# STRANDLIGHT

· THE · INTERNATIONAL · JOURNAL · OF · STRAND · LIGHTING ·

# New-from Rome, Scotland and California





Following the success of the ACT 6 range of six way dimmer packs, Strand is proud to announce the introduction of a 25 Amp three-way version. ACT 3, as the new dimmer is known, takes the popular features of its 10 Amp counterpart, and expands them for the high power requirements of hire companies.

ACT 3 builds upon the reputation of ACT 6 for reliable, compact, portable dimming, at an economic price, with a high specification which includes three thyristor controlled 25 Amp MCB

protected dimmers; international CEE 17 32 Amp socket outlets; three phase or single phase operation and a choice of control.

Three versions of ACT 3 are soon to be available. Two have 6 way local control panels for analogue or multiplex systems; the third option is a 'slave' dimmer which connects into one of the other versions of ACT 3 to complete a group of six dimmers controlled from a single six way local control panel.

# Chairman's Visit to Strand Lighting, Germany

Recently our German Company was visited by Sir Patrick Meaney, Chairman of The Rank Organisation.

He was four years with Massey Ferguson Italy as Factory Director and then as Director of Special Projects. He is married, with a grown up son and

daughter.

Our picture shows, left to right, Sir Patrick, Marvin Altman President of Strand Lighting, Phillip Race of The Rank Organisation and Heinz Fritz who heads up Strand Lighting in Germany.

We have always taken especial pride in the success of Strand in Germany, going right back to the early 1950's when our first Manager, Gerd Ohlmer, began selling Patt 23's from his V.W. Beetle. I suppose selling stage lighting in Germany, a country renowned both for theatre and for electrical engineering, must be the equivalent of selling coals in Newcastle. I am delighted to report that many Galaxys and Harmonys have been carried up many a German staircase over recent years.



## **Dressed to light**

Members of our staff model the latest additions to the wardrobe of the stage crew and lighting designer. Zipper jackets in black, white or green with contrasting embroidered badges and lettering. T-shirts in green or black. Small, Medium and Large sizes. For sale from Strand Lighting.



# FROM THE EDITOR

Your Editor is especially fond of Toronto. As a mark of his affection and respect for that fine city, Strand's Canadian headquarters and the site of many lighting installations by us, he got a passing colleague to turn the Editorial Pentax on its owner while he wore the cap of the Toronto Blue Jays, the local baseball heroes.

#### **Concentrating on Lighting**

Many readers will have followed the changes we have had in Strand over recent years. I can remember, and I suppose it was only ten or twelve years ago, when we were still general "suppliers to the theatre". There were sound systems, film projectors, carpets, seating, stage drapes and counterweight sets. I have even seen one of our venerable catalogues pointing out that boots were "repaired to the trade."

I had a particular affection for our auditorum seating business, based in Lancashire. There was great sport to be found. Keen hunters gathered whenever a load of displaced cinema seats rolled up to the factory, as they often contained mouse nests. The hunt was somewhat informal and very democratic. The small rodents, long nourished on discarded peanuts, would run in all directions pursued by factory cats and by operatives wielding lumps of timber.

Well, the decision was made that Strand would concentrate on lighting. First the U.S. company originally "Century Lighting" and the U.K. company were brought together to reflect the growing commonality of lighting products. Then, late last year, Quartzcolor, the world's leading manufacturer of studio lighting, was brought into the picture.

Strand, Century and Quartzcolor – three words that have always meant lighting for entertainment anywhere in the world.

### A Letter from Stephanie!

Stephanie Carmichael is our Environ representative in Scotland. I always knew she was a pretty stylish girl, but even she was somewhat impressed when she saw an order for Environ for 'The Queen's Bedchamber, Holyrood Palace, Ediphurgh'.

The contractor was telephoned. "Was the Queen in residence while you were installing the dimmer?" Reply – "Certainly not, she died in 1587." It was the bedroom of Mary Queen of Scots.

The dimming, it turned out, was to avoid the risk of causing any fadings of various ancient fabrics from some new low voltage downlights.

(Please note - Environ happily dims the currently popular low voltage fittings)

## Yours for the asking!

We are pleased to send 'Strandlight' to anyone who is interested in Theatre or Television Lighting.

# Letters to the Editor A Dim

#### **Keep That S.M.!**

Dear Sir,

I write in response to your editorial comment following Frederick Bentham's article in the Autumn issue of 'Strandlight'

I am a technical student at
Mountview Theatre School, North
London and as such have been trained
to operate shows from cues given by the
Stage Manager. However, as the view
from the control box and lime towers is
generally better than from the prompt
corner, several cues are taken as
"visuals", it has even been known for the
board operator to give fly cues!
However, to dispense with a Stage
Manager as Peter Cheeseman suggests
is impossible for the following reasons:

As shows at Mountview (as in rep) run for only short periods Board and Sound Operators don't get the chance to really know the show and therefore to cue themselves successfully would need to follow a script. Unless the show was a very light one for cues they would probably be too busy setting up their cues to do this successfully. (It is easy to say that the operators ought to be able to pick it up very quickly but this probably would still result in errors especially early in the run.)

Lime operators would find it difficult to follow a fast moving dancer and follow a script.

Where several cues happen simultaneously it is obviously better for the 'go' to come from a Stage Manager who has rehearsed the show from the beginning rather than an electrician who knows it only vaguely.

This is really where it comes down to the point of responsibility – if anyone is able to judge the timings of cues accurately, and safely it is the stage manager, so long as his team is cooperative and able to take cues on yisual when necessary and on his word on all other cues he will be in control, however, to dispense with a stage manager's cueing could result in a free-for-all which would be both shoddy and dangerous.

Yours faithfully Ralph Griffith London

#### No SMs needed!

Richard Harris, Strandlight Magazine, P.O. Box 51, Great West Rd. Brentford, Middlesex. TW8 9HR

Dear Richard,

How much I agree with Peter Cheeseman's comment in the recent edition of "Strandlight" that there is no point in cueing sound and electrics from the stage manager.

Directors, designers, actors, stage managers and technicians should all work as a trusted creative team in the theatre. An actor is trusted to know a cue without taking a cue from a stage manager, unless a particular cue cannot be seen or heard from the stage, so why should a technician who can generally see and hear all that is happening?

Technicians who only act as automators on instruction from the stage manager cannot feel part of the creative process which is revealed and changes before them nightly.

Technicians need to feel the rhythm of the action and respond accordingly as much as the actor, and the process of cueing through the stage manager does not allow them that. We need technicians who are trusted and excited by the nature of their jobs and not bored people who are just told by others when to push a button.

I hope my comments are of interest.

lan Lewendon, Lecturer in lighting and stage management. St Mary's College.

# The Editorial ignorance exposed.

Dear Mr. Harris,

Tut, tut!

The London Coliseum was built as a music hall and opened on the 24th. December, 1904, with a variety bill – presented four times daily: at midday, 3-0, 6-0 and 9-0. No pantomime...

After the National Anthem, the first artists were the American Sisters Meredith singing against an elaborate set of the banks of the Ganges. A juggling act (the Debreens) followed, using a casino setting. Then Stoll astonished his audience when the revolve cleared this set in full view, bringing round a rustic cabin against some wild Irish landscape. Decima Moore then sang... and so on. The show ended with a Derby scene of live horses racing against the revolves.

Yours sincerely,

Rae Hammond Cheltenham

Sackcloth & Ashes! This mistake came from thinking that logic, i.e. Boxing Day, so Pantomime – ever applies in the theatre. However I can add a small extra nugget to the Hammond letter. One evening the Derby Day scene was truly memorable. The revolve went much too fast and a horse and jockey finished up among the minks and boiled shirts in the stalls!

# **Environ in the Middle East**

We have carried out quite a few Environ dimming installations in the Middle East over the last few years, including the lighting control, using ten presets, of the V.I.P. suite at an airport. For this project the face plates were gold plated. Heathrow and J.F.K. please note.

With this encouragement we decided to have an Environ booth at Saudi Elenex

'86, a large electrical exhibition held in the Riyadh Exhibition Centre.

Our photo shows His Excellency Engineer Abul Aziz Al-Zamil, Minister for Industry & Electricity, with Strand Lighting's, Graeme Pusey. (Graeme has since been appointed as UK Sales Manager for Quartzcolor and Environ products in succession to Ian Haddon.)

# A Dim Religious Light

## **Three Environ Church Projects**

As programmable, controllable lighting is increasingly being specified for buildings of every type and for every purpose, we thought the story of three church installations, two in America and one in England might be of interest.



