

STRANDLIGHT

THE INTERNATIONAL JOURNAL OF STRAND LIGHTING

STRAND in 1987 AB (After Bristol)

I have devoted a great deal of space in this issue of our magazine to the new products and to some older products now made available world wide, which were launched at our recent meeting in Bristol.

I have done this because I believe the events were of great importance to Strand, and that, by definition means of great importance to the technical industry which supports the world of entertainment. And that means they were important to the most important people of all, our customers.

The very heavy coverage given to the Bristol product launch by 'The Stage' and by 'Lighting & Sound International' confirms this view.

Among a welter of new and updated products described in this issue, perhaps the most important is the small and very affordable 'Action' memory system. The importance derives from the fact that it is the first Strand product specified, designed and produced right from its inception as a World Product. The 240 and 120 volt versions are in production simultaneously and Action is now on offer literally everywhere.



At the Strand Spectacular Dinner, Staff from Strand Lighting companies from around the world and guests were addressed by Sir Patrick Meaney (centre) Chairman of the Rank Organisation. Pictured with Sir Patrick are (left) Marvin Altman, President of Strand Lighting and (right) Michael Jukes, Managing Director of Strand Lighting Europe.

And older products that have proved their worth in one market are being made available in other markets. The Leko range of North American spots is a good example of how we are seeking to offer the best we do everywhere where audiences, real or by electronic transmission, are to be found.

To give readers an idea of the importance we attached to the Bristol conference, our agents and dealers gathered from as far as Brazil and Malaysia.

The U.S. company was represented by John Pavaicik, its President and by Bill Groener, its sales and marketing supremo.

Obviously Marvin Altman, the President of Strand Lighting attended and the importance of the whole occasion was underlined by Sir Patrick Meaney, Chairman of The Rank Organisation who was the principal speaker at the official conference dinner.

Some while back we started on the long road towards a truly world wide product range. Well, to paraphrase Churchill, Bristol was not the end, it was not even the beginning of the end, but it was the end of the beginning.

The start of our Strand Spectacular tour, now running simultaneously in Europe and the U.K., was a three day product launch at the Bristol Old Vic theatre.

It took three days because we had so much to show to our staff and our agents - now we are looking forward to showing these products to you, our friends and customers.

Action. The First of the Strand World Wide Memory Systems.

'Action', our new small memory system, has been designed from the start as a world product. It is the first control system from our international R.&D. and we believe it is the first lighting control system that has specifically been designed from the start for complete international acceptability.

Up to this point Strand systems have been primarily intended for the market which developed them. Galaxy in Europe - although many are in Asia and Australia, Light Palette in North America, although Palettes are working in Japan and England.

Action is designed for all markets and will, we believe, bring the advantages of memory control to small theatres, clubs and studios everywhere. And Action is backed everywhere by Strand's unrivalled service support.

Control Systems - The Worlds Biggest Choice - The Worlds Most Advanced Technology.

..... see page 7

Galaxy 3, Light Palette 3, Gemini, Mini Light Palette, Lightboard M, Celebrity Plus, M24, Action and Tempus. We now have a completely unrivalled range of systems, to suit every theatre or studio and the ability to meet your specification, however demanding.

Cantata - the New 1200 watt Range..... see page 4

A new profile range - one lamp house with three alternative lens tubes, plus a PC and a Fresnel. All with new mechanical, optical and electrical features. To go with Cantata the new RSE 29 and RSE 90 lamps are introduced.

Automated Lighting Systems.

Showchangers - PALS (Precision Automated Lighting Systems) Autoscroll, Taskmaster, Parscan and Parscroller and the brilliant new Litescan were all at Bristol and are all available world wide.

The Strand Spectacular



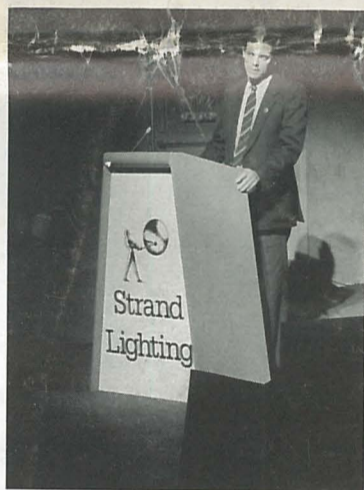
From Brazil Senor Vasquez (R) examines a Leko.



Dan Riley of Zumtobel-Barlitz discusses Mini-Light Palette with Peter Rogers, Strand Canada's National Sales Manager.



Senor Gallego, who sells Strand Lighting in Spain, with an opened up Cantata F



Michael Jukes, Managing Director, Strand Lighting Europe, addresses the conference.



Magnus Derback, of Cine Sweden, our agents in Sweden, gives Cantata a penetrating examination.



Mark Satchell of Light Relief, Cardiff looks very happy with Cantata.



Eike Hoebbel, of Strands German company checks Cantatas revolving gate assembly.



Pat Walsh, Strands Dublin agent (L) Nat Lassinger who represents us in Israel (c) and Tony Brown of Strand discuss our new 'Action' memory system.



We believe they have designs on Cantata! David Hersey(L) and Francis Reid(R) Lighting Designers both.



And finally on stage, four Ladies from Liverpool to test the Lighting. The group are called for no discernable reason, "P.L.C."

Strand Filters . . . see page 6

"Its time there was a new force in the colour and diffusion filter business." Well, now Strand, the oldest company in the business has taken centre stage with three new and revised filter ranges - Cinelux, Chromoid and New Cinemoid.

Special Offer to Strandlight Readers.

As you know, we don't give a great deal away. I can remember that when I joined the company Strand catalogues were so hard to get that their acquisition was set as an initiative test to RADA students by Francis Reid who conducted the lighting lectures at that august establishment.

Well, now any reader may have, simply by asking, the two swatch books that cover the entire Strand Filter range. Better write in quickly - it may not happen again. See the articles by David Brooks and Camilla Aitchison for the full filter story. (Strand Filters are not available in North America).

Lekos Have Landed.

..... see page 6

For years the Leko has been America's leading spotlight, now Lekos have been adapted to meet U.K. and European requirements and the most popular units are available as regular Strand products.

Punchlite

We covered these vastly improved parcans very thoroughly in our issue of Spring '87. Robert Luff, our South London dealers, were good enough to celebrate Bristol by ordering a whole clutch of these, plus 200 Lekos, for their hire stock on the last day of the conference.

Quartzcolor Kits

Mike Collier, the Quartzcolor marketing supremo, stood before an impressive range of kit from our Roman factory, among which I spied the elegant black cases that contain the itinerant lighting man's best friends - his redhead and blonde - kits, that is.

Showchangers.

Again, Strandlight readers are familiar with these whirling dervishes of stage and studio. Well, PAR lamps did a searchlight tattoo one minute and suddenly all concentrated on a lone figure on stage the next.

And during the final burst of song and dance provided by four young Liverpool ladies who call themselves "PLC" they got up to some most tempting movements. The lights, that is, although, on reflection . . .

FROM THE EDITOR



50 years on.

It was almost exactly fifty years ago that the first issue of 'Tabs' from whom Strandlight is directly descended, was produced by Strand Electric.

It was a pocket sized magazine, which continued in this form right up to the sixties, when, Fred Bentham, the Editor who while not actually the founder is the name always most associated with Tabs, retired and the torch was passed to Francis Reid. Francis introduced the A4 format, which continued under the guidance of Phil Rose and of your servant until a couple of years ago when we changed to the present format and more frequent publication.

Looking back at the early issues of Tabs the main thing I notice is the stress placed on information and assistance for the amateur.

It must be said that in the nineteen-thirties the amateurs needed more help than is the case today, because, unless I am wrong, in which case one of the three preceding Editors will smartly tell me, there were very few books on stage lighting available. Harold Ridge's epoch making book, which I believe first popularised the cyclorama, came out about this time and had the great virtue of being able to draw on his own imaginatively lit productions at the Cambridge's Festival Theatre, but I think there was little else.

Today we have Fred Bentham's 'The Art of Stage Lighting', Francis Reid's 'The Stage Lighting Handbook'. American enthusiasts are catered for by 'Scene Design and Stage Lighting', by Parker, Smith & Wolf and of course there is Richard Pilbrow's magnificent stage lighting book. I can't tell you the title because I didn't get a review copy and I was feeling mean at the time, but a super book by one of the world's great theatre lighting artists.

Amateurs - Are You Out There?

I must agree with Mark McMaster (see letters column) who has suggested that more articles from and for amateurs should be featured. If any amateur would like to let us know how he "lit the show", or to pass on any useful ideas, we would love to hear. Some black and white photos illustrating either the effect achieved or a method used would add immeasurably to readers understanding of the points made.

Or, if you have a production you are proud of but do not have time or the wish to write, please get in touch and we will try to work out an Editorial visit.

We offer a small stipend for articles accepted, but we take care to pitch it at a sufficiently modest level to avoid any charge of profligacy. And, perhaps obviously, our own products should star even if they do not constitute the entire cast. But then, as Mandy Rice Davis remarked, "They would, wouldn't they?"

Thoughts on the Editorial Tombstone.

When, in my first year with Strand, I saw Cinemoid being made, I had discovered my ideal memorial.

Cinemoid started life as a large cast block of colour, some six feet long and two and a half feet wide and about six inches thick. After cooling, it was laid flat and a giant carpenter's plane made passed over it, each pass peeling off a Cinemoid sheet.

My destined memorial was to be one of these cast pieces - No. 137 struck me as appropriate, suitably inscribed and set vertically in the soil of Bookham.

Well, now it will never be. Cinemoid is today made by a new continuous process. Still the deep and long lasting colour, still the non flammability, still the semi rigid thickness that makes it so easy to handle, but now at better value.

But never more the beautiful thick slab, so no Editorial memorial. See details of the new Strand Filters in special feature.

Letters to the Editor

Theatre Lighting in the Open Air

Dear Editor,

Strandlight definitely gives worldwide news of the goings on in respect of Theatre Lighting and other Trade news. The Journal is also giving an introduction to the various people and personalities within Strand Lighting all over the world, which is so nice to know.

I am, and have been, associated with the Rank Organisation for several years and my place of operation is Cyprus. However, I do a lot of travelling associated with the Entertainment business and Festivals and my work takes me into various Theatre Halls in some most unusual places and to my surprise I still see in use Lanterns manufactured by Strand some forty years ago... except that in some instances the lamp holders and trays have been changed to accept new lamps.

In my particular case, my work in the presentation of Live shows takes me to many open air Venues and in most cases to Ancient Roman or Greek Amphitheatres many of which are located around the coast of the Mediterranean. The question of sound at such venues has never been a problem, because of the way they were built and sited vis-a-vis the most atmospheric conditions of the area and the seasons they were used. In that respect all is excellent. However, these venues were at the time of their glory used during the day - relying on natural sunlight. Today, one has to light these Amphitheatres. How much knowhow could be offered and what are the best Lanterns to use, without spoiling the aesthetics of the Venue, whether these are Concerts, Musicals, Opera or a Shakespearean Comedy? I am sure that some Lighting designers have visited these or such venues and maybe we could have a paper on this interesting issue... I myself, have tried various lanterns from various angles, heights and distances, but I always say, "It could be better".

I am sure that there are people who would like some enlightenment on this particular type of Theatre Lighting.

Yours sincerely

V. H. Malian (alias Jimmy)
Larnaca, Cyprus.

Has any reader done any open air drama or light entertainment lighting? Our correspondent from Cyprus suggests an article on this subject. Unfortunately, England is blessed with too much rain to have much expertise available within the company on this subject. The only in-house comment was "water and electricity don't mix".

If any reader from sunnier climates has any experience, we would like to hear from them and to share their knowledge with other readers.

13 Laurelhill Road,
Lisburn,
Co. Antrim,
N. Ireland.

Dear Sir,

I would like to congratulate you for the latest edition of "Strandlight". As usual the journal made excellent and informative reading. The preview of new Strand equipment and the details of control systems installed in large theatres is most impressive. Although, working in a modest auditorium myself, I would like to see more articles like the school production of "Oklahoma!" in issue one.

The article about the A.B.T.T. trade show on page seven of the summer issue mentioned Strand Lighting sweaters incorporating the company logo. I wonder would it be possible to purchase a sweater from you. I would also be interested in any other items of Strand publicity that may be available.

I look forward to hearing from you.

Yours faithfully,
Mark McMaster

See Editors column for reply.

Yes Mark, sweaters, T shirts, zipper jackets and even baseball style caps are all available bearing the Strand Lighting name and Gongman logo. Strand offices, dealers and agents, have all size colour and price information.

The exterior of the Lombard Room Restaurant at Birmingham's Patrick Collection Motor Museum.



Fit to Light the Best

An Environ Project in Middle England at the Patrick Collection Motor Museum and Conference Centre.

I must confess that a summons to visit Birmingham was received with mixed feelings, even though that tremendous conurbation was the sometime home of the only extensive narrow gauge (3'6") tramway system in Great Britain. Indeed, it was vintage road transport, the second great enthusiasm of my life, that led me northward up the A5 on a recent summer morn.

I was to visit the Patrick Collection Motor Museum and Conference Centre at Kings



Interior of the Lombard Room Restaurant.

Norton, sited between historic canals in a surprisingly - to me - rural spot. Standing among weathered but re-furbished Victorian brick buildings and listening to bird song, one would never have guessed that one was only about three range lengths of a Birmingham Small Arms rifle from the Bull Ring.

As we are a lighting magazine I will not deal with the really superbly presented vehicles on display, except to applaud the settings. The time frame of the exhibits has been set by re-creating a war time 'incident' to set off an 8hp Austin canvas top pick up, and I came upon what I first thought to be my own kitchen, with its Easywork cabinet and New World cooker. It turned out it was recreating the world of 1930, so that's fair enough.

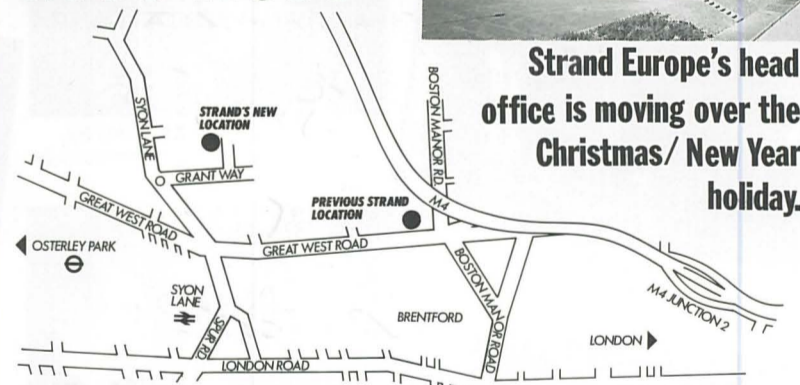
You will probably all by now have come across those life size effigys with a blank face on which is projected a film of a face so that the accompanying sound gives a life like, if static, effect? Well, Nigel Mansell chats with interviewer Bob Hall at the touch of a button so realistically that, at twenty yards, one could easily be fooled.

As part of the museum's complex there is a delightful restaurant - The Lombard Room - in which the lighting is most subtly controlled by 12 way plus two masters Environ system.

The special brass front plates have been mounted in wooden frames, and look first class - fully in keeping.

Twelve Environ Economy 4k dimmers lurk unobtrusively in the servery, but with plenty of ventilation. So much fairer treatment of any dimmer than hiding them in a cupboard that can all too easily become too hot. Please remember - we recommend a maximum 30°C for all Strand dimmers if they are to enjoy a long and healthy life.

