

# Connections

AUSTRALIA'S Entertainment & Technology MONTHLY

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**AES REPORT**

Making Waves In Sydney

**APRS**

New Recording Society Formed

**CONFERENCE**

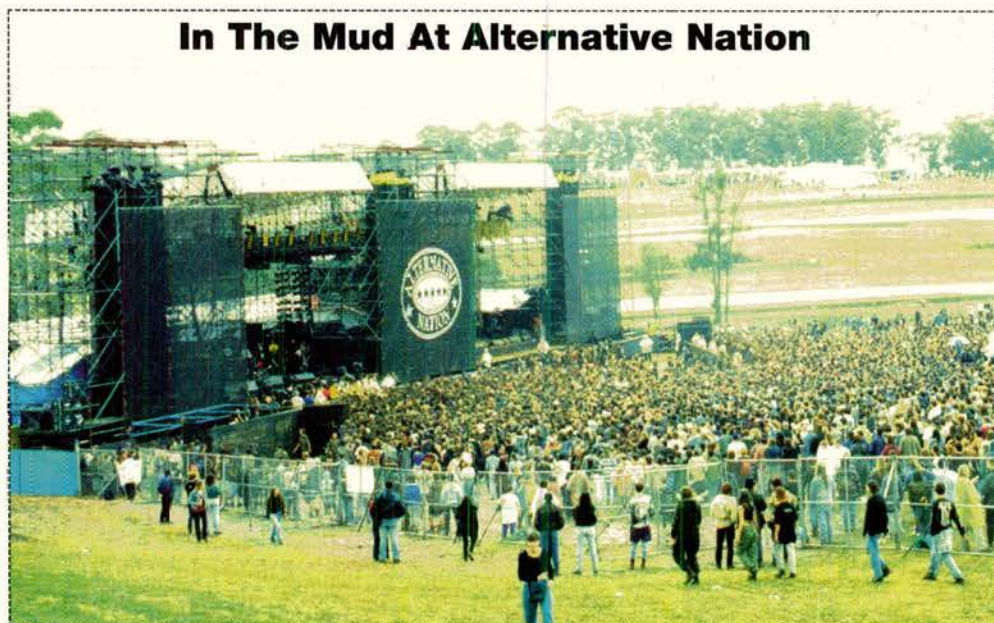
Music Industry Gathers

**STUDIO TIPS-** *J.R.'s new 'How To' series*

**THEATRE SOUND-** *System's Westside Story*

**LIGHTING-** *NEW PRODUCTS AT RIMINI*

In The Mud At Alternative Nation



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**"ONCE YOU'VE REACHED THIS STAGE,  
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After more than 20 years of touring with **Pink Floyd**,  
monitor engineer **Seth Goldman** has some firm opinions about music and microphones.

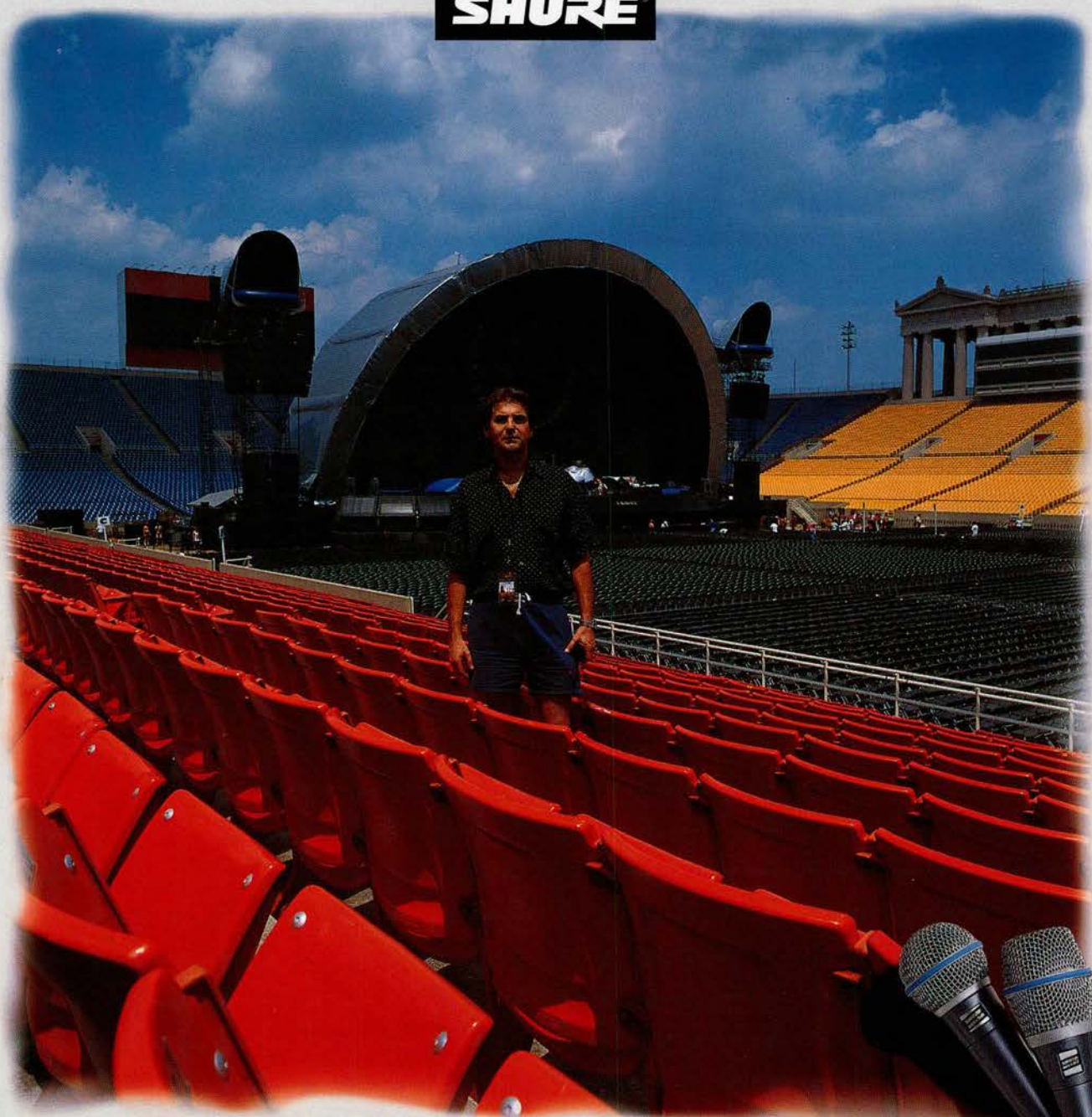
"Pink Floyd's live performances are complex,  
both technically and artistically," says Seth. "There's just no margin for error.

For this tour, I'm using 48 Shure microphones on stage, including eight Beta 87s for vocals.  
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Seth Goldman, Pink Floyd Monitor Engineer, Soldier Field, Chicago.

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Write in Reader Service number: 118

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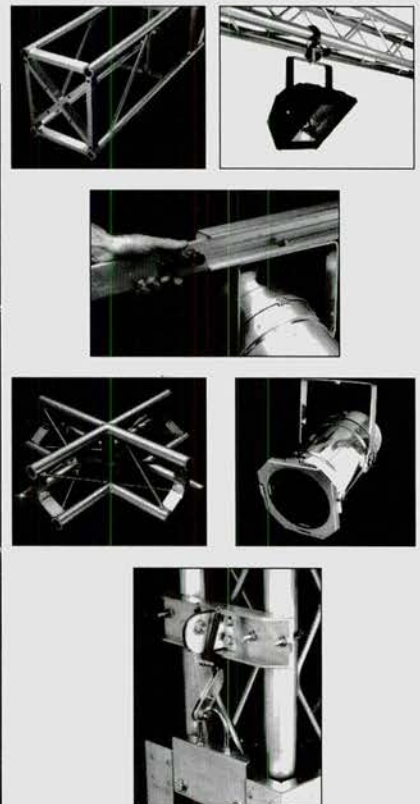
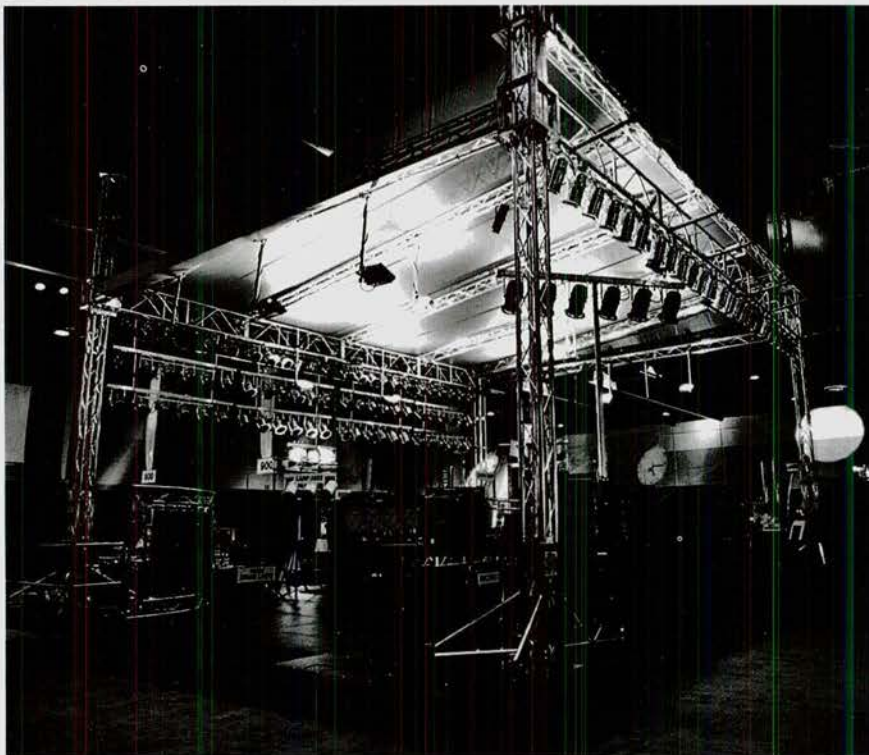
**Editors Note:**

Essential Connections Person Catriona Forcer was one week late having the HUGE first baby at presstime, and all is total chaos. What will happen this month? We shudder to think .... Cat thought she would be ready for work again sometime real soon, but we wonder ....

**Next month we do all the AUDIO NEW RELEASES from AES and BEYOND!**

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# Connections

MAY 1995. Number 23

## PROFESSIONAL RECORDING INDUSTRY ASSOCIATION FORMED, LOBBIES AT SUMMIT

*Australian Professional Recording Society (APRS) calls for increase in local content, sales tax exemption, restrictions on foreign engineers*

The collective views of the professional recording community are now represented by The Australian Professional Recording Society (APRS).

Acting as an Australia wide, non-profit, independent organisation, the APRS presented the concerns of the professional studio and production sectors of the Australian Music Industry to the National Contemporary Music Summit in Canberra on April 27. Some of these are summarised here:

**FORCE LOCAL CONTENT:** APRS called for a 30% minimum local music content on radio and TV, and significantly that 50% of the 30% of all local content be less than 18 months old.

### FOREIGN ENGINEERS:

Foreign Producers and Engineers must comply with standard immigration and tax procedures, as a loophole currently exists which disadvantages the local industry.

### STUDIOS SALES TAX BREAK:

With rates of sales tax varying from 11 to 31% on studio equipment, APRS feels exemption would encourage growth in recorded output whilst costing Government very little in foregone revenue.

The APRS steering committee includes Jim Taig, Mark Mcfaff, Ernie Rose, Tom Kehoe, Bruce & Mal Jacobson and John Villani.

For information call *Brandie Hodgins on 02 217 7701; or Tom Kehoe on 03 879 9400.*

## SUPPORT APRS

**Connections fully supports the newly formed Australian Professional Recording Society, and urges anyone involved in the industry to contemplate becoming actively involved.**

**Professional recording facilities have diminished in number, and the project studio market needs a voice too.**

**Connections will provide any assistance required to help APRS. Our policy is to actively support associations which are representative of their industry sector - like this one.**

## AES '95

1370 Visit Trade Show

**SYDNEY** - It was trade show time late April as fifty-plus companies put on their best and displayed their wares at the 5th AES Convention. While pro audio equipment sat lit and ready on the trade show floor, technical papers and workshops ran continuously across the three day trade event.

AES is, of course, the Audio Engineering Society - an international body based in the USA, whose yearly Conference and attached trade show in the USA is a major event. In Australia, the local chapter of AES host their AES Convention each second year.

Theorists and academics abounded, technical papers and serious theory were the flavour in the meeting rooms, while the fast paced development in the audio equipment trade occupied minds on the trade show floor.

As often happens, major new product news and announcements are timed to coincide with trade shows, particularly as international suppliers fly in. AES was no exception, with some significant developments arising.

**MORE AES COVERAGE INSIDE**

### Jands Quit Building Amps

In a surprise move during the dying minutes of the AES in Sydney, Jands Electronics picked up the rights to sell CREST audio power amplifiers from the USA, with an opening order of 'some hundreds of units' for Jands Production Services mooted.

Rumours of an announcement flowed around the show on the final day, after the Crest Asian-Pacific region sales manager was spotted in conference with Jands director Paul Mulholland.

*(continued over)*

## MAXVISION CONCEPT

A \$2.2 million film called 'The Edge' is being shot for a 370 seat cinema concept called Maxvision - to debut inside a new complex located in NSW's Blue Mountains. This entails a purpose built cinema built at a cost of \$11 million, with a 24m x 18m curved screen. The film will immerse visitors in a 'close encounter' of the most spectacular and beautiful parts of this world national park, and is the work of Australian producer/director John Weiley. The camera used (left) is purpose built, and weighs 50kg.

The 70mm film will be projected by a Pioneer 870 linear loop projector, at around 30 frames per second on an 8 perforation film via an air filter system which removes practically every speck of dust. The result will be a 'gentle and beautiful image' according to John Weiley. The Maxvision Cinema opens in December '95.

## MUSIC SUMMIT REPORT

*Full Coverage Starts Next Page*



## MOVES

### BOSE RELOCATE

From mid-May, Bose Australia will be at: 1 Sorrell Street, North Parramatta. Phones will be diverted, new numbers soon.

### AMPOWER EXPAND

The pro and hi-fi amp builder has moved to a 9000 sq ft factory at: 6 Adrian Road, Campbellfield 3061. Phone 9357-8580, fax 9357-8577.

### PRO COPY SHIFT

To enhance your listening pleasure -even more- Pro Copy is now at suite 3, 10 Dewar st Morley 6062. Phone 375-3902, fax 375-3903.

### DURHAM AV TOO

The phone and fax numbers remain the same, but the mind, body, soul ... and all the hire gear... can now be found at: 65 Haig street South Melbourne.

### VIDEO REPLAY SYSTEMS

...are now closer to the Sydney CBD, at 26 - 32 Pyrmont Bridge Road, Pyrmont. Call 660-1222, or fax 660-3188.

## PEOPLE

• **YAMAHA** has appointed **Terry Kee** as specialist PA account rep. **Craig Ellis** joins as Special Projects Officer, reporting to **Mark Suzuki**. **Greg Wright** has been appointed Director, Sales and Customer Service. **Geoff Crane** moves over to cover the MI portfolio. **Phillip Burns** has left. **Bernard Crowe** is the new QLD rep, **Darren Kastle** is promoted to account rep, and **Paul Astbury** is a trainee rep.

• **SYNTEC INTERNATIONAL** announce **Les Myers** is their new WA Manager. Call 09-275-5066.

