

LIGHTING+SOUND

International

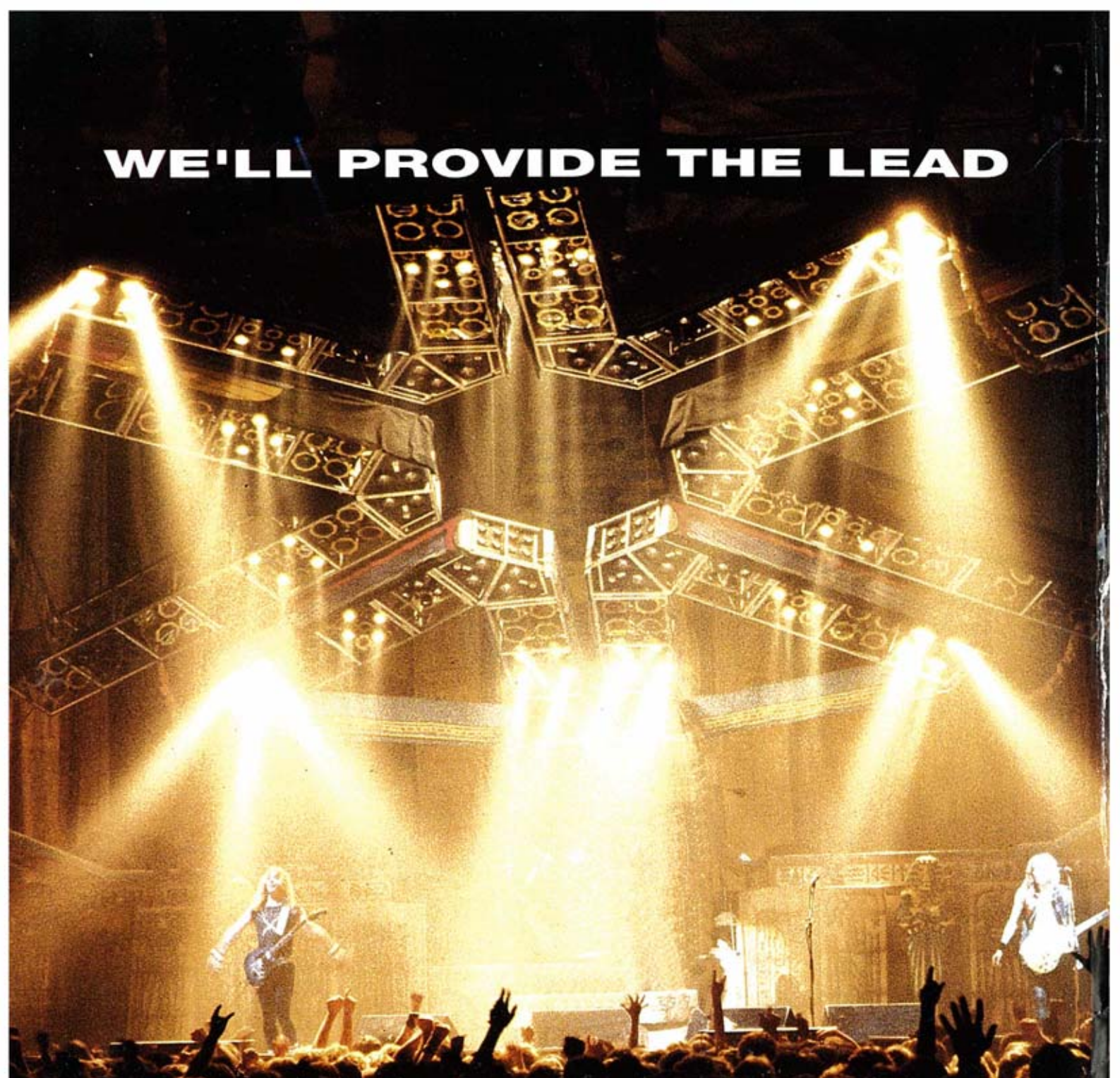


INSPIRAL CARPETS IN PERFORMANCE

- Tony Gottelier in Austin, Texas
- Cover Story: the Liquid Wheel makes a Come-back
- Production Arts off Broadway
- Lighting up the London Codes
- Showtech 90 and Expo Musica Reviewed
- Strand Lighting's Chris Waldron Interviewed

JUNE 1990

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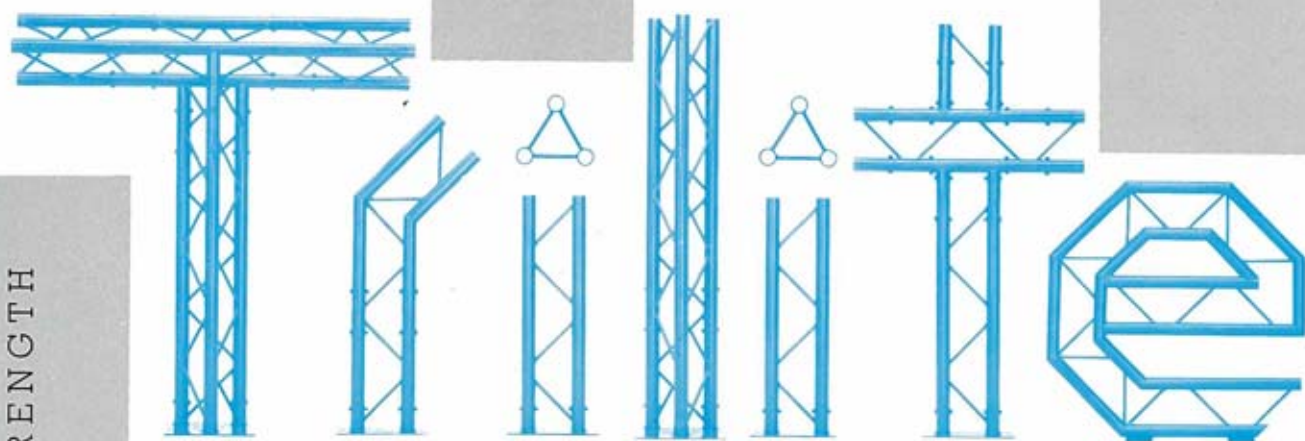
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Cyberdescence hire PALS units fully flight cased, with all cables, a standard colour scroll and trained technicians.

So whether you are involved in lighting for theatre, film and video, or business presentations it is well worth considering

PALS from Cyberdescence as part of your next design or proposal. PALS are available for hire or purchase. For more technical information and a

PALS

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quotation please contact Del Trew.

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live wire
spoken here

*while others have been trying to impress
you with past achievements we've been
designing the next generation of control
consoles*

celco introduce the

PANORAMA range

*designed to synchronise and automate the
control of moving lights, colour changers
and generic lighting in one console.*



*and, whilst others have been
making their dimmer systems
bigger we've been shrinking ours.*

celco introduce the

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*of high density, 100% duty cycle,
modular dimmer systems.*

celco, enough said.

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LIGHTING+*Sound* International

June 1990

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Tony Gottelier, who as regular readers of L+SI will know, is a lighting designer in what spare time he has from writing for this magazine, and currently working on the prestigious Le Palace nightclub in Paris, took time out from his second honeymoon to visit the controversial movers and shakers at High End Systems in Austin, Texas

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Editor: John Offord

Assistant: Ruth Rossington

Advertising: Alison Hunt

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

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

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



Light & Sound Show

9-12 September
11am-6pm
Sun/Mon/Tue
11am-5pm Wed

Olympia 2
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Britain's premiere international trade show.

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

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TOUCH PANEL

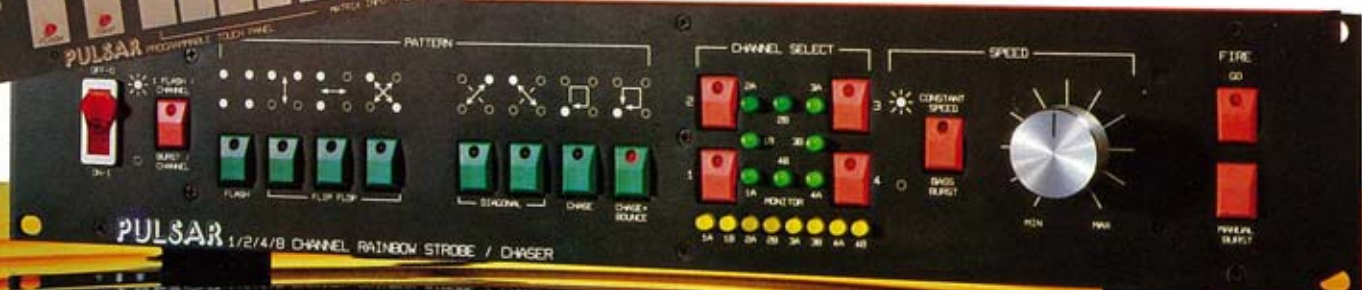
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High Ends choose Lightfactor

Lightfactor have been appointed as sole UK distributors for High End Systems and will market Intellabeam, Color Pro, Dataflash, Laser Chorus and Fiber Optic curtains. Intellabeam is now in stock and Lightfactor's John Adams told L+SI that they are aiming to present it to all customers who have shown an interest in the product.

Bob Sachacherl of High End Systems told L+SI: "We chose Lightfactor as the exclusive distributor because of their commitment to our products. The original plan of multi-distributors was not working and after reviewing the options we decided to go for sole distribution."

Light & Sound Show 90 on Target

Hot on the heels of the news that Cliff Richard will officially open the show, PLASA has announced that the Light & Sound Show, at Olympia 2 in London, from 9-12 September, is on target as the largest yet, with over 2,000 sq m extra space for exhibitors. More than 22 new exhibitors have already booked space and many previous exhibitors have taken advantage of the extra floor space and increased the size of their stands.

In addition, last year's visitor figure of 5,500, of which nearly 800 were from overseas, is expected to grow. David Street of 3D Services, the show organiser, told L+SI that he sees further growth coming from less traditional sectors: "Equipment at the Light & Sound Show used to be of interest to specific groups of people from discos, clubs and theatres. Now, more and more organisations are becoming involved in specification and purchase, and so we are promoting the show to such diverse organisations as local authorities, architects, presentation companies etc.

"We still feel that there's a good deal of growth to come from overseas," he added, "and if last year's pattern continues I expect to see even more visitors from continental Europe, the US and the Far East."

In line with PLASA's continued efforts to extend and improve the Light & Sound Show's



service to visitors, seminars will be held throughout the exhibition, with many of the industry's leading figures discussing their work and techniques. For the first time there will be a computerised product and exhibitor enquiry service which will produce lists of company names and stand numbers on request. It is felt that this service will save visitors valuable time as well as ensuring they meet those interested in their products or services.

Space is still available for companies wishing to exhibit. For information on this, and visitor pre-registration system, contact: 3D Services, 12 Brentford Business Centre, Commerce Road, Brentford, Middlesex TW8 8LG. Tel: 081-569 9742. Fax: 081-569 9783.

A full seminar programme and booking form will be included in the July issue of L+SI.

Dealer Seminars

Citronic have begun a series of seminars for their dealer network on Audio Engineering and related topics. The numbers for each seminar is being kept to around 20 people in order to create a close interactive environment, and each seminar is to be repeated as many times as necessary to accommodate all their customers.

To date, two seminars have been prepared. The first, "Discotheque Sound - Addressing the Basics" was presented by David Bearman of Quartz systems and the second, covering the new field of sound level control and regulations, was presented by Ken Dibble.

Tomcat Continues

Due to demand, the Tomcat range of lighting and trussing equipment is to be manufactured under new management and we understand production should be up to target by early July. A spokesman told L+SI that with new investment and many interesting products on the drawing board, the future looks very encouraging. For further information or European dealer opportunities contact AC Lighting.

Strand and Deliver

A new spares delivery service has been devised by Strand Lighting, to streamline the supply of vital components, which will be introduced on June 5th.

The 'Strandspares Support Policy' runs in tandem with the new Strandspares Catalogue. Each of the items illustrated in the catalogue falls within one of these delivery categories: ex-stock, four weeks or 16 weeks, thus giving positive delivery dates for each item, depending on availability. Copies of the new catalogue and price list are available on request from Strand Lighting at a cost of £10.00.

AC Lighting for Wybron

Wybron Inc. of Colorado Springs, USA, have appointed AC Lighting as European distributor for their Scroller range of colour changers. Wybron were pioneers of scrolling colour changers, introducing Colormax many years ago and more recently Colorwiz.

Scroller is available in four sizes and will fit most stage luminaires including the Thomas 8-Lite unit. The changer incorporates a heat management system that ensures proper cooling of the gel string resulting in the gels prolonged life. Scroller is available in analogue 0-10v or DMX.

On Screen

Following work with Memotech, Electrosonic and Bulletin 1000 (Philips VidiWall suppliers), the Bit Bopper system from Tecnation is now able to trigger preset effects on videowalls from these companies. The Bit Bopper can produce the effects that appear on the videowall, but also control the way in which they are actually disolved.

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INTEGRATED CONTROLLER



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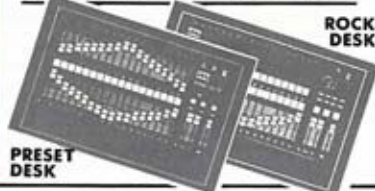


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Orange Specify Hill Power Amplifiers



Reading-based Orange Audio have joined the growing number of companies using Hill Audio power amplifiers and mixers in their systems. Hill Audio power amplifiers have been chosen by Orange for exclusive use in installed systems and also with the disco systems sold through the retail shop. With the Hill Multimix mixers and LC Series amplifiers on permanent working display in the showroom, plus back-up stock, the company is offering an 'over the counter' service.

Orange Audio has recently sold big Soundpower rigs to mobiles, containing racks of Hill LC and DX amplifiers, plus Rane processing and control gear. Pictured above is Simon Spragg of Orange Audio in the company's showroom.

Turbosound Appoint AKG

Turbosound have recently announced that AKG GmbH. has been appointed agent for the whole of Germany with responsibility for distribution of the full range of Turbosound professional sound reinforcement products. The new agreement takes effect from 1st July 1990 and takes over from Adam Hall GmbH. who have been working with Turbosound for the last five years and who have decided to consolidate their core business.

Novalight Distributors

Novalight International Ltd is the manufacturing arm of R&G Theatre Services established in 1975 by Greg Moger. The company produces high quality dimmers and controls which are used widely throughout the educational, hotel and entertainment worlds. Following their highly successful joint venture exhibition in Berlin at Showtech '90, Novalight now have agents in France and Belgium and in conjunction with their East German partners, Berliner Buhnen und Studiobeleuchtungs GmbH, they are able to supply the Eastern European market with high tech equipment at 'sensible' prices, they say.

IES Conference

The theme for this year's IES Australia National Convention is 'Lighting — the 4th Dimension'. To complement this theme the key note speakers will be Howard Brandston of Howard Brandston Lighting Design Inc. of New York, USA and Professor Begemann from Philips, in the Netherlands.

ITN Contract for HHB

HHB Communications has landed the contract for the design and installation of audio and video facilities at ITN's new headquarters in Grays Inn Road. The main deal — worth more than half a million pounds to the West London-based company — sees HHB responsible for supplying, installing and commissioning complete audio systems within two separate studios and a sound dubbing suite. The company is also re-locating a further dubbing suite and designing outside broadcast interface facilities for a third studio. HHB has also been contracted to re-locate and part equip the video presentation suite.

CCT Acquire Precision Designs

As part of the relocation and expansion of its manufacturing facilities, CCT have announced the acquisition of Precision Designs Limited which is based in Milton Keynes.

Precision Designs are responsible for the manufacture of high quality metal fabrications, many for leading international companies. They have concentrated on the development of computer controlled manufacturing processes, which follows the work by CCT in this direction, for which they have won several awards. All metal manufacturing and finishing operations are now in Milton Keynes with final assembly and testing a little further north in Nottingham. In making the Precision Designs acquisition CCT managing director Don Hindle told L+SI that considerably increased manufacturing capacity should help to satisfy an ever growing demand for CCT and FTP products.



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USA Celestion Industries Inc., 89 Doug Brown Way, Holliston, MA 01746, USA. Tel: (508) 429 6706

Boardroom to Bedbath!

The excitement of the relocation of the London branch of Squire obviously got the better of managing director, Simon Cummings. The day after the official London VIP launch, he developed a chronic infection in his right knee, spending three weeks in agony before ending up in Basingstoke District Hospital.

Australian Formula

Following discussions at the Frankfurt Music Fair, Formula Sound have appointed Greater Union Village Technology as exclusive distributors for their products in Australia. "We have been looking at Australia for some time but we wanted to find a company who could cover all the major areas in the country," Sandra Cockell, sales director of Formula Sound told L+SI. "We also felt that we needed a company who could deal in the broadcast and recording industries to ensure that our full range of products would be represented."

Air Raid Smoke

Two Rosco fog machines are providing the post-air raid, smoke-laden atmosphere for visitors to the Blitz Experience in London's Imperial War Museum. As the name implies, the exhibit gives visitors a taste of what London was like during the air raids of the Second World War. The friendly voice of an Air Raid Warden guides visitors past bombed out house fronts and an exploding gas works.

Two Rosco 1500 fog machines provide the smoky atmosphere of this experience. The machines are pre-programmed to operate twice during every 10 minute 'show', eight hours a day. The amount of fog is regulated by the Super Remote Control, which controls the

timing of the on/off sequence, which is in turn synchronised with the light and sound effects by the main control board. The Experience uses Rosco's standard fog fluid to give an even, dense fog that drifts throughout the exhibit.

Rosco is currently working with the Imperial War Museum through specialist contractors Kimpton Walker on a second exhibit, set in the trenches of the First World War, which is due to open early July.

Yamaha Appoint Farrahs

Farrahs has announced its appointment as sole UK distributor for the Yamaha PM1200 and PM1800 range of professional mixing consoles. The PM1200 is a four buss console available with 16, 24 and 32 inputs, and PM1800 is an eight buss console available with 16, 24, 32 and 40 inputs.

Success Follows Teatro

Teatro have launched a new, exciting range of followspots and the first Teatro 575 MSR followspots into the UK have been sold by Odeum Light & Sound, Teatro's Surrey-based distributor. Odeum are supplying two Teatro 575 MSRs to the Medway Arts Centre; they are part of a package including the new Teatro 16/28 650 profiles and a Lee Colortran Scene Master 60 memory control desk. The latter, according to Odeum, is also attracting a great deal of interest.

Cyberdescence Makes History

Cyberdescence have expanded their field of operation in the past year completing three large projects at the Natural History Museum. Currently running, and due to tour soon, is

the RSPCA's 150th Anniversary Show — Cyberdescence were main contractors, providing design and management, construction and lighting, using the Trilite system.

The most recent show, this time for the museum itself, is 'The Return of the Living Dinosaurs', which involved detailed design and construction using Trilite.

On both projects Cyberdescence were able to offer considerable savings compared to conventional museum methods. Managing Director, Del Trew, is pleased with the growth into new areas, especially at a time when industrial theatre and exhibitions are feeling the economic pinch.

However, they still maintain a formidable presence in both these fields, especially with the PALS system, which is proving popular for the larger conferences and where time or space is limited.

Marquee Audio



Spencer Brooks, managing director of Marquee Audio, pictured with Mick Anderson, managing director of Concertsound, seen at the Brighton International Centre for the recent Spandau Ballet tour. The two Yamaha PM3000 mixing consoles were recently supplied by Marquee Audio to add to Concertsound's extensive stock.

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- Colour change with or without blackout (*).
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- Virtually all possible hues and levels are obtainable.

GOBOS

- Two wheels with 4 Gobos each. You can project each pattern separately or in combination.
- A total of 16 different patterns are available.
- Gobos change with or without temporary blackout (*).
- An evocative rolling effect is available by shifting of two superimposed Gobos.
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- A wide range of Gobos is available on request.

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- Fully variable beam size.
- Iris speed is totally controllable by the operator.

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- Three trioptic prisms create multiplication and overlapping of projected patterns.
- The prisms have 3, 5, 9 facets.

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- Mechanical. Full adjustment of light intensity from zero to 100%.

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- 1:3/250 mm achromatic doublet lens, giving the best colour and transmission performance.
- Focussing remotely controlled.

INPUTS

- The SUPERSCAN can accept either analogue or digital control signals, from controller or computer.
- analogue input: 0-10 V.
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MOTORS

- 17 high resolution steppers motors, controlled by internal microprocessor.

CHANNELS

- 12 control channels:
- Channel functions:
- channel 1 = Iris
- channel 2 = Colour disk
- channel 3 = Gobos
- channel 4 = Stopper/Strobe
- channel 5 = Pan
- channel 6 = Tilt
- channel 7 = Fading Dimmer
- channel 8 = Prism
- channel 9 = Focus
- channel 10 = Red colour Mix control
- channel 11 = Green colour Mix control
- channel 12 = Blue colour Mix control

SAFETY NORMS

- The equipment is manufactured according to the latest safety regulations.
- Protection degree: IP 20.
- Power supply cable in compliance with CEI 20/22 III norms.

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(*) Option to be pre selected directly by users.



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Laser Grafix Go Forth



Last month saw the hundredth year birthday of the Forth Bridge in Scotland. The bridge was nearly bombed during the war and to reinact the historical events during the bridge's long life, Laser Grafix were commissioned to illuminate it with six World War II searchlights. Laser Grafix are now manufacturing their own new searchlight called Hollywood Light which is available for manual or automatic operation. It requires 13 amps single phase and can deliver a massive 3,000 watts of xenon.

Japanese Distributor

The Iwama Trading Company is the newest member to join Carlsbro Electronics' ever-expanding roster of international distributors. Iwama Trading will now be offering the complete range of Carlsbro bass, lead and keyboard combos; loudspeaker enclosures, monitors, power amplifiers, powered mixing consoles and full range PA systems.

Rainbow Scrollers on Permanent Installation

Three British theatres now have Rainbow colour changers as permanent installations. The Royal National, the RSC in Stratford and the newly opened West Yorkshire Playhouse in Leeds are the first theatres to have had Rainbows installed on a permanent basis, and the par Rainbow Scrollers, supplied by M & M Lighting, fit a variety of light sources.

Kupo Co Agency for Doughty

Doughty Engineering of Ringwood, Hampshire have recently expanded the range of products they offer with their appointment as (UK) Dealer for KUPO Co of Taiwan. Doughty are now offering ex-stock from their warehouse in Ringwood: 19 Pin Socapex compatible connectors, a range of competitively priced Ray Lights, RF36 to RF64 and of particular interest to lighting hire companies, a very robust 6v 30W pinspot manufactured by plastic injection moulding and available with assorted coloured lenses.

New Juliana's

Juliana's Sound Services has changed its name to 'Juliana's Leisure Group', following the acquisition of Juliana's by Leisure Resources Group Limited in February this year. The company has strengthened its design team, and is able to offer both interior design and advanced sound and lighting design for many types of concept. Gone are the days of Juliana's being known as the 'discotheque company'.

Laser Spectacular for Birmingham

The largest laser, light and sound spectacular ever staged in Europe, we are told, will transport Birmingham into the realms of the 21st century, with the latest in high powered laser technology turning the night sky into a massive display arena. Ten laser heads worth £250,000 will operate through a veil of smoke, enhanced by moving lights and a sophisticated 20,000 watt sound system. Ten trucks of equipment will be needed to set up the show, when onlookers will find themselves surrounded by laser 'tunnels' and planes of light stretching from one side of the square to the other.

Birmingham-based company Laser Hire Ltd are behind the hi-tech show which will take place on June 2nd following the illuminated Lord Mayor's Parade around the city centre.



JBL at Wembley for DJ Championships

Pictured above is the sound rig installed by JBL for the 1990 Technics World DJ Championships held recently at Wembley Arena.

