the-range automated luminaire, designated for the touring market. However, Bennett was able to make use of the full range of Martin Professional's products in his three stage show, which was complimented with an award from the organisers.

The total equipment list, which reads more like an inventory for a major concert than a trade show, included the following items quite aside from the 50 Pro 1220s used: 70 Pro 218s, 96 Robocolor MSDs, 176 standard Robocolors and three of the new Martin Centrepieces.

As Martin Professional's MD Peter Johansen told L+S: "If we had known beforehand that this would be the last of lightshow competitions, we couldn't have made a better choice of designer. Roy did an excellent job which we hope will draw the attention of other rock designers to the fact that Martin Professional are serious about the touring and concert markets, and that we have the products to meet their aspirations. To get an LDI award for this effort and another for best stand, is the icing on the cake."

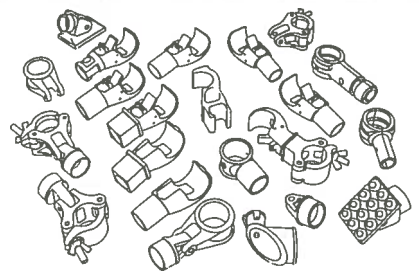
Roy certainly took his job seriously, as our picture shows, always managing to sneak a peek of his show in progress to check on the audience reaction. The programming and execution of the show was undertaken by Martin Professional's Mark Ravenhill and Steve Rawlins.



Wilkes Iris Diaphragm Co Ltd
 Widco 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

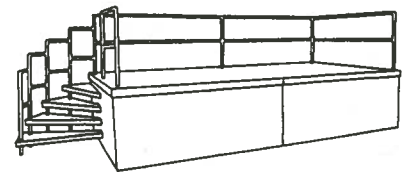
ALISCAFF



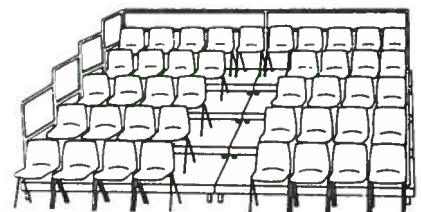
Primary manufacturers/suppliers world-wide of aluminium couplers (scaff clamps), aluminium snap hooks and many other aluminium fittings to fit either 2" (50.8mm) or 1.29/32" (48.4mm) tubes. Ask for collage of full range - Custom design work undertaken

ALISTAGE

PORTABLE MODULAR STAGE SYSTEM



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 1000Kg with a safety factor of 3.1. Units can, if necessary, be custom-made to your requirements. Accessories include fascia, guardrails, ramps and both straight and spiral staircases. Canopies are available if required



MODULAR TIERED SEATING MODE
 Available for hire, sale or lease. Can be supplied minus seating so that client may use own seats. Each tier has 200mm rise for perfect audience viewing. Guardrails at 500mm and 1000mm height. Modular construction ensures that the unit can be customised to client's requirements. Seat unit cost is considerably less than most other systems. Canopies available for outside events.

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

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

LDI '93: VL6, NAT and Cyberlight Launched

Hardly was the ink dry on last month's L+SI survey of automated luminaires, than new product launches at LDI '93 threatened to render it obsolete. While the advance data on High End's anticipated Cyberlight and Coemar's NAT were included, Vari-Lite's VL6 was not.

Loren Haas, Vari-Lite's marketing manager, explained: "Even I didn't know for sure that the Vari*Lite VL6 would be ready for the show, so while I apologise for spoiling L+SI's ambitious plan to produce a truly comprehensive survey, I am glad to have the product out as soon as this." The VL6 is a budget automated spot luminaire for which Jim Bornhorst's development team have, as usual, come up with some novel innovations, this time to solve the problem of cost versus facilities in a slimmed-down housing. "The VL6 is Vari-Lite's affordable answer to those people who may have begun to see the 1-beam as a low cost option. We detect that people are happy to settle for less, if they can also pay less for it," added Haas.

Other new items on their booth were the VLM controllable mirror, the Tomcat-designed Auto Truss and the Artisan VLQ, a board level cueing program. Vari*Lite also announced their entry into architectural lighting with the AR500 weatherproof floodlight, and two interior class luminaires, all of which are based around the VL5 but using different lamps. The big news is that the Dallas-based corporation have accepted the inevitable in that particular market and are offering this range for sale for the first time.

One man who does not agree with Loren Haas' last comment is, you won't be surprised to learn, Richard Belliveau of High End Systems and Lightwave Research, whose new Cyberlight product took its first tentative steps at LDI'93. "What people actually want is more facilities for less money," said Richard. "Though it is not yet performing to full potential, I hope people can see that the Cyberlight will provide a great many new dimensions in automated lighting." The back of the Cyberlight is printed 'this lamp is hot', which could perhaps also be a fitting slogan for this exciting new entry from High End Systems!

Another development product from the Texan innovators was Status Cue, a hard control surface for their automated lights which is linked via an expansion card to a standard PC486 to provide the processing power, and High End's first true lighting board. Those who keep up with ex-pats will be interested to learn that, just prior to the show, High End announced that they were taking on the distribution of Alex Blok's video animation system successor to the Bit Bopper, now called Sono Vista, which Alex has been developing in California for the past year. Apparently, it was originally also to be called Cyberlight and a discussion over the clash of names led to the deal. High End certainly got the 'party of the week' award for their huge bash at the Peabody Hotel's International ballroom. If Cyberlight was to be upstaged, it would have to be Coemar's NAT which would do it, and it duly ran off with the best new lighting product award, though if both had been as complete, it might have been a tough call. Though it was the NAT which seemed to command the most attention, Coemar were in danger of upstaging themselves with the launch of the PC1000, a self-contained colour mixing luminaire based on a 1kW halogen lamp. With no articulation, just point and click - the PC1000 would seem to have great potential in touring!

Imagination to Design Copacabana

Imagination Entertainments will be responsible for overall creative style on the forthcoming production of Barry Manilow's 'Copacabana', bringing it to life in truly spectacular fashion. The company was appointed by The Apollo Leisure Group and BCC, who are producing the show in association with Gary Kief.

Led by creative director Gary Withers, the Imagination team is responsible for the set, lighting, projection and sound design for the show. Drawing on its unique in-house resources, it plans to immerse the audience into a captivating visual extravaganza. The announcement was made on November 3rd at the musical's official launch in The Imagination Building (pictured right), where Gary Wilmot sung one of the show's main numbers, 'Who Needs To Dream?', accompanied by Barry Manilow on the piano.

'Copacabana' is written by Barry Manilow, Jack Feldman and Bruce Sussman and stars Gary Wilmot in the dual lead role of Stephen, an aspiring songwriter and Tony, bartender at the legendary Copacabana nightclub in New York. Opening at the Plymouth Theatre Royal on 21st March 1994, the show comes to London's West End on the 23rd June.

Previous scenic design concepts from Imagination Entertainments include set,



projection, lighting and sound Mike Batt's 'Hunting of the Snark'; production design and specialist projection for Dave Clark's 'Time' and full scenic design for last year's exclusive presentation of 'Tutankhamun'.

CONFERENCES
EXHIBITIONS
PRODUCT LAUNCH
TV & FLIM
OVERSEAS

LONDON LASER Company

FOR THE MOST EXCITING, DRAMATIC &
BREATH TAKINGLY CREATIVE LASER
SHOWS ON EARTH
.....JUST CALL US

460 EWELL ROAD, TOLWORTH, SURREY, KT6 7EL.
TELEPHONE: 081-399 1754 OR (0836) 766599

INTERNATIONALE

MUSIK
MESSE

FRANKFURT



Live on stage: The sound of business.

Quality business will be proclaimed again, when the biggest music fair in the world takes place in Frankfurt.

Again, well over 1,000 exhibitors from 40 countries will be presenting here the most extensive offerings of musical instruments, professional lighting and sound technology, musical accessories, books and sheet music, computer hardware and software. In addition, a large special display on the theme "DIGITAL AUDIO" will update you on

opportunities and developments in the area of electronic media.

You can obtain further information by returning the coupon to Collins & Endres, Messe Frankfurt Representatives in the United Kingdom (U.K.), Morley House 314/322 Regent St, GB-London W1R 5AB, Tel.: (0 71) 3 23 65 70, Telefax: 3 23 65 23.

Trade days: 16 – 18 March, 1994
Public days: 19 and 20 March, 1994

Name

Address

Musikmesse 1994

Sounds like business
Frankfurt am Main, 16. – 20. 3. 1994

 **Messe
Frankfurt**

continued from page 7

Strand's dealer business and in the UK business is up over 30 per cent."

Avolites' Steve Warren told L+S: "It seems to us that a great deal of confidence has returned to the market in general. In past years there were seasonal swings but this year has produced a constantly high level of sales and rentals, irrespective of the month. We see this as an on-going trend, with sales up 24% on last year."

Anytronics' Bob Hall reports their best ever October and November sales, with excellent business right across the board. "I've never seen things more positive," he said. "Our order book is full and we've had to take on more staff."

CCT Lighting had a massive influx of orders immediately following the PLASA Show with a higher level continuing. "Previously, things had floated between brilliant one month and patchy the next," said David Manners.

Celco had suffered delays in take-off with their Aviator console, but report that there are now "regular flights worldwide" with business showing a marked increase following the PLASA Show.

Kevin Hopcroft of **NJD Electronics** reported "the best nightmare in the world" while struggling to cope with a three-fold increase in demand since the PLASA Show. When we called he had a man from the British Enterprise Board on site reviewing their complete systems and hoping to provide advice on how the dramatic increase in orders could be coped with.

Bryan Raven reports that **White Light** has had a busy autumn, particularly on sales. "It has become increasingly noticeable that less and less lead time is given on any project, whether for hire or sale," he said. "Modelbox have been exceptionally busy, particularly on three dimensional animation work and there has been a big increase in the number of sales of Laplight," he continued.

Contractors **Giantre** saw the recession bypass them completely. "We have maintained a steady stream of new contracts with growing turnover and staff levels and satisfactory profitability," said Derek Gilbert. "Our 1993 turnover of almost £8m will be at least 12 per cent above our previous best of 1992. We are entering 1994 with a forward order book of more than a year's work - some of which runs into 1995 and even 1996. However, there's still plenty of capacity to accept new contracts for next year!"

Alan Thomson of **Theatre Projects** and **Samuelson Concert Productions** said: "We are currently enjoying the best period we've had for the last two years, and all indications are that this success will continue through 1994." In the same

family, **Brilliant Stages'** Charlie Kail simply reported: "Blooming brilliant and mainly pink." **Vari-Lite's** Brian Croft said: "We are seeing an extremely strong end of year, and we're healthy, happy and hard at it. The future looks bright."

Sandra Cockell of **Formula Sound** said that after four record months the situation looked set to continue. "Our noise control equipment has greatly assisted a huge increase in business as has the three awards picked up in our 20th year."

Rosco's Michael Hall told L+S: "Since September, there has been an upturn in business in the UK across our product range and it continues to be buoyant. However, most European countries remain subdued in recession."

JEM Smoke Machine Co's Mike Wood reported the company's first real increase in business for three years with sales running over 10 per cent higher, with every month showing a steady increase, and a record November. They've taken on 10 extra staff and already sold out their December production. Despite this, Mike added a word of warning: "Customers aren't yet putting in scheduled orders; it takes time for people to get their confidence back."

Trantec Systems has witnessed "another good year," according to sales and marketing director Chris Gilbert. Growth over the past year has been confirmed by the recent appointment of a new sales consultant to their team.

Nikki Scott of **DHA Lighting** reported steady growth in the UK market, with products firmly establishing themselves and business looking good in the projection field, for slides and special gobos. "There has also been some unexpected growth, particularly overseas," she said. "In the current climate we have, through necessity, maintained a tight control over trading credit terms - particularly as the effects of the recession continue to make controlling cashflow a top priority for so many companies."

Cerebrum Lighting's John Lethbridge also had a word of caution: "The business is definitely out there, but you need to be careful. Everybody wants both discounts and long credit, and the value of turnover largely seems to depend on the risks you are prepared to take."

But to end on a really bright note, Michael Goldberg of **M&M/Camelont** reported that the company's turnover has increased by over 300 per cent during the year. "All augurs well for 1994," he said. "We've already arranged to double the size of our stand at PLASA 94. In addition, a large American theme park has just approved the Alfresco colour changer as the standard unit for all future indoor and outdoor events."

AC Buy Tasco Stock

On the first of this month, AC Lighting purchased the full rental assets of Tasco.

Tasco were a major rock and roll rental company who provided rigging and lighting for the Chippendales and Deep Purple, amongst others. The stock mainly comprises a large amount of motors, truss, cable, distribution, Parcans, dimmers and desks. AC have no plans to start a rental company and intend to sell the equipment back into the marketplace. The Tasco equipment will complement the already substantial amount of second-hand stock that AC hold from the previous buy-outs of Key Light, Avolites Rental and Luff Light & Sound.

Eat to the Beat



Canon Audio, in association with Blueprint magazine, have, throughout the summer, been searching for a winner for their 'Best New Restaurant in Britain' Award.

The rationale behind the award was to reward innovation and excellence in restaurant design, the criteria being the skill with which architects and designers had brought together the essentials of space, colour, ambience and sound. The shortlist featured some of the most distinguished names in the design world, but it was Sir Terence Conran and Keith Hobb's Quaglino's which walked off with the award.

Our picture above shows Canon MD Andy Szeliga with Sir Terence Conran (centre) and design partner Keith Hobb's.

Dennis Newbold

Fane Acoustics has announced the death of co-founder Dennis Newbold, at the age of 75. Newbold, still actively involved with the company until four years ago, established Fane in 1959 with partner Arthur Faulkus.

A & B Theatre Services

THE MINI DRY ICE BOX
PORTABLE DRY ICE MAKER
☆ Back by popular demand ☆



- 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


- 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
Tel: (0302) 364808

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

LASER ANIMATION

LASER DISPLAY SYSTEMS
of
ANY TYPE AND POWER
for
SALE AND HIRE

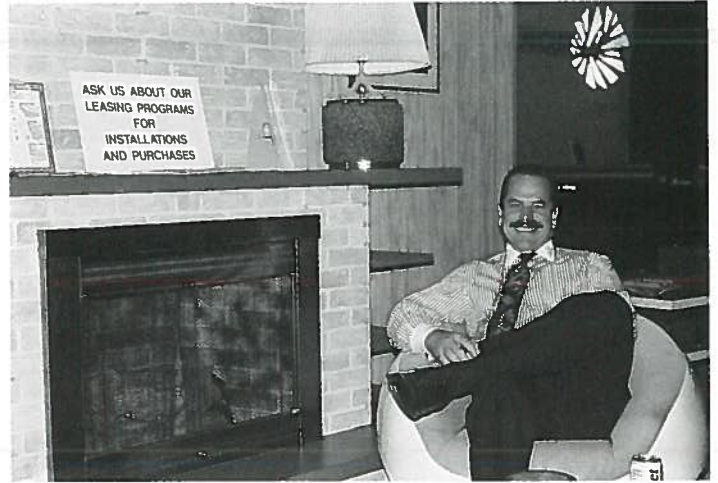
FOR FULL DETAILS AND QUOTATIONS

CONTACT
LASER ANIMATION
on
TEL: 0476 73006
FAX: 0476 73060

On Camera at LDI 93, Orlando



USA meeting of Italian manufacturers who are partners in Australia: Mario DeSisti of DeSisti Lighting (left) with Bruno Dedoro of Coemar.



Dale Ward of Vanco relaxes 'at home' on the company's award-winning stand.

People News

Roscolab Limited have welcomed on board **Barrie Guy**, who joins their international sales and marketing team from DHA. **Robert Achlimbari**, a previous member of the team, has moved to Rosco in New York to become senior product manager responsible for fog and other engineering products.

As part of Squire Sound and Light's planned expansion programme, **Darryl Lee Moody**, formerly with Lightfactor, has joined as the company's contracts sales manager, taking responsibility for the expansion and development of the Contracts Division turnkey design and installation service.

Yamaha-Kemble Music (UK) Ltd has appointed **Karl Christmas** as marketing manager, Pro-Audio, serving the recording, broadcast, audio visual, post production and live sound industries. Karl, who joined Yamaha in October, brings a diverse profile of skills to the position, previously occupied by **Alan Martin**, who left the company earlier this year. Soon after completing his studies at Trinity College of Music, Karl joined Yamaha Music Pulse, the retail outlet in London's West End. During his time as manager of the store he worked closely with Yamaha-Kemble and the RD Centre, to establish strong relationships with professional musicians, producers and studio engineers.

In addition to the acquisition of loudspeaker manufacturer Spondor Audio Systems this year, UK audio mixing console manufacturers Soundtracs plc have set their sites on going for growth in 1993. Extra staff have been taken on to expand the Surbiton-based head office within the last few months of the year.

David Taylor, who previously taught electronics for sound engineering at both the City of Westminster and City Polytechnics after a four year stint at Sony, joined Soundtracs during August as customer service engineer. **David Gibbons** joined Soundtracs in September as technical sales engineer and has in just two months sped off to Belgium, New York, Italy, Denmark and the Far East to present demonstrations for the new Solitaire production console and Sequel II sound reinforcement console as well as the Jade and Solo range of consoles.

Other new staff included **Linzi Dougherty**, the new mechanical designer in Soundtracs research & development department, **Glenn Baugh** as Surbiton's new technical sales assistant, **Julian Arnott** as the new electronics design engineer in R&D and **Sally Jones** who joined in August as a vital extra arm to the busy purchasing department. New staff have also been recruited at Soundtracs' Glenrothes facility in Scotland to cope with the increasing demand for new products being shipped worldwide.

Moving On

Wybron Inc recently moved to new premises just a short journey from their existing base in Colorado Springs. Although the distance is not great, the move is significant in that their new home is over twice the size of their old one, a massive 32,000sq.ft. The new address is 4830 List Drive, Colorado Springs, Colorado 80919 U.S.A.

Vestax (Europe) Ltd have moved to new premises at 18 St Christophers Road, Haslemere, Surrey GU27 1DQ Tel: (0428) 653117.

John Fox, secretary general of the **Music Industries Association**, has informed L+SI that they are moving offices to Grove Court, Hatfield Road, Slough SL1 1QU Tel: (0753) 511550 Fax: (0753) 589200.

Corona Popularity

The new Computite Corona mechanical dimmer for discharge luminaires, which was launched at the PLASA Light & Sound Show earlier this year, is, according to the company, proving very popular with hire companies.

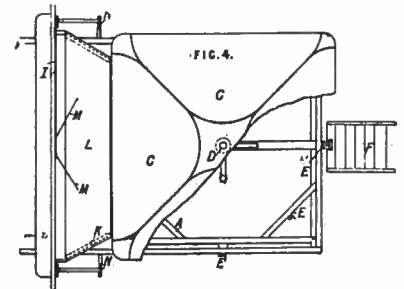
Available in three sizes to fit virtually any size of luminaire, the Corona incorporates a novel design concept and advanced electronics to meet stringent motorized shutters dimming requirements.

The 16-bit micro-processor combined with a large number of shutters provides a quiet and smooth operation with a uniform spread of light. The Corona may be controlled from DMX, analogue +10 volts or a 240V a.c. dimmer output.

A HUNDRED YEARS AGO THIS MONTH BRITISH THEATRICAL PATENTS 1801-1900

24,064. Dando, W. P. Dec. 14.

Theatres, scenic effects. Relates to apparatus for showing tableaux-vivants, or living pictures. Fig. 4 is a sectional plan of a stage or platform C constructed with four compartments, and mounted on a central pivot D, behind a frame I, fitted with pivoted mounts K, L which are adapted to fold against the frame out of the way when the stage is rotated to bring another living picture into view. The frame A is mounted on wheels, and is fitted with antifriction rollers E on which the stage C runs. Pivoted steadying legs are provided under the platform to prevent vibration, and steps F lead to the platform from the floor or theatre stage. Light ladders N lead to a bridge which carries lighting apparatus &c. The top and bottom mounts L are connected by rods or wires, and are folded simultaneously by a cord M. The sides K may also be connected in a similar manner, and all the sections may be returned into position by springs or weights when the cords M are released.



No.24,064 Walter Pfeffer Dando, 14th December 1893

The patentee of this invention was a practising stage technician of the period. Walter Dando (pictured right) worked for some years at the Chatelet Theatre in Paris before arriving in London in 1890 to become involved with the construction, design and patenting of the stage machinery for D'Oyly Carte's Royal English Opera House, known today as the Palace Theatre in Cambridge Circus.

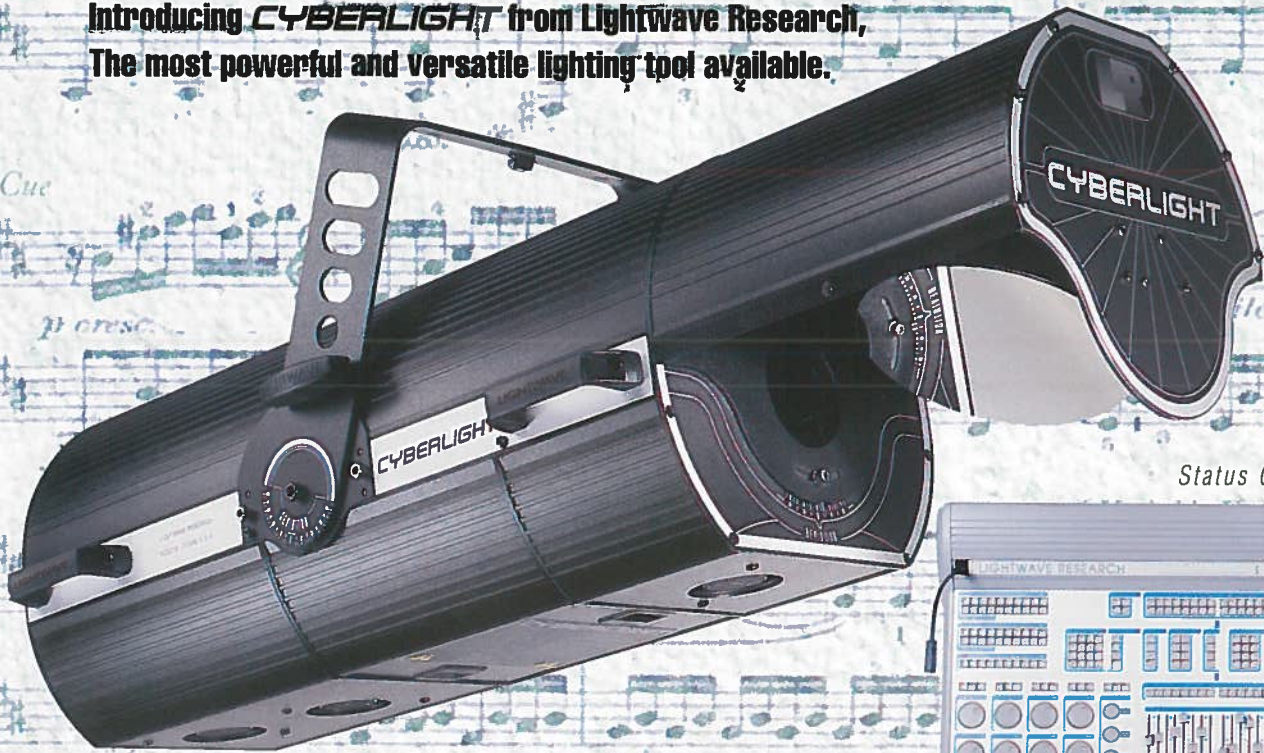
The patent shown above was produced by Dando whilst engaged as stage manager at the Palace Theatre. It shows a small revolving platform for use in a style of presentation known as tableaux vivants. This essentially involved the presentation of a 'living picture' which would attempt to copy a well known picture in every detail, including costume, lighting, and setting.

In later years Mr Dando's theatrical expertise turned almost inevitably to the development of early cinematograph techniques. Comparatively little is known about his later life, although it has been established that he lived to 1944, and the ripe old age of 92.



The Ultimate Creative Tool.

Introducing **CYBERLIGHT** from Lightwave Research,
The most powerful and versatile lighting tool available.



Status Cue Console

If your lighting application demands the ultimate in Intelligent lighting, Lightwave Research has the Creative Tool for the job. Cyberlight has been designed from the ground up as the most complete and powerful Intelligent lighting system available. Cyberlight has a dynamic color selection system with infinitely variable color mixing, highly saturated fixed colors, and a unique upward, downward, and centered color correction system. It also has a versatile gobo system with 4 rotating gobos, seven fixed gobos, and gobo mixing. A battery of features including variable diffusion, frost, variable zoom, remote focus, a prism effect, a unique dichroic mosaic effect, strobe effects, and full dimming provide a limitless variety of stunning looks. This power tool is also the most Intelligent light available, with a high speed bi-directional data exchange that continually monitors the lamp hours / current / voltage, fixture temperature and more. Under the control of our Status Cue console, Cyberlight is unsurpassed in performance and versatility, giving you the freedom of creative expression.