Strand Goes West



Strand Europe's head office is moving over the Christmas/ New Year holiday.

Strand has been moving westward since the company was founded in 1914. First our head office moved from Covent Garden to Woodger Road in Shepherd's Bush for a few months after we became part of The Rank Organisation, then we joined Rank Audio Visual at our present Brentford offices.

Now we are moving again, although this time only about half a mile further west.

Our new address from January 4th 1988 will be:

**Strand Lighting Limited,
Grant Way (off Syon Lane),
Isleworth, Middlesex TW7 5QD**

Telephone, Telex and Fax numbers all remain as at present.

Our next issue will tell all about the premises and how we are settling in.

We Make the Front Cover!

Susan Dandridge, Product Manager for Controls, was pictured on the front of the October issue of "Lighting and Sound International".

This widely circulated monthly also devoted an inside colour feature to our Bristol Spectacular



Electro Controls & Strand Lighting

The Rank Organisation acquired the Salt Lake City based Electro Controls company some two years ago. Now Electro have taken their place in the Strand Lighting international family and their very interesting range of architectural and entertainment lighting control products is available, outside the U.S.A., from Strand's depots, agents and dealers world wide.

In the U.S.A. a separate sales and distribution network is being maintained.

The Bristol conference, attended by Jody Good III & Rick White, the R & D and Sales chiefs respectively from Electro, provided the occasion for the introduction of the Electro Controls range to Strand and its dealers.

Revised Act 3 Dimmer Packs

These feature three 5kW dimmers with 25A circuit breaker protection. Analogue, multiplex and slave versions are all offered.

Act 3 Analogue has six faders - as used in Act 6. When a slave pack is connected the remaining three faders control the slaves dimmers.

In the Multiplex version one master fader can be allocated to control any dimmer in the master or in the slave pack, or all dimmers at once.

Act 3 is rated for 45A continuous operation and meets BS and VDE RFI standards.



Quartzcolor News

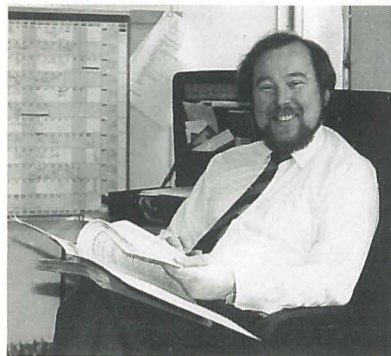
Coming soon from Quartzcolor, the new compact HMI Ballast. Available in 575 watt, 1200 watt, and 2500 watt versions, in both 120 volt, 60Hz and 220/224 volt, 50Hz models.

As a result of new and improved technology the size and weight of these ballasts have been reduced making them easier to handle and more space efficient.

All models are equipped with a special low-noise circuit to allow ignition re-strikes under quiet production conditions.



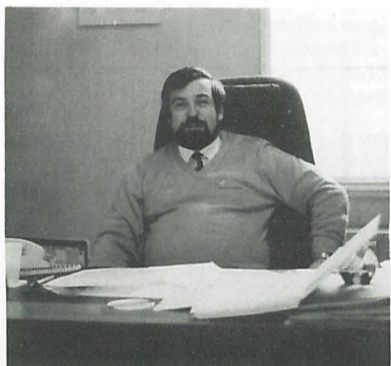
New Strand Europe Sales Management



Russell Dunsire, Sales & Marketing Director

Russell joined Strand fourteen years ago. His career with the company has included running the Kirkcaldy factory sales office and responsibility for sales management of both U.K. and overseas territories. Prior to his latest promotion he was our General Sales Manager.

Russell's Team



Ivan Myles - U.K. Sales Manager

Ivan joined us twelve years ago as our West Country representative. Although working in a different industry before this, he had always been involved in the technical side of amateur theatre. His present promotion comes after several years as U.K. Theatre Lighting Sales Manager.



Graeme Pusey - Export Sales Manager.

Graeme came to Strand five years ago as one of our Overseas Regional Managers. Some two years ago he was promoted to manage the U.K. sales of our Quartzcolor studio lighting and of Environ Architectural Dimming Systems.



Nick Perry - Sales Administration Manager.

Nick joined the company four years ago as our Purchasing Manager. Prior to his present promotion he has held responsibility for product programming and for the warehouse and distribution. In his new job Nick will be responsible for the sales office, for quotations and for project management. He will remain responsible for the central warehouse and the highly successful Brentford Lighting Shop.

Make an Impression or is it ... IMPACT?

Consider the impression you could make if you had a console that drove 960 dimmers on 350 control channels and had over 400 cues. What if it had 24 submasters and 100 "Super Cues"? How about default fade times, soft keys, patch by dimmer and by channel? What if it had a variety of user selectable dimmer protocols? How about an unprecedented feature, called multi-view, allowing simultaneous display of two cues for comparative purposes?! And if it were so small and light that you could tuck it under your arm and stroll away? Think of the IMPACT you could make.

Which is exactly what occurred when STRAND introduced the new IMPACT console at SMPTE (Society of Motion Picture and Television Engineers) in Los Angeles, October 31 - November 4. IMPACT caused quite a stir... because of its design and features... and also because it is in stock and available NOW, in both 120 and 220 volt versions!!

Further information and photo of Impact will be in our next issue. Impact is available in the U.S. and Canada but not in Europe.

Light Palette - A North American Diva

"Fall is in the air..." We know that primarily by such perpetual reminders as leaves changing colors (except in LA), football season (not quite so perpetual this year), or more reliable - the World Series. But for many of us, fall is represented by the coming of Opera Season. And this year, as in years past, Strand Lighting was an integral part of many "season openers", with an unprecedented number of Light Palette consoles. Just take a quick look at some of the premiers of which Light Palette was a part:

The New York City Opera's gala opened to sold out houses at the MET on September 21st. The premier was OTHELLO.

The Canadian Opera opened with Tristan & Isolde at the O'Keefe Center on October 2nd.

Houston Grand Opera's opening gala for the new Wortham Center was on October 15th. Placido Domingo and Marella Freni sang Aida to a sold out house.

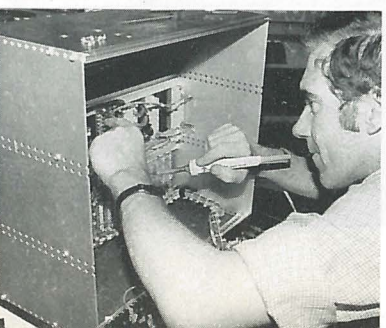
The Chicago Lyric Opera* began their fall season on September 18th. Leo Nucci and Anna Tomowa-Sintow performed La Traviata.

Light Palettes could be found at a number of other fall season openers, both operatic and legitimate stage.

*The Editor recently visited this near incredible monument of 1929 Chicago optimism. See next issue of Strandlight for the story. One small appetizer of information - from the stage floor to grid is 144 feet - or 14 storeys!

All Hands to the Pumps

Alan Buchan, Specials Dept. Manager welding the soldering iron to complete the recent Galaxy supplied to Uppsala - in Sweden - on time.



Some Welcome Arrivals or Strand Goes Cruising

The Scene: Los Angeles
The Date: September 10th
The Event: The first LightBoard M is shipped - to the Children's Theatre, Minneapolis

Yes... all across America, phones were ringing and telexes were flying. The question this fall - more exciting than any political scandal, nearly as important as the football strike - was "I got MY Lightboard M... did you get yours?"

As the weather turned cooler, the answer more and more frequently was "YES!!". The Los Angeles factory, fresh from rapidly turning out such new products as LP/3, MLP/2 and the incomparable DC90, geared up quickly to begin mass production of Lightboard M.

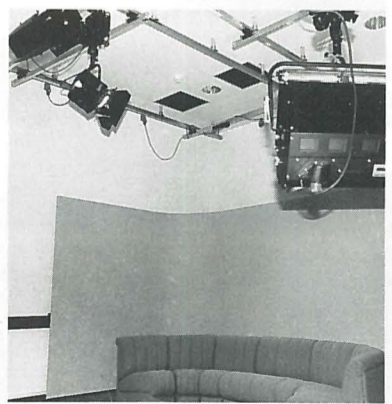
The console for Children's Theatre was rapidly followed by others. Before Halloween LightBoard M could be found in Toronto, London, New York, Chicago, Dallas, St. Petersburg... and the list goes on. By Christmas, over 130 LBM's will be in the field.

We at Strand have high expectations of this desk as a "world-wide" control console. In fact, it already is since two of the first consoles when aboard cruise ships for the Royal Viking line, which are now somewhere in the far east!!



Anne Morris demonstrates Lightboard M.

A Well Lit Sofa in Brighton



Why a photo of a settee without a single occupant? Why, loyal readers will ask, did the Editor not pose gracefully on so inviting a surface?

I wanted to show the excellent Light Rig layout in the TVS interview studio in the Brighton Centre, I was alone in the studio, which had only just been completed, and I had forgotten the shutter delay device that I use with the faithful Pentax.

But it is a really good use of Light Rig - the flexible lighting answer for the small studio. And, of course, Quartzcolor completes the picture.

Amateur Drama - An Example at Work

The Editor visits the "Company of Ten" drama group at their home, the Abbey Theatre, St. Albans, as an example of a large and ambitious amateur group, very well equipped by Strand.



The Abbey Theatre, St. Albans. Is any amateur company more fortunate in the theatre they own?

St. Albans, I should explain for overseas readers, is a delightful city about thirty miles from London. It had the good fortune in the 1840's to be left to one side by the London and Birmingham Railway who chose Watford for their route, thus causing the almost complete spoilage of that unfortunate town, while St. Albans still has whole streets of perfect seventeenth, eighteenth and early nineteenth century buildings.

It is a good place to visit and must be a nearly ideally perfect place in which to live. Harpenden, the Beverley Hills of the north west home counties, is only a flash of a Volvo's sidelights away, while St. Albans itself passes the acid test of being middle class, i.e. one in three of its male inhabitants apparently own a blazer.

"The Company of Ten"

The group was founded as long ago as 1934, when, I was told, it had either nine or eleven members, hence the name. (Gallic readers, please note this example of English logic).

In 1968 the company achieved its great ambition. They moved from an old barn close to the Abbey, where their first thirty odd years had been spent, into their own purpose built theatre. The Abbey Theatre had the honour of a Royal opening, Her Majesty the Queen Mother attending the first production in the new theatre on the 17th April 1968.

The Abbey Theatre

The auditorium seats 244, all but the first four rows being stepped, so there are excellent sight lines from every seat.

The architecture is "nineteen-sixties traditional" which was, perhaps, a rather untheatrical period in decor. The control room, housing an M24 and the earlier JP60,

Paul Davidson, Technical Director at the M24. Is there anywhere left, outside the West End, without FOH control nowadays?



now used as a manual wing, enjoys perfect sight lines at the centre rear of the auditorium.

The stage has a full height grid with fly gallery and 23 lines - 3 for lighting, 11 hand lines and 6 counterweighted, an act drop and a line dedicated to rehearsal lighting. There is an FOH lighting slot which the editorial eye considers a trifle too low and too close to the acting area to be ideal. There are F.O.H. booms either side of the proscenium arch.

The Abbey's lanterns contain many Strand old faithfuls, 20 Patt. 137 floods, five 6ft lengths of three circuit battens, 10 Patt. 264's, 10 Patt. 223's, 12 Patt. 123's, 18 Patt. 60's and - inevitably - 11 patt. 23's. There are two Patt. 93's whose very presence testifies to the society's maturity.

Recently a Studio Theatre, also used for rehearsals, has been added just off the club room foyer. Dressing rooms, wardrobe, kitchen, bar and scenery workshop complete the complex. The only full time professional member of the company is John Paull, the Theatre Manager.

The Life and Blood - and the Aristocracy

The life blood is, of course, the membership. The Society has four hundred members, 250 of whom have acting as their main interest. 20 members design and build scenery, 40 are involved in the costume area, while that aristocracy of the technical theatre, the lighting brigade, numbers 26.

Putting on a Play at the Company of Ten

What play to produce? Obviously four hundred individual voices would create little but cacophony, so the company have a Play Selection Committee. This group also chooses a director for the selected productions. The technical team is assembled and there are usually two readings to decide on casting. These are not really 'auditions', as the actors are judging their own liking for the play every bit as much as the director is assessing their suitability for a role.

There are between twenty and thirty rehearsals, usually three a week, culminating in the dress rehearsal which is always held on a week-end afternoon.

Ten public performances is the average production run. Certainly fewer performances after such dedication would smack of all cooking and no eating, remembering, of course, that the essence of theatrical amateurism is that the cooking is probably as much fun as the eating.

What's on Stage?

I have the 87/88 programme before me. 'Twelfth Night' in September, for which play I have always had an especial affection since I was the finest Malvolio Worthing Grammar School ever had from its fourth form - I quote from 'The Azurian', our school magazine. Will it surprise readers to learn that I was also the drama critic, under the pseudonym Henry Irving?

Tom Stoppard's 'The Real Thing', a pantomime and Joe Orton's 'What the Butler Saw' are three examples from a programme of twenty three on stage events.

With the possible exception of 'The Winslow Boy' these are no old war horses. No murders at the Vicarage, no Hollows to be filled in.

An Opportunity Indeed

For anyone bitten by the theatre bug and living within reach, this must be a super society to join. One can tell how much activity there is by a certain guide. Annual rings in a tree trunk tell us its age. The wearing away of the red chequer design on an M24 near the wheel tell us how much service it has seen. The Abbey Theatre wheel sprouts from an almost plain front panel.

Get that clutter! First class set dressing for 'Educating Rita' produced last season. David Stone, Company of Ten Chairman 'sits in' as the tutor.



The Editorial Pentax covers details of this new Strand entrant to the lantern stakes on behalf of all those readers who want to get down to the real details of this superbly designed new range. But remember - seeing and handling them is best. Available now for demonstration at your Strand Lighting agent or dealer.

1200 or 1000 watt black finished lanterns manufactured from lightweight aluminium extrusions. The alloy fork can be mounted on the lamp house or lens tube. Colour runners to DIN standard. Integral 25mm wire mesh lens safety guard, spring colour frame retaining clips. The lantern is automatically disconnected from the power supply the moment the tray is dropped for re-lamping.



Medium to Wide angle-Cantata 26/44.

Medium angle-Cantata 18/32.

Medium to Narrow angle-Cantata 11/26.

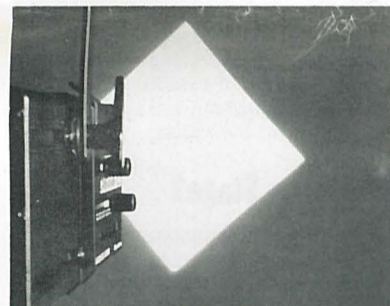
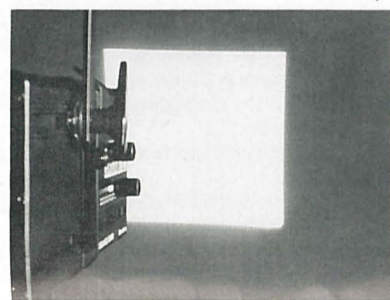
The Fresnel (Beam angle 7.5° to 65°) - Cantata F.

The prism convex (beam angle 3.5° to 60°) - Cantata PC.

Cantata the Conqueror

Cantata Profiles in Action!