# **Manchester Cathedral**

A Strand Lighting M24 memory lighting control, together with dimming equipment, has recently been installed in Manchester Cathedral.

The lighting and sound desks have both been mounted in a special transportable unit. Multi-pin sockets in several locations in the cathedral allow control of the dimmers, which have been installed in a utility area adjacent to the nave.

The system permits up to 120 different lighting states to be recorded as well as timed sequences of lighting for use during processions.

The Environ dimmers allow the cathedral lighting to be matched to the requirements of a particular service, from full lighting for the well attended Sunday Evensong, to low maintained lighting of the aisles during a candle-lit



The M24 is also used for drama and dance events in connection with the cathedral.

Strand Lighting's M24 is increasingly finding uses outside theatre and television. Recent installations include the Manchester Exhibition Centre and the showroom of Porsche Cars U.K. Limited.

# **Announcing Lightboard M1**

by Anne Morris, Strand North America Dimming & Control Product Manager.

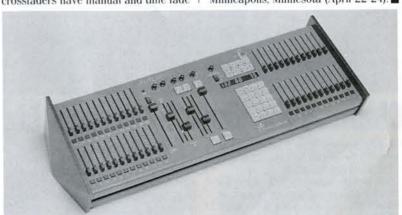
A new product in the LightBoard M family has been designed and released for manufacturing. Designated as LightBoard M/1, this console was developed to provide facilities greater than those available on Mantrix 2S, but not as sophisticated as the capabilities of LightBoard M.

The console, which is modular in format for system expansion, provides control of 384 dimmers on a maximum of 60 control channels. The channel modules, which house 12 channels each, are in a two-scene preset configuration. An A/B split crossfader is provided for preset mastering. The 132 memories which the system supports are executed on an X/Y split crossfader. Both crossfaders have manual and time fade

capability up to 4 minutes. The system will support 24 pile-on overlapping submasters. Submaster and channel bump buttons, with on, off, solo and level control as a standard part of the console design.

The single patch table for dimmer to channel assignments allows the operator to assign proportional limits on dimmer intensity. The console has an effect master to provide playback on one of 24 effects memories. Eight analog inputs are also available for remote submaster operation.

The console is simple to operate; yet it's multi-level method of lighting control meets the requirements of a sophisticated user group. It is available for shipment at the end of February and will be shown at both NAB in Dallas, Texas (March 28-31) and USITT in Minneapolis, Minnesota (April 22-24).



# **First Assembly of God**

by John Richards, Environ Product Manager

The United States is experiencing a boom in construction of new churches which are staggering in their seating capacity and their technical sophistication. The use of spectacle in religious observances is certainly nothing new; indeed the history of theatre is inextricably tied to religious drama. From the Greeks through the medieval mystery plays, dramatic performance has been used as a way of bringing religious stories to the attention of the masses. What is of particular interest today is the level of electronic involvement in denominations such as the First Assembly of God. The new 6,000 seat Sanctuary located in Phoenix, Arizona is an excellent example of the modern blend of video, audio and lighting technology with the religious message. The extent to which this facility uses theatrical lighting techniques, and pushes its Strand dimming system to the limits, is remarkable.

The church holds seven large scale theatrical performances per year in addition to its regular services. This year's Christmas show played to over 80,000 people in ten, standing-room-only performances. Their Easter Pageant attracted a crowd of 63,000 for ten performances. How did a church attract such a large attendance for religious/ theatrical performances? Buchanan, Pastor and Technical Director explains their simple beginnings, 'In our old church we only had PAR 64 downlights. When we decided to televise our services we found there was not

enough light. Adding more PAR fixtures helped but did not give us the flexibility we needed'

'Having abandoned a home built dimming system, we decided to purchase a small lighting system of Strand Lekos, fresnels and a CD80/ Mantrix dimming and control system. With this basic system we really discovered what could be done with theatrical lighting control. Prior to the construction of our new building we spoke to a lot of churches about their lighting controls and compared all the systems available. Of all the equipment we looked at, the Strand Light Palette was the easiest to use and the most friendly. Light Palette could give us everything I wanted.

With the assistance of theatre consultant Gary Montgomery the First Assembly of God purchased a dimmer per circuit system including three CD80 dimmer racks 256 dimmers and over 200 luminaires, the majority of which were Lekos, with fresnels and PAR lights. Supplemental fill lighting is provided by Ouartzcolor 5k fresnels. Auditorium lighting is controlled by 21 - 2.4kW Environ 2 dimmers and 7308-8 channel programmable pushbutton Stations. Pastor Buchanan states, 'We use 6' fresnels for general and audience downlighting and 8' fresnels for back lighting. The rest is primarily done with Lekos. The Strand Leko was an important choice for us because we needed to have a high quality luminaire that was easy to use and focus. This is especially important because our lighting staff consists entirely of volunteers

Back lighting above the chancelry was a difficult problem to solve. A tension steel cable grid was specified and supplied by Hoffend Rigging of New York. The open grid, concept permitted free access to position and focus lighting anywhere over the grid, thus increasing flexibility and helping to overcome difficulties in creating side and back lighting angles. The grid also eliminated the need for ladders and the related safety concerns.

Specific attention was given to the role of television. Every service and performance is videotaped and televised throughout the greater Phoenix area. In addition to the requirements for taping weekly services, the lighting system was designed to be sufficient for large televised rallies without the need for additional equipment.

Returning to the heart of the lighting system, Pastor Buchanan provides glowing reports of their control system, We found the Light Palette control console especially useful for special effects. For example, in our Christmas show we had to open the Gates of Hell. Palette's special effects package was central in creating the lighting sequence for that section. In another performance we had Noah's Ark in the middle of the auditorium; with Light Palette we could almost make it look as though it rained 40 days and nights. I know that with our Strand Light Palette and dimming system, our lighting and special effects rival the best Broadway has to offer. Light Palette is a system we can grow



Old South Church, Boston, Mass. by John Richards.

The Old South Church on Copley Square, Boston, is a landmark building constructed in 1874 and is a good example of Victorian Venetian Gothic architecture. The church is very picturesque, with its polychromatic masonry and elaborate copper roof decorations. Over the years the interior of the church had been repainted covering up much of the original character.

Sheply, Bullfinch, Richardson and Abbott Architects, of Boston, MA, were commissioned to renovate the interior in the spirit of the last century. Of particular importance was the redesign of the chancel platform to permit flexibility for liturgical use and musical performances.

During the course of the renovation many traditional skills were revived in collaboration with new construction techniques. Careful attention was given to the reconstruction of existing decorative woodwork, stained glass repair and complicated stencil painting techniques.

The architects recognized that lighting was of special importance to this project and hired Ann Robinson of Robinson/ Roth, Boston MA Lighting Consultants, George W. Johson PE of Johson/Stover Inc., Stroughton MA Electrical Engineers. and Joseph Norton of Norton Electrical Inc., Boston MA Electrical Contractors. to renovate the existing lighting system. Mr. James Crawford of Old South Church said, "The old lighting control consisted entirely of switches to turn on and off different areas of the church. The old system was not very flexible and the church often looked like a dark cave.'

With the help of Paul Chabot of Boston Light Source, Strand Lighting's local

representative, an Environ Architectural Dimming System was specified. The Environ 2 system was chosen because it offered flexibility and a wide selection of control and dimming required for the church.

New chandeliers were designed by the architects which included incandescent downlights to increase light levels over the pews. Specific attention was placed on the location of downlights over the chancel platform area because of the multiple focus points, including pulpit, choir and organ. Environ 2 provides the separation of control required to direct the congregation's eye to active areas during the service.

Mr. Crawford stated that, "The new lighting and dimming system has given us a level of versatility we were never able to achieve before. Dimming control has enhanced not only the aesthetic value of our services but also improved the evangelical nature and quality of our space. People love to be in an up-lifting space and the lighting system greatly compliments our services.

We use eight presett to control our lighting. Most often we use separate presets for Sunday Morning services, Afternoon and Evening services, Organ Recitals, special control of lighting over the Chancel etc. We can also readapt our lighting at anytime at the control station. Often we will change lighting presets as the seasons change.

The combined efforts of Architect and lighting designer resulted in a New England Award of Merit as well as the Victorian Society in America's Annual Presentation Award for a project of outstanding merit in the preservation/ conservation of Victorian architecture.



# Five Hundred Thousand Britons and £20,000,000 Why So Much More Amateur These figures represent the Theatre in the U.K.?

number of U.K. citizens involved in amateur theatre and the money taken annually at its fifteen thousand box offices.