• **MARK IV AUDIO** has created a Marketing Department with the addition of **Francesca Peskops**. **Michael Doherty** and **Phil Webb** join an expanded sales team there.

• **STUDIO CONNECTIONS** have appointed **Legends Supply Network** as their WA distributor. Contact **Mike Collins**, 09-306-3774.

# SUMMIT APPEARED USEFUL

## Hopeful Music Industry Awaits Government Action, Minister Lee Set To Reveal Initiatives In August At Tripp Conference

The teaming of commerce and art has and always will be an uneasy alliance. Combining politics into the equation is a difficult gig but April 27th's Contemporary Music Summit in Canberra made a valiant attempt. Bringing together the disparate facets of the music

industry graphically illuminated that the major issues aired were all encompassing and in need of immediate action. The chime for grass roots development was obvious, yet the solutions will continue to be fraught with cross-purposes unless a unification occurs. Clearly the impediments of time limited valuable discussions in regard to recommendations but the general output produced worthy and dynamic suggestions for industry development and restructuring.

Peter Rix's introduction extolled the growth and emergence of Australian music as a profitable commercial industry but added "In some ways we are a cottage industry. It is this government that has

recognised our industry and we have no better champion than Michael Lee." Lee's address outlined the governments commitment to nurturing the industry. Development commitments included the finalisation of development agreements with the 6 major record companies, worth \$270 million. This scheme requires companies to develop target for investments and exports over the next 3 years.

**Copyright-the saga continues**  
The government accepted the findings of the Copyright Convergence Group (CCG). These include the need for electronic transmission rights and the removal of the disparities in the Copyright Act. Agreements were also made on the introduction of rental rights for the owners of copyright in sound recordings (Jan 1996), the extension of anti-bootleg rights (July 95) and increase in penalties in the Copyright Act to fight piracy. Lee welcomed and acknowledged

the need for change in legislation and regulations in lieu of rapid technological changes.

Issues of copyright were ban-  
(continued on page 18)

## Music

By Natalie Apostolou

### 75 Music Industry Representatives - But Where Was The A.M.A.?

To get an invitation to the Summit, lobbying was required. As 60 participants blew out to 75, the Australian Music Association (AMA), representing the interests of musical equipment distributors, retailers & manufacturers, still missed out.

Sources tell us the AMA did ask to attend, but failed to lobby hard enough. This left Jim Taig of the newly formed APRS (see previous page) as the sole representative of the hardware/recording/MI industry.

AMA is highly vocal in the need for action to increase the participation of Australians in the live music scene, so it is a shame they missed this chance.

-Julius Grafton.

## Jands Distribute Crest, Local Amps No More

(continued from prev. page)

It became apparent Jands had approached Crest regarding amplification for Clair Brothers S4 speaker systems, used by Jands Production Services (JPS). JPS is Australia's largest live audio & lighting production and rental firm, although a separate entity but under common ownership with Jands Electronics- the import/export and manufacturing company which exhibited at AES.

JPS purchase inventory according to their needs, and have from time to time purchased brands competitive to those offered by Jands Electronics, so at first the Crest purchase did not appear too unusual, despite being large in monetary terms.

Although guarded and initially refusing to comment, Paul

Mulholland confirmed Jands Electronics would represent Crest here, and he did not deny that they would in fact quit manufacture of Jands brand power amplifiers. This ends a tradition of amplifier manufacture that started 25 years ago when Jands was acquired by Paul Mullholland and partner Eric Robinson.

Jands have recently stretched manufacturing capacity building their lighting consoles and dimmers, which are apparently in demand beyond manufacture capability, and it is thought they will concentrate on only building software intensive products such as these in the future. A new lighting product, the 'Jands Hog' is due to ship in July against what Mulholland describes as 'substantial' back orders.

In recent years American sourced power amplifiers have reduced in price via volume manufacturing, to the degree Jands can now offer an imported product -Crest- that is competitive with locally made units and other US sourced brands.

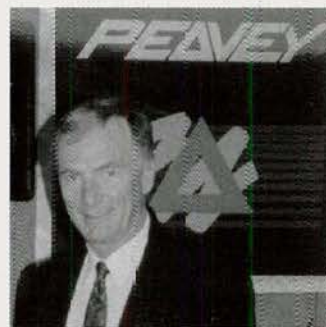
An era has ended, with Jands built amplifiers still the most numerous on the second hand market, and indeed a parallel can be seen with Jands' decision to drop local manufacture of mixing consoles in the mid 1980's, picking up the Soundcraft brand from the UK, now the market leaders here.

The origin of Jands' amp manufacture can be traced to prohibitive import tariffs that existed 25 years ago. Tariffs have progressively reduced since.

-Julius Grafton

# PEAVEY STEPS UP ASSAULT ON MARKET

## Memphis Manufacturer Appoints Audio Telex For AA Line, While Australis Aim To Double MI Sales Of Peavey PA & Instrument Lines



Rod Craig, Audio Telex Chairman

Peavey are set for a much larger slice of the Australian and New Zealand audio pie after appointing Audio Telex to distribute Architectural Acoustics; and following the announcement of a major initiative by Australis Music.

Architectural Acoustics is a separate line of Peavey pro audio products for the PA contracting industry. It is extensive, and well regarded in the USA, although less known here. The flagship prod-

uct, Media Matrix, was a highlight of the recent AES trade show here.

Audio Telex Chairman Rod Craig was keen to point out the decision to market Peavey AA does not signal a change of direction for Audio Telex. They plan to continue to expand their local manufacturing facility.

### AUSTRALIS PLAN TO DOUBLE PEAVEY M.I. SALES

Main line Peavey distributors Australis Music now have the largest musical equipment warehouse in Australia, following the move earlier this year from Brookvale to Alexandria, near Sydney airport.

Owner Peter Hayward told us Peavey prices have been reduced 10%, and retailers have had a one-off 12.5% discount opportunity to turn existing stock.

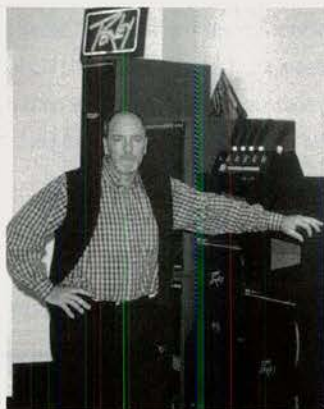
At press time, Mr Hayward was heading a contingent of 45 local Peavey dealers to the Memphis Peavey HQ for further training.

Australis purchased the large Bourke Road facility last year, and have created a 'motel' showroom for the purpose of training retailers, and running product seminars. Peter Hayward welcomed Peavey's decision to award the AA line to Audio Telex.

Australis have a tight network of Peavey dealers across the region, and have seen the Peavey PA product sector, in particular, grow steadily in recent times.

Other products distributed by Australis include Akai Professional, Tama and Ibanez. -JG

Peter Hayward,  
Australis Music Owner



## AUDIO IN PRACTICE

# Sound On Location

By Daniel Cole

Today, the call is a hotel at Homebus (in Sydney's West), last night Coogee, tomorrow, alas, remains undisclosed. I am referring to a new Southern Star/AEC Drama co-production called *Blue Murder*.

The production staff are publicity-shy due to the sensitive nature of the material—underworld crime figures and police corruption in Sydney in the 1930s. The result of the eight week shoot will be 2 x 90 minute features to be broadcast on the ABC towards the latter half of 1995.

Now, this is all very interesting

but what of sound? Location sound for film and television is, as they say, a 'tough call'. I spoke to sound recordist Nick Woods about the art of location sound. He is currently working on *Blue Murder* and some of his previous credits include; *Police Rescue*, *G.P.*, *Seven Deadly Sins*. On the art of television drama:

"I have been at the ABC for about twenty years working with audio—I learnt a lot from Syd Butterworth about the philosophy of recording for drama. "What it comes down to is pre-empting, communicating, listening. Communicating with editors, dubbing mixers etc. The audio demands are high when shooting drama—you have to capture everything."

It is easy to record sound, it is another thing discerning sound. Herein lies the art, especially as Nick describes, when dialogue is overlapping. "I have to think ahead about how sections will cut (to page 32)



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# AUSTAGE - NATIONAL AV

Austage is the latest national player in the growing 'business theatre' market, the kind of organisation I used to categorise as an 'AV' company. Where AV means 'Audio Visual'.

These days this entails everything from the floor up, sound, lighting and often even the stage too. These days almost anyone can make a video presentation on a laptop, so the frontline weapon is a video data projector, of which Austage favour the Sony 1272. A few years back, slides were the only way to go, but the immediacy of video changed all that.

I called to see Austage founders Joe De Abreu and Bruce McIntire in Sydney, they started the group around 18 months ago, launching with a network of associated-but independent-companies who all work as Austage. Thus the network covers Sydney, Melbourne, Perth, Canberra, Adelaide and Brisbane.

The origins of the organisation lie in another similar firm with whom some of the current Austage people became dissatisfied. The matter is something Joe and Bruce decline to discuss despite my insistence that readers enjoy a stoush, needless to say they have both been in the industry for a long time.

Joe came from Theatre originally, where a production is rehearsed and subject to dress rehearsals and previews before opening night. Because Business Theatre, Conventions, Product Launches and suchlike are run to a tight schedule, reliability is everything. "The pressure of this thing is different - one go and it must be perfect" he says, explaining that a company like this relies on people way more than inventory. In fact, a good freelance technician in business theatre can earn more across a weekend that

your editor earns in a week. Well, bad example .... editors don't usually get paid much, do they?

The duo decided to start Austage and found the interstate operators immediately. The exception was Melbourne, where in June last year Lexine Houghton and Tim Mitchell started up from scratch. They purchased new equipment, as did Joe and Bruce in Sydney, and haven't looked back since.

Elsewhere interstate, established outlets came into the fold, retaining their independent businesses while servicing Austage customers and acting as regional representatives. In Brisbane Stagecraft were established in 1989 and have gone on to include sales and installations as well as event staging.

In Perth AVI operate as Austage Perth, formed five years back by Tony Routledge. They say their term has 80 years combined experience. Richard Creasy's Multivision Australia is the Adelaide connection, established in 1978. Canberra completes the network, Simon Byrne operates Audio Solutions as Austage Canberra.

So, when my experience running a hire and production company ceased in 1988, the 'new wave' of AV companies was just starting to bite. The difference is that if my company (back then) wanted to do business theatre, product launches or corporate work, we would need to give our crew a haircut, a shave, a can of Brut 33 and rent them a suit! Even the women.

Today's successful AV firm numbers its staff as the number one asset, and the equipment is very clean and well presented. Even the vans are clean.

Best of all, Austage are looking for markets overseas, and indeed the Conference/Business Theatre market here is pioneering some

juicy export work, mostly due to the superior prowess of our technicians!

• Contact Austage (02) 517-1599.

-Julius Grafton.



## dSP Postation Stars At AES A NEW AUSTRALIAN POST PRODUCTION MASTERPIECE OF DESIGN, SAYS JOHN ZULAIXHA

Picture a 3 screen cockpit control workstation - Postation. Below each touch screen are minimal controls each dedicated to do a job. On the left a mixer on the screen with knobs and pots but with real moving faders positioned below. The centre screen displays audio waveform, track data etc. accompanied by chunky main controller wheel arced with computer function buttons that just fits like a dream in the palm of your hand, and lastly on the right a video display with a qwerty board. Everything is neatly housed within a streamlined body allowing direct line of sight to speakers mounted behind.

### INTEGRATION

All tools are present there is a 16 channel digital mixer with built in effects complete with automation and real-time visual feedback to know where you are at any given moment. A non-linear hard disk picture seamlessly integrates with a highly intuitive 16 track hard disk editor with excellent graphics and simple control access via the amazing SPEED controller - the Studio Processing Ergonomic Editing Device - whoever thought up that deserves a medal as it delivers just that. After seeing how easy and quick it was at editing, I peered over to read the inscriptions and asked if I could touch... in a matter of seconds I had performed a copybook edit leaving me astonishingly comfortable.

The operation of controlling sound to picture traditionally dealt with 3 separate machines. Now one can concentrate on making it sound good. In a post production

station, one has come to expect excellent high quality waveforms and the Postation is superb, accompanied with a dedicated array of computer control buttons via SPEED. The integration of the 16 channel digital mixer is awesome. Well, yes it is the Pro Mix 1, Yamahas cheaper mixer but dSP have completely bypassed the A to D, D to A converters and directly hooked into their hard disk to unveil an extremely friendly (via their touch screen) integrated digital 16 track real time system with powerful visual feedback and DSP effects.

A fab feature is the ability to deal with the complex panning output stages that theatre sound now demands. To design a system that pans across 8 outputs is a designers nightmare. Sony's SDDS system requires Left, Left Centre, Centre, Right Centre, Right, Left Surround, Right Surround and Sub-woofer control and dSP's answer is a touch screen block situated top left of the mixer screen and 4 x Pro Mix 1 engines. The concept of integrating 4 Pro Mix 1's and utilising the 4 pan pots as one device is a stroke of genius, creating an 8 position pan pot.

My other favourite feature is the audio spooling up to 8 times play speed. The video hard disk system is worth a mention, and coming soon is picture editing, so any last minute picture edits can be easily changed leaving a relatively simple audio edit.

A perfect match of 'state of the art' hardware/software integrated into an ergonomic and technological masterpiece of design.

• Call dSP on (02) 557 2292.

## INDUSTRY NEWS BRIEFS

• **YAMAHA** Corporate PR **Sara Hood** has joined the Australian Music Association committee, replacing former Yamaha executive, **Philip Burn**.

• **AUDIO SOUND CENTRE** is **Geoff and Belinda Grist's** new name for what was Audio Services Corporation in Artarmon, Sydney. Explaining the move, Geoff said a proliferation of 'Audio Services' clone names, and the need to distance the operation from the distressed North Hollywood firm is the reason. All is going swimmingly at 32 Punch Street Artarmon NSW (02) 901-4455.

• **AUSTRALIS MUSIC** have appointed **Robert Sazdou** as professional products specialist, after **Danny Dunn** departed to establish a new proshop in Sydney, called Positronics.

• **ROGER BARRATT** continues to fight cancer in Sydney.

• **AUSTRALIAN MUSICIAN** is the name of a new, free, glossy music magazine, released this month through music stores by the AMA.

• **ROBERT YOUNG** and **IAN MESNER** of Jands were hurt when their Targa Tasmania Rally Car failed to negotiate a bend at the end of April. Commiserations.

• **WIRELESS** is wonderful, especially when using a radio mic on the same frequency as a nearby site. Ian Ross in Perth reports a recent large religious gathering were startled by a loud message interrupting the proceedings: "OK girls, get your tops off, we can't start judging until you do....", transmitted from a nearby club.

• Try ordering music in vain at **EDELS**. Al Jerreaux, Peter Cupples and the Mighty Reapers all have new-ish releases but are not stocked. I ordered two of these titles months ago, and my nearest store gives me a different story each time I call. Strange. -JG

## LOGIC UPGRADE FREE FOR RECENT PURCHASERS CODEMASTER CALLS

**EMAGIC's** program writer Gerhard Lengeling (the "Code Master" to his peers) and Neumedia Explorer Mikail Graham were in Australia last month for a series of seminars about LOGIC 2.5, for importers Electric Factory.

Mikail: "LOGIC AUDIO is a fully integrated sequencing, desktop publishing scoring, audio editing and playback system. It allows for as many tracks and as much hardware you can connect. The system is ideally placed in the middle of a studio and co-ordinates sequencers, audio events, MIDI and digital information.