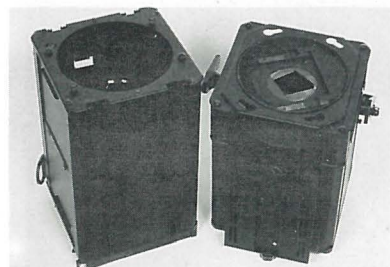
From a squared off beam to a diamond in a second - incomparably quick setting is one of the virtues of the 360° revolving gate assembly. Another is that this large die cast assembly makes a fine heat sink. This, together with the improved ventilation, gives significantly lower lamp temperatures compared both to the old Harmony range and to most competitors.



Gobos (Patterns) project very cleanly. A good test for any lanterns optics. The gobo slot can receive an iris as an alternative to a gobo.



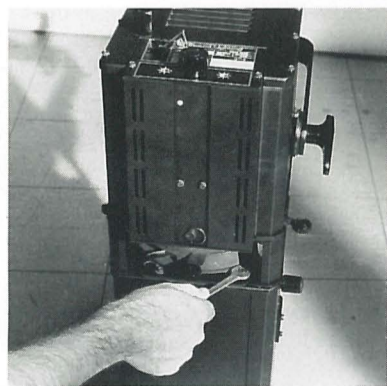
The unique Strand bayonet fitting. Quick, easy and non jamming. The lamp house has four 'keyhole' slots in the gate assembly end plate. The lens tubes have four matching studs which locate in them via a simple "put on and twist" action. Two of these studs are actually threaded bolts and are tightened after the two halves are joined. A safety catch snaps into place once the joining is made to hold the 'halves' together while the studs are tightened with a spanner. The Editor found the best way to join lamp house and lens tube was to put the lens tube front on the floor, lens down, grip it between the editorial feet, lower on the lamp house and twist until you feel the spring safety catch lock - this is only about 2° - 3° of twist.



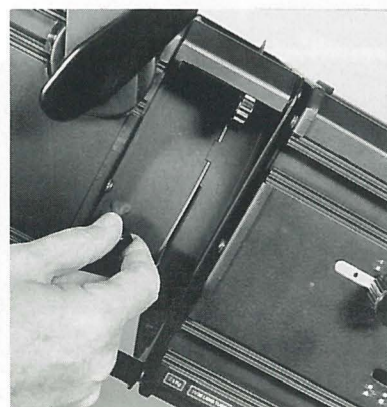
Alan Luxford shows the position, but the foot grip could be improved! More practise, please, Alan!



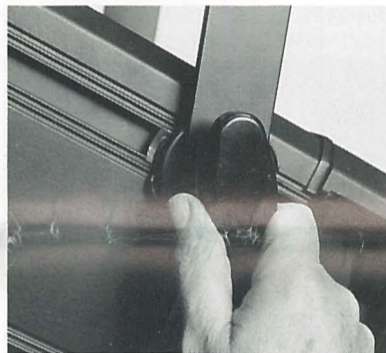
Tightening up the two threaded locking studs. (The other two are simple shouldered locating studs).



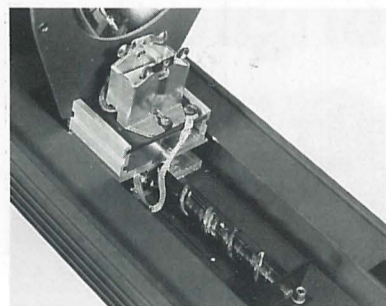
Once the shutter assembly has been rotated to the required position it is locked in place by tightening up the locking screw. No tools required - finger and thumb pressure is quite enough.



The new type locking tilt clamp used on Cantata. This features an "off centre" handle to give greater leverage while the clamp itself is a most ingenious design. Two flanged disks are brought together by a screw worked by the off centre handle. The outer flanged disk is rigid, while the inner flanged disk is slightly domed and is of a 'springy' material. As the clamp is tightened - about a half turn is enough for an initial grip - the inner domed disk flattens out as it is compressed, bringing the two flanges into firm locking contact.



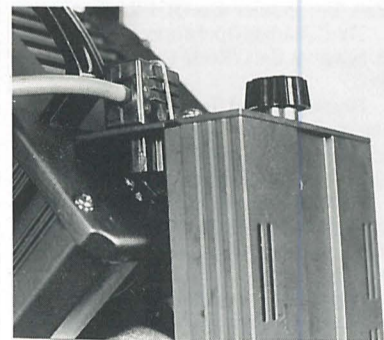
The lamp assembly focussing screw - well doused on assembly with high temperature grease! Even the mechanically simple elements of the Cantata design are accomplished with elegant economy. Traditionally a lens adjusting screw is either a metal or high temperature plastic rack, or sometimes even a square sectioned screw thread cut out of a round bar. Our engineers selected a truly ingenious system. A coil spring whose initial 'set' is to a smaller diameter than the round bar centre is opened out momentarily, the bar is inserted and the coil spring allowed to grip the bar. And there it is - a simple and economic focussing screw. This is just one example from a lantern range packed with ingenious mechanical, optical and electrical ideas.



Any lantern should be easy to keep clean. Sliding access traps on the top of the lens tube permitting the editorial handkerchief to go to work.

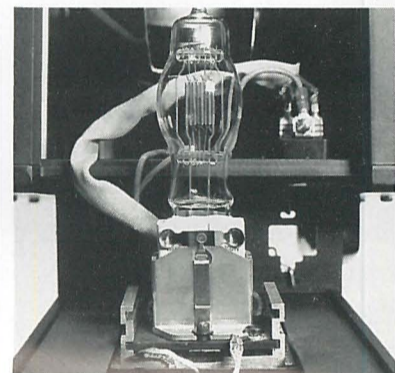


Its always safe to change a Cantata lamp. As the lamp tray is opened the power plug is automatically withdrawn from its socket. When the tray is closed after re-lamping the plug can be banged home without damaging the socket. This is because our designers know that people do get tired and impatient on fit-ups and do sometimes use a fist instead of a finger. But it doesn't matter to Cantata. The plug 'shoulder' contacts the metal of the lamp tray just before the plug prongs 'hit bottom' and because the plugging is through the lamp tray the two plastic surfaces of plug and socket do not come in contact - so the socket is preserved, however firm the fist. Note the retaining spring stirrup holding the plug. The odd flying flat will not dislodge a Cantata connection.

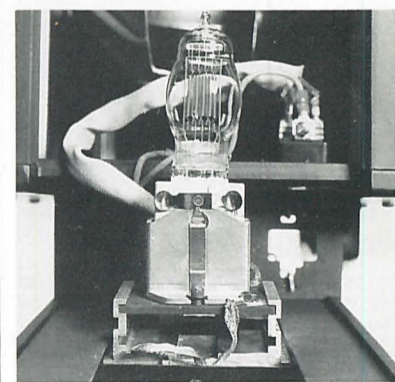


The Kirkcaldy Cantata Team. They have good reason to smile at the Editorial Pentax. If they had heard the round of applause from Strand dealers and staff as Francis Reid put the lantern through its paces at the recent Bristol launch they would have grinned even more widely

Cantata can accept either the new RSE 29 1.2k lamp or the tradition RSE 19 1k lamp. Here we see the RSE 29 with the lamp holder positioned in the lower of the two grooves in the special extruded base plate. A spring safety catch at the rear holds the plate at the selected position.



The RSE 19 lamp in use, with the base plate in the upper groove to accommodate the shorter 1k lamp. The lamp holder base plate can be 'rocked' from side to side by two snail cams to allow centering of the filament of the individual lamp. The cams are turned, externally, by using a common or garden flat bladed screw driver. We decided nothing was more frustrating than trying to locate a Phillips or Posidrive - the good old fashioned screwdriver is one item everyone can find quickly.



Left to Right Tom Whitton Design Draughtsman. Martin Freeborn Design Engineer. Chic McQuillan Design Draughtsman. Jean Robertson Secretary. Bob Murray Industrial Design Student. George Paterson Design Engineer. Ian Thomson Manager Luminaire R & D. Dave McBain Laboratory Technician.



London's New Theatre Museum

Early Strand Equipment Featured in the Capital's Latest Cultural Collection

In the beginning all is well. One enters the new Theatre Museum, the recently opened branch of the Victoria and Albert at the corner of Wellington Street and Russell Street in Covent Garden, and immediately encounters the giant gilded angel which for so many years adorned the Gaiety Theatre that stood in the Aldwych. One buys ones ticket at a delightful box office translated from the Duke of York's Theatre, and provided one lifts ones eyes above the cafe servery there is a nicely cleaned up Strand Grand Master, complete with its working light 'Strand Electric and Engineering' translucent name panel. A few 23's and 243's are clipped to the perch rail. We, dear Reader, know that perch boards are now a true rarity, but this is a museum and we are looking at the past.

We then go down a long zig-zag ramp that takes us to the below ground galleries and the lecture theatre. This ramp is very well, and rather theatrically lit, using a row of GLS lamps at about one foot centres. But this is the last good lighting level the visitor will see. I suppose from the start one has to appreciate that the Museum concentrates on costume and scenery design, plus some ephemera and some paintings. Our interest - that is technical theatre - is covered only by the lighting already mentioned and a couple of early sound effect machines. For example, the whole great era of eighteenth and nineteenth century stage equipment is virtually ignored. The world of creativity of the modern lighting designer is also totally absent except in a few National photos. But perhaps this is all considered too modern for a museum.

The main quarrel I have with the subterranean galleries is that one can hardly see what is in the various full height



The Covent Garden Theatre Museum.

display cases which line the gallery. Ones first impression is of a shopping arcade on a Sunday morning, so low are the light levels. I imagine this is the deadly hand of the arch conservationist who fears that adequate light levels will destroy the exhibits. Surely it would have been possible to have a preset button for the interested viewer to push to provide a better light-level for, say, a minute, leaving the maintained lighting at its non fading low level? Perhaps a theatre lighting manufacturer could have been asked.

There is a very nicely done 'Foyer' where the paintings are displayed. This really does come off. A beverage in ones hand and a crowd of fellow enthusiasts would make this space seem truly theatrical. It even overcame a damp day, the editor alone in his glory and absolutely no beverage in sight. But, again, there are none of those delightful brass picture lights, and one does have to peer so to make out the likenesses of various Victorian thespians.

Some years ago an advertisement in "The Times" personal columns ran: "Wanted - Loud Secondhand Gramophone for Reprisals". I thought about this as the Mussak in the galleries and even in the Gentlemen's Convenience, discoursed non stop 'My Fair Lady' and similar airs. Perhaps the music could be limited to this latter location, where incidently, even the wall tiles depict scenes from Shakespeare. I stood briefly before King Lear, while Hamlet supported a paper towel holder and Lady Macbeth, most appropriately, provided a fixing for the liquid soap dispenser.

There is a lecture theatre in the modern manner, somewhat misleadingly called "The Theatre" and every hour there is a well

done audio visual show depicting how the Bristol Old Vic went about putting together their 1982 production of Pinero's 'The Magistrate'. This covers not only the work of the actors, but also that of the theatre and production staff of whom an audience is usually and properly unaware. At least here the Lighting Designer's work is shown, as is an MMS, so Strand gets another look in.

The 'voice over' is that of Mr. Donald Sinden. A very good choice, as in spite of his frequent and popular television appearance he still somehow remains in the public's mind as a 'theatre actor'.

It is fortunate that the lecture theatre is given over to electronics, as it would not be at all an easy spot to lecture in - but perhaps



The Angel from the roof of the old Gaiety Theatre.

there are no plans for any talks. If so this is a great pity, as any good museum likes, ideally, to be a research library and a forum as well as a collection. (The library aspect is covered in a building in a different part of London).

To sum up. If one has a general theatre interest then obviously the official theatre museum in the world's greatest theatre town must be visited. But even if one is a narrow technician then, to quote Michelin the Theatre Museum is at least "worth a detour".



The Box Office from the Duke of York's Theatre.



The Foyer Gallery.



The ground floor Cafe.



Strand grand Master and Vintage lanterns in the Museum Cafe.



Even the loo tiling is Shakespearian!

New U.S. Marketing Appointments



Steve A. Norman, Marketing Specialist

Steve Norman has joined Strand Lighting North America as a Marketing Specialist and Management Trainee. Steve recently graduated with a Masters of Business Administration degree from the University of Michigan's Graduate School of Business Administration. Prior to that, he attended Michigan State University where he received his BA in Design and Directing.

Steve has worked as a production manager and lighting designer for The Joffrey Ballet Center's Concert Dancers plus regional theatres. His first lighting design and training during his high school years was with Strand Lighting's Micro-Q lighting console.

Also working as a computer consultant for UNISYS during graduate school, Steve is eager to combine his experiences in marketing, computers and theatre to further Strand's position as a worldwide leader.

Jim Holladay has become the new Product Manager - Automated Fixtures for Strand Lighting North America. He has relocated from New York City, where he was Electronics Manager for See Factor Industries, Inc., a production rental house.

Since Strand's Automated Fixtures first became available over a year ago, he has been involved in their development and implementation.

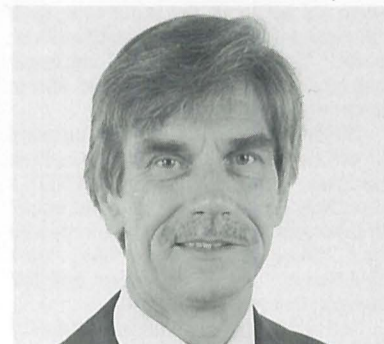
As Electronics Manager, he designed and constructed custom dimming racks to facilitate the fast paced rock and roll touring business. He was also responsible for the system design of the concert sound reinforcement system, capable of doing large venues.

Jim also toured with several acts as crew chief, master electrician, and to field test custom made equipment for specific bands.

He is now interested in applying his experience to the development of automated fixtures, a product whose potential is only now being fully realised.



James Holladay, Product Manager, Automated Fixtures.



Brian J. Hartley, Production Manager Luminaires.

Brian Hartley has joined Strand Lighting North America as Product Manager - Luminaires. He was formerly the Equipment Sales Manager for a Strand Lighting dealer in Burbank, California.

He has been dealing with the Quartz-color fixtures since first using them at Edward's Air Force Base, California during the first night landing of a NASA space shuttle.

Brian, a former Promotion Manager in the British newspaper industry, emigrated to the USA from Portsmouth during July 1976. He entered the motion picture industry at MGM Studios as a lighting technician and worked on a variety of productions for film and television.

As a lighting "Best Boy" he worked on the television series "Barnaby Jones", "Rockford Files" as well as motion pictures including "Semi-Tough", "Who'll Stop the Rain" (Dog Soldiers), "Being There" and "Herbie Goes Bananas".

Brian, who has made his home in Glendale, California looks forward to his new career - and helping to further sales of all Strand Luminaires.



Left to right - Juanita Sabell, Paul Carter, Jeanne Washington, Yao-Fu Huang, Donna Appleton, Peter Rogers, Chris Mentis, Jean Crawley, Marilyn Macdonald, Nick Giannopoulos.

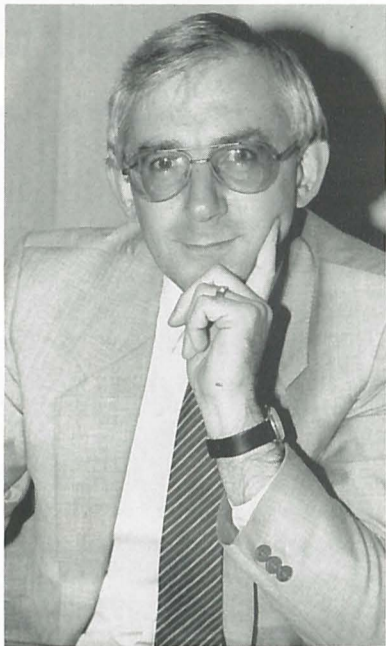
Calling Canadian Readers!