Your Editor recently had a talk with Roy Stacey of 'Amateur Stage' the bible of the amateur theatre movement.

Much of my information was derived from this discussion.

During the last twenty years I have visited quite a few countries seeking to persuade their theatrical populations to follow the U.S.A., Germany, Australia, Canada and the U.K. and to make Strand Lighting their first choice.

I quickly found out that few countries have so strong an amateur movement as the U.K., so I thought our overseas readers might be interested in learning something about this very lively offspring of the professional theatre.

The first subject on my agenda for Roy Stacey's views was this disparity.

It rather looks as though the reasons differ from country to country

Let us consider Germany, a land with probably the world's greatest devotion to music drama. I remember visiting the magnificent opera house at Wolfsburg. the Volkswagen town. Try to imagine a equipped opera house with a resident company in Cowley. But it looks very much as though the sheer size of the professional theatre in Germany leaves no room for the amateur.

And France, a country with a strong drama tradition, and where Paris has as many theatres as London. Roy pointed out something I certainly didn't know. French plays are not normally released for amateur performance until twenty years after their professional production. Here, of course, the Shaftesbury Avenue successes of Alan Aykbourn and Tom Stoppard are released within three or four years, while the interest in them is still very much alive.

In America the situation seems to be that the very strong university drama scene provides the outlet for most of the young people who want to tread the boards. Although when one considers the quality of both acting and writing in the U.S. it seems strange that more amateurs don't want to 'have a go'. I have indeed heard of the Community Theatre Movement, but, alas, I have no informa-

#### Sing Big – Speak Small

The great divide is between whether the amateur is tempted by music or by drama. The amateur operatic societies are larger in size but far fewer in number, we guessed by a factor of ten to one. Of course, if one's taste is towards the large scale or the spectacular, then music, be it Verdi or Vivian Ellis, is your direction.

I have one interesting snippet of information. In amateur dramatic societies the ladies always outnumber the gentlemen. I have learned this about twenty five years too late.

### Where Does It All Happen?

This depends on the size of the group. The ambition of most must be to have their own theatre, and many have achieved this.

But village halls, scout huts and rooms over pubs see much good work. I once attended a production of Maugham's 'The Silver Cord' in the Town Hall Kirton. in deepest Lincolnshire. The local accents added a new dimension to this upper class drama.

### And the Quality?

I believe most of our overseas readers would be astonished at how good acting. costumes, scenery frequently are.

But after all, these productions only come into being as the result of enthusiasm, and that is a pretty good basis for any human endeavour.

# **Environ joins the U.S. Air Force**

BDM Corporation, a government contractor, recently had a Strand Lighting Environ 2 System installed. BDM is primarily in the field of systems management for the U.S. Air-Force and is located in Dayton, Ohio.

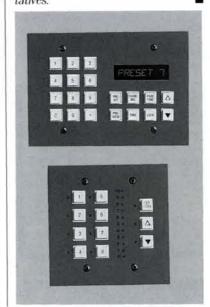
The Environ 2 programmable System is in a multi-purpose lecture room. The room is used for training sessions, large meetings and roundtable conferences. With its 24' rear projection screen, the room is also used for multi-media presentations. This full schedule allows ry little time for setting light levels for these varied functions.

The Environ system is controlled by three #7308-8 preset control stations located in the back of the house, at the down stage left area behind the projection screen and in the projection room. Next to each one of these stations is a plug-in receptacle station allowing the #7411 portable master station to set up 8 presets and assign them to the remote 8pushbutton stations. The presets can be locked in at the local stations so that the assigned levels in the room cannot be

Doug Skidmore, who is in charge of media services for the facility is, at present, a one man department. Being able to set a 'look' for any particular activity at the push of a button can save valuable set-up time in preparation for a seminar or meeting. This method is also valuable when someone just wants to view slides or to have an impromptu meeting when Doug is not available. The push of one button puts them in the proper light they need without requiring them to be "lighting experts".

The portable master station can also activate a ninth preset as well as a blackout and clean up preset. It sets fade rates up to 998 seconds, and, by utilizing a built in clock function, the master station can activate any of the presets for any time of the day, any day of the week. With its ability to be a system wide master, it can have programmable control of up to 16 different rooms; thus. when the facility is expanded, the Environ 2 system can expand with it.

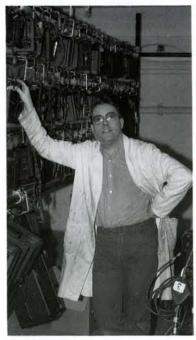
Ry Paul Vincent, one of our Represer tatives.



# **Strand Lightings New London Distributors**

We have appointed two new distributors for our products covering London and the Home Counties.

The Editor visited both recently to spy out the land, and to thrust the Editorial lens towards the not entirely unwilling



Hugh Leslie, proprietor of L.H.S.

#### **Brightlights in Broomhill Road. Leslie Hire and Sale**

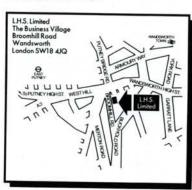
My first visit was to Wandsworth, a suburb south west of London literally half way between the yuppies of Wimbledon and the flat hats of Lambeth. I was to call on Hugh, known throughout London theatreland as "Hughie". Leslie, the proprietor of the first of the new Strand agencies to be visited.

My opening impression of The Business Village, in which Hugh has his stores, was one of surprise. I entered a smart reception office, all dove grey carpet and sub Bauhaus desks and chairs. An immaculately groomed receptionist, her wrists and ears weighed down by gold ornaments, manipulated a high tech phone - "Yes - Mr. Leslie can

I really began to worry. Half a minute later a pass door to reality burst open and the ever cheerful Hughie appeared, clad in a white overall that had obviously been worn for at least the whole of that day. A few steps and we were in a blessedly familiar territory of lanterns being overhauled, dimmers being checked, vans being loaded and instant coffee in, thank goodness non matching, mugs being frequently dispensed.

Hugh Leslie was, of course, the General Manager of the Donmar company, but changes there led him to make the decision to go it alone. We at Strand are very pleased he decided to go it alone with us.

Hugh offers literally everything for the lighting man for sale or hire, and not only purely lighting products. Pyrotechnics, smoke machines, music stands, all are available. It's well worth ringing, if only to hear the D.H.S. greeting – "Good Morning, can I help?"



**TELEPHONE: 01 871 5132 TELEX 917003 LPC G** 

### **Good lighting in Gautrey Road. Show business** technology from Luff Light and Sound

My second visit took me to Gautrey Road, Nunhead, between Camberwell and New Cross Gate. In this case I don't think there are any yuppies nearer than Blackheath.

The Luff warehouse is a former chapel, and it holds a very great deal of

The company was founded twenty five years ago, but has recently become much more active in hiring lighting to both professionals and amateurs. Some recent hires - using Strand equipment, of course, include Phantom of the Opera, a rig with no less than two hundred 240 volt Lekos and a Galaxy - Guys and Dolls at the Prince of Wales, Les Miserables at The Palace and High Society at the New

Down in the basement, or I suppose in view of the ecclesiastical origins of the building we should say the crypt, the manufacture of Star Cloths goes on. For the uninitiated these are black cloths through which pea lamps appear, their wiring being on the reverse. These are an effective and quick means of covering up any unsuitable backgrounds in a studio, theatre, or perhaps, if it be a commercial presentation, an hotel suite. Luff manufacture them in standard 10' x 20', or to any size to order. Sixty of these are out on hire at the moment, nor, of course, are purchasers turned away.



lan Ferguson, in charge of Luff Hire.

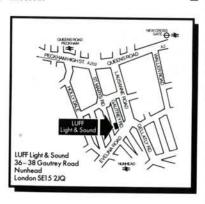


Ken Priddy, Luff's Service Chief.

I must now grit the editorial teeth to tell you about Luff's sound business. I agree with Chesterton - only an age with nothing worth saying would have invented the loudspeaker. But if your interest should be in speakers, mixers, microphones etc., then it is all there in a large demonstration area. They told me that Shure and Bose are names to conjure with - I accepted the Luff word and gracefully declined any demonstration. All are for sale or hire.

A final point or two about our new distributors. Although both do professional theatre and television hire, they stressed that this does not mean that amateurs are not thoroughly welcome. They always have been the bread and butter, if only occasionally jam, of the lighting hire business.