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I asked The Code Master about

their concept of 'definable structure': "LOGIC AUDIO allows the operator to create a program according to their specific needs. LOGIC AUDIO can either emulate other programs or it is possible to load their file format directly into the program. So it can be a simple mixer or a score window or it can be more complex—it is totally definable. In this sense, it is unique."

LOGIC is the core program within EMAGIC's folio of product. It is available for Windows, or for Mac.

If you purchased a LOGIC system after February 1st 1995 and wish to upgrade, EMAGIC through Australian distributors Electric Factory are offering the 2.5 version free. Included is a rewritten and redesigned manual.

Contact: Electric Factory phone:(03) 480 5988, Facsimile: (03) 484 6708.

-Daniel Cole

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## MEYER SOUND 'GO DIRECT'

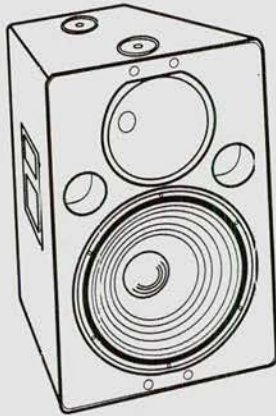
'New Era' as Berkeley firm sell Jands system for 'Beast.'

Jands Production Services have purchased a new system from Meyer Sound for the forthcoming theatre production of Beauty and the Beast.

"The production is technically very sophisticated", said John Meyer, "we are proud to be working with a company of Jands' calibre to satisfy Disney's requirements, and we believe that this direct sale, by Meyer to Jands, signifies a new era for the distribution of Meyer Sound products in Australia.

Jands is providing 'Beast with two of Meyers newest products, the UPA-2 (approximately 32 cabinets) and the UPM-2.

Unlike other large 'clone' musicals such as Miss Saigon and Phantom which come completely packaged, Disney's Beauty and the Beast has allowed local audio design, by Jands' Peter Ratcliffe.



• UPA-2C has a aspherical high frequency wave guide for 60° controlled dispersion horizontal and vertical spread from a 1.4" throat, 3" diaphragm, compression driver. The woofer is a 12" unit. The design yeilds excellent arraying performance, say Meyer, and will run from a M1-A Control Electronics Unit. The UPM 2 has 2 x woofers.

## AUSTRALIA GETS ISDN DOLBY FAX

# STUDIOS

SOUNDFIRM Sydney completed the first trans Pacific use of the Dolby Fax system on the major US feature film *The Mighty Morphin Power Rangers*. Soundfirm achieved the historic first in an ISDN Dolby Fax link-up via ED-Net with the Todd-AO facility in Los Angeles.

*The Mighty Morphin Power Rangers* feature, currently being edited in Los Angeles needed two actors based in Sydney for replacement dialogue - or ADR.

In a 6 hour continuous session L.A. to Sydney, Director Bryan Spicer was able to communicate with and direct the actor's 'live' in Soundfirm Australia, as they re-voiced dialogue watching the same screen image. Five ISDN 64K channels were transmitted by satellite and terrestrially, and the Dolby Fax was able to synchronise all these lines to achieve full quality digital transmission.

*Kid* is a US film shot in Buda-

pest, edited in Los Angeles, with the sound edited and mixed in Australia by Soundfirm. In this case, a temporary (rough) mix was made in Australia and shipped back with the Producer for an audience preview in Los Angeles.

One day before screening, some last minute changes were requested to the mix. On the day, Soundfirm made these changes in Australia and then transmitted them by ISDN Dolby Fax to the US, where they were recorded and reinserted into the mix - all in time for the screening in Los Angeles that same night.

Roger Savage said Soundfirm's ISDN Dolby Fax system opens up new opportunities. It virtually does away with the problem of distance, and is essential tool for improving the speed, efficiency and cost-effectiveness of post production.

•Dolby Fax, available from Syntec

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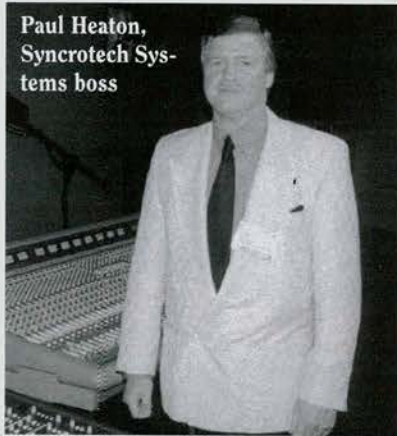
# AES PICTORIAL



Susie Morrison and Mavis Jackson, family of Bruce Jackson, Australia's greatest living audio export, with Carol Craft from Bruce's Apogee Electronics.



AES Convention Chairman Michael Falk (ir. Blue AES Blazer with AES tie), special guest, the legend Rupert Neve, and AES (USA) Executive Director, Roger Furness.



Paul Heaton, Syncrotech Systems boss



Yamaha's Sara Hood and impressive display (left)



Murray Tregonning buys a 360 Systems Instant Replay from EAV



Phil Drew and Marshall Cullen of Damien Gerard Sound Studios (Sydney)



Norwest Productions Chris Kennedy & Craig Ellesley with ATT boss Frank Hinton



Syntec boss Robert Sloss with Soundcraft UK's Ian Staddon

## NEXT MONTH: NEW AUDIO FROM AES



Robert Zimola of R&R Recordings, NSW



'Mooshy' with Joe Manning (EAW)



Chris Morton of ARO Technology, who collected an AES Award.



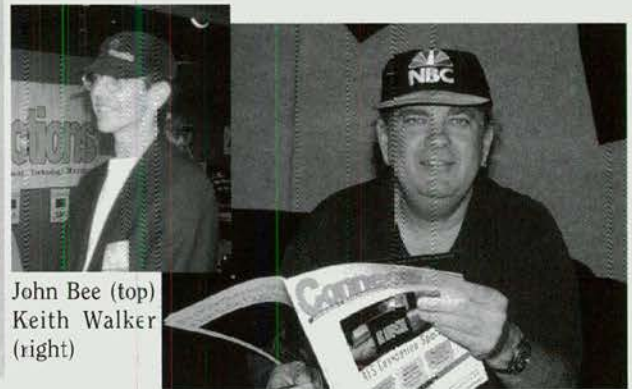
Gler Phimster of Haven Productions with Tom Misner of SAE.



Martin Roth (ABC), Cliff Blackburn (Amber, WA) with Anthony Kitson of ABK (WA).



'Mel', Melinda Miller from Roland



John Bee (top)  
Keith Walker (right)

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# BIG MONEY LOOZA

## Music



*Alternative Nation, a day and a night inside the Mud Soaked Spiral. By Natalie Apostolov.*

The reports from the bunker spoke of uncertain vibes. There were moments at Sydney's Alternative Nation when chaos was looming large, bands were running an hour and a half behind schedule, climactic conditions didn't seem to be letting up, attendance was waning, and then there was that crowd. Yet, through the confusion and hype an impressive line-up still managed to carry the event.

Sydney's Eastern Creek, was perhaps a poorly judged choice of venue, a factor that was tantamount to the weather on the day. Rain, fields of hilly earth and juvenile psychotics make uneasy bed fellows when most of the site turns into a giant mudslide near stage 1, by mid-afternoon. The throng of mud soaked kids, revelled in moshing, slamming/crowd surfing into moronic oblivion-utterly unaware of what was playing as long as it was pumping fast and loud.

Security was tight and well en-

forced, with journos and photographers are kept at bay from backstage unless accompanied by a representative from a band

Aside from the weather conditions numbers seemed to be low due to cost and location. The \$70 ticket provoked punters reluctance when compared with BDO's \$48. (or Lollapalooza's US\$28).

Frontier's attendance figures stand at 25,000 for Sydney, Brisbane's two day festival sold 15,000 and Melbourne was quoted at 24,000. Melbourne's Olympic Park venue seemed to suffer a worse fate due to the rain.

For breakthrough grass-roots promoters like Ken West, the Frontier agenda was perhaps too clearly anything but a ternative. Expecting to ride high on Big Day Out enthusiasm and attempting to orchestrate the Australian leg of Perry Farrell's Lollapalooza tour organiser's missed the after-mark. Many of the performers such as L7, NIN, Ice T, Poppies, were

Lollapalooza veterans yet the promoters failed to seal final negotiations. Hence, a rather organisationally rushed affair at the mercy of cancellations and at the bidding of bands like Nine Inch Nails and Lou Reed who 'saved' the bill after The Red Hot Chili Peppers blew out.

European festivals like Glastonbury, Reading, Phoenix are an annual pilgrimage for thousands with even the vaguest interest in music, drugs and general debauchery but like American festivals they are much larger scale, over a few days and with easier access and pull for touring artists. The problem with sustaining multiple alternative festivals in this country is that the difficulty in luring a consistent and credible pool of acts is always high due to logistics and cost. The Big Day Out, has served to do much of this groundwork and has prospered due to planning, luck and largely tapping into a welcoming youth

market. After three years they have ascertained a workable balance. Frontier's plans to usurp the alternative festival market are now escalating into warfare.

The crowd settled by night fall, with a number of punters having left due to the weather. Atmosphere slowly seeped through the fields with the surrounding blanket of mist and fog and steam rose from the mud soaked figures surrounding stage one.

Ice T's tour de force attack out powered the audience proving that white kids aint got no rhythm. Lou Reed's bedraggled catatonia quickly spread to the audience but was audibly shattered by Faith No More, who performed in blitzkrieg fashion. Nine Inch Nails were the apt finale, surveying what must have looked like the aftermath of trench warfare. As veterans of mud soaked rock festivals and specialists in on stage mayhem.

So rolling in mud is sorta cool, getting pissed in the back of dads Volvo, odourising it with heinous quantities of dope fumes, and moshing inanely is the nirvana of social descent. Splattering performing artists (as during Live's performance) with mud is certainly alternative. But it's only rock and roll.

Tracey Robar, guitar tech with Nine Inch Nails found the Alternative Nation jaunt an interesting experience. "I did Lollapalooza with Rage Against the Machine in 93. It was a lot more organised than this. The rain doesn't help things out."

Talk has Alternative Nation as a 2 day festival next year. •

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## Music Industry Summit. From Page 6

tered throughout the day, emphasising the industries 'technological bullet train' ride. Jeremy Fabinyi of AMCOS, noted that we needed technically driven solutions for the decompression and duplication involved in music transmitted through the Internet and called for the immediate and fast tracked application of CCG suggestions and immediate reaction to the blank tape levy. Other suggestions involved increased co-operation between the states for piracy, ruling rates for multi-media producers and an overwhelming need for the instigation of a Performers Copyright Act

**"We'll get more airplay today**

**than we've had all year." Chugg on the 'net**

The issues surrounding the Internet were tinged with mild hysteria and praise as exploited by the (live recording-onto the internet) demonstration on the front lawn. Discussions revealed that considerable work has to be done to fully ascertain and react effectively on government and private sector levels for the ramifications of the Internet as it impacts on every part of the industry. Aside from transmission and piracy problems, the use of the net as a promotional tool was highly regarded as Phil Tripp put forth the idea of a government generated

Net site that exposed Australian music as a marketing and direct sales strategy. Rob Hirst reflected on the 'net' as the greatest opportunity for unknown artists to reach their audience direct, bypassing record companies and democratising the process.

### 'Memorable maniacs'

The substantial presence of managers as participants and speakers illustrated the mounting force of the Australian Music Managers Forum, in the industry as driving forces and key observers of the machinations and needs of the business of music from grass roots and upwards. John Woodruff of the AMMF gave a clear overview of problems, the increased

importance of the role of the manager in the workings of the industry, and stressed the need for the managerial involvement in decision making processes. He recommended; the implementation of transmission rights and performers copyright, export development and entrepreneurial encouragement, and immediate action on the 'one for one' legislation, which requires each international act to have a local act on the bill and adequately promoted as such.

The media was repeatedly in the line of fire, obviously in terms of industry development and exposure for emerging music. Warren Fahey of Larrikin Records succinctly expressed the frustration; "Culture needs to be spilled out. I blame TV and Radio, if getting on Hey Hey is the premier vehicle for TV exposure, I am embarrassed." The pressing need for a national television music program and a visual showcase for live music was expressed from all sectors as was the development of an all Australian national radio station with a commitment to youth (in terms of market and organisation). The arrival of Pay TV sparked issues of a content quota for Australian music on TV.

Triple M's Lee Simon made emphatic statements condemning record companies on their advertising practices for television, totalling \$63 million last year with minimal Australian artist content. He also blasted the allegedly fraudulent and unethical practices of retailers and record companies 'fixing' the charts.

The role of the media as a promotional tool for the industry has clearly failed yet as JJJ's Barry Chapman stated "radio is a business, it's a creative venture. Last year Triple J recorded more Australian artists than the entire industry, yet we are asked to do more. We need to step back and look at this industry in its context rather than our own personal desires. The music industry is not the multinationals, publishers or the radio business- it is the grass roots, that is where Ausmusic is, that's where JJJ is." Rob Hirst pointed out that in the absence of venues for young bands to tour, radio must come to the rescue.

The contentious issue of radio content and support impacted on

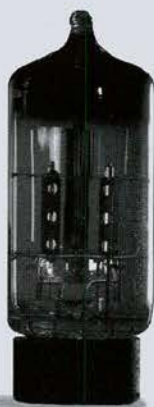
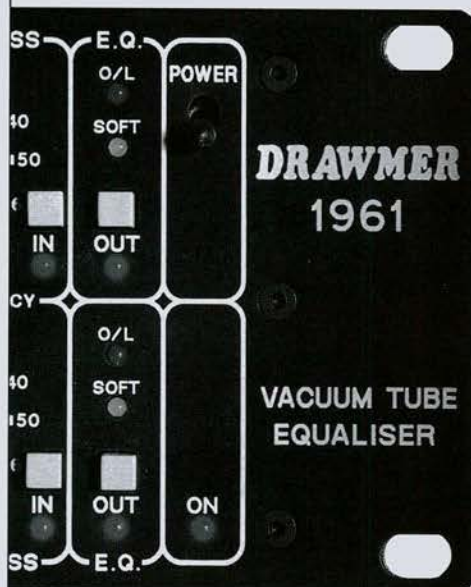
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other sectors such as the recording industry, that illustrated the need for artists to record and produce locally using local engineers and producers. The newly established APRS (via Jim Taig) delineated the issues at stake and echoed recommendations by Emmanuel Candi and Phil Tripp among others, for the redevelopment of world standard studios, tax rebates for recording done in Australia and tax breaks for equipment as a method of attracting international artists and creating revenue. (See lead story, page 5)

#### Industry Revamping

Industry development at the education and training level was continually sought. Accredited, standardised, industry approved courses needed to be extended with more government funding. This was coupled with the suggestion of creation of jobs behind the scenes and the encouragement of young blood entering the industry at managerial, promotional and artistic levels. Michael Chugg

urged the industry to stop its narrow minded retention of information and called for the transmission of contacts and knowledge.

The role of government support in industry development, not only involved the need for funding but the sustenance for Ausmusic and the establishment of an impartial commission and finance corporation for the music industry. Government representation from the states and territories revealed equal parts of ignorance and frustration in facilitating the needs of their local industry. And also revealed the need for more communication between the states and the industry. The discontinuation of the Music Industry Advisory Council and the continuation of funding for AUSMUSIC were direct results of the Coopers and Lybrand report.

Ausmusic was generally viewed upon as the major vehicle for grass roots development and held promise for an extended role in industry development. Industry support

for the value and extension of Ausmusic emanated from most sectors, revealing the body's role as the clearest facilitator and and observer of the industry's requirements for development.