Some 72 cabinets were employed in the rig, which comprised four main clusters of custom-built Electrotech cabinets, using JBL components, flown at the corner of the stage, and

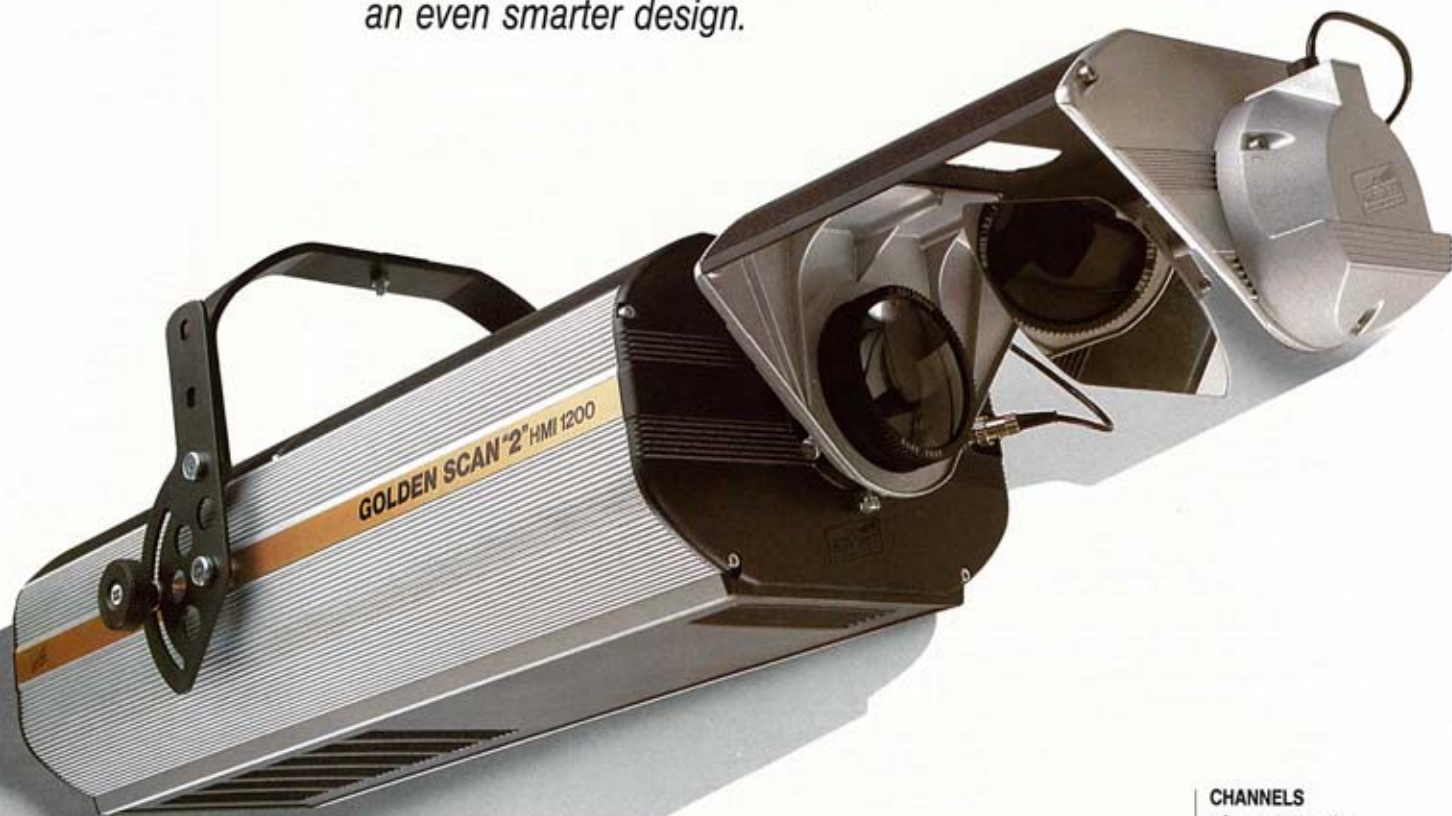
providing an impressive 60kW of mid and high frequencies.

Auxiliary JBL Sound Power speakers were placed around the stage and a ground-based wall of the new JBL Sound Power 4788 Triple Chamber Bandpass enclosures, provided 15kW of sub bass.

NEW

GOLDEN SCAN "2"

The high performance projector, producing new exclusive effects and having an even smarter design.



BUILT-IN EFFECTS

COLOURS

- Eight standard colours: yellow, red, orange, green, blue, violet, pink, white.
- Seven dichroic filters, selected for colour uniformity.
- Colour changer: with fixed positions or continuous (*).
- Bicolour beams, by positioning the colour wheels in intermediate positions (*).
- Colour change with or without temporary blackout (*).
- Rainbow effect, by continuous rotation of the colour wheel (*).
- Wide range of rotational speeds.
- If required, a filter may be inserted to convert the colour temperature from 5600°K to 3300°K (useful for TV studios).

GOBOS

- Two wheels with 4 Gobos each. You can project each pattern separately or in combination.
- A total of 16 different patterns are available.
- Gobos change with or without temporary blackout (*).
- An evocative rolling effect is available by shifting of two superimposed Gobos.
- Gobos are interchangeable and easy to replace.
- A wide range of Gobos is available on request.

IRIS

- Fully variable beam size.
- Iris speed is totally controllable by the operator.

STOPPER/STROBE

- High speed stopper to cut the beam for as long as required.
- Strobe effect rate fully adjustable from 1 to 7 flashes per second.

POWER SUPPLY

- 220-240 Volts/50 Hz or 60 Hz

MOTORS

- 7 high resolution steppers motors, controlled by the internal microprocessors.

OPTICAL GROUP

- Made by extruded and die - cast aluminium, with double condenser lens and top efficiency parabolic mirror.

OBJECTIVE LENS

- Interchangeable objective lens, with three different possibilities.
 - Standard dotation: 1:2.5/250 mm.
 - High definition trioptical corrected objectives (available as options): 1:3.5/200 mm
 - 1:3/150 mm

ADAPTOR

- Possible rotation of 360° on projector body.

MIRROR

- Very high reflectivity

CHANNELS

- 6 control channels.
- Channels function:
 - channel 1 = Iris
 - channel 2 = Colour Disk
 - channel 3 = Gobos
 - channel 4 = Stopper/Strobe
 - channel 5 = Pan
 - channel 6 = Tilt.

INPUT

- GOLDEN SCAN "2" can accept either analogue or digital control signals, from a controller or computer.
 - analogue input: 0-10 V.
 - digital input: RS 232/423 - DMX 512.

SAFETY NORMS

- The equipment is manufactured according to the latest safety regulations.
- Protection degree: IP 20.
- Power supply cable in compliance with CEI 20/22 III norms.

DIMENSIONS

- HMI 575 W/GS
Version: mm. 430x230x1015
weight 32 Kg.
- HMI 1200 W/GS
Version: mm. 430x230x1140
weight 44.5 Kg.

(*) Option to be pre selected directly by users.



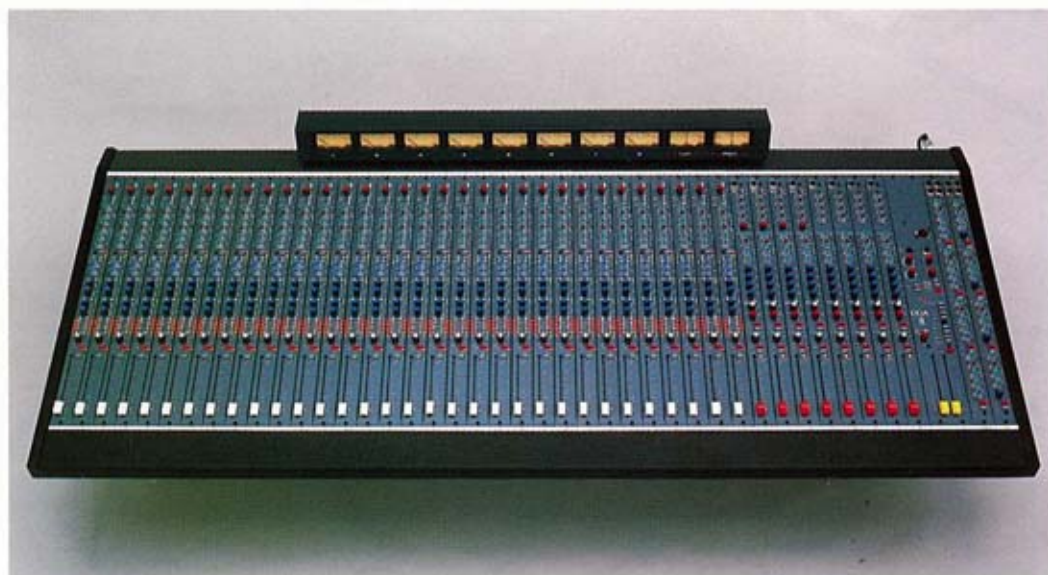
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Any console with this much flexibility deserves a closer look

THE Q SERIES

Examine the new Q Series sound reinforcement console from DDA and it's easy to see how it combines greatly expanded mixing flexibility with simple, logical operation.

From the superior sound of the Q Series mic inputs to its versatile EQ section, every aspect of this powerful console reflects the quiet, transparent audio quality DDA is famous for. Immune to noise and hum at every stage, the Q Series offers a sonic performance that is difficult to beat.



All of the main inputs and outputs are electronically balanced with transformers optional. The Q-PA Output version features 3-stage Equalization on the Group Outputs. And the versatile Q-Matrix Output version includes 8 Group Outs, 4 Matrix Outs and 8 Aux Returns with EQ.

Q Series. So much flexibility, you can't help taking a closer look. Call the appropriate number to arrange a demonstration.



Q Series features a Direct Output with level control on every input.

Q Series provides 8 Aux Buses from every input with 3-Band EQ on the AUX Master Sends.

Input Level Metering with a 10 segment L.E.D. indicator (Q-Mute Input version).

8 Mute Groups (Q-Mute Input version).

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Fax: 0932 568989



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THE MOVERS AND SHAKERS OF AUSTIN, TEXAS (AND THE BRITISH CONNECTION)

Tony Gottelier who, as regular readers of L+SI will know, is a lighting designer in what spare time he has from writing for this magazine, and currently working on the prestigious Le Palace nightclub in Paris, took time out from his second honeymoon to visit the controversial movers and shakers at High End Systems in Austin, Texas

Some years ago my wife, Sue, and I took our honeymoon in Paris. The plan was to return on any significant anniversary. Little did she realise, when we started organising this year's trip, that the nearest she would get would be Paris, Texas.

Not that we actually went there of course, as we were really headed for Austin, with ulterior motives prompted by the explosive emergence of a new international force in effects lighting.

Austin is a jewel of a city, nestled at the verdant foot of the Texas hills (of hill billy fame) and quite unlike the dry, flat, oil towns of Dallas and Houston which exemplify the dust bowl image of the Texas prairies. Local history dictates that one John Austin, a compatriot of the legendary Daniel Boone and Davy Crockett, while wending his weary way back from the battle of the Alamo, came upon this green and pleasant land surrounding a vast lake and promptly staked his claim, and his place in history, by sticking his name on the nearest tree.

Today, Austin is the state capital of Texas enjoying all the benefits of political clout, such as the 60,000 seater Superdome where Hulk Hogan and his wrestling super stars were manipulating their bodies, and their audience of young kids, into believing that it was all for real, during our brief visit.

More importantly, Austin houses the University of Texas, whose department of technology has produced a number of computer millionaires who started out selling PCs from their cars while still students on campus. The resultant multi-million dollar corporations, such as DEC, have led to a burgeoning technoconomy which other new emerging industries in the area are greedily feeding on.

Two of these thrusting newcomers were the focus of our visit to Austin. High End Systems and LightWave Research. Growing out of the old Blackstone Audio Visual in 1986, High End Systems became a main distributor in the US for some of the best known and exciting European made product. Building on a 350 strong dealer network, High End quickly became the essential outlet for any manufacturer seriously interested in the American market. At one time they represented Coemar, Clay Paky, Mode, Pulsar, Optikinetics, JEM and others.

The backgrounds of the individuals behind the old Blackstone company and its successors bears a remarkable similarity to the universal generic of others in entertainment lighting over recent years. Lowell Fowler graduated from the UT in 1972, having spent his spare time lighting bands using liquid lights and multi-image projections. He met his wife at the same time when she was one of the few artists in the country making polarising slides.

In the same year he formed Blackstone as a vehicle for mobile light shows but it quickly turned into an installation company and over the following years designed and installed hundreds of club lighting systems throughout the US.

During this time they also owned and operated various clubs of their own and it was in this environment that they met Richard Belliveau, the British-born eminence grise and flamboyant technical genius probably most responsible for the current thrust of the organisation. Born in Hitchin, Richard spent his formative years in Luton, later coming to America with his parents.

He came to work at one of Blackstone's clubs as a DJ and quickly showed his skills as a

technician when it came to repairing the imported effects in use in the place. Perhaps it was all those early problems which convinced him that "anything they can do I can do better," and this is certainly his philosophy today.

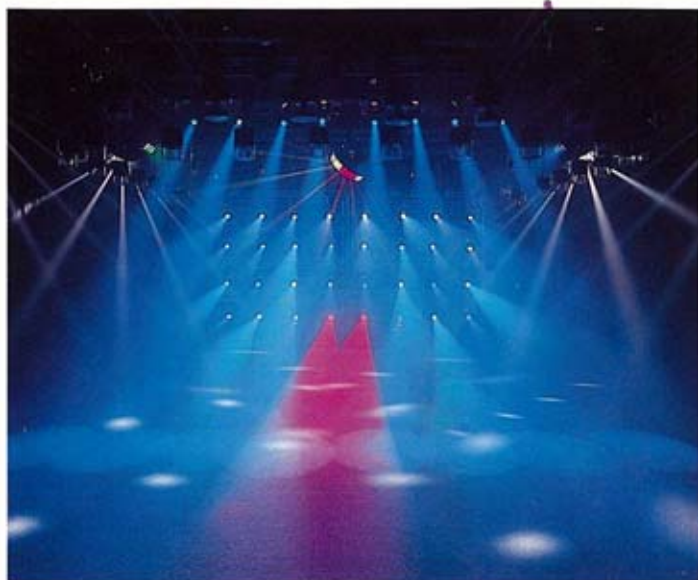
Entirely self taught, Richard learned his electronics, optics and mechanics on the ground and shortly became the company's technical director. It was his own faith in his ability "to build a better mousetrap," as Lowell Fowler puts it, which drove him to push his associates into making their own product in 1987, starting with Laser Chorus and the seminal Color Pro, and subsequently to taking astoundingly bold decisions in order to maintain the integrity of these new products.

To avoid accusations of self competition with High End's imported product line, LightWave Research was established as the development and production company. "I have collected together a fantastic team of research technicians and software, electronics and mechanical designers from the pool created by the close proximity of UT. It is these guys who make it all possible," Richard told me self effacingly.

Bob Sachacherl (pronounced Shockarol), director responsible for commercial aspects, sales and marketing, is the third member of the triumvirate.

The original plan, as conceived by Richard Belliveau, was to develop only products which were non-competitive with those of their European distributorships and initially, at least, this worked very well. The Color Pro, in particular, was a great success but brought with it its own problems.

"This system, which uses three lamps and mixes levels and fixed dichroics to achieve



Two scenes in the High End Systems demo room. Size is 2500sq.ft with 18ft high ceiling.



Façade of Lightwave Research manufacturing facility.

different colours and hues from a single lantern, requires consistent quality of plus or minus 5 nanometers from its interference filters," says Richard, "but none of the manufacturers of dichroics was able to achieve this at an acceptable cost."

Belliveau's solution was simple, yet astounding in its implications. He told his fellow directors that, not only was he going to make his own optical thin film filters, but he was going to design and build his own plant to do it. Leaving them only with the problem of finding funds which very quickly amounted to around 1 million dollars.

The process, which involves vapourising mineral rare earth crystals in a vacuum chamber, requires rigorous process control from a vast array of electronic equipment. Yet Richard set about the task like a child with a chemistry set, even designing and building the chamber from scratch. By the time I made



An optical thin film technician inspects a dichroic filter.



Richard Belliveau (left) and optical thin film technician Keith Cannon in front of dichroic vacuum chamber.

my visit the second chamber was already in production. Eight times larger than the first, it is not only capable of producing large quantities of optical filters for Par 64 lanterns on Corning Pyrex, but Belliveau now boasts the largest dichroic production plant in the world.

"Although we have to reject large numbers that don't match our high standards, I still believe that we can sell high spec. dichroics at prices which will revolutionise the market," Richard claims. "The reason for the high rejection rate is that lighting people are artists as well as technicians and they have a greater perception of colour than most. For the same reason we must develop a greater range of colours than others currently available. I promise you that no one else makes dichroics to such high standards."

So now they are seeking markets for their low spec. rejects which probably have a precision within a band of up to 15 nanometers. Already they are getting interest from OEMs. They were working on a horticultural application while I was in the facility, to enable selection of red tomatoes from green ones. And Lowell Fowler's wife, Sue, has made some mobiles from the different diameters of dichroic wafer which she calls color chimes. These produce a really beautiful effect when the sunlight filters through them, and I am sure would sell like hot cakes in the numerous craft gift shops one sees everywhere in the States these days.

Chronologically, the next product to come



(Left to right) John McDowell, sales; Richard Cadena, sales; Bob Schacherl, director, High End Systems.

along was Dataflash which got a bit of a pasting from the critics, including me, at its inception. I was therefore pleased to hear that this high power, yet dimmable, multi-channel strobe system was achieving a level of acceptance in the USA. It was used successfully at last year's Superbowl in a vast football stadium, and 64 and 128 unit systems are starting to go out on the road with the likes of David Bowie and Robert Plant.

"Dataflash has a lamp with an integrated trigger coil, developed especially for us," Belliveau enthused, as if to justify the better mousetrap tag, "because that's the item most likely to fail."

Next came the product which caused all the controversy. At Rimini in 1988 it was confirmed to me that the rumour, that Clay Paky were selling direct to all comers, was true when I saw Belliveau come storming out of Clay Paky's office there with rage written all over his face.

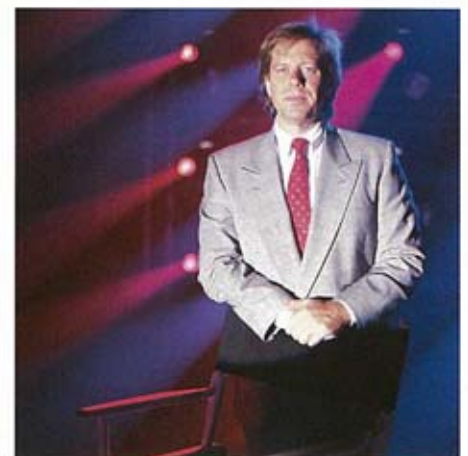
The rage obviously melted into grim determination pretty quickly, as within months he had not only produced his own version of Clay Paky's Golden Scan, but also upstaged Coemar's Jupiter. This was little more than just a coded message to the Europeans not to piss around in the US market. Within months one of the architects of the policy at Clay Paky had been sent to the States to do a penance, which I feel he can never complete. (However the nonsense still continues in Europe as I have recently discovered for myself).

From previous and bitter experience, 'beware an American scorned by his supplier' is a slogan I would commend to any manufacturer considering entering the world's largest market in a cynical fashion.

The resultant Intellabeam, a Golden Scan lookalike but with many features of the Jupiter, started delivery just before the Rimini show this year. By coincidence, one of the first customers for Intellabeam were British company Julianas, who have an office in Boston.

Julianas had had some previous experience with Jupiters in Singapore, but when it came to a major installation in the States, it seemed wiser to take the risk of using a local, if untried, product especially as it came from a firm who they knew would obsessively ensure reliability and performance before final despatch.

Genesis, a 4000 sq metre nightclub, in The Sheraton Plaza in Brownsville, Texas incorporates its own elite, private club within the premises. Julianas canopied the large



Lowell Fowler.

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The F-100 Performance Smoke Generator

The F-100 variable output smoke machine packs enormously high output and incredible ruggedness in a portable unit designed for touring applications... but compact enough for all-purpose use.

High output... The F-100 features a high quality industrial piston pump with tremendous throughput. The variable output control allows the operator to easily adjust the flow to suit the situation... from a dense blast to a thin stream. At the highest output setting the machine can deliver blasts of smoke for up to 15 seconds, or it can be adjusted to operate as a continuous duty machine.

Versatility... The 0 to 10 volt proportional control feature allows for totally automated control of the output, including output volume, from any rock desk.

F-100 Features

Ultra-high volume variable output

0 to 10 volt proportional analog remote control

Quietness... There is a noticeable absence of pump noise and the adjustable output allows the thrust of the smoke to be tapered to a mere whisper, making the F-100 ideal for applications, such as stage, film and television, where quiet operation is necessary.

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by a high quality thermal breaker that interrupts the voltage to the heating elements when an over-temperature condition is reached.

The F-100 Performance Smoke Generator: the perfect compliment to your lighting configuration...in concert, theatrical, studio or night-club applications.



Variable timer for both duration and frequency
Piggy-back remote with locking DIN connector
10 cm (4") output collar flange for distribution ducting
Large 9.5 liter (2.5 gallon) tank capacity
Built-in fluid level gauge
Parallel-inverted SCR electronic design
Reliable thermocouple design for over-temperature protection

Thermally protected high-quality industrial pump
Low maintenance corrosive-resistant stainless steel and aluminum heat exchanger
Quick release fittings
1500 Watt heating element
14 Amperes @ 120V/60Hz or 7 Amperes @ 240 V/50Hz
Dimension: 16 cm (6.25") H x 30 cm (12") W x 66.7 cm (26") D
Weight: 16 kilograms (35 lbs.) unboxed

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Genesis Club at Brownsville, Texas.

dance floor with a massive 14m diameter circular Trilite truss incorporating four 6m long moving elements.

The main thrust of the light show is the 24 Intellabeams. "They were a dream to programme," says Kenny Lyle of Julianas, who made the trip to set up the controls and train the operators, "and just as importantly, we have had no problems with them to date." Julianas opened Genesis for their client in April this year with a massive indoor

firework display.

Following this, I have to say that Intellabeam was an impressive performer in the High End showroom. Richard Belliveau claims that with specially designed optics and the addition of an I.R. 'hot mirror' filter, the 400W MSR lamp delivers light comparable to the output of the 1200W Jupiter, and who am I to argue with that?

In the meantime they have been paying attention to control and, by connecting their



Dataflash Illuminator.



Color Pro.

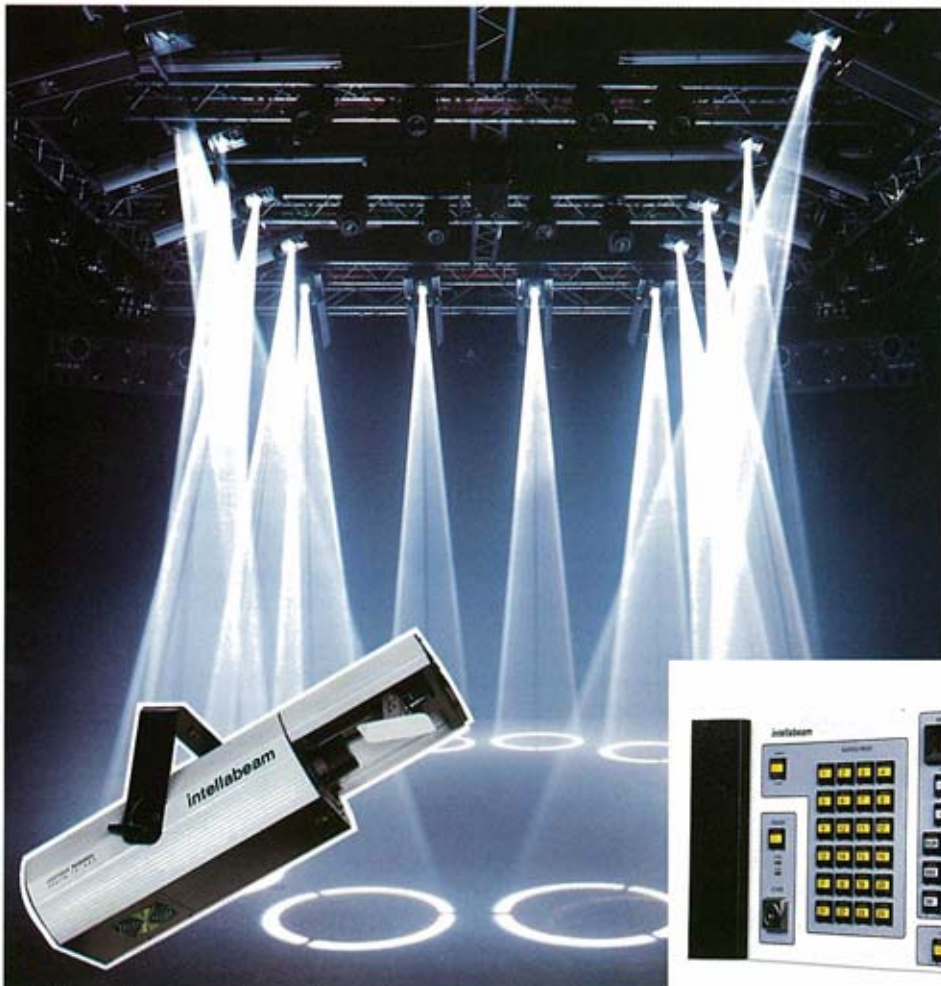
dedicated controller to a touch panel, or any analog desk, can now offer 288 presets with easy access. Also attention to detail in other ways, for example the mirror head is now connected to the body of the projector with a pluggable Teflon cable and the body has been designed for direct reach to the lamp, and for service, from below.