One great bonus for callers at either L.H.S. or Luff is that you can park - no yellow lines, not even single ones, and no



**TELEPHONE: 01 639 69 11** OR 01 639 7705



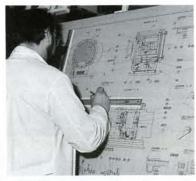
"When some traveller from New Zealand shall, in the midst of a vast solitude, take his stand on a broken arch of London Bridge to sketch the ruins of St Paul's, Rome will still be great".

I quote Thomas Babington Macauley from memory, but I don't think I am too

I have a feeling the great whig spoke more of the Appian Way or the Forum than of our factory, but it never does any harm to have just one sentence of good English in our journal.

However fine the pearl, all oyster shells are much of a muchness. So it is with factories.

So, as a Strandlight salute to the latest member of the Strand family I asked my colleagues, Sig. Boccarini, to illustrate the conception, growth and birth of one particular pearl - the 6K Sirio H.M.I.



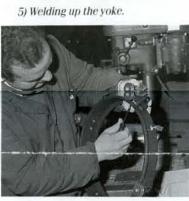
The Quartzcolor Conception. drawing office.



2) The start of growth. Cropping sheet metal.



3) A component emerges from a programmed turret head punch.





7) In go the electronics. Assembling

# Born in Rome **A Quartzcolor Story**



4) Pressing the rear disk.



6) Assembling the front ring.

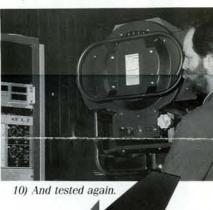




8) Final assembly



9) A Sirio is born! And tested.



11) Ready for some lucky studio. The final black pearl. A Sirio 6K H.M.I.

# **Good Morning America!**

### **Television for a famous U.S.** morning show

by Lee Magadini\*

On Monday morning, December 22, 1986. millions of Americans were waking up to start their week with David Hartman and Joan London unaware that squeezed in the lighting control room of studio TV2 were seven people watching the Light Palette operate the first of many live broadcasts of Good Morning America.

This installation marked Strand Lighting's first with Capital Cities/ABC Inc. in New York City. According to Eric Rosenthal, General Manager of Audio/ Video Systems Engineering. decision to install the Strand Lighting Light Palette console into the TV2 studio was based on the need for a highly reliable full featured front end that had met the test of time. ABC has had two successful installations of this console at KGO-TV in San Francisco. The KGO systems have been used seven days a week since June 1985 without fail. It was this kind of reliability along with the

on the Good Morning America program which is seen nationally each weekday morning.

The installation of the Palette involved removal of the existing console, mounting and wiring of the interface electronics which were needed to inter-



Photography: Copyright Capital Cities/

operational features of the system that | face the Light Palette with the existing Palette into the tiny control room. This had to be accomplished over the course

of one weekend. Live broadcasting is indeed a serious test for the dependability of a lighting control console. Several of the board operators were nervous about the change of systems simply because of the pressure placed on them to be thoroughly knowledgable about the console. This was the first time some of the operators had ever worked with a Light Palette and Strand ensured that they were given proper training by having Anne Morris, Dimming and Control Product Manager, carefully instruct each person that is involved in operation and maintenance of the board. Using a system with a full tracking back-up helped ease some of the anxiety.

As the floor director counted off the final seconds before airing, the new lighting control console was an unnoticed change in the routine broadcasting of Good Morning America.

\*Lee Magadini, Manager of Sales/ Special Projects for New York City





A typical street scene not far from our



Long Beach ocean front, not far from our Rancho Dominguez Factory

# Two factories by the Sea

Sometimes two buildings can be similar while their surroundings are very different. Our two theatre lighting factories are of about the same size and were built at about the same date. The Californian factory is strictly utilitarian, while the Scottish establishment's architect allowed himself a touch of grandeur in the water tower, standing remote like an Italian Renaissance campanile

The Californian factory has no windows, while Scotland's has a complete wall of greenish glass. This has the effect of turning real world daylight into a fetching shade of pink when one

the building was not originally destined for the production of theatre lighting. Aldis slide projectors were its raison

The Californian establishment has an informal group of picnic tables each with its sunshade, for the use of lunching employees. Kirkcaldy has entirely adequate arrangements for the disposal of hail and rain.

And both Kirkcaldy and Long Beach, the nearby sea side for the California establishment, have other common bonds. Both have oil rigs offshore and both have historical associations with the earliest days of motoring.

When taking an evening constitutional

at Long Beach I discovered a large bronze plaque set into a wall on the seaward side of Ocean Boulevard. This commemorates the termination of the first U.S. transcontinental highway, completed, the plaque confirms, in 1906 as a memorial to the Grand Army of the Republic after the Civil War.

Kirkcaldy also has its own special place in the history of road transport. It is the only town in Britain where the number of cars actually declined in the pioneer days of motoring. In 1905 there were two cars registered in Kirkcaldy. In 1906 there were none. Why? They contrived to run into each other and accomplished simultaneous destruction.



In picturesque old Kirkcaldy.



Five minutes from our Kirkcaldy factory. Fine old stepped gable houses by the sea.

# Strand Lighting a part of the miracle



The author pointing out the features of the Mini Light Palette to New York City

### A seven month renovation of Carnegie Hall - including the lighting

by Lee Magadini\*

It was called the twenty eight week miracle; the renovation of one of the world's great concert halls, Carnegie Hall. To have celebrated its reopening on the night of Dec 15, 1986 was indeed a truly special experience for all those involved including those at Strand Lighting.

For 95 years, Carnegie Hall has set world standards by which concert halls are judged and has maintained a great tradition of excellence. Since it first opened its doors in 1891, Carnegie Hall has been home to some of the world's greatest artists in all areas of music. Igor Stravinsky, Enrico Caruso, Vladimir Horowitz, Benny Goodman, Fats Waller, Duke Ellington, Pete Seeger, Bob Dylan. The Beatles, Judy Garland, Liza Minelli, and Ella Fitzgerald are just a few of the performers who have appeared on its stage. It remains center stage for artists around the world who aspire to high distinction.

On May 18, 1986 the hall officially closed for the 7 month period allotted to complete an extensive renovation that would make the hall functionally, acoustically and aesthetically a better facility than it was before. From that day, the hectic pace of the project never let up.

The first and foremost concern in renovating the Hall was maintaining its acoustical excellence. Many conductors, singers, and instrumentalists have extolled Carnegie Hall's acoustics. Whether the performing ensembles on stage are large or small, the undistorted sound carries to every part of the hall with clarity, fidelity and fullness. A change in the number of people in the audience or even their distribution throughout the hall affects the brilliance of the sound only minimally. There are few halls in the world the size of Carnegie Hall (seating capacity 2,800) that can compare acoustically. Architects, James Stewart Polshek and Partners in collaboration with world renowned acoustician Abe Melzer evaluated all aspects of the project for their effect on the acoustics of the Hall.

The dimming system was also subject to careful scrutiny since the size of the system more than tripled the quantity of dimmers than what had previously been used in the Hall. The rise time of the

dimmers was an important feature that was addressed by Theatrical Consultants Robert Lorelli and Robert Brannigan. It was determined that the dimming system be specially designed to deal with the problem of lamp filament hum that could have created a noise problem, particularly with the architectural lighting in the box seating area. Strand Lighting coordinated a series of on-site dimmer tests with Mr. Melzer, as well as representatives from Carnegie Hall, Branigan and Lorelli, Tishman Construction and James Stewart Polshek and Partners. At several critical locations in the Hall decibel readings were taken at the lamp source by Mr. Melzer. Once this data was evaluated, it was determined that the Strand Lighting CD80 dimmer, equipped with a special high performance choke, met the stringent performance criteria that was set by the Consultants.

Because of the Hall's objective to accommodate a wide range of performers, the lighting system had to be flexible. A production that Liza Minelli starred in would place different demands on the system than would a symphonic concert. The system accommodates a variety of needs by defining the concert lighting circuits apart from the larger theatrical circuiting system. In addition, touring companies have access to front of house stage circuits through a custom built road show intercept panel provided by

Architectural lighting Consultants from Fisher/Marantz Assoc. enhanced the gracious beauty of the Hall with careful application of new and existing lighting. Charles Stone, in charge of overseeing the project for Fisher/ Marantz, specified the Environ 2 programmable preset system to address each zone and balance the specific looks into presets. It was determined that preset recording for the houselighting is essential in maintaining the proper ambiance of the hall in addition to providing instant recall of each preset from any remote station.

Mini Light Palette was selected as the main control console with the option to use an auxiliary 24 channel Mantrix 2S for manual control. Both were enclosed in a custom built cabinet designed by Strand exclusively for Carnegie Hall.