The summit worked to convert many of the sceptics of Ausmusic's role when confronted with their succinct and relevant recommendations. These included the need for focused export strategies other than the Asian regions, schemes such as 'On the Road', implementation of legislation that impacts on live music, and the decentralisation of government funding. The establishment of a music copyright committee and an investment scheme for the contemporary music business were also put forward by Ausmusic.

Dobe Newton's proposed MIDAS scheme also acquired broad based support. Based on a Canadian model, the scheme functions through a non-profit, tax-deductible foundation that facilitates funding through grants and

loans for artists, multi-media producers, management, labels, publishers, radio programs, business development and studios. Operating in a similar manner to the Film Corporation and Australia Council programs, this will promise to infuse emerging artists and associated players with the backing needed to 'break' into the market adequately and internationally.

The recommendations and issues collated from the summit will be discussed at the July meeting of the Cultural Ministers' Council. According to Phil Tripp, Minister Michael Lee will present the governments response to the summit at Immedia's National Entertainment Industry Conference on August 4th in Sydney.

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## HELLO, DOLLY!

The Gordon Frost production of *Hello, Dolly!*, in association with the Victorian Arts Centre and Adelaide Festival Trust, is currently touring Australia with lavish sets designed by Brian Thomson (*The King and I*, *South Pacific*).

The musical is set in the late 19th century, an era Thomson has admitted is one of his least favourite periods. The time is too fanciful for Thomson who decided to replicate the way images were constructed in Victorian theatre and create scenery that looked like the lithographs and woodcuts of the period. He also decided that the sets needed to be very theatricalised and he came up with the idea of having each scene surrounded by painted *trompe l'oeil* curtains.

The concept evolved: the set is flat, predominantly two-dimensional and painted in the style of a Victorian lithograph. Each piece of scenery is pushed through real curtains or surrounded by the *trompe l'oeil* counterparts. Into the scenes come three-dimen-

sional pieces of furniture when necessary, all highly theatricalised and specially made.

The show opens with a tiny proscenium of the kind found in horseshoe shaped theatres of the period. Inspiration came to Thomson whilst at the Theatre Royal in Hobart where he found his opening set which features a gold proscenium and red curtains. The show moves gradually to the luxury of the Harmonia Gardens Restaurant, scene of the famous title number. As the show progresses, the proscenium becomes wider and wider and the sets increasingly voluptuous.

The predominant colour of the set is red: shiny red floor, red velvet curtains, red walls. Into this red box come the various painted scenes: New York, Grand Central Station and Vandergelder's store where plaques on the exterior wall pull down like drawbridges to reveal pop-up furniture.

A main piece of scenery is the train which is also flat and two-dimensional but has turning

wheels and steams. It's solid enough for the cast to climb aboard and be wheeled off stage.

For the parade sequence that closes Act I, it is back to New York lit up with hundreds of chaser lights. Act II opens with the extravagant opulence of the Harmonia Gardens, the courtroom and back to Vandergelders for the finale.

British designer Tim Goodchild is responsible for the lavish costumes.

Lighting designer for the show is Rory Dempster and he has worked many times with Brian Thomson.

"After working with a designer several times you get a kind of shorthand between you so you don't have to talk about it too much," said Rory. "Brian did most of the design work in England where the director comes from so I wasn't very involved in the early designs.

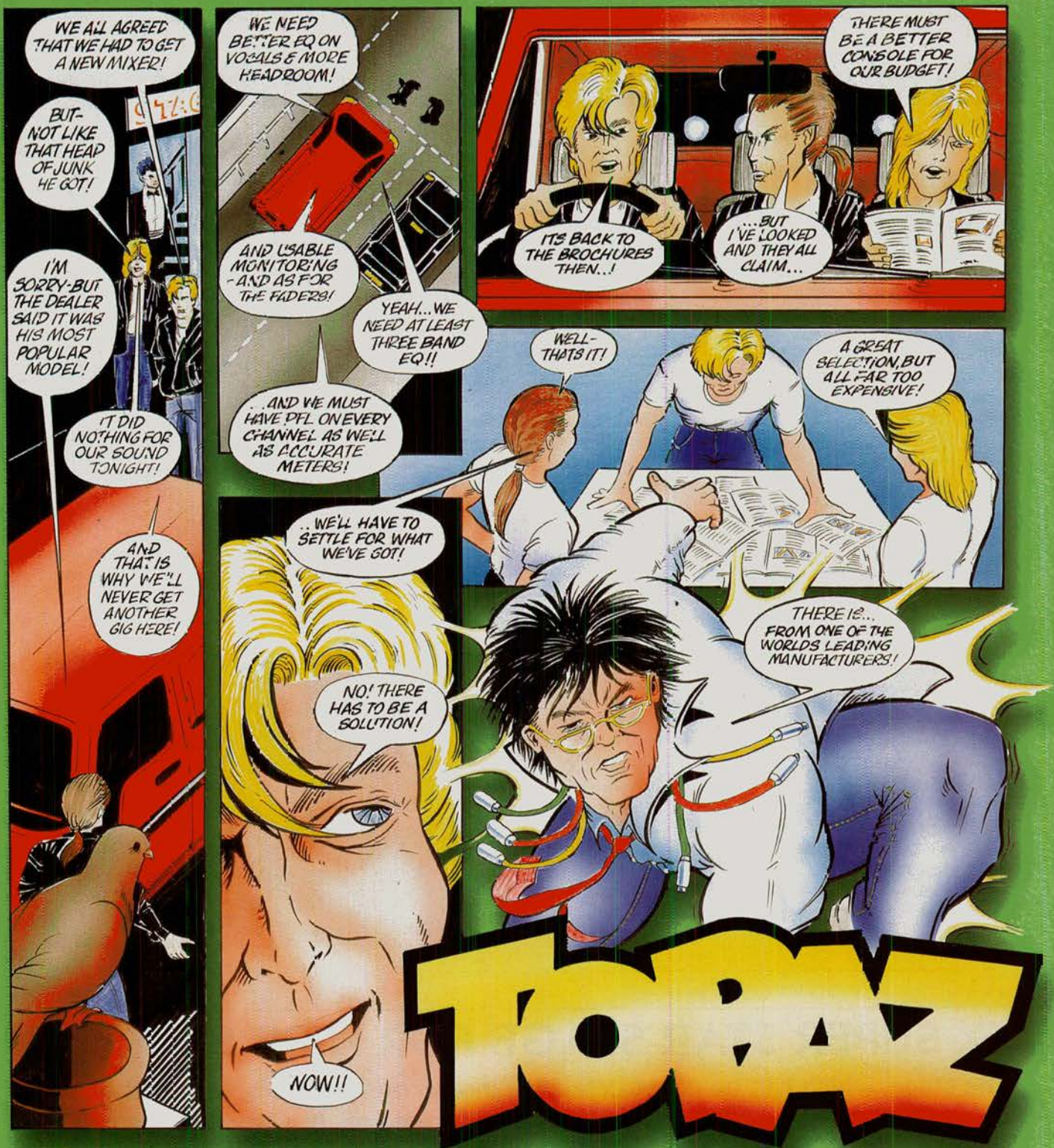
It's quite a difficult set to light in that it's totally designed which is unusual for Brian. Every inch of the set is designed and you don't

have to do much lighting. There's an incredible amount of colour in the set and the costumes so I didn't need much colour in the lighting. The rig is basically wherever there's a gap we put a light in! That's how it's done because it's very busy up there with all the flying set pieces. The lamps are very ordinary and it's all quite old fashioned really."

The electrician touring with the show is Al Foster and Darren Conway is the electrician who supervises all the bump ins. Both are from the Victorian Arts Centre.

-Catriona Forcer

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# GLADIATORS - BEEFCAKES & BEEFBABES

*It's Big, Loud and Bright. Catriona Forcer Details The Live Technicals For The TV Show*

Channel Seven's new game show, *Gladiators*, has recently finished production at Brisbane's Boondall Entertainment Centre which was turned into a gigantic TV studio for the event.

The show's producer Pat Condon says production costs are already between \$4 and \$5 million, making *Gladiators* the most expensive production in Australian television history. In the US, where the show has been on air for six years, it has been a phenomenal success story. In the UK, their version averages a weekly audience of 14.5 million.

*Gladiators* is a game show that pits super-fit super bodies (the *Gladiators*) with names like Flame, Blade, Vulcan and Storm against challengers. The challengers have a set task and must try to complete it without being hit, kicked, pushed, thrown or otherwise stopped by a *Gladiator*. For one entire hour, men fight men and women fight women.

Lighting designer for the series was Francesco Calvi with David Lee of Channel Seven acting as the lighting director for television. Dyke Dunning also had a large input to the design of the production. David found it was not very

difficult to turn the vast area into a successful TV studio.

"The problem was having the budget to light that size area," said David. "The first dafts that Frank did included 1000 par cans and about 60 Vari\*lites but it was cut down to about half. Because Jands were doing the lighting, equipment and staff, we had to use whatever they had and couldn't sub hire anything because there was no budget to do that. So we ended up with what may not have been the most ideal equipment for the job but it still worked quite well. There were 34 Vari\*lites broken down to 22 VL2c's and 12 VL4's but we could have done with a lot more.

"Turning the venue into a TV studio was not that difficult and we had enough truss work to cover it. We had to get the trusses in between all the flying pieces of which there were many."

The whole floor of the venue is used for every different game played in the show and each game has a different set up. For example the game *Duel* consists of two large mushrooms which stand nearly 4 metres in the air and are surrounded by foam padding. The competitors and *gladiators* fight each other on top of the mush-

rooms with what looks like giant cotton buds with the object being to knock each other off. All together there are 11 games including the final game *Eliminator*. Each program took on average five hours to shoot depending on set up times for each game.

"There were the usual problems of sets being moved and decisions being made without us knowing," David said. "They move a set and that knocks out a whole truss for us because the lighting rig was already fixed in position and locked in by other pieces of equipment. The whole set was moved upstage a few metres and we lost a whole truss of lights which made it very difficult for us. The venue was ideal

for it with plenty of space including a second area for rehearsing."

Three days were allocated to set up the lighting, then five days for rehearsals and nine days for recording the fifteen programs. There are tentative plans to record more programs in July. •



*Associate Gladiators Producer and Jands Production Services boss, Eric Robinson.*

*Front to back: David Lee, Dyke Dunning, Frank Calvi and R. Buono.*



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# EQUIPMENT PRICES RISE AS MATERIALS & CURRENCY CONSPIRE AGAINST CONSUMER

*After Holding Prices Through The Recession, Many Manufacturers Are Finding The Catch-Up Is A Difficult Thing. By Julius Grafton*

After three years of relatively stable prices, equipment and consumable wholesalers are now in catchup mode, having generally held prices at the expense of margin.

Tape manufacturer BASF announced Video and Audio tapes would rise by as much as 10% last month, its first major rise for many years. In the case of BASF, raw material costs have risen; like plastics (+10%), base film (+16%), and polycarbonate (+20%).

Currency trends are forcing price rises on goods sourced in Japan and Germany as well, with these currencies strengthening as a continual trend.

Lighting equipment utilising aluminium is afflicted by raw aluminium costs increasing 38% in

12 months, according to Mark Dryden of Penn Fabrication. "The majority of my goods are sourced from the UK, and thank God that currency doesn't move too much", he said.

Japanese manufacturers are caught badly by the super Yen crisis, which has seen this currency progressively move from 220 Yen to one Australian dollar in 1985, to the mid .60's today.

Wholesaler Peter Hayward of Australis Music (Sydney and New Zealand) has watched his Japanese suppliers like Ibanez and Tama move many of their factories to Korea. "Only some lines are left sourced direct from Japan" he said. "The Yen has been slipping for years, it's a trend I think will probably continue".

Yamaha Music Australia source much of their product ex Japan, but according to spokesperson Sara Hood, some factories are located outside Japan. In addition Yamaha have opened a purchasing office in Singapore which buys raw materials in: US\$.

"Our company structure has been refined and costs reduced, so we can absorb some of this", she told Connections.

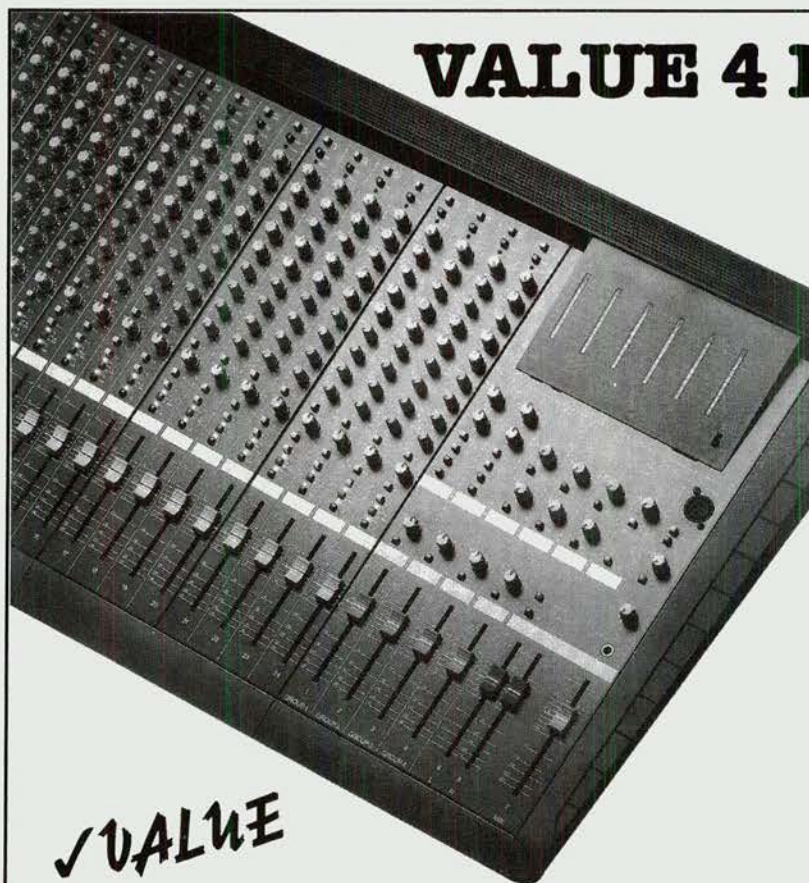
Lee Conlon from the Sydney lighting manufacturing company Showcraft has been doing bumper export business into Japan of late, but he doesn't feel the increasingly favourable exchange rate for exports is a factor in his case. To sell more in Japan he thinks exporters need to do more marketing there, and that cost increases

because it is paid for in Yen. So it balances the gains, he says.

Aside from the problems of raw materials increases and currency depreciation, many manufacturers and wholesalers have absorbed smaller rises during the recession, to the extent margins are eroded. "We need a 15% increase now, and I wish we had done it a few percent a year, but we didn't because we were frightened of losing business", one told me.

Retailers report that some wholesalers have issued quarterly pricelists with small increases built in, and these are more readily acceptable than a large one-off rise.

Unfortunately, the one-off rises are becoming essential as a 'catch up', given economic conditions.



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# The home MM/Video production service

## STUDIOS

By John Zulaikha

Jim Hare hails from Silicon Valley, the chip software computer capital of the world. His background also includes corporate video production in the traditional off-line on-line manner, which he feels is costly (a corporate video must run upwards of \$10,000).

So imagine editing *with* digital effects, 99 video and 99 audio tracks producing a band video clip completely on your home computer. Then you take the hard disc to a professional video studio where they produce a file format- (eg. Media 100)- which suitable for broadcast in one afternoon.