Specifications:

Ultra high Efficiency Optics

Dynamic Color Selection:

Infinitely Variable Dichroic Subtractive Color Mixing System. Seven Position Color Wheel with Richly Saturated Dichroic Colors. Upward, Downward, and Centered Color Correction System CTO Color Corrector Plus White.

Versatile Gobo System:

Four variable Speed (fwd and reverse) gobos and rotating positionable gobos. Rotating Gobos may be Glass or Metal Substrates. Eight Position Gobo Wheel with Five Replaceable Metal Substrates. Gobo Mixing Effects: Rotating on Stationary, Stationary on Stationary

Variable Iris and Remote Focus

Variable Frost

Remote Zoom:

13° - 22° Wide Angle Zoom 16° - 26°

Variable Diffusion and Variable Speed Strobe

Full Dimming, Fade to Black

Prism Effects and Dichroic Mosaic Effects

Pan and Tilt:

180° Pan by 90° Tilt.

Power Factor Corrected

Bi-directional Data Link:

Lamp hour monitor, Lamp current and voltage monitor, Line voltage monitor, Temperature monitor, Fixture remote re-addressing, Software upgrade pathway.

1200 Watt Lamp Source with 760 Hour rated lamp Life

Break-resistant Mirror and Six Carrying Handles

Recessed Power Switch with Circuit Breaker

Durable Epoxy Black Powder Coat Finish

Current Consumption:

8A @ 208 VAC

Operating Voltage:

200-250 VAC

Dimensions (without yoke):

314mm t x 339mm w x 1073mm l (12.37" x 13.33" x 42")

Weight:

40.8 kgs (90 lbs)

Warranty:

Two Year Warranty

High End



"The Science
of
Lighting"

High End Systems / Lightwave Research
2217 West Braker Lane • Austin Texas 78758
tel: (512) 836-2242 • fax: (512) 837-5290



SHOPPING FOR DREAMS

Tony Gottelier in Faux Movieland

One possible area of marginal expansion for purveyors of entertainment technology which has emerged in recent years, at least in the US, but much more recently in the UK, is the phenomenon of the movie studio shop. Disney have opened such a store in Regent Street, which probably explains why they sponsored this year's Christmas lights as much as the opportunity to promote arrival of the Aladdin blockbuster cartoon. In the past year alone Warner Bros have opened 38 new Studio Stores including six in shopping malls and out-of-town shopping complexes in the UK. This is the story of just one of them, the Warner Bros Studio Store in the recently refurbished Arndale Centre in Manchester, which is a P&O enterprise.

The idea of the Studio Store is that it is an entertainment experience in which the merchandise is part of the fun and also part of the total ambience, which is intended to be reminiscent of a Hollywood studio back lot. This is how the spin doctors at Warner Bros describe it: "Step inside any Warner Bros Studio Stores and you're immediately transported to the sometimes glamorous, sometimes wacky, but always exciting world of Warner Bros entertainment, past and present.

Here in this visually stunning environment, the stage is set for a grand statement of merchandise in true Hollywood style, from clothing and original animation art to elegant gift items and gourmet kitchen accessories." So, this is something more than the souvenir shop associated with other film studio retail operations. In the Gallery section contemporary and pop art, and 'limited edition' authentic clips from Warner's cartoon animators, vie for top prices running into hundreds of pounds, as what is described as 'investment' collectables. The merchandise is presented in a series of sets or sound-stages; for example, the DC Comics super-hero area, the Looney Tunes (why not Toons?) cartoon-based stage and the black and white Classic Hollywood area which sports a theatre marquee. In the children's space an interactive touch-screen, called 'Colouring Tree', allows kids to computer-paint. So, you get the picture.

In fact, it is 'the picture' which inevitably features large in the Warner Store since, with a wealth of famous cartoon characters to draw on, the main visual attraction is a videowall on which cartoons run continuously. In most stores this is a three by three configuration, though it can be as big as four by six, as in the recently opened 30,000 square feet flagship store on Fifth Avenue in Manhattan (featured on our cover). Graduating up from CRT projection in their original locations, Warner Bros have realised that the quality of imagery is paramount (if they don't mind the use of that word!) in creating the maximum impact.

As a result, they have come inevitably to high-definition, using a wall of projection cubes. According to David Kerr of Light Sound Image Systems in Peshurst, Kent, the American-made Imtech 'Ultra' videowall processor, in combination with Pioneer projection cubes, won the contract in a shoot-out with similar European equipment on the grounds of superior image quality. The company says that Ultra uses 30MHz RGB processing and three field interpolation, to



Warner Bros' new shop in Manchester.

As is usual in such situations, there was inherent pressure to have some dramatic animated feature in the Square to entice shoppers inside the mall. Often, in my experience, such exercises take the form of a huge and elaborate kinetic or water-driven timepiece, or some kind of weather-based concept is devised.

However, in this case all parties saw the sense of extending the Warner Bros razzmatazz beyond the store itself. So the store's lighting designers, Illuminating Concepts, based in Michigan, were brought in and an AV show was devised for the square, though the natural phenomena and water elements would still be incorporated in part.

The continuous performance, using the dome as a screen, would consist of hourly shows each containing five main sections: a cartoon film, models of cartoon characters with built-in speakers to allow 'conversation', an animated fireworks feature and, much the longest, the environmental or weather effects. In addition there would be a dynamic water feature.

To achieve all this the following equipment was assembled: 35mm film projection and associated sound via JBL Control 10s, four video disk players, a Strand Mini Lightpalette 90, 12 each of High End Systems' Intellabeams and Dataflash, each with their dedicated controllers, and an assortment of generic luminaires with Electrosonic dimmers,

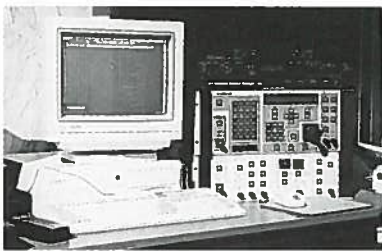
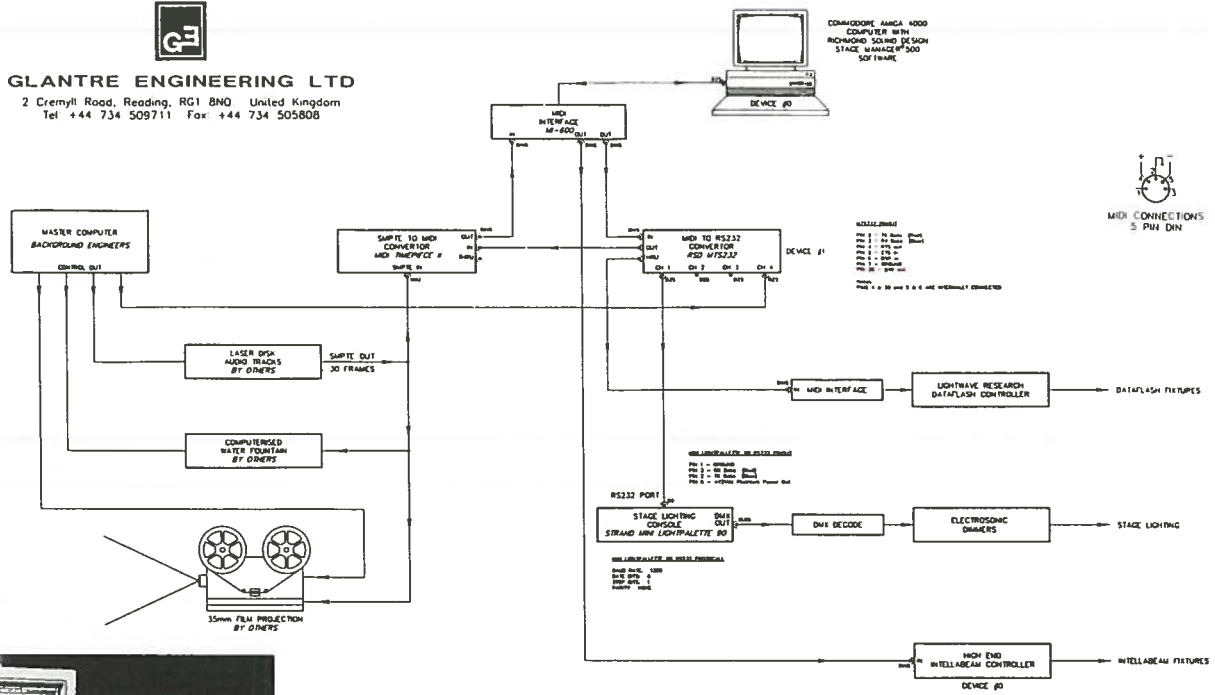
deliver up to 1,500 horizontal lines of artefact free, broadcast quality, images from NTSC or PAL sources. The sound, ambient lighting, effects and the video disk players are mastered by a computer software programme which acts as an environmental time controller and was supplied as part of the technical installation by Background Engineers of Glendale, California.

The Manchester store is typical of the genre, occupying nearly 9,000 square feet in the revitalised Arndale Centre, with a dramatically themed entrance onto the now somewhat inappropriately named Hallé Square (Barbirolli must be spinning in his grave), which forms the centrepiece or atrium of the complex. Thus, the good people at P&O Shopping Centres, who have invested £6m on the refurbishment and the fit-out, clearly saw the Warner Bros concept as pivotal to the success of the complex with the benefit of a mutual trade-off with their new high profile tenant.



GLANTRE ENGINEERING LTD

2 Cremyll Road, Reading, RG1 8ND United Kingdom
Tel +44 734 509711 Fax +44 734 505808



Richmond Sound Design's Stage Manager linked to Intellibeam and Dataflash control.

WARNER BROS. STUDIOS "HALLE SQUARE", ARNDALE CENTRE MANCHESTER, UK

plus a Technifex-designed and Triad-controlled, musically dynamic water fountain. The idea was that they would use SMPTE generated from the laser disk players to cue the Lightpalette which, in turn, would cue the High End controllers. A new show each hour the shopping centre is operational with a different cartoon programmed each time would ensure that a shopper never saw the same show twice in one day, and the whole lot would be clocked by the computer to tie events to shopping times.

But how to interface between the laser disks and the Palette? At this point our hero rides into town on the mandatory white horse in the shape of Glantre's Rob Shuard slinging a Richmond Sound Design 'Stage Manager' from the hip. "Shucks," says the designers, "we can use that there new fangled gadget to do the job!" So it was that Stage Manager came to win the day, and no doubt Rob won hand of fair maiden, or acquired a share in the local goldmine.

So now they had a show controller to talk to the lighting board when triggered by the disks, but what hadn't occurred to them was that this would all be a great deal easier to achieve with RSM's MIDI Show Control facility than to rely on the desk to do it for them - hardly surprising, since the use of MSC is still in its infancy, as the turn-out at last month's time-code seminar at LDI'93 in Orlando proved. (See LDI'93 revue pages 35-46). But then Rob is an MSC buff.

So when Shuard pointed this out, the sequence of events was changed as follows. The time-code generated by the laser disc players would synchronize the film projector and, converted to MIDI time-code, the Richmond Stage Manager. As each sequence played, cues would be triggered concurrently from the RSM and fed to the

A typical lighting cue from the Stage Manager software calling up Preset #187 on the Intellibeam controller:

MIDI SHOW CONTROL Device ID: 0
Category: Lighting
Command Format: Lighting
Command: GO
Cue Number: 187

Lightpalette by RS232, to the Intellibeam controller via MSC and to the Dataflash Controller via MIDI converted to analogue. This would turn out to be, as far as we are aware, the first use of MIDI Show Control in the UK. So now, each morning, the whole system receives its 'wake up call' from the background engineers' computer turning on the disk players, the film projector, the RSM and the water fountain.

Each cartoon is programmed with its own lighting cues allowing interactive effects to be created, synchronizing the animated sequences with colour wash and Intellibeam or Dataflash effects. This is most convincing in the Batman cartoon when dramatic searchlight effects are generated by the Intellibeams; in the programme they also move to highlight the cartoon characters in the Square.

Such interactive programming is also used to good effect during fireworks and thunderstorm sequences involving Dataflash. During the course of a typical one hour sequence, the RSM sends out over 250 cues, all locked into the receiving time-code, so this means over 2500 cues per day. "In fact, I think this may also have been a first for High End Systems because it took several calls to their head office in Austin, Texas and a software fix, to implement the MSC on the Intellibeam controller," comments Rob Shuard. "But once clarified I was able to show Gary Decker, the

lighting designer, and programmer Chris Stuba how to access the 1,024 presets available within the controller. I think they were very impressed with the power of control they now had. Without the use of MSC synchronized to the accuracy of SMPTE, the whole show would have been limited to purely conventional programming techniques."

In order to ensure a 'get-out' in the event of a failure within the Laser Disc/projection system, background's computer system issues its own cues to the film projector, to ensure that it is sequenced correctly, as well as to the Laser Disk Players and show controller. This is achieved by taking an RS232 ASCII string and converting it into a standard MSC command to LOAD/GO cue sequences written on the RMS's Amiga. Glantre Engineering are the European distributors of Richmond Sound Designs products which also include 'Command/Cue Plus', a virtual sound control system, and 'Concurrent' which is a full multi-discipline show control system with MSC on-board.

So there you are, entertainment technology in the front line of a shopping revolution and with massive further expansion planned, which hopefully won't be dependent on the outcome of the Time-Warner take-over contest - there will be lots more to come. And it will get easier each time, as the technology catches up.

Don't forget if you want to see all your old pals, Bugs Bunny, Daffy Duck, Wil E. Coyote, or Sylvester and Tweetie Pie and the rest of the gang, to say nothing of Superman and Batman, then take a run down to the Arndale Centre, Manchester. Or appearing now at a friendly neighbourhood Warner Bros Studio Store near you.

... That's All Folks.

The End.

ROCK CORPORATION AND TOKYO RAVE

A special L+SI report and picture story on the Kazuo Inoue designs for a 50,000-rave at the Tokyo Dome baseball stadium

Asked by record company Avex to come up with a major scheme for a super rave in the Tokyo Dome stadium recently, Kazuo Inoue, president of the city's Rock Corporation, spent several months thinking about and planning the concept, prior to producing the final designs. The demands were complicated: he knew he would have only 36 hours get-in time before rehearsals commenced and eight hours to programme the lighting and effects.

With more of the 50,000-plus audience in the stands than 'on the ground', he also knew he couldn't build too many structures that would obscure sight-lines. From a range of computer-plotted ideas he began by placing a pentagonal and 'transparent' truss pyramid on the 'home base' area which became the DJ booth. He followed this with a 'past-historic' theme for the 'A' stage and futuristic theme for the 'B' stage. Then came the main dance stage and a further six smaller satellite dance stages.

There was reason behind this seemingly unlinked scattering of modules, as can be seen from the overall site plan accompanying this piece. Continuity was vital, and the entertainment was programmed so as to draw the eye from DJ booth to A stage, back to DJ booth and on to B stage and so on, in order that all 12 groups involved had the audience's full attention.

The control booth was situated in the centre of the stadium, and Inoue soon realised that he was going to need more than one operator. In fact, including himself, he ended up with nine! Three



Kazuo Inoue - a caricature executed by Trist during an M&M/Camelont event at the PLASA Light & Sound Show 93.

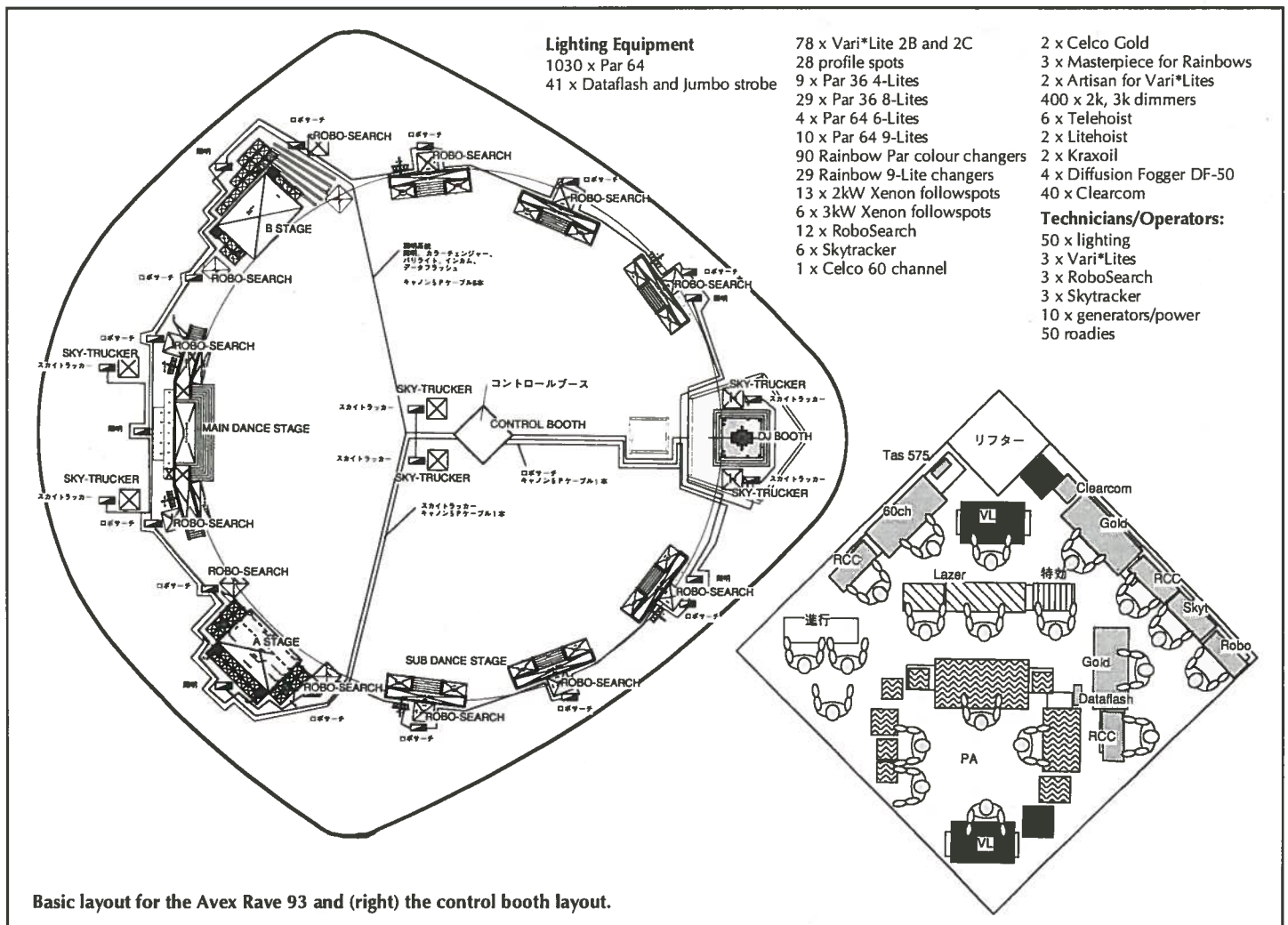
handled three Celco boards for standard work on the A and B stages and audience lighting; two more looked after the two Vari*Lite Artisan desks covering A and B stages and the main dance stage area; another operator controlled the RoboSearch devices and yet another, the Skytracker control unit; the final two looked after everything else

including all the cueing for the six followspots per stage and numerous audience washes.

To achieve the 'feel' of a rave in such an enormous venue, quantity and power was the key. 12 4kW Robosearch moving searchlights, each with a colour changer, were placed around the venue, together with six Skytrackers. Inoue then, in his own words, 'sprinkled' Vari*Lites, Pars, Par 36 8-Lites, Par 64 6- and 9-Lites and strobes around the venue, finally adding the followspots as required.

At 10pm two nights before the performance a road-blocking string of 85 11-ton trucks were admitted to the arena to begin the build-up, and the following morning a further nine lorries with lighting equipment plus four generator vehicles joined the army already busy at work in the stadium. No less than 70 technicians were employed on the lighting alone. Focusing and programming had been completed by 7am on the day of the performance and rehearsals began at 10am. At 4.30pm the doors were opened and by 6.30pm the big Tokyo rave began, with three hours of non-stop dancing. They'd obviously got the 'feel' of the event just right. "Even the people on the third tier of the stand were dancing!" Inoue told L+SI.

By 6am the next morning the stadium had been cleared, and Kazuo Inoue had worked non-stop for 56 hours, apart from one three-hour nap. From the vibrancy of the pictures on these pages we assume he went to bed extremely satisfied with his own and his team's efforts.





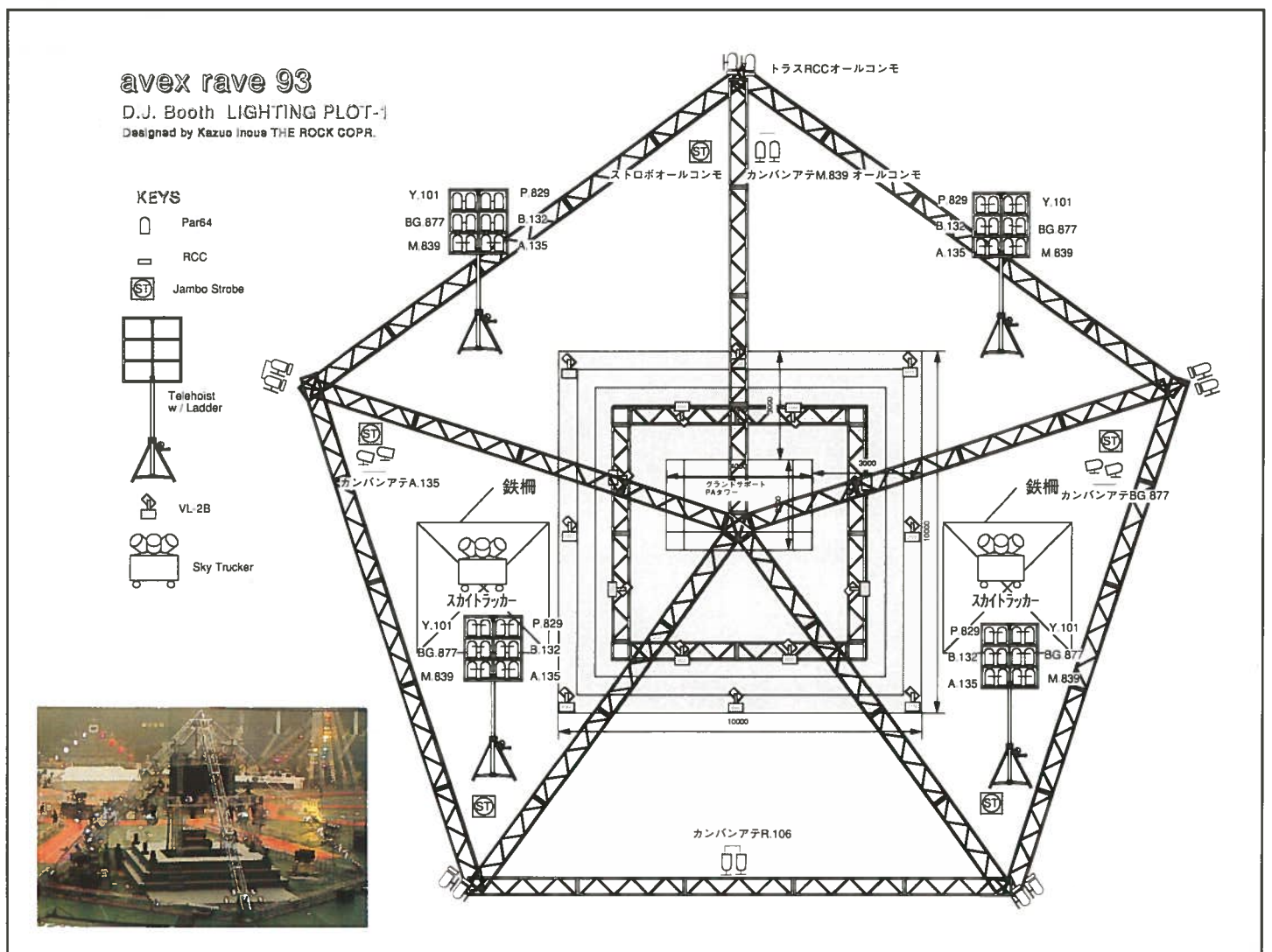
The Apex Rave 93 in action.



Final preparation in the control area.










Stage 'B' in action.