Are you an amateur lighting lady in Aklavik, or possibly a studio electrician in Avalon? According to the Editorial atlas ("Great Britain and her Dominions and Lands

Across the Seas", Published in 1901 for 5/6d) you are resident in either the top left or bottom right corners of your great country. In either case I am sure you will not often visit our staff in Mississauga, so by means of Strandlight they are visiting you on the occasion of their summer picnic.

Peeping over the Gongman flag I see an Alfa Romeo umbrella. Presumably a Quartzcolor flag was not around, so our staff obviously devised this alternative graceful tribute to Italian design and engineering.

Strand Filters



by David Brooks who devised the Strategy.

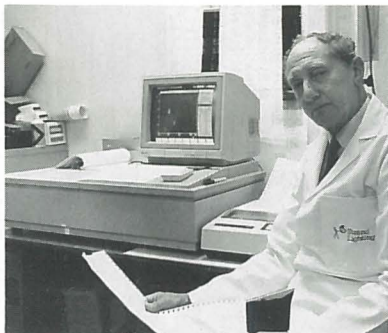
When our Editor suggested that a few words on the subject of marketing filters would fill an awkward gap in a major feature he was planning, my immediate response was to put pen to paper for fear that failure to oblige might result in the famed Editorial Pentax being aimed in my direction. For our long established readership and those whose loyalty to Strand products spans the years, there may

be some initial puzzlement. Aren't Strand the people who sell Cinemoid? Aren't the colour numbers everyone uses and those eloquently coined names that evocatively conjure up a mental kaleidoscope of colours, the original property of Strand? Well, yes of course it is all very true.

For as long as anyone here can remember, Strand have supplied colour effects media to complement the lantern ranges, but to coin a Marketing term, they have become generic or, even worse, mature products. Unfortunately, whilst calling for a Cinemoid colour too many have been willing to accept what we might darkly refer to as substitutes.

But, good news is to hand with the launch of STRAND FILTERS. Why Strand Filters? - elementary my dear Editor. The time has now arrived when filters have progressed from an interesting accessory to become important products in their own right. The underlying technology of filters owes much to advances in plastics and materials engineering. Perhaps some will still consider the term 'plastic' to have a lingering association with low quality imported novelties or tawdry trinkets from Christmas crackers. The truth is that engineering plastics are now so widely used that often we are unaware of their applications in all types of equipment. A somewhat extreme example is the use of polycarbonate for the manufacture of police riot protection shields, where it seems to survive some fairly robust treatment. It is also used as the base material for Strand Filters Chromoid, where its durability and heat stability are combined with specially developed dyes to stand up to the toughest professional lighting tasks.

Manufacturing processes have also developed apace. On-line computer control ensures accuracy and consistency from batch to batch. An important factor when specifying colour is to have the reassurance that it will always create the same results. New process techniques have also enabled Strand Filters Cinemoid to be re-formulated, needing less plasticiser which in turn pushes up its temperature rating but without losing flexibility. With a reduced gauge, transmission also benefits,



Paul Weston conducting quality control tests on Strand Filters using the latest spectro photometer.

but most importantly so do you - it is now less expensive.

So, to the most important Strand Filter Cinelux - a totally new range using a safety polyester film base. A broad spectrum of colours? Of course. A range of diffusion media? Yes. And a range of correction filters? Those too. Cinelux is truly a filter range for all occasions.

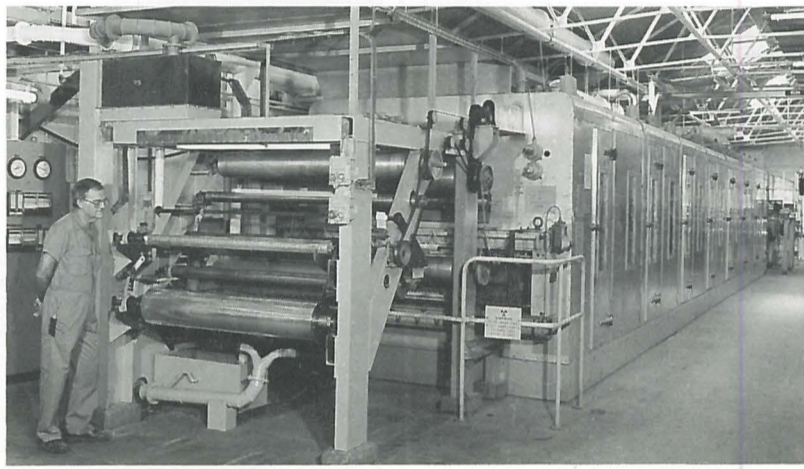
But marketing is more than having the right products. It requires distribution. Well, Strand know all about that. Availability and service should be no problem, judging by the bulging warehouse. Having the right products, distributed and stocked up is all very fine, but communicating the message

matters too. It is the effect that filters achieve in modifying a beam of light that is important. By contrast, sheets or rolls of the material itself are inexciting. So, we have created a simple but instantly recognisable and memorable image for Strand Filters. One that will work equally well when used on a small swatch book or a large poster. Our aim is that you will not only quickly recognise the Strand Filter products but automatically demand them for use in lighting performances, shows or in film and video production. In fact, you need go no further than to ask for Strand. Whether it be lanterns, controls, dimmers, suspension accessories, stands or lamps, we have them.

Strand Filters are that natural extension to providing a total product service, so that you can comprehensively light up with Strand.

The Product Manager's View

The Cinemoid casting machine at Courtaulds Speciality Plastics. (The cinemoid is fed through drying cabinets before being wound onto big reels prior to sheeting.)



by Camilla Aitchison who manages the product.

Strand Filters offers three new and improved ranges of colour, correction and diffusion filters - CINELUX, CHROMOID, CINEMOID.

Cinelux

The newest and most exciting of the range is Cinelux. This is made from polyester dyed on both sides. The dyes are remarkable and exclusive to Cinelux. They are remarkable because during manufacture they must be able to withstand high temperatures without any colour degradation. Over the past eighteen months, experiments have been conducted to obtain the most stable dyes possible. The laboratories have discovered that stability of the dyes is achieved by combining the fewest possible number of pigments together. The end product of this breakthrough is Cinelux. These dyes help to ensure that the Cinelux colour filters are identical in production for batch after batch.

The Cinelux range has 61 colour media and 33 correction and diffusion filters. The correction filters have been carefully formulated so that by combining 2 or more filters, lighting directors have at their command an infinite variety.

Cinelux is a medium priced range suitable for use in all spheres of lighting entertainment from rock shows, through to a film location.

Chromoid

Chromoid is relaunched and its range has been expanded to 70 colours. These are high quality filters made from co-extruded polycarbonate and the dyes are integral to the material. It can withstand the high temperatures produced by today's modern tungsten halogen lamps. It is ideal for long running productions, or for lanterns in inaccessible positions where regular replacement of the filters is difficult.

Cinemoid

Cinemoid has been available for 50 years. It is now reformulated so that it is more heat resistant than ever before. Cinemoid used to be poured into large rectangular moulds which, when set, were sliced like cheese. The production process has advanced spectacularly. The coloured 'dope' is cast onto the surface of a steel cylinder. As the cylinder rotates the cast dye solidifies and is lifted off. The thickness of the material is computer controlled to give a tolerance of + or - 1 micron. This method has meant that not only is new Cinemoid consistent, but we can make it thinner than before so that it is even more reasonable in price and because it is now physically thinner, there will be less heat build-up within the material - a factor which will improve service life.

Cinemoid still retains the comparative rigidity which makes it so easy to handle. Its 29 specially selected colours are ideal for use in the education or amateur market.

The Strand Filters Threesome

The three ranges - Cinelux, Chromoid and Cinemoid - have been carefully chosen to match and compliment each other so that they can combine to fulfill all requirements on all occasions.

The Three Hundredth Milestone



A brief Light Palette Historical Resumé

by Anne Morris, Control Product Manager, Strand Lighting, North America

SCENE 1

In the mid 70's, much of the lighting on the Broadway stage was controlled by massive, manually operated control consoles, which often required multiple operators and a great deal of space. Installation and labour costs for these systems were high. Designer's were artistically restricted by the complexity of manual operation.

Computerized lighting equipment was beginning to see acceptance in such

consoles as Micro-Q and Multi-Q, which proved that the use of this technology expanded the scope of design ability, but did not detract from the "human element" of performance, which had been a great concern. The facilities of these consoles, however, were quickly outstripped by a demand for even more!

Strand/US made a commitment to Broadway - a commitment to provide new equipment offering more cost effective

operation, even more design flexibility and greater artistic control. Using newly developed microprocessor technology, LIGHT PALETTE was introduced in 1978. Technical theatre had become "state of the art". This console not only provided a new method of controlling light, but launched an entire philosophy of control - a philosophy which is now the US industry standard.

LIGHT PALETTE design was based around the piano board approach to lighting control; it implemented a "Command Line" control technique in which most instructions were entered digitally in a sentence format. The console controlled 512 dimmers on 256 control channels. It allowed simplicity and centralized control, yet offered unique and sophisticated features.

Some of these features have become so standard in console design today, that they seem old hat to us. But at the time, such concepts as 6 simultaneously activated cue parts, "group" recording, electronic patching and computerized cue sheets were considered revolutionary.

The first LIGHT PALETTE was installed at the Goodspeed Opera House in East Haddam, Connecticut. LIGHT PALETTE's Broadway premier occurred during one of the strongest seasons for drama ever - with such shows as 'A Chorus Line', 'Ain't Misbehavin'', 'Annie' 'Deathtrap' and 'Da' enjoying first runs.

During the next few years, the features of the console were continually expanded. Proportional patch, full tracking backup, colour monitors, and a number of other facilities were added.

SCENE 2

Due to increasing sophistication in the

theatre and TV sectors, it became apparent that two separate types of software were required to address the demands of both. LIGHT PALETTE II was introduced in 1984, offering control of 1536 dimmers on 800 control channels. The theatre version of the console provided 6 playback faders, 9 submasters and was a "Tracking" board. The TV version offered 2 playback faders, 13 submasters and provided "Cue-Only" operation. Numerous other features were added, including an alpha numeric keypad.

The "Command Line" control philosophy became so successful, that LIGHT PALETTE also became the parent of a group of smaller consoles, including MINI PALETTE, MINI LIGHT PALETTE, and MINI LIGHT PALETTE 2.

SCENE 3

Nine years and 300 LP's after its launch, we introduced the third generation LIGHT PALETTE. LP/3 offers unparalleled features, answering the needs of an increasingly demanding and sophisticated market. It brings together the needs for theatre and television in one console, by offering unique facilities which allow the operator to select the number of playback faders versus submasters. The operator may also select the recording mode, "TRACK" or "CUE ONLY". LP/3 also supports easily defined automatic system default parameters, such as default fade times, default profile, and default "Set" level.

We introduced Light Palette with the phrase 'Painting with Light' - and we believe we have enabled our customers to really live up to the slogan!

Lekos have Landed - Official

Of course, Lekos have been landing in Europe and Australasia for years somewhat unofficially. They have come in as part of the rig of shows on world tours and have been purchased from Strand Lighting North America to meet the

requirements of transatlantic lighting designers. A recent example was the specifying by Andy Bridge of 200 Lekos for 'Phantom of the Opera' - see Autumn '86 issue of Strandlight.

I think they are generally accepted as the first parabolic reflector theatre lantern, pre-dating Strand U.K.'s Patt 23 by a few years.

Their rather strange name, which has proved so memorable, derived from the two founders of Century Lighting, the company which became Strand North America, Messrs. Levy & Kook, so I suppose the name should truly be written LeKO - but it is forty years too late for that now.

From the Strand America range of nine Lekos we have selected four which we believe will cover 95% of lighting designer's requirements.

The Leko 11 (U.S. Leko 8" x 13")

The Leko 18 (U.S. Leko 6" x 16")

The Leko 26 (U.S. Leko 6" x 12")

The Leko 40 (U.S. Leko 6" x 9")

Iris's, Gobo Holders, Colour Frames and High Hats (Snoots) are all available.

Please do not imagine, gentle reader, that selecting these four was simply a matter of getting them put on a ship at Long Beach and then waiting patiently.

A great deal had to be done. Although we in the U.K. are fairly relaxed about electrical regulations if the equipment is to be used in a technical environment, other lands, literally from Sweden to New Zealand, are extremely fussy about equipment offered for sale in their Countries. And as for Switzerland - I think Orson Welles' script writer could just as well have had them

rejecting a superb piece of Italian renaissance silverware in favour of a cuckoo clock because the former had a sharp edge and the latter was guaranteed safe.

For world market Lekos we have added a wire lens guard and have provided EEC regulation earthing. The lanterns come as standard with a CP 77 1000 Watt 240v axial filament lamp - 220v lamps are an alternative. We fit a 15A round pin plug top on the wired-in power cable. Open end can be supplied.

Lekos are a high intensity hard/soft edged professional spotlight with a world wide reputation. We believe they will soon be found in every major European theatre. They are available now for demonstration from your Strand dealer.

An image from the Bristol Leko launch remains in my mind of Francis Reid in the full glory of his maturity leaving the stage with a Leko 40 held high above his head just by his - fairly - strong right arm.





Galaxy 3

by Tony Brown

Bristol saw the launch of the latest version of the Strand U.K. top professional system.

Here is the story, by the man who led the design team, of our bid to retain the European crown in lighting control.

A Modest Blast on Our Own Trumpet

Half of all the lighting memory systems installed in the world, and no less than eighty per cent of those in the U.K. are Strand.

There is no magic in this. Our systems come closest to what the theatre and the studio actually want, rather than to what a design engineer thinks they ought to want. This is simply because we have been talking to system users for a long time. And people can afford Strand boards because, with the market share we enjoy, economies of scale come to the fore.

But please accept that we do not recline on our laurels. We are very well aware that there are a number of serious competitors whose challenge we are now facing. There are also a few frivolous fellows who pop up now and then. But torturer's tongs will not persuade me to say into which category I put any particular competitor.

Back to the Future - or how the past leads to the present.



First let us see how Galaxy came about. In the early seventies Strand pioneered the concept of a modular memory system. This enabled us to batch manufacture standard parts, and it allowed the user to customise his system to a very considerable degree at a reasonable cost. This was a great technical and commercial success. (Ed. I well remember our terrific excitement when we learned that the BBC had chosen MMS for TC5 and Cardiff. One of my best ever days with the old firm.)

For the customer to whom money was not a basic priority we offered an integrated computer based control - Lightboard. A legend in its day - but at some cost!

By the late seventies the technology of MMS was ageing and inflexible. Some attempts were made to get Lightboard down in cost, but none were very successful. So we decided to go for a complete new generation of top end controls.

Shaking the Tree

We asked around among our customers, we shook the trees of microprocessor suppliers and in 1978 we began on the Great Quest. Please bear in mind that we had a reputation to maintain, going back to the Grand Master boards of the twenties and forward to the success of MMS. So we had to be right. R. & D. on memory systems is far too costly to allow for blind alleys or wrong paths.

So - How to Change and be Really Better.



First of all as Devils Advocate, here are a few Galaxy 2 items that could be improved.

To begin with, it can only control 768 channels driving the same number of dimmers. Sufficient for most people, but, especially in television, thousand channel studios are beginning to be called for. (Ed. Note. I remember being very impressed by the three thousand light 'Solid Gold' Paramount studio in Hollywood a couple of years ago.)

The Romans Went Home.

Fifty years ago Strand realised that changing the colour of light was an important part of the lighting picture. In the same way that the English forgot about central heating for 1700 years after the Romans departed, Strand's memory controls have ignored colour changers for many years.