About a year ago Jim produced a multimedia CDROM for Sony Computer Solutions showing their CD ROM Manufacturing plant being built, and process equipment etc, but most recently he has produced a full motion Video for the Roland 'V' Guitar Australian Premier presentation by extending his Mac system with some specialised hardware and software. It was all done on a Mac.

Adobe Premier software was unveiled a couple of years ago with very expensive hardware... now it's up to version 4 and the hardware has come down in price.

In short, you'll need a Power Mac, software that costs approx. \$1000 plus \$8635 for the Radius VideoVision Studio hardware, and then you get 99 video tracks and 99 x 16 bit audio tracks. You'll be able to create full motion video 25 or 30 frames per second *almost* ready to go - just take your hard disk to a pro house and render it

there because you need mega disc space.

The Radius hardware supports all ins and outs and enables via its JPEG compression a through-put of 4 meg per second. Without compression, video requires around 25 meg per second which isn't viable.

Even though Hi Quality 16 bit sound is supported, audio tracks are manipulated with mastering-type post tools like editing, fades etc. as apposed to real-time mixing.

With MIDI one can sit at home and create to one's hearts content

always accompanied with the creators concept available to be referenced to... rendering (likened to CD mastering) takes an afternoon and a few hundred dollars.

Jim is open to making very creative and cost-effective video clips for bands as well and is contactable on 018 985 330.

**PRODUCTION SPOTLIGHT :** The Roland 'V' Guitar job included creating the proverbial 3D roller-coaster 'V' logo graphics with character generation and post digital effects. USA music and dia-

video recorder along with the live camera at the end of the chain... voila! a finished product and a major change in marketing for Roland.

The big news is that a quote to create such a production would have been around \$25,000 and Jim did it with his cost effective gear and his time, completely slashing the cost structure and heralding in a new kind of facility. The home Video production service.

### GEAR

**CPUs** - Macintosh 8100/80 A/V 16 MB ram 500MB HD  
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**Hard Drives:** 2 x 500 MB SCSI drives - 2 x 1 gig drives in tandem when required.  
**Scanner:** UMAX flatbed.  
**Monitors:** Sony 17" - Mitsubishi 19" - Apple 13" RGB - 13" VGA - Sony PAL



and then take virtually their entire system to a recording studio, blow it up, add vocals guitars etc. to ultimately create a CD.

This Video system is a few steps easier because it is *all* on the hard disk and that's all that needs to be transported. A demo version can also be included so the material is

logue was replaced with Australian content. Audio was created at Rolands studio on the DM-80 etc.

Once digitized, all elements were under software control edited effected etc. rendered, put to tape and keyed in during the Live evening all of which was projected onto a 12 foot video screen with a

Video Monitor

**Camera:** Sony Hi8

**Audio:** Teac DAT

**Video:** Radius VideoVision Studio

**Software:** Adobe Premeire v.4 -

Adobe Photoshop v.4 -

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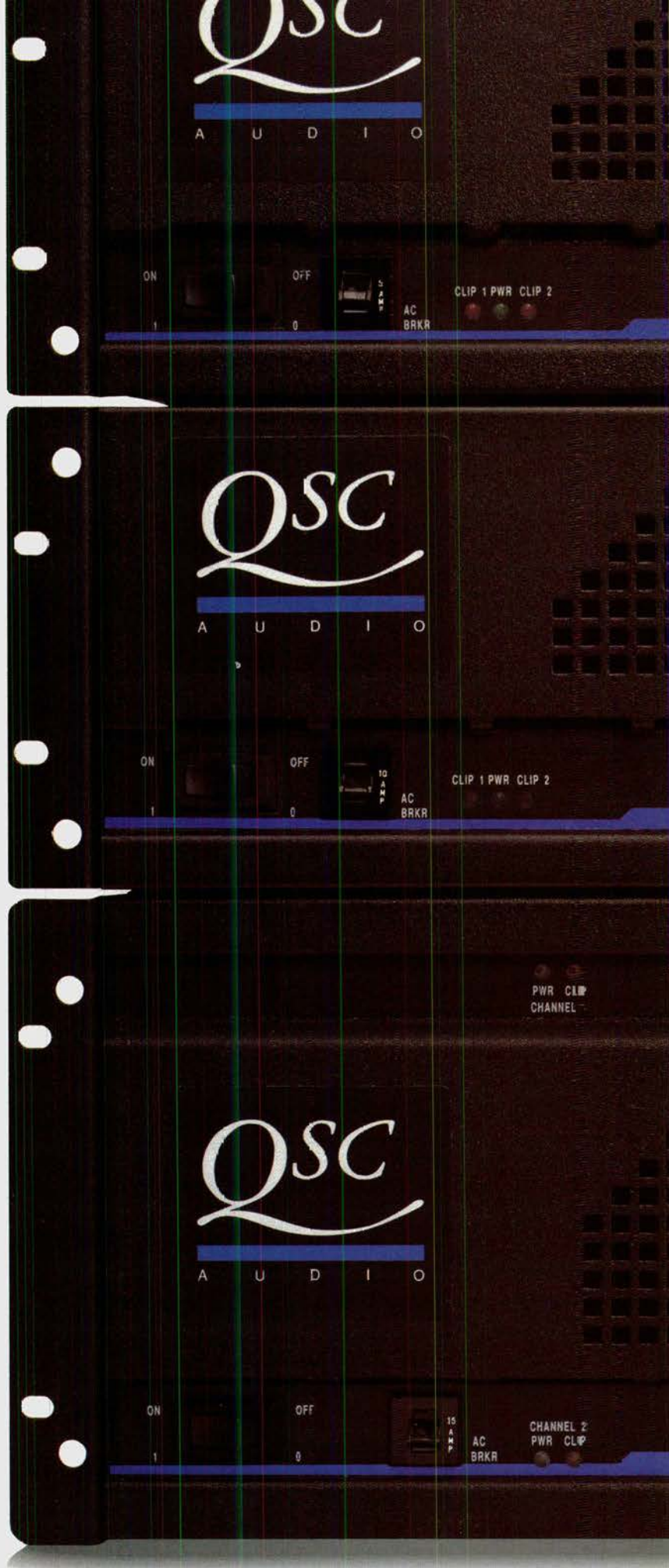
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Naturally the EQ231SP-R offers exceptional audio quality throughout the signal path and provides electronically balanced inputs and transformer balanced outputs as standard.

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# PRODUCTION & HIRE NEWS

With Caroline Grafton

• **Bytecraft** ....just when you thought it was safe to cross the Nullarbor Plains again, after last months devastating floods which managed to reek havoc on various tours, a fire affected the Perth leg of the Foreigner/Doobie Bros. Tour. Destroyed were 27 ICON units and control equipment. Quick action to locate a replacement system, by Bytecraft, saved the day. Bytecraft also were hosts to Gary Westcott of LSD, UK.... who was flown in from Bali to direct the 24 unit ICON show for this years Logie Awards. Call (03) 587 2555.

• **Centrestate Sound and Lighting**, Orange NSW, have had several jobs on of late including a five day festival at the National Folk Centre in Canberra. Acts included the Gay and Lesbian Choir who Alan says are "fabulous". But seriously he said they were the best choir he had worked with and heard. An Australian Monitor System was complimented by 8 Miniscans. Other recent acts included Cockroaches, Mentals as well as local talent. The Argentina Vs NSW match was another highlight for Centrestate this month. Coming up in May Centrestate will be working with Things of Stone and Wood and covering the Western Regional Rock Eisteddfod. Call Alan Brown on (063) 62 0587.

• **Electrovoice** has had a good run with large and small systems into the hire market with **Custom Audio, Newcastle** have taking delivery of EVSX200 speaker systems, reportedly the first of many. **Topstage, Canberra** purchasing a EVSX200 general speech system for permanent hir installation in the main ballroom of the Hyatt in Canberra. **Music Box Sydney** have added 8 more Deltamax 15" DML1152 to an already large Deltamax hirestock with another 16 DML1152's going to Noel Anthony at **Wild Gravity Townsville** for use at the stadium with the North Queensland Cowboys. Call Mark IV Audio on (02) 648 3455.

• **Oracle Laser Productions** Sydney have just completed another busy month with corporate events and Prodigy Dance Party. The 'In-

tensity' virtual reality theme park opening utilised three laser systems. A full colour laser and an Argon laser were used as entrance tunnel effects linked up with the audio system.

• **JANDS PRODUCTION SERVICES DIARY** (RePrinted From *Loud & Clear*, the Jands company magazine)

As I slogged my way into work on Monday morning I saw a truck and trailer covered in red mud parked in our driveway here at Mascot. This truck, from the **Janet Jackson** tour, was the last one to get through before the road was closed at Norseman by floods, effectively stranding the remaining four Jackson trucks on the west side of the floods.

A quick look at the white-board showed Janet Jackson just finished in Perth, **Cliff Richard** was on his way to the west, The Cranberries starting in Adelaide and Pearl Jam beginning their Australian tour at the Perth Entertainment Centre.

The basic problem was that the system for The Cranberries and Pearl Jam had to be built from the four Jackson trucks which were stuck in the middle of the Nullarbor.

In retrospect, the solution to the problem looks simple, but in reality it came after many long hours of deliberation and hurried phone calls and went something like this...

Luckily the four stranded trucks were able to drive back to Perth where Jands crew built The Cranberries system from the Jackson rig. We flew this system to Melbourne, where it was picked up by a truck despatched from Sydney (with extras) and driven to Adelaide for the first show. The rest of the Jackson rig in Perth became the Pearl Jam system.

Cliff Richard flew all but stacks and racks from Adelaide to Perth and was able to do the Perth concert using Pearl Jam's stacks and racks.

However, the roads were still flooded so the Pearl Jam system was duplicated for the second show of the tour in Adelaide. (What was that about miracles taking just a bit longer?)

Everything came together without too much drama.

# Trade Events

- **NSCA**, Indianapolis USA, April 30 - May 2 Contracting audio and systems.
- **VMA '95**, Venue Managers Association, conference & trade show, Sydney May 14 - 16.
- **IMM Music Industry Convention** Singapore May 17-20
- **PRO AV '95**, Perth, Pagoda Ballroom. 23rd - 24th May.
- **MIDEM Asia**, Hong Kong, May 23 - 25. Recording Industry.
- **Software, Multimedia expo**, Melb. June 2-4
- **REPLitech International**, Santa Clara USA. June 13 - 15.
- **Infocomm International**, Dallas, June 15-17.
- **Audio Technology '95**, London June 21-23. Formerly the APRS recording technology tradeshow
- **SMPTE 1995**, Sydney July 3 - 6. TV and Broadcast technology
- **Pro Audio & Light Asia**, Singapore. July 12-14 Asia's Regional show.
- **NAMM Summer Session**, Nashville July 15-16
- **Pro Audio, Light & Music China 95**, Beijing May 9-12 Fledgling Chinese show
- **PLASA**, London, Sept 10-13 UK/Euro Lighting & Pro Audio
- **AIMS '95**, Sydney September 30 - Oct 3. Aussie music industry main show, held with ARIA.
- **AES 99th**, New York, October 5th - 8th. Audio Industry, large.
- **REPLitech Asia**, Singapore, Oct 24th -26th.
- **LDI Miami USA** Nov 18 - 20 1995. World's biggest LX show.
- **ENTECH' 96**: April 24-26, 1996. Aussie Entertainment Technology show, Sydney.
- **NSCA Indianapolis**, April 30, - May 2, 1996.

## PRO AV DEBUTS IN PERTH

MAY will see the very first Pro AV '95 for Perth, which is shaping up as a good regional gathering of Audio, AV and Lighting companies.

It is scheduled for 23rd/24th May, open 10am - 7pm on day one, 10am - 4pm on day 2. Venue is the Pagoda Ballroom, Melville Parade, Como.

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# Season On CD ROM

Magpie Theatre, the South Australian masthead of the performing arts for the young, has just launched its theatre season on CD-ROM.

Magpie's major sponsor is Apple Computer Australia Pty Ltd. who have supported them to the tune of \$22,000 in the project. Not only is it a direct marriage between art and technology but it pre-empt's the rest of the country in following the guidelines of Paul Keating's famous Creative Nation policy.

## THEATRE

The CD was designed by Adelaide's State Theatre's in-house designer Tim Saunders and outlines Magpie's forthcoming program in a playful and entertaining way. A tour of the program is led by the talking head of artistic director Neill Gladwin and takes the form of an exploration of a multi-storey building. Once inside, you can take a lift, pressing the

numbers of chosen floors each of which is another part of the Magpie season. Or go to the ninth floor and you can meet the actors themselves.

The CD tour, if done directly, features about 45 minutes of graphics, talk, music and movement. The CD-ROM is more than just a brochure as it gives 'samples' of what people may expect when they go to the theatre.

More Info from: Magpie Theatre 08 231 5151.

### APOGEE GIVE-AWAY AT AES - WINNERS

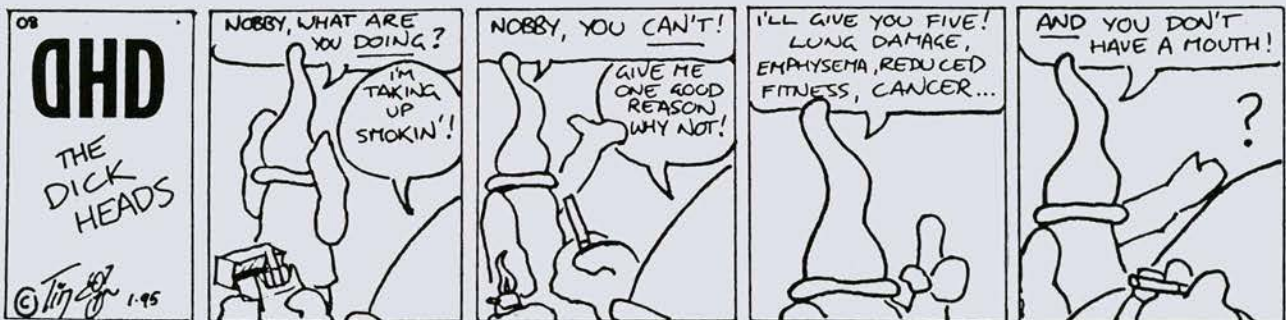
- **Andrew Gibson** of Nuance Audio wins a copy of UV22 MasterTools TDM plug in software for Protocols. Value \$1200
- **John Bee** won a Project Pak with 5 Apogee Dat tapes and 2 Apogee Digital Cables.
- **Phil Judd** of Philmsound won a Master Pack with 2 Apogee Dat tapes and 2 cables.
- Overseas winner is **Rocky Douche** of Marmalade Studio who won a DAT tape.