Meanwhile, work continues on the Emulator, which now uses high speed scanners, as forecast by me following its debut in Nashville and a new light source which delivers three times the light output of the first prototypes. I have no doubt that when the last few technical problems are worked out, Emulator will be a serious competitor for Laser Media's Color Ray.

Viper, which will be the successor to Laser Chorus, is a joint development with Particle Development Systems. This interesting item produces two beams from one low power helium neon tube but, due to unique optics, the beam is Argon green!

Following the departure of JEM to pastures new, there are no prizes for guessing what's next on the stocks. The Performance smoke machine has been designed from the ground up, in an attempt to overcome the problems which seem endemic with the production of smoke. Typically, Belliveau took the decision early on to forge the aluminium blocks themselves in order to maintain quality control.

He has also introduced proportional control to smoke machine production by



Intellabeam in action and controller (right).

providing a 0-10V input, thus making the integration of smoke into performance a reality for the first time. Furthermore, the remote clips neatly into the back of the machine for integral use, but comes with ears as standard for console mounting. I can't tell you how often I have bemoaned the absence of any such fixings on the average smoke remote in the past!

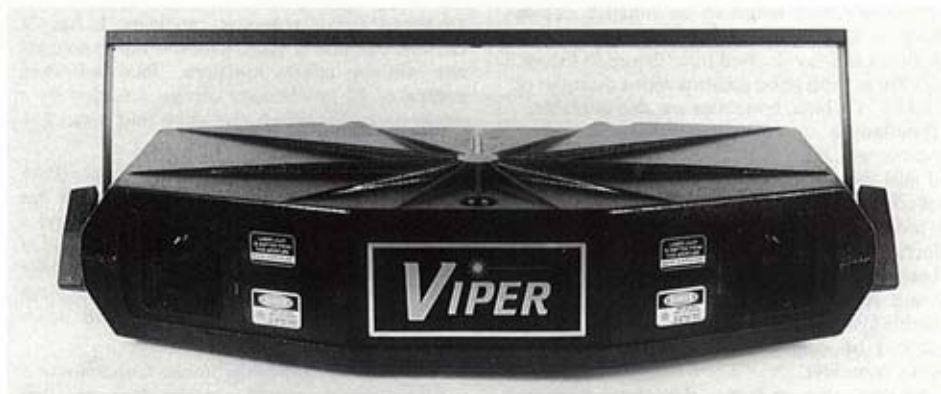
I would have happily carried two of these units back to the UK with me to solve a tricky smoke problem we have with a current project on board ship, but unfortunately, the fact that the fluid tank is integral made the overall dimension of the machine impossible to accommodate in the available space.

I was interested to discover that LightWave are using the Japanese system of small teams of engineers and production staff all working together in exclusive groups to produce these products. And it seems to work well, both saving time and ensuring care and concern. By this method 100 Intellabeams per week are produced in their own space within the 30,000 sq feet facility, that houses 85 full time, and 31 part time, production and administration staff.

To complete the British connection, as this article was going to press, it was announced in Austin that Lightfactor Sales had been appointed exclusive UK distributors, removing any doubt which previously existed as to the availability of the Intellabeam and other LightWave products. I feel sure that John Adams and his team will find this to have been a truly significant milestone in their own history.



Laser Chorus.



Viper Dual Laser.



Club Red Onion, San Diego (blue lights are Color Pro, red at bottom are Coemar Spartans) Lighting Design by Jack Shimizu of Systems Group in Los Angeles, California.



F-100 Performance Smoke Generator.

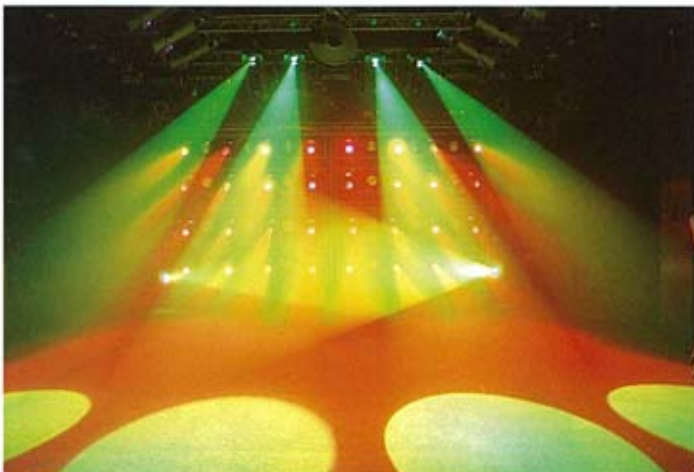
A Summary of Lightwave Research Products

Color Pro is a system of compact optical colour-changing spotlights which are capable of projecting any colour without the need of external fittings of a sort. The fixtures are microprocessor-based with self-contained dimming. Color Pro utilise three 250 watt MR16 (ENH) lamps in an additive colour mixing technique achieved with dichroic filters. Serial data is daisy-chained from fixture to fixture. Color Pro accepts gobo patterns with a diameter of up to 1 1/2". Dichroic templates are also available.

Dataflash is a microprocessor-based pulsed Xenon system. Each unit is individually addressable and fully dimmable. Up to 256 Dataflash can be controlled from a single controller which give up to 99 programmes. Dataflash has optional yokes, reflectors and coloured domes.

Laser Chorus and **Viper** are a system of 4.95 milliwatt Helium-Neon Class IIIA lasers and are available in red, green, yellow and orange. 12 laser units can be controlled from a standard Laser Chorus controller.

The Viper unit emits two distinct laser beams that produce cones, planes, squares and triangles of animated light. The Viper has two complete mirror scanning systems at each end of a single laser tube.



Four more scenes from the High End showroom.



Back view: F-100.

Similar to its predecessor, Laser Chorus, these portable precision laser fixtures require only a 24 volt input which is transmitted via the 8 pin control cable from the controller making it the easiest laser system to install anywhere. No 120V power input to the lasers is needed and cable runs of up to 150 ft are possible.

Intellibeam is a high intensity lighting fixture with advanced mirror scanning capability. It has 12 dichroic colours, 12 gobo patterns, full remote iris and strobing effects functions. Total individual control of 24 Intellibeam can be achieved by a single controller which can store and recall 891 scenes.

Emulator is a system of high intensity laser simulators with advanced mirror scanning. It has precise beam tracking, 12 dichroic colours and a strobing effects function. Total individual control of 24 Emulators can be achieved by a single controller which has up to 99 programmes. Emulators can safely create a full range of shapes and beam patterns.

The F-100 Performance Smoke Generator is a variable output portable smoke generator that produces a clean white smoke. The F-100 has control of smoke density, auto timer with duration and frequency settings and a 0-10V analog remote trigger.



F-100 remote control.

High End Systems' Personnel

Company Officers:

Richard Belliveau — High End Systems President
 Bob Schacherl — High End Systems Director
 Lowell Fowler — Lightwave Research President
High End Systems' sales staff:
 Richard Steele, Robert Cadena, Robert Mokry,
 John McDowell

International sales staff:

Tony Monday, Laura Cowen

Marketing director:

Chip Bullock

Art director:

David Keene

Purchasing director:

Christine Miller

Computer systems manager:

Garry Rider

Accounts payable:

Linette Runyon

Accounts receivable:

Gail Woods

Lightwave Research:

Steve Tulk — senior technician

Mike Floyd — software specialist

Jeff Maddox — mechanical engineer

Larry Cotten — software specialist

Kevin Wilson — circuit board design

Laser Chorus:

Jeff Theisen manager

Dataflash:

Luis Ruiz manager

Intellibeam/Emulator:

Chris Reynolds manager

ColorPro:

Mike Andrews manager



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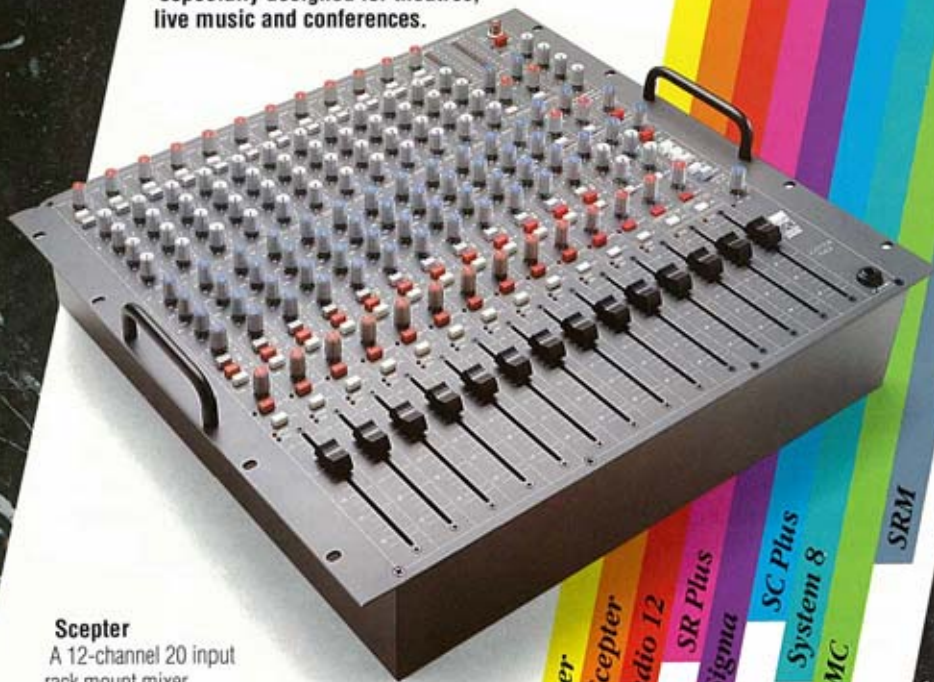
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A 12-channel 20 input rack mount mixer.

Saber

Scepter

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SR Plus

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CMC

SRM



SR Plus
8, 12, 16 or 24-channels with four groups available on 16 or 24 input versions.



SC Plus
16, 24 or 32 modular inputs with a wealth of options including a 4x4 output matrix, oscillator and talkback modules.



Saber
24, 32 or 40 input channels with a host of features, many unique at this price level making it a highly popular larger venue console. Includes the Allen & Heath Midi Mute System.

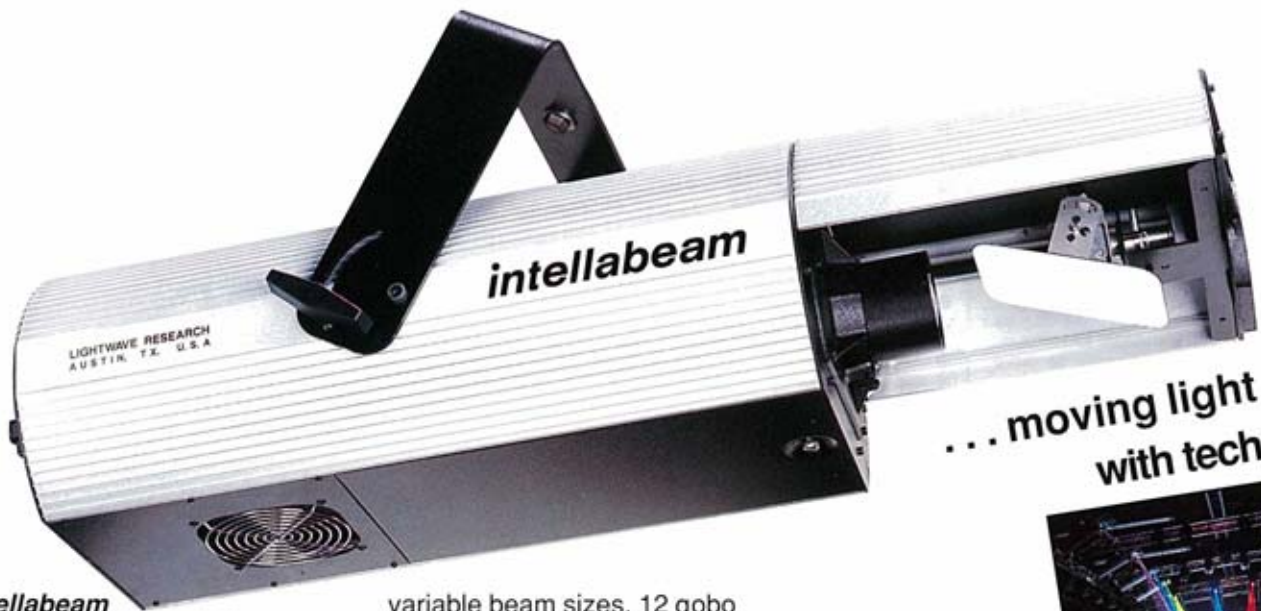
...the total sound spectrum.



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

**ALLEN
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HEATH**

Intellabeam



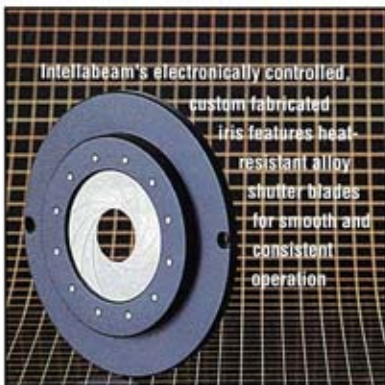
... moving light with technology

Intellabeam

represents the final stage in the evolution of articulate lighting, a system that allows designers and operators unprecedented versatility, brightness, speed and accuracy in the creation of cues and scenes with animated beams of light.

Versatility . . .

Each microprocessor based fixture can be easily programmed into a scene with precise beam positioning, choice of 12 colors,



Intellabeam's electronically controlled, custom fabricated iris features heat-resistant alloy shutter blades for smooth and consistent operation.

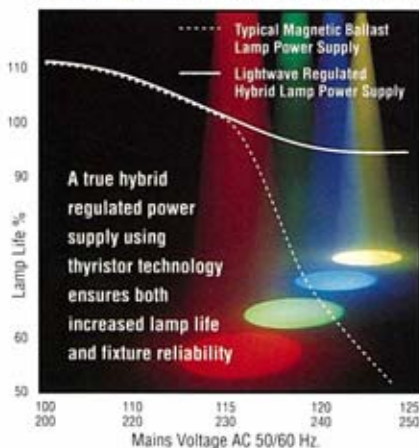
variable beam sizes, 12 gobo patterns, variable light intensity, and variable speed programming for mirror scanners, colors, gobos, and strobe effect. The Intellabeam system is ideal for theatrical applications, stage and studio, concert touring or nightclubs.

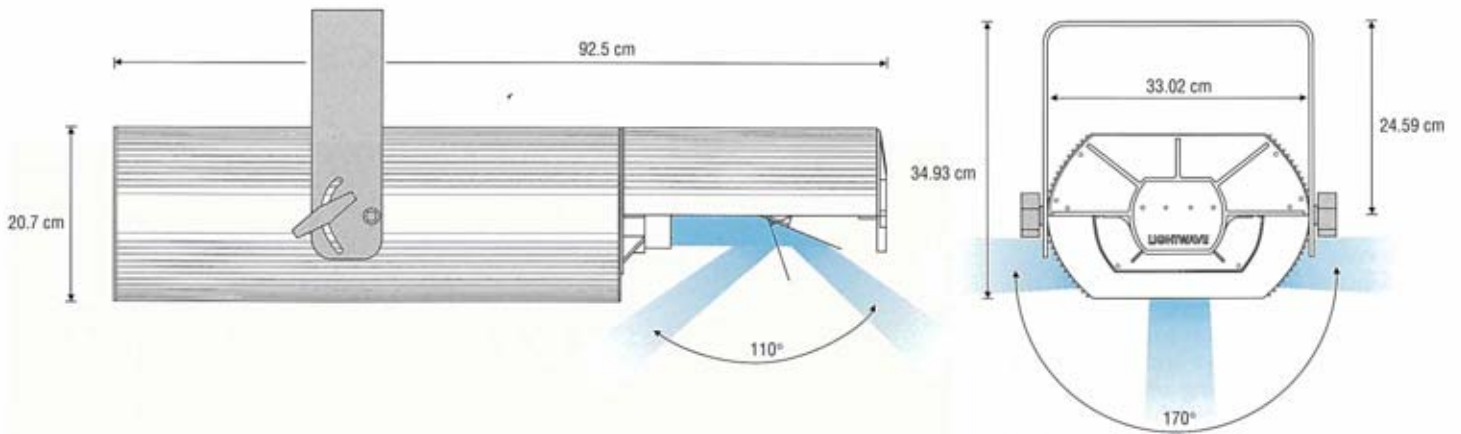
Brightness . . .

The ultra-efficient optical system, featuring dichroic filtration and infrared heat dispersion coupled with MSR lamp technology, allows Intellabeam to achieve a light output unrivaled in the industry. The 400 watt Philips MSR lamp, with an average lamp life of 500 hours, has a 5600K color temperature and can be dimmed to 40% of its full brightness, making it possible to execute crossfades from one fixture to another.

Speed and Accuracy . . .

The Intellabeam luminaire is able to animate the light beam by means of an extremely swift and accurate scanning mirror assembly which can scan to 170 degrees of pan and 110 degrees of tilt. Lightwave Research uses only high resolution, high torque stepper motors for its scanning mirror assemblies, remote iris, indexing shutter, gobo and shutter systems.





Intellabeam... astounding speed, incredible brightness, and pin-point accuracy never before available in a lighting system

The Confidence of Control . . .

Intellabeam offers designers and operators the ultimate in an easy-to-use yet amazingly versatile controller.

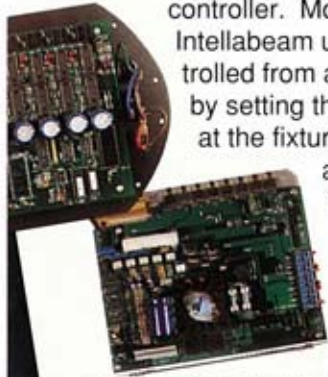
Total individual control of up to twenty four of the lighting fixtures can be accessed by a single Intellabeam controller. More than 24 Intellabeam units may be controlled from a single controller by setting the address switch at the fixture's rear panel and slaving fixtures together. Multiple sets of 24 fixtures can be added by slaving controllers together for individual addressability of hundreds of Intellabeam units.

The Intellabeam controller has nine memories, with each one containing 99 scenes. A total of 891 scenes can be programmed or edited. Any one of

twenty four presets can be instantaneously accessed by depressing one of the 24 preset buttons on the left hand side of the controller. A preset can be programmed with adjustable parameters for any of the fixtures. These parameters are speed, color, iris, beam position, intensity, gobo pattern and strobe rate. Each fixture can be easily programmed, individually or collectively, to any combination of the parameters within a preset. The preset buttons can call up an individual scene or a series of

scenes in a fade or chase loop by setting the controller in auto mode.

A delay factor of 0.1 to 99 seconds and other time variables can be included into scenes and adjusted manually . . . for countless variations. The controller has stereo audio inputs for two audio advance functions and modulation of color, gobo, and light intensity. A professional, extremely precise joystick allows for manual operation of the scanning mirror and light beam and is used to position the beam during programming.



Intellabeam Fixture

- 11 dichroic colors plus white
- 12 gobo patterns
- Variable speed strobe effects
- Iris
- Dimming
- Regulated power supply
- Low power consumption:**
- 6 amps @ 120V/60Hz,
- 3 amps @ 230V/60Hz
- High output optics
- MSR 400 lamp
- High speed microstepping

- Precision beam positioning
- Variable speed scanning
- 500 hour average lamp life
- Remote lamp turn-on
- Maximum color change rate: 250 milliseconds
- Self diagnostics
- Voltage and frequency selectable: 230, 120, or 100 VAC at either 50 or 60 hertz

Intellabeam Controller

- 891 programmable scenes
- Controls 24 channels - Master/Slave capabilities
- Up to 288 programmable presets - chase or fade loops
- Edit and page copying function
- Memory lock
- Fixture parameter viewing
- Fixture exclusion

- Professional inductive joystick
- Analog control inputs
- Page and memory copy
- Color modulate
- Gobo modulate
- Intensity modulate
- Stereo audio inputs
- Cross-fade functions

- Timed delay factoring
- Individual fixture homing
- Remote enable
- RS-232 communications port

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DOING IT THEIR WAY

Irene Cooper takes a look at the growing use of psychedelic effects in today's music scene

Today's music scene is much influenced by the styles and trends prevalent in the 60s. Many lighting companies involved at the time are finding themselves producing psychedelic effects once more.

Neil Rice of Optikinetics used to work with bands in the late 60s using projectors and effects, and the leaders in psychedelia were groups such as Pink Floyd and Soft Machine, using many bright moving effects. In recent years, there has been something of a revival. About three years ago Optikinetics sent out some Flower Strobes with Level 42, which went down well. Soon after, a few bands began to incorporate different types of effects into their visual appearance and the psychedelic resurgence has taken off from there. The city of Manchester now provides a common link between many of the bands, being the focus of much of the new musical style's activity.

I met up with Stuart Wood of Liverpool-based Phantasy Lighting at the Ritz Ballroom in Manchester at one of their Indies nights. Here they use nothing but the dim usual house lighting and effects projectors with no stage or disco lighting at all. The psychedelic tag has stuck mainly because of the type of visual effects used. In the 60s when bands like Soft Machine and Pink Floyd were popular, they used psychedelic effects as a backdrop to reinforce their music. Originally they used overhead projectors with clock faces having liquid dropped onto them, experimenting with colours and movement. A popular projector at the time was the Rank Tudor 2 which used effects such as two perspex chambers of fluid with an air pump on top creating various flowing effects. These projectors were taken out of production in the 70s, but there are still some around that are being restored and actually used. The Solar 250s are also widely used today, although some of the more obscure effects cassettes aren't made anymore. However, there are plenty of other interesting effects



The Hacienda Club, Manchester: starting point for many psychedelic bands.

Photos: Irene Cooper, L.B.I.P.P.

around, for example the moving liquid and patterns. The principles of these machines are quite simple, but obviously effective. The products that people are going for are the new Optikinetics Quasar Strobe projectors which come with a wide selection of effects cassettes.

One of the bands currently spearheading the return to psychedelia is Inspiral Carpets. I caught up with them in Wales where I managed to grab an interview with their lighting designer, Loucas Athienites. Loucas is freelance and has been working with the Inspirals for the past eight months. The most recent tour lasted for three weeks, starting off with two production days in Liverpool, then two days in Ireland, continuing in England doing a mixture of large and small venues. Athienites was put on to the band by Bruce Mitchell, who was looking for someone to do their lighting. "The band weren't that well

known then and we did a small gig tour last year, and as the band's popularity has grown, things have gone on from there," explained Mitchell. The recent tour was similar to the last one but on a larger scale, keeping a lot of the old ideas and adding several new effects. The initial idea of this psychedelic or alternative way of lighting came from the band. They had their own ideas of what they wanted with the slides and when they first went out they used to set up their own projectors. When Loucas joined them he added extra lights, more projectors and increased the special effects. The lighting had to be reasonably low for slides to be effective. The special effects included 14 carousel projectors, 16 megastar strobes by Anytronic, Lekos (6 X 9) with gobos from the standard range, Solar 250 projectors and flower strobes from Optikinetics — not strictly psychedelic but a 'Manchester' feel, nevertheless.