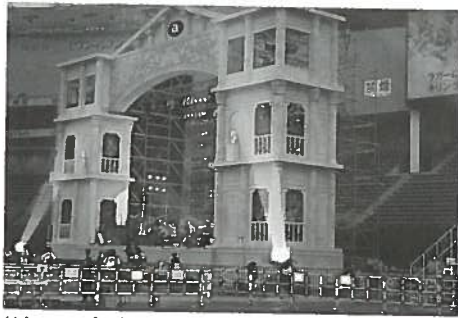
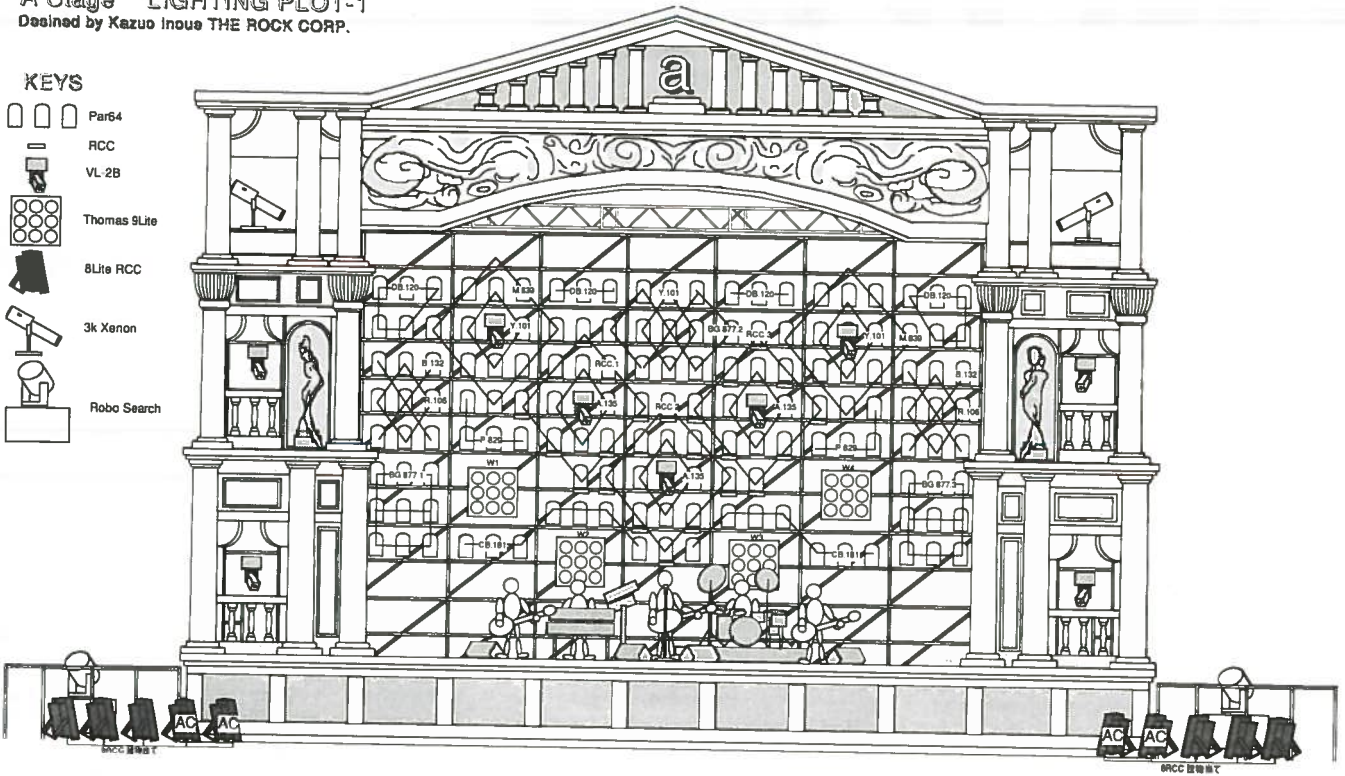


avex rave 93

A Stage LIGHTING PLOT-1
 Designed by Kazuo Inoue THE ROCK CORP.

KEYS

-  Par64
-  RCC
-  VL-2B
-  Thomas 9Lite
-  8Lite RCC
-  3k Xenon
-  Robo Search



'A' stage during set-up.












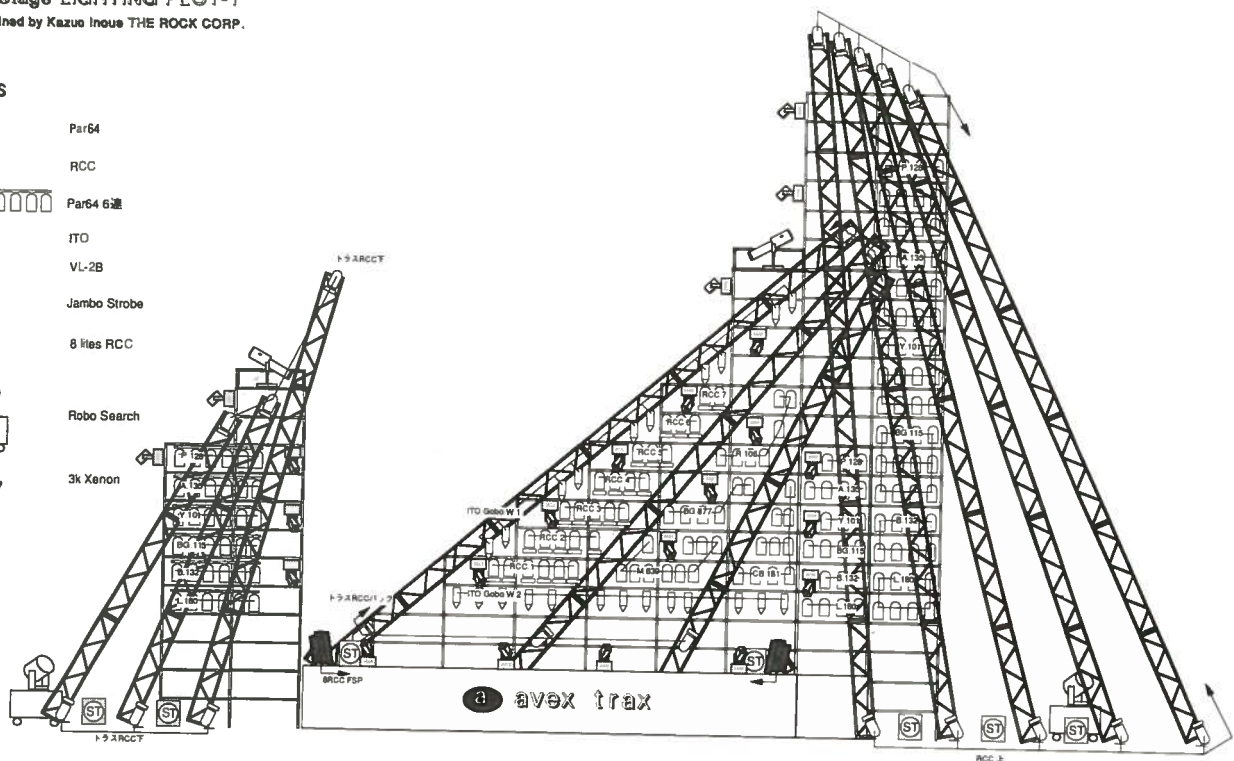
'B' stage viewed from the control booth.

avex rave 93

B Stage LIGHTING PLOT-1
 Designed by Kazuo Inoue THE ROCK CORP.

KEYS

-  Par64
-  RCC
-  Par64 6連
-  ITO
-  VL-2B
-  Jambo Strobe
-  8 lites RCC
-  Robo Search
-  3k Xenon



ON TOUR

AND PRODUCTION NEWS

Deep Purple NEC Birmingham LD: Dino DeRose SD: 'JB'

Of all the different forms of Deep Purple that have existed over the past 25 years, the current version, the one that has recently completed a tour of the UK, is the most faithful to the original line-up that most people remember. In fact, historically, it was the second line-up of the band, but was certainly the most well known and true to type.

Back in the early seventies they ranked alongside Led Zeppelin as one of the great 'heavy' English bands. Since then, and through many transformations, their style has remained the same but never really captured the freshness and excitement of classic albums like 'Deep Purple in Rock' and 'Made in Japan'. However, it was the allure of the 'real thing' that drew the crowd to the Birmingham NEC and it was the real thing that the band delivered.

The stage set was clean and bare; a full, but not monstrous, back line consisted of Leslie cabinets and Marshall amps and cabinets - all painted white and arranged in an arc across the rear of the playing area. Low risers were employed for keyboards and drums just high enough to bring the band to equilibrium, and a solitary pair of bongos were positioned front stage right which Ian Gillan used from time to time during the lengthier breaks in vocals.

The rear of the stage was completely covered by a 42' x 20' grey rear projection screen. Owned by the band, it was framed by mini beam trussing, keeping it nicely taut and even for the images that were to be projected upon it. For the most part the screen was employed as a cyclorama or as a target for some animated laser graphics, but on one occasion an image of the 'Deep Purple in Rock' album cover (a visual pun on the Mount Rushmore monument in the USA) was provided by an RDS projector. Even with its 2kW source, the image was hard pushed to compete against the light levels and it was only the quality of the projection surface that prevented this effect turning into an indistinct monochrome mush.

The lighting rig supplied by Samuelson Concert Productions (successors to Tasco, who had serviced the band for many years) was designed by Dino DeRose. Not particularly well known over in Europe, Dino, who hails from Georgia, USA also designs for Kiss and Cinderella. Despite this 'heavy' pedigree he is not a one string fiddler and also designs for a number of notable Country and Western acts such as Travis Tritt and Amy Stuart - perhaps not names that are on the tip of everyone's tongue in the UK, but performers of some stature in the USA.

This is Dino's first design for the band; he was offered the job through a combination of good luck and hard work as he explained: "I had worked with Raymond D'Addario (the band's production manager) on the 'Perfect Strangers' tour in 1986 as a crew man. Raymond is very much the eyes and ears of the band; having been with them for many years they trust him to monitor both sound and lights as well as critique their own performance. Later Raymond saw my design work with Kiss and was sufficiently impressed to offer me this job when the chance arose."

The rig is modest by heavy rock standards (not that Deep Purple should be compared too closely to the genre of heavy metal), but it's not a cheap



A retro seventies look for Deep Purple, one of the few surviving bands from the late sixties.



design, featuring 42 VL5s and 26 VL2Bs, as well as over 150 Par 64s. Automated lighting can often be an uncomfortable mix with this style of music - lots of manic waggling between massive flash/bump cues and movement for the sake of it - but not on this show. Dino, assisted by Vari*Lite operator Fraser Elisha, gave a very measured performance where the different lamps weren't constantly battling for dominance.

For the design, Dino chose to adopt a very retro seventies look, not only in the physical size and shape of the rig, but also in the way it was operated: "A very nineties approach to old rock n' roll," he explained. Downstage was a severely foreshortened triangle of truss 48 feet wide across the rear, with the downstage two sides extending barely 30 feet each, the whole only 15 feet deep from front to rear. Behind this, over centre stage, was another truss triangle, this one equilateral with 20 feet sides.

To each side of this, independently hung, were two custom-built side frames approximately 8x16 feet, articulated in the middle. They had been provided by RA Roth Inc and shipped over from the States and each contained a combination of

30 Par 64s and 30 Dataflash strobes, a further dozen of these strobes being mounted in the downstage point of the smaller triangle. The back truss supported two medium throw Lycian Starklights, as well as the screen.

The laser system was provided by Laser Effects of Canada. As well as animation the lasers were run through a number of Intellabeams by a system similar to that developed by Laser Grafix where the scanning head is in line with the lamp optics, permitting both sources to work off the same automated mirror. Dino's approach to blending all the various elements available to him was to understate it, never using more than two major lighting tools at any one time.

For example, opening a song with a big Dataflash chase, then switching to wash from the VL5s colouring not the stage, but the smoke filled atmosphere above in green, washing the band in blue with just 4kW of Pars from each side frame and from the five 2kW Super Troupers front of house, and then bumping the relevant spot to open white when Gillan sang, or any of the band took a solo. Simple. By this economical use he never exhausted his supply of looks, and they always appeared fitting for his targeted seventies imagery.

Although I was offered ear plugs by the lighting crew I never found the need to use them! The Showco Prism PA was loud enough to prevent hearing someone shouting in your ear, but was never painful.

What was painful and could not be improved no matter how hard 'JB', the Texan sound engineer, tried, were the interminable solos that seemed to occur with every third or fourth song, especially the drum and keyboard ones which were, to paraphrase a member of parliament, 'like being mauled by a dead sheep'. Why a band as well loved as this one feels the need to resort to such a hackneyed device I've no idea; the set lasted two hours and would have lost nothing by slicing off 20 minutes of this indulgence. Songs like 'Child in Time' and 'Black Knight' still sounded great, so why spoil them?



Gary Numan
Dream Corrosion Tour
LD: Andy Keightley

Fresh from his success with Martin Professional's Pro Scanners at PLASA, at which his lighting concept received a special mention within the 'Best Stand' award, Andy Keightley was out on the road putting his money where his mouth is with the same products. Or rather, it was Gary Numan's money actually, since for this fourth tour with Keightley, Andy had persuaded him to go the Martin route during a visit to PLASA.

As Numan is an infamous sci-fi fan, in his projection of which movie images often played a part, Keightley's set was designed around the attic room in Edward Scissorhands, which has a 45° staircase running across it. Rock Construction built the 24' wide set which had moving trusses and incorporated the Pro 218s behind holes in fascia panels. The plotting took place at night after rehearsals, with Numan often sitting in. John Barnes from Martin programmed the PC-486-based Martin 3032 which was cued in performance via 12 channels of the Celco Gold desk using binary via an RS232 interface.

Andy Keightley sums up the tour: "As I am production manager as well as LD, my first task

was to sack the monitor engineer, order another truck as the gear wouldn't fit and spend £60 in Boots to fight off the Beijing flu. Consequently, it quickly transforms from rest bus to Marie Celeste. The caterer gets arrested for shoplifting and the Marie Celeste gets broken into by yobs. Unfortunately, for them they are spotted in the act by the Corby Womens' Weightlifting Club and promptly get the heave ho and a severe battering. Situation normal. Technically the tour was trouble-free with the Martin gear performing admirably. I was also very happy with the control software since the trigger rate from the Celco was almost instant." The conventionals were provided by Concert Lighting Systems of Bolton.

Runrig
York Barbican
LD: Alec Nisic
SD: Robin Stillings

Runrig are an interesting and unusual band, not just in their music, but in their whole ethos of presentation. In existence since 1982 (and before that as a seminal three piece) the present six man line-up are very much in the business of self promotion.

Partly initiated by the reluctance of the record and radio establishment to get behind them, the band now find self reliance and self promotion have become a way of life. Even their tour manager Allen Spriggs, perhaps best known for his work with the promotion/management agency Solo, reflects this approach, stating: "This is a very enjoyable band to work with. For three years now they've employed me directly, like a sub-contractor really. They're not bitter or resentful about the lack of support they got in their early days, they've just got used to doing things their own way and they are good at it. Take this tour for example. There's little in the way of



The reds are out for Runrig.

promotion, and the reason they are selling out just about every show is that they have spent a great amount of time and effort slowly and steadily building an audience. They've been big in Scotland for some time now and are really consolidating their audience in the rest of the UK, whilst in Europe they are just starting. Some of the venues on the European leg of the tour haven't sold very well, but the band have consistently produced good records and they are confident in the knowledge that what has worked for them here will ultimately bear fruit on the continent."

For the show, lighting designer Alec Nisic was

limited by one major factor - the band are not keen on front light and expressly forbid followspots. A shame really, for they are not recessive on stage and are certainly lively and compelling enough in their performance to warrant dropping this rule. However, having said that, it is very much a music show. The audience are here first and foremost to hear the band and, despite the lack of followspots, they can certainly see them and witness a good performance.

The lighting system (supplied by Supermick) is conventional in format: a 40 x 12 feet deep box truss covers the rear to middle stage area, each of the two 40 feet spans of Thomas pre-rig is fully loaded with Par 64s. To the fore of stage, just downstage of the front mike line, is a further 40' span of Thomas, also fully loaded with Pars. Most of these lamps are for stage wash, mainly in 2kW pairs using #1 or #2 bulbs to give some separation between the six musicians. Nothing very special there you might say. What is interesting though, are the other lamps in the system that integrate and enhance the set. Built by Brilliant Stages, it is dominated by a large 'monument' backstage centre. Apart from being one-and-a-half times the actual size, it is an exact replica of a sculpture produced in memory of the Scottish poet Hugh McDairmid. A 3-D frieze of images, some

abstract, others recognizable, the piece is integrated with the set inasmuch as images from it are repeated on the legs that dress the stage and the front truss border. Apparently simple white cotton appliques on black cloth, these repeat images are strongly lit by four UV black guns up on the rig.

The band are spread uniformly across the stage - three to the rear (drums, percussion and keys) and three to the front (bass guitar, lead and a centre stage vocalist who often plays guitar as well). The rear line musicians are on a substantial riser system: more than ample in size for the instrument set-ups, the effect is to create a continuous upper playing level three feet above the main stage. With mock masonry corner pieces to the front stage edges the impression is of a large plinth supporting the monument behind. Alec has had the front fasciae of the risers fitted with a cloth break-up not dissimilar from a portcullis in appearance, where the square holes are the same size as the cloth between them. Using Pars with Colormags beneath the risers, the different coloured shafts of light that emerged often provided striking silhouettes around the front stage performers and definitely added to the Celtic atmosphere. The drummer also has four 240 volt Pars dotted around his kit and there are a further six in the flown rig. All these are used to move light around a single target, and it's easy to forget how such a simple device can provide such strong images. To the back of the risers either side of stage are two Manfrotto stands each supporting four lamp bars of ACLs and two Sils fitted with break-up gobos in rotators. What's distinctive about these lamps is both their position and use.

Approximately half way between the stage level floor lights and the flown rig this mid-air location is very striking. Also Alec, by his economical use of these lamps and the fact that for a great deal of the time they are hidden from view by a combination of top light and smoke, has managed to extract maximum effect for minimum cost and effort. In fact, so effective is the combination of smoke and toplight that he is able to contrive the disappearance of the whole monument (a piece approximately 20 x 16 feet) for some songs. Alec runs the show from his own Jands Event and is very pleased with the board: "For the price you just can't beat it. Much as I would like a board as powerful as the Whole Hog, when you consider this is a third of the cost it is a very versatile tool."

Robin Stillings mixes the front of house sound on a Soundcraft Europa, whilst the PA system is the new Cube System from Roadstar. This being the first outing for this PA, it is too early to make any reasonable comparison. However, it has presumably been designed with this size auditorium in mind and works very well. I can give no higher praise than that bestowed upon it by John Harper, a member of the lighting crew (and internationally known happy touring person) who told me: "This PA is great, you can stand right in front of the bugger during the show and not get deafened, yet up in the back of the balcony it still sounds great."

Full-Scale Production

Production Services Europe of Middlesbrough has announced increasing worldwide sales of its speakers. UK distributor, Midland Musical Services, recently completed an installation at The Complex in Leicester where the LS5 system used consisted of two low boxes and four high boxes. At Guildford, Bonza recently took delivery of four LS2 stacks and the system is currently out on tour with Sweet and Mud. Madar Audio, the distributor in the Gulf, has recently taken delivery of four LS5 stacks for projects in that area. World Party used LS3 enclosures for side fills on their recent European and UK tour. Opus Showtechnik in Kiel, Germany collected LS2 stacks for inclusion in its rental inventory. Japanese distributor Okamoto Onkyo took delivery of LS2 and LSM1 enclosures to service demand in the Pacific rim.

THE PROFESSIONAL CHOICE



- Trade and retail supplies
- Installation contracts undertaken
- Sound and lighting systems design
- Mail order service to anywhere in the UK
- Worldwide export service



JYG Showroom & Warehouse

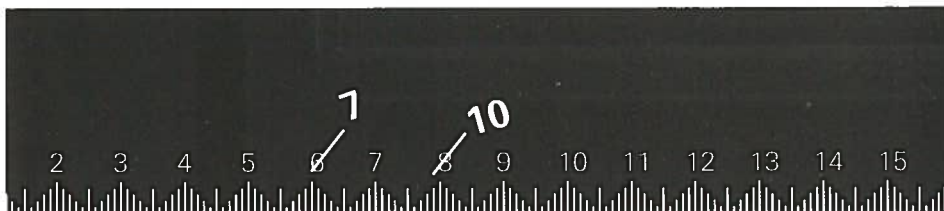
JYG Ltd, Units D10 & D11, The Seedbed Centre, Davidson Way, Romford, Essex RM7 0AZ

Tel: +44 (0)708 762696 Ext 257/258 Fax: +44 (0)708 732291



SEASONS GREETINGS TO EVERYONE

• DEALERS WANTED • FULL % DISCOUNT AVAILABLE •



WHAT'S AN EXTRA INCH (or two)?

Lens diameter plays a very important part in light output. So much so, that with Selecon you can get up to a 50% increase over similar wattage luminaires. Not to mention better beam quality and control.

The Selecon Fresnel 1200, and PC1200 both have 7" (175mm) diameter lens, compared to the

industry standard of 6" (150mm).

Whilst the Selecon Arena High Performance 2.0/2.5 kw fresnels have 10" lenses, compared to the industry standard of 8" (200mm).

It's just one of many ways Selecon can lift your performance.

Get in touch and with one of our demonstration units we'll shed even more light on the subject.

For further information; In the UK
PH: AJS 44-425 470 888, FAX: 44-425 471 398
SELECON NEW ZEALAND PH: 64-9-360 1718, FAX: 64-9-360 1719

SELECON

Applications are invited
for the following positions:

**Lighting Design
Assistant**

**Lighting Design
Associate**

Museum, Architectural, Commercial
and Leisure Projects worldwide

DHA

Please apply to:

DHA

DHA Design Services
3 Jonathan Street
London SE11 5NH

The Premier Inverted Hoist/Motor

NOW STOCKED IN UK



- ◆ Black powder coat finish ◆
- ◆ Up to 40 metres lift - high duty factors ◆
- ◆ Protector ® overload protection ◆
- ◆ 110 volt controls ◆
- ◆ Upper/lower adjustable limit switches ◆
- ◆ Motor suitable for use in UK, Europe or USA ◆
- ◆ Capacities 1/8 to 3 tonnes ◆
- ◆ Fast speed units available ◆
- ◆ Single phase versions available ◆
- ◆ For Inverted Use ◆

Contact for motors/spare parts/service:-
Pfaff Silverblue Mechanical Handling Limited,
Prenton Way, North Cheshire Trading Estate,
Prenton, Wirral L43 3DU

Tel: 051-609 0099 Fax: 051-609 0852

**Merry Christmas
and a Happy New Year
from all of us at
Flashlight**

Flashlight Sales
Tel: (31) 30 444842
Fax: (31) 30 447606

Flashlight Rentals
Tel: (31) 30 447227
Fax: (31) 30 447680

CORPORATE CREATIVITY

L+SI discovers what a little Imagination can do for you

Spanning the Atlantic with its unique creative style, Imagination recently produced two global events on either side of the water within a mere two weeks of each other. More evidence, if any were needed, that the London-based design and communication company is now a truly international force.

From its US headquarters in Atlanta, Imagination sourced American suppliers, crews and production managers to create an impressive four-day conference programme for Holiday Inn Worldwide's 1,200 hotel franchisees, while back in London, the company devised and produced two one-day events for Arthur Andersen Worldwide - the first time all 2,500 global partners had chosen to meet outside the US in the organisation's 80-year history.

'Working Together, Winning Together' was the theme of the Holiday Inn Worldwide annual franchisee conference - brought to life with characteristic flair by Imagination. Brian Shepherd, chief executive of Imagination USA told L+SI: "In this instance, the key production challenge was the seamless integration of business messages and entertainment across four venues - Symphony Hall, Woodruff Arts Center; the Georgia World Congress center; the Holiday Inn Crowne Plaza Ravinia and the Georgia Freight Depot/World of Coca-Cola." The conference had to address the needs of both multi-national corporations and individual hoteliers, providing these very different types of franchisee with appropriate business messages and support for the year ahead. Simon Bruxner-Randall, head of lighting design, worked with an all-American team to create imaginative lighting effects throughout the four days.

"The most demanding section of the programme was the general session - which included the Atlanta Symphony Orchestra playing a 15-minute medley of film and Broadway show themes, lit as a 'classical spectacular'" he explained. "With over 200 individual cues, this was an extremely busy show."