## THEATRE LISTINGS for MAY

SHOW	THEATRE	COMPANY	STATUS	THEATRE	COMPANY	STATUS
<b>New South Wales</b>				<b>Queensland</b>		
Dead White Males	Concert Hall, OH <b>S</b>	Sydney Theatre Co	March 9 - May 6	Tap Dogs	Tivoli Club <b>B</b>	Dien Perry From May 10
Oscar's Turn To Sing	Drama Theatre, OH <b>S</b>	-	Ends May 26	Tosca	Lyric OPAC <b>B</b>	Lyric Opera Old May 6,8,11,13,17,20
Dead Funny	Wharf 1, STC, <b>S</b>	Sydney Theatre Co	April 22 - June 17	Othello	Arts Theatre <b>B</b>	- Until May 20
Saint Joan	Drama Theatre OH <b>S</b>	Sydney Theatre Co	From May 23	3 Billy Goats Gruff	Arts Theatre <b>B</b>	- Until June 17
Travels With My Aunt	Playhouse OH <b>S</b>	-	May 15 - May 27	Travels With My Aunt	Suncorp <b>B</b>	- May 1 - May 6
Fornicon	Opera Theatre OH <b>S</b>	Sydney Dance Co	May 6 - May 30	The Threepenny Opera	Suncorp <b>B</b>	QTC May 25 - June 10
Phantom of the Opera	Theatre Royal <b>S</b>	Cam Mac	Indefinite run	Kafka Dances	La Boite Theatre <b>B</b>	- May 4 - May 27
Hello Dolly	Her Majestys <b>S</b>	-	From April 15	Hamlet	Townsville Civic	La Boite Theatre May 2,3,4
The Removalists	Newtown Studio <b>S</b>	nomad	April 26 - May 13	Hamlet	Rockhampton Theatre	La Boite Theatre May 9,10
Pygmalion	Newtown Studio <b>S</b>	nomad	April 26 - May 13	Hamlet	Mt Isa Civic Centre	La Boite Theatre May 22,23
The Quartet from Rigoletto	Ensemble Theatre <b>S</b>	-	April 20 - May 20	Chicago	Cairns Civic Theatre	Four Kinsmen May 2 - May 5
How to Succeed in Business...	Orion Centre <b>S</b>	CTG	May 5,6,7,10,12,13	Same Time Next Year	Cairns Civic Theatre	- May 23 May 27
King Lear	New Theatre <b>S</b>	-	Opens April 22	On Golden Pond	Cairns Little Theatre	- May 12 - May 20
Stepping Out	Genesian Theatre <b>S</b>	-	Opens April 22	<b>Victoria</b>		
Mr Melancholy	Stables Theatre <b>S</b>	Griffin	April 18 - May 14	Summer of the 17th Doll	Playhouse, VAC <b>M</b>	Mel. Theatre Co April 21 - May 27
Working	Pilgrim Theatre <b>S</b>	Urban Edge	May 6 - June 3	Shorts	The Fairfax, VAC <b>M</b>	Mel. Theatre Co. Until June 3
Chess The Musical	Hills Centre <b>S</b>	Revolutionary	May 24 - June 3	An Inspector Calls	Comedy Theatre <b>M</b>	- Opens April 26
Wuthering heights	Parramatta Riverside <b>S</b>	-	Opens April 28	Patience	VAC <b>M</b>	Australian Opera May 8,12,13,17,19,20
Vapours	Lookout Theatre <b>S</b>	-	April 20 - May 21	Turandot	VAC <b>M</b>	Australian Opera May 2,5,10
Educating Rita	Q Theatre <b>S</b>	-	April 28 - May 21	Rigoletto	VAC <b>M</b>	Australian Opera May 4,6,9,13,16
Jerry's Girl	Enmore Theatre <b>S</b>	T.H.E. Theatre Co	May 12 - May 20	Peter Grimes	VAC <b>M</b>	Australian Opera May 3,6,11,15,18
Reunion	Newcastle Civic	John Waters	May 13 - May 21	Curtains	Athenium <b>M</b>	Lano & Woodley Until May 7
<b>South Australia</b>				Twelfth Night	Athenium <b>M</b>	Bell Shakespeare Opens May 11
Miss Julie	Playhouse <b>A</b>	State Theatre	April 22 - May 13	Pericles	Athenium <b>M</b>	Bell Shakespeare From May 30
La Boheme	Festival Theatre <b>A</b>	State Opera of SA	May 2,4,6,9, 11	In Visible Ink	Napier St Theatre <b>M</b>	- May 2 - May 6
Manon	Festival Theatre <b>A</b>	Australian Ballet	May 20 - May 27	Ballet Philippines	State Theatre <b>M</b>	Ballet Philippines May 26 - May 27
The Grapes of Wrath	The Space <b>A</b>	Independent Th.	April 28 - May 13	Only Wanna Be With You	Comedy Club <b>M</b>	- From May 12
That Eye The Sky	The Space <b>A</b>	-	May 17 - May 27	Crimes of the Heart	Universal Theatre <b>M</b>	- May 29 - June 18
Light - The Man	Arts Theatre <b>A</b>	Adelaide Rep.	April 27 - May 6	The Accidental Mystic	Cub Malthouse <b>M</b>	Open Secret May 1 - May 20
<b>ACT</b>				The Passion	Merlyn <b>M</b>	- May 16 - June 3
Madame Butterfly	Canberra Theatre	Australian Ballet	May 5 - May 10	Postcards From Provence	Miettas <b>M</b>	- May 3,4,6
La Bayadere	Canberra Theatre	Australian Ballet	May 5 - May 10	Time Traveller	Miettas <b>M</b>	- May 17,18
<b>Tasmania</b>				A = Adelaide M = Melbourne S = Sydney B = Brisbane P = Perth H = Hobart		
What to Name Your Baby	Peacock Theatre <b>H</b>	Tasdance	May 5 - May 7	Submit show details, fax (02) 876-5715, PO Box 439, Epping NSW 2121		

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By Tim Ireland





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## TOURING ITINERARIES

### Internationals

**Foriegner/Doobie Brothers** 2-Brisbane Entertainment Centre,

**Joe Jackson** 17/18-State Theatre, 20-Concert Hall QPAC, 23/24-State Theatre Melbourne, 25-Royal Theatre Canberra, 27-Thebarton Adelaide, 29-Concert Hall Perth. Promoter: Adrian Bohm

**Jose Feliciano** 19/20-Twin Town Tweed Heads.

**Megadeth** 5-Thebarton Theatre Adelaide, 6-Festival Hall Melbourne., 9-Hordern Pavillion, 10-Wollongong, 11-Newcastle, 13-Festival Hall Brisbane,

**Red Holloway Quartet** 1/2-The Basement Sydney.

**Roachford** 4-Newcastle Worker's, 5-Canberra Raiders, 7-Enmore Theatre, 10-The Roxy Brisbane, 13-Palais, 14-Old Lion Adelaide, 16-Metropolis Perth Promoter: Frontier Touring

**Spearhead** 5-Tivoli Brisbane, 7/8-The Metro Sydney, 12-Waves Wollongong, 13-ANU, 15-Metro Melbourne, 16-Heaven Adelaide, 17-Metropolis Perth

**Suicidal Tendencies** 4-Thebarton Theatre Adelaide, 5-The Palace, 8-Bowan's Ware-

house Perth, 10-ANU Refectory, 11-Newcastle Uni, 12/13-Selina's, 15-Festival Hall Brisbane.

**The Jesus and Mary Chain** 4-Metropolis Perth, 6-Liberty Adelaide, 7-Palace Melbourne, 10-ANU Bar, 11-Metro Sydney, 13-The Roxy Brisbane Lees & West

**The Kinks** June 3-Concert Hall QPAC,

**They Might Be Giants** 11-The Roxy Brisbane, 13/14-Metro Sydney, 16-ANU Bar, 18-Synagogue Adelaide, 19-The Palace Melbourne, Adrian Bohm

### Locals

**Coloured Stone** 27/28-Suncorp Piazza Southbank,

**Deborah Conway** 5/6/7-Harbourside Brasserie

**D.I.G** 18/20 The Basement

**James Blundell** 5/6-Twin Towns Tweed Heads,

**Silverchair** 5-The Roxy Brisbane, 6-Uni of Technology, 7-Uni of Technology(all ages)

**You am I** 4-Galaxy Nightclub Alexandra Heads, 5-Playroom Gold Coast, 6-The Roxy,

Compiled by Natalie, fax (02) 876-5715.

## MUSIC INDUSTRY NEWS

With Natalie Apostolou

### AMMF Gets Vocal On Supports

The powerful Australian Music Managers Forum has been pro-actively targeting media, government and promoters in the campaign for the "One for One" legislation.

The issues at stake involve the disturbing tendency for touring international artists and their promoters, neglecting to announce, advertise or present local acts on their bills until the last minute, not effectively, or not at all. This obviously results in wasted large-scale advertising opportunities and media exposure and promotion.

As a result the AMMF have sent letters to 48 promoters outlining their concerns and recommending prerequisites to bringing an act to Australia. Copies have also been sent to media and pertinent government officials. Discussions at the Contemporary Music Summit, echoed support from industry members and government alike.

The overall consensus illustrated that this legislation was necessary for the development of emerging Australian talent.

### Music Industry Networking Night

The Entertainment Networking Australia organisation is holding its regular evening of contact opportunities and valuable information exchanges on May 22nd at Woolloomooloo Water Hotel.

This is the third instalment of the ENA's popular evenings with featured guest speakers; John Bromell from Warner Chappell, Denis Braham from the Capitol Theatre and Kevin Simmonds from the organising committee for the Olympic Games. The evening includes a buffet dinner and extensive opportunities for meeting and greeting. For bookings or further details contact: Kathy Howard Management, PH-(02) 555 1466

### New Standards

The always enterprising Michael Gudinski has teamed with Ralph Carr to form the new publishing company, Standard Music Publishing. The combined experience and reputation of these two industry professionals has ensured that they have already signed a substantial number of well-known local and international writers.

Mr Gudinski's high profile role as head of Mushroom records and involvement with Frontier Touring, Premier, Australian Tour Merchandising and personal management company is complemented by Ralph Carr's background as musician and manager to artists such as Tina Arena, Rick Price currently and Pseudo Echo and Deborah Conway in the past.

### Elektra snares The Clouds

Australia's purveyors of gutsy melodic pop, The Clouds have been snatched up by the US label Elektra.

# RADIO

By Daniel Cole

*The Remaking Of Radio* published by Focal Press is part of a series of books entitled Broadcasting & Cable aimed at the technological side of media production. Other titles in the series include: *Electronic Media Management*; *The Sound Studio*; *Film Into Video*.

Written by Vincent Ditingo, *The Remaking Of Radio* gives a good account of the historical and economic developments of American radio broadcasting from the early 1920s to the present. Although it refers to American broadcasting it is true to say that developments in radio (and other fields) in that country eventually filter down into the Australia market. So its worth keeping track.

A case in point: Ditingo refers to networking control that occurred in the 1970s and debt/lending 1980s in America. In Australia this can be observed with the merger of 2Day FM and Triple M under the net of Austereo. (The Australian market goes nowhere near the estimated 10 billion annual worth of the American commercial radio industry.)

*The Remaking Of Radio* aims to account for past and future technological developments in radio and how they will effect the future economic viability and possibilities of radio broadcast. For instance, in Chapter 7, "The Digital Factor and Other Technological Applications", Ditingo quotes an American broadcasting official who suggests that as the result of digital audio broadcasting (DAB), "radio need not be limited to sound".

What does this mean? With the advent of digital audio transmission techniques, radio stations will be able to expand into the realm data transmission. So the concept of broadcasting expands towards the transfer of sound—not strictly as consumable sound as music or talk—but as informational; binary, digital data.

For example, Ditingo describes a future use or proposal for a method of advertising called Coupon Ra-

dio. This is an idea of using radio broadcast data systems (RBDS) which would enable a station to deliver specific text information regarding an advertisers product directly and individually to the listener.

If that listener (or subscriber) is interested in a product they can press a button on their receiver which then downloads onto a SmartCard or RadioCard. This is a credit card with a memory chip on it. When this is taken to an advertiser's outlet, the card inserted in that store's register would allow specific discounts or services for the listener.

Ditingo takes a cool economic line when foreshadowing the future of radio. With the advent of digital, audience become not listeners but subscribers—to specific stations or services, for example, stock market reports, religious, niche information areas.

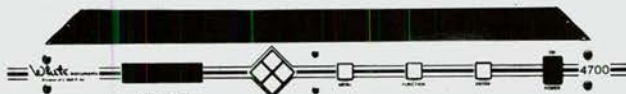
Part One of *The Remaking Of Radio* traces the foundation years of radio up to the 1980s, the emergence of networks, the popularity of FM, fiscal dynamics, the state of AM radio.

Part Two focussed on the realignment of the industry, programming shifts, management of radio in regard to information and technological developments.

*The Remaking Of Radio* is a useful reference text, providing a solid and simple clarification of emerging technologies, financial potential and history of deregulation. Radio's adaptability as an information medium has opened new possibilities for its future and *The Remaking of Radio* provides a good perspective on this. It is fairly dry reading but useful to specific purposes.

**The Remaking Of Radio by Vincent Ditingo, Focal Press, US. Distributed in Australia by Butterworth-Heinemann Australia. PO Box 5577 WEST CHATSWOOD NSW 2057 Ph: (02) 372 5511 Fax: (02) 372 5570**

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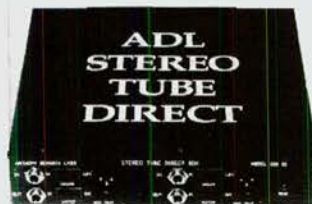
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## AUDIO IN PRACTICE

(Film Sound, from page 6)

together in post-production, so on a take I'm listening for this. For example, if a section of dialogue is lost or obscured we're looking at about \$400 per hour in post production re-creating that sound.

"For this production we have been working fairly quickly—and with wide shots—sometimes dialogue/lines overlap or are crossed. "I have to decide quickly whether to do a re-take for sound. This shoot has been fairly good as I've had to go for sound only twice in three weeks." Nick said.

Today's shoot is relatively straight forward because of stunt shots which did not require extensive dialogue recording. (I have to report they were mistreating a 1974 HQ Holden!) For the last take Nick had a number of radio microphones in the boot, and in the car; for dialogue generally he uses a Neumann 81 condenser. He is assisted by two people, a boom operator and general hand.

At Homebush he has set up a 'sound trolley'. On board is a time code HHB PortaDat, a secondary Sony Pro DAT (for 3rd and 4th tracks), an Audio Developments field mixing console, talkback equipment, Origin C time code equipment and cabling.

In all, a neat and contained package. According to Nick, the HHB machine is ideal. "I can use it like this (stationary) or in two minutes have it in a pouch and be chasing dialogue—it is very simple and rugged. I particularly like the record function—it is a slide switch, so you know that it's on.

Another feature of this shoot is the use of for the first time in Australia an Arton time code camera. Combined with the time code DAT, this makes this shoot almost entirely digital. This means that audio can be instantly synced to each frame *on location*. Prior to this, location sound had to be sent to an audio sync lab, transferred onto 16mm film and then synced before it could be heard with images. As Nick explains:

"We're actually changing 70 years of film history. For 70 years the clapper board or 'slate' was used to identify each take—with the advent of on location time code this is redundant. It will save an enormous amount of time". •



## WORKBENCH

WITH HOWARD JONES

### The Grounding Goes Round And Round

ing would begin soon after turn-on; other times it take some time before starting.

The diagram below shows the general circuit in the vicinity of the protection relay. We stoked up the CRO and started looking at the voltages around TR403-7-8. From the circuit it is apparent that if TR403 begins conducting significant amounts of current then the silicon controlled rectifier SC401 will fire. When this happens, the voltage at the base of TR408 will drop to the point that TR408 will turn off. This will choke off the current through the relay RL401 causing the contact points to open. The only way to reverse this situation is to reduce the anode voltage of the SCR to below its drop-out voltage - this is the job of TR407. If this transistor turns off, the anode voltage of SC401 will fall until the SCR "resets" itself. At this point, TR408 will switch on once more, activating the relay. Well, the theory was all very fine and apparent, but we couldn't make much sense of the various readings around this part of the circuit.