From a scheduling aspect, the project kept everyone on their toes. A large banner hung across the proscenium arch announcing the exact countdown of days before opening. Meanwhile, the Hall was full of structural surprises that could not be anticipated since there were no blueprints or documents of the building since it was first erected. Construction managers, Tishman Construction of New York worked closely with Strand and distributors, electrical Associates. in getting information to the factory as quickly as the submittal process would allow. Strand Engineers were aware of the close scrutiny each piece of equipment came under and, as November approached, became accustomed to design decisions flying across the continent as the system was being fabricated.

On the morning of December 15, as the paint was still drying on the balcony rails, the Hall was bursting with the excitement of the press, rehearsing musicians, and audio and video engineers who had camped large equipment vans near the backstage entrance and were laying miles of cable into the building. All Strand equipment had been thoroughly tested and energized. Television lighting specialist. Alan Adelman from Imero Fiorentino Associates had been contracted as lighting designer and was trimming the lighting levels for optimum television camera performance. By 7.30pm all stagehands were dressed in black tie and tails and the limousines carrying glittering stars and dignitaries were pulling up to the spotlighted lobby entrance. The spectacular performances under the direction of Leonard Bernstein and Zubin Mehta were a fitting tribute to all of the hard work spent by each individual insuring that this glorious hall will remain center stage for artists around the world for another hundred years.

\*Lee Magadini, Manager of Sales/ Special Projects for New York City



# **Strand's new Punchlite**

Have you yet had the doubtful pleasure of changing a lamp in one of the several designs of Par 64 fixture which retain the lamp by a circlip? If so, you will know that, (a) it gets HOT and (b) as you pinch



1. To re-lamp, press a spring loaded catch, and the rear housing hinges down, but stays attached, so no strain on the earth/ground wire.



3. The replacement lamp is pushed in past the retaining spring clip, the EMEP lamp holder is replaced, the lamp rotating cap, an optional extra pressed on and a one handed job is complete. The lamp can be rotated to any position to get the asymmetrical beam position

### **Brief Specification**

#### Lamphouse

Aluminium alloy construction with front reinforced ring of mild steel, supporting the clips for the colour frame. The rear of the housing is secured by a spring clip which allows the rear of the housing to hinge backwards providing access for

Aluminium, reversible, with resisting lock knob for tilt clamp.

The Par 64 lamp is secured in the rear of the housing by a spring steel leaf which allows lamp rotation.

the ends of the circlip together to put it back after re-lamping, the wretched bit of wire twists itself into a figure of eight. Twenty years or so on we thought we would do something about it.



2. The lamp is pulled out backwards, the rim of the lamp depressing the spring catch as it goes past.



4. The aluminium body of the Punchlite has a steel front, to protect the end of the housing and to provide a strong mounting for the colour frame clips, and has an integral 25mm mesh wire guard.

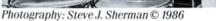
#### Lampholder

EMEP (extended Mogul end prong) lampholder with porcelain body fitted with 1m of 3 x 1.5mm<sup>2</sup> conductor toughened silicone rubber insulated and sheathed flexible cable secured by a strain relief gland.

**Colour Frame** 245mm x 245mm square colour frame made from aluminised board (folding book form) designed to support colour

#### filter sheet. Lamps

Maximum lamp rating 1000W at 240V. Par 64 with EMEP base. A complete range is available in 120/220/240 Volts.



Fork Lamp Mounting

# **South Coast Plaza Crystal Court**

# So how do you light the largest shopping mall in the US? ask Tom Ruzika.

by Jill Herzfeld

When C. J. Segerstrom & Sons planned to expand their South Coast Plaza, they wanted to do more than make it bigger. At 2.9 million sq. ft., this Orange County, California facility is the largest shopping mall in the US. The Segerstroms wanted to make it special. They wanted their mall to be elegant, classy, and timeless. So, taking a risk and departing from the standard formula for lighting malls, they contracted Tom Ruzika, who worked closely with the local Strand Lighting Representative David Gill of Pacific Illumination to put sparkle in their new 17.8-acre Crystal Court.

While Tom Ruzika's background is in theatre, his lighting design and consultant firm has been involved in architectural lighting for some time.

Nothing was standard in the building of this mall because "Mr. Segerstrom, the owner, did not want an ordinary shopping mall and neither did the architect." This attitude was reflected in the budget.

Designing a space as elegant as New York's upscale Trump Towers, with the marble and brass of Boston's Copley Place, Jim LeNeve and his co-workers from Architects Pacifica Ltd. in Newport Beach built a three-story, dual-axis mall, in the centre of which is a 60' round, 75' high, tiered rotunda. Barrel-shaped skylights run the length of each of the building's four wings and bathe the mall in light. Crystal Court is further distinguished by red Italian marble floors and polished brass handrails.

Rather than hiding this elegance in the dark corridors of more traditional malls whose philosophy is to keep the focus on the shops, the approach was to make the lighting effect special and elegant with a theatrical touch. "That's when I came in with the approach of accenting and highlighting everything," says Ruzika. Because many of the lighting design decisions were dependent on the surrounding architecture, Ruzika was influential from concept through completion of the structure, and he accomplished the task with the help of his design associate, Nancy Hood.

Primarily, "we made sure that we accented all the brass and helped sparkle all the marble. We chose quartzes and incandescents to make it sparkle. There's just no way you can make metal halide or mercury vapor sparkle brass. And we have decorative sign light bulbs that produce a pinpoint of lights along the skylights. You can't see the lights, but you see a lot of little sparkles of light reflected in the windows."

Already this shows a defiance of the standard method of lighting malls as the designer describes. "You usually put some pole lamps down the center to give general illumination, and add Tivoli lights for detail. We used incandescents. A lot of people will probably scorn me for being unconventional and using higher wattage lamps – incandescents and no mercury vapors – but we found the balance between the need for maintenance, wattage and the quality of the look. And, there is a whole staff to change lamps, but we bought 4,000-hour lamps so they won't burn out in six months."

Ruzika shows that the collaboration between architect and designer was also unconventional. "We built light coves under a balcony through the mall. This started as an idea the architects were toying with and I helped them develop. The result of the light coves was a "theatricalized version of track lighting -A Unistrut track with an outlet every 6', Ruzika says. "We break each area into accent spots and down lights. All we have to do is unplug and replug. There are outlets through the building, so we can put lights wherever we want." In this way, the mall "took what it needed from theatre lighting, while keeping to the rules and regulations of architectural

While this is one aspect of theatre lighting, the mall boasts another that is far more obvious: "Everything in the mall is on dimmers - not for shows or anything, but for balancing light levels, conserving energy and time functions. We have the ability of having 10 different preset light looks, so there should be certain sets of light fading up throughout the day." This gives the mall different looks at different times of the day, while leaving certain areas dark when they don't need light.

The complex dimmer system consists of 10 sets of dimmer racks, which contain

146 dimmers broken into control channels and approximately 200 luminaires. All are controllable by a combination of Strand Environ 2 and Strand Mantrix 25 Theatrical Lighting Systems. Chosen because of the system's flexibility in relation to the control system Ruzika needed, it allows an operator to refer to a map and a chart which indicates the light's circuit, its channel and its purpose and replace the light.

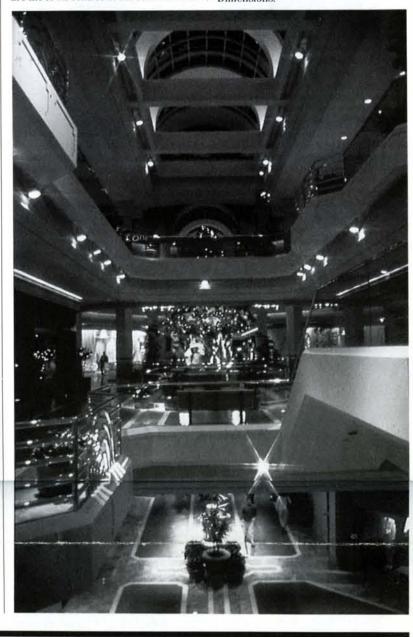
Ruzika says that, "this was probably one of the biggest stretches for their Environ system. We have some control wire run for over 100'. And our control wires are looping through the entire mall to link dimmer racks at opposite ends of the mall." The control, the mall's remote system, is "set up on a hand-held remote portable master station. There are outlets through the mall so I can go anywhere, plug in this remote and adjust the setting, and see exactly what I'm setting. Plus, at any point where the remote receptable station says "manual control", we can plug in the Mantrix 25 and have theatrical control over the lights. The dome that boasts the only evidences of actual theatre instruments. "The whole dome/rotunda area is on its own system because special events like fashion shows will happen here. We pave strip lights, Lekos and different gobos up there: There's a starry night with a comet, clouds, and stained glass windows. They are all manually controllable or programmable from the Environ 2 Master Station. So now we can do simple shows here, balancing the dim and the bright and fine-tuning the look of the mall while doing a bit of energy conservation."