The general session took place at the Symphony Hall, Woodruff Arts Center. It opened with a dramatic six minute 'soundscape', summing up

major world events of the past year in a grand and majestic fashion to an original soundtrack. Four Hardware for Xenon 5000 watt projectors, never previously used in the USA, ensured extraordinary clarity and colour balance across the huge 66ft by 33ft screen - created from a wall of 8sq.ft projection screens. Three cameras in the auditorium and a full OB production facility enabled live coverage of speakers from the podium in front of these screens, using 'triple light valve/turbo GE' television projectors.

After the main speeches, the screens flew up dramatically to reveal the Atlanta Symphony Orchestra against a black backdrop, lit by a large conventional rig of Par 64s and ellipsoidals, all controlled from a 90-channel Celco Gold console. 46 Intellabeams programmed through two Mac 360 consoles, created striking effects at key moments. Halfway through this performance, the backdrop was revealed as a star cloth - requiring a total of 96 Colorpro light sources to feed its mainlight fibre optic cloths.

All lighting equipment for the four days was supplied by Bash, based in Orlando, Florida. Rock City, from New York, supplied John Del' Nero, Imagination's sound designer, with the equipment for the general session. The major parts of the rig consisted of Apogee 3x3, Meyer UPA1a and UMI Ultra monitor loudspeakers. The mixing consoles were 2x40 channel Midas XL2 with Klark Teknik parametric equalisers and Lexicon digital reverbs.

A soundcheck on the day of performance was impossible due to the early start of the general session and a prior engagement for the orchestra. John Del' Nero's solution was to measure the distance between all microphones and the stage floor and that between each musician and his or her microphone. The position of each microphone and music stand was meticulously marked on the floor covering re-laid on the day. Photographs of microphone angles, mixing consoles and processing equipment ensured a high quality of sound - along with the talents of Paul Stannering, the mixing engineer. Indeed, the orchestra manager is reported as commenting that he had not heard such an exciting sound from his orchestra in the 14 years he had been with them!

Martin Grant's design team extended the stage to create enough space for a full orchestra - plus the 33 Holiday Inn Worldwide award-winners. All projection screens and black drapes were designed to be flown up and repositioned within two hours, allowing the orchestra's full acoustic shell to be restored for rehearsal.

During the Atlanta Symphony Orchestra's performance and the subsequent awards ceremony, a fibre optic link broadcast the event to 750 employees at the Crowne Plaza Ravinia, approximately 10 miles away and as production manager David James commented: "For the audience at the Ravinia, the awards had all the excitement and spectacle of the

Oscars. It was a great addition to the event."

Surpassing such a visually exciting business session might sound impossible - but Imagination saved the best until last. After a gala dinner for 1,500 at the Thomas B. Murphy Ballroom in the Georgia World Congress Center, The Four Tops and The Temptations had the entire audience dancing.

To create intimacy in the vast ballroom, the perimeter of the dining space was hung with huge vertical banners, lit with colour washes and patterned by ellipsoidals with gobos. The 150 tables were lit by a total of 72 ellipsoidals, with gobos producing a



Holiday Inn Worldwide: Imagination combined a range of medias to push home the corporate message.



pattern of stars over each tablecloth.

The stage was artificially extended into the ballroom, creating an entire proscenium arch and overhead grid. "It was vital that the audience were totally unaware of the impending show," emphasised Martin Grant, "so the trussing which supported the new arch was hung with a wall of white roman blinds, completely blocking off the stage." During the meal, the Hardware projectors were used to project images from the general session onto the blinds with moving images used in the centre. As the show began, the middle seven roman blinds flew up - leaving the sides as screens for projected images of the two groups. The back wall of the stage consisted of black, electrically-operated venetian blinds - the stage was initially a black box. At a given point, the slats flipped to horizontal position, revealing a star cloth - an infinitely starry sky. At another point, the slats flipped to their white reverse - creating a full white cyclorama.

Simon Bruxner-Randall, worked with Greg Dodkin, The Temptations' lighting director, to make the show even more spectacular than The Four Tops and The Temptations' regular show. 24 Intellabeams were used to create a number of special effects as well as meeting the basic requirements of the regular touring rig, while on sound, John Del Nero worked with Shelton Lindsay of Rock City to design an Apogee front of house and monitoring system, each driven by Midas XL3 mixing consoles.

The best effects were saved for the final number 'Jumpin Jack Flash'. For this, the venetian blinds moved to their horizontal position. 1,200 golf ball bulbs, in vertical rows on the set, lit up and began chasing to the music and Arcline was seen through the blinds on seven vertical elements. Finally, 112 Par 46 ACLs formed a wall of light shining out through the blinds.

Back in London, the Imagination magic wove its spell on Alexandra Palace as part of Arthur Andersen's Annual Partners meeting 1993, a four day conference organised by Talking Point. Producer Tania Watson co-ordinated the entire programme for the 2,500 partners, later joined for an 80th anniversary gala dinner and show by their 1,300 spouses. "The challenge was to use the same spaces for business and entertainment, yet surprise the audience by secretly transforming them during the event itself," she told L+S. In addition, Imagination's Paul Ghiradani designed The Pavilion, a 213ft clear span structure running along the length of the Palace, with four specially designed windows allowing stunning views across the city.

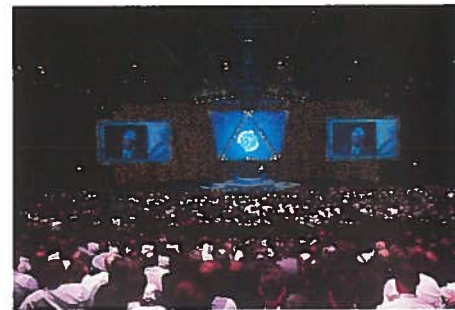
The atmospheric lecture theatre in the West Hall became an after-dinner Casino in just 19 minutes - with a team of 38 people silently removing 1,100 seats and raising a huge black drape to mask the remainder. Production manager Richard Foulkes observed: "With four set construction companies, three sound companies and 160 in the crew, this was a real 'Who's Who' of the industry, each individual bringing their expertise to the job in hand."

During the business session in the West Hall, the Great Hall was transformed to a sixties theme - with 29 black and white banners, up to 40ft high, unfurled around its walls. Their scannerchromed images reflected the design of the set where bold black and white geometric squares framed a huge collage of famous British sixties personalities. Outside the building, two Templine generators, each with their own back-up, powered the entire event. Lighting dimmers were also invisible, again housed outside, in specially constructed sheds.

The communication challenge within each



For Arthur Andersen, Imagination mounted a technical extravaganza.



show element, and the need to link all halls together for MC announcements, was satisfied by an RTS system consisting of four main power suppliers. Installed by Paul Venables and Hugh Jones, this produced a total of nine channels over 70 belt packs, and played an essential role in supporting Imagination's high production values.

Unusual Rigging was called upon to fly a monumental single 86m x 27m rectangular box truss to a trim of 40 feet in one piece, spanning the length of the Great Hall. From this, Imagination's Jonathan Howard lit the ceiling, banners and set to great effect. "The aim was to create a sense of scale and intimacy for over 3,000 diners in a space equivalent to a football pitch." To achieve this, the vaulted fabric ceiling was lit predominantly in a deep blue, with an overlaid ripple pattern to break up the planes of the ceiling. Nearly 400 Raylights lit each table individually, allowing Howard to use a low level of general illumination in the hall itself. Further atmosphere was created by lighting each of the 29 banners individually.

After dinner, 'Big Band Dance Hall' was the theme in The Pavilion, with the band performing in front of a huge 1930s Bakelite radio. In a traditional 'London pub' sprinkled with sawdust, a honky tonk pianist entertained the punters. Back in the Great Hall, the Sound of the Supremes took to the stage. Howard used 180 Par 64s to create a four-colour wash of light on the group and the backdrop of photographs - "a homage to sixties psychedelia."

The Mondrian-style grid was lit in primary colours, strobes and marquee-style golfball lights to sustain this sixties feel. Howard worked with Vari-Lite's Mark Cunliffe to create additional impact with 20 VL2Bs. "I aimed for a strong, up-tempo look to provide visuals strong enough to match the Supremes' unique

sound," he said. Chris Ekers used the only D&BF2 loudspeakers available in the UK with Hackney cabs as a satellite delay system. The long reverberation time in the Great Hall led to his choice to Simm this system.

The day after Alexandra Palace, Imagination created a one-day business session for 1,400 Arthur Anderson partners - using its in-house business television resource to broadcast eight hours of live television within the event. Holiday Inn Worldwide franchisees can look forward to another Imagination experience at Orlando in 1994 - when Imagination USA will devise and produce their next annual conference.

Holiday Inn Worldwide

Project director: Brian Shepherd
 Producer: John Whittington
 Production management: David James
 Logistics: Guy Stevenson
 Designer: Martin Grant
 A/V design: Chris Slingsby
 Lighting design: Simon Bruxner-Randall
 Sound design: John Del Nero
 Lighting equipment: BASH
 Sound equipment: Rock City
 Projection equipment: Visual Techniques
 Video equipment: Creative Technology

Arthur Andersen

Producer: Tania Watson
 Production manager: Richard Foulkes
 Designer: Paul Ghiradani
 Lighting design: Jonathan Howard
 with Simon Bruxner-Randall
 Sound design: John Del Nero
 with Chris Ekers and Martin Pilton
 Rigging: Unusual Rigging
 Lighting equipment: Theatre Projects/ Vari-Lite
 Sound equipment: Hardware House/
 Dimension Audio/System Sound
 Video equipment: Creative Technology

Photograph of Sonny Sisti and Coleman Hawkins by Terry Cryer



HEARD IT THROUGH THE GRAPEVINE

It's a fact. The overwhelming majority of new clients come to us by word of mouth. Clearly, the direct personal recommendation of our existing customers carries a lot of weight. So, why do we bother to advertise? Simple. So you don't have to wait until someone tells you.

SALES • CONTRACTS • HIRE • CONSULTANCY



BIG ENOUGH TO COPE
SMALL ENOUGH TO CARE
HILLAM ROAD INDUSTRIAL ESTATE
CANAL ROAD, BRADFORD BD2 1GN
TEL 0274 370966 FAX 0274 308706

PLASA
PROFESSIONAL LIGHTING
AND SOUND ASSOCIATION



LDI 93, FLORIDA

Tony Gottelier, Peter Wynne Willson and Jonathan Gottelier round up the posse in Orlando

By all accounts, at least in technology terms, the big tour of '94 promises to be Pink Floyd whose bandwagon is rolling out of the closet once again in July (see news story page 11). The advance party were all at LDI with their shopping lists, which must have added some spice to the occasion for those hopefuls among the exhibitors. But then this is what a show is all about, or used to be - real customers, with real intent.

All the boys were there: Mark Fisher was spied carrying out lengthy negotiations in the meeting area atop the vast Tomcat stand, but otherwise kept a low profile: Marc Brickman apparently took a close look at Wholehog and gave it the thumbs up, doubtless causing a flurry of activity among the moving mirror boys; and no doubt Robbie Williams was around somewhere also, though we didn't run into him. Needless to say, Brian Croft (Vari-Lite Europe) and Alan Thomson (Theatre Projects) were in close attendance, as was Charlie Kail of Brilliant Stages, but then it's already in the bag for them.

There was muted expectancy regarding new products launches, since most had been heralded at PLASA, but at least this would be the first opportunity to see some of this equipment put through its paces. I was looking forward to seeing High End's Cyberlight, not quite ready in the event, and the Coemar NAT2500 in its first full performance (on Ramazzotti it seemed under-employed), and the Martin Pro 1220 under the hand of the legendary Roy Bennett.

Actually, I wish manufacturers would get back to the good old days when there was one official launch and the journalists could write the lot in one go. These days the product features tend to come out more like leaked government documents. As always, the products appear at shows before they are ready to be delivered, but now they are so complex and the software is so vast that it is sometimes months before a complete product appears in its final form, by which time it is old news for us. If there are any products in this

category which we've missed from this year's show, we apologise in advance. Anyway, that's our excuse and we're sticking to it!

Not only did the Brits, led by theatre lighting designer Chris Parry, make off with a raft of rewards, but they were in Orlando in force as exhibitors. We start with three companies who have recently set up their own offices in the US: AC Lighting, now established in Agoura Hills, California, made their debut US appearance with Jands, Rainbow and Socapex products; Optikinetics, old hands as exhibitors, but at LDI in their own right for the first time since announcing the opening of their own office in Virginia under Jeffrey Broitman; and the previously mentioned Flying Pig Systems whose national identity may be in some doubt if one checks the principal's passports, but who recently sprouted a branch in Malibu. London-based DHA Lighting, whose owner also holds an American passport, though it had temporarily slipped from his grasp during the show, were proudly proclaiming the success of the tilt feature of their digital light curtain, now in use in Richard Pilbrow's lighting design for 'Showboat', currently appearing in Toronto. It is hard to believe that this show heralds the Master's return to 'real' lighting design in a theatrical production, after the last few years devoted largely

to his consultancy role in the USA. It also brings Pilbrow and Hal Prince together again, and who knows where that may lead?

Lighting Technology incubated their newly signed Caterpillar Light, which also drew considerable ribald comment, in the vertical presentation format used, from up-front Americans. It also caught the attention of the LDI awards panel. James Thomas Engineering were there to prelim their Super-Truss and LSD gave the Icon its first exposure in the US environment, where many were apparently unaware previously of its very existence. (They would be if they read L+S! - Ed). Axon's ShowCAD made its first appearance in the USA on its own booth sponsored by TAS, and scored four other show demonstrations elsewhere, while also playing the joint starring role with Richmond's Command Cue at John Huntington's Show Control seminar. First-timers Cloud Electronics majored on their CXM modular mixer.

Other British exhibitors were ALS, Abstract, Avolites, CCT, Celco, Harlequin Floors, JEM, Le Maitre, Light Projects, Lite Structures, Modelbox, Pulsar, Timebeam, and White Light. Anytronic, Kaleidovision, Light Processor and Lite Structures all appeared under the Tracoman aegis.

Tony Gottelier



Jim Bornhorst (left) and Rusty Brutsché (right) of Vari-Lite Inc with Todd Nichols of Disney/MGM.



Gerard Jongerius of Flashlight (left) with High End Systems' John McDowell.



Christine Czech and Skip DeVilling of Columbus McKinnon USA flank UK distributor John Jones of Pfaff Silverblue.



Mitch Clark of Tomcat US (left) and Colin Waters of TMB Associates.



Joe Tawil of Great American Market (centre) with Zero 88's David Catterall and Freddy Lloyd.



Richard Crane of Richard Crane Productions and Charlie Richmond of Richmond Sound Design.



Monica Arnott and Bob Dagger on the stand of American Harlequin.



Sylvania's Rocyn Williams (left) with Bev Bigham and Garry Nelsson of Lighting Technology.



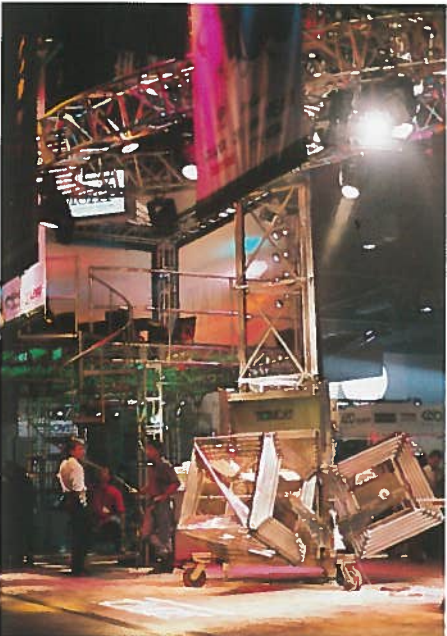
Bernd Knemoeller (left) and Thomas Stanger of MA Lighting with the Scanscanner.



Colourful line-up from Unipar with their plastic Parcans.



Twin Peaks: LSD's tented enclosure for the Icon, designed by Jonathan Smeeton.



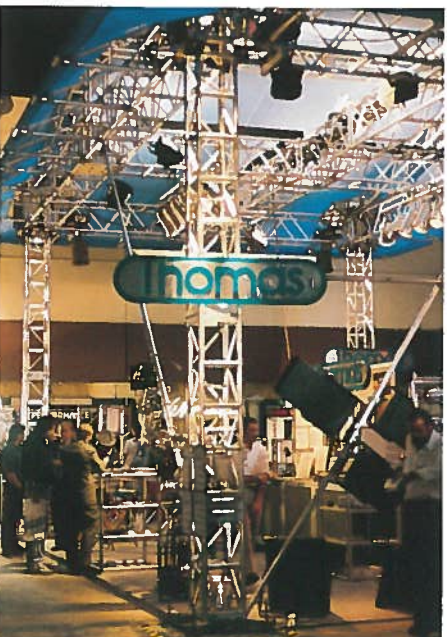
Tomcat USA picked up a stand award for its bold colour statement and product integration.



The DeSisti/Desmar combo introduced new ranges of lighting equipment to the American market.



Roy Millington (centre) and Andrew Colley (right) of Cloud Electronics with their Canadian distributor, Brock McGinnis of Novatec.



For James Thomas Engineering it was the first US outing of the company's new SuperTruss.



Florian von Hofen (right) of The Smoke Factory shows the smoke output of the Scotty.



Rosco and their range of smoke machines, scroller systems, gobos, scenic paints, gels

Coemar come out Fighting

Just as you may have been about to underestimate Coemar, it should not be forgotten that they are arguably the originators of one of the two main strains of automated lighting; the other being Vari-Lite. The first real public sighting of the NAT2500 (pictured right), the 'NAT' stands for New Advanced Technology, and 12 of the beasts literally tumbling with excitement when news of the 'Best New Lighting Product' award reached the ears of light show designer/operators Carl Dodds and John Lindsell. So Coemar are back on the scene with a vengeance.

Everything about this new dynamic device is BIG - big lamp (2500W MSR), big beam (150mm lens), big excursion (360x360 degs), big on parameters (22), big encapsulation and, we imagine, a big price to go with it. Still, its most unusual feature is the large rotating head which, with its periscopic action, is capable of positioning the beam anywhere within a spherical envelope, even parallel to the sides of the instrument itself. The application of the 16-bit positional option should give pinpoint accuracy. The huge array of other features includes saturated-colours wheel, with magenta-cyan-yellow subtractive colour mixing on top, for pastels and hues, remote zoom, focus, iris and shutter, fade to black, variable frost, spinning prisms, and superimposable, all rotating or counter-rotating gobos. Numerous marginal effects have also been accessed such as the shutter which can strobe at the one end and wipe at the other, and you can pulse the iris and, indeed, the zoom. Among other SFX are rock and roll of the gobo wheels, inter-image colour splits, colour rolling, fading, bumping and splitting. As intriguing, and surely with great touring potential also, was the new Coemar PC1000, first brought to light at this year's LDI, which is essentially a programmable ellipsoidal.

Co-opting some of the functions of the NAT, and putting them in front of a 1000W halogen lamp, Bruno Dedoro hopes to upstage the Vari*Lite VL5, and beat the Parcan and colour scroller combo in one fell swoop. The PC1000 offers colour mixing and fading, controllable iris, zoom, focus and frost. As yet, there is no animation, but the periscopic head may become a later option.



Megadroid Mania

American DJ Supplies showed the Megadroid centrepiece. This really is a MEGA product in every sense; it takes just about every feature available on the current crop of centrepieces and adds some extra features of its own. As with most of these units, it has eight arms extending from a central hub, covered in the small circular mirrors so common on these units. The light beams can be directed onto this drum, or to effects discs higher on the body of the unit. It also uses partially silvered dichroic mirrors to colour the beams, as first seen on the Griven Helios. These can be tilted in or out of the beams, giving different results dependent on angle and also allowing the beam to partially pass through the mirror, thus giving the complementary colour to that which is reflected, and doubling the number of beams.



It is at the end of the arms that things begin to change somewhat. Rather than just a tilting mirror, each has both X and Y movement, allowing some interesting interplay, particularly when combined with individual control of each mirror. The increase in control does not end there, the user also has control of each of the dichroics, the speed and direction of the mirror drum, of each effects disk and of the shutter. This control is through a 3U high 19" rack mounting panel or a PC-based software control package. Further units can be daisy-chained to mimic the first in the command chain. For cases where this is not available or not desired the light can also be run automatically using internal programming and a built-in microphone, or using a 1U high 19" rack mounting mini-controller. This allows 12 different built-in programmes to be called, as well as allowing remote control of the shutter and sensitivity adjustment of the audio sensing. It should make quite a splash as a centrepiece, although with all the parameters available on the unit, it would be preferable to see control via DMX.



Wybron Glide In

Keny Whitright and his software team at Wybron are to be congratulated. It seems that they have pulled off a considerable technical feat - for, in so far as we could judge, the Autopilot followspot ultrasonic tracking system, first attempted at last year's show, is now working pretty well. In fact, it possibly only awaits a more suitable automated luminaire than that with which it was demonstrated in Orlando. Pictured left are Dan Martino, Daryl Vaughan (attracting the Autopilot spotlight) and Keny Whitright.

THE COMPACT, LOW-COST LIGHTING SYSTEM FOR YOUR CLUB OR LIVE MUSIC VENUE

As used at the following locations around the world:

Audio Visual/Multi-Media -

'Experience Australia', SensorVision Theatre, Melbourne, Australia; Coca Cola Pavilion, Expo '92, Iwate, Japan; Seaworld, Orlando, Fl. USA.

Clubs - 'Boby Centrum', Brno, Czechoslovakia; 'Annabel's', Dublin, Eire; 'Mars', Vancouver, BC, Canada; 'The Colorado Pub', Rhodes, Greece; 'Cinderella' cruise liner, Finland to Sweden; 'Circus', Puerto Rico; 'The Jet Set Club', Puerto Rico; 'Tots', Southend, UK; 'Crowbar', Chicago, Il, USA; 'Firestone Club', Orlando, Fl. USA.



Stand-alone system for 386 compatible PCs or a powerful 1024 channel extension for your existing control surface

Live Music Shows/TV - 'Break for the Border', Dublin, Eire; 'The Norwegian Grammy Awards', Oslo, Norway; 'The Swedish Grammy Awards', Stockholm, Sweden; 'Live from Bern's', Stockholm, Sweden.

As used by Coemar spa for their astounding exhibition stands in Paris, Rimini, Valencia, Singapore, London and Dallas.

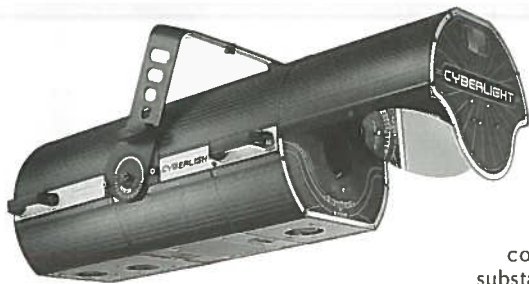


WORLDWIDE DISTRIBUTION
Cerebrum Lighting Ltd
Units 4 & 5, Shannon Commercial Centre, Beverly Way, New Malden, Surrey KT13 4PT, England
Telephone: +44-81-949-3171
or Fax on: +44-81-949-3649



SHOWCAD - THE AMAZINGLY VERSATILE LIGHTING & EFFECTS CONTROL
Available as add-in card + software for existing PC or as a complete configured system

High End Systems Launch Cyberlight Luminaire



As usual with High End products, the new Cyberlight's saturated colours are luscious, and seven of these are used in combination with magenta-cyan-yellow colour mixing, colour temperature correction, plus what is described as upward, downward and centred colour correction to provide a palette of pastel hues. Yet despite all this, and more, in the optical path the company's Richard Belliveau claims substantially superior light output to most

comparable luminaires, from the 1200W MSR light source. "It rivals most 1200W followspots, which means it may be up to two-and-a-half times brighter than some of our competitors who use comparable lamps," he claimed, when describing the computer designed optical train in his new baby. But what the English-born developer is really excited about is the ability, through Cyberlight's facility for rotating and non-rotating gobo superimposition, to create unusual textures and looks. Some of these effects are made possible by the production of glass gobos using photo-litho techniques which, for example, enable the introduction of colour within the gobo itself. Variable focus, frost, zoom and strobing shutter, plus prism and full dimming are also on offer. Many road-enhanced features are also provided, including performance monitoring via a proprietary bi-directional data link.

For the first time ever, High End are introducing a light board. Albeit tailor-made for their own automated products, it is only a matter of time before it is running under DMX512. Presumably, feeling jealous of the success of the Wholehog in grabbing the limelight on so many headline tours of late, the men from Austin, Texas have taken a pragmatic view of the relationship between the board and the PC. No attempt is made to hide the 486, indeed it can be used as a stand-alone system under windows or for editing purposes, but essentially the stuff which calls for hands-on is done from the desk. This is achieved with a 'Link' card which sits in expansion slot of the PC. In describing this product, the literature falls foul of the language problem which plagues all such new systems - there isn't a common language between the manufacturers. One man's 'Scene' is another man's 'Preset', is another man's 'Environment' and so on. It's time there was a consensus over the jargon!