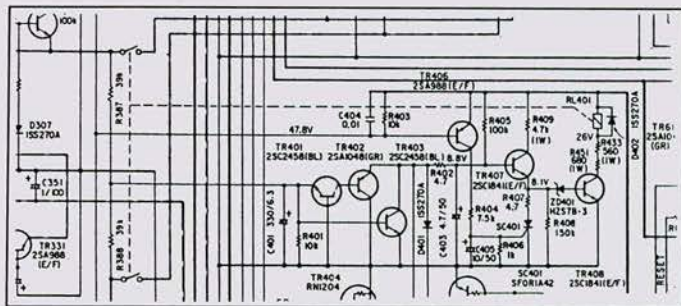
We were able to observe slow drifts in some of the base and collector voltages in a way that was apparently related to the pattern of relay tripping. Measuring all the circuit devices, however, seemed to show that they were okay. Furthermore, the fault was quite variable - sometimes it wasn't there at all; sometimes it would set in very quickly. To cut a long story short, after a lot of stuffing around, we found that the portion of the circuit shown as ground (below) was not reliably connected to other parts of the circuit ground. In other words, measur-

ing between two ground points on the same circuit board showed that they were not at the same potential. You could leave a meter across two such points, turn the unit on and observe a slow rise in the voltage between them over, say, a one minute period. What it resembled was no less than a capacitor charging up, albeit very slowly.

Naturally, we sat down and traced the ground path inside the receiver. We found that there was no direct connection between the power supply ground and the unit's chassis. Rather, a single wire was taken from the power supply to the front end tuner which was on a separate PCB to the main audio circuit. This tuner PCB was secured to the rear panel by some screws going through the rear panel metalwork into a connector soldered onto the board. The main audio board had another screw connecting from a heatsink on the board to the metalwork on the bottom of the receiver. In other words, the whole of the grounding on the main audio board was dependent on the screws securing the tuner PCB being tightly connected. Of course, they weren't!

We couldn't be sure if there was supposed to be a separate wire coming from the power supply up to the audio board - there was provision in the artwork for an extra wire link. Either way, better design would have gone a long way to ensuring that such a problem never occurred in the first place. Once we had improved the grounding anomalies the circuit worked as it was meant to!

•Howard runs Studio Solutions.  
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## HONEST! (WHO, US?)

Just a note to congratulate yourselves on your honest self assessments of the magazine. I reckon the best bits are the tour personnel interviews and the fact that you keep up to date with new gear releases etc.

-Lawrence Buckley. Email.

## HOORAY FOR ELAINE!

Just a note to let you know how much I enjoy your magazine and how helpful you have been. I faxed you guys a couple of months ago with a basic question for your letters page. I was really impressed that within twenty-four hours I received a phone call from your bad jokes person Elaine to give me directions where to find the answer. What service!

One suggestion: a detailed article on setting up a home/semi-professional studio from absolute start (presuming minimal knowledge) to total set-up would be superb. Is that a possibility?

-David Holloway, Tumut, NSW.  
\*Tis, see John Robinsons new page in this issue. -Editor.

## IMPLEMENTS? Rude.

I read with great interest your feature on the Coke Music Awards and blow me (as we say in the biz) not a word about Stevie Nicks or the hardships faced by her roadcrew and their valiant improvising with implements from the soft drink industry. Perhaps you should have asked Steve Swift (P.83 same issue) about the worst job he's ever had.....Yours anally, Andy, Max Kay P.R., London, U.K.  
\*Can anyone can shed some light on WHAT this MEANS...? -Ed.

## NOT HUMMING....

In response to your short article "A band who don't use lighting" (Pg. 9 April issue), although you don't leave the show humming the lighting, you certainly don't go and SEE a live gig with your eyes closed.

Dave Bowron, Topstage Productions, Canberra.

## AMX IS QUICKER

Re. your story (April) on our installation of AMX at Mary MacKillop Place. It was very positive and factual ...except the part about pressing a button and waiting 2 seconds. That is a long time in the museum AV world - it actually takes about 200 millisecs. after a button is pressed and the Laserdisc plays. Thanks again for a great magazine.

-Paul van der Ent, ACT.

## HONEST! (WHO, US?)

I find Connections a very interesting magazine to read, and as I have only a small amount of knowledge of the technical and practical sides of the industry, I also find it educational. Just by reading the magazine for several months, I've worked out a lot of the jargon, and found out many tips that others have learnt through experience.

There are though a few things that are still a mystery to me. In one issue you might be able to give a simple description of what DMX is, and about the basic operation of a non-analogue lighting desk.

I'm sure that this is a ridiculously simple question for most of your readers, and it is obviously very common, but for a virtual novice such as myself, it remains a mystery. - Fantastic lights. Can you do a story on the production comp. and LD. It was the best; it makes correspondence much faster, and that makes it more personal. Sorry if I've written too much...but then most of it's praise so....

Gavin Tapp, Goulburn, NSW. Email

\* OK, the DMX brief is a good idea, then there is always the book we offer through Connections Shop for more advanced DMX.

## Letters PLEASE!

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2121, Australia.

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## FALSE CLAIMS? NO WAY!

I note the letter published in Connections April 1995 from Peter Kemp titled "False Claims". At no point in the article on new Arri products were any false claims made.

Peter's problems seem to revolve around Arri's use of a 625mm Fresnel lens. It is a fact that Arri have now developed a new housing incorporating a 625mm (24") Fresnel lens.

The fact that this lens is also used by other manufacturers is of no relevance.

We have never found it necessary to make false or misleading claims about our products. All the glitz and glamour of advertising and press releases is of little advantage if you have an inferior product.

The fact that Arri is widely considered in Australia as the foremost manufacturer of Studio and Location lighting speaks for itself.

It is a shame that a forum such as this is used to take cheap shots by those who have an axe to grind.  
- Wayne Ritchie, John Barry Group P/L, Sydney, NSW.

Great mag, loved the April issue. I was pleased to see that only 20 of the 60 AES exhibitors bothered to send you what was effectively free advertising for them.

I was pleased because it's great to see the professional audio business is so healthy that it doesn't need to encourage customers to buy its products.

However, a gripe about the letter you printed from Peter Kemp (*False Claims, Page 45, #22*) who was complaining, quite rightly, about a level playing field. I agree with Mr. Kemp entirely.

But then he goes ahead and gives us an 'example' which purports to show that on just such a level playing field, a Clay Paky SuperScan was less bright than NAT 1200s and High End Intellibeam 700s, concluding that 'the proof of the pudding is surely when the units are compared together.' Once again, I agree totally.

However, most readers might miss the obvious tilt on the playing field, which was that in the example cited by Mr. Kemp, my impression was that all the lights had been rented. This being the case, it's entirely possible the SuperScan's light source was on its last gasp, or that the optical path was dirty, misaligned etc. and the other two luminaires were brand new.

Just for the record, I'm not in the lighting industry and wouldn't recognise a Clay Paky if it fell on my head, but I am in the test and measurement business, and can recognise a faulty example when I see one.

-Greg Borrowman, Australian HI-FI Test Laboratories. NSW.

\*It's always hard to be sure. About four years ago I hosted a Moving Lights Comparison evening at Sydney's Lot Of Watts. We invited each vendor to submit a fresh example, all were measured for output. The results today are meaningless due to model revisions, but the exercise may be worth doing at Entech next year. Any suggestions from you, dear reader?

## Joe Seg #1

If I was an artist looking for management, I'd call Joe Seg. His spirited defence of his client, Simon Day, in your letters page (April) was almost violent.

However, I can't believe the false indignation, the drama, the vitriol. How did Natalie Apostolou react to the letter?  
-John Arnold. Email.

## Joe Seg #2

That letter from Joe Seg gives all band managers a bad name. I deal with band managers and I would have to say there are just a few hotheads like Joe who make it hard for everyone. Black lists? Confrontation? Oh please.  
-Venue Manager', (name withheld), W.A.

# SUPERSTAR SOUND DESIGNER PUTS RECORD STRAIGHT

I was extremely pleased to read that the new theatrical production of Jesus Christ Superstar is an audio success. Wyn Milsom is an excellent Engineer and a good friend. I am certain he is doing a fantastic job. I hope you don't mind hearing, however, that the old, imported Sound Designer still had a positive impact on the present version.

The post-1992 changes made to the audio side of the production were not exactly home-grown in Australia. Before leaving your beautiful country in December of 1992, I presented Mr. Harry M.

Miller a three page list of suggestions that I believed would lead to a more pleasing sound presentation. This list was a compilation of ideas initially discussed by 1992 Monitor Engineer Bob Daniels and myself. It contained some concepts that were presented to the producers in pre-production planning but were rejected before the tour began, as well as ideas we developed from our experiences during the run.

The two most important items on the list were: 1) The use of wireless in the ear monitoring systems by the principals and wired

headphone mixes by the band; and 2) physically isolating the band from the principals, chorus and audience. The goal was to have no monitors or instrument speaker cabinets on the stage. I was very glad to hear that these necessities were thoughtfully addressed by the audio team and that the proper solutions were approved by the Producers.

Jesus Christ Superstar 1992 was a bittersweet experience for me. The opportunity of working with that cast, chorus, band and crew was one of the high points of my twenty year mixing career. I will

always cherish those five and one half months in Australia. Conversely, the severe and confounding limitations that were foisted on the sound crew and JANDS Audio by production conditions, artistic considerations and poor planning, created one of the most frustrating environments I have encountered in my professional life.

When I was hired in 1992, there were only two weeks to go before production rehearsals began. I was not given the chance to make crucial decisions one would normally

*(continued over)*



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EXCELLENCE IN AUDIO ENGINEERING

Write in Reader Service number: 160

# LETTERS

\*#//@%XX-?!

## SUPERSTAR SOUND (cont)

expect from the (imported) Sound Designer. I was presented with a nearly completed Audio Specification, written by someone totally unknown to me, to which I was forced to adapt.

My first questions to Monitor Engineer Bob Daniels, were about in-the-ear and wired headphone monitoring systems. His response was that he also preferred that way of going but this option had been summarily vetoed. We never received a satisfactory answer to our queries about who made the decisions to torpedo the presentation so early in the game. From that moment on, circumstances surrounding the audio effort seemed to grow worse each day. From the vast lighting rig that left no flying space for reasonable PA clusters to the horror of using 100 meter speaker cables, it seemed that a truck-load of bad sound karma was being dumped all over us.

I personally never recovered from the shock of learning that a sixty-plus cabinet stage monitor system had been approved for use by an in-the-round theatrical production. This monstrosity large, competing audio system was a constant problem for everyone. Wyn and I commonly observed the monitor system producing 102 - 105dB readings at our front of house mix position. Bob Daniels did his best to keep the onstage sound at reasonable levels, but he was mixing for rock performers who were accustomed to loud monitors. Small wonder that Mr. Miller often complained that it was too loud in the building. In order to clearly hear the FOH mix, the PA had to run at least 3dB above the monitor system. Ouch!!! My apologies again to the older members of the audience.

Still, most of my memories of Jesus Christ Superstar 1992 are of positive experiences and feelings. I am so pleased to have been afforded the opportunity of working with an extraordinary cast, a brilliant creative team, and a fantastically talented crew. I am very proud to have been one of two Americans on the tour. It was a unique and exhilarating experi-

ence each time the house lights went down and Chet's raw guitar line began the overture.

Despite the conflicts, conundrums, and disappointments, it was a truly great show and I thank the Producers for including me. I once again take my hat off to everyone involved in making an impossible audio task not just possible, but as good as it could be each and every show.

Please don't write me off as that "Imported Sound Designer". Superstar was very important to me and Australia is a place I love nearly as much as my home country. I was thrilled and flattered when Mr. Miller contacted me in 1993 to ask if I would return as Sound Designer when he planned to bring his version of Superstar to the U.S.A. and Europe. The project is now in Wyn Milsom's able hands and I am confident that it will continue to be a smashing success wherever the show plays.

**-David Morgan, Los Angeles, USA.**  
*\*Yet again, somehow, we manage to upset someone, somewhere. I recall writing that the execution of Superstar (the ARENA version which David refers herein) was handled very well, and did, in fact dils many of the hurdles in the item. As to the 'imported sound designer' tag, it's not a slur. -Ed.*

## Feed Back

• More Music Technology and REVIEWS on audio gear. Less personal profiles. **R.D. Lucas, ROMA, Qld.**

• No more 'DICKHEADS' mentality. Get professional. **Mark DeLuca, Forest Hill NSW**

• Thanks for including the RADIO inserts, look forward to seeing more. **Lee Bevington, Morayfield, QLD.**

• Good to see the Buyers Guide. Why not do video? A good magazine. **Warwick Higham, Bracken Ridge, QLD.**

• Great mag, would appreciate a review on JBL's Array series. **Barry Brittain Kingsley WA.**

# Mark IV Audio News

## Brisbane Convention Centre Chooses Midas.

The Brisbane Convention Centre has taken delivery of a Midas XL3 mixing console supplied by Mark IV dealer, The PA People, Sydney.

## EV's NEW Budget Wireless Systems.

The newly introduced range of EV Budget Wireless Systems have already proven to be incredibly popular, and why not at these prices?..... Body pack and guitar diversity & non-diversity units range from \$600.00 to \$950.00 R.R.P.

## The New Playpen Niteclub Townsville.

Townsville's hottest new nightspot has chosen the EV Deltamax System to deliver the powerful sound required throughout the complex. The twelve DML 1122 and seven DML 2181 Systems were installed by EV Dealer Wild Gravity, Townsville.

## Osmond Electronics Adelaide and Midas - 1st in Australia!

The 1ST MIDAS XL200 Live Performance Mixing Console in Australia was sold to Osmond Electronics last month. This complements the Midas XL3 Mixing Console they purchased last year.

## System 200 for Intercity Hire.

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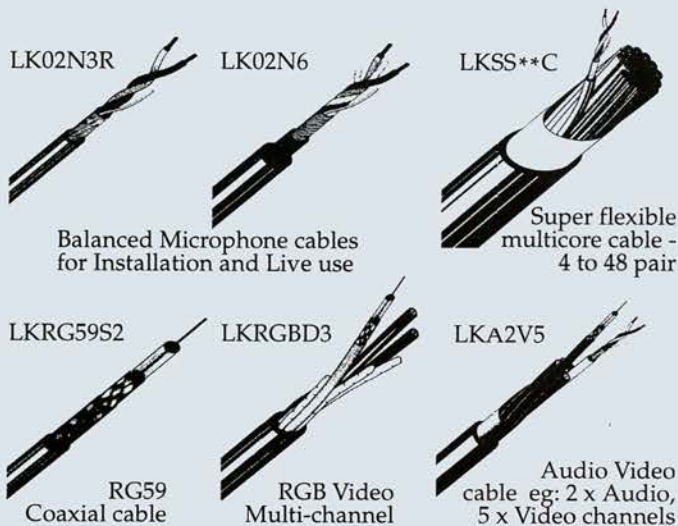
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## BUILD YOUR OWN PROJECT STUDIO

This story really starts way, way back in the early '70s when I was a Festival recording artist in the band Blackfeather. We were recording in house and the studio sported an Astor valve console, AWA monitors and Scully and Ampex tape machines (very similar stuff as the Beatles used in Abbey Road).

A couple of years later, Festival revamped their studio and brought in a Neve console and JBL monitors amongst other things. I was in the middle of a solo project when this happened, so my tapes were transferred to the new 24 track. Straight away I noticed a difference to the sound quality; a lot of the warmth had disappeared. Sure, it was still great, but some transparency and depth had been replaced by an 'in your face' quality which didn't appeal to me.