There is a load shedding function to conserve energy when needed. He explains: "If the Southern California Edison want to cut back power, they tell the Segerstrom Organization who, in turn, tells the mall to go into load shed mode. We programmed two presets worth of shedding, so when the main computer that runs the whole building goes into load shed, it will tell our computer to shed approximately 30% of unnecessary light. In time-clocking, we also have a clean-up mode, so that after the mall is closed, the lights go out. But if the maintenance crew comes in and wants to do some clean-up, they can go to a control panel, turn the key, and the lights stay on for a set amount of time.

Ruzika has considered everything in his design, including the lights above the entrance: "We used a lot of lower wattage lights because we wanted a pattern of lights. A lot of people would have put in a few metal halides and called it a day. Ruzika also lit the palm trees, the fountain, and the parking lot lighting, which his concept summary describes as general illumination that provides a safe, secure, bright atmosphere with good colour rendition for skin tones. In this mall, even the parking lot sparkles. "They are the town centres of the 80s. Malls are

booking talent to come and perform. People spend entire days in them. This mall is on the sightseeing tour line." Ruzika even predicts malls where one will try to outdo the next with gimmicks like fountains, banners and theme park rides. "But," he emphasizes, "I think it will all come back to lighting; because no matter what you put in, you have to light it."

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# **London's latest opera house**

#### The Britten Opera Theatre of the Royal College of Music

Strand Lighting recently supplied equipment for a small but genuine opera house built within the Royal College. The new building stands on the site of a former garden and a car park. Before every environmentalist rises up and howls, let me re-assure readers – the lost garden has been replaced by a roof garden above the auditorium. Former car parkers presumably have now to feed meters.

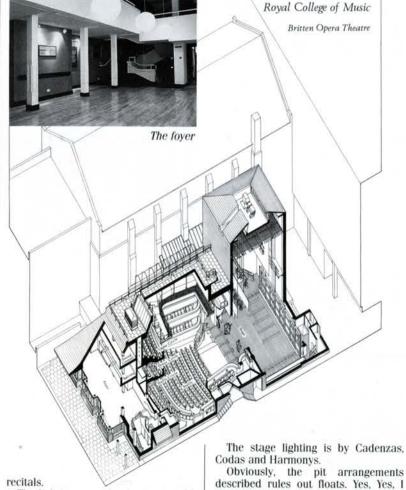
The theatre, I personally consider, has one of the most pleasing of modern auditoriums. It seats 402 in stalls and three shallow horseshoe balconies. Strictly speaking the lowest of these is not a balcony, but a separate and raised section at the sides and rear of the stalls.

The upper balcony has four rows of seating, and the lower two have three rows apiece. A full house must indeed mean that the auditorium is "papered with faces".

The first item to strike the editorial eye was the enormous orchestra pit – designed for an orchestra of eighty, no less. This generous accommodation arises, of course, from the theatre's role in the college.

This orchestra pit is of some technical interest in itself. Firstly, it is extraordinarily deep. A full eleven feet from the stage floor to the pit floor. As a comparison, the equivalent dimension at the London Coliseum, the home of English National Opera, is a bare seven and a half feet. This depth has been provided so that the players can be on stepped rostra. Perhaps the student status makes a good sight line to the conductor mandatory?

The pit floor at the Britten can be hydraulically raised to stage level for



The lighting control is by Duet – 108 channels with a manual wing – transferred from the old theatre, together with 64 original dimmers. New Permus dimmers have been added to complete the complement.

\*\*know\* they spoil an audience's view of the performer's feet, although that would presumably not matter in opera, and I know it's a totally unnatural direction for any light – BUT I defy anyone to convince me that a few patches from F.O.H.

generators of audience excitement the sudden brilliant illumination of the bottom few feet of a plush and gilt front curtain by 100 watt G.L.S. lamps, red and white circuits full up! But to return to the auditorium.

lanterns on front tabs can equal as

But to return to the auditorium. Decoration, as such, is limited to raised plaster ribs running vertically on the fronts of the balconies. These are extremely effective, giving a somewhat traditional air without being in the least derivative. I imagine these broken surfaces offer acoustic benefits.

The decorative finish is a matt green grey - When I was there experiments were going on of gilding the top vertical faces of the plaster ribs. One stage box had been so treated, and looked very well.

But even without this gilding the whole space is already a lily. The red seats, traditional red shaded houselights and the very handsome brass railings along the stalls front and up the steps to the pass doors give a most welcoming ambience.

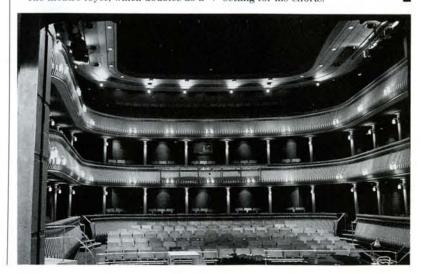
If I have a reservation it must relate to the unrelieved back rubber flooring.

The theatre foyer, which doubles as a

rehearsal space, is a total visual contrast, being all white walls and modern lighting fittings. While I fiddled with the Editorial Pentax a young gentleman charmingly enquired if I would be bothered if he 'ran through a few scales'. Now, the bar of the Windsor Castle in Little Bookham is about the size of this foyer, and occasionally the odd Surrey yeoman does vocalise. But I had no conception of the sheer volume one trained singer can produce in a fairly limited space. I hardly knew my wide angle from my hot shoe.

One possibly unique feature on the lighting front. There is an access door opening from the control room at the rear of the dress circle balcony directly into the auditorium. This must be a godsend at rehearsal time.

The architects of this charming miniature opera house were the Casson Conder Partnership. The clients were assisted in a consultancy capacity by one of the doyens of British stage lighting. Mr. Neville Currier, who normally plies his skills at Sadlers Wells, but becomes involved in lighting at the Royal College on occasion. Now he will have a worthy setting for his efforts.



# "Rome has Spoken: The case is concluded"

I am sure that my readers are familiar with the sermons of St. Augustine. Just in case the above line has momentarily slipped the memory, it is from his collected sermons.

I admit St. Augustine was not at the time actually discussing television lighting - but he could have been. I have often begged readers to introduce to me that unique schoolboy who has not made a lighting control system using his home computer. Now Joe Thornley, Brentford Luminaire Product Manager, begs that some kind person will direct his attention to that back street garage somewhere that does not manufacture flood lights.

We have seen so many from such sources, usually with rather odd light distribution and sometimes with even odder electrical arrangements.

Well, here we proudly show how the professionals do it.

#### ladi Fill and ladi Cyc.

No, not two gentlemen with exotic nicknames, but the two types of ladi portable flood which we offer world wide. These remarkably small and devastatingly efficient lights were introduced at last Autumn's Photokina Exhibition.

Now Joe Thornley and your Editor have set up these units in front of the editorial Pentax to try to give Strandlight readers an idea of why we believe them to be such very useful floods. In spite of their compact dimensions they can accept 1000 watt (at 3200°k) to 200 watt (at 2900°k with 4000 hour life) lamps for all voltages.

#### **Brief Specification**

ladi Fill and ladi Cyc. accept lamps for all world voltages, and are available from Strand Lighting throughout the world.

#### Housing

Pressure dye cast alloy end-sections common to both units joined by machine threaded screws to pressed sheet steel housing, combining strength and rigidity with minimum weight and maximum heat dissipation, assisted by convection ventilation.

An integral part of the housing is a four-leaf barndoor, and a fine mesh wire guard with a positive retention thumb-

Aluminium alloy reversible with a 25mm (1") diameter friction disc and heat insulated hand knob for tilt lock.

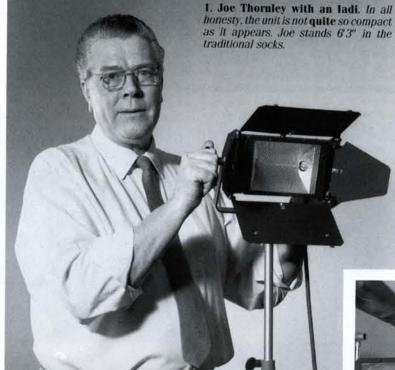
A 16mm (5/8") female socket with lock knob is provided for compact suspension and swivel lock.