So let's see what you make of this little lot: "Status Cue allows you to build a 'Palette' of 'Scenes' or position memories that can be used as references for Preset Focus. Each of the 128 Palettes can store up to 4,871 Scenes consisting of 'Construct' parameters, position information, and timing information. The Scenes can then be used to build 'Sequences', which can then be stored as a 'Song'. Each Song can access 32 Instant Presets. A Cue list is provided for dynamic interaction. Finally, each of the Songs can be stored in a 'Show'." In addition, there are 32 Group Select, 32 Macro and 32 Preset buttons with 16 Fader Presets and 16 Faders with bump buttons, there are Factory Algorithms, plus standard items such as Grand Master, and Blackout. (If nothing else they have succeeded in getting us to print the entire thing!) Everybody who has tried to design a board for moving lights hits this language barrier; theatrespeke isn't adequate since it doesn't allow for animation, so perhaps High End should have stuck with the Rock music analogy which seems to have possibilities. Thus, we could have Notes, Cords, and even Riffs, to describe some of the lower order items!

DMX Developments

On the DMX gadgetry front, probably the most eye catching new item was the DMX512 Line Tester from the West Coast DMX specialists, Doug Fleenor Design. The Line Tester is the same size as an XLR5 connector, needs no power supply and is totally self-contained. You simply plug one end of the Line Tester into the DMX line; the other end has two LEDs which are used as indicators. When plugged in, the Line Tester instantly displays the presence of the data+ and data- signals. Observing the indicators while fading all dimmers from zero to full will detect if either line is stuck high. Swapped data+ and data- lines can be determined by sending all dimmers at full.

Obviously this is very much a line tester, and is not trying to compete with the more advanced DMX analyzers such as the Lil'DMXster from Goddard or the PicoDMX from XTBA, but it is certainly a useful tool, and given its price of only \$25 and its small size, I imagine they will go like the proverbial hot-cakes. (In fact, DFD sold all that they had on the first day of the show!) The main problem I anticipate with this item will be keeping hold of it, as it will fit rather too easily in someone else's pocket!

This great little gadget will be available this side of the Atlantic through Chris Cook's seemingly ubiquitous DMX one-stop XTBA.



AVAB's Big Ambitions

At AVAB the word is BIG, more precisely, the 'world's biggest followspot which throws light farther than anything you have seen before.' With a 2.5k MSR it is claimed to top a 3k Gladiator with 21 million candelas - 135 foot-candles at 400' with a 10' diameter beam. However, it is built to take a 6k MSR, and looks like it - the front plate is actually a laminate of no less than seven layers of 4mm steel. The reflector is glass not metal. The lenses are all coated and are zoomed with excellent motorbike clutch-type handles. If one of the giant lenses were to run out of control, by the time it had reached the end of the tube, at 32'/second squared, its accelerated mass might explain the armour plate. BIG news: at the Niethammer factory where this is built, they have finally run out of the infamous grey paint: this fabricated beast is black! Seriously, the beam is exquisite and destined to grace the winter Olympics. Pictured above are AVAB's Kent Flood and Ralph Dahlberg with Big.



Lycian XLT

Lycian introduced the 1290 XLT long-throw 2k xenon followspot: the spec sheet was preliminary, but the unit is in production. There are neat touches such as ball bearing action on pan, tilt and zoom, balance adjustment to suit the operator and, separate from the six colour 'boomerang' mounted amidships, is a special slot for diffusion or correction filters. The 'gear' is housed in an integral power tray which makes a tidy, if heavy, package.

The Lycian and AVAB booths were in different halls so it wasn't possible to compare output directly. However, if recommendation was needed the highly quality conscious AVAB/Niethammer MD appeared on the Lycian patch to buy eight XLYs to supplement his Bigs at the winter olympics. Pictured is Richard Logothetis, president of Lycian and Wilfrid Hevey of Show Lighting Corp.

QDMuX Demultiplexer

Light Processor gave the first US showing of their QDMuX 24 channel demultiplexer. This has some nice features worthy of mention. The DMX connections can be made by XLR3s as well as XLR5s to allow for those moving light and disco manufacturers who insist on bypassing the standard. The 0-10V outputs are available from both 8 pin DIN sockets in six channel configuration or 5 pin DIN sockets in four channel configuration simultaneously. The level of the 24 channels to be decoded are shown by LED status indicators on the front panel of the unit. In case of signal failure the QDMuX has three pre-selectable options: hold current output; go to zero or revert to pre-stored outputs. The unit is 1U high 19" rack mounting.

Rottweiler Tubeclamp

RK Industries is a subsidiary of Phoenix Mecano which may hint at the modular nature of their products, though it's doubtful if there's a connection in anything but name. They supply a full range of rolling guides for 30mm and 40mm diameter rails in tubular or solid stainless steel, steel or aluminium. Linear systems for stage set or lighting can be designed and assembled on site, with freedom to modify later. For high precision, there are square extrusion systems with screw and hand wheel drives. The tube clamps grip the circumference, rather than just grinding a socket-set screw into the wall, and the preset angle-ends have really serious dogs that interlock. The Rottweiler of the tube clamp business.

Rigging Swivel

The Crosby Group showed a new rigging swivel for stage use. Instead of the usual pin, the heart of it is a socket cap screw so the action can be adjusted. It did not have the sleek production look of their regular range, maybe it was pre-production, but given that they supply certificated components 1/8" cable clips to 1000 ton sheaves and hooks, we can doubtless rely on its safety. New was the 'Sling-Saver' shackles that have specially broadened heads but are no heavier than normal, as the top is relieved. Adoption of these would save many a span-set from early relegation.



Pulsar's Derrick Saunders with Don Hindle of CCT Lighting.



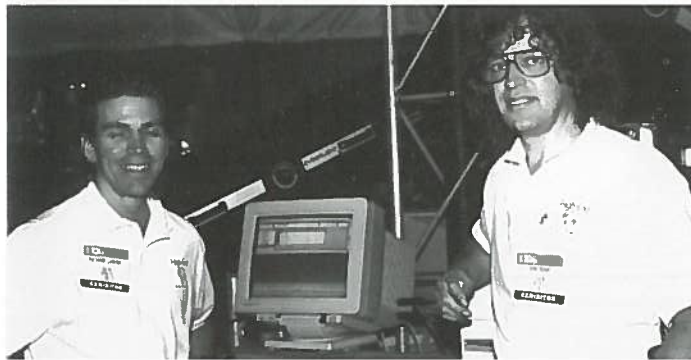
Jim Gordon (left) of Pan Command Systems with Charlie Malings of Clearcom.



LDI show manager Paula Millstone and White Light's Bryan Raven.



Philip Nye of DHA Lighting with Hermann Sorger of Pani Austria.



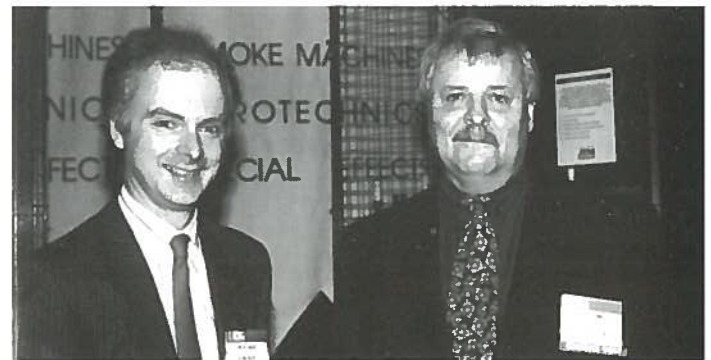
High End Systems' international sales manager John Adams (right) with US national sales manager Richard Cadena.



Pulsar's Paul Mardon (centre) hosts Zero 88's David Caterall (left) and Freddy Lloyd.



Tom Littrell of Vari-Lite Inc with Marshall Bissett of TMB Associates.



JEM Smoke Machine's Mike Wood (left) with Piet Gommers of Euro-Lightvision (Netherlands).

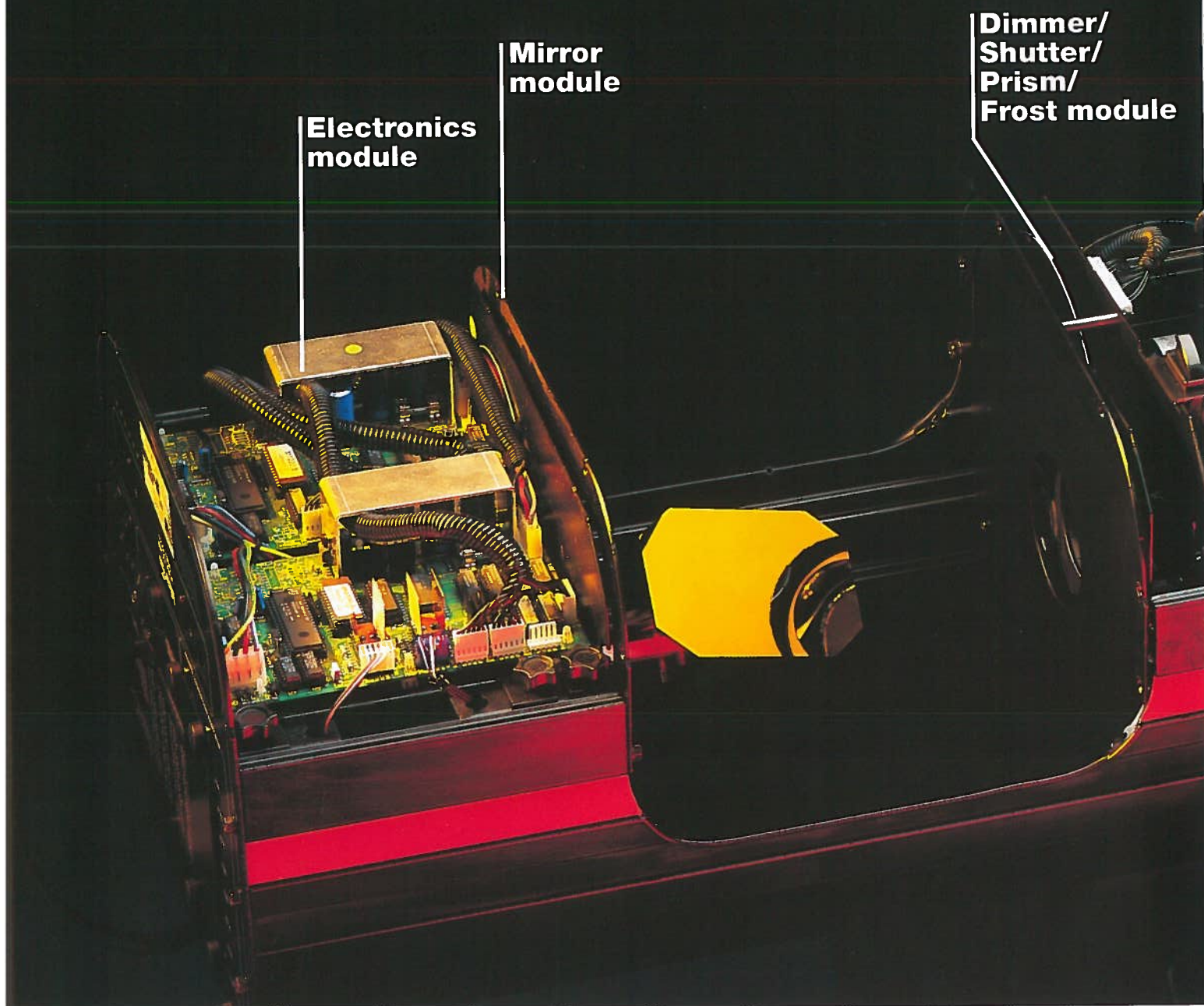


Neville Lee (left) of Tomcat USA Inc with Mervyn Thomas of James Thomas Engineering.



Jack Kelly (left) of Celco Inc and Keith Dale of Celco (UK).

ROBOSCAN - AN INV



Prepare For The Future Today With The Roboscan Pro 1220

With technological advances occurring at an ever-increasing rate, chances are your intelligent lights will be become outdated before you even finish paying for them.

Unless, of course, you buy the Roboscan Pro 1220 from Martin.

Look inside the 1220 and you will see an innovative modular design which means you won't have to junk your MK2 the minute an MK3 comes out. In fact, you can add on the hottest features on the market in a matter of minutes - including Martin's own stunning new projection effects.

Light Years Ahead Of The Competition

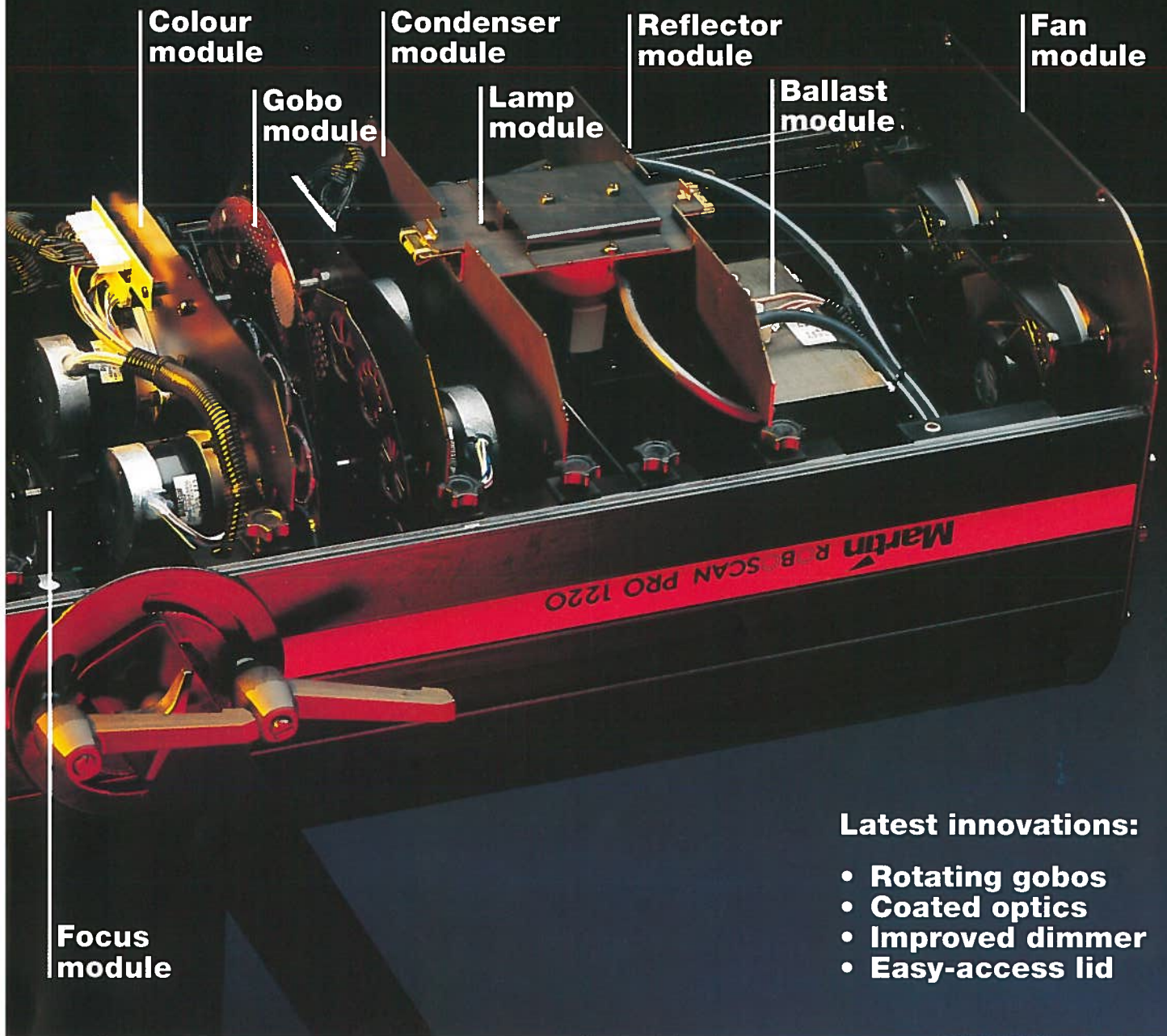
This uncommon flexibility - coupled with our quality craftsmanship - gives the Pro 1220 an average life span of 10 - 15 years. Other units, by contrast, are lucky to last 2 - 3 years.

As one of our customers put it, the Pro 1220 "is the most significant development in intelligent lighting since the invention of moving mirror."

Modularity is the Future

While your competitors all have to reinvest in a new scan, you can simply add all of the industry's new ideas as they are released.

ESTMENT FOR LIFE



Latest innovations:

- Rotating gobos
- Coated optics
- Improved dimmer
- Easy-access lid



Martin Roboscan Pro 1220 includes:

- 1200W discharge lamp
- Motorized focus, iris & silent dimmer
- Your choice of 14 gobos w/5 rotating gobos or 18 non-rotating gobos
- Mixable gobos
- 18 mixable colours giving innumerable colour combinations
- Multiplying prism
- Super-fast strobe effects
- Frost filter

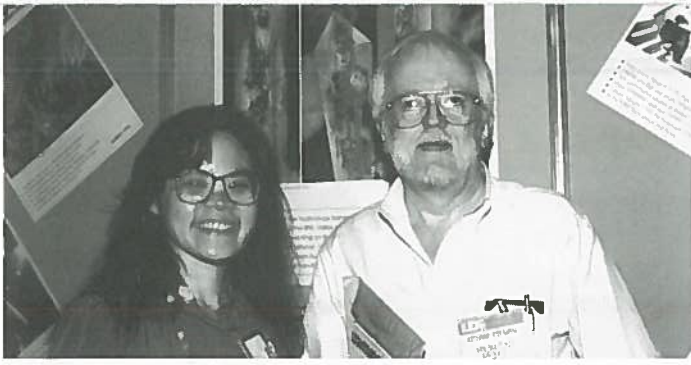
Martin

Martin Professional A/S

Nordlandsvej 114, DK-8240 Risskov, Denmark
Phone +45 86 21 44 11, Fax +45 86 21 50 01

Martin Professional UK Ltd

8 Millhall Business Est, Aylesford Maidstone, Kent
Tel 0622 790164, Fax 0622 790166



Lighting designer Richard Pilbrow with assistant Dawn Chiang on the L+SI stand.



Strand's leading lights: president of Strand Lighting Inc Gene Griffith (left) with Chris Waldron, managing director of Strand Lighting Ltd.



Leading production manager Morris Lyda (left) with Unusual Rigging's Alan Jacobi.



Neil Rice of Optikinetics (left) with Coe-tech's Ian Brown.



Phil O'Donnell, managing director of Strand Lighting Asia with Andy Collier, business development manager (stage lighting).



Jacqueline and Yves Rueilan of Paris-based Hardware for Xenon.



Dan Martino (left) of Wybron Inc with Daryl Vaughan of Wybron Ltd and Michael Hall of Roscolab Ltd.



David Taylor of Theatre Projects Consultants (left) with world traveller Peter Ed of Strand Lighting.



Mervyn Lister of Doughty Engineering with Riad Mehio of Penn Fabrications.



Charlie Richmond (left) of Richmond Sound Design with Glantre Engineering's Vic Dobbs.

Applied Electronics

Claiming the most reliable dimmers in the world with zero failures in the field, AE have now launched the Omega Rack, which is smart to look at (without the fashion styling of some front panels, which actually leads one to suspect what is going on inside) and has some smart features to match.

Namely, a band of indicators to show valid DMX, load present, individual phases, SCR drive, three phase switchable RMS Voltage metering and over temperature. (But soft! If they have never had a failure in the field, is this not superfluous?).

Now the really useful bits: 0-28 Volt operation can be selected for any channel with an 'AC' load patch-bay, and, alive to the diverse loads that are encountered these days, a dip switch will set 'non-dim' for any channel, which saves the hassle of finding a switch-pack for that one motor circuit or suchlike. US price: \$1279 per six pack.

Lightotation Returns

For those who have been in the business for some time an old and familiar name has just resurfaced - Lightotation.

The current Lightotation range includes a four channel 8A switchpack, a 1500W strobe, a low voltage controller with 14 chases, speed control and audio input, and a four channel controller with built-in 10A per channel dimmer pack, seven chases, speed control, in-built mic control and channel lock-on. These items are currently available through UK-based Lightfactor Sales and will be offered via other distributors soon.



Light Options from GE

GE on the Eclipse booth had the first two dozen in existence of the new FLK 575 Watt lamp (tungsten not HMI!) with a compact axially coiled filament which naturally, in the right fixture "deliver more light on target than a 1000 Watt FEL". Now this is really interesting, because I was shown, from under the counter, the even newer FEL lamp (in prototype actually) which naturally gives even more light than the old 1k, from 700-750 Watts (as yet undecided). This is achieved by hot-mirror-coating the quartz around the filament, the rest is etched. The IR is reflected straight back to reheat the filament and increase the visible light yield for the given wattage. Where will it all end? And what takes manufacturers so long? Why don't they incorporate all the features that enhance the light output all at once? - neither of the two lamps above have xenon doping for instance, which we were led to believe was the great leap forward of the eighties. If all the percentage gains vaunted were multiplied, we would have lamps that continued to burn when switched off. Jim Shields of Eclipse Lighting is show above with GE's FLK and FEL/HIR lamps.

Vari-Lite and the VL6

The VL6, companion to the much praised previous number in the series, seemed set not to make quite such a stir, yet, in its attempt to provide an affordable answer to the competition from the mirror movers, has a number of innovative tricks up its sleeve.

Twelve clip-in colours are provided and these are supplied with the rental package to the designer's choice. Vari-Lite's Loren Haas explained: "Since it is unlikely that many LDs will, in fact, require a wider range than from 12 colours of their own choice, and it is a much cheaper option than colour mixing, we think this is a great solution." The colours push in, like flags, around the edge of a wheel-shaped receptacle.

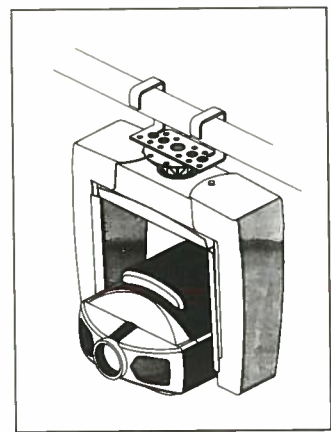
The gobos, which are applied to their own wheel in the same fashion, will be produced to order by Vari-Lite in what they describe as a unique process. Trademarked as Vari*Image, half-tone quality images can be laser-etched onto coated glass gobo elements to provide a selection of user-supplied visuals for a show. This computer controlled process enables any pictorial or graphic source, capable of being scanned, to be used as the basis for a selected pattern.

Other features, aside from a pan and tilt capability at 240 degrees per second with three degrees of resolution, are the 400W MSR short-arc light source coupled with a dichroic reflector, full field dimming, remote soft focus and controllable iris.

This year it seems as if a new age has dawned for Vari-Lite, almost as if a great weight has all at once been lifted from its corporate shoulders. From expansionist commercial moves and reaching out into new markets, to several new products, the Dallas light movers are on a roll. A refreshing admission that life hasn't always been simple in the fast lane of the Vari*Lite automated luminaire user has led to a number of new items, mostly aimed at simplifying life for the designer and programmer. One of these is Auto Truss which, with typical American understatement and military style jargon, is described as a 'luminaire deployment module', and it was exclusively featured (in prototype form) in L+SI last December. Slightly longer than a standard aluminium box truss (they couldn't quite get it all in) this clever piece of engineering enables four of their automated luminaires to be retracted into the truss framework for safe transportation and a removable head-frame provides the extra protection. The sections are castered in two configurations, and the luminaire mounting platform's extension and retraction is motorized for remote operation. Of course, pre-rigged driven luminaires from source will greatly improve the quality of life for all concerned, while maintaining the competitive edge you would expect from Vari*Lites. Whether truss makers will follow suit and adjust their standard dimensions is quite another matter, and this may cause pause for thought.

Artisan VLQ is a board-level cueing program running on Apple Mac which allows the recording of keystrokes from the Vari*Lite Artisan desks and enables play-back on command. The software should considerably speed up console set-ups and simplify complex cueing sequences. Now that remote moving mirrors are in the news, following the Eros Ramazzotti report in the last issue of L+SI, Vari-Lite formalized the actuality of the VLM Moving Mirror first shown experimentally at PLASA. This is a double-sided, front-surfaced polycarbonate mirror mounted in a standard VL yoke. The difference is that with the VLM the mirror revolves in the tilt axis rather like those Austrian toys, called ampelmen we think, where the wooden acrobat spins between two shafts as you squeeze them together.