Ben Sullivan is the projectionist with the Inspirals. When Athienites had the task of upgrading the size of the touring rig as the band progressed, he needed someone to deal with the visual/slide side of things so he could concentrate on his job as lighting designer. Sullivan is one of the lads from the Spot Co. who specialise in visuals for a wide range of events. Not knowing the band initially, only by seeing a photo and hearing them on tape, he concentrated on their sixties style of music and got together slides covering many events from this era including the emerging psychedelic trend. He mentioned that this type of psychedelic thrash beat band has risen from the ashes of the acid house scene. Again the Manchester scene was mentioned. So, I got on my proverbial bike and went back home — next stop Manchester!

The Hacienda Club Manchester recently celebrated its eighth birthday. Having been involved in a lengthy conversation with the lighting designer at the Hacienda I was



A return to the sixties for bands such as Inspiral Carpets, Happy Mondays and James.



Icelandic band, the Sugar Cubes, use various effects including Strand 252 projectors, ripple tanks, gobo rotators and quick-fire fluorescent tubes.

convinced that all roads lead back to Manchester and that the Hacienda was one of the main clubs that had been nurturing this theme of alternative lighting and effects for quite a while. So, I took them at their word and took some shots of the projector effects they had in their cocktail bar, the laser show brought in for the party, the lighting outside the building, and their alternative way of 'correctly' using their latest toys — the Golden Scans.

Geoff Buckley of DBN Lighting was the next person I ran into. His company concentrate on the Manchester bands, specialising mainly in effects, trying to use as few par cans per rig — minimal stage lighting but lots of special effects i.e. strobes, projectors, smoke machines, and UV, both for clubs and bands.

Bands, that is, such as Inspiral Carpets, Happy Mondays, James, and some of the early Stone Roses gigs. "It all happened during the last couple of years, Stone Roses being the first band that really took off. Then the Happy Mondays, being really into lighting, like to have lots and lots of things going on," Buckley explained.

Last October DBN did their tour and the lighting employed a small number of par cans, with lots of aeros and projectors which the bands seemed to like. The Hacienda, on the occasion of my visit, was sporting the new Manchester colours which are included in the theme i.e. deep lavenders and reds — together! Out back in the barbecue there are some Solar 250s with moving images and patterns around the walls. Apparently the

psychedelic style has been a little overdone, whereby the Manchester scene is into lighting things differently, using effects etc, creating shows that have a similar feel, an alternative to just another par can rig. Psychedelia makes use of the other lighting effects that are available and which seemingly has given itself a Manchester trademark. Again the Quasar strobes were mentioned. The general consensus of opinion is that this sort of thing has been around for years, and just over the past 18 months to two years, especially around Manchester, these effects have come to the fore, being used in clubs and by local bands. It seems it's Psychedelic or sixties or alternative gig lighting with a Manchester theme of colours and styles or it's just them up North doing it their way!



Current technology is employed alongside renovated sixties effects to underscore the new-look psychedelic wave.

the Tenor



- 240 channels (up to 512 dimmers)
- 24 play-back submasters and 2 crossfade submasters
- 255 memories
- 12 flashlines, 24 programmable chasers, ability of memorizing 20 colour scrollers and 20 special effects
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ADB-Sofair S.A.
47, Rue de la Vanne
F-92120 Montrouge
France
tel +33/1/42.53.14.33
Tx 206428
Fax +33/1/42.53.54.76

ADB-Sofair
218, Grande rue de la
Guillotière
F-69007 Lyon
France
Tel +33/78.58.46.50
Tx 900264
Fax +33/72.72.98.20

ADB-Sofair
22, Av. St. Barnabé
F-13004 Marseille
France
Tel +33/91.85.82.00
Fax +33/91.34.24.70

ADB GmbH
Dieselstrasse 4
D-6052 Mühlheim am
Main
Deutschland
Tel +49/6108/66204
Tx 41889103
Fax +49/6108/66205

PRODUCTION ARTS: THE CREATIVE BRIDGE BETWEEN TECHNOLOGY AND ARTISTRY

Julian Williams goes off Broadway

"Just two blocks from the theatre district of Broadway, we believe we are the only company midtown Manhattan that can offer rentals with sales," said Jane Head, vice-president sales and marketing for Production Arts Lighting in New York.

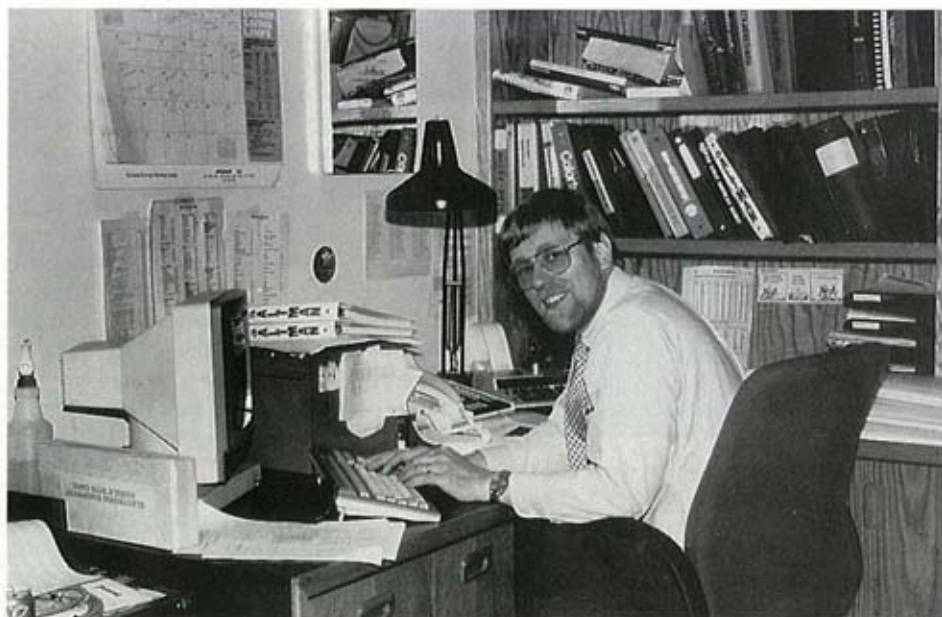
Strategically situated across 46th and 47th streets to the West Side on Eleventh Avenue, there is a lot happening with this company, now nearing its 20th year. They also recently opened an office in Los Angeles.

Much has been mentioned about them in various fields of the industry, so I dropped in on Steve Terry and John McGraw, joint owner/directors and executive vice-president and president respectively, to find out what is happening now.

They have successfully brought together a combination of services to the industry — to provide single source responsibility; from the inception of the project through to the life of the system. "We like to think we invented the term 'Systems Integrator' in the lighting business," explained Steve Terry.

The company started as a scenic studio in 1971, operating from 2,000sq.ft downtown, with a rental division specialising in the then uncatered for, and unspecialised, area of the Off and Off-Off Broadway markets. Then a student, John McGraw and his college instructor Peter Forward (who has recently retired from the company) started the small rental company while still at college.

Steve Terry, who joined the company in 1976 from summer stock theatre, said: "We were all working on Broadway while in the shop in the afternoons." At the time he was a sound engineer on 'A Chorus Line'. Then, because they had the first memory system to be used on Broadway on this show — the LSB — they needed someone to service the console.



Steve Terry: "We like to think we invented the term 'Systems Integrator' in the lighting business."

"Originally, I planned to be a production electrician and thought this would be something interesting to do during my spare time in the afternoons, to keep me busy!" continued John McGraw. "While being master electrician on 'Grease' for seven years, we invested all the turnover and lived off the show until it closed. Only on Wednesday matinee afternoons did they have to close the shop."

Now with a personnel of 70, who are mainly concerned with the rental operation, the company draws almost 50% of its business from related sales from the rental sector. The total rental inventory today stands at over \$10 million.

In 1977 Production Arts moved up-town into 9,000sq.ft of floor space, still concentrating on local rentals and the Off-Off Broadway markets. From here, they

began to penetrate another area requiring special attention: the 'Bus and Truck' touring market, where they traditionally used a 60 light/12 (old) dimmer system to cart around the regions.

"At that time, in 1977, when manufacturing wasn't very healthy and the level of controls was really primitive, the manufacturers weren't building controls for touring purposes; there wasn't a dedicated product," said Steve Terry.

For hire, Production Arts manufactured rolling dimmer racks specially designed to tour. Then they came out with a modular 5 scene preset system for 24 to 96 channels — revolutionising the 'Bus and Truck' market. Now they could **really** go out on tour.

In 1980 a key customer produced a 'Bus and Truck' version of Bob Fosse's 'Dancin' with lighting designer Jules Fisher (unusual



Production Arts' random access slidechanger for Pani projection system.

Production Arts' Pani product manager Anne Johnston explained in more detail some of the merits of their new A-32 Random Access Slidechanger for the Pani Projection System.

"The carrier that holds the slides, and the cassette that moves forward and back are controlled from the electronics. The operator can tell by looking at the screen what each unit is doing. Such as — if they are far away — what slide is in the gate, which units are on, and from where they are addressed with the DMX512. The projectors have to be modified to take the slide changer. We build all the mounting hardware."

Another modification is the Turbo 4 — which takes the 4kW projector, removes one of the heat filters, and adds a more powerful fan to get 25% additional output. In any modifications they make to the projector, they allow for any of the standard fixtures to be interchangeable; for example, a manual slide carrier, double disc or film machine.

Production Arts provide in-house training and a fully trained technician to go with the equipment if required. Apart from on-site demonstration visits, they provide demonstrations at their premises. On the afternoon of my visit they were showing Pani equipment to the New York City Opera and the New York City Ballet who were just opening their new season at the Lincoln Centre.

in that the original designer went on the tour). They had to be able to carry 350 lights and complete the set-up in eight hours in a one-nighter legit theatre. This started the next phase of modular packaging — i.e. pre-hung electrics pipes, multicable systems and modular side lighting towers. As a result, the 'Bus and Truck' rose to a new level, allowing 250-350 lights to be easily transported and requiring only five to eight hours rigging.

At this point dimmers on the road changed. The next step was to develop the

high-density rolling dimmer rack — 96 × 2400 watts rack — using their own design of rack and contracting out the dimmers to a reputable commercial manufacturer. The RD2000 design later became a standard product in the Lighting Methods product range.

Production Arts' demand-driven growth shows the possibilities of rental house development through the eighties. In 1987, at a time when rental pricing was flat and reducing, the company saw an opportunity for expansion by utilising their skills and resources from the rental end of the market in a service-oriented business to create a concept of field service project management which manufacturers did not provide. Jane Head came in to promote the system sales-oriented approach, in addition to rentals, on a national level: hence the slogan the 'Systems Integrator'.

Production Arts' services include: in-house engineering, data systems integration, project management and field services. Other peripheral things take place such as the manufacturing of specials — what Steve Terry refers to as 'systems glue'. The company has a full metal working facility, producing structures and trussing for example; also a woodwork department where their own packaging is made.

Their policy is a simple one, and it is not based on a quick turn. It's a store where you come to get an answer and a solution to your problems. As John McGraw says, he doesn't see the growth continuing in the way that it did in the early years. "I am more

concerned with continuing to provide the quantity of our service than with going for growth; though it becomes harder as you become a bigger operator."

On entering the lobby, where the sales counter is set to one side, there is an air of co-ordinated efficiency, beyond which is the hub of the action. Four combined and integrated rental and sales order intake desks, are managed by Terri Deturris — not to mention the two offices opposite where Steve Terry and John McGraw reside, keeping a watchful eye on the proceedings.

"It all starts here," said Jane Head, introducing me to Ken Romaine at his work station. "If they need it today, it's my job to get it to them today," he told me as he was negotiating on a call and entering an order into the system. "The shop makes it happen because they're very efficient out there. We can get what the guys need now."

As the computer keeps track of this equipment, whether it's for tomorrow or six months time, they can maximise usage of their equipment and plan their inventory accordingly. This unique programme was designed by their systems analyst Michael Rhodes. A computer link on every desk in all the departments, amounting to 40 terminals, allows all the personnel to know what is going on at any one time.

A high technology product emanating from Production Arts is the A32 Pani Projector Slide Changer, and their current long-term commitment investment to Pani products now stands at \$1 million. Developed originally after taking on



Steve Terry and Jane Head looking at their ABC Studio Dimming system renovation.



Steve Terry and Jane Head examine the electronics of a typical portable system.



Pani technician Ted Read and Anne Johnston relax after another successful demonstration.



Jane Head and Anne Johnston with the optional status command PC control used here in conjunction with a standard lighting desk.

redundant stock of HMI follow spots from a closed Broadway show, they were then in a position to do Madonna's 'Who's that Girl?' tour in the fall of 1987.

When 'Siegfried & Roy' (see L+SI April 1990) moved into the Mirage they wanted multi-medium projection. "The design would not allow the horizontally depressed projection angle of down to 50 degrees required at the back of the set," said Steve Terry. "There just wasn't a slide changer that would give the required number of images at this steep projection angle. So we did the R&D on it in May and delivered the seven units in October last year.

"The system required a slide changer capable of 25 programmable slide changes, DMX compatibility, and reporting status to a remote computer." They saw this as the key to making these projection systems move forward. "It meets the needs of integrating the whole Pani projection system into the performance lighting system, allowing the product to be automated. This has led us into markets where we weren't before, such as rock and roll projectors and slide making facilities." Production Arts are currently exploring the marketing of this product into Europe where it will require support.

Following a period as chairman on a USITT sub-committee for Codes and Standards in 1984, Steve Terry was one of the more 'vocal' pushers for the need for standardisation in the industry in interconnecting control systems. They were faced with the many new control consoles and dimmer systems coming onto the market which couldn't communicate with each other. "It was costing an unimaginable amount of time and money not to have it in place. There was a need to develop something quickly, and we were out for expedience," he explained. A protocol was drafted and accepted to become the standard for DMX512.

"Big manufacturers were among the most sceptical about it when we first started — the screaming was incredible!" he commented. "They just didn't want to know about it." He claims that the big manufacturers displayed an unwillingness to adopt an integrated philosophy, as they wanted to sell complete systems. However, they have now come round to support the standard. As dimmers became digital, and the whole control scheme multiplexed,

interconnectability was necessary.

The customer now calls on Production Arts for specialist support. "We are moving away from a simple equipment era into more sophisticated service-oriented things," continued Steve Terry. "As the complexity level of the kind of equipment we are supplying goes up, it means that people increasingly want design services and production personnel to go with it."

I asked him if we were now moving towards a qualified project engineer being involved to fill the role of the production electrician. "At the rental end of things we would probably still call them production electricians" he replied. "On the sales installation end, it would be project engineer. For example, as in the Mirage Hotel, we had a couple of people managing the project. The scope of the front entry to the hotel and the Atrium control systems was huge; such as was evident in David Hersey's 'Volcano' effect.

"Aside from what the job looks like and its achievement of the integration of all the systems, it represents the kind of installation job that we do best. We can offer more 'value-added' than anywhere else."

Steve Terry designed the control system and interface to the gas, steam and water to allow it to be automatically 'cued' in an industrial environment, as if it were a theatrical production — this being David Hersey's essential requirement. He gave me a couple of amusing instances that illustrate the unknown during the planning period. The underwater Par 64 1kW lamps have to be submerged. When they are not submerged they over-heat and burn out their rubber seals; relying on water for cooling.

"When you go out to change a lamp you have to shut down the waterfalls. You check for 'burn-outs' in daylight so that you can see the fixtures. You can't have water running because the water obscures the view of the fixtures during daylight hours. When you shut the water down you can't have the lights burning because they burn up the fixtures . . .!"

His project engineer called on him on another day earlier in the project to say, alarmingly: "Every time we test the gas system, big clouds of burning gas fly up into the palm trees and burn them up!" Terry



Pre-Hung facilities for legit theatre tours: Jane Head with their purpose built 'Par Bar'. She says: "The faster you can get a show into a facility, the more time they have for rehearsals. The smaller tours allow a shorter time for this." Essentially, like a track, you have a channel where the fixture hangs and a place to plug it into on a bar with a multicore connection at the end of the bar. The whole piece then hangs on a pipe, totally self-contained.

explained that they had to put in a Mister system to wet the Palm trees five minutes before show time. "If the wind is over seven mph it separates the burning gas from the jets; you can't have clouds of burning gas going around the place."

International barriers are coming down and opening up new markets for Production Arts. "We take an end-user problem. We design and engineer it as a system, and then we build it — and supply it," said Steve Terry. "There will be much more 'one-stop shopping' and single source responsibility for multiple systems within the theatre. A turning point here is for a manufacturer to be referring a job to a systems integrator. The manufacturers themselves see the value-added aspect of seeing systems integration when they see a 'nightmare' job which has nothing to do with manufacturing.

"The era of the big manufacturer supplying performance systems is drawing to a close. I think that end-users and consultants are demanding a much more service-oriented approach. There will always be big manufacturers — but I don't think that the traditional method of purchasing systems that evolved during the fifties, sixties, seventies and eighties will continue in that direction."



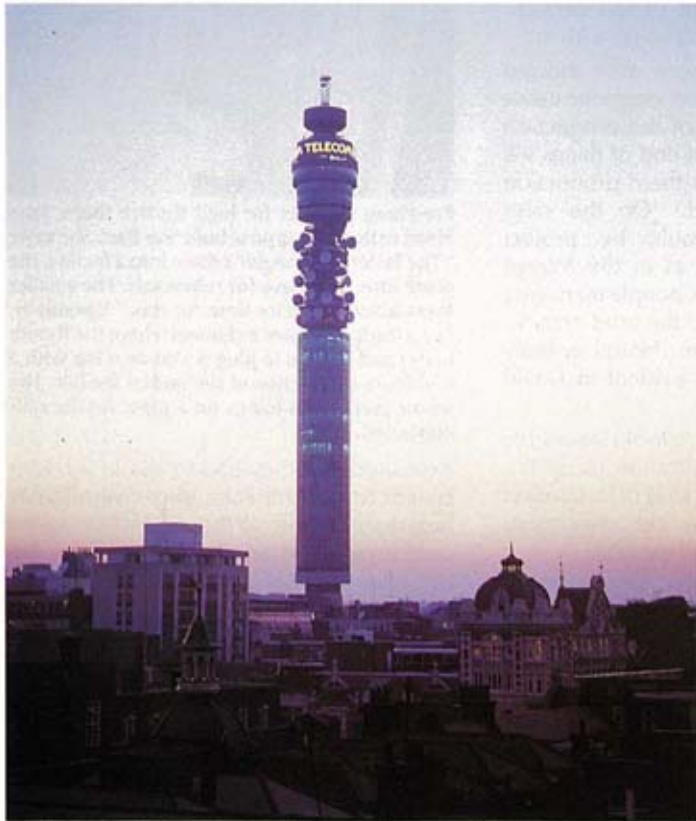
The Loading Dock: one of their fleet of two vans and 22ft truck for collections and deliveries.



The Electronics shop where dimmers and consoles are prepared. There is also a service area as they are service agents for a number of manufacturers. Production Arts will also go out and service on site; for example, on the coming Sunday they were servicing the CNBC TV Studios, where they provided the control equipment.

THE LIPMAN LIGHT-UP

Maureen Lipman switches on Imagination's lighting for British Telecom's London code change over



Last month the British Telecom Tower was the focus of one of the most spectacular light shows in London. Imagination, the design company responsible for lighting the Lloyds of London building and Waterloo Station, were given the brief of drawing public attention to the introduction of the new 071 and 081 codes by illuminating the most prominent landmark on the London skyline.

There were three main elements to the project. The first was floodlighting where the exterior of the Tower was washed in red with four banks of lights mounted 25m away on a low-level roof at the base of the Tower. This red wash extended from the base up to level 34 — previously the revolving restaurant. Further red lights were placed on the top external galleries to highlight the metal cladding and mast structure. These lights comprised 64 Par 64s, 12 medium floods for the lower levels, 24 narrow spots, 12 very narrow spots and 16 600W Aircraft Landing Light for the upper levels. In addition there were 24 Par 64s around the base of the Tower. Total power for the red wash was 256kW lighting 146m (465 feet) of the Tower, and additional blue floodlighting was used in the galleries supporting the microwave dishes to offset visually the dishes from the core of the Tower.

The second element was Arc Line sequential linear strobe system. One 69m (225 foot) catenary cable carrying 36 1.8m Arc Line units was run up each to the 18 apexes of the main section of the Tower. This created the effect of numerous bright sparks of white light chasing up the 18 columns in unison. In all, 648 lengths were used, providing a total length of 1.16km — the largest installation of Arc Line ever.

Special runners were fabricated to run in the existing tracks for the window cleaning cradle. These were fixed to the steel catenary cables tensioned between the core of the Tower at level 24 and level 5, with strong springs to compensate for expansion (up to 22.5cm (9 inches) in extreme conditions). A special controller had to be devised and built by the manufacturer, Mode Electronics, as no existing controller could



A view of the Telecom Tower from Parliament Hill Fields in north London during the closing firework display.

power this quantity of Arc Line.

In addition to the Arc Line, 40 white high-power Xenon beacons (super star strobes) were placed amongst the microwave dishes, to create a random 'sparkle' effect, plus 16 Bowens electronic flash inside level 32 to create random flashes on windows.

The final component of the spectacular was the use of the Skytracker automatic searchlight units. Three 4-head (2kW Xenon) units were positioned on a low-level roof around the base of the Tower. These created moving beams of light pointed upwards around the Tower. Four single head (4kW Xenon) units were positioned at the top of the Tower (level 37) to produce four very powerful moving beams of light reaching out across London.

All equipment on the low-level roof was powered by generators parked in adjacent streets. One 400kVA set supplied the equipment on three sides of the Tower, on the roof of the BT exchanges, via dimmers contained in portacabins on the roof.

Equipment on the fourth side of the Tower was on the roof of the McCann Erikson building and was powered by a separate 100kVA generator, via dimmers in the generator container with a control link to the 30-way Celco desk in the main control portacabin. A third generator (400kVA) was on stand-by. All lighting on the upper levels was powered from local supplies and independently controlled to avoid lengthy cable runs up the already full cable ducts running up the core of the Tower (in all 168m (550 feet)).

The lighting was switched on by Maureen Lipman, and later broadcast on LWT. Four multi-headed 'Sky-Trackers' (searchlights) at the base of the Tower begin to move, projecting up and around. Simultaneously, white star-strobes started to flicker amongst the microwave dishes and electronic flashes appeared at random inside Level 32. White Arc Line strobe lights started to chase up the 18 facets of the main part of the Tower. The effect is of a series of bands of light travelling up the Tower. (In all there is over 1km of strobe tubing in 18 69 metre (225 ft) long columns). Red floodlighting began to creep up the main part of the Tower, starting at the base. Blue



floodlighting also came on around the microwave dishes. Three double-headed Sky-Trackers at the top of the Tower came on. These projected six almost horizontal white beams that pan out across London. When all the lights were on (after 35 seconds), the firework display began. Large Roman Candles at Level 37 and at the base of the Tower went off, spilling out silver light over 100 metres.