One to One Good - but one to maybe more - better.

I yield to no-one in my personal conviction that one dimmer per channel is infinitely better than the forced constraint of a control with less channels than dimmers, which compels the patching of two or more dimmers to one channel.

But having said that, there are times when patching several dimmers (with proportioned levels) to a single control channel is desirable. Look no further than the control of, say, four blue circuits at the top of a cyclorama. Galaxy 2 had no proportional patch system.

Automated Lighting is here - and is unstoppable.

The last few years has seen a rush, not least by Strand, into motorised luminaires.

Sometimes to save labour, and thus cost, sometimes for the visual effect of moving light.

And there are other areas where our experience has led us to see that improvements could be made.

Now the Answer - Galaxy 3.



First of all, let me emphasize that this is a completely new system, with new processing and architecture.

Four man years of extra software went in to Galaxy 3 and the weaknesses I touched on - and many others I didn't, have been overcome.

But we have kept faith with Galaxy customers - we have maintained a high

degree of compatibility so existing systems can be upgraded.

Two Fixed Points

We were determined our new system would draw on the MMS principle of modularity, both for the advantages of console layout and of modular service exchange.

And we determined on the direct-action, latest-takes-precedence of Lightboard. Otherwise, the paper was completely clean.

Summer - Berlin 1980

This was the place and time of the launch of Galaxy. To date our most successful system by far.

The Galaxy development programme has really been continuous since that memorable summer.

We added infra red designers (riggers) control, a comprehensive independent memory back up that was virtually a complete control in itself, a special TV version with studio playback and special TV software, geographic selection and mimics and an advanced theatre playback which could faithfully reproduce the operators manual actions night after night after night.

More recently the most elaborate programmed effects have been added.

Invisible Mending

Actually, this effects package was developed originally for Gemini, but we were able to weave it so carefully into Galaxy that I believe not a single unsightly seam shows.

Staying in Front.



Every time we introduced a major new facility we threw in a fistful of smaller upgrades and software enhancements to make sure we kept ahead. This means that very, very little of the circuitry of the final Galaxy 2 would be found in the earliest systems.

250 Up.

Two hundred and fifty systems had been sold.

The order book was full.

The costs were reasonable.

So it was obviously time to start all over again. Almost any good and successful company you can think of replaces its products at the top, not after a decline has set in.

Did Ford have any problem selling Cortinas when they introduced the Sierra? I think not. Jaguar's waiting list was as long for the XJ6 as ever when they launched the Sovereign.

Quite a different industry, I know, but I am making the point that we like to replace products when they are at their peak - after all, as you will read elsewhere, Harmony

has not done too badly for five years, and yet here is Cantata.

Some Galaxy 3 Features.

Control of 999 channels driving up to 1536 dimmers.

Colour change control. 'Colour cues' are integrated with 'level cues' for simple playback.

A new motorised luminaire control panel has been designed.

We have doubled the number of preset masters. We have improved display legibility.

Galaxy 3 can monitor intelligent dimmers. With 'smart PIP' dimmers the system can check for blown lamps or dimmer problems. Any faults are displayed and also entered on an automatic fault log for future treatment.

Memory back up and disc system are new, using two 3 1/2" disc drives.

The alpha numeric keyboard has been replaced with a new slimline standard PC type keyboard.

A new console, incorporating cable management and adjustable rake, means that it is now possible to split panels between two - or even three - control pods.

We have a new channel control, with:

■ SOLO - selected channel remains 'on' alone while remainder dim out.

■ IDENT - any channel requiring special attention can be flagged on the V.D.U.

■ SHIFT - has gone! We know you didn't like it, so we have substituted separate pushes for various types of record function.

■ INHIBIT, TIMES 1.5, BUMP. (plus a spare for future expansion). These extra buttons act rather like the mode select keys on the Group Masters panel and modify the action of the ten memory transfer keys. The BUMP mode means that the memory transfer keys flash the designated sub master to full.

■ MOTION CONTROL - definitely for the connoisseur!

Galaxy 3 offers very sophisticated controls for setting the position of each light, initially, or manually overriding at any subsequent time.

Once recorded, the position cues form part of the plotted show and happen automatically whenever the memory is presented by the playback panel.

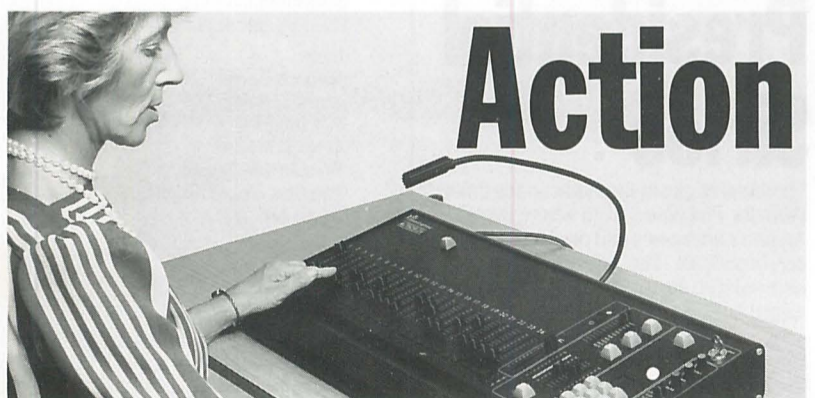
A motorised light may have many functions - pan, tilt, focus, colour, barn door, iris -

The Galaxy 3 Motion panel has four wheels allowing four functions for any motorised light to be balanced simultaneously or even four different luminaires to be moved together.

System accuracy is one part in a thousand. The panel displays luminaire positions and permits blind plotting.

So there it is - Galaxy 3.

I hope I have told you enough to whet the appetite. But as with all such systems they must be seen and played with to be fully appreciated. The photo from the Editorial Pentax shows our Brentford demonstrator - and very soon many other systems will be in the field and in agents showrooms in many countries. ■



Action

A new small - and distinctly affordable - memory system to be sold Worldwide

One of the most welcomed products at our recent Bristol fandango was the introduction of Action, the first really low cost memory system from a major manufacturer. This, of course, means world wide service, spares, back up and availability as part of the deal.

Time was when an amateur, school or small professional system was stark to say the least. Many readers will remember the Junior 8, four shared dimmers, eight circuits, and portable only in the sense that a cast iron mangle is portable.

Twenty years on and from the day the first memory systems were revealed to an astonished world their price has shown a steepness of decline only matched by the steepness of the rise in the number of facilities incorporated.

As you will see, Action is certainly not short of useful qualities. Price? Ah, for this nice surprise you must contact your Strand Representative or Dealer who will also be able to arrange for you to try the system for yourself. ■

Action Summary

- 24 Channels controlling 24 dimmers.
- 99 Memories.
- Channel 'Flash' or 'Bump' buttons, each with an integral LED.
- Split dipless cross fader.
- Fade Time Controller.
- Digital key pad with LED display window.
- 9 Special Effects, including chase, cycle, random, flicker, sound to light and 'base beat'.
- Special effects speed control.
- Record lock keyswitch.
- System diagnostics.
- Multiplex output.
- Goose neck operators light (optional).

The Action desk is all metal, finished in matt black with light blue signing. The front rail extrusion is shaped to act as a carrying handle.

The whole desk is meant to tour so we made it strong. Regrettably the Strand tradition of offering control systems in either Bankers Mahogany or Methodist Oak were ruled out as too ambitious at this level.

A few More Morsels of information to tempt you.

Control of the dimmers by Action is multiplexed, so all 24 need only a screened pair to send them about their business or two twisted pairs for the North American version!

We offer two versions of Action, one for 220/240v. 50Hz. and one for 100/120v. 60Hz.

The 'Flash' (U.K.) or 'Bump' (U.S.) buttons fulfill a variety of tasks. A three position toggle switch arranges for them to flash to 'full', to 'off' or to be inactive, while the tiny red LED set into each button serves as a mimic to identify active channels in a cue for modification. They also tell the operator which channels are involved in a running effect.

A master fader masters, while the keypad has nothing to do with keys but is that array of numbered buttons found on every calculator. An extra button allows an easy retreat or advance one digit at a time. There is a two digit display window to show the memory or effect number selected. The display also shows if any selected memory number has been recorded.

So we provide a 'Modify' push. Pressing this displays channels that are active in the cue under consideration by illuminating the LEDs in the channel flash/bump buttons. Pressing the button selects that channel for modification, its current level being displayed on the A/B fader bargraph. You then raise or lower the offending channel by the Bump Select Switch and record the time. Effects can be changed the same way.

Timed fades - from two seconds to five minutes - are available and can be adjusted at any point - i.e. if the scene is playing very fast that evening then as with all Strand boards, the operator is the final decision maker.

A 'Sequence' push is provided. If pushed while recording, then memory cue numbers are automatically allocated in sequence. When in playback mode, 'Sequence' will automatically load the next memory into the dark preset as each crossfade is completed. Thus your lighting cue is automatically always 'waiting in the wings'.

Peace of mind should be ensured by the fact that not only does Action hold its memories for at least seven days if someone turns off the mains, but, should the central processor go missing - a very unlikely event - you can still run the show on the 24 manual faders using the cue sheet you made after the lighting rehearsal.

As a further confidence booster, Action has a self diagnostic facility. The operator, using numeric codes, can select nine tests and even, should a complete check up be required, 'All Tests' can be selected. If anything is amiss the LED window displays a number code that tells where the trouble lies.

All operators deserve a status symbol -

and this we have provided in the form of a key whose use stops the unthinking or mischievous from wiping all that carefully designed lighting. After all, it was late, and the bar sometimes calls after a fraught rehearsal and, yes, you will write it all tomorrow. Then your key is indeed a comfort.

For the technically minded . .

Action uses a single M68B09 micro-processor with a 3MHz clock rate, similar to many other Strand memory controls. Cues and effects are held in 8K bytes of CMOS ram which is battery maintained by rechargeable NiCad cells.

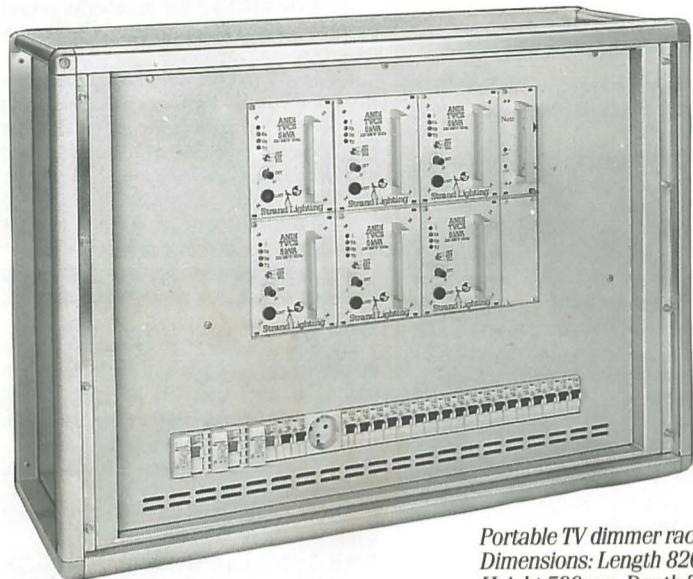
The software (or firmware to be strictly accurate) is written in 6809 assembler and held in a single UV Erasable PROM.

Action is the first truly international memory control from Strand. Its specification was defined by R & D and Marketing people in London and Los Angeles. Software, Electronic and Mechanical Design was carried out on both sides of the Atlantic, and Action will eventually be manufactured in several of Strand's factories. Action will be available to Strand customers worldwide!

Push to record. When you have composed your lighting a single push on the button records your lighting in all its subtlety under the cue number displayed. The most discreet of 'bleeps' confirms that all is recorded. Writing down channel information can be done at leisure after the rehearsal if required.

Do you ever change your mind? Who doesn't? ■

A Uniquely High Quality Portable Dimmer Rack from Strand, Germany



Portable TV dimmer rack 6 x 5kVA
Dimensions: Length 820mm,
Height 590mm, Depth 280mm,
Weight 55kg.

by Heinz J. Fritz

When I joined Strand in 1963, which now seems a little while ago, my first task was to accompany G. T. Wood – better known around the world as Woody – on a tour through Europe with the latest invention of the Strand Electric & Engineering Company, a portable TV dimmer rack.

It was at that time that I met Ludwig Pani in Austria and old man Eichenberger in Zürich, who unfortunately are no longer with us, but whose companies are still Strand agents.

The rack was fitted with 3 SCR (silicon controlled rectifier) dimmers now known as Thyristor dimmers and the design was taking technology a big step ahead. Strand was at that time still commonly using resistance dimmers, which offered remote facilities by means of a pair of magnetic clutches from a common uni-directional shaft powered by a variable speed motor.

The transformer dimmers which followed never seem to have really taken off the ground, although in Germany magnetic amplifier dimmers became the fashion and have proved a very reliable dimming source.

Beautifully built control systems were offered with this electro-mechanical dimmer technology consisting of banks of presets with grouping facilities like the Lightset consoles, but this is not really the subject of this article.

The SCR dimmers were equipped with heavy chokes for filtering, restricting the portable dimmer rack to three units, as otherwise the American understanding for portable as "transportable" would have been more precise.

The new dimmer found great interest in Germany, Austria and Switzerland and started endless discussions on noise and interference, as the technology was not known and practical experience not yet existing.

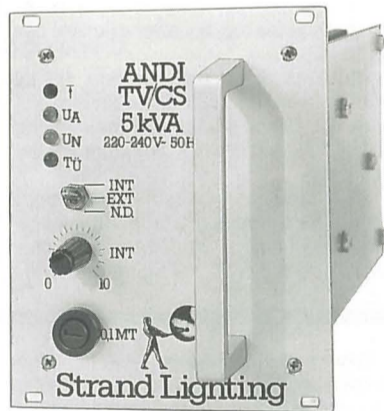
To honour history it is probably worthwhile to mention that Woody had invented a dimmer based on the Thyatron valve before, a principle which AEG in

Germany favoured for quite some time, but again this development has shown no real future and was thus discontinued.

The first installation of SCR dimmers in Europe to my knowledge went into a studio in Cologne. 120 dimmers were installed and controlled by a Strand Lightscene system.

The dimmers worked to customers' satisfaction, although I remember that mains filters had to be installed initially to stop the pulse switching on the street lights affecting all lights in the studio to go up and down. It took some time to find out that this was caused by the street lights and happened only at dawn, because the producers complained to the technicians in the morning, when they were not able to reproduce the fault.

Ever since this initial experience Strand has sought to produce a portable TV dimmer rack meeting specifications, although it is probably worthwhile in this context to mention that our ACT 6 and Tempus portable racks have been successfully used throughout Europe on the various location jobs.



Front panel of dimmer module with indicators, change over switch for remote/local/non-dim and potentiometer.

So here it is – the answer to the really demanding TV-customer. A portable rack with six plug-in Thyristor dimmers, separate power supply for the control electronics, earth leakage circuit breakers, fuses, indicators, all being housed in a compact rack which is fully isolated.

The NF-filters are fitted in the bottom of the rack via vibration mounts. They are specially wound to reduce the mechanical hum during operation and provide adequate TV filtering.

The whole rack is ventilated by a plug-in fan tray between dimmers and chokes with specially designed deflecting blades to improve the air flow.

To prevent the whole rack supply from falling three earth leakage circuit breakers 63/0.03 Amp are fitted.

All connections are made from the sides so when placed around a cyclorama all cable connections come from the rear leaving a free gateway.