In a departure from established policy, Vari-Lite coupled their first entry into the architectural lighting market with the announcement that the purpose-dedicated instruments would be sold rather than rented. Clearly it would have been impractical to do anything else, and the company hope to have avoided any clash of interests by keeping the product ranges quite different. Two products are planned initially, one for exterior and the other interior use, and both are based on the VL5 colour mixing system. The outdoor unit is sealed in a chunky waterproof case, which allows mechanical focus adjustment only, and is offered with a choice of 700 MSD or MSR lamp. The indoor models, which have the driven yoke as an option, come with either 500W EHD or 150W compact metal halide light source.



The VL6 spot luminaire.

Gobos with Brass

N&N Productions' brass gobos are not remotely new, but are worthy of mention; not just because their gobos are high quality, but because brass is worth a second look from anyone whose gobos refuse to stay flat, with areas wandering out of focus as the gate of a peaky ellipsoidal heats up. (This unplanned kinetic lighting element has sometimes been a welcome diversion for some during lacklustre performances). Brass is, of course, a superior conductor to stainless steel and sinks the heat away from the hot spots faster. It is not altogether free from distortion but can be removed once it has annealed and rolled or beaten flat. N&N use jeweller's techniques to create the silhouette in the brass blank, vying with each other to produce the finest trace with the squarest edge - something sadly lacking in the chemically engineered counterpart.

AC Lighting/Socapex

Socapex have filled out their range of multi pin connectors with a loose pin version. The individual wires can be soldered or crimped to the pin which is then inserted into its allotted space in the plug. Glyn O'Donoghue of AC demonstrated the luxury of not having to wield the soldering iron within the tight matrix of fixed pins. The forgotten sleeve can be post applied and late night colour combination mistakes easily rectified. The cable outer-sheath can be stripped back further for longer working tails as a splash-proof clamping gland has been added. It improves grip, protection, streamlining - for pulling out cables, the hard shoulder of the old Socapex was always getting caught and was never a thing of beauty. For further protection there is a new flexible gaiter, and overall protection claims IP55 rating. AC have dubbed this 'patchable' series the Tourpex.

Diversitronics go the DMX Route

Diversitronics have turned their whole range of strobes over to DMX512, which must be a good idea, and also have outdoor models presumably for the stadia market in the USA.



Lite Structures Kit Bag

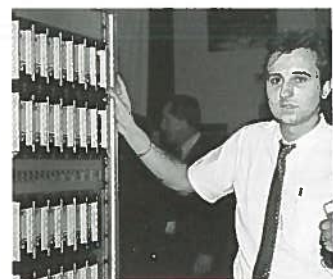
One of the few new and interesting ideas in the low-end, club and mobile area was to be found on the Lite Structures area of Tracoman's stand. Adrian Brooks (pictured right with Mini-Lite) and Co have put together a package of their Mini-Lite triangular truss which comes in a large kit bag. When assembled you have a goal-post shaped, free-standing structure, perfect for framing a DJ at the decks and holding a range of small lighting effects. The kit bag is easily manageable by most people and the truss itself

strong enough for most purposes. Adrian proved this beyond reasonable doubt by hanging from the centre of the span himself - we can't envisage many people trying to exceed this loading! Expect to see this used in combination with Abstract, NJD or some of Martin's smaller effects for professional looking results in the mobile environment.

An alternative to the suggested lighting effects above might be one of the many Par 16 packages seen at the show. Most came complete with a 4-way chaser and sound-to-light control unit and Par 16s in multiples of four. Combined with the above truss any mobile DJ could build himself a very smart 1:4 scale rock and roll rig.

Listen very Carefully

The French dimmer manufacturer has launched into the American market via Desmar/DeSisti. It was while listening to a very convincing explanation of their HDD rack and why the American market appreciated a sophisticated, but at the same time, down-to-earth dimmer system that there came the best sales pitch of the Show. Not from an American either, but from an ex-pat Frenchman, who explained in seductively accented Gallic prose: "Listen, in France we make good cheese, good wine, lovely girls . . . and the best dimmers!" Sold! - without any of the boring technical bits. Hand in glove with this came an equally committed lecture from RVE's Stéphane Colin (pictured right with their dimmer) because in the PLASA review we forgot to mention one of the new safety features of the Diafora scroller. In the event of an obstruction to the drive, the software disengages the scroller without interrupting the data flow down the line. If the obstruction is removed or rectified, the unit automatically resets and comes back into play.



Xenotech Power

From the firm who gave us a huge blacklight projector last year came a 10,000W Xenon automated searchlight: the Britelight Super Ten comes with pan, tilt, focus, colour scroll and dowsers - wonder how long the gel lasts? Staying with mega numbers, Xenotech recently supplied 45 Britelight 7000s to the The Luxor in Las Vegas. Calculated on a peak beam candle power of 795 million, together that's 36 billion candles and 315,000 watts, according to president Richard Hart who claims, and who are we to argue, "it's the brightest light on earth." Pictured above are Xenotech's Guy Snow and Steve Gillette with the Britelight Super Ten.

Cyber Scan Promise

The initial reason this unit caught everybody's attention was the virtual clash of names with the much-anticipated Cyberlight from High End Systems, the rumour being that the wrights were already in the mail! However, on closer inspection, various features caught the eye: 7 rotating gobos, high resolution movement and positioning, followed by the more standard features of 11 colours + white, 170 degs of pan, 110 degs of tilt, iris, dimmer, shutter and an 18 month warranty. This package alone would be worthy of interest, but coming as it does from Show*Pro, a company not previously known in the automated luminaire market, it peaked the interest even further. Show*Pro, it turns out, is a sister company to Ness, who some readers may know as an American importer and distributor of discotheque products.

The Cyber Scan itself comes in two versions HMI-575 and DI-12S 1200W compact arc metal halide. The latter is not a lamp that we recognised and indeed only the 575 was on stand so it's not possible to comment on its performance. The 575 on the other hand was doing a very credible job. Show*Pro are using a custom-made polished aluminium reflector with a special electro-coating, manufactured for them in the UK. This, they claim, is giving substantially more output from the same lamp. The unit performed well, the movement at slow speed seemed smooth, the colours were good and the other features all seemed to be in place and working. Show*Pro were claiming 16-bit accuracy on positioning and movement, though this was not possible to verify. Control is via DMX 512 (1990) or RS232, so you can use the controller of your choice or Show*Pro's own Mentor controller.

Physically, the unit has been kept very manageable (850Lx350Wx225H), and weighs only 28kg for the 575 and 31kg for the 1200W unit, which compares favourably with similar units from other manufacturers. Most significantly, the unit comes in at under \$5,000 list. What this translates to for sale price is not clear as the intricacies of the US discotheque market's discount structure are still a mystery. Suffice to say this is, at the very least, competitive with the other units in the market. As with all such units how good it really is will not be clear until end-users get a chance to put it through its paces: does it live up to its feature list? Is it rugged enough to survive its inevitable battering? Does it really have 16-bit resolution? How well does it deal with all the various forms of 'DMX'? Cyber Scan is certainly worthy of further investigation.

Lightning Strikes

Lightning Strikes' lightning effects system is a real storm: two million lumens per hit in a programmable cadence, which can emulate machine-gun fire or the like, while the undulating feature on the controller echoes the uneven burst of natural lightning. This is not a suitable strobe for a New Year party at home - the light output is rated at 70,000 watts! And intermittently, the unit draws 300 amps! Lastly, there is a constant light mode, but this can only be sustained for 1.5 seconds. Shame! (Audible sighs of relief from substations throughout the land). These deceptively compact units can be hired in the UK from Cirro-Lite.

Custom Manual

Do you have an 'owner's manual' which covers rigging, fire and electrical safety systems, operating procedures and general maintenance? Is this information passed to students and employees? Are accurate records kept and maintenance schedules known and adhered to? If you're in the US, then you need not worry, Sapsis will write a custom 'manual' for \$350, or just \$100 in conjunction with a \$450 safety inspection (itself good value). Is there a UK company offering this pan-discipline service?

Firing on all Guns

Space Cannon in their xenon park had one remarkable item: a searchlight that blew away every other offering, even the 7k monsters. It had a whiteness, power and sharpness of beam which was wondrous to behold. We'd tell you of the clever things they've done, the reflector finish and coating, near perfect arc alignment, however, the only response from the saleswoman was a delightful smile and "Id only 4k!", then "You spik to manager." Manager duly came and said with obvious pride: "Id only 4k!" Well, we tried.



Surround Sound

Williams Sound showed an infra-red sound distribution system which can be used if the venue has no loop or if only a selected group is to be addressed. A signal is fed from a modulator to the high power transmitter which covers 450sq.m - any number can be daisy chained, as each is self-powered and regenerates the signal. The really clever bit is that the RX4 has the receiver located in top of the sleekly styled headset, so that wherever the wearer turns (save the crash position during the scary bits), reception is maintained. Janet Beckman of Williams is seen here with the company's infra-red headphone.

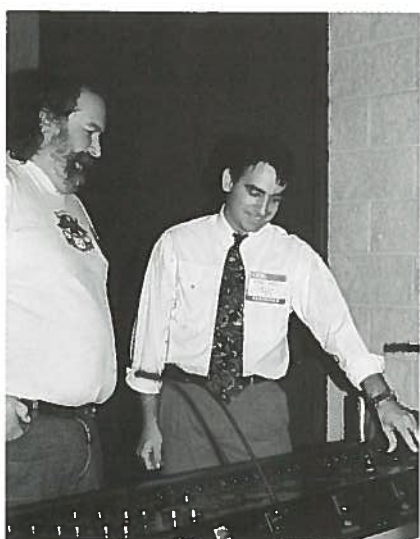
Strand's Atlantic Treaty

Emphasizing the globalization of the Group, but also that we are still two nations divided not just by a common language, but also by uncommon standards of measurement, Strand Lighting's new US catalogue is identical to the European model except in spelling, format and voltage (and therefore probably illumination characteristics in many cases). What this means is that luminaires such as the Optique, the 1200W condenser-optic ellipsoidal currently in use with Andrew Bridge on 'Sunset Boulevard', are now available on both sides of the pond, as are the Alto and Beamlites ranges. Similarly, the GSX memory desk with separate software packages launched at PLASA, was also released to the American market at LDI.

Thus, with the exception of a few products quirky to the American theatre tradition, the product ranges grow inexorably closer, as does the marketing policy. Meanwhile, the new Leko launched last year, and seemingly rather overshadowed by the surprise appearance of ECT's Source Four, has turned out to be a best seller for Strand in the USA.

Numark PPD

The new DM2175XLS from Numark is, they claim, the first-ever microprocessor controlled DJ audio mixer. The '2175' digital sampler/mixer has fully expandable, user upgradable D-RAM memory allowing the 16 second standard simple memory to be expanded to 180 seconds. This sample time can be dynamically assigned to four memory banks allowing four samples of differing lengths to be created and used either 'on the fly' or for pre-programming purposes. The sampler also features delay and echo effects. The mixer section is all that you would expect from Numark; the basics include seven lines, three phono and three mic inputs, six band graphic equalizer and a user-replaceable crossfader.



Pigging Out

Nils Thorjussen of Flying Pig Systems told us that they had been impressed with the enquiries at LDI on the Wholehog and that, as a consequence, the company may be able to wave goodbye to another litter of pigs before too long, one of which, they hope, will be going with Marc Brickman on Pink Floyd. They came to the Show with MIDI and SMPTE added to existing software.

Above, Flying Pig Systems' Michael Nevitt (right) demos the desk.



Altman and the Bard

Altman have entered the 'Leko' style, ellipsoidal challenge cup with the Shakespeare series: based on a new lamp, a 600W FEL. Naturally, you will save a fortune on everything from labour, during get in/out, freight and touring costs, to power and even storage! As you might expect, you will have to purchase a very large number of these new units to make those substantial savings. The housing is all diecast with extruded lens tubes for the wider angle versions and the European fashion for monster, *all extruded* ellipsoidals seems very stodgy in comparison.

The styling is 'post industrial' with hard shoulders at the rear. Inside, there is a choice of a glass reflector or a dichroic coated metal version. In their blurb they claim zero light leak through the latter; it would be *most* interesting to have a metal reflector that was transparent to visible light. There is a shield to protect the lamp holder from the rearward IR and an extra, conical baffle around the back of the glass version. The shutter-assembly uses coil springs to maintain a constant pressure on the blades - much nicer than the bind of rusting blades in an old riveted unit.

Their spots, which have for years been anonymous work horses, have suddenly been thrust centre-stage into the limelight or source-four, you might say, but don't forget Strand exercise a monopoly on the term LEKO!

Robert Altman (above) boxes clever with some of the many features of the Shakespeare 600 Series.

Clay Paky Set the Standards

Simply because they launch their new products at SIB Rimini, it would be churlish not to mention Clay Paky whose 1200W Superscan is really the one they all seem to be chasing. This year they kicked in with the Superscan MRG which features rotating gobos, and the 1200W Golden Scan 3 which together had the effect of raising expectations in the touring market, following the I-beam's initial incursions.

The touring model, called TV as if to guarantee confusion, has four side handles, as expended lamp life meter, graduated scale on both yoke and mirror head, safety chain anchor, pfc and, in a breach with house tradition, finished in black.

Watch out all; we are told that there's a new one from Clay Paky in the pipe! We should also point out that the light show portion of their excellent award winning presentation at LDI was greatly enhanced by the use of JEM's new Water Cracker, a haze-producing machine which uses the innocuous glycol based fluids of most current smoke machines, rather than the oil-based still used by some other Crackers.

CP are also to be congratulated on their splendid new brochure for the GS3, which replaces the shaped and riveted version of the launch, which must have seemed like a good idea at the time.

Martin Pro Fogger

Hiding amongst the vast array of equipment on the Martin/Tracoman stand was an unusual looking smoke machine, which resembled a squashed Martin Pro 218. I was unable to find anyone at the show who would tell me anything about it so what little information I can impart is from the ever helpful Ian Kirby at Martin Professional (UK).

The unit has a built-in micro-processor which allows more careful monitoring of the element temperature and should minimise the time outs required for re-heat, thus removing that annoying period when suddenly you cannot access the smoke system. (It should also make it more reliable.)

The smoke head itself can be 0-10v triggered, or alternatively the control box on the unit can be removed and used as a remote. This control has the added bonus of being programmable, allowing the user to build up a program cycle which the smoke head will then repeat. Additionally the Pro Fogger uses a new more powerful pump and XLR connectors. The unit should cost around £250 + VAT.



Avolites' Shad Anwar (centre) and Rick Salzedo (right) show the Diamond II to Adam Bennette of Arri.

Winner Takes All

For Avolites all bets were on the Diamond II console when they received confirmation of two sales, both to the show lounges of major Las Vegas casinos - one of these being the famous Caesar's Palace.

If events repeat themselves, Steve Warren and Richard Salzedo will feel right at home at next year's Show in Reno. Deliveries are just starting of this desk, which is specially configured to be friendly with driven lighting, with the first model leaving for a Spanish TV studio at the beginning of December for use with 120 Vari*Lite VL5s.

ShowCAD Invades USA

New enhancements to the ShowCAD system launched at the LDI Show included an interface to allow external control from most standard control desks, together with new software which enables personality screens to be tailored to any marque of automated luminaires.

As ShowCAD's designer Mick Martin explains: "Users will be amazed just how much time is saved in programming moving lights with this method." Personality templates are available for the Intellabeam, the new NAT 2500 and Coemar's other robotic lights, plus similar TAS, Martin, Clay Paky and Vari*Lite products, or users can create their own.

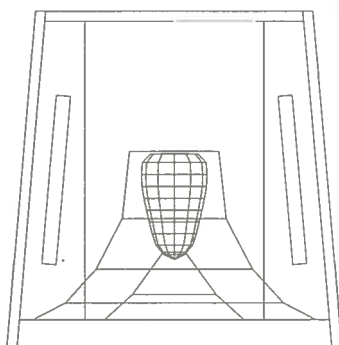
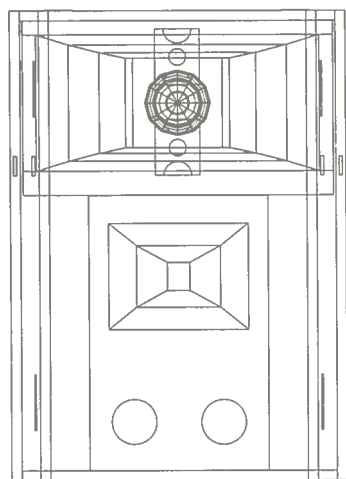
Axon claims that ShowCAD's external control interface makes the powerful software package an ideal expansion kit for existing desks with limited channel counts. ShowCAD is distributed by Cerebrum Lighting.



PRODUCTION SERVICES

EUROPE LTD

The LS2 System



The Arena Building Block

Efficient • Compact
 High Power • Flyable • Arrayable
 30Hz to 20KHz bandwidth • Over 3 kilowatts RMS
 More punch per square foot than any other system available

PRODUCTION SERVICES
EUROPE LTD

6 Whorlton Road, Riverside Park,
 Middlesbrough TS2 1QJ
 Tel: 0642 218 133
 Fax: 0642 218 144

UK DISTRIBUTION BY:

MIDLAND MUSIC SERVICES
 11 Hayes Road, Wigston, Leicester
 LE8 1BH
 Tel/Fax: 0533 882108

ETC Go Digital

Though ETC launched their Obsession 600 desk vaunted last year, and the 'Sensor' portable pack and touring rack, we Europeans will have to wait and see if these make the UK market under the Arri UK badge. It seems unlikely as these are very much American-style products. What we might expect to see is their excellent remote digitizer



Fred Foster of ETC (right) takes the digitizer through its paces.

system, which gives the designer control via puck and tablet. Richard Pilbrow told us that he thought this the best product at the Show. It was being demonstrated alongside the new Expression 2X which includes new 'X/Y Link List' software and dual fader wheels to enable programming and control of moving lights and scrollers. This one we may see in the UK. Meanwhile, the Source Four ellipsoidal launched last year continues to turn the heat on its competitors.

Innovative Communications

ICT deserves a mention if only because theirs was the only hi-def projection cube system in the halls and made quite an impression as the result. The company used their ict-Splitmachine for the purpose and also offer a multi-media touch-screen terminal called ict-Touchmachine and a show control system called ict-Showmachine. So, it won't surprise readers to learn that their sound vibrating dancefloor, a strange companion to the video kit, is called, wait for it, ict-Submachine!

Martin's Touring Determination

There is a danger that the much improved Pro 1220 will be buried under the euphoria of two awards and the mega light show devised by Roy Bennett who was employed as a declaration of intent from Martin with regard to the touring market. In view of their past record nobody should underestimate that determination. The 1220 showed that it was up to the task, with Bennett apparently delighted with what he'd achieved with it. However, the big story for touring, and for everyone else for that matter, is the modular construction of the machine which allows quick and easy maintenance and should provide a long and useful lifetime, as upgrade modules are provided. In this, Martin have stolen the clothes of the original touring mirror deflection system, the Telescan. An optional flightcase kit of spare modules and other parts is offered. Other mechanical features are coated lenses for better light transmission, pfc and 1200W MSR lamp.

Martin Professional are justifiably proud of their system of rotating gobos which seems to work well and users have a choice of four rotating gobos and a ten gobo wheel for use in combination, or two overlapping gobo wheels of ten patterns. The 18 source colours are provided in the latter configuration also. Other features are motorized focus, iris and dimmer, prisms, and frost filter. With more promised, no one can deny the Pro 1220 is a serious contender.

Richmond Sound

The L+SI party spent a very pleasant afternoon prior to the Show in the company of Charlie Richmond (pictured right in the Wild West control room), getting into the spirit of Orlando at Universal Studios. The purpose was to see how his Command Cue system operates the live Wild West Stunt Show, which runs continuous performances throughout the day. As the show involves an element of risk, with live stunt actors and as many as ten different casts, collapsing buildings, pyro etc, all cues are triggered manually, and can be aborted, from an RA Gray custom-made board. These button presses trigger sound stores via the Richmond Command Cue which, in turn, through MSC, set off one, or even a series of accurately timed MIDI events. In this way, everything happens entirely seamlessly and without unnatural delays.



At the Show, Charlie Richmond introduced three new products: 'Concurrent' an all-purpose show controller for sound, light, SFX, motion control of servos, and global communication with outboard devices, which is based on combined Command/Cue and Stage Manager software; Command/Cue Plus, enhanced software which provides interactive on-screen control of large audio fader arrays via eight Intermaster and a Grand Master and enlarges the MSC facilities while adding MIDI Machine Control; lastly the award-winning Sound DSPerser already described.

MADE IN AMERICA

Tim Frost looks at the work of sound specialists EAW

Some 45 minutes out of Boston, in the heart of New England, sits Whitinsville, the home of EAW. It is best seen in the autumn, as I saw it after the New York AES, when the whole area was going through its 'Fall Foliage Extravaganza'.

EAW are currently celebrating their fifteenth birthday, and continuing to expand further into their 1.5 million sq.ft facility - in one of the oldest buildings in the town, a nineteenth century factory that was originally built to manufacture mill equipment, but is now the centre of a very thriving specialist sound reinforcement industry.

EAW is a bit of an enigma in sound system manufacturing. It is a large manufacturer - one of the biggest SR system manufacturers in the industry - but one that does not rely on factory line production of a small number of designs - quite the opposite in fact. Although the manufacturing line, design and measuring facilities are as good as anyone's, EAW seem to go out of their way to court specialist requirements, boxes to solve a client's specific problem. And because that is what they've grown up doing, they do it exceedingly effectively, with concept-to-commissioning times measured in weeks rather than months or years.

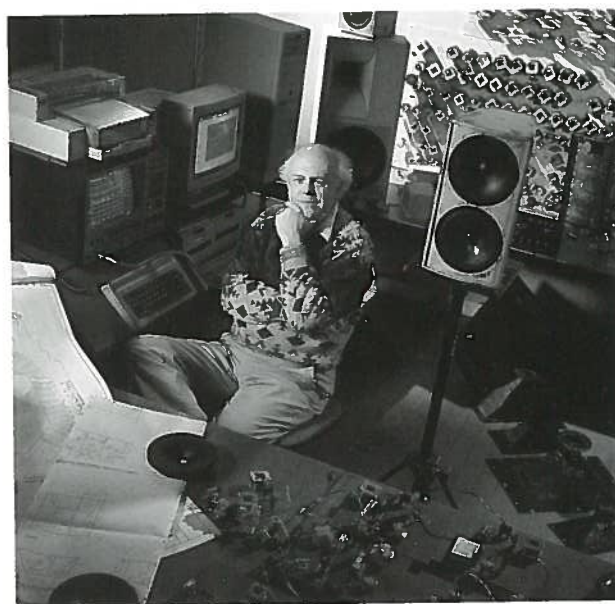
As a result, the company not only has a strong presence in the hire business, both in music and theatre, but has also captured an unfair proportion of large installations, especially those with specific and peculiar needs - large theme parks and Disney come immediately to mind.

How did they get into this somewhat unique position?

Kenneth P. Berger (Ken to friends and the occasional journalist), co-founder and president, gives the situation its historical perspective. "There are all sorts of reasons. Some of it has to do with the fact that for a long time we did not have the resources to do things on a large scale, so we learnt to do them on a smaller scale. The catch phrase, 'We've spent so much time doing so much with so little, that we can now do something with nothing' has a lot of truth in it around here."

But there was a time when the company tried to be like everyone else - with a distinct shift away from customisation - however, it didn't last. "We went through a time period where we tried hard to limit the number of products we made, and for a time it helped us to reign things in, but we've given up on that and we now work on three levels of product. We do an absolutely standard 'high volume' product, which we do in good-size runs, all identical, and then sell from stock. We have another set of standard products which are 'special order'. They are 'standard' in the sense that they are built the same way each time, but they are speciality products and we don't inventory them. And then the last area is purely custom products."

Berger holds a strict definition of their market place as being very application specific; they are interested in solving problems and applying their technologies and experience to create a run of completely customised units to meet the needs of the client's specific project. They would much rather the challenge of a customer who says 'this is what I need to do - go and make me a system



Ken Berger (above left) and Kenton Forsythe (above), founding partners and the driving force behind EAW's success.

that does it', than have a client who thinks he already knows how the custom box should be defined.

"We look at our technologies as a palette of paints that we apply to the problem in hand," said Berger. "Where we work best, interestingly enough, is where the customer comes to us and defines his problem. Where we seem to be at our worst is where the customer comes to us and defines what he wants. If the guy comes to us and says 'I need a 15 inch box, this size, this price, what can you come up with?' We say we're not interested. If he comes and says 'I need a device this size to cover this environment,' we'll come back with the appropriate project."