Lighting Designer for Imagination –
Simon Bruxner-Randall

Production Manager for Imagination –
Mark Waters
Production Electricians – Gerry Amies and
Jerry Singleton
Rigging – Unusual Rigging Co
Arc Line supplied by – Mode Electronics,
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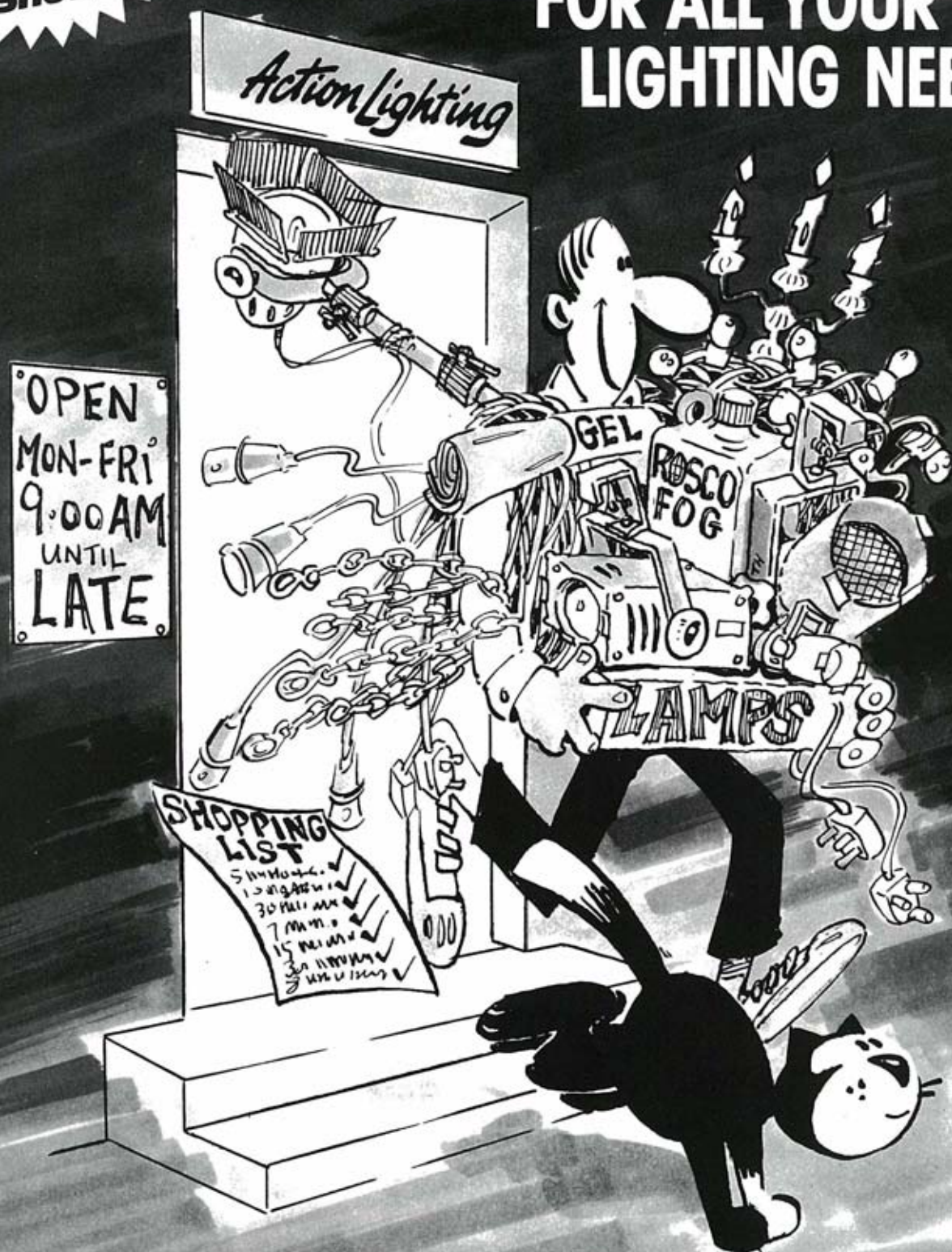
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SHOWTECH BERLIN

L+SI's special agent Ruth Rossington presents the dossier

The 1990 edition of the biennial Showtech event in Berlin, billed as an international trade fair and congress for entertainment technology, stage engineering, equipment and organisation, was perfectly timed for establishing in-depth contacts between not only the two Germanys, but East and West also.

Zero 88 were on the LMP Lichttechnik stand and showing the Sirius 24, Lightmaster 1200, the Level Series of consoles and the Sirius 48 mini console. Freddy Lloyd was also expounding the virtues of both the Betapack Plus dimmers and the Rackmaster. LMP themselves had Clay Paky Golden Scans providing the lighting effects, with Pulsar programmable touch panels and Intellabeam and Color Pro controllers doing the rest.

Koln-based **LTM** were showing a range of spotlights including the new Cinespot 2500. **Multilite Lichttechnik**, distributors for Jands, Rainbow colour changers and Tomcat trussing were adding the Berlin dialogue to these companies business relations in international markets. Vorsprung dick Technik, as they say.

Matthias Warnck was doing the upfront work for **Dedolight**. As distributors for Rosco in West Germany, part of their stand was given over to the Rosco range of smoke machines. The company were also showing their own mini spotlight intended for film use. The 12v light system uses 20W, 50W or 100W lamps and has a focus range of 1-25. On the **Bose** stand the familiar Acoustic Wave Cannon was residing at the rear of the booth. First introduced in 1987, it was developed with a very low frequency to relay special effects in theatres and cinemas.

The 802 range for high/mid frequencies was also in evidence, together with the Acoustimass bass system. Recent projects for the company include installations at the Koln Opera and the Tallia Theatre in Hamburg.

The **Tarm** stand housed Pulsar, Clay Paky and Le Maitre. One notable feature was the first showing in Germany of the Super Scan HMI 1200 — a beast of a thing attracting a great deal of attention. Also on show was the recently-launched Golden Scan '2' HMI 1200 and the ever-familiar OSKA control system.

Local company **Stiers** had a range of strobe/light controllers stacked on power pack channel sensors and programmers. **Steffens** stand featured Avab's Expert control desk, together with their own computer Lightcad. **Harman-Deutschland**, part of the Harman International Group, housed the JBL Sound Power Series and JBL/Urei equalisers/compressors. As agents for Soundcraft it was no surprise to see the recently-introduced Venue console, an 8-bus PA console launched at the Frankfurt Music Fair. Also on stand were Shure microphones, including the Beta 58 with new magnetic coil, Shure mixing amplifiers, and the new RTS intercom system and Master Station 802 introduced at Montreux. Other products showcased by Lutz Prenzel and co of H-D, were the new Flex series from Rane, a new programmable equaliser, the MPE 28, and recently launched from Symmetrix, the SX206 multidynamics processor.

Teatro, together with **Coemar** had a suitably impressive ensemble — the red and green liveries of both Italian companies dominating the exit from Hall 15. The Comma 16/28, Talento

1200 and Tratto 15/28 from Teatro were all hung with triangles indicating their 'Neu'-ness. These products, first seen at Rimini, are a supreme example of the supply and demand theory at work. After deciding to replace the middle-bottom end range of followspots, Mike Lowe explained that Teatro then decided on a price and came up with the 1200 TH 575 MSR and 1200 MSR. Coemar had seven Jupiter 700 MSRs in action. These menacing looking lights are extremely impressive, and their guiding hand was provided by a Coemar Jupiter 16 control panel and a Jupiter lighting computer console.

Dynacord had a range of MV 102 mixer amplifiers, a DEM 248 digital reverb processor, CS942 400W speakers, and the MCX 4800 studio mixer. Centre left stood the 100V upright CPS 320 slimline speakers.

Czech company **Martimex** had Technoart products and a Ludwig Pani LH1000. **Mark IV**, parent company of both Altec Lansing and ElectroVoice, adopted a corner site to demonstrate Altec's low-frequency horn speaker 51584, and various related ranges from both companies.

Located in Hall 13, a collection of stands from the United States flew the flag - literally. Promoting amongst other things, USITT, LDI 90, and the complete collection of magazines from the New York stable, the stand was a colourful addition to the Showtech atmosphere.

Westfalan Sound were showing a computer-controlled hoist system designed by the company in conjunction with Michel Verlinde who supplied the motors in a modified form. On other fronts Westfalan Sound work with Russian

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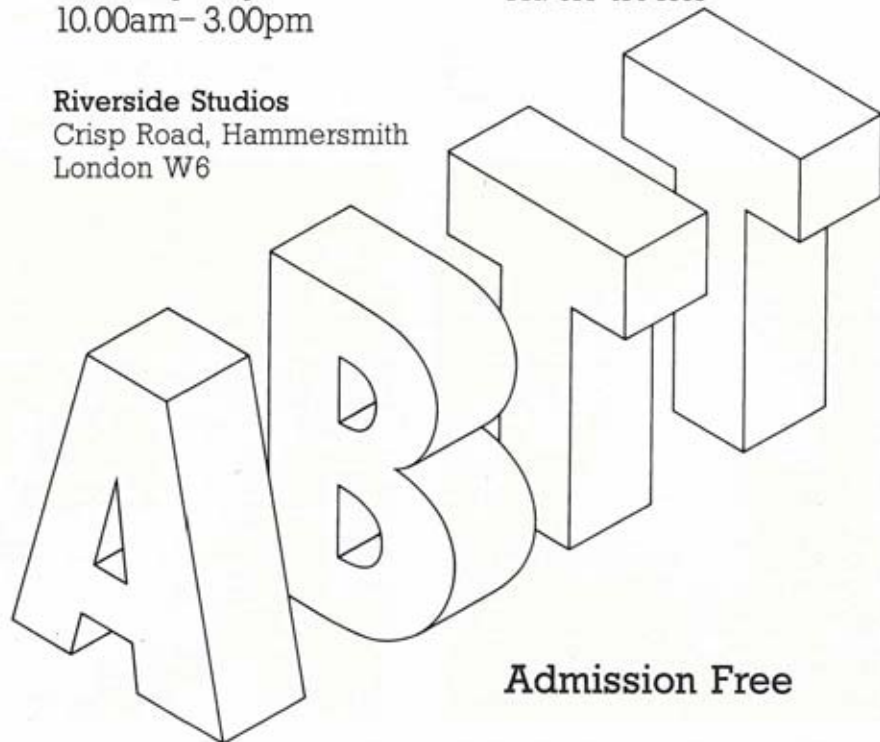
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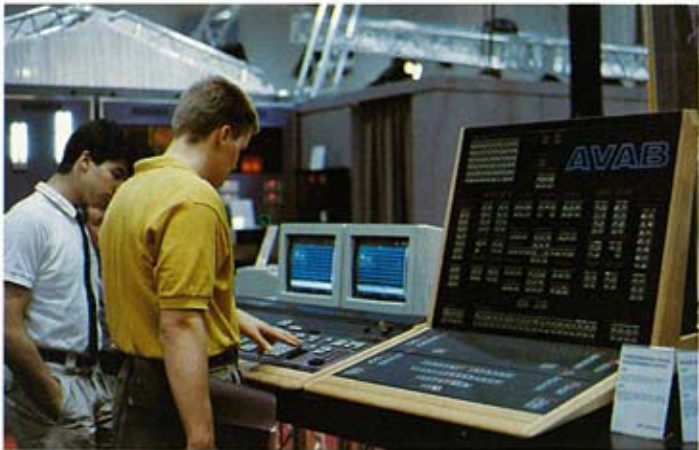
Admission Free



The new range of Teatro followspots on the joint Coemar/Teatro stand.



Chat, conviviality and colour courtesy of the Lee Group.



Hands-on approach from AVAB.



The constantly-busy Strand Germany.

company Face to distribute Yamaha mixing consoles and loudspeaker systems, which were to be seen on the stand, cheek by jowl with the Mighty Arc Series II from the US.

CCT Lighting unveiled their new Silhouette 90 1000/1200W range. These are two completely new lamphouses, one with basedown lamp and the other axially mounted lamp, plus two new zoom lenstubes to the same octagonal shape and design as the 15-32" tube launched a year or so ago. The Silhouette 90's three octagonal tubes offer zoom beam angle choices between 19-45°, 15-32°, 11-26° plus, for the particularly long throw applications, the zoom 9-21" conventionally-shaped tube. Providing backup were Dave Manners and Jack Watling.

Sennheiser were displaying microphones, **D+B Audiotechnik** had a range of loudspeaker products and **Philips** showed their range of

theatre MSR lamps and filaments. **Lee Colortran** introduced the Windsor and Club range into the German market, with Joe Thornley providing the techspeak. Exhibited in addition were the Kobold ranges, a company Lee bought a few years ago, which deals in portable discharge lighting and conventional theatre and TV standard control systems.

Avolites were on the stand of distributor **Camco**. On display was the QM 500-TD which Steve Warren hopes will cross language barriers with the introduction of French, Spanish and Finnish menus, whereby different languages can be accessed by inserting the appropriate disc. At the show a German version was sprechening sie deutsche, so to speak.

New features on this desk that haven't been shown before are programmable pre-heat, to achieve faster response from lamps, and

dimmer curves, one of them being user-programmable. Also on the stand were the TV Dimmer racks and Q-Patch system. Camco themselves had a huge spider-like framework to demonstrate the flexibility of Slick trussing, and as recently-appointed distributor for Nexco, they had the French company's loudspeaker range. Camco's own-manufactured amplifiers have been extended with the addition of the DL 1500, first launched in Frankfurt. The company were also demonstrating the products of Audio Digital including a new PC-controlled range of amplifiers, the prototype of which was on show.

Ralph Jorg Wezorke was hard at work on the **Lightpower** stand which featured four Clay Paky Golden Scans, fog equipment, par cans and a host of related products. French company **Robert Juliat** chose a small area to demonstrate their various HMI spots, whilst **Arri** displayed



Westfalan Sound and Camco supplied all the equipment for the laser and light show.



Matthias Warnck with Dedolight's mini spotlight.



DeSisti demonstrated their range of lighting.

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consoles — Image, Imagine and Impuls. Peter Ed went through the various benefits of the Impuls, including its macro functions and its ability to be put to either theatre or rock 'n' roll application. Arri are pushing into both markets by developing simple-to-use equipment with a sophisticated response when needed.

Celco's German distributor, **Amptown**, were showing a selection of Celco 88 and Panorama products. The Panorama console was doing its tour of duty connected to Posi-Spot moving lights and ACC colour changers, with Colin Whittaker from Celco on hand to answer any queries.

Mike Hall of **Rosco** claimed it had been a fantastic show in terms of the number of contacts established. The products creating so much interest included the range of fog machines, a selection of woven textiles and material, and a host of ancillary items. **Strand Germany** had an impressive stand at the entrance to Hall 12. The main focus of attention was the Gemini 2+ system which has been upgraded to 380 channels with two monitors, and the now-automated Galaxy system which was to be seen controlling the PALS systems. Other lines at Showtech included a mix of studio and theatrical luminaires, a range of beamlights developed in the UK ranging from 500W to 1,000W, and a number of small club lights, put together in Germany using 100W, 150W and 250W lamps from Philips. A recent addition to the control field is Light Palette 90 developed by Strand US. David Brooks of Strand UK filled in the detail on this console which can handle up to 4,000 channels with patch, and has the option of hand-held control first introduced at USITT in Milwaukee.

Andre Stuckyens was on the **ADB** stand, explaining the relative merits of the Tenor computerised lighting control desk, the range of Eurodim DDD digital dimmers, the S20 and S28 lighting control systems and various spotlights. **Tour Service** are the European dealers for the Pan Command system manufactured in California, and were demonstrating both the Color Ranger and Color Fader PC spot systems.

Herman Sorger was adding a touch of Austrian flair to the proceedings over on the **Ludwig Pani** stand where pride of place was given over to the BP6 Gold projector. Nova lanterns and control equipment were on the stand of German agents **Narva** with Greg Moger keen to draw my attention to their dimmer rack and Compact range.

Showtech this year marked a significant breakthrough for the German market, not so much in terms of the companies exhibiting, but more in terms of the visitors to the show from the Eastern bloc who promise a new political and economic climate for the two Germanys, and indeed for lighting and sound markets worldwide.

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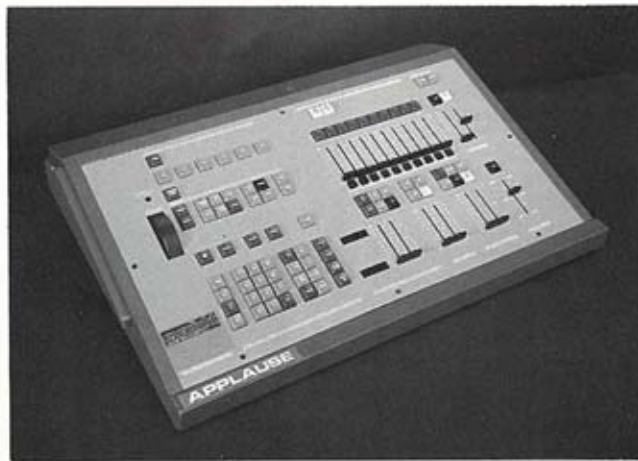
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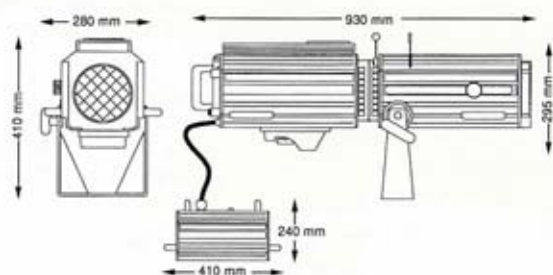
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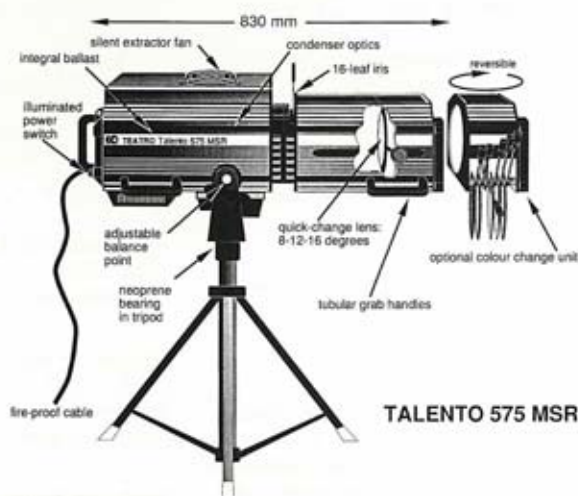
diameter to a pin-spot, and intensity from full to blackout without the need for additional equipment is desired. A full power/half power switch is indispensable to instantly reduce and boost power between cues. An adjustable balance point is a pre-requisite, with a smooth, variable friction tilt clamp, and a firm supporting yoke. Must be complete with lamp, iris, dimmer, ballast and cable, although colour change and tripod stands may be acquired separately.

Apply to any Teatro distributor.

opportunity for leading light Smart operator required for new followspot production...

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Theatre or concert experience required in medium-sized venues. Must be capable of controlling bright and even beam of high-intensity light from an MSR source. Unusual physical attributes not important, as controls are conveniently situated for right- or left-handed use. Previous experience with cumbersome zoom and focus controls not necessary, as they have been eliminated by the use of a unique condenser optic/single projector lens cassette system. Intensive training is not necessary because the compact Talento 575 MSR is easier to use than other followspots due to its short length; the single knob focusing system; the instant



standby/full-power switching; four easily accessible grab handles; a conveniently situated iris and dimmer; and a smooth tilting fork with adjustable balance point. Pleasant working conditions are offered by its diminutive size and a low-noise extractor fan. There are no hidden disadvantages, since the lamp, spigot, iris diaphragm, dimmer (with black out position), built in ballast/igniter, and power cable are all supplied as standard. A six-colour drop-in semaphore colour change unit, a selection of lenses, and tripod are optionally available if required.

If interested, contact the following address for further details and an interview with the new Talento followspot range.

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I am a Talento 1200TH tungsten halogen followspot who is looking for employment. I am small, strong, have nice features and like working hard. This is my first advertisement for employment, so I've attached my photo so you can see what I am offering. If I can be of service to you, contact any Teatro distributor.



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S.A.V., Blackpool 0253 302602

ABTT TRADE SHOW PREVIEW

Riverside Studios once again plays host to the ABTT Trade Show 28-30 June. Alison Hunt provides a summary of exhibitors and their wares.

Action Lighting

081-993 9993

A wide range of theatre lanterns and equipment from manufacturers such as Thomas, Teatro and ADB along with a comprehensive display of ancillary items.

Ark Light

0533 478336

Examples of restored lanterns and spare parts.

Arri

081-848 8881

Sharing a stand with Donmar, Arri will be displaying their latest control systems the Impuls and the Imagine 500 including the latest software.

Avolites Production Co. Ltd.

081-965 8522

The new TV 48-25 dimming system, 2 QM 500 TD control desks, Avolink system including Q-Patch and DMX decoder. Plus other control consoles, dimmer modules and mains distribution units. Sharing the stand will be The Association of Lighting Designers (ALD).

Book Bazaar

071-352 6810

The chance to make up the gaps in your theatre book collection.

Canford Audio

091-417 0057

The full range of the TecPro Communication System together with the new Sonico intercom system. The new Maxon 49MHz hand-held and headset transceivers, plus many new cabling accessories.

DC Lighting

0235 770715

A wide range of lamps for studio, theatre, video and photographic uses. Also a selection of cables, gels, lanterns and plugs.

DHA Lighting Limited

071-582 3600

A comprehensive new gobo catalogue, to be launched at the exhibition will feature an additional 84 designs. Also on display will be the Times Square miniature low voltage framing projector.

Donmar

071-790 9937

A wide range of theatre equipment supplies including Arri (see above).

Elliott Bros Ltd

0865 798000

A number of new products including the range of Pearl microphones for MS stereo applications and Diless — the intercom with unique single-button selection.

Eurolight

081-751 6400

The latest versions of the Ovation, Applause and Smart computerised lighting control boards will be available for demonstration. Also on display the Compak 700 series intercom systems along with Eurolight's mains load Patching System and the full range of Green Ginger dimmers and controls.

Peter Evans Studios Ltd

0582 25730

Props, scenic embellishment and costume armour. Exhibited will be examples of armour, urns, pedestals, columns, brickwork and windows etc.

Farrah Sound

081-549 1787

As well as exhibiting the Yamaha 1200 sound mixing console, Metro Audio Communications and Cuelight systems, Farrah Sound will have their range of Apogee loudspeakers on the stand.

David Fitch Services

0322 339013

New and refurbished lighting equipment.

Flint Hire & Supply

071-403 3990

A variety of products for the manufacture of scenery including ironmongery, hardware and scenic paints.

A S Green & Co Ltd

0942 718347

Stage lighting and tracking equipment.

Hangar Services

0423 358015

Scenery contractors, mechanical and electrical engineers.

Harlequin Theatre Flooring Ltd

0322 865288

A selection of specialist stage flooring, including the new Harlequin Allegro modern, portable, spring floor.

Lee Filters Ltd

0264 66245

Alongside their best selling range of polyester filters, together with the polycarbonate range, there will be a limited quantity of three special colours requested by theatre technicians, available during the show days only.

M & M Lighting

071-722 4147

In their second year at ABTT, M & M will be showing the two variations of the standard Rainbow Scroller, the Light Curtain Scroller and the Follow Spot Scroller along with the Scroller developed specifically for the Thomas 8 Lite Unit.

Marquee Audio Ltd

0932 566777

The new Soundcraft Delta Console, DDA Q Series, a variety of JBL and HH Amplifiers and many ancillary items.

Modelbox Computer Aided Design

071-731 7021

The latest developments including a new software interface between a new range of lighting symbols and database software. Also on show will be a new BEAM command.

N & I Costello

081-397 7830

Showing both metalised pvc and self-adhesive range of stage curtain tracking.

Northern Light

041-440 1771

Stage management desks, socket boxes and bars will be on display together with a new range of the Socapex compatible 19-pin connectors and a new system of portable rostra, Alu-Rapid staging.

PLASA

0323 410335

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Pulsar Light of Cambridge Ltd

0223 66798

The new controller from Pulsar, the Touch Panel II and the first official UK showing of Golden Scan '2' and Super Scan.

RAT (Manufacturing) Ltd

071-251 2437

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Roscolab Ltd

081-659 2300

Demonstrating their new computer software for lighting designers and showing their full range of theatre products including the new scenic paint range Off Broadway. In addition to this, all the Rosco Fog machines will be on display.

Scorpio Controls Ltd

081-569 2190

Lighting control systems and various dimmers.

The Sound Department Ltd

081-749 2124

Promoting their whole range, ABTT will be the first showing of the new Community RS-220 loudspeaker.