One side of the dimmer rack contains all load sockets (Weinert 25A) with two Schuko sockets (10A) wired in parallel, individually fused at the front panel, which therefore contains 18 circuit breakers – 6 circuit breakers 25A and 12 circuit breakers 16A.

The other side of the rack contains the mains power inlet socket CEE 17, 63A, for three phase supply.

Mounted below is a plug and socket system (39 pins) for analogue control according to DIN 41618, which allows daisy chaining of 6 racks with manual control desk.

Also fitted is a demux-card – as used with ACT 6 – so that up to 384 dimmer circuits can be connected by one pair screen microphone cable.

All connectors are mounted recessed in the housing, which is built out of Hostalit-Z and thus fully isolated.

The portable rack weighs 55kgs, and proper handles are part of the frame structure. For ease of transport they are fitted with ball bearings in the chassis and several racks stack on top of each other.

The core of the construction is a compact plug-in Thyristor dimmer, closed loop, hard firing with additional HF-filters mounted close to the Thyristor pack. An overtemperature cut-off is fitted.

The front panel has indicators for mains, load voltage and overtemperature and a comfortable handle for ease of operation. A switch below the indicators allows selection of local, remote and non-dim functions.

If the dimmer is switched to local, it can be controlled by the potentiometer.

A fuse protects the transformer supplying the control voltage to the trigger circuit.

Obviously such truly highly specified products can never be cheap but the benefits are that the racks can be distributed with little restrictions on location offering the flexibility TV people require.

The design allows for rough treatment and is in size equal to standard distribution racks.

If a job is worth doing, it's worth doing well. We certainly have taken our time to do it well, but now believe to be number 1 in portable dimmer rack again. Woody would certainly be delighted to be able to carry six dimmers instead of the three he offered in 1963.

For further information contact:
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Telephone: 05331 7951
Telex: 95641 Fax: 05331 78883.

First cancelled O.B.

The early days of television lighting and a Coronation that never happened



A pre-war Strand Pagent IK, highly directional beam. These units would have been used for television lighting in Westminster Abbey for the coronation of Edward VIII – if it had ever happened.

The fiftieth anniversary of high definition television has been the occasion for much reminiscence. Most of this has, quite naturally, concerned the programmes. Many a clip of ladies singing to us with South Kensington accents have appeared, while a BBC TV play 'The Fools on the Hill' told us of the first few months at Alexandra Palace.

This play did deal to some extent with the rival Baird and Marconi systems – of which the latter required lighting while the former occurred in the dark and dramatically re-created some of the transmission uncertainties. But the lighting that is the whole beginning of any transmitted picture, was not mentioned – probably because it was non-controversial and totally reliable.

Lighting for Entertainment was the slogan of Strand Electric, the company who supplied the world's very first television lighting control, a theatre type switchboard known as a Grand Master, and fifty years later, almost to the day, the same company commissioned a modern Gemini system at the BBC's Leeds studio. In 1936, the main source of entertainment lighting work was the super cinema. In the shoe box multi-auditoria cinemas of the eighties, one can easily forget that the thirties predecessor often had a stage of Drury Lane proportions, equipped with six rows of overhead three colour compartment battens, a row of similar footlights and those now defunct artefacts – Flood Towers – in the wings. The purpose of all this expensive hardware was little more than to flood the stage drapes with changing coloured light between films.

The theatre of the period was still firmly locked in the batten and footlight era, going back to Irving with only acting area floods and Pageants pointing the way towards the totally directional style that is today's universal stage lighting practice.

When the BBC were considering the lighting for their new service, they must, I imagine, have first considered using film studio lighting. The fact that they never really adopted the methods of Hollywood or Pinewood arose from the very nature of the TV medium.

The central fact of film lighting is that from Mack Sennett to James Bond, each shot has been lined up and lit by the lighting camera man, the shot secured, and the next scene lit. Probably this system would have been adopted by television if, from the start, video recording had been available. But for the first twenty years not only was TV live, it was thus necessarily continuous. You couldn't strike after every shot and begin again.

Another factor that must have scared the early Ally Pally men off film lighting would have been that the basic studio workhorse was the arc lamp. Transmission must have been quite fraught enough without adding the problems of a faulty carbon spluttering

and flashing during a transmission, and emitting goodness knows what electromagnetic interference.

Some film equipment was of course used. The sky-pan and the scoop had roles from very early days, and a colleague remembers seeing large frames fitted with up to forty or fifty 100 watt lamps being used at Alexandra Palace as softlights.

The continuous shoot principle must have been behind the provision of theatre type dimming right from the start. The adjustment of a light level by stretching a scrim in front of a lantern was very seldom a TV method. Today, even though studio live transmission is such a rarity, the television method calls for lighting dimming control systems every bit as sophisticated as at the largest opera house. In fact, the Galaxy control which was installed a few months ago at the London Coliseum for the English National Opera, is a very close cousin indeed to the two Galaxys recently commissioned at Television Centre.

As a small but relevant aside, it may be a pointer to television's influence on lighting that some of the feature films recently produced and now shooting are actually utilising theatre-TV lighting controls and dimmers so that lighting can be changed during a shot and to speed the actual lighting of a scene. (The recent 'Peter the Great' aired on BBC is an example. See article by lighting cameraman Vittorio Storaro in Autumn '86 Strandlight).

The Pageant lantern – a thousand watt light with a curved mirror reflector giving an intense narrow beam was the unit recommended for the world's first cancelled outside broadcast – the coronation of Edward VIII. In all the millions of words spilled on the subject of Edward and Mrs Simpson, I doubt if this little bit of history has previously been unearthed.

This article first appeared in 'Eyepiece' the Journal of the Guild of British Camera Technicians and is re-printed with their kind permission.

The Living HMI's

by Brian Hartley

Strand's Quartzcolor Lighting on location for James Bond's latest adventure and two more hits.

What do Elliot Ness, James Bond and a group of battle weary G.I.s have in common? The answer is Quartzcolor. To be precise, the actors portraying these real and fictional heroes of the silver screen were lit by a variety of Strand Lighting Quartzcolor equipment.

For the final frighteningly thrilling scene in Brian De Palma's 'The Untouchables' Elliot Ness and his one remaining partner are involved in a shoot-out with Capone's hoodlums. The location is Chicago's Union Station and the scene was lit with 10,000W Vegas.

It is a far cry from gangsters in Chicago to battles in Afghanistan and romance in

Vienna, but these are just two of the settings of the latest saga of 007 – 'The Living Daylights'. In Morocco, doubling for Afghanistan, 600W Sirio HMI's provided appropriate 'living daylight' sources for the action packed sequences, as well as being prominent in Vienna running shots and static locations.

The jungles of the Philippines are not the easiest of film locations. The terrain is tough on equipment as well as on the actors and crew. That all three categories stood up so well is reflected in the successful release of 'Platoon', winner of four Academy Awards. The quality of the equipment certainly

had a hand in bringing the production home on time and on budget, the real workhorse lights of the shoot were the 12,000W Sirio HMI systems – which performed admirably in the bad terrain which stood in for Vietnam.

So three hit movies for 1987 – and three successes for Strand Lighting and Quartzcolor – three successes in which we take pride in our contribution.

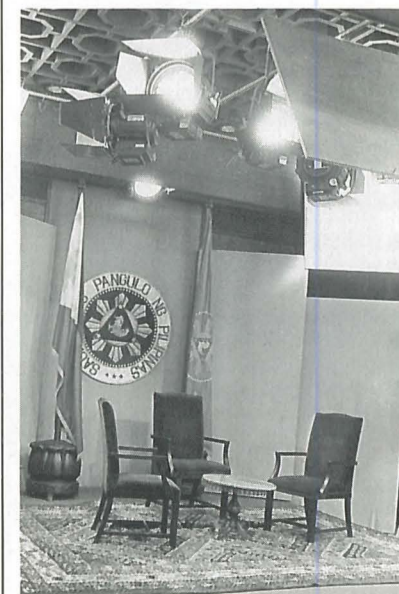
"Quartzcolor 6000W HMI Sirio Systems provide the daylight for the latest 007 motion picture – 'The Living Daylights' – on location in Morocco."



Presidential Sirius

The small studio in the Malacanang Palace (Manilla, Philippines) from where President Aquino's addresses and press conferences are broadcast. The set up is somewhat unusual with all eight Sirio's permanently rigged.

For President Corazon C. Aquino's TV studio, Malacanang Palace.



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ELECTRO NEWS



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THE INTERNATIONAL JOURNAL OF ELECTRO CONTROLS

Special Strandlight
Supplement

The Salt Lake City based high technology lighting control company is now part of the Strand Lighting international group



Left to right, Sir Patrick Meaney, Chairman of the Rank Organisation, Hyrum Mead, President of Electro Controls, and Marvin Altman, President of Strand Lighting, taken outside Electro Controls head office during the chairman's visit.

This is the first issue of our new twice yearly magazine. We hope to use it to keep all Electro friends and customers up to date on our products, new and old, and on contracts, projects and company personalities.

For 'Strandlight' readers we are enclosing a copy of Electro News to introduce the company and its products to you.

Now Electro's range of theatre, television and architectural lighting control products are available from Strand companies and agents throughout the world, except for the continental United States, where a completely separate distribution channel will be maintained.

In the rest of the world — Europe, Australasia, Africa and the Far and Middle East, Electro products can be

obtained wherever Strand's own products are offered.

They will enjoy the service support in the field that has been the foundation, since 1914, of Strand's success.

So now there is an alternative design approach available through the companies, agents, dealers and representatives that you know and have entrusted with your lighting needs for many years.

Electro Controls becomes part of Rank Organisation

Who Are We at Electro and What Do We Do?

Based in Salt Lake City, the company designs and manufactures Architectural lighting control systems for hotels, conference centres, and all types of buildings where sophisticated dimming and switching of lighting for aesthetic requirements or for energy saving is required.

We also produce an advanced range of both memory and manual control systems for theatres and T.V. studios. These include our top of the line Premiere system, specified for the Calgary Arts Centre and the other large theatre applications and the Celebrity and Prelude ranges which include systems covering a range from large TV studios to school auditoriums.

Our range of dimmers, both tungsten and fluorescent, have been widely accepted in the market.

And now with the world wide service and support of Strand Lighting, which in turn is part of the Rank Organisation, a leading international group and one of the

world's largest and most securely established companies, we are confident of achieving in the rest of the world the success we have enjoyed in North America.

Electro Controls Early Days

Electro Controls was founded forty one years ago by Mr Ariel Davis and his brother.

Ariel Davis is one of that band of inventors and

entrepreneurs that America has produced in such profusion since the earliest days of the country, a group whose discoveries have been essentially useful and practical above all else.

It was to lighting and dimming and sophisticated control methods that Ariel Davis devoted his ideas and which were the basis on which his company was founded.

The company's first home was in the small city of Provo, about thirty miles south of Salt Lake City, the site of Brigham Young University. A close link with a University town provides good credentials for technological companies everywhere.

There were many innovations and inventions along the way as the company grew. Among these was the development of America's first memory console and the first use of the now universal parcan. Some of our readers will remember the Parallelsphere, a very early example, I believe the first in North America, of the variable focus framing spot, whose descendants now hang above every stage.

We also created the sliding cross connect which replaced cord and plug patching found so widely up to the present decade, when a dimmer per channel became the accepted standard.

By 1963 business had developed to the stage where location in a larger metropolitan centre would obviously be sensible, so a move was made to Salt Lake City itself.

The company then passed into a different ownership, although continuing to grow in size and in reputation.

1986 brings our story up to date, when Electro Controls became part of the Strand Lighting world wide family.

And a Few More Facts — This Time About Strand Lighting's Early Days

The original company, Strand Electric and Engineering Limited, was founded in 1914 to manufacture equipment for the still fairly new art of lighting the theatre stage by electricity.

A very small workshop in London's Covent Garden was the start of it all. Strand had two great advantages from the beginning. The founders, Arthur Earnshaw and Philip Sheridan were both theatre chief electricians and Covent Garden was, and still is, in the very heart of London's entertainment, with forty theatres within a short walking distance of the original small Floral Street workshop.

Strand grew steadily, taking on extra premises scattered over London as demand for their lights, switchboards and dimmers grew.

They produced a range of battens, floods and spots, but their main strength was in their switchboards and dimmers, which always set the pace.

In the 1950s the growth of television led to another great increase in Strand's business and Strand's switchboards became even more popular on both sides of the Atlantic.

Let us now consider the other half of the present Strand Lighting company, Century Lighting of New York. Founded in 1929 by Messrs Levy and Cook, this company's development paralleled that of Strand in England. The ellipsoidal type of spot light known world wide as the Leko — the name derived from those of the two founders — was and is a most widely known product. About nine years ago the famous series of memory control systems marketed under the Light Palette name came along, and now, alongside U.K. Strand's Galaxy and Gemini they constitute the world's most popular TV and theatre lighting controls.

In 1968 Strand became part of the Rank Organisation, a major industrial, hotel and entertainment group, with financial resources to back the continued growth of its three lighting companies.

So this is the family which now welcomes Electro Controls, its products, its staff — and, most important of all — its customers.

One of Electro Controls Finest Projects

Lighting at the Calgary Centre for Performing Arts

During a recent visit to Canada, Donna Appleton, the Strand Lighting General Manager in Canada — now also responsible for Electro products in the Dominion — told me about the highly successful Calgary Centre for Performing Arts, opened some two years ago.

The architects were Raines Finlayson Barrett and the theatre consultants were my old friends Theatre Projects Consultants — I was going to say of London, but they are also now of New York, Toronto and Los Angeles.

I asked Jerry Godden of Theatre Projects, who was especially involved in the Calgary project, to tell Electro News readers about the lighting and control.

Theatre Projects Consultants was first approached to become involved in the design of the Calgary Centre in the Summer of 1978. Calgary, in the province of Alberta, Canada were planning to invest Can \$79M in a new

downtown Arts District.

The Centre comprises three stages: two theatres arranged around the main workshop and a Concert Hall, the stages and central loading dock constructed at a common level to assist the movement of scenery and equipment. Each theatre has a full size rehearsal room and beneath the Concert Hall is an acoustically treated room in which a full orchestra may rehearse leaving the concert platform free for other events.

The Jack Singer Concert Hall

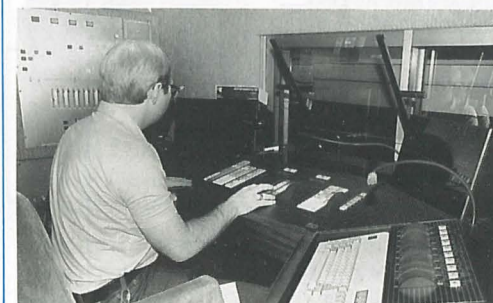
Although primarily intended as a Concert Hall, this 1800 seat room has been designed to accommodate a wide range of events: popular music, open stage opera or dance, films, conventions, headliner acts and almost any other popular entertainment that does not require a proscenium or full flying system. Lighting in this space has therefore to be versatile enough to deal with any type of performance.

Concert platform lighting is incorporated into a large canopy suspended above the platform which is adjustable in height to vary the acoustical response of the hall. For this location Strand Century 6" 1000 watt fresnels were chosen. Fresnels illuminate the main floor area of the hall, the instruments being accessible from the roof void. The side walls of the hall and their retractable acoustic banner

coverings are washed with linear tungsten halogen floodlights located behind glass portholes set into the ceiling. Theatrical 'sparkle' is provided by light strips along the tier fronts, using low wattage round bulbs mounted on chrome backplates.

Preset conditions for house and concert lighting are accessible from any of eight remote panels located around the hall.