#### Lampholders

Two R7s porcelain body with integral metal heatsinks wired direct to a terminal block in the rear connection chamber of the housing.

#### **Power Cable**

3.9m 3 x 1.5mm<sup>2</sup> conductor cable with double pole in-line switch.



3. How to reduce intensity while maintaining colour temperature

alternative wire scrims.

2. Sliding in the barndoor reflectors.

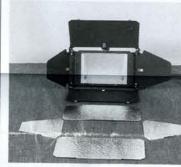
These can act as a beam intensifier if the

reflected light is directed into the centre

of the beam, producing double the light

level. Or, directed to the outside of the lit

area, they increase the beam angle.



6. Here is the ladi Cyc. Can you spot the difference? The lamp is in a different position and the reflector is different otherwise the two units are identical. The ladi Cyc. is for top or bottom lighting of cycloramas or backings. Its special reflector allows wider spacing between lights than more conventional designs. The barndoor reflectors give a choice of the type of distribution of light. Woven ultra fine mesh stainless steel

wire guards are standard on both units. provided on the barndoors.

High temperature stoved black epoxy powder coated.

#### Lamps

118mm (411/16") linear tungsten halogen lamps with R7s contacts. 1000 Watt maximum.



4. The barndoors have clips on their outer edges which hold colour filters a good distance from the lamp and with all the ventilation any filter could desire.



7. ladi's feature in some Strand Lighting portable kits.



# PIP PIP

Tony Brown, who was closely involved in the design of our new Plug-In dimmers, tells the PIP

P.I.P. is the latest addition to the Strand family of dimmers, offering a variety of thyristor modules for installation in cabinets of two basic sizes.

In the comparatively short time that PIP has been available it has already proved a worthy successor to Strand's MCM plug-in dimmer with installations across Europe from Stockholm to Toledo, London to Moscow.

Development of PIP followed an interesting path in that instead of arising from a major breakthrough in electronic

technology, the design specification was distilled from customer requests, national electrical standards numerous countries and codes of practice, and a requirement to meet performance criteria at an affordable

5. Here is the ladi Fill, which has a

unique reflector profile providing a wide

angle even fill beam ideal for lighting

large areas in places where height and

distance are even more restricted than

usual. Also shown are the specular alu-

minium reflectors which clip inside the

integral barndoors, two alternative wire

scrims of different gauge, an opal glass

to soften the light and a dichroic coated

glass filter to correct 3200°k to match

Through the front of the luminaire via a

removable wire guard, with positive

Made of textured anodised aluminium.

Colour filter can be fitted to the lumin-

aires by fixing it under the spring clips

daylight.

Reflector

Internal Access

retention thumbscrew.

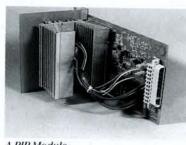
It is paradoxical that at a time when electronic component failures have become less frequent and production techniques (such as robotic component insertion, flow soldering and automatic testing), practically eliminate manufacturing defects, customers are requesting plug-in dimmers more than ever before. One can only speculate that the increasing cost of TV studio "downtime" or the aesthetic impact on a major theatre production when a key dimmer is lost have changed the level of failure that users of such equipment can tolerate.

PIP dimmer cabinets are usually supplied with circuit breaker protection (although fused versions are available). It is a feature of the filament structure of 240/220 volt lamps that they collapse on failure causing a momentary short circuit and often blowing the dimmer fuse whenever a lamp fails. Whilst overload circuit breakers have been available for many years, only recently has a technology evolved which is guaranteed to always break the circuit fast enough to protect the thyristors yet not 'nuisance trip' with the inrush current of a cold filament (the inrush current to a cold 5kW lamp can be thirteen times its normal running current!).

The slim front/back dimension of PIP cabinets and the fact that all access is from the front make these dimmers suitable for installation where space is at a

PIP dimmers are designed for free air convection cooling and contain no rotating fans to wear out or choke with dust. An air plenum at the base of the cabinet and a large electrical termination chamber at the top eliminiate any risk of rack overheat even on continuous full load at an ambient temperature of 35°C.

The air cavities have an additional



A PIP Module

purpose, to house a plethora of standard and custom accessories. These include demultiplexing adaptors or power supplies for low voltage control desks. To special order, current transformers, cabinet isolators, earth fault detection, load mimic and many other options may be fitted.

Two classes of dimmer module are offered; an open loop linear power (LP) characteristic, available as a dual 10A dimmer or a single 25A dimmer, and a closed loop square law (CS) which includes feedback from the dimmer output and compensates for fluctuation in line voltage and load current. The latter is offered as dual 10A, single 25A or single 45A ratings. The CS modules incorporate LED displays of status, a test connector on the front of each module, and the ability to convert any dimmer to a non-dim. All modules are colour coded according to their rating and polarised to ensure that a low current module is not inadvertently connected to an excessive load circuit.

As would be expected with a profes-sional dimmer, PIP dimmers contain high quality suppression circuits comprising El framed chokes to limit current rise times to better than 800uS and RFI suppression networks to ensure compliance with BS800 and VDE0875.■

## "Push those two and Hope it Works!"

by Michael Dorrance

It is an odd sensation returning to school again. Or so I felt when I was approached to "do the lighting" for my former secondary school's end of year production. Then again, some things never change and the theatre of Greenfaulds High School only looked slightly more worn around the edges since I had caught the "bug" there almost ten years previously. The show was to be a production of the children's musical "Bugsy Malone" and all the indications pointed towards the lighting being a challenge.

In Cumbernauld, near Glasgow. Greenfaulds High School theatre is essentially a community theatre within the school and used almost exclusively by amateurs. Despite the ever present threat of spending cuts the theatre is fairly well equipped with a 300 seat auditorium facing a proscenium stage (33' x 11'). The lighting system is the ubiquitous Mini 2 (having recently read Gail Hardman's article, Tabs vol. 42 No. 1 Feb. 1985, I sometimes wonder if schools have a monopoly of the Mini 2). The luminaires are twenty Patt. 123's, twelve Patt. 23's positioned front of house. assorted individual and batten floodlights, and two 500 watt follow spots.

The first problem was created by the type of production itself. Bugsy Malone is essentially a film script and transferred to the stage this meant a bewildering sequence of scene changes (the shortest scene lasted eight seconds). The intention was to use a variety of rostra to give an added dimension to the acting area and play each scene to a certain area of the stage. In effect each scene had to be isolated and lit separately, yet the stage still had to be completely lit for the full stage numbers. Trying to create the correct balance for both the individual and full stage scenes was somewhat hampered by each of the Mini 2's first twenty channels each operating a pair of luminaires not always situated side by side on the lighting bars. The solution was relatively simple but time consuming - much to the apparent disgust of the "non-technical" people. Judicious use of extension cable, 15 amp adaptors and barndoors eventually enabled each individual scene to be lit without any unnecessary spill into "unused" areas, yet still leaving a spare 500 watts on each channel as a safety

Focusing was a straightforward process allowing the gels to be put in place to complete the effect. A selection of Gold Tint (No. 51) and Pale Salmon (No. 53) to take the harsh edge off the key light and Primary Blue (No. 20). Deep Salmon (No. 8), Primary Red (No. 6) in the floodlights to light the cyclorama. The actual plotting of the cues was done by the simple but unorthodox method of running the show and stopping at the required point to plot levels and make any fine adjustments.

This only left the actual board operation. Operating the board in this case is rather a soul destroying experience. I like to see the results of all the work but since the Board is situated in the prompt corner with the racks and the sound equipment, I'm left with a terrific view of the back of the Stage Manager's head. Manipulating the dimmers required an element of manual dexterity on occasion since the very of some scenes meant very little time to set up presets. An added problem was the lack of independent control for the follow spots. Since both follow spots are directly controlled from the board crossfades can be awkward, especially if not using the master dimmers. Possibly the only advantage of having the board in the prompt corner is that on occasion I could ask the Stage Manager for the use of her left arm - "Push those two and hope it works!" The fact that it did work says a lot for the versatility of the Mini 2, although in some cases an operator with two pairs of hands would be a distinct advantage.

For an amateur, enjoyment is the whole idea of putting on a show, yet a bit of difficulty always adds spice to life. Bugsy Malone had all the elements necessary to make a show successful hard work, a challenge and team effort. But above all, it was the infectious exuberance of the cast, especially during the fight scenes. If anyone knows of an easy way to remove dried custard pie foam from a Fresnel lens I'd be extremely grateful . . .