Much of this ability to match design to need comes from Kenton Forsythe, co-founder and the engineering brains behind EAW. Kenton has been the driving force behind the company's technological development from the very beginning and has a deep understanding of all the different aspects that make a speaker design work. The company's ability to design and build systems in weeks - literally - is evidence of the way that Kenton and Berger have structured EAW's design and manufacturing. Nearly everything is done in-house using drivers bought in from major manufacturers (mostly European), built either to their own specification or fine-tuned on site.

For the boxes, Russian Pine comes in at one end and is cut out on a fully automated cutter/router

working under computer control. This control is essential as it allows EAW to store and load the cutting plans for any box design from disk. They can easily set up for small runs of just a few boxes without spending a day resetting the cutting tools, so combining the benefits of automated wood handling with virtually one-off manufacturing. Boxes are glued, painted and loaded in-house on two manufacturing lines: one for small boxes (anything that will sit on a table for loading) and one for large boxes (all the others). The only serious off-site work happens when the speakers have to be weather proofed then, after sealing inside and out, they are sent away to be externally fibre-glassed.

A large area is dedicated to the very healthy RD and measurement sections. For a start, every box is measured in Quality Control before it is sent out. All systems are given at least a frequency response

check and many have their distortion measured as well. This is considered very much a last point for catching problems, since the drivers and electronics - the two main areas where problems can creep in - are all QC'd before they get into the boxes. In the final test, a single frequency chart is used maybe up to 24 times with the response of each box overlaid on its predecessor. These composite charts show how consistent the boxes are between samples, with variations normally measured within a dB or so and when one is out of spec. it shows up immediately.

Berger sees quality control as not just an internal matter, as the QC manager is also head of service "We see service and QC fulfilling the same basic purpose, and as parts of the same function." The point being that if problems happen out in the field, then the feedback goes directly back into

the manufacturing process.

An essential part of EAW's design concept is the way that the electronics are integrated into the speaker systems. Passive and active filter design has been taken almost to an art form, especially when the company has to react so quickly to new designs. Ken acknowledges Meyer as leading the way to understanding that to produce the right sound means taking control of every element in the reinforcement system.

"It may be true that Meyer was the man who invented processor control of speakers, but the ideas were much more significant than that. Back in the early days, a guy would buy the horn from this guy, the driver from that guy and the crossover from this other guy. The problem then was that, as a manufacturer, you made the box that everyone looked up and saw, but God knows what was inside it or how it was hooked up. When you listened to an early Community system or an early EAW system, each sounded completely different. One may have had Eminence drivers, another might have had RCF drivers. The system may have had a crossover to try and put it right, but then no-one had crossovers optimised for reinforcement use at that time.

"Meyer not only sold the system loaded with the drivers, but he sold it with the electronics. So instead of someone in the field setting the crossover, he got factory control. When you listened to a Meyer system, it always sounded like



Everything is handled in-house from crossover production (left), computer-controlled panel cutting (right), and the hand finishing of the cabinets (centre).

a Meyer system."

The ultimate aim is, according to Ken, "a DSP behind driver/element in the array. But to do that properly we need the computer modelling."

All that is for the future: at present EAW electronics fall into two distinct categories, the passive filter networks built into the cabinets and the active processor. Because the company has such a short lead time on developing boxes - sometimes as short as three weeks from initial contact to commissioning a large stadium system - they have had to get to grips with complex in-house filter design. They have developed their own computer-aided systems to help create, first the electrical layout, and then the physical layout. This latter aspect is becoming increasingly complicated, as the filters get more complex and larger, the boxes get smaller and there are very real problems in where to physically fit the network. The term filter rather than crossover is even more appropriate here, because the passive components may be acting as a crossover/filter or the actual crossover work is executed in the active processor and the passive components in the cabinet are there to fine tune the driver/box combination.

In a typical development cycle, the box designs will be agreed first and then put straight into production with an extra cabinet being produced and handed directly to filter expert Mike Chamness so that he can start work on the filter design. He will come up with various component combinations which, from his own engineering expertise, are likely to work well, and feed them into the computer simulation which will predict how they will perform in the particular driver/box combination. Once the filtering has been tuned to the system, it then goes onto the second stage of physical design, using a CAD system to squeeze the components onto a PCB that will actually fit into the often limited spare space within the cabinet.

Ken sums up the production cycle as follows: "Kenton sits down with the woodworking department who build the first cabinet. It then goes to engineering to design, test and document the crossover and check the driver configuration. That rough crossover goes to the electronics department for PCB design and testing, just 36 hours to final assembly. This is something no-one else in the world can do given months - we do it in three days."

As well as passive filtering, in the KF850 system the MX800i processor is the key behind the correct integration of the high/mid/low/sub sections. Although it does include a limiter on each section (to reduce the danger of long term

over-driving), the primary purpose of the processor is to provide the correct frequency and phase information to the speakers, so that they will work as a coherent whole. Each of the four sections has a range of filter networks that are preset to match the speaker system, accurately matching level and phase response of each element. Since the speakers can be installed with or without subs and since close coupling the boxes can have a significant effect on their output, the processor has a factory preset system that will tailor the response for these different options.

The whole point is that the sound engineer has enough of a battle on his hands dealing with the acoustics of the room, without using time and energy trying to correct the basic performance of the system with tools - such as third octave equalisers - that are simply not suited to the job of speaker system matching.

When Ken suggests that their processor is essential, it is not because he believes that off-the-shelf systems are not good - just not powerful enough to do the whole job. "When we compare another crossover with our crossover, we are not saying that it is bad. If you stacked enough together with enough equalisers you can do everything in our crossovers. It is not that ours is doing anything

weird - it is just tweaked to the speaker system. It is using our intelligence, measurements and experience to get it right, rather than trying to do it in the venue, maybe with some test equipment and maybe a good pair of ears."

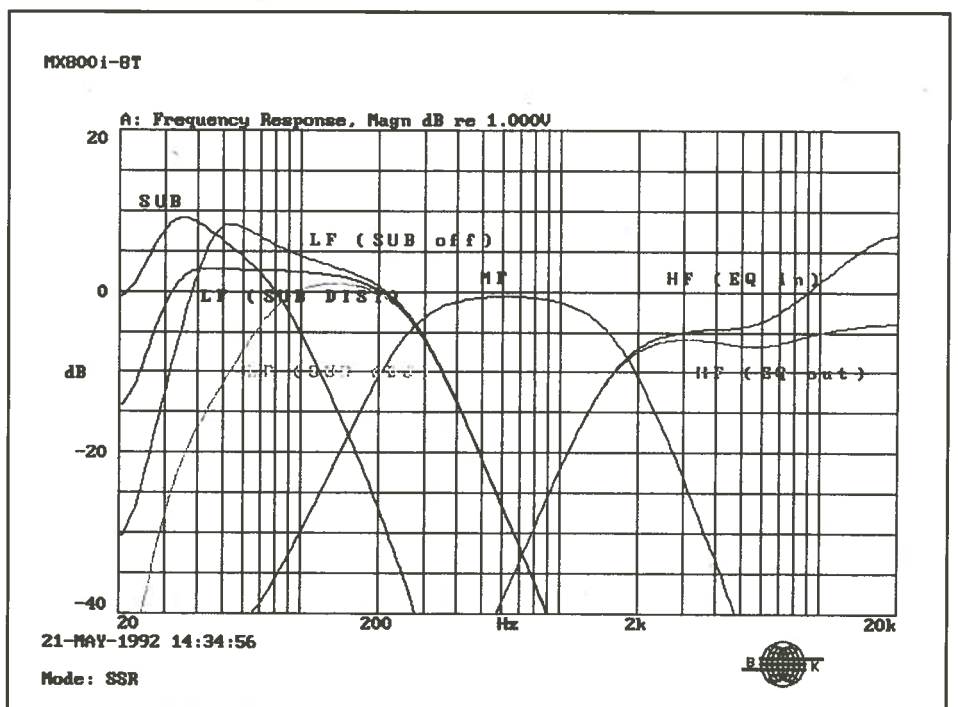
The company is very test gear and computer oriented. It has some of the very latest B&K test sets and a lot of their own customised software and hardware, plus a huge area to measure speakers.

All of this has been put to good use, not only helping them to understand how their systems perform, but also in creating a massive data-base of system performance information. Every speaker developed by EAW has both frequency and time domain measurements taken from every possible angle, in five degree increments, to create a 3D computer image of its performance.

The more obvious application of this to hand out for computer-based system design packages like EASE, CADP and Modeller.

Ken feels that this type of information is going to be essential, now that such computer programmes are beginning to be more than a useful presentation toy.

"Modelling is making the transition from a nice presentation tool to a useful design tool," he said. EAW have a policy to make as much information



Response curve tailoring on the MX800i processor.

possible, as freely available as possible, and they have worked closely with these CAD system developers, even though they are in theory being supported by competitive manufacturers like JBL and Bose.

The real challenge will be to predict the way systems work in arrays and exactly what effect the interaction between boxes will have. This is why they are currently measuring more than just the frequency output of the systems, so that they have the data all ready to use when the modelling software develops onto that stage. They could of course, do some of that work by measuring complete arrays on their test rig and this, as Ken pointed out, presents some practical difficulties.

"It is a tough challenge to work out a way of hanging a complete array in the air, 20 feet away from any surface, and then rotate it both horizontally and vertically." They are, however, working on it.

So where to next? "Certainly no change in basic direction," explained Ken. "I really do believe our vision of the market as a specialised applications market place and everyone else's vision of the industry is that they are manufacturers making products and trying to squish them out into the applications. That is a fundamental concept we have evolved and will not change."

There are a lot of new applications that they see either on the horizon or are already developing nicely. "There are many markets that we are getting into today, for example, the coming of digital to the cinema market. We don't believe that current systems are capable of reproducing the kind of quality that digital will demand. We see work we have been doing in the legitimate theatre market for the last two years coming to fruition in this area. We would like to move from being an 'interestingly new' player to being a leader in that market in the next couple of years."

Latest EAW Developments

At the AES in New York, the company showed a range of new products and a number of upgrade projects that they have been working on.

On the new product front, they are concentrating their efforts on the very big systems with the AS943, an ultra high-output, long-throw system. This has been developed for a certain large American theme park - let's just say one of the originals from a company with big ears. Standing at over eight feet high, the complete system is built up around the mid unit, bass high unit and triple driver sub-box.

On the driver front, EAW have always paid a great deal of attention to the development of their drivers, which are normally made by European manufacturers to their specifications. Traditionally, the problem surrounding the compression driver has been to produce drivers that generate the required amount of level smoothly and without destroying themselves. These problems have now largely been addressed by most major manufacturers, so the race is on to deal with the last remaining problem with compression drivers: that of distortion. The new CD5002 compression driver which is being used in the updated KF850E/852 systems, uses a titanium diaphragm and surround, with Ferrofluid in the magnet gap, primarily as a dampening material to reduce resonances in the coil cavity. The end result is an HF driver which, within EAW's horns, brings mid-band distortion from the 6-7% of an off-the-shelf driver, down to around 3-4%. At the 10kHz region, where at high levels distortion can climb to nearly to 20%, the improvement is even more dramatic, never peaking 10%.

One problem facing any company producing co-axial systems like the KF850 is that with the HF units placed in the centre of the mid/bass horn, the output from the HF horn can diffract backwards into the main horn and be reflected back out off the horn walls - producing comb filtering effects.

In a simple but effective solution, EAW have added the ARC (Acoustic Refraction Control - or the pillow to you and me). ARC is a 'sack' of HF absorbent material that is placed in the mouth of the horn, absorbing any stray HF, so that it doesn't get a chance to bounce around the cabinet and cause problems. It turns out there is a side benefit of the system in that it also absorbs stray HF produced in the midbass speaker (caused by non-linearities in the driver's performance or transients produced in the power amplification), so as a by-product the pillow cleans up the mid/bass section's performance too.

The HF unit and the ARC are key elements in an upgrade kit for the original KF850 system so that EAW customers who own systems maybe up to eight years old can bring them right up to the current specification.



February 13 to 16, 1994
Paris - Porte de Versailles - Hall 3
10AM - 7PM

12th International Trade Show of Equipment and Technology for Entertainment and Leisure Venues and 9th Theatrical Services Exhibition

REACH THE HEART OF THE MARKET

300 exhibitors offer Europe's most complete panorama in lighting, sound, special effects, decoration, furniture, studio equipment, stage machinery, video and radio equipment, shows, animation, ...

Reserved for professionals



Please send me:

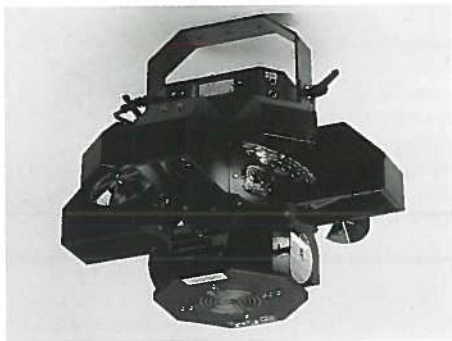
- a free invitation card
- information to exhibit



Name: First name:
 Company:
 Address:
 Telephone:
 Activity of your company:
 Your function:

Please return this coupon before January 15, 1994:
 SIEL, 22-24 rue du Président Wilson
 92532 Levallois-Perret Cedex - France

Avitec offer FAL Trio



Avitec are now distributing three new products from FAL in Italy. The Mini Octopus (pictured above) is a scaled-down version of the popular Octopus, and comes with a powerful CID 300 discharge lamp. As with its big brother, the unit can run through its programmes automatically to music, or individual effects can be selected via 0-10 control. An optional slider controller is available. Although the Mini Octopus has less moving mirrors, the in-built patterns are actually more varied than those offered by the Octopus itself, and this more compact unit is capable of producing startling displays at less cost.

FAL's other new units are the articulate mirror-driven projectors - the Supercleverscan 10 and Primoscan 8. Both feature additional colours and gobos, which are now interchangeable, and a new electronic 'watchdog' system which monitors the microprocessor performance giving an automatic reset in the event of electrical disturbance to the microprocessor.

For further details contact Avitec in Hitchin, telephone (0462) 458961.

Linkfix from XTBA

Following the success of the Smart Link D54 to DMX512 conversion unit, XTBA has announced a further addition to its expanding range of DMX512 products. Linkfix will convert, filter and adjust DMX512 to Strand D54. This will be useful for anyone considering buying a replacement control desk but who does not need or wish to replace existing Strand dimmers.

Two Linkfix units can be slaved together to provide a full DMX512 to D54 capability. Packaged as a standard range of 1U 19" rack units Linkfix has an LCD display for parameters and leds for power and data indication.

For further information contact XTBA in London, telephone 071-700 0996.

SM250S Upgrade

Owners of Citronic's SM250S remix sampler can now obtain a memory upgrade that doubles its capacity to 32 seconds, which can be used in 4x8 or 8x4 second configurations.

The SM250S is the only professional mixer on the market with a memory back-up system that retains samples when the power is removed, enabling programming to be prepared in advance of gigs. Current owners of Citronic SM250S can upgrade the memory on their existing models for a charge of £75.00 via their local Citronic dealership or direct from Citronic.

In the New Year the company will be launching its RS16 and RS232 professional sampler systems, which will be 19" rack mountable and compatible with most DJ remix systems on the market.

For further information contact Citronic in Melksham, telephone (0225) 705600.

Mains Distro from Avo

Avolites have added a mains distribution system to their extensive range of lighting control equipment. Originally produced as a custom project for Neg Earth Lights, the mains distribution system offers rental and installation companies peace of mind against the possibility of potentially lethal faults in the increasingly complicated stage and lighting rigs.

Up to three 72-way racks plus additional equipment can be powered from one mains distribution system. All outputs are fully RCB protected, ensuring that, in the event of a fault, the RCB will disconnect the mains supply. All auxiliary outputs are protected with an RCB and have adjustable time and current settings. A 400 amp breaker protects the input with complete mains isolation for the system on one switch. In addition to the safety aspect, the system can be customised to individual users' requirements with a wide variety of auxiliary outputs including CEE 63, 32, 16, hot Socapex and 15 amp. Currently in use with Neg Earth and Vari-Lite (Europe), the system has already received a great deal of interest from European and American rental and hire companies.

For more details contact Avolites in London, telephone 081-965 8522.

Fane Colossus



Fane Acoustics has added the mighty Colossus to its ever-expanding range of loudspeaker chassis. Operating in the 27Hz-1kHz frequency bandwidth, the Colossus 18XB is capable of handling 600 watts into 8 ohms at sub bass levels. The 18" chassis features a dual coil suspension in a spaced configuration in order to centralise and stabilise the voice coil, even during the most difficult conditions of use. A sister model, the 15" chassis Colossus 15XB, offers similar features and power while operating in the 30Hz-1kHz frequency range. Both units are designed for use in PA, monitor and disco sound systems.

For further details contact Fane Acoustics in Leeds, telephone (0532) 601222.

Spirit Monitor

Soundcraft has added a 32-channel version of the Spirit Monitor console to its range, alongside the existing 16 and 24-channel frame size. As with all members of the Spirit family, Spirit Monitor's ergonomics ensure that it is extremely user-friendly and gives the engineer full control over the monitor. Each channel features XLR mic inputs for balanced and unbalanced signals, phantom powering, phase reverse, insert point, high-pass filter, three-band EQ, eight monitor sends and a long-throw channel fader. Each of the eight inputs has its own insert point, sweepable high-pass filter and 60mm fader.

For details contact Soundcraft in Potters Bar, telephone (0707) 665000.

Peavey Line-Up



The new DTH M from Peavey is a two-way system consisting of a 1505-8DT Black Widow woofer and 44T compression driver coupled to a symmetrical 60 degree coverage constant directivity horn. An internal crossover is utilized to enable the system to run full-range. Biamp operation is also possible simply by moving a few jumper connectors on the crossover. High power handling, premium polypropylene capacitors, are used throughout the crossover. Two internally-powered Neutrik 4-conductor Speaker connectors are provided for input to the monitor.

The company have also released new CS-2 Series power amplifiers. Peavey's award-winning CS amplifiers have been redesigned to reliably drive two ohm loads to new power levels, while still maintaining their current 4 and 8 ohm ratings. All the features of the previous units have been retained, including Peavey's patented DD system and the exclusive back panel patching capabilities. The two-speed fan cooling system has been redesigned to provide additional cooling. Peavey has also introduced the new P series of power amplifiers, a result of two year research and development.

For further details contact Peavey in Corby, telephone (0536) 205520.

DHA 'Light Talk'

DHA are enhancing and improving the 'Light Talk' interface used for control of Digital Light Curtain and other lighting equipment. To assist in rigging and running the updated system they have launched a long-awaited 'Light Talk' splitter unit. With full optical isolation on the input and with indicator LEDs for all inputs, outputs and power supplies, the splitter unit allows a single 'Light Talk' line to be split into eight branches. Splitter may be cascaded to give even larger numbers of branches.

A feature of the new 'Light Talk' connection spec is phantom power and the splitter can operate from this where available. It also generates phantom power when it is plugged in and can provide power to other equipment by this method. To allow use of the new system with existing Digital Light Curtains, DHA have also produced an XLR adaptor which retro-fits to the Light Curtain and provides 'Light Talk' In and 'Light Talk' Out connections to the new XLR-6 standard. New style XLR-6 and older RJ-12 connections can be freely mixed within one rig. For details contact DHA in London, telephone 071-582 3600.

Modular System

Sennheiser UK has introduced a replacement for its K3 modular condenser microphone system. The K6 system like its predecessor, consists of common power unit with a wide selection of interchangeable heads. The new microphone capsules feature improved low noise performance, high signal output and insensitivity to handling noise. For further details contact Sennheiser on (0628) 850811.

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

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 69 Fax: (32) 16 80 03 67
SYLVANIA LIGHTING INTERNATIONAL PTY Ltd
Tel: (61) 43 28 31 11 Fax: (61) 43 28 26 05



AUSTRIA

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 65 Fax: (32) 16 80 03 67
LTV
Tel: (43) 2228 38 127 Fax: (43) 2228 58 743
MTEC Vertriebsges. m.b.H.
Tel: (43) 7242 60 860 Fax: (43) 7242 60 740



LUDWIG PANI

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

VARI*LITE

VARI-LITE AUSTRIA
Tel: (43) 1 609 02 Fax: (43) 1 609 0220

BELGIUM

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 65 Fax: (32) 16 80 03 67
LUXILLAG
Tel: (32) 2 242 59 28 Fax: (32) 2 242 11 54
PPV-LIGHTING
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
Disco and stage equipment - Import and Export
Tel: (32) 2 428 31 00
Fax: (32) 2 428 21 65



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

VARI*LITE

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

CANADA



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

DENMARK

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 69 Fax: (32) 16 80 03 67
BICO A/S
Tel: (45) 42 84 54 45 Fax: (45) 42 84 20 55



FINLAND

EASTWAY

SHOW SERVICES OY/LTD

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, Verilinde, Yamaha, EV, JBL, etc.