Due to the acoustical requirements of the hall's ceiling, lighting instruments in the roof are located behind thick



One of the two identical 'Premiere' systems in the Max Bell and Martha Cohen. This one is the latter.

glass at the centrally located follow spot position and behind sliding panels at the rear side ceiling lighting positions. These panels open electrically for theatrical events.

The Electro Premiere System

For those unfamiliar with the 'Premier' the heart of the system utilizes an IBM PC-AT computer for command, display and management functions. The computer is used in conjunction with an ASCII keyboard, disc drives and processor. The console itself has a 'Star Wars' appearance with the controls and displays located on three main panels that wrap around the operator. Located each side of the two console wings are colour CRT displays providing information on recorded data and active information from the key entry section. A third CRT located inside the console in the central position provides a 'head up' display projected onto a clearglass screen through which the operator has a simultaneous view of the stage. This third screen displays fader status and other pertinent information.

The central control panel houses three main sections: A set-up section with the now familiar endless wheel and numeric entry facilities for addressing cues and channels. A key entry section for addressing all the console control

continued on page two...

... continued from page one

functions. A fader section comprising two separate faders each with dual up and down wheels and controls for GO, STOP, REVERSE AUTO LOAD and AUTO GO. The left hand control panel houses 30 submasters whose functions include pile on, proportional control and subtractive use. Four sets of sub-faders allow access to the multi-parts of each cue. The right hand control panel houses the ASCII keyboard. This is obviously a simplistic explanation of the functions of this well presented and laid out console where everything is truly at the operator's finger tips.



The Jack Singer Concert Hall.

A central house lighting fader panel is located in the lighting control room with remote panels in the projection room and on stage. This theatre like the other two spaces is equipped with a logic switching worklight system. These systems control all the lighting fixtures associated with the 'work lights' (bright lights used during load-ins, etc) and 'performance lights' (low level blue lights used during a performance for circulation backstage, etc.). Master panels located in key locations control the switching of these lights and special power circuits in three different conditions 'DAY' 'NIGHT' and 'SHOW'.

There are 130 permanently installed instruments: 100 x 15°-40° Strand Lighting zoom Ellipsoidals and 30 x 6° x 16°.

Other available instruments include the following equipment which is all Strand unless noted:

- 15 - Iris - 3 cyc floods, 1000W
- 2 - Iris - 2 cyc floods, 1000W
- 4 - Iris - 1 cyc floods, 1000W
- 21 - Pallas cyc footlights, 500W
- 54 - 6 x 12 (15 deg) Lekos
- 18 - 6 x 16 (23 deg) Lekos
- 35 - 6 x 12 (31 deg) Lekos
- 50 - 6" Fresnels c/w barn doors
- 20 - 8" Fresnels c/w barn doors
- 40 - Par 64 1000W
- 110 - 15 deg - 35 deg zoom Ellipsoidals
- 10 - 20 deg - 40 deg zoom Ellipsoidals
- 2 - Strong 1600W Xenon short throw Super Troupers

The Martha Cohen Theatre

This 450-seat theatre is horseshoe in shape with three tiers forming a courtyard around the stage. The theatre is home of Alberta Theatre Projects (no relation!) the second resident company, whose previous theatre, the Canmore Opera House, was a log cabin. Part of our brief was to maintain the intimacy of the close actor/audience relationship together with a warm and informal atmosphere. The intimacy was achieved by shaping the horseshoe so that the furthest row of seats at orchestra level is only 12m away from the stage edge. The warm and informal atmosphere comes from the choice of building materials, scalloped brick walls surrounding the auditorium and tier fronts finished in a dark timber.

Lighting control is provided by an Electro Control "Premiere" console with a manual Celebrity back-up system.

To save on labour each key lighting position is provided



Actors eye view of the delightful Martha Cohen Theatre.

with a receptacle to which a hand held remote focus unit may be connected.

There are a total of 130 dimmers, 26 x 50 amp and 104 x 20 amp. Ceiling instruments include 16 x 8° Ellipsoidals (not Strand) with remote colour changers and 44 x Strand 8 x 13. A total of 103 x Strand Lighting 15°-35° and 48 x 20°-40° instruments are available, together with 48 x Par 64's, 7 x Quartz Color 4 cyclights and 2 x Strong Xenon Super Troupers.

The Max Bell Theatre

The larger of the two theatres is the 750-seater Max Bell. Designed for Theatre Calgary, a resident company with the arts centre, this theatre features a flexible stage area that allows the theatre space to change with each production.

The size of the proscenium can be varied between 10m and 19m permitting intimate small scale or wide-stage productions with elaborate settings.

To enhance the flexibility of the space all three levels of the boxes nearest the stage are hinged and swing out on air castors to vary the width of the proscenium.

Front of house lighting instruments are

along two semi-circular bridges on booms fixed to the moving boxes and on pipes at two levels along the tier fronts. A total of 131 circuits are allocated to these positions.

Within the flytower stage lighting is distributed to lighting instruments by the conventional use of drop boxes fed by multiconductor cables from the grid above. These together with wall boxes and floor pockets bring the total number of installed circuits to 352 (328 x 20 Amp, 24 x 50 Amp).

The installed control system is an Electro Controls 'Premier' console with a 'Celebrity Plus' as an auxiliary/back-up console. A designer's remote console is supplied for use at orchestra level and each key lighting location is equipped with a receptacle to accept a hand held remote focus.

The proscenium opening is fully adjustable, both in width and height, the side masking panels retracting fully into side wall pockets so that if required there need be no division between stage and auditorium. The seating at orchestra level is removable so with the two orchestra lifts raised and additional flooring it is possible to present promenade productions.

The house lighting plays a very important part in the overall atmosphere of this space. Specially designed fixtures on the tier fronts provide a warm candle-lit feeling, whilst the use of low wattage lamps in the gap between the back of the tiers and the surround walls have the effect of highlighting the interior structure.

Above the main body of the auditorium is a 'Clancy Grid'. This is formed from aircraft cable interwoven at 90° and tensioned to provide a surface that can be both walked on and lit through. The main FoH lighting locations are above this grid, together with surround pipes on the front of each tier. There are a total of 128 FoH circuits and 137 stage circuits (243 x 20 Amp, 22 x 50 Amp).

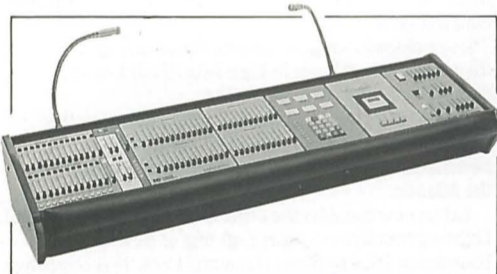
The control system is the same as the Max Bell, an

Products from our standard range of architectural, theatre and television lighting

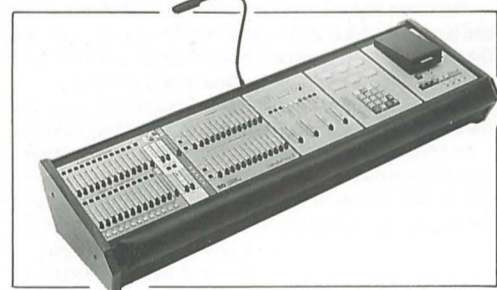
Illustrated here are some of our standard product range. But we pride ourselves in offering solutions to lighting control needs rather than in simply producing a range of standard products. Often the best solution consists of a 'special' element alongside the standard units. We at Electro Controls are set up to offer the complete lighting control package. If this involves the design and manufacture of a 'special' that's no problem to us.

Because each regional team has its own systems engineer and because the factory is set up to handle special solutions as a regular part of the production programme - 'specials' are not banished to a separate department in our plant - we can offer a complete integrated lighting control solution for any project.

And now this design and production is backed up by Strand Lighting's world wide sales and service. From Austria to Australia and from Saudi Arabia to Switzerland Electro Control can demonstrate the design and production standards that have won us our reputation in the U.S. and Canada.



Celebrity incorporating House Light panel.



Celebrity II

Controls up to 512 dimmers by dual-pattern Proportional Matrix. Each dimmer can be assigned to more than one channel, thus allowing fuller use of dimmer and lanterns.

Memory Page. 240 or 480 memories by using 10 pages of memory in groups of 24 or 48.

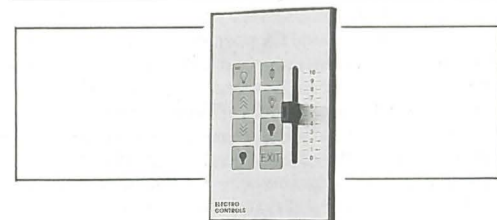
Library storage by 3 1/2" floppy disc. A printer port is provided compatible with most printers.

Flash (Bump) buttons are standard.

Special effects features variable speed and variable intensity. 2 to 12 channel sequence, with chase and positive/negative imaging.

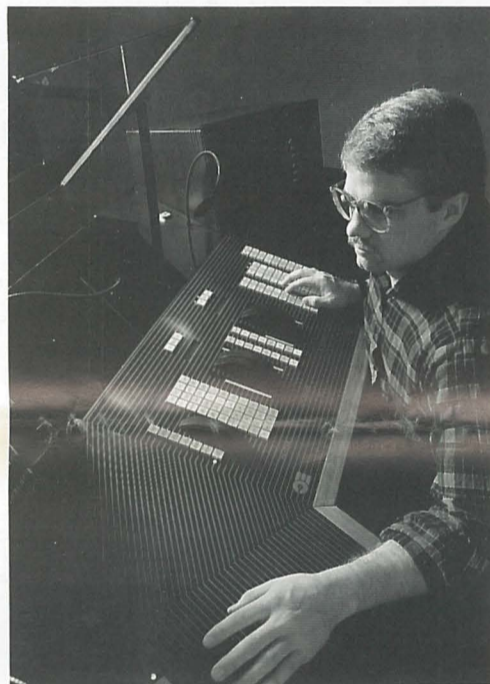
Riggers Control, wired or wireless.

Consoles are specially made for each project. Single or double tier or touring versions are all available.



Micro Dim "D"

A single gang control with eight different functions: Panic, Fade to Full, Fade to Off, Off, Dim, Raise, Lower, Exit.



Premiere is Electro Control's top of the line control desk

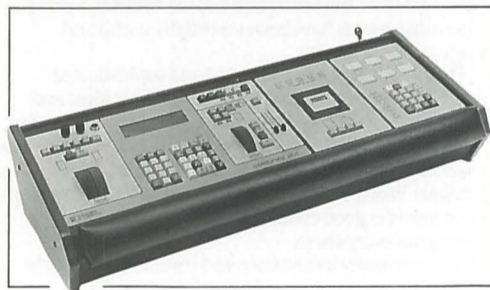
Premiere is capable of controlling 4000 Dimmers on 500 Channels. The system will hold 10 shows of 1000 cues each. Other features include the distinctive reflected "Heads Up" display that allows the operator to view the stage and board status simultaneously, a wireless dimmer check device and a separate printer cue. A designer or stalls desk is available, as is a separate riggers/designers control.

Among the most flexible features of Premiere is the ability to preprogram cues, patches, cue sheets and channel curves and fade profiles at any IBM/AT compatible computer, with the proper hard disc and software program. This allows much of the show to be "Prewritten" before the show ever takes the theatre for setup.

Due to the basic philosophy of distributed processing, fades and patches are excited at the Dimmer Racks, which allows a large number of dimmers to be controlled with great speed and with a minimum number of control wires.

The first Premieres were installed in Calgary, Alberta, Canada at the Theatre Projects Facility - Calgary Center of the Performing Arts. Here resident companies use them each night.

Other Premiere installations include professional theatres in Toronto, Canada and Oxnard, California, and several University installations.



Celebrity Plus

Up to 125 Channels and 250 cues.

320 Character LCD display. And/Through/Minus keyboard.

Dual pattern proportional matrix patch for up to 512 dimmers.

'Stepback' button to allow easy return to previous cues.

'At level'/'Set All' facility.

12" Black/White or Colour Monitors.

Can be combined with Celebrity manual control in one console to provide single performance manual operation option.

3 1/2" Floppy disc library storage.

Multiplexed 4 wire output.

Wireless or cable riggers control.

Hard copy printer option.

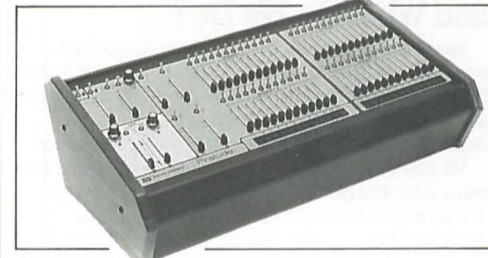
French language display available.

Touring desk available.



Micro Control

Control can be transferred from one station to another simply by depressing the "control" push button. Solid state circuits complete the transfer of control without the need for large remote relays and diode matrices.



Prelude

12, 24, 36 or 48 Channels.

2 Pre sets.

4 Sub Masters.

Split Crossfader with separate times.

Timed independent Master.

Time range - Manual to 6 minutes.

Grand Master.

Blackout.

Variable bump (flash) level.

Real time analogue output.

Options: 12 Channel effects module

Operators goose neck light and key switch

Auxiliary panel for houselights, tab warmers, etc.

Digital output model offers these extra options:

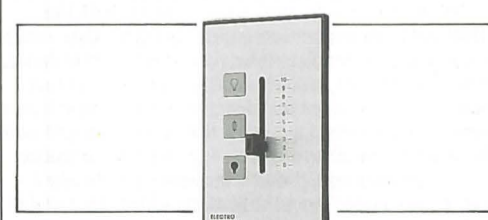
Full matrix, proportional patch module

Handheld riggers control

Library storage of patch data

Printout of patch assignments

VDU display of channel outputs



Micro Control "TF"

Same as Micro Control with "time fade" built into the control station.

Time Master

Time Master gives programmed control of electrical loads for energy saving.

Storage of program for a complete year, by day or by date.

32 separate control groups.

Desk top display monitors.



Holidays may be programmed in, as can daylight saving and business time changes - i.e. late Thursday opening, early Saturday closing etc.

Emergency by-pass and local override facilities.

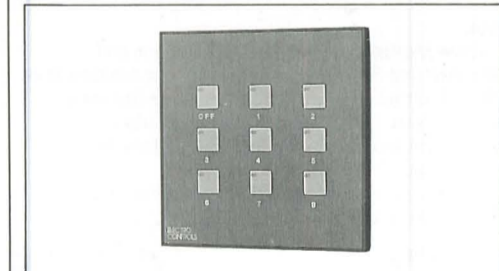
Will control motor relays, lighting dimming and lighting pre-sets.

Options Available
Feed back control to maintain constant lighting level as ambient light changes.

May be connected to security systems.

Occupancy sensors.

Local override for after hours lighting.



Lite Scene

Offers eight scenes or "looks" of presetting. There is no limit to the number of lighting channels which can be put on each scene.

Lite Scene also comes with an Audio/Visual interface. A scene button can thus control all electrical elements in a conference room.

Example: By pressing button No.1 you can dim the lights, turn on the microphone, lower the film screen and have the projector turn on. Much easier than using 4 different buttons.



Lite Cel

A control that works with a photocell to measure and control light output. It is capable of fading any dimmer and its load, as changes in the natural light in any given area may require, from the maximum intensity possible, to the minimum intensity thus maintaining a constant light level.



The Max Bell Theatre. The triple tier of stage boxes painted in the darker shade pivots to suit variable proscenium width on an air castors—but not while occupied! Lighting control by Electro 'Premiere'.