Stage Management Association

071-587 1514

Information on the Association and their publications.

Teatro srl

(376) 780702

Examples of their extensive range of theatre lights including the Diluvio range of modular cyclorama/flood lights, the first of the new Talento Followspots and the new Comma 650w profiles.

Varia Textile Ltd

081-549 8590

Occupying the same stand as last year to show their range of European, inherently non-flammable and flame-proof fabrics. Also on display will be British cloths, new to the company's range and reasonably priced flooring.

Other companies attending the show include London-based P L Parsons & Co Ltd, Primarc (Marketing) Ltd of Reading and London publishers Richmond House Publishing Co. Ltd.

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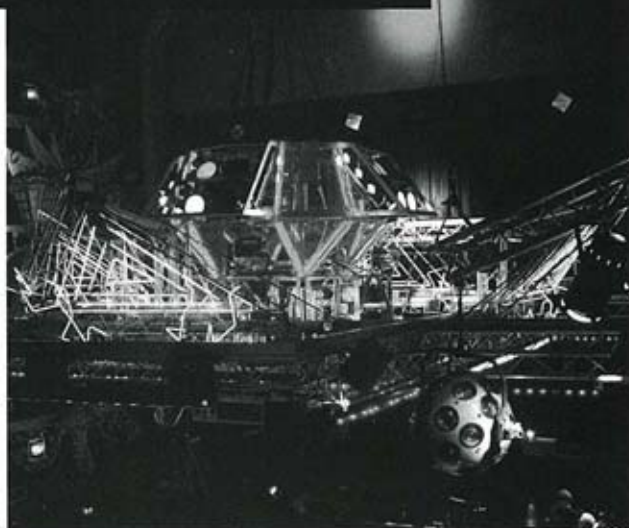
AUSTRALIA: Concert Lighting Systems, Tel. 03-529-5019, FAX 03-529-2629. **CANADA:** William F. White, Montreal, Tel. 514/866-3323, FAX 514/866-8856, Toronto, Tel. 416/252-7171, FAX 416/252-5095, Vancouver, Tel. 604/873-3921, FAX 604/874-2599. **HOLLAND:** Corne-Light, Tel. 02 090 9898, FAX 02 095 1881. Flashlight, Tel. 030-62 58 14, FAX 030-62 59 34. **HONG KONG:** Engineering Impact, Tel. 3-7110222, FAX 3-7642543. **NEW ZEALAND:** Spotlight Systems, Tel. 64 9-789354, FAX 64 9-780542. **SWITZERLAND:** Zilz Concerts AG, Tel. 071-22 75 45, FAX 071-22 75 44. **U.K.:** AC Lighting, Tel. 0494 39076, FAX 0494 461024. **WEST GERMANY:** Alfred Haussmann Intl. Ltd., Tel. 4940 660896, FAX 4940 665071. Zilz Concerts GmbH, Tel. 221-58 30 31, FAX 221-58 43 99.

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THE NEW MAN AT STRAND

John Offord talks to Chris Waldron, managing director of Strand Lighting Limited

I first met Strand Lighting Limited's new managing director Chris Waldron when I attended the opening of Quartzcolor's new complex in Italy (see May L+SI). I'd had dinner with him and I'd flown back to Heathrow with him. It had been a good day, festive and successful. In addition, I had elicited the promise of an interview back at UK HQ in Isleworth.

Chris Waldron welcomed me with the friendly grin that also warns you he's ready for a skirmish. I don't play chess, I thought, but maybe he does.

I started at the beginning. Knowing he'd been with different companies within the Rank Precision Industries group for 18 years, latterly for Rank Taylor Hobson, I wanted to hear about his immediate reactions on arriving in the world of lighting for entertainment. "They're not printable!" he said. I waited. He waited, smiling at me. He moved first.

"I guess my first reaction was, considering it was a Rank company and I'd worked in a number of long-established Rank Precision Industries companies, how different Strand was. Not different in the sense that it was wrong and RPI was right, but just the fact that even within Rank, whilst growing in the right way it had managed to develop quite different ways of doing things.

"My second impression was the fact that I don't think Strand had yet learned how to operate an international business. If you take Strand EuroAsia, it's made up of the operations in the UK (most of the manufacturing, R and D, and marketing coupled with a sales organisation) and over the years out of that had grown an international sales operation essentially based on a UK company. It had distributors in international markets, in due course establishing wholly owned subsidiaries in key international markets. But there was still some ambiguity about it and the role of the UK sales organisation viz a viz the international companies, and partly as a result of that the non-UK operations were tending to become increasingly disconnected from the centre — certainly in any sort of policy and broad strategic terms.

"Each company saw its role as to go and do its thing in its market, and didn't see a large part of its responsibilities as that of belonging to a worldwide lighting group. This was something I had been through in RPI. We'd got more of a grip on how you run an international company as a world organisation rather than as a group of companies that all happened to be doing something similar."

Chris Waldron began his scrutiny of Strand Lighting's operations back in January. "At first it was like being in a signal box where all the levers were disconnected." Since then a subtle but highly important series of changes have taken place on the positioning of his forces on the ground, worldwide. I asked



Chris Waldron: "One of the things we have to achieve is the feeling of all being part of a world organisation. This is something Strand alone can offer. For us not to make use of it is simply to miss out on one of our biggest advantages."

him about the philosophy of this restructuring.

"It was a necessary precursor to the things we want to do in the future. It was important to show the overseas companies that the UK trading activity was another one of them, and that it wasn't running R and D and marketing. Also it would help our marketing activities see the UK as just a part of their overall market. As in all things, this was not an absolute situation, but in terms of shades of grey, UK trading was having an over-influence on what was happening. It is, of course, an important market, but still only a part of our world market and by no means the majority of it.

"Also, in terms of addressing the needs of the future and in terms of focusing very sharply on servicing the customer and the market, I think the UK trading operation which we've now set up can concentrate its efforts on its own market and be judged entirely on the results it creates in doing just that. Ian Haddon reports to me as general manager of the UK trading operation in just the same way as Heinz Fritz does from Germany and Bernard Bouchard does from

Paris and so on."

I'd witnessed a good esprit de corps in Italy. Was Chris Waldron happy with the early results?

"We are beginning to make progress, and I feel we have a better balance in the operation. We are not, however, thinking in terms of short term issues, and a substantial commitment will be required from all of us in Strand to realise our full potential.

"One of the things we have to achieve is this feeling of being part of and operating as a world organisation. It is something Strand alone can offer. For us not to make use of it is simply to miss out on one of our biggest advantages."

To get the worldwide structure in true perspective, I asked Chris Waldron where America sat in all this.

"North America is a self-contained Strand activity, although obviously there is an element of inter-trading between us where we have products which are mutually suitable for our markets. It is a sizeable market and they have different requirements and standards to meet and different practices to satisfy. So for the most part they

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are a stand-alone operation closely coordinated with Strand EuroAsia.

"Probably the most significant exception to this is that they are distributors for Quartzcolor studio luminaires, so in that context we have considerable interface with them, and arguably America is our most important market for studio lighting."

Back to Chris Waldron's direct responsibilities, and within the trading operations themselves, a strong sense of direction is taking shape on how to attack the market place.

"It's a fashion industry where you're selling equipment to people who are using it to provide a service to others. Also, I don't believe it's a single industry. There are quite distinct differences between stage, studio and architectural lighting. We have to address these separately.

"And it's an area where some of our competitors, because they are small and developing companies in specific market and product sectors, are probably better than us at the moment. Simply because they don't have the problem of coping, in effect, with more than one business within their companies.

"On the other hand, it's just a question of organising ourselves appropriately and doing it right. Then obviously we will have a tremendous advantage in being able to address a much broader range of markets and users. We are able to go right across the board. Because of that we are going to be able to invest more, and we're going to have a greater presence in markets around the world compared with companies operating

on much narrower lines.

"At the end of the day, the success of any business is judged on how well it can service its customers. One of the great strengths of Strand is its ability to be present in its key markets and close to key customers around the world. That's what we have, and that's what we're going to build on."

I interposed a question on research and development policy, trying to inch out a few secrets. Was there any background he would give me? "No." (another broad grin) "I don't think you can expect me to be more specific than that!"

I tried a more general approach.

"It's not a question of saying R and D's not important. It's a question of saying, R and D on its own is not enough. We have to have the ability to exploit R and D better than our competitors, because they are just as able to undertake R and D as we are. We are not talking about technology which is mind boggling or on the frontiers of science.

"It's no good just throwing lots of R and D money at things and hoping that will create a tremendous competitive position for us. What we are going to be looking at is where we put R and D money. If we look and ask what's going to set Strand apart from its competitors, it's going to be simply that we are going to be able to respond to our market requirements because we are **there**.

"We have to be responsive to what our customers want, not just in terms of new products, but in terms of quality of service they're given, and the quality of support that they continue to get. And that's something that this company is uniquely placed to

provide, beyond any other company I can think of, and across its full range of products."

I turned the conversation to Strand's manufacturing facilities. In Italy the Quartzcolor complex is massive, with room for a great deal of expansion both from space within and on the land around. Evidently it's a similar situation at Kirkcaldy in Scotland, with a large factory with additional land around it.

"One of the important things about Kirkcaldy in particular is that we're making manufacturing part of the business. Our ability to manufacture, and our control over the facilities will be exploited as one of the main competitive advantages of the business, a competitive weapon. It's basic to our general drive for responsiveness: the ability of our trading companies to respond to market requirements in supply terms has to be supported by the ability of our manufacturing operation.

"There is no fundamental limitation on our manufacturing capacity. What we are looking at is organising our manufacturing facilities to support our competitive drive. It is already becoming much more of a fully integrated part of our business. At the end of the day, unless we make our total company and our total business work as a unit and focus on the same objectives, we won't be successful. And we are going to be successful . . . !"

Take my word for it: Strand Lighting has a very positive feel about it right now, and has begun to sharpen up its act significantly.

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AGENTS: M & M Lighting Limited, 87 Gloucester Avenue, London NW1 8LB. Fax: 071-722 3940. Telephone: 071-722 4147
Lightpower showtechnik GMBH, An Der Talle 26, 4790 Paderborn, West Germany. Fax: 49 5251 407404. Telephone: 49 5251 4184

PLASA News

Cliff Richard to open Light and Sound Show

Cliff Richard has agreed to officially open PLASA's Light and Sound Show on Monday 10th September at Olympia 2, in Kensington . . . More details to follow.

European Standards

Matt Deakin, technical director of Celco, has been asked to represent PLASA and British interests on the European Task Force covering light effect equipment and electric music instruments. Earlier this year, David Bearman of Quartz Systems joined the BSI sub-committee on design and installation of sound systems to promote and protect members' interests.

Ticket to Rimini

For the first time PLASA will be organising a joint venture trip to SIB/Magis, Rimini in 1991. The huge Italian market has long been overlooked by the DTI, recent efforts from PLASA head office have ensured support. Sponsorship for overseas exhibitions not only cuts stand costs by up to 50%, but also covers travel and organisational support (particularly during 'get in' days) and the services of an interpreter. These facilities are also available to non-members.

PLASA has also confirmed sponsorship for Lighting Dimensions International, Orlando (17-19 November 1990) and Frankfurt Music Fair (March 2-6 1991). The cut-off date for both exhibitions is the end of July. Interested companies should contact Chris Sogno on (0323) 410335 now!

Annual Dinner

The Royal Garden Hotel, Kensington has been booked for the third annual PLASA dinner, to be held on the opening night of the Light and Sound Show.

For PLASA's Eyes Only

PLASA head office is busy developing new facilities for members of the Association. Every exporting member company should have received their copy of the PLASA list of overseas distribution contacts. For some years now representatives of PLASA have visited exhibitions to promote their members, and have simultaneously collected details of many overseas distributors. This information will shortly be transferred onto a computerised export database for members' use. Until this programme has been established, members will receive printed details of contacts made this year alone in 25 countries. In future members will be able to request full country by country information including contact details, languages spoken, areas of interest and companies or products already represented, together with a brief outline on how to trade within that country and who to contact for further information.

A copy of the revised DMX512 standard will be forwarded to every PLASA lighting control manufacturer within the next week. Originally published in August 1986, USITT have recently revised this digital data transmission standard for dimmers and controllers, and have given PLASA permission to update members.

Finally, the Association is introducing a series of seminars in order that members may benefit from the experiences of others. The first is to be held in Wiltshire on June 19th when the subject will be pricing policies. Following various speakers on the subject, members will be encouraged to participate in an open discussion. After lunch there will be a chance for all sound members to meet to share problems encountered and possible solutions. Topics will include the recent noise legislation and the design of leisure buildings for improved acoustics.

Exhibition Diary

APRS

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

ABTT TRADE SHOW 90

June 28-30, 1990.
Riverside Studios, London.
Enquiries: ABTT, 4 Great Pulteney Street, London W1R 3DE. Telephone: 071-434 3901.

PRO AUDIO ASIA 90

July 11-13, 1990.
Hong Kong Convention Centre
Enquiries: Business and Industrial Trade Fairs Ltd, 28/F Harbour Centre, 25 Harbour Road, Wanchai, Hong Kong. Telephone: 5-756333

PLASA LIGHT & SOUND SHOW

September 9-12, 1990.
Olympia 2, London.
Enquiries: David Street, 3D Services, 12 Brentford Business Centre, Commerce Road, Middlesex TW8 8LG. Telephone: 081-569 9742.

PHOTOKINA

October 3-9, 1990.
Cologne, West Germany.
UK Representative: Tony Pitman, 12/13 Suffolk Street, London SW1Y 4HG. Telephone: 081-930 7251.

DISCOTEC/HOGATEC 90

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

LIGHTING DIMENSIONS INTERNATIONAL

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

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For details of the

PLASA

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September 9-12
Olympia 2, London

Contact:
David Street
3D Services
(details above)

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



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

EQUIPMENT *News*

Status Control Consoles

Status control consoles offer a powerful merger between manual and memory control systems at a price well within the budget of the smaller venue, say Lee Colortran. They are available in two versions, either 12/24 or 24/28, these being differentiated only by the number of control channels and submasters they provide.

In the two scene preset mode both consoles perform as simple two preset desks with programmable split fade times of up to 999 seconds in and out. Programming the submasters is either via the expanded numeric keypad, (situated on the right hand side of the console) or directly from either or both of the presets.

Viewing information stored in the submasters is possible using the backlit LCD screen situated above the numeric keypad. A special effects package featuring 'Chase, Dark Chase, Alternate, Build and Bounce' is available as standard using the fade timer and submasters.

By the flick of a switch the console can be converted from a simple 2 preset desk to a 120 cue single preset memory desk, (i.e. Status 12/24 changes from 12 channel 2 preset to 24 channel single preset). Cue states can be recorded either via the numeric keypad or the preset, with cue insertion possible using the decimal key.



CMOS memory storage is used for cue and sub-master data. All data will be retained for a minimum of one year after power failure. For library storage an optional EPROM memory cartridge may be used, enabling the operation to 'Read' and 'Write' data at any time.

Both consoles have as standard 'Bump' buttons whose use is selectable in the following way: pile-on, sale or off, and can be used for either channels or sub-masters. Furthermore, all consoles boast a soft patch facility enabling

patching of up to 512 dimmer channels, which may be unpatched at any time.

Useful features include dual raise and lower buttons to allow quick level setting, security code access to restrict tampering with stored information, 'Cycle' for automatic execution of sequential cues and selectable dimmer protocol output between Colortran Multiplex and DMX-512. For further information contact Lee Colortran at Manchester Road, Kearsley, Bolton. Tel: (0204) 73373.

New C.P. Catalogue

C.P. Lighting has announced the production of their new comprehensive catalogue of lamps. The catalogue contains details of nearly all display lamps and tubes and is available free on request from C.P. Lighting, 9a Tudor Road, Hampton, Middx TW12 2NH. Tel: 081-783 0499.

Kelsey for Rocktorch

Kelsey Acoustics Ltd has been appointed as exclusive UK distributor for new UK manufacturer Rocktorch Ltd.

Rocktorch pro-series products include the SA-31, a low cost 30 band spectrum analyser featuring display of either or both average and peak readings 'A' weighted to ANSI/IEC specifications: the SA-316, a one in, three out digital delay expandable from 1.31 to 10.50 seconds featuring 16 Bit, 64 times Oversampled Sigma-Delta Modulation; the NF6, a 6 band full frequency notch filter for easy feedback elimination and the PE4, a 4 band full frequency parametric equaliser.

Further information from: Kelsey Acoustics Ltd, 28 Powis Terrace, London W11 1JH. Tel: 071-727 1046.

PMC-20S DJ Mixer

First shipments of the PMC-20S Sampling mixer will be delivered to Vestax Europe in June. And, according to Vestax, this top quality mixing console (19" x 5U) has a host of facilities not seen before.

PMC-20S has 8 second sampling, (2 x 4 second, 4 x 2 second or 1 x 8 second), an Aphex aural exciter, a digital delay and a 5 Band graphic equaliser. There is full control over the

level sample playback and two separate memory banks for sample and delay. This ensures that samples are not lost at any time during a performance, even if the delay is used.

Additional features are: two stereo outputs (each with master fader and balance/pan control), special momentary transformer mixing switches, individual send/return for each input channel and of course the now famous user replaceable crossfade modules. 20mm or 45mm crossfader modules are available.

The unit will accept inputs from 1 mic, 3 line and 2 phono and the meters can be switched between master and input, with 1 meter for each side of the crossfade programmes.

For further details contact Vestax (Europe) Ltd., 19 Haslemere Road, Fernhurst, Haslemere, Surrey GU27 3EA. Tel: (0428) 53117.

New from La Conch

La Conch Lighting have launched two new additions to their Concherto range of low voltage display light fittings, Encore and Finale. The Concherto range includes ceiling recessed and cable supported systems with a fully flexible head that swivels and tilts up and down.

The Encore light fitting is a decorative design comprising two discs, either acrylic or metal, between which a 360 degree swivel mechanism rests. This leads, via two rods, to a barrel style lampholder, finished in chrome or paint, with a handle for easy positioning. There is no visible wiring. It is designed to take MR16 dichroic lamps and is available in bare wire, ceiling or wall mounted versions.

Finale is a new variation on the standard Concherto range. It is designed for use with either bayonet cap metal reflector or MR16

dichroic lamps. It features a handle for easy positioning and swivels 360 degrees and is available in bare wire, ceiling spots, drop spots, panel mounted and systems mounted and is finished in either chrome or paint.

For further information contact La Conch Lighting, Eleven Olympic House, 317-321 Latimer Road, London W10 6RA. Tel: 081-968 9832.

Low Energy Adaptor

Economy Lighting have designed and manufactured a new lighting adaptor, the ELDL 50, which will immediately convert existing spotlights or downlights to low voltage use, therefore cutting the energy consumed by up to 66%. The unit has been designed to directly replace an existing ES lamp and its compact size makes it suitable for virtually any ES fitting available today.

The secret, according to Economy Lighting, is the adaptor's built-in, unique toroidal transformer which, as well as offering reduced energy consumption, produces a clear, extremely white light. The new lamp also produces a cooler beam, as heat can pass back through the dichroic reflector of the light source, thus providing a more pleasant environment, prolonging the shelf life of perishable goods and reducing air conditioning costs. Economy Lighting claim that the ELDL adaptor, with its built-in transformer, will pay for itself in under twelve months in energy savings, when compared to traditional lamps.

For further information, please contact: Economy Lighting Ltd, Unit 6, Barratt Way, Tudor Road, Harrow, Middlesex HA3 5PF. Tel: 081-863 0943.

Technology Combo



In what appears to be a unique move for both companies, Italian mix masters dB Technologies have designed the L.A.S. Series mixing consoles incorporating an optional one second digital delay designed by US chip designer and manufacturer, DigiTech.

Offered in 12/2, 16/2 and 24/2 configurations, features of the L.A.S. Series are 8 channel auxiliary busses, 3-band equalization with parametric control of the mid range, 8-band stereo equalization at the output stage, LED bargraph metering with peak memory, and 100mm professional faders.

L.A.S. Series signal to noise ratio is typically better than minus 124dB, statistics more often associated with broadcast quality consoles, say dB.

For further information contact international distributors Trevor Cash International, 1 John Oliver Building, 53 Wood Street, Barnet, Herts EN5 4BS. Tel: 081-449 5566.

Fairlight CVI Back in Action

After an absence of 18 months, the popular Fairlight CVI video digital effects units are now available again, and Xylo has been appointed exclusive UK distributor.

The CVI's functions (including captions and messages) previously acquired a considerable following in clubs and discos with video systems. The current range, much enhanced over the original models, continues to offer exceptional value for money. There are three CVI models and the range includes the dual channel 'Entertainer' and the fully fledged, component, 'CVI Plus'. Xylo will also be offering a CVI interface as an option for their recently announced 'Turbine' music/video system. This interface will integrate CVI effects with the many other effects and capabilities of the Turbine.

Xylo, whose experience with the CVI goes back to the original models, will be offering full technical and user support. Further information from: Xylo Ltd. Tel: 071-359 3509.

High Tech Tuner

Planned Equipment have recently introduced the PGR 1130 AM/FM tuner — the latest addition to their extensive Bouyer range of professional sound equipment. The compact PGR 1130 is manufactured to the highest specification for a long and trouble-free life in the most demanding of commercial environments. It has a built-in memory capability of no less than 18 FM and 6 AM stations, plus an auto/manual search facility and digital display.

Measuring 425mm(w) × 325mm(d) × 49mm(h) and weighing just 4kg, the PGR 1130 is compatible with all of PEL's top-quality Bouyer range of amplifiers. Full details are given in a new catalogue freely available from PEL. Contact the company in Northolt on 081-841 6251 ext 201.

Snakeless System

Replacing outmoded multicore, the dB Snakeless System carries all signals from stage to mixing console, through an inexpensive lead, no thicker than a standard microphone cable. All audio signals transmitted are then digitally encoded and decoded by two small boxes that sit by the stage and mixing console.

Until now, live sound, broadcast engineers and road crews have had to contend with heavy, time consuming, unwieldy multicore cables that place limitations on the sound quality, in the form of reduced bandwidth. However, Italian pro audio design house Entel has developed the Snakeless System, a revolutionary new solution to old problems. Frequency response of the Snakeless System is 20Hz-22kHz at zero dB and 19kHz at -3dB. Dynamic range is 117dB. For further information contact Trevor Cash International, in Barnet. Tel: 081-449 5566.

Vitavox Stands



A five strong range of high specification microphone stands, manufactured to the exacting technical standards of the broadcast industry, are available from Vitavox Limited. Used in concert halls across the world, these lightweight yet sturdy stands are universally adaptable to accommodate any microphone or extension.

The desk stand has a 127mm diameter base finished in black gloss with an anodised aluminium collar. The table and banquet stands, with 190mm diameter cast iron bases can extend from 292mm up to 762mm. The short and long pedestal stands extend from 484mm up to 813mm, and 1029mm up to 1905mm respectively. The Pedestal models feature a 206mm radius cast iron tripod base. The tubes for all four models are finished in anodised aluminium. Further details are available from Vitavox in Middlesex. Tel: 081-952 5566.

Fane Brochure

Fane Acoustics has recently published a new brochure. The brochure details an updated collection of Fane's pro-audio products. The aim, say the company, is to offer the best and most popular products from their wide range of different models, whilst streamlining the number of available variations. This will allow the implementation of effective quality and cost-control procedures.

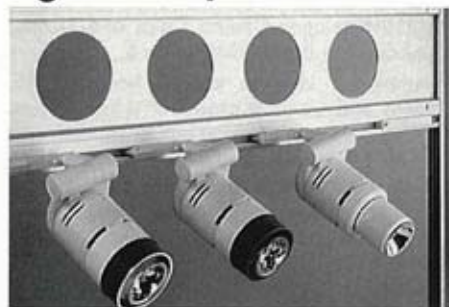
The new brochure is available on request from Michael Wood at Fane Acoustics in Batley on (0924) 476431.

Silverbeam Searchlights

Silverbeam searchlights, are the newest addition to the Phoebus family of lighting products. The searchlights are designed to produce maximum beam candlepower for use in architecture, theatrical/motion picture production, advertising and special event lighting applications.