TFP MARKKINOINTI OY

Import and Export of Lighting and Scenic
Equipment. Exclusive distribution in Finland for
Jands, CCT, Rosco and Tomcat. Always interested
in new product ranges for theatre, concert and
television.
Contact Juha Ihanamaki, telephone INT
+31+143933 Fax INT+31+133077. Address:
Hatanpaanvaltie 4A, 33100 Tampere, Finland

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 69 Fax: (32) 16 80 03 67
ELECTRO POWER OY
Tel: 358 0 17 54 00 Fax: 358 0 65 93 95

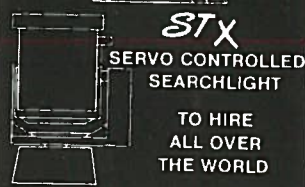


FRANCE

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

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (33) 1 64 29 62 14 Fax: (33) 1 64 29 62 83
ESL
Tel: (33) 67 69 27 17 Fax: (33) 67 69 00 89
EXPELEC
Tel: (33) 50 60 32 93 Fax: (33) 50 60 37 80
GOTE S.A.
Tel: (33) 50 60 23 14 Fax: (33) 50 60 21 87
LOPILUX
Tel: (33) 1 34 10 43 43 Fax: (33) 1 34 10 49 63
MHO
Tel: (33) 46 64 41 89 Fax: (33) 46 65 54 40



TO HIRE
ALL OVER
THE WORLD
THE ONLY ONE INTELLIGENT
4 KW XENON WITH 16 COLOURS
Tel: (33) 1.49.63.23.69
Fax: (33) 1.49.63.23.90

Clay Paky and Pulsar Sarl

10 Avenue du Fresnoe, 14760 Bretteville sur Odon
Tel: (31) 741001

VARI*LITE VARI-LITE FRANCE

Tel: (33) 1 45 07 97 09 Fax: (33) 1 45 07 96 79



Tel: 20 31 85 06 Fax: 20 78 18 37

GERMANY

Clay Paky and Pulsar Vertriebs GmbH

An Der Talle 26, D-33102 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



Gildesstrasse 55
W-4530 Ithberuren
Germany
Telefon 05-451 59000

AMPTOWN LICHTTECHNIK GmbH
Wandsbeker Str. 26, 22179 Hamburg
Tel: (49) 40-64600440
Fax: (49) 40-64600445

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 65 Fax: (32) 16 80 03 67
COEMAR
Tel: (49) 731 60 12 05 Fax: (49) 731 62 852
ECKERT BUEHNENLICHT
Tel: (49) 202 59 20 58 Fax: (49) 202 59 15 03
LIGHTPOWER SHOWTECHNIK GmbH
Tel: (49) 5251 41 84 Fax: (49) 5251 40 74 04
LIGHTRONIC
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
STEINIGKE SHOWTECHNIC GmbH
Tel: (49) 931 46 971 Fax: (49) 931 46 901
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,
33689 Bielefeld
Tel: 0 5205 22 800 Fax: 0 5205 22 889
Concert, stage, TV and industrial lighting
Design and Production Services
Representative of PanCommand systems



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

GREECE

SYLVANIA

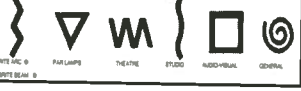
Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 69 Fax: (32) 16 80 03 67
ATH. GOURGOULAS CO.
Tel: (30) 31 73 92 70 Fax: (30) 31 74 50 02
OMIKRON
Tel: (30) 1 363 79 79 Fax: (30) 1 363 67 61



HONG KONG

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (32) 16 80 03 69 Fax: (32) 16 80 03 67
SYLVANIA LTO
Tel: 852 369 55 31 Fax: 852 721 86 21



VARI*LITE VARI-LITE HONG KONG

Tel: (852) 715-7878 Fax: (852) 761-1593

ENGINEERING IMPACT LIMITED
6/F, Blk 2, Tien Chu Cir.
1E Mok Cheong St. Kowloon
Tel: (852) 711-0222 Fax: (852) 761-0633

ITALY

SYLVANIA

Special Products Group
SYLVANIA LIGHTING INTERNATIONAL
Tel: (33) 1 64 29 62 14 Fax: (33) 1 64 29 62 83
GP ELETTRONICA
Tel: (39) 90 71 81 81 Fax: (39) 90 71 81 81
ILC S.r.L.
Tel: (39) 6 89 62 96 Fax: (39) 6 89 32 61
TECLUMEN S.r.L.
Tel: (39) 376 77 92 00 Fax: (39) 376 77 93 83
TECNITRON ELETTRONICA
Tel: (39) 831 39 21 36 Fax: (39) 831 39 28 41



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



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

DIRECTORY

Lighting + Sound
Equipment Sale/Hire
Installation and Design

TSL A LTD

specialists in
audio visual
presentation

Studio 9, 75 Filmer Road,
London SW6 7JF
Telephone: 071-371 5020
Fax: 071-371 0503

**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, MIDDX. HA8 6RW

TEL: 081-952 8982
FAX: 081-951 4178

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, 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 Opt 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

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 EIC
APPROVED
CONTRACTOR

Dial Sound & Lighting

Distribution for

CLAY PAKY

zero 88

ROSCO

Panasonic

PULSAR

JBL

FEENEY

ABSTRACT

RAMSA

POWER DRIVE

MODE ELECTRONICS

BOSE

OPTIKINETICS
TECHNICS

CITRONIC

TEATRO

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

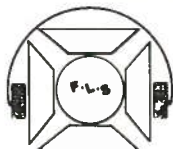
**THE BIG ONE IN
SCOTLAND**

Installation, Design,
Hire, Repair and Service
041 941 1001

P.A. music

**Professional
Hire & Sale**

Lighting-Sound-FX-Video
172 High Road, London N2
081-8834350



**FUTURIST
LIGHT & SOUND**

HIRE
0924
455586

SALES
Strand Lighting

SERVICE
0924
468183

HOYLE HEAD MILLS,
NEW STREET
EARLSHEATON, DEWSBURY
WEST YORKSHIRE. WF12 8J

**NORTHERN
LIGHTS**

Sound & Lighting

Distributors

Trade representation for

PULSAR

**POWER
DRIVE**

MODE ELECTRONICS

OPTIKINETICS

Le Maitre

MULTIFORM

Cloud

ANYtronics

Martin

89 Scoforth Road, Lancaster

Tel: (0524) 845584

Fax: (0524) 845583

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

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

POWER RENT

THE COMPLETE POWER SERVICE
TO THE ENTERTAINMENT INDUSTRY
GENERATORS

CABLES - TRANSFORMERS

1.5KVA - 1500KVA 50/60 Hz
Silent, Mobile generators
Complete Distribution Systems
Specialist Location Engineers
Depots throughout UK & USA
24 Hour Service Worldwide

Telephone Main Depot
0304 813555
Fax 0304 813502
Telex 965324 Power G

- LIVE AID UK & USA • GENESIS EUROPEAN TOUR •
- AIDA EGYPTIAN OPERA • RUSH UK TOUR •
- BRUCE SPRINGSTEEN EUROPEAN TOUR ETC •

Over 40 years experience in
ENTERTAINMENT POWER SUPPLY

"Our name speaks for itself"



**LIGHTING
HIRE
DESIGN
ENGINEERS**
London 081-891 4755

LIGHT & SOUND Productions

EQUIPMENT RENTAL & SERVICES

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



WEMBLEY
LOUDSPEAKER
deuce
S S S S S

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

FABTRONIC LIGHTING

Manufacturers of a complete range of quality
effects lighting for the leisure industry

**PROFESSIONAL LIGHTING FOR
PROFESSIONAL PEOPLE**

For a full brochure and price list call the
Sales Hotline

0604 790765

54-56 Tenter Road, Moulton Park Ind Estate,
Northampton NN3 1AX
Fax: 0604 492856



DISTRIBUTORS OF EFFECT
LIGHTING AND CONTROL
TO THE LEISURE INDUSTRY

ALSO

EXCLUSIVE UK IMPORTERS
OF FLY AND LA NOVALIGHT

Nu-Light Systems Ltd,
Unit 1, Athertons Quay,
Off Liverpool Road,
Warrington,
Cheshire WA5 1AH.
Tel: (0925) 243075
Fax: (0925) 243077

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**

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 LPCG

Lighting and Sound
International has
boxes for everybody,
starting from as little
as £182 for a full year.
Call us on (0323)
642639 and we'll tell
you more.

STARDREAM

S.A.V. LIMITED
AUTHORISED WHOLESALE
DISTRIBUTORS
FOR

NJD **TOA**
zero 88 **LeMaitre**
PULSAR **Hill**
SONY
OPTIKINETICS **REVOX**
J E M **BOSE**
MODE ELECTRONICS
POWER DRIVE **TEATRO**
Party House, Mowbray Drive,
Blackpool Lancs.
Tel.: (0253) 302602 Fax.: (0253) 301000

Europe's No 1 Sound, Lighting and Discotheque Equipment Supplier



National and International
Contracts Division

Nightclub Sound & Lighting
Systems Designed, Specified,
Supplied and Serviced

Telephone (0) 483 451805
Fax (0) 483 451830

Four Retail Branches
Nationwide

Glasgow - 041 946 3303
Manchester - 061 866 8075
Birmingham - 021 520 4545
Guildford - 0483 502121

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



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"*



EXHIBITOR BOOKING INFORMATION NOW AVAILABLE

Ring Philbeach for Details
on 071-370 8215

TALES OF THE UNEXPECTED NO. 2



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 839651 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

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



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: 0482 811843 Fax: 0482 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 ProgramSystems

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, M45, M69, M42 and the M66 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

install of Doncaster

Expert Advice for Installers
of Sound & Lighting Systems

SOUND - PEAVEY, BOSE, CITRONIC, CLOUD, DENON
VESTAX, BEYER, AKG, FLIGHTCASES
LIGHT - ANYTRONICS, COEMAR, MARTIN, ABSTRACT
PULSAR, MODE, NJD

SALES, INSTALLATION, HIRE, EXPORT, DISTRIBUTION



159 Balby Road, Balby, Doncaster DN4 0RG
(0302) 850030 Mobile No. 0860 294572

On
Parle
Francais

CCT LIGHTING

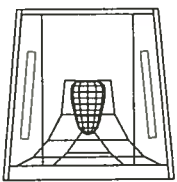
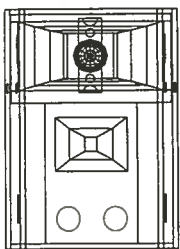
- STAGE LIGHTING
- CONTROL EQUIPMENT
- TURNKEY PROJECTS
- FULL DEALER NETWORK

CCT LIGHTING LTD
 4 TUDOR COURT, BRIGHTON ROAD,
 SUTTON, SURREY, SM2 5AE, U.K.
 TEL: 44 (0)81 770 3636
 FAX: 44 (0)81 643 9848

**FOR SPEEDY INFORMATION
 TO LIGHTING + SOUND
 Telefax (0323) 646905**

**PRODUCTION
 SERVICES**
EUROPE LTD

The LS2 System



The Arena Building Block

Efficient
 Compact
 High Power
 Flyable
 Arrayable
 30Hz to 20KHz bandwidth
 Over 3 kilowatts RMS
 More punch per square foot
 than any system available

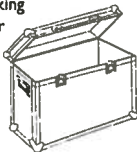
6 Whorlton Road
 Riverside Park
 Middlesborough TS2 1QJ
 Tel: (0642) 218133
 Fax: (0642) 218144

Quentor Cases

Quality custom-built
 transportation cases
 made **FAST!**

Phone (0603) 721604

We specialise in making
 transit cases fast. For
 a simple briefcase
 or for complex
 rackmounts call
 Quentor - you'll
 be glad you did!



Quentor (EC) Limited
 Units 4 & 5 Fitzmaurice Court,
 Rackheath Industrial Estate, Norwich
 NR13 6PY.

Tel: (0603) 721604 Fax: (0603) 721992

MEC SYSTEMS

THE ULTIMATE TRUSS

MECcano for BIG BOYS

**FOR TRADE ENQUIRIES AND
 CUSTOM RIG DESIGN**

Tel: 0424 893 424
 Fax: 0424 892 178

The 'Garage', Bexhill Road,
 Ninfield, Battle, East Sussex,
 England TN33 9EE



ABQ (London)

- Stage Lighting •
- Design & Hire •

Tel/Fax 081-866 6202

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

AKAI • ALESIS • AMPEX • APHEX • AUDIO LOGIC
MUSICRAFT
 LTD.
 LONDONS 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: 071-402 9729/2898 and 071 723 1629
 Fax: 071-706 2872
 SHURE • NUMARK • KLOTZ • JBL • MILL

Trafalgar Lighting Ltd

Tel 081 887 0082

Sales & Hire Of:
 Lighting, Control,
 Trussing, Mains
 Intellabeams,
 Sound Equipment

Used Equipment Bought & Sold

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

**Central
 Theatre
 Supplies**



021-778 6400

Lancelyn

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

NIGHT FLIGHT

Sound and Lighting

THE BIG ONE IN SCOTLAND

Installation, Design,
 Hire, Repair and Service

041 941 1001

THEATRE CRAFT

DRAMA EQUIPMENT

Elec Lighting Controls

Internally Wired Bars

Rostra & Scenery Kits

Braces, Weights etc

TRADE ENQUIRIES

TEL: 051-334 0831 • FAX: 051-334 4047

Hire Point Software

Plot your advance
 bookings in seconds!

15/1/94	16/1/94	17/1/94
9 12 5 9 12 5	9 12 5 9 12 5	9 12 5 9 12 5
24Chan-1	>PITW01<	
24Chan-2	>ADV03<	
24Chan-3		>SMITH01<
12W-1	>ADV03<	

Other features

- Hire contracts
- Quotes
- Delivery schedules
- Statistics
- Expected Shortages
- Sales analysis
- re-orders
- Maint
- Debtors

Only £450

90 day money back guarantee
 Tel: - Lighthouse Tech' Serv' 081 802 2088
 In U.S. - Audra Int' (714) 649 2207

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)

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 Maltre, Slick Systems Trussing.

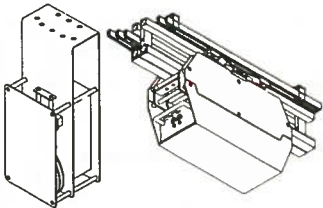
Manufacturers of Socket Boxes, Working Light and Specialised control systems

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

TRACKS, MOTORS, CONTROL SYSTEMS
AND SCENERY AUTOMATION



TRAC-DRIVE

LINEAR-DRIVE

Our comprehensive range of manual and motorised
UNITRACK systems is available for sale and hire.
Catalogue available on request



The Triple E Group

Tel: 071-237 6354 Fax: 071-237 7650
B3 TOWER BRIDGE BUSINESS COMPLEX
CLEMENTS ROAD, LONDON SE16 4EF

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

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



MOTOROLA
CERAMIC SPEAKERS

PULSAR DEVELOPMENTS LTD
MARLOW, ENGLAND
TEL: (0628) 473555
FAX: (0628) 474325

THE

ANDRO
RANGE

STANDARD AND CUSTOM
PRODUCTS MANUFACTURED
BY ANRO TO SUPPORT
THE SOUND & LIGHTING
SYSTEM INSTALLER

INCLUDING:

WIRED LITEBARS & GRIDS
CORD PATCH PANELS & RACKS
SOCKET BOXES
BRACKETRY & FITTINGS
& LOTS MORE

CALL US ON (0264) 356445
FAX US ON (0264) 334401

P.J.LIGHTING (Products)

Trade Supplier

Manufacturers of stage & disco lighting equipment.

Parcans, Pinspots, Stands, Par-Bars, Equipment Stands etc.

Tel: 021 515 2125

Unit 14, 35/37, Nursery Road, Hockley, Birmingham, B19 2XN.

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

Otterfingerg Weg 11 8150 Holzkirchen Germany Tel 0 8024 30080 Fax 300830

SEMINAR TAPES

Recordings of the seminars which ran throughout
the PLASA Light & Sound Show are now available from
the offices of Lighting+Sound International.
The full programme of seminars appears in the August
and September issues of the magazine.

The tapes cost £10.00 + VAT each and are available
on the following seminars only:

Control Transmission • Discharge Lamps
Sound Installs/BSI • Sound Control: studio to road
Video Live • Automated Lighting
Robert Nesbitt Interview • Dichroics versus Gel

Please telephone (0323) 642639
or fax through your requirements on (0323) 646905

7 WESTERHAM
TRADING CENTRE
THE FLYERS WAY
WESTERHAM
KENT TN16 1DE

Tel: (0959) 562254
Fax: (0959) 564564



LEISURE
PRODUCTS

THE EFFECTS CO.

contact us for full
details of this
great range of
special effects
smoke machines
and pyrotechnic
equipment and accs.

Now Available

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

Peter Brooks on The Global Marketplace

Following Tony Kingsley's excellent Viewpoint last month on the increasing stature of PLASA over the last ten years, I have felt it right to address two of the wider issues facing our industry at this point in time.

DMX 512 for ever?

I was aware of some of the shortcomings of DMX 512 through discussions within Zero 88 on problems which the Standard did not address, but I was not particularly intending to attend a seminar on 'Control Transmission - Are we stuck in an 8 bit time warp?' at the PLASA Show. However, on the morning of the seminar my partner, Richard Thornton Brown, suggested that I ought, at least, to come and listen. Accordingly I had a quick chat with the seminar chairman, Derek Gilbert of Glantre Engineering, who also encouraged me to attend. It became apparent to me, having listened to an excellent debate, that the problems with the DMX Standard were in fact rather more commercial than technical, and I volunteered to try to co-ordinate people's efforts to move the Standard along.

Since then the PLASA Committee has sent me to attend the LDI Show in Orlando on behalf of the Association in order to look at the way forward with DMX, as it is in danger of fragmenting - with lots of organisations using the Standard differently but to achieve the same aim. During my trip I was very heartened at the respect expressed for the PLASA organisation, even in the United States where it has very little presence. I was even more gratified to find that just about everyone whom I have spoken to is wholeheartedly in favour of the work that the USITT and PLASA are doing to tidy up the Standard.

But where are we going? The real objective that has been set is to create a joint administrative framework for standards administration and to maintain a list of all those individuals at all levels who have something to contribute to existing and new communications standards. I believe very strongly that the only way that standards work is by being enforceable with compliance testing and some kind of ownership by the originating bodies.

Out of the discussions on 'tidying up' DMX 512 will undoubtedly come some kind of consensus on whether the next Standard is a DMX 512 enhancement or a totally new Standard which is OSI compliant. Ugh! I can hear now very many readers saying "What on earth is OSI?". It stands for "Open Systems Interconnect" and is the umbrella under which the computer business is developing a number of new standards. Our



Working together: (left to right) Anna Pillow of PLASA, with members of the TDA - John McGraw, outgoing president, Lori Rubinstein, administrative director and Paul Vincent, incoming president at LDI in Orlando.

industry is too small to do anything other than use others' International Standards suitably adapted for our use.

A new Standard, however, will require income to support it. I would hope that this could be achieved by a Standards mark (à la Dolby) granted only to compliant manufacturers. A specification for compliance testing must therefore be included in any new Standard.

TDA or TDMA?

Whilst in Orlando I had several conversations with manufacturers who were expressing understandable frustration that the American Theatrical Dealers Association was, in their opinion, not listening sympathetically enough to its manufacturing associate members. I was privileged to be able to explain some of the experience that we had had in the UK in changing from the British Association of Discotheque Equipment Manufacturers to the Professional Lighting and Sound Association, a body which better reflects the interests of the totality of its members. There was some talk that the manufacturers may have to 'go it alone'. This would probably not be in the interests of everyone as a unified voice for our industry in the United States is absolutely essential.

Since the Show, I have been extremely pleased to hear that the issues of full inclusion of manufacturers within the TDA structure, and a possible change of name, are being openly and

democratically discussed. I am sure you will join me in wishing them all well at a pivotal time in the development of their Association.

LDI '93 was crucial to me in underlining just how global our marketplace is, and how important a role PLASA has still to play. The development of standards for any area of our market in co-operation with other interested parties, and the encouragement of and liaison with other associations are only two examples of many.

Peter Brooks is managing director of Zero 88 Lighting Ltd. He is an electrical engineer by training, a profession from which he has long since retired! He was chairman of PLASA from 1983 to 1989.

If you are not a PLASA or USITT Member but wish to be included on the DMX 512 circulation list, please contact George Thompson, telephone (0604) 830860.

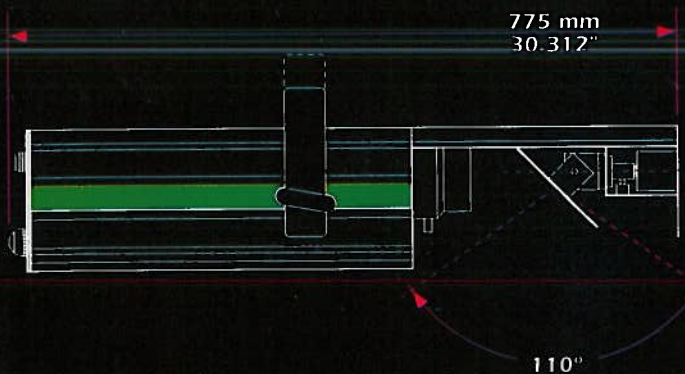
ARK LIGHT

**Theatre Lantern Restoration
Colour Matching to Decor
Strand Spares, TIH Kits**

Unit 163, Bruntingthorpe Ind. Estate,
Upper Bruntingthorpe, Nr Lutterworth,
Leicestershire LE17 5QZ.
Tel: (0533) 478336 Fax: (0533) 478070

ADVERTISERS INDEX

A&B Theatre Services	20	Avolites	6	Frankfurt Musik Messe	19	Par Opti Projects Ltd	20	Siel	49
Aliscaff	17	Cerebrum	9/37	High End Systems	22	Pfaff Silverblue	31	Sofiscotech	17
Allen & Heath	13	Chris James	OBC	JYG	30	Production Services	46	Sound Dept	7
Apogee	11	Clay Paky	14/15	Laser Animation	20	Pulsar	14/15	The Music Company	34
Ark Light	58	Coemar	IBC	Lee Filters	4	P W Enterprises	8	Vari-Lite	5
ARRI	9	DHA	31	London Laser Co	18	R B Lighting	16	Wilkes Iris Diaphragm	17
Audio Technica	12	ESP	IFC	Mainstage	7	Seefactor	8	World Lighting Fair	3
		ETR	16	Martin Professional 40/41		Selecon	30	Wybron	10
		Flashlight	31	Pani	18	Set Lighting & Design	16		



micro scan 2

575 MSR

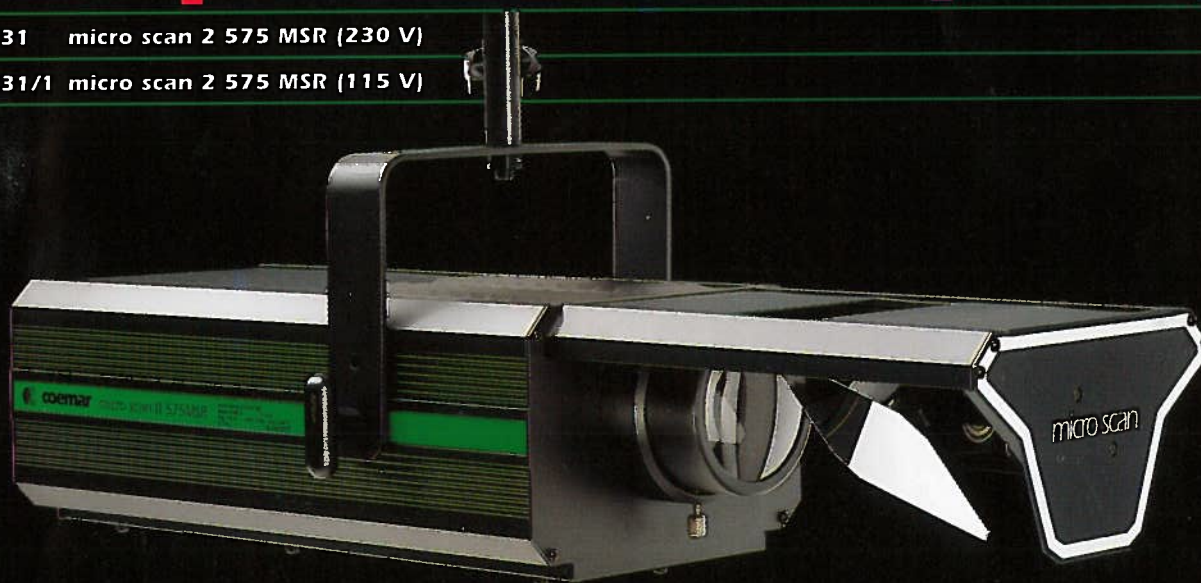


- 10 colours internal colour changer (9 dichroics + white)
- DMX 512 or special input via 3 pin cannon (6 channels)
- high quality optical condenser, formed by 1 high reflection spherical mirror, one parabolic lens and one plano-convex lens
- rotocolour effect (colours in continuous rotation) at 3 speeds (slow, medium, high)
- 0/+10V dc input via 8 pin (6 channels)
- objective: 1 fixed plano-convex lens and 1 high definition focusable lens
- rotogobo effect (gobos in continuous rotation) at 3 speeds
- dip-switches for address number projector
- beam angle: 9°
- 10 gobos (5 interchangeable)
- self-test and signal reception indicator incorporated
- typical throw distance: 4-21 mt
- adjustable strobing effect
- digital signal for lamp on/off function including disable option
- weight: 11,6 Kg/25,5 Lbs
- black-out
- can be operated in any position
- external ballast
- programmable chase effect
- forced ventilation
- ballast weight: 8,6 Kg/ 18,9 Lbs (230V) / 15,8 Kg/ 34,7 Lbs (115V)
- beam movement on X and Y axis' achieved by micro-stepper motors
- protection range IP20
- GX 9,5 ceramic lamp holder
- long life Philips 575 MSR lamp: 750 h;
- power requirement 4,2 A at 230 V - 8,4 A at 115 V
- cable in compliance with the safety norms IEC 331, IEC 332 3C, CEI 20 35 2 core 1,50 + earth
- mains 115/230 V ± 10% 50/60 Hz (on application)

macro-power in a micro-package

code 4231 micro scan 2 575 MSR (230 V)

code 4231/1 micro scan 2 575 MSR (115 V)



coemar spa
professional projectors
for lighting effects

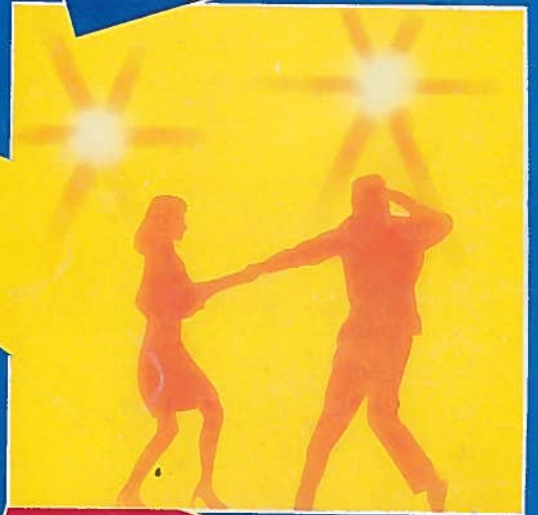
46042 castel goffredo (mn) italy
via inghilterra 1
phone (+376) 779336
fax (+376) 780657



coemar

Coe • Tech
Unit 3, 2 Hartburn Close,
Crow Lane Industrial Park,
Northampton NN3 4UE.
Tel: 0604 785878 Fax: 0604 786606

LIVE PERFORMANCE



Chris James

The new Chris James range of L.P. filters has been introduced to meet the most demanding conditions found in the performing arts.

The L.P. range is much more than a high temperature filter. We have carefully chosen the best dyes to combine with the base material to allow maximum transmission of light with the minimum distortion, flammability and fade, giving greater clarity and longevity.

For your next Live Performance choose the Chris James L.P. range. Full details from your Chris James stockist or direct from Chris James and Co. Ltd., 43, Colville Road, Acton, London W3 8BL. Telephone 081-896 1772 Facsimile 081-896 1773