## comes to Minneapolis

by James Crooks, Midwestern Regional Manager for Strand Lighting North



The United States Institute for Theatre Technology is the North American Association for professionals in theatre design and technology. The purpose of the institute is to provide research, publications, and exhibitions for people who make their living in any area of technical theatre. Recently the institute has begun to broaden its base by incorporating video, film and other production areas.

The annual conference, normally held in March, provides the central focus for the institute. Scenography exhibits, technical papers, job placement center and a major trade exhibition draw up to 4000 students, professionals and manufacturers from all areas of the industry and all parts of the country.

USITT 1987 will be held April 22-25, in the twin cities of Minneapolis and St. Paul, Minnesota. These cities are well known as centers of Scandinavian culture and for their legendary cold climate. Temperatures of 25 degrees (F) BELOW zero are not unusual between January and March. One assumes this is why the USITT convention will be at the end of April.

The twin cities are also known for both the quantity and the quality of theatre. television and film production based there. The Tyrone Guthrie Theatre in Minneapolis is one of the nation's oldest and best known regional theatre companies. St. Paul is home to the Actors Theatre Company, the Ordway Music Theatre and to Minnesota Public Radio's "Prairie Home Companion" live radio show at the World Theatre.

As a matter of interest, the Prairie Home Companion's creator. Garrison Kellor has recently compiled a number of these live radio broadcasts into a novel Lake Wobegon Days.\* As a result of the novel's popularity, the Disney Channel is in the process of filming a number of these stories for its cable network

A walking tour of Minneapolis from the Hyatt Regency, which will be the USITT convention hotel, provides some indication of the quantity of arts activity in this area alone. The hotel is across the street from Orchestra Hall, recently renovated under the supervision of D. H. Schuler and Associates. Orchestra Hall is home to both the Minnesota Orchestra and the region's first CD80/8 dimmer

Adjacent to Orchestra Hall, is the new WCCO-TV production complex, designed by L. E. Nelson and Associates and equipped with Quartzcolor luminaires corporate studios of Lutheran Brotherhood Insurance are blocks away and another CD80 installation. Across Loring Park, the stroller will find the Guthrie Theatre, a Light Palette and CD80 dimmers. The Minneapolis Children's Theatre and another Light Palette complete the walking tour.

As the Strand Lighting agent in Minnesota, Ed Duepner and his firm Luma Sales are no small part of the success of Strand Lighting in this northern arts community. For over seventeen years, Mr. Duepner has been providing service and support to a succession of production professionals and to Strand.

The National USITT Conference in Minneapolis/St. Paul will provide ample opportunity for attendees to see local installations as well as the newest products on the trade show floor. We're looking forward to seeing you there.

\*Also broadcast by the BBC in Britain a few months ago, and very much appreciated the

# **USITT** Toad in the Hole in Plymouth

With the kind help of Alan Bermingham, Head of Lighting at T.S.W. and some of his staff, the Editor visits Devon to inspect the new Orion ground row in its first studio home.

There is absolutely only one thing I would criticize about Plymouth. It is a very long way from London. No doubt Plymothians will count this a virtue. As an additional disincentive to stop Grockles and Emmets\* from bothering honest Devon folk, any expedition by road involves using the first two hundred miles of that most depressing of Motorways, the M4. There is but one moment of interest before reaching Exeter. At about the five mile post the motorway actually passes over Strand's R. & D. Department and Terry Twyford's service operation, both of which nestle beneath a motorway span. Fortunately we never manufacture any defective articles, or some disappointed user might be tempted to return one, as it were, without leaving

After Exeter, though, one enters a different world of hills, forests and moorland. For drama one sees the odd sign post marked 'Princetown'. This is not the Ivy League educational establishment of similar name but the granite pile where some of Her Majesty's toughest guests are entertained. In short it is a nick, slammer, pen or gaol.

Twenty miles or so further on after passing through increasingly fine country, one enters the proud and ancient City of Plymouth, one of the homes of the Royal Navy. Plymouth Hoe was, of course, the site of Drake's famous game of bowls. An anecdote which I consider makes him one of history's more infuriating characters.

In the heart of the city are the studios of Television South West, the independent commercial station covering Devon, Cornwall and parts of Somerset and Dorset.

There are three studios, two fairly large and one small one for announcements and continuity. All exhibit a goodly crop of Quartzcolor equipment.

My specific purpose was to see our new Orion ground rows in use. These units have several clever and unique features of which we are somewhat proud. Orion also holds a special place for us being the first world product launched since the Rome Quartzcolor factory became part of Strand Lighting.

As studio ground rows are normally used in four circuits, red, blue, green and white, or what you will, why not have four compartment units? And because cycloramas go round studio corners, why not make these four compartment units capable of being curved as well as straight? Why not indeed.

Each Orion compartment is linked to its neighbour by a hinged joint, and the units can thus be laid out to match any curve, whatever its radius, of a cyc. or of any other backing.

If the units are to be used straight, then clips underneath are snapped into position, locking the four compartments into one rigid unit. This would be done before moving the Orion around a studio, as otherwise it would be rather like trying to carry an open accordion.

The next bright idea was to arrange for current to be fed by a more convenient method than the dreaded octopus

Each Orion unit of four compartments has a male multi pin plug at one end and a female multi pin socket on a half metre

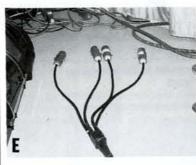
flexible multi core cable at the other. The first unit would be connected to the studio socket outlet by an Orion Header Cable, which is an 8 metre (25ft) multi core which is divided into four at the supply end for the studio to fit its own choice of plug tops. One can, to confirm the naval tradition, visualise this header cable as ending in a kind of cat-o-four

Capacity is up to four circuits at 25 Amps per circuit. Obviously, if only one, or two circuits are needed, then the



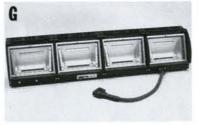












unused studio socket outlets are available for the odd ladi or Redhead.

Now we come to the cleverest bit of the Orion mechanical design.

The compartments are wired together? Obviously! But the units may be laid out in a tightly radiused curve? Yes, indeedy! Then how . . . .?

An oblong section conduit, free to move in and out of adjoining units, runs from compartment to compartment carrying the cables. A moment's consideration will show that if the conduit were the usual round cross section, then the degree of ovality of the receiving hole would have to change as the layout of the curve became more acute. The oblong section connecting conduit overcomes this mechanical conundrum very neatly.

I have used Editorial privilege to write first about the most interesting of Orions, but I suppose I should make it clear that as well as the unique "bendy" units, we offer straightforward four compartment Orions without the curving facility. But these units do have the clever wiring arrangement, so can be used connected to the "bendy" Orions, plugged up in the order which will suit the studio layout.

Orions are also made as single units for situations where these are appropriate. A couple lighting the backing behind a news reader would be one obvious application.

The safety mesh meets European Standard No. 598, and Orions are available for all world markets.

The toad-in-hole? Superb. Two pink sausage Zeppelins in a delicate yellow batter cloud with just the lightest of crisp brown edging, consumed by the Editor as a guest of TSW in a staff restaurant so comfortable that the word 'Canteen' must die on the lips.

In certain markets, Orion is marketed under the name Pallas.

\*Grockles and Emmets. These are Devon and Cornish names for people from other counties. Each is also the local name for an ant!



- A. The Plymouth Studios of TSW, first home of our new Orion ground row.
- An Orion four compartment 'Bendy' unit. Cycs. go round corners so should the lighting.
- When they are to be carried, clips hold units rigid. Gareth Jones, Lighting Foreman, demonstrates.
- D. More convenient than octupus cables, multi cores link Orion units.
- E. The "Cat o'four tales" termination of the Orion 8 metre header cable where it connects to the studio socket outlets. Note close-up of Gareth's elegant footwear.
- "The cleverest bit of the Orion design". The sliding cable conduit.
- The standard rigid Orion Four, to be used in conjunction with 'Bendys' to fit the studio layout.
- H. An Orion Single unit.

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## **Strand Lighting Runs for Charity**

Three employees of the Kirkcaldy Factory ran in the Glasgow Marathon and the other employees sponsored the run. As all three finished in most respectable times they collected £250 which was given to aid research into Multiple Sclerosis.

The runners complete with Marathon Medals, were John Martin, Alan Lawson and Tommy Wallace. On behalf of the runners and all who donated money the Personnel Manager, Ron Whittet, presented the cheque to Mrs Gertrude Barton of A.R.M.S.

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