Model sizes include PSL-9", PSL-14" and PSL-20" with wattage range of 1,000 to 7,000. A specially designed roodium plated, electro formed reflector is used to maximise the output of the xenon lamp. Lightweight rugged aluminium housing and bulkhead combination insure years of safe, reliable service. External focus control allows the operator to quickly go from a collimated narrow beam, for maximum candlepower, to a wide flood pattern. For more information, contact Phoebus Manufacturing in San Francisco. Tel: (415) 550 1177.

Lights on SpaceFrame



System Freestyle has produced SpaceTrak, a new lighting development for their award-winning SpaceFrame modular structure system. SpaceTrak is a structural beam section incorporating a mains voltage lighting track and is offered with a range of low and mains voltage luminaires.

Available in a wide range of finishes, with either plain panel or circular-hole configuration, SpaceTrak will also interface with other modular display systems and is equally viable as a stand-alone decorative lighting system.

For more information contact System Freestyle Ltd., East Street, St. Ives, Huntingdon, Cambs PE17 4PD. Tel: (0480) 65212.

Longlife Lamp

Bush Nelson have entered the halogen heating market with the introduction of their 1500 model. It features a 1500 watt linear tungsten halogen longlife lamp, providing over 5000 hours of heat, ruby coloured sleeve to reduce glare and a precision designed reflector for maximum efficiency.

The 1500 is completely silent in operation, is totally clean in use not producing or circulating dust and unobtrusively provides a comfortable, warm environment. Installation is quick and straightforward with wall or ceiling mounting options. Operation is by a simple on/off switch, and a dimmer can be fitted to offer greater controllability. For further details telephone Bush Nelson in Crawley on (0293) 547361.

A Weld Beater!

Angle-X Structural Systems, of Braintree, have developed a new connector system called 'Anglex 25'. It is primarily used for joining 25mm steel or alloy square tubes. It will also fit a variety of profile, cable, rod or gantry systems by using special Anglex adaptors. The patented method of connection is compatible with any standard M8 thread. Further information can be obtained by contacting the company at their Braintree head office on (0376) 23461.

EXPOMUSICA MADRID

Ruth Rossington gets warm in Madrid, but says PLASA will be hotter

Though Spain promises great things in the next few years, the market remains somewhat insular. Expomusica, recently held in Madrid reflects this introspection. The majority of companies exhibiting were Spanish with most foreign manufacturers/distributors preferring to be represented on their respective agents' stands. So what was there?

Technoradio were employing Mephisto from ProgramSistem to provide backdrop to a visually stunning laser display from their own range of specialist systems. Advanced Lighting Systems' John Macphail was putting the recently-launched Enigma Micro through its paces on the **Leisure Investment Corporation** stand, whilst **Coperlux** locked themselves into a corner to demonstrate a range of SGM and own-manufactured specialist lighting effects, most notable among them SGM's Vision 2 and their own new effects, the 250W halogen Aladino, Color Rain, Tizona, Rainbow, and the 1000W Rayon 6.

Ambiance Lumiere played host to TAS, Collyns and Coemar products, whilst various companies made their individual appearances on the **Cyp Internacional** stand. Laserpoint's Aquarius stood alongside a trio of Vari*Lite's and the mini Artisan control console, whilst from Avolites there was the QM500-TD, together with Q-Patch, decoders and the TV-48 25 DMX dimming system, launched at Siel. Ludwig Pani's BP6 HMI 200V projector was going through a loop projection process, whilst corporate logos, courtesy of Vari*Lite's, swirled the stand. The 4kW Skytracker provided rotating illumination, and the Pani BP6 Gold took pride of place — 6000W of sheer power.

Kreluz are Spanish distributors for JEM, Light Processor and Studio Due. From Light Processor, they had the Commander 2 series, from JEM, various fog machines and from Studio Due the Top Scan lighting system which formed the basis of the continuous light show, together with their own range of Arco lighting effects.

JEM products were also to be found on the adjoining **Satel** stand where Teatro's recently introduced Acuto, Tratto and Talento spotlights were also in demonstration. One interesting new product that Satel have developed is the Swivel, a projector, which is remarkably similar to the Vari*Lite, but a lot less powerful.

Rosco Espana displayed the 1300, 1500 and 4500 fog machines, together with fluorescent paints, a complete range of gobos and Supergel. **Bose S.A.**, in an enormous pavilion-type

construction, had an impressive display of the Acoustimass bass system and the 1800 Series 3 range of system controllers, active equalisers and amplifiers. Italian-based **Spotlight** had a whole host of familiar names on stand. Thomas, Jands, Rainbow, Tomcat, Lycian and their own range of effects lighting.

Laboratorio had the complete range of their own disco and related lighting effects, plus the high-rated Xenon 2500 follow-spot. The stand also featured the LR Series of effects lighting and the company's own fog machine, the H-1000. French company **Stacco** were staging a full display of trussing equipment in preparation for the imminent launch of their Spanish division.

Astro Imagen had ADB's Le Tenor, alongside various followspots. The stand also featured Syncrolite's Miniarc Series II which was suspended from Optikinetic's Trilite. **Clay Paky** had an enormous structure, as at Rimini, in which they ran a light show performed by Carl Dodds and John Lindsell, this time with the addition of the new Superscan and Golden Scan '2'.

LCC Systems ran an 'iluminacion espectacular' which was dominated by the Ufo HMI 575. Soundcraft were represented by Spanish distributor, **Lexon**, who were displaying the 200 BVE video post-production mixer, together with the VSA 24 serial interface unit. Celco's distributor, **Sadepra**, was showing a selection of both Celco 88 and Panorama range consoles, it being the first showing for the latter in Madrid. Cerebrum were also on the stand, displaying the Powerdrive range of equipment stands, together with the German-manufactured Posi-Spot and ACC Colour Scroll system. Also on show were the new Anytronics range of Series 192 dimmers, together with the Light Systems 1 and 2. Light and Sound Design's Colour Mag colour scroll system was also in evidence.

Show Trading were displaying Multiform products. New to Madrid were the Aquarius 18 and Rakpac 605, with others on display including the Scorpio, Rakpac 610, Quattro and Multiphase. Allen & Heath products were on the stands of **Multitracker** and **Exel**.

Madrid-based **Stonex** were exhibiting a range of various companies' products. New to the Spanish market were the Neithammer follow spots; the 2500W and the profile zoom 1kW. Avab's Expert, for which Stonex are exclusive distributors, was displayed in tandem with the Viking 2, a new generation of dimmers, and the

Midi. Central to the stand was a water fountain specially developed by Stonex, which featured in a laser presentation choreographed in conjunction with Tarm lasers. The Spanish company also had a new line of digital dimmers for fixed installations, the Digital 3001 and 3002.

Sapro had their, by now, familiar trailer tethered to the upper floor featuring the Scanlight 250 and Syncotron PLX amongst other products. **EuroLux** and their space cannons were also to be found on the same floor, as were **Strong Lighting** who used the interior of a large black tent to demonstrate their complete range of lighting effects and smoke machine equipment. A short walk from Strong stood the imposing edifice to **Coemar** and **Lobo** who were sharing a stand. Lobo's Laser Control Systems are the world's first systems to be based on microprocessor transputer technology, and also the German company claim, the fastest. A massive coherent highlight laser system was on display, available up to 30W Argon and 8W krypton. The Coemar team were on hand to add that certain touch of Italian charm. Many products recently launched at Rimini were displayed including Colorbeam, with eight selectable dichroic colours; Dinamo, a condenser optical system with parabolic and plano-convex lens; the Testa range of professional followspots; and the Ritmo, a computerised projector for animated pattern effects.

Kremesa mounted the complete showpiece for Expomusica. Central to their light show was the Genesis which features two Par 56 100W lamps fitted to each of the five petals, which unfold to reveal 500W halogen floods, a high-power 1200W flood and twin high-power strobes. Also on the stand was Dichrobotos, and new accessories Trazzo and Zzarpa, together with the re-designed Sinchro-Bar. As distributors for High End Systems, Kremesa showed Intellabeams, Vipers, Color Pros and Dataflash units. It was also the first showing of the F-100 smoke machine. Strand were also to be found on the stand, their Lightboard M Junior and Gemini 2+ lighting console are new to Madrid.

I have no intimate knowledge of the Spanish domestic market, but certainly the view of many British visitors to the show was of an 'end of term' feeling after a long run of spring exhibitions. In their view the next real event, and platform for product launches, will be PLASA's own show in September.



LCC's Ufo HMI 575.



Swivel: Vari*Lite lookalike.



The Genesis effect — central to the Kremesa light spectacular.



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TOA LAUNCH PROCESSED SOUND

Ben Duncan provides the technical detail

Japanese pro-audio equipment manufacturer Toa have recently introduced their first processor-controlled loudspeaker system. Called the SR series (a name which clashes directly with a similar product made by Celestion, introduced in 1986), the system comprises a full-range controller AC-F1 for use with its complementary SR-F1 enclosure, and an add-on unit AC-L1, for the matching SR-L1 sub-woofer. The add-on AC-L1 is normally connected in line. The overall processing path provides the usual active crossover, followed by equalisation, polarity reversal (for the sub-woofer), phase alignment and low-side signal delay at the crossover points, and active loudspeaker sensing.

The loudspeaker sensing involves bringing the amplifier outputs back to the processor, for monitoring. In common with some other up-market loudspeaker processors, when overdrive happens, an input-output comparator (IOC) turns down the input drive via a VCA. Overall, it's able to catch and prevent amplifier clipping, ideally preventing damage to drive-units and hazardous distortion.

Compared to other makers' second generation loudspeaker processors, there's no sensing of thermal and excursion perils. Toa claim their (admittedly chunky-looking) drive units have been designed to be rugged enough to perform reliably, just provided the amplification isn't overloaded, the very point the processor addresses. The active equalisation includes basic 'loudness' compensation.

At high drive levels, a dip is introduced between 3 and 4kHz to take out the frequencies that are most apt to be painful and/or interfere with human communication.

The SR-F1 full-range enclosure is trapezoidal, so several can be rigged to



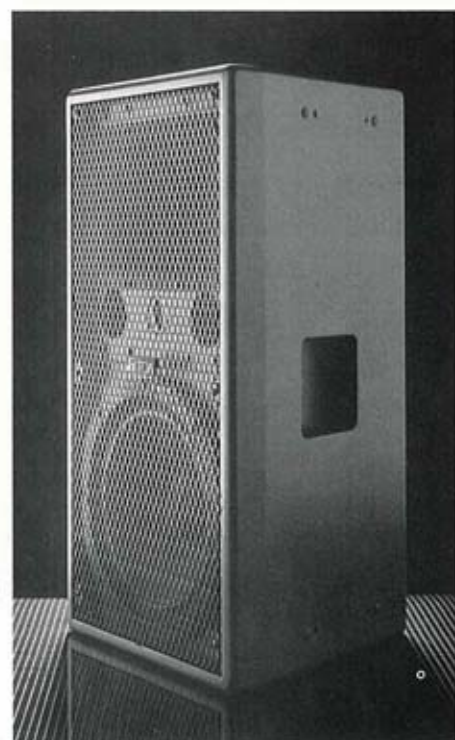
Toa's SR Series processor controlled loudspeakers. The SR-L1 subwoofer is shown on the left.

simulate a point source. The cabinet contains a 12" driver with a large magnet (16kGauss) and new magnetic geometry which helps focus the flux where it's needed. Midrange and treble is provided by a 60° × 40° LE-series constant directivity horn coupled to a 35mm (approx 1 1/4") compression driver. The cabinet is made from dense, acoustic-grade plywood finished in fibre-glass reinforced plastic coating (rather like JBL's modern touring boxes), which should make it thoroughly 'road proof'.

For outdoor use a cloth covering on the rear of the grille prevents the ingress of rain and the enclosure comes ready-fitted with four aeroquip flying fittings. The matching SR-11

subwoofer enclosure employs two 15" drive-units with an extra long voice coil and outsize magnet, giving 'ultra-linear' bass reproduction. The vented enclosure has been computer optimised for a flat response down to low bass frequencies.

Toa have another new enclosure for 'mid-market' PA systems and installations. Like the SR-F1, the SF-60 cab is trapezoidal, vented and contains the LE series 90° × 40° (h × v) slot tweeter. The cabinet contains a -18dB/octave mid/hf passive crossover together with a passive hf delay and equalisation. The mid and hf horns can be re-positioned through 90°, allowing either vertical or horizontal mounting.



Toa's SF-60 3-way trapezoidal.

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Laser Grafix

Laser Grafix Sales & Hire have recently installed a seven colour laser into the Camden Palace in London. The equipment includes the use of a 4 watt mixed gas coherent white light laser in conjunction with Laser Grafix' Prisma controller.

The system incorporates a precision built-actuator beam table, which enables perfect beam sculptures and guaranteed accuracy without drift of beam into remote target mirrors. The Prisma controller is capable of producing quality graphics not yet seen in any nightclub in the UK, claim the company.

Fallows Too

Fallows Too is a new development for European Leisure, scheduled to open in early July. Based near Speke airport on the outskirts of Liverpool, the club's design scheme has been put together by Bulldog Design of Leeds, with lighting by Hi-Tec and sound by Level Acoustics.

Quartz Systems

Quartz Systems have recently completed a sound and lighting installation in Reading for the Leisure Times/Themes International group. The installation at 'Washington Heights' consists of a Turbosound sound system and custom-designed lighting structure which includes four Coemar Brios and the first installation of Advanced Lighting System's Micro Enigma.

LSD in the Barn

Following a fire last October, The Barn nightclub in Penzance was burnt to the ground: enter LSD's Dick Carrier and team. The total rebuilding is estimated to have cost £500,000 of which £70,000 was put aside for sound, lighting and video equipment. The installation was carried out for LSD by PSD of Newquay, and The Barn is due to re-open on June 9th.

Other news from the Croydon-based company includes two complete refits for Alinhurst Ltd - New York, New York in Swindon and Libertys in Ipswich. A major sound system has been installed by Trevor Misson and Keith Hardy for LSD at London's The Park. (More of which next month).

NJD with GSM

Nottingham-based manufacturing company NJD have announced a joint venture with laser manufacturers GSM Design of Manchester. GSM are now using NJD lighting controllers to operate their lasers, and the products will be marketed by NJD.

The Installation Services side of the company has just completed several installations. A PA system for ADT car auctions in Gwent, Wales and a PA paging system at the head office of the East Midlands Electricity Board. On the export front, NJD have just shipped their first consignment to their US distributors Trackoman in Miami and Martin in Canada.



Tobysound design Masquerade at The Point

Bass Leisure plc has opened Masquerade, its new nightclub at the £11 million Point complex in Bracknell which includes cinema, 10-pin bowling and café/bar. Staffordshire-based Tobysound specified, designed and installed all the lighting and sound equipment in the complex. One interesting component of the installation in the club is the automatic volume control and db limiter designed and manufactured by Tobysound, ensuring that the sound levels in the nightclub do not contravene the new sound laws.

Equipment List:

2 x Quattro 64 channel Enlite
4 x 12 way touch panels

2 x Trilite octagonal rigs
8 x Sapro Crazy lights
4 x LED U-Rays, 4 x LED Blades, 2 x LED Lightflowers
2 x FAL Kaymans, 2 x FAL Alligators, 2 x LED Scanflowers
16 x Sapro Magic One spots
8 x Sapro Magic Two spots
24 x Spartans, 1 x SGM Vision 2, 4 x Proto 250s
4 x Syncotron 500s, 1 x halogen Crazy Moon
16 x Color Pros, 14 x Dicrolights
4 x 4 Memotech video wall with reflex controller
1 x Citronic SM 650 mixer
3 x Citronic SPX graphic equaliser
2 x Citronic SPX 541 crossovers
1 x Tobysound TSR CA control amplifier
2 x Citronic PPX 900 amplifiers
2 x Citronic PPX 1200 amplifiers
4 x Cerwin Vega sub bass speakers
2 x Cerwin Vega D32C mid high units
16 x Wharfedale 2180s



Dundalk Tivoli

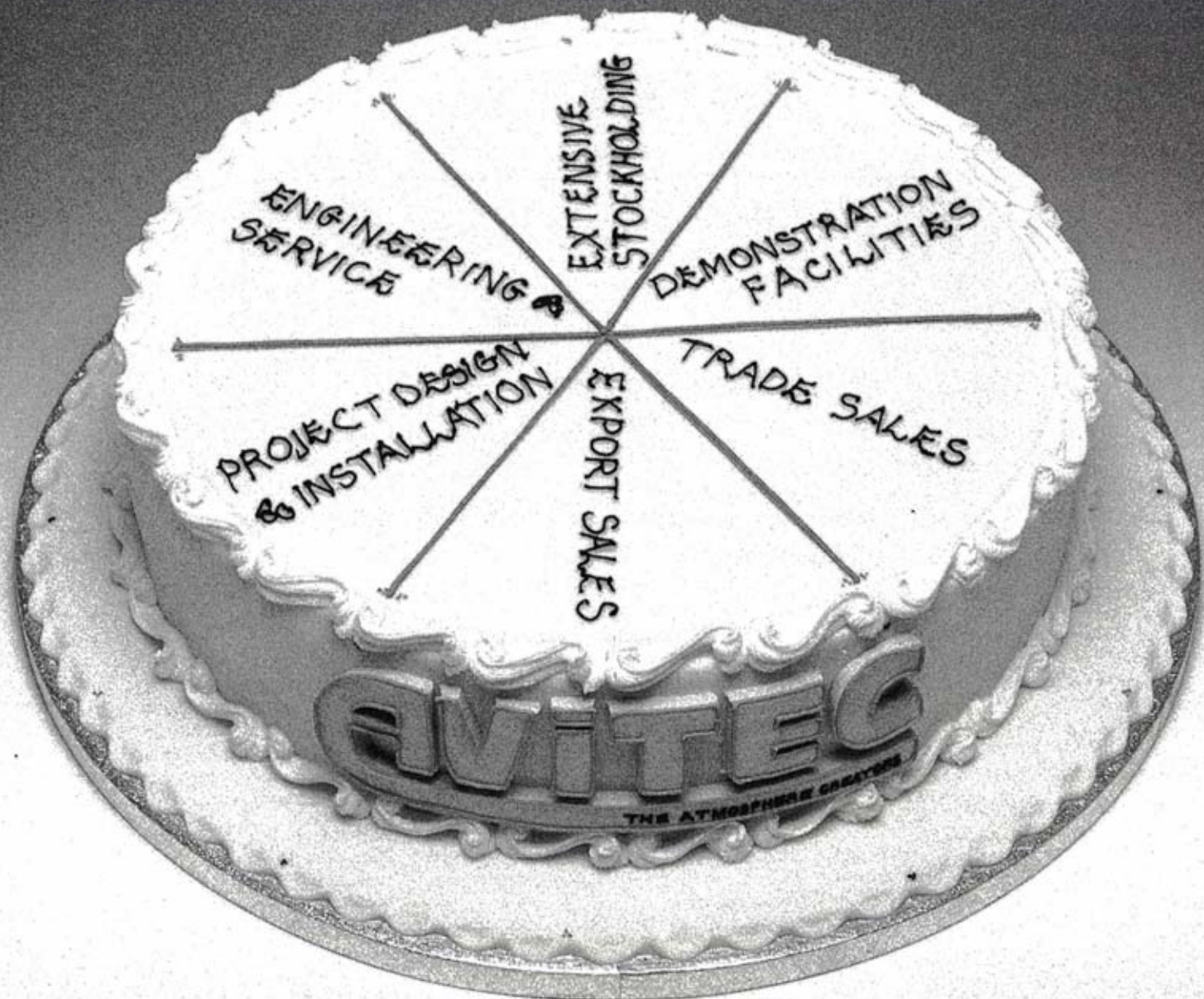
Exciting Lighting and Decor of Bangor, Northern Ireland have recently overseen the entire refurbishment of Club Tivoli in Dundalk, having installed all the fittings. Trilite moving rig was supplied by Lynx Lighting who also provided all the lifting gear. Mode Electronics devised and saw through the wiring format on the control console, whilst Batmink supplied all the lighting hardware.

Equipment List:

6 x Team MSR 400 and controllers

6 x Coemar Spartans, 2 x Coemar Plovra
36 x Ray lights, 4 x LED Lite Flowers
2 x Lampo Endcoes, 4 x Studio Due Magic Flys
2 x Studio Due Fly Rays
8 x Megastar strobes
4 x 8 Head Helicopters
4 x Lampo Derbys
8 x 20 head Helicopters
2 x Optikinetics White Lightnings
JEM 428 Smoke Machine mode controllers
4 x Lynx winches, 6 x Bose 802s, 2 x Bose 302s
2 x Bose Acoustic Wave Cannons and controllers
3 x Hill Audio 3 DX800 amplifiers
1 x Citronic mixer, 2 x Citronic EQS

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10 years experience as probably the largest U.K. based supplier of leisure orientated sound and lighting equipment to retail outlets, designers and installers gives Avitec a unique knowledge of the requirements of the trade. The installation of a new multi-user computer system allows us to process and dispatch orders quickly and accurately.



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After literally hundreds of successful installations from wine bars to roller rinks the recently expanded and computer-aided Design Department has the expertise and creative talent to design the most spectacular and cost-effective lighting and sound systems, for installation by one of our approved agents, or on a 'turnkey', conception to commissioning basis if required. This service is available worldwide.



Extensive Stockholding

Stocks worth over £0.5 million, held at our Hitchin facility and administered by our new stock-control computer system, mean a vast range of sound and lighting items available for immediate despatch.



Engineering & Service

Another recently expanded area, the Avitec Engineering Department offers complete service backup for our own installations, contract servicing agreements for any venue, repair of individual items, advice on, and supply of spare parts, and one-off custom modification work.



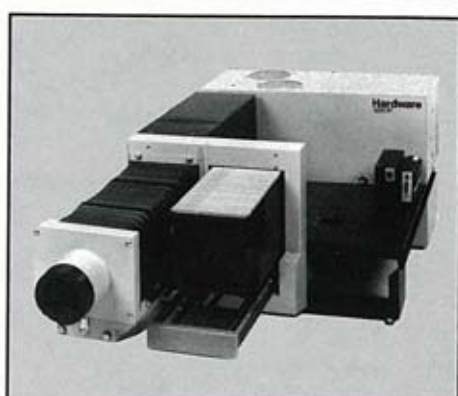
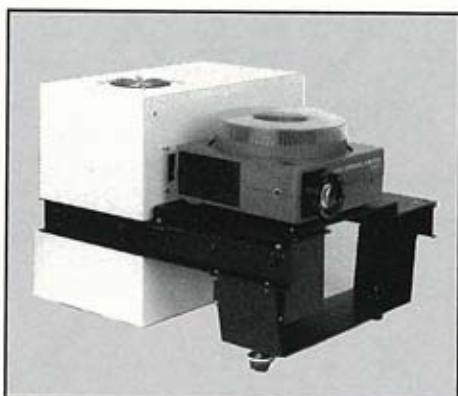
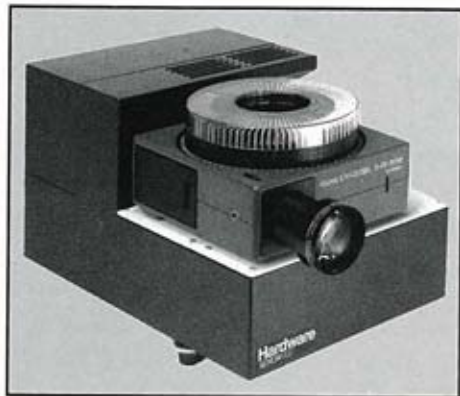
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XENON 600 W - 4 000 Lumens 24 x 36 mm slides

A compact projector that enables ambient light to be maintained for taking notes in a conference room. Image up to 7 metres wide.

XENON 1 000 W - 8 000 Lumens 24 x 36 mm and 60 x 60 mm slides

The 24 x 36 mm model is often used in multi-vision mode for conferences, sales conventions and stands. Image up to 10 metres wide.