Electro Controls "Premiere" as the main console and "Celebrity Plus" as the back-up. Lighting instruments are all Strand Lighting unless noted.

- 186 — 6 × 16 Lekos
- 48 — 6 × 12 Lekos
- 20 — 15 deg-35 deg zoom
- 10 — 6" Fresnels c/w barn doors
- 30 — 8" Fresnels c/w barn doors
- 5 — border lights, 300W, 4 circuit
- 12 — IRIS 4 cyc flood, 100W
- 21 — PALLAS 4 cyc footlights, 500W
- 2 — STRONG 700W Xenon Troupers

Dimmers

Each of the three production lighting and house light systems control Electro Controls QD dimmers. Production

lighting dimmers are standard plug-in type, utilising self-diagnostic indicators to verify line and load connectors, SCR gate signal, etc. The houselight cabinets are specially constructed to incorporate the considerable amount of branch breakers and power failure transfer relays.

In summary a major achievement for Electro Controls, three large installations in one complex with over 800 dimmers. All credit must go to Peter Rogers* who not only was instrumental in obtaining the stage lighting contract but saw it through to the opening and beyond to ensure both Client and Consultant satisfaction.

The Centre opened in the fall of 1985 and is proving to be a major success both with the users and the people of Calgary who are proud to be participating in this major arts complex.

Jeremy Godden

Responsible for Technical Equipment Planning in the Centre for Theatre Projects Consultants

*Peter Rogers is now National Sales Manager for Strand in Canada. Since Electro joined Strand Lighting he has been responsible for sales of both lines in Canada.

Electro Controls Equipment List:

Jack Singer Concert Hall

- 1 Celebrity Series Main console
- Celebrity Plus 125 Channel Memory
- Library Storage Module
- 48 Channel Manual Celebrity
- 48 Submasters
- Effects Module
- Video Display
- Printer
- Handheld remote
- Custom Worklight Controls



Jack Singer Concert Hall Control.

- 1 Light Scene Preset Concert Light Control System
- 3 Remote Preset Selector Stations for Concert System
- 1 Custom Stage Managers control
- Preset Concert Controls
- Worklight Switching
- 1 Dimmer Rack
- 100 20 amp Stage dimmers
- 30 50 amp Stage dimmers
- 37 50 amp Concert/Houselight Dimmers
- 1 Low voltage Worklight Relay system

Max Bell Theatre

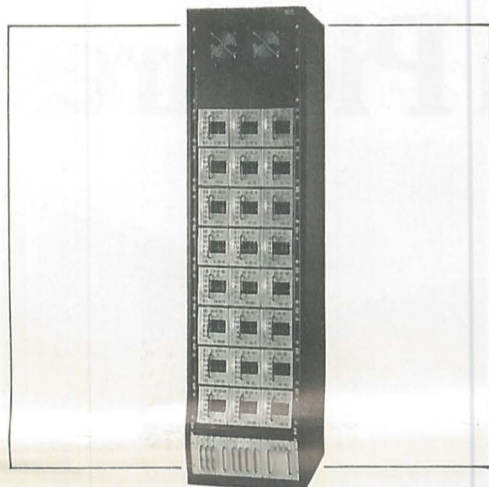
- 1 Premiere Lighting Console
- 500 Control Channels
- 10,000 Cue capacity
- 3 Colour CRT's (1 Projected Display)
- Printer
- Handheld Remote with display

- 1 Designers Remote (Stalls) console
- 1 Celebrity Plus Back Up Memory Console
- 200 cue Capacity
- 125 Control Channels
- Electronic Soft Patch
- Library Module
- 1 Custom Houselight/Worklight Panel
- 1 Custom Stage Managers Panel
- 1 Dimmer Rack
- 328 20 amp Stage dimmers
- 12 50 amp Stage dimmers
- 10 50 amp Houselight dimmers
- 8 20 amp Houselight dimmers
- 1 Low voltage relay Worklight Control System

Martha Cohen Theatre

- 1 Premiere Console (identical to Max Bell Console)
- 1 Designer Remote Console (Stalls)
- 1 Celebrity Back Up Console
- 36 Control Channels
- 24 submasters
- Electronic Patch
- Library Module
- 1 Custom Houselight/Worklight Panel
- 1 Custom Stage Managers Panel
- 1 Dimmer Rack
- 244 20 amp Stage dimmers
- 22 50 amp Stage dimmers
- 9 50 amp Houselight dimmers
- 4 20 amp Houselight dimmers
- 1 Low voltage relay worklight control system

controls and dimmers



Q.D. Series Dimmers

A plug-in range of dimmers to control tungsten loads. Fluorescent and transformer fed fixtures may be dimmed by selecting special dimmers available in this series.

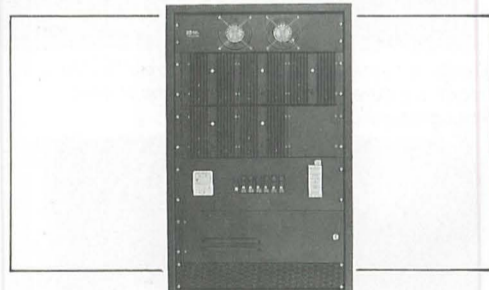
Individual ventilation of each pluggable unit by air drawn in through unit front plate and exhausted at top of cabinet.

RFI suppression exceeds U.S. broadcast industry standards.

Test meter compatible control voltage allows testing using widely available equipment.

Circuit breakers mounted on dimmer front panels.

LED status indicators on each unit.



Alpha Dim II

A wall mounted range of dimmers for both tungsten and fluorescent loads, available for 120v, 240v and 277v. Four enclosure sizes are standard to accommodate up to eighteen dimmers. All Alpha Dim units have thyristors, not triacs, and R.F.I. filtering exceeds U.S. broadcasting industry standards.

A five dimmer cabinet is illustrated.



We produce a range of detailed technical literature covering our complete product range. Available on request from your Electro representative in the U.S. and from your Strand Lighting depot, representative or dealer in the rest of the world.

Electro Personalities

Any company is really the people who work for it. The more technically based the company, the greater the importance of the individual, whether their talent lies in advanced design, conscientious workmanship or determined selling. Here are some of the personalities that make Electro Controls the company that it is:



Hyrum Mead, President, Electro Controls

Hyrum Mead joined the company in 1980 as General Sales & Marketing Manager. After successfully raising sales he was appointed General Manager in 1984. The company continued its growth, and in 1986 was acquired by the Rank Organisation who invited him to continue as President.

With a Bachelor of Science degree in Business Management from Brigham Young University and an M.B.A. from Utah State University, Hyrum Mead joined IBM where he spent seven years in Sales and Marketing.

His life has included two and a half years spent as a missionary in Japan, where he learned the language and became familiar with that country's unique culture.

He is married, and he and Rosemary have a son and twin daughters. His hobbies include fishing and cycling and playing the piano.

Editorial Note: Before I met Hyrum a mutual friend told me "he is an expert on car diesel engines". An unlikely accomplishment indeed, but a little editorial questioning led me to confirm that this is indeed another talent of a mind that has retained very practical engineering interests along with the more cerebral demands of leading a successful company.



Joseph (Jody) M. Good III, Vice President, Technical Marketing

Although Jody Good is only 35, his career has spanned sales, marketing and R. & D. He has always worked in the field of the performing arts. He has a degree in Entertainment Lighting from the University of North Carolina. He is Vice Chairman of the Illuminating Engineering Society of North America Film and Theatre Lighting Committee, and is on the Board of Directors of the U.S.I.T.T. Jody is one of that comparatively rare band who have designed the lighting for both stage and television productions. Joining Electro in 1980, he designed the current Electro Architectural range of controls as well as the Celebrity and Premier Theatre/T.V. systems.



Lee Steiger, Vice President, Finance

Caught by the Editorial Pentax at his computer keyboard, where else?



Robert Heniger, Vice President, Operations (left) and Rick White, Vice President, Sales and Marketing (right)

Robert, who used to be manager of Electro's Canadian operation is the man who has to make sure it all happens, while Rick simply has to find the customers!



Russel Hilburn (left) and Richard Evans II (right)

Russel is a "drafter" (English translation — draughtsman). He has been with the company three years.

Richard Evans is R. & D. Manager

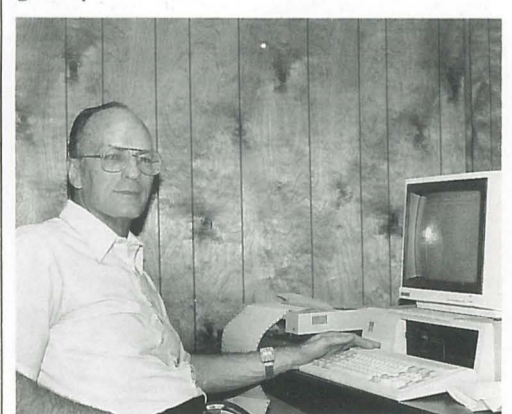
He has been with Electro for six years, before that he worked at Brigham Young University and was Technical Director at the Pine Bluff Convention Centre. Both Russel and Richard are out of towners and live in West Valley.



Han Le, has been with the firm for three years and specialises in the laying out of the printed circuits.



Oscar Medina makes prototype pcb's and is responsible for checking electronic products before they go into production.

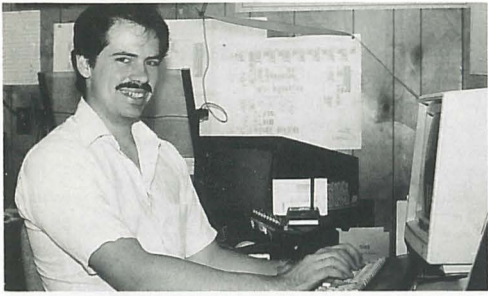


Ruel Clark, Senior Design Engineer

Ruel specialises in analogue design work. Although he has only been with Electro for two and a half years, he has been involved in computer and related design work "since a computer was the size of a Cadillac". Another suburbanite, he lives in Bluffdale, half way to Provo. I recommend any visitors to get Ruel involved in conversation. They will find a highly philosophical and original mind.

continued on page four...

... continued from page three



Hyrum Sessions, Design Engineer and Programmer

I don't know how Hyrum looked so cheerfully into the Pentax! The day I visited R. & D. the air conditioning had packed up and there are no windows. After an hour in the department your Editor was looking for the periscope, and after another half hour for the escape hatch.



Douglas Everett, Electronics Assembly Supervisor and Maxine Armstrong, who is a 'printed circuit leading lady! Between them Maxine and Douglas have clocked up forty seven years with Electro. As an English gentleman, I am certain most of that time must belong to Douglas.



Louise Miller

Not only an engraver, but the very cheerful shop steward. Louise has been with the company for nineteen years.



Kurt Mudrow

Kurt came to America from Germany after the war. He has been with Electro for thirty three years. He is stamping out an aluminium channel which will become a "Channel Mount" the very neat distribution trunkings that Electro offer.

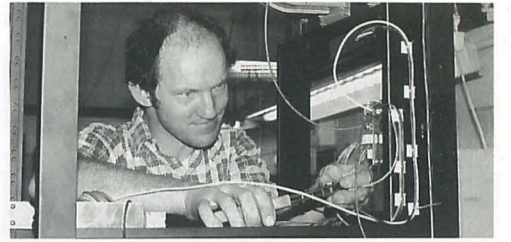


Byron Stout, Systems Designer for West Coast projects

Byron has been thirty two years with the company. Incidentally, the company has an interesting sales organisation. There are four Regional Sales Managers, and four Assistant Regional Sales Managers, each of whom has a systems designer who works permanently with them. Representatives and their customers are always working on projects with the same team. I can imagine the amount of time this must save. In my experience most consultant's have their own special ways of designing a project. A regular team set up makes it easier to take account of their customer's individual ideas from project to project.



David Clement, nine years a machine operator with the company.



Jack Van Gelder, wireman. One of the new boys, having joined two years ago.



Scott Feulner, with what looks to the Editor very like some mechanical dimmers. Remember, Specials are an Electro speciality!



Ross Montoya
To make certain Electro products reach our customers as we would wish, Ross sprays foam into packaging which solidifies to hold all in place.

Four Electro Controls Jobs in Pictures



Theatre

The Capitol Theatre, Salt Lake City

Façade of the Capitol Theatre. The ground floor windows open on to a very large foyer. The auditorium is all rococo white and gold. This ex-vaudeville theatre came close to being demolished to make room for a parking lot, but local enthusiasts gathered round and saved the fine old building.



Roy Frandsen, the local Electro Regional Sales Manager, at the Electro lighting control.



Back stage, the magnificent old Electro sliding contact patch panel. All this has come down to a key pad on current Electro systems!



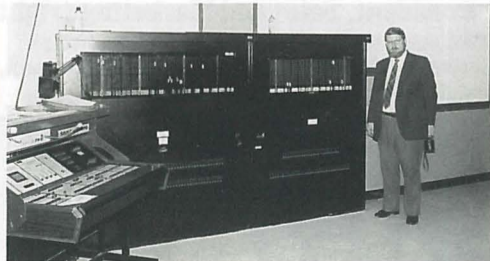
Studio

K.S.L. Television, Triad Center, Salt Lake City

The Triad Center, which houses K.S.L. Television.



Tim Isaacs, Lighting Co-ordinator of K.S.L. at one of their Electro Control Lighting Systems.



Dimmer Cabinet and sliding control patch panel. These panels were getting smaller — compare with Capitol Theatre — when this job was done a few years back. Richard Evans, Electro R. & D. Manager, poses to give scale.



This shot is for non North American readers. These are, I am assured, tapes of the current commercials K.S.L. is airing!



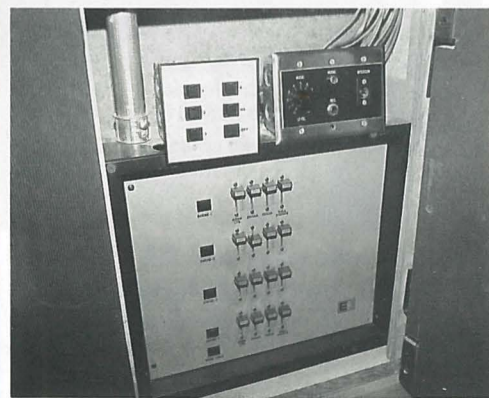
Hotel

The Marriott Hotel, Torrance

The Banqueting Suite and Bars have pre-set dimming by Electro Controls.



Where the patrons enjoy themselves. The Banqueting Room at one of the pre-set lighting scenes. Looks as though festivities are expected. The Control System allows for four lighting scenes, with four circuits, each one on a dimmer, Ceiling Troughs, Chandeliers, Wall Sconces and Spotlights. There is also a switched only working light circuit.



The setting panel, concealed behind a door in the wall panelling of the Banqueting Room. When lighting is balanced circuit by circuit on the slider faders each lighting 'scene' can be selected by the appropriate push button in the small panel above. The lighting changes from scene to scene at a pre-set but adjustable speed. This installation is typical of the type increasingly found in America, Great Britain and Germany, but still virtually unknown in France and Italy.

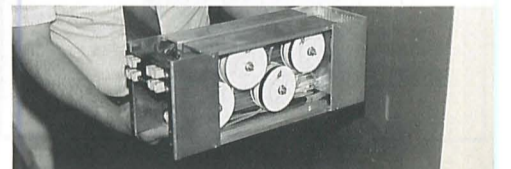


School

Murray High School, Salt Lake



Celebrity control for the Studio Theatre. (The 'control room' is a store off the studio, so operator views through the door.)



Close up of the Quad dimmer module.



ELECTRO CONTROLS
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