XENON 1 600 W - 14 000 Lumens 24 x 36 mm and 60 x 60 mm slides

Same applications as the 1 000 W projector. The 60 x 60 mm model can be used for theatre backdrops, giant posters, and projecting decors for films and television programmes. Image up to 14 metres wide.

XENON 4 500 W - 70 000 Lumens 180 x 185 mm slides

Designed for giant projection in large auditoriums, on to monuments, châteaux, inflatable structures or any medium created for a specific event. Image up to 40 metres wide. The 4 500 W projector is compatible with standard multi-vision systems. The slide changing is microprocessor controlled with a removable 40 slides tray and a rapid search random access.

XENON 7 000 W - 100 000 Lumens 180 x 185 mm slides

Same applications as the 4 500 W projector. Image up to 50 metres wide.



FOLLOW SPOTLIGHTS (1 600 TO 7 000 W)

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XENON 1 600 W - 16 000 Lumens. Use distance : 15 to 150 metres.

XENON 2 500 W - 27 000 Lumens. Use distance : 15 to 200 metres.

XENON 4 500 W - 60 000 Lumens. Use distance : 15 to 300 metres.

XENON 7 000 W - 85 000 Lumens. Use distance : 15 to 300 metres.

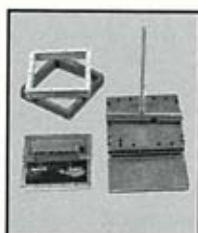
Hardware for Xenon offers a "short model" follow spotlight in 1 600 an 2 500 W versions.



SKYLIGHTS (2 500 TO 7 000 W)

The Hardware for Xenon skylights are leak-proof. The beam movement can be programmed via a 0,10 volt controlled mirror and 0,10 volt controlled shutter.

**XENON 2 500 W - XENON 4 500 W
XENON 7 000 W.**



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ON TOUR

Catriona Forcer

Pete Barnes has recently returned to the touring scene designing a stunning show for the popular Lisa Stansfield. Pete decided to use Syncrolites for the first time and his comments on their performance are both interesting and constructive.

Also reviewed this month is the top Australian band Midnight Oil and their designer Nick Elvin who states that he draws his influence from the bush. Hmm... must do something for him as the results were certainly good!

Lisa Stansfield Town and Country Club LD: Pete Barnes

"I decided to go with Syncrolites because I feel that these days you should have a versatile moving light which has gobos and can change colours. I saw Syncrolites at the PLASA show and it seemed at the time the best possible alternative to Vari*Lite. When I knew that I was doing the Lisa Stansfield tour I sent a fax to Jack Calmes in the states and then we contacted X-Lites in Paris who agreed to let us have a system at a price that Jack and I had determined.

"We had a few problems getting hold of the system because the people shipping them from France put them on the same truck as some hazardous chemicals without the correct paperwork. Consequently, they arrived three days later than planned.

"I think that they are quite a versatile unit, but unfortunately the software hasn't been developed yet that will run them properly off the Celco board, which is what I had hoped they would do. They are intending to get that ready for us in time for the last couple of gigs. It's interesting in the way it works because you can assign a memory from the Syncrolite computer to a memory on the Celco board. Then every time you push the fader up, the first 10% of the fader executes the cue and the remaining 90% fades the lamp in. Alternatively, if you hit a flash button it immediately executes the cue and brings the lamp on instantly. At the moment there is a bit of a problem in that if you put up the two faders it gets confused as to which of the two cues it's meant to be doing and it tries to self destruct which happened a couple of times in rehearsal. I also feel that because they use four lenses, none of

which is a coated lens, there is quite a severe light loss in the unit.

"I'm not sure how they've done the dichroic filters but I think there's a certain amount of reflection off those which consequently means light loss. They are not as bright as a Vari*Lite which makes things a bit difficult because it means I've either got to keep my light levels low enough on stage for it to work, or I can virtually turn my lighting off and let the Syncrolites do the odd little fill piece where you can actually see what they are doing. A Vari*Lite can come in over the conventional light system with enough power to enable me to maintain the ordinary light levels.

"We've programmed them in a similar fashion to how we would a Vari*Lite. The only problem is that with their lack of brightness at times, it's very difficult to determine what to do with them. If they are in a wide flood with the iris fully open it tends to create a haze rather than a defined beam, so I found I had to keep the iris down quite tight to get a defined beam. If we can get the Telescan system, which we have to interface with the new Celco Panorama board, it'll be interesting because it'll give

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Above and below: three scenes at the Town & Country Club with Lisa Stansfield. LD: Pete Barnes.

more control from the Celco board. The only disadvantage being that, because it's a mirror operated unit as opposed to a fully moving head unit, there is limited travel on the beams. They are not as versatile as the Syncrolites but they'll be substantially brighter. At the NEC recently, we shot a TV show and used Telescans for that reason.

"As far as I'm aware it's the Syncrolite end that hasn't completed the software and not Celco. I expect all software to have teething problems in the early days. The Syncrolite itself is quite a reliable unit and it performs quite adequately and smoothly.

It's not as clever as a Vari*Lite. I think the light output is going to be quite a stumbling block for them unless they can do something about it. If they are going to rival Vari*Lite or Starlites then they have got to be of comparable brilliance.

"One of the criteria that I was given was that Lisa Stansfield had to stand out from the rest of the band and that the show must not look too cabaretish, but should have a classy look to it. At the Town & Country Club, because of lack of stage depth, we've had to cut out a lot of the lighting that goes behind the screen; we're missing the backdrop which comprises of a number of

'neon' signs which are back lit through a Rosco screen. In this show we are using the other two backdrops more to compensate. One of the hardest things about doing this particular show is that the venues range from the Town & Country to the NEC. One is a club with a capacity of 2,000, and one's an arena with a big stage and an 11,000 capacity. It's quite hard designing the show, trying to hit somewhere in the middle, so it'll look good at the NEC and at the same time actually fit into somewhere like the Town & Country without losing too much of the effect."



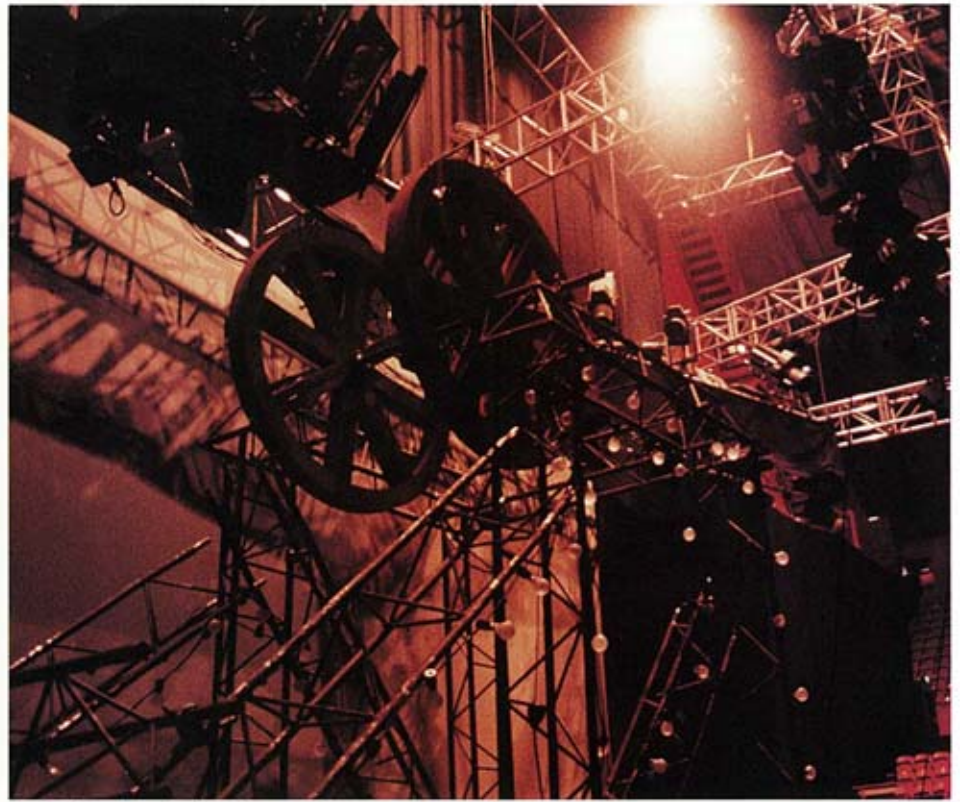
Midnight Oil Wembley Arena Nick Elvin

Nick Elvin has been working in the lighting industry of his native country Australia for nearly ten years. Eight of those years have been spent with Jands which eventually became Samuelsons. The first band which he designed for was mainstream Australian band 'The Hitmen' and then 'The Angels', a heavy metal band which has been around for 15 years. Since 1986 Elvin has spent nearly all his time working for Midnight Oil, although in between tours he goes out as crew chief for Samuelsons. This is a necessity, he pointed out, as there are not that many bands in Australia which are at a level to afford a good size production and pay.

"When I first started with Midnight Oil 'Diesel & Dust' had just been released," explained Elvin. "They had done an Outback tour to all the Aboriginal missions taking the basic backline gear and playing in the middle of the desert. So we tried to make the set look like that when we came to England to play the Town & Country Club. We had a stuffed dingo and kangaroo on stage as well as old car bonnets, barbed wire fences, windmills and even the amps stood on rusty, old oil drums. It looked fantastic for a pile of junk!

"We've evolved that idea for this tour by putting a mine head on stage and using desert influenced colours like reds, ambers and yellows. This is the first time that I've used Vari*Lite's and I'm learning as I go along because we had a huge three days of rehearsal in Australia. At the first gig the power went down just after the doors opened and my desk dumped everything. There was a mad panic. Then a fork lift truck ran over the multi-core so the desk fried three songs. That was the first show and I was terrified. Now everything is worked out and I feel a lot more comfortable to the extent of putting a few more tricks in.

"I like being thrown in at the deep end at times, it can bring me together much better than a lot of practice. In some shows, the Vari*Lite's spend more time out in the audience than they do on the stage but I try to get away from that. There are a few moves in them but usually they are more for the colour and change of colour. I've got a



Midnight Oil's minehead.

whole stack of eight lighters with colour changers on them because they love Molefays and so do I. The band likes to cook, to be hot. Some of the gigs we did in Europe were packed and very hot. It's funny because when the band start to cook you can see the top of Peter's head start steaming and then you know it's a good gig.

"Midnight Oil are a very intense band on stage even in the more mellow numbers. They have some ideas on the lighting which is good, but mostly they leave it up to me. Both the fast and slow numbers have a particular back beat which is driving all the time. The bass player and drummer are great, in fact, they're a fantastic band, which is why I work for them."

The first gig of the Blue Sky Mining Tour was on April 14th in France and it does not end until next February. After the Wembley date, the entourage departed for a seven week tour of the States and they will return to Europe for the festival run. A gig is planned for Lithuania followed by a tour of Japan, Europe and the States again, and finally New Zealand and Australia where they haven't played a live show since 1987.



Nick Elvin: inspiration from the bush.

Obviously Nick Elvin has not made plans for the end of the tour just yet but he would like to work for either Dwight Yoakim or Metallica one day. "I know it's from one extreme to the other," he admits. "I have to be really into the band to work for them.



Two scenes from 'Midnight Oil' — Wembley Arena. LD: Nick Elvin.

Even if I was offered a lot of money to do a band, I wouldn't if I wasn't into their music. If I can't get into it, I can't do a good show.

"I think that the best show I've ever seen was Pink Floyd last year. I've seen a lot of shows and worked on a lot of international tours in Australia and I find it difficult to sit and watch a show and give it my full attention. With Pink Floyd I could, there was something different all the time. It was just incredible.

"I like my shows to be asymmetrical and one of my pet hates is symmetry. You've got to light the band so that people can see them and you've got to complement the music.

Midnight Oil don't need any flashy tricks because with a seven feet bald guy bouncing on stage you don't need many effects. In Australia I'm a known lighting designer, a bit of a dubious reputation, but I'm known. In the UK hardly anybody has seen my work. I'd love to do a few larger bands but in Australia it's fairly limited. There's the club scene and then a few bands on the international circuit, but I couldn't move from Australia as I love it so much. I could commute. I live in South East Queensland in amongst the rain forests up in the bush. I love the bush and that's where I get a lot of inspiration.


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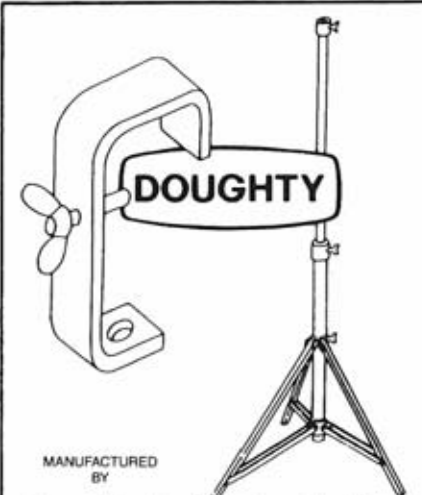
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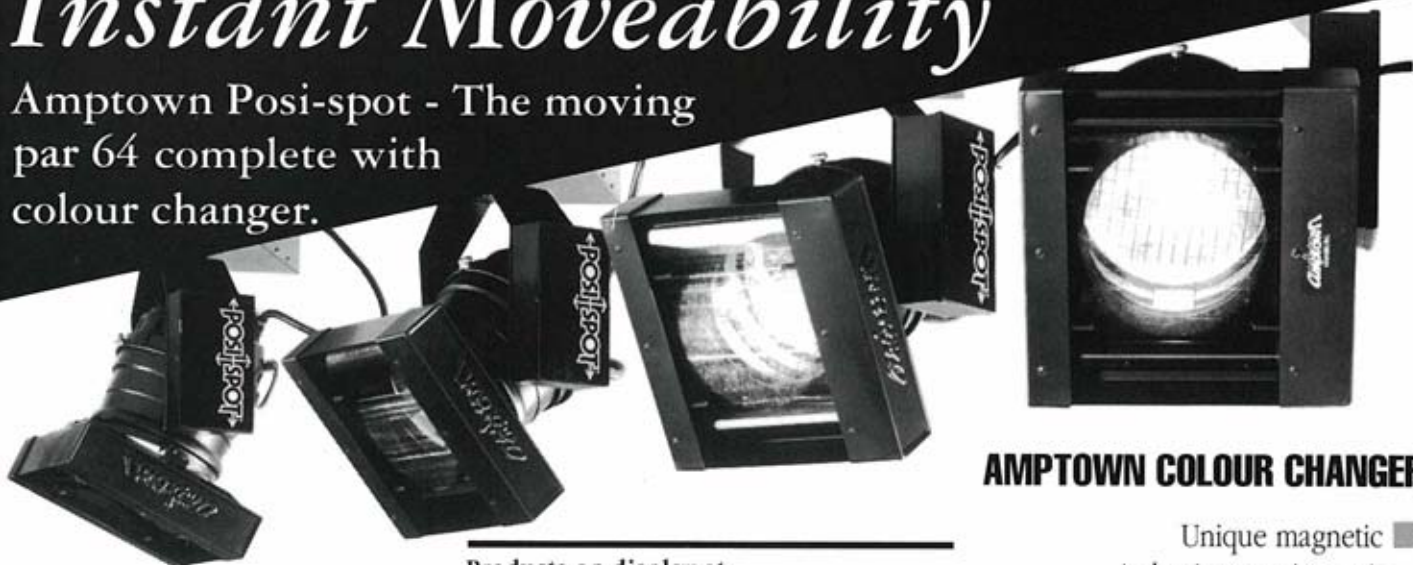
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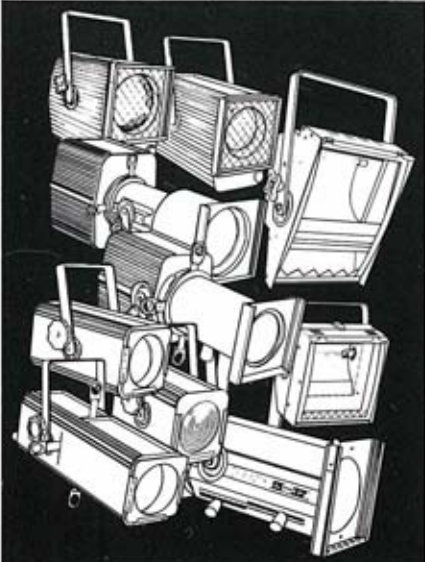
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VIEWPOINT

Matthew Griffiths on Professionalising PLASA's Public Image

There is no doubt that handled correctly PR is a powerful tool with which to build a desirable company image. In the wrong hands however, a poor or low profile campaign can ruin an organisation in the eyes of its customers and the industry in which it operates. Not only should awareness be raised, but the effect must be continually reviewed in order that the campaign achieves its target. Take Syd, an ordinary gas fitter, who featured in a recent series of government privatisation advertisements; whilst he certainly raised awareness of the issue, had one seen Syd, one might have been tempted to tell him a few home truths! But how does this relate to PLASA?

PLASA is a trade association whose main aim is not profit per se but the promotion of its members' interests. However, it would be short sighted of the industry to simply ignore the benefits to be gained from raising PLASA's profile both at home and abroad. Not only would it increase magazine and show sales but also benefit the standing of individual members. The Association has a strong image within the UK, but lack of positive promotion abroad in the past has led to a lower international profile.

The name PLASA is known, but often only through its connection with the Light and Sound Show at Olympia 2 in London, and the Association's magazine Lighting+Sound International. And we must remember that the UK is a forerunner and leader in the entertainment industry and should be seen as such worldwide. PLASA's role must be to promote this image and with it the reputation of its members. In the past few months forward steps have been taken, but more can and will be done to promote PLASA and its members to all international markets to reflect the high regard in which British companies are held.

At home PLASA needs to promote its involvement in all areas of the lighting and sound industry. Although the Association is held in very high regard within certain areas such as the discotheque sector, a legacy from the times when it was BADEM (the British



Matthew Griffiths is managing director of TSL which provide services to theatre, audio visual and live concert touring markets. He started with TSL as a technician 12 years ago, going through stage and production management before becoming a director of the company. He is chairman of PLASA's PR sub-committee.

Association Discotheque Equipment Manufacturers) and more recently the theatre, it is less well known within the relatively new territories of TV, film, studio and broadcasting. This may be due to its diverse and growing range of interests. As PR sub-committee chairman, I feel that PLASA must inform all such areas about the benefits of membership, and attract a wider cross-section. The current membership policy review is obviously relevant, but members must be prepared to become more actively involved in the Association's future development.

New facilities currently being introduced include a book service, a translation service, an export database, and membership meetings and seminars. We are also the only trade association within the industry to employ a Standards Officer. All these steps point to the undeniable fact that PLASA is responding to the needs of our members. So

PLASA head office should no longer be afraid of blowing its own trumpet!

However, individual members must take responsibility for their own promotional activities - it is not enough to simply rely on the Association's campaigns. One criticism that is frequently levied is the lack of informative and well-constructed press releases issued by member companies, and this is easily remedied. A well worded press release with an accompanying photograph often proves most effective. I appreciate that many members may feel that they lack the resources and know-how; the rapid growth of the promotional industry and the recognition of the importance of marketing might be a suitable topic for a future PLASA seminar.

In a world in which communications systems are becoming increasingly sophisticated and widely manipulated to great effect, it is no longer enough to merely satisfy a need. If you don't inform the customer that you can, somebody else will! The old excuse that "I'm too busy running the business to be concerned with all that" - simply means that you might be making excellent products but you may well miss out on making excellent profits. I am not suggesting that you should all go and buy in expensive advice from a professional agency - I simply wish to make the point that marketing should be involved in all aspects of running a business and ought to be considered when deciding upon everyday matters such as pricing, promotion, place and perhaps even product!

VIEWPOINT

If you have a view to offer on any aspect of the lighting and sound industry, why not air it in this column?

Send your Viewpoint to:

The Editor

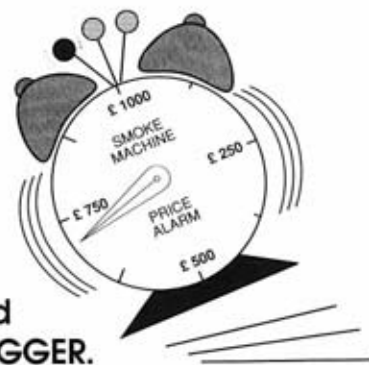
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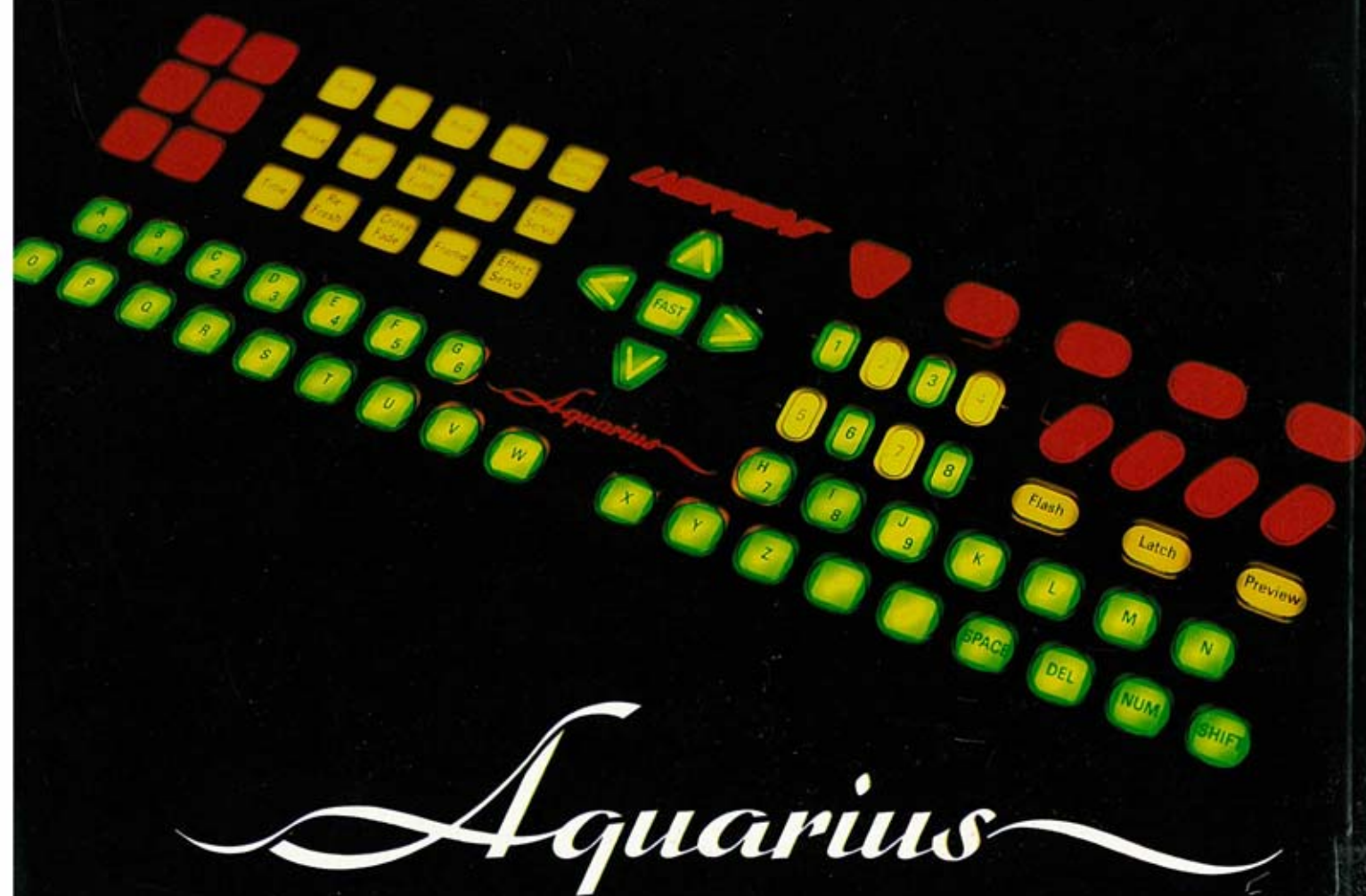
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