Nowadays, I have both master tapes and the differences are still apparent. To my ears, the Blackfeather master is better sounding. The Neve sounds soulless. Funny that, because Neve consoles of that era are highly prized, and are supposed to sound great. Would those little glowing bottles called valves have something to do with it?

By 1985, MIDI and the DX7 were happening. I was being approached to program and produce records in major studios again. My home studio took a back seat for a while, until I did a project which required me to take all my MIDI gear to Alberts Studio in Neutral Bay for final mixdown.

Monitoring was through JBLs and NS-10s (which I blew up) on a SSL Console. After a couple of weeks I was back home comparing the pre-production mixes to the masters. One thing was apparent; with noted exceptions, the sound quality was identical!! So, my little home studio wasn't bad after all. Since then I have hardly been in any major studios, preferring to use my own, when I can. If you are involved in recording at home, the following information should, I hope, be of value to you.

**AC POWER** The main problem is ground loops (hum) which are caused by connecting gear to more than one line. Use only one AC

outlet and run distribution boxes from it to your gear. Run extension cords from the main room to any other that you use.

Valve guitar amps etc. draw more current as well and should have their own wall outlet. If you can afford to have a special line installed just for your studio, do it. About 20-25 amps will do, especially if you intend on expanding and/or getting a 300-500 power amp and heaps of valve gear in the future.

If you are getting mysterious pops and clicks through your monitors, check to see if other household appliances are on, as washing machines, dryers etc. may be the cause. If you can, don't operate them whilst you're recording/mixing, or buy the appropriate isolation filters. Switching them (appliances) whilst operating the studio may cause current surges which can blow equipment.

Computers and the like are especially sensitive to fluctuating mains. If you rack your gear, a number of grounding problems might occur. Each contributes its own type of buzz or hum. Three main types are:

1) Grounds being connected via the earth pins of power cords on the units. Rule of thumb is that one and only one unit in a rack should have a connection to A.C. power ground; all other units in the rack should have their grounds lifted via special plugs. (try taking the earth lug out of the old style piggy adaptor - while you're at it, do a few) Note, however that when these de-earthed units are removed from said rack, their earth lugs must be reinstated, otherwise there is a high risk of shock.

2) Ground loops created by the physical contact between the metal chassis of the components and the steel rack rails. On some better units a ground isolation switch is provided which separates the electronic circuit ground from the chassis ground, otherwise you must disconnect it manually. (Get a repair person). Here again, the rule is that one device, and usually only one, needs its circuit ground connected; all others should be lifted. (Re-connect when unit is de-racked).

3) Ground loops occurring be-



## By John Robinson

cause of two or more audio cables connecting two components. The most common solution is to disconnect the shield from the sleeve connection at one end of some of the inter-connecting cables, so that only one cable between each device has an intact ground shield. Some experimentation is required to find which leads are best suited for this "clipped ground". Try leaving leads to the inputs grounded and leads from the outputs "clipped". Unbalanced (two wire) connections are the worst offenders, and patch bays using these are a particular nightmare. Balanced (three wire) connections are much better and are becoming more common on all gear.

Wall Warts are an occupational hazard these days, but they do solve hum problems which occur when power transformers are housed inside the unit and are badly shielded. All wall warts are not the same; some are 9 volts, others are 18 volts; some are positive tip, others negative; most are DC, some are AC. The wrong one will damage or blow the connected unit, so always check when replacing.

I have had a number of noisier units modified so that the transformer is re-housed in a small box outside the device itself. The trouble and expense is worth it, especially if the unit has a unique sound. Take note that a number of tape recorders and porta-studios do not have grounding wires. If another ungrounded unit, say a synth is connected, you may be shocked. When in doubt, consult an audio engineer with all things AC.

**AUDIO WIRING.** You know those cables you get included when you buy a new cassette deck etc. Use them as back-up and invest in better ones. The most important are the runs from your mixer outs to the power amp ins, mixer outs to the mastering-mixdown tape deck. Also upgrade your speaker cable. This is generally the easiest. Buy multi-stranded oxygen-free copper cable such as Monster or Canare. The more strands the better. Make the runs as short as possible (under 10 feet) and, if terminated via binding posts, check now and again for discolouration.

If discoloured, cut off, strip, clean terminals and re-connect. This heavier gauge cable will help control the speaker better (dampening), giving tighter bass. If you are really keen, re-wire the inside of each speaker box with the same cable. Even the smallest systems benefit from this, and it's probably the first step you should take.

Line level inter-connects are just as important, and you can buy by the metre or tailor-made. Monster are good as ready mades and come in a number of grades. If your runs are short, these should do. Custom lengths will require you to roll your own. Good. 'Cause you can gain some experience in soldering. Canare, Mogami, Kimber and Van den Hul spring to

mind here, some are very expensive, but you do get what you pay for. Benefits will include better retention of low level detail (nuance) and less time delay between frequencies (phase)resulting in a warmer, smoother sound. You are definitely better off investing in a cable rather than some form of Aural Exciter device. Remember, the big studios have sometimes miles of cable to buy, and high quality cable becomes prohibitive on that scale, but you can afford it because you only need a small fraction of that amount!

Most of your runs will be unbalanced (two-wire) cable. Do not use guitar type wire as it generally has a wrap around shield and over time will fatigue causing handling noise. Braided shield with aluminium wrap is superior (double shield). Balanced (three wire) cable is used for Microphones and pro line level signals. With proper termination, balanced leads help to reject noise, especially important with mics.

Unfortunately, most porta-studios don't sport balanced mic inputs. With unbalanced mics, only 10 feet of cable can be used, also unbalanced mics are generally of lower quality. If you want decent quality, buy a microphone pre-amp and always go balanced!! If you use and separate MTR and mixer, the mixer should have adequate mic pres.

Balanced cable may also be used unbalanced. At one end terminate the shield and neutral wires to ground, and at the other, cut the shield wire off and terminate only the neutral to ground. This should give benefits in the high end frequency response, even with average cable. If you have an unbalanced out-put feeding a balanced input, you can quasi-balance the input by terminating the shield and neutral to ground at the output jack and leaving the input jack as normal balanced. This gives less noise and hum pick-up. Do not do this in reverse; balanced outputs normally do not like being fed into an unbalanced input. Generally, the balanced output has to be "unbalanced" by using a jumper wire between the shield and the neutral lugs inside the XLR connector at the "output" end. When in doubt, consult the units manual or a serviceman.

Unbalanced patch bays should be avoided. If you own multiple effects units, I would still recommend hard wiring, as mysterious hums and buzzes tend to arise through unbalanced patch bay use. Balanced patch bays, on the other hand, can be useful, especially when constant re-configuration on outboard gear is necessary. Being balanced (on TRS or Bantam plus), there should be no grounding problems, if correctly wired. With small set-ups, forget patch bays and spend the money on better cable.

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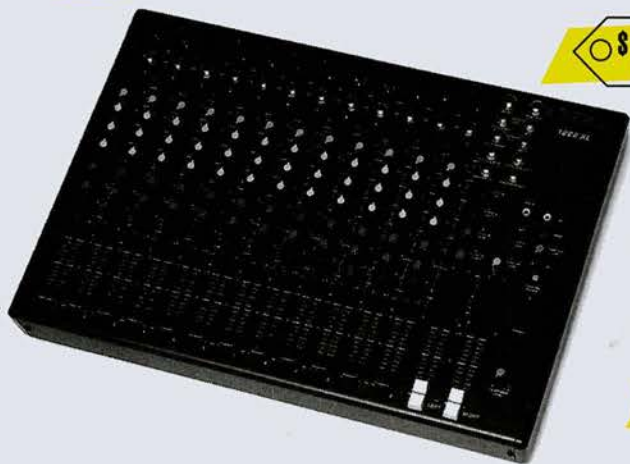
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# FAQ

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The FAQ system invites your questions on almost ANYTHING! Just write to PO Box 439, Epping NSW 2121, or FAX (02) 876-5715, or email to [julius@next.com.au](mailto:julius@next.com.au)

## A B&K KICK MIC

In the February issue I read about the Kick Mic Choice. I have a couple of comments that you can either print as a comment to your answer or you can throw it in the bin. I will not be offended.

First of all, it is difficult to say what the best kick drum mic is, because kick drums are different and it depends on what sound you are looking for. I would say that if you are looking for the undistorted sound then you have two choices. The B&K 4007 or the B&K 4011.

The 4007 is omnidirectional and can handle sound pressure levels up to 155dB before clipping and can therefore be used for close micing. Using an omni means that you will not experience the Proximity Effect (near field low-end boost), since this is a habit exhibited by cardioids and not by omnis. If the drum is already very "beefy", then there is no need to add to it. Placement close to the skin, near the pedal or in the "corner" are good starting points.

If the drum is a little weak on the low side, then it is a good idea to use a cardioid B&K 4011 and then take advantage of the proximity effect. (The 4011 will handle 158dB before clipping and have a clean off-axis response). You can then vary the low end by adjusting the distance to the skin. This will save you time "Eqing". Very often you will not EQ at all. Placement close to the skin, near the pedal or in the "corner" are good starting points.

No mic will give you a cleaner performance transparency and a fast attack better than the Brüel and Kjær Series 4000 Professional Microphones, (all salespeople will

*saysomething like this about their products! -Editor) but microphones are like colors on the palette, pick your color to create the picture, you are the artist. Remember however, that if you take a photograph through a high quality lens, then the imaging and the clarity will be better than if you use a cheap lens. You can always add filters and change the development process and make the pictures blurry, but you can never make the pictures taken with the cheap lens clean.*

*Morton Støve, M.D. Danish Pro Audio, Denmark.*

## HOW TO EQ F/B?

**Q** Your mag seems to have run out of stage monitor material lately. I think I know how to, but please tell me how YOU would EQ your foldback? - **Michael Christiansen, Hobart.**

**A** How long is a piece of string? Start with your desk EQ dead flat, and this way you are equalising EVERYTHING uniformly, that is, the microphone, the electronics and the loudspeaker/wedge. Each has a different sound.

Then 'ring out' one vocal microphone channel with nothing else turned up. GENTLY increase the gain till it just starts to feed back.

If the monitor system is properly designed (and most are not) you will simply be looking to adjust for the room characteristics.

Turn down the mic a touch, and use your third octave equaliser sparingly. Gently boost each frequency a tad to see if it is about to 'take-off'. In this way you'll find the 'centre' of the hottest frequency.

'Cut' that frequency centre by 4dB. Cut the adjoining frequencies by 2dB each. You now have one 'dip' on your EQ.

Gently increase the mic gain and repeat the process. (continued over)

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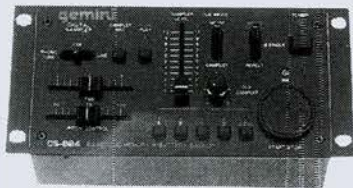


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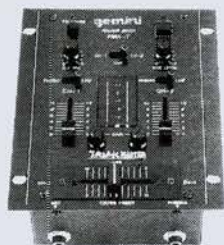


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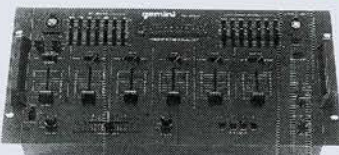
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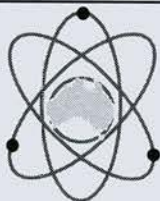
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# FAQ

## Foldback (cont)

You'll probably need to increase the amount of the first cut, if you find this frequency is still 'live' or ringing.

The second frequency area is treated much like the first, so you have applied a pair of cut's.

At this time you concentrate on getting as much gain as you can, without attacking the equaliser too much more. The high frequency horn and the woofer in your wedge should have been balanced correctly before you started, so that they don't sound disproportionate.

If you are still hacking away at the equaliser after ten minutes, return it to flat (centred, no cut, no boost) and start again. Too much gain cut will be counterproductive.

-Editor.

## SMPTE CHASE?

**Q** I saw a review of the Akai DR-8 done by my old buddy John Robinson in your great mag. I used to live in Sydney and ran a electronics repair and extremo tube HiFi design (and sometimes manufacturing) operation on Wentworth Ave for some years (76-84) innovatively named Allen Wright Electronics.

I used to fix John's amps as well as many of the other guitar hot-heads around town.

But now I live in Munich Germany, and while many people claim I came here because of a certain tall German lady the truth is I'm only here for the beer! Whatever, I'm now involved in video production and have been going crazy trying to get a megabuck (brand deleted for now) working as a SMPTE chase 8 track in my edit suite.

But everthing has failed and this white elephant goes back for a full refund (want me to review it?) when the shops reopen on Tuesday and I'm then in the market for

something that works! The DR-8 sounds like it could be great but John's review didn't give me too many clues as to it's skills in chasing SMPTE.

To save me spending a megaDM on calls, (here it's at least 3X the cost of Oz ISD!) could you possibly quiz John on this aspect of the DR-8's performance? I need it to act as a fully automatic chase device and not have to baby it or wait the 30 seconds or so it takes the white E to lock up, if it ever does!

Multiple thanks in advance. Hope it's sunnier there than here, 5cm of snow yesterday. PS Fell on the floor laughing when I read "Please do not sue us" at the end of your legal para on page 7. Wonderful!

**Allen Wright, Germany.**

**A** I called John, and he reports that with either an optional SMPTE card (AU\$400) or an external device, the DR-8 will lock to SMPTE like an express train.

John uses a SyncMan Pro (by MIDI-MAN) and says using the DR-8 as a slave from a tape deck it is spot on. The other way around there is a slight delay, a bit over one frame. He compensates for this.

John feels this is the MIDI-MAN box, not the DR-8. In any case, he says 'great unit'.  
-Editor.

## DATA STORAGE

**Q** I'm seeking to transport PC sound files and wonder what you nominate as the best portable device?

**-Fiona Mullens, Artarmon.**

**A** Hard to answer with limited data about your projects. We use Syquest 88mb cartridges, (\$150 ea) they are a removeable hard disk, and also have an Infinity MaxOptical 1.3GB magneto optical drive which is simply amazing, it runs almost as fast as a hard disk, but costs a lot. The m/o's cost \$250 each. We also use a desktop hard disk drive too, this can be relatively inexpensive. -Ed

# BY POPULAR DEMAND

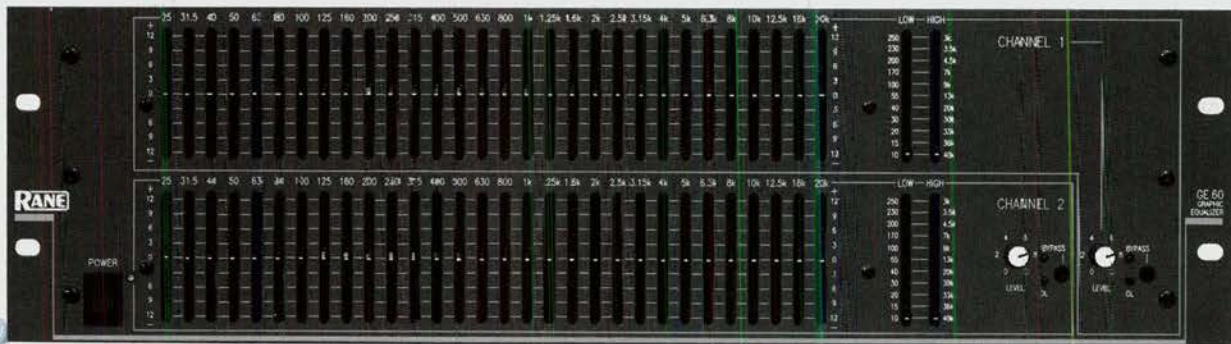
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 ( BUT TRY ANYWAY! )**



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Hear the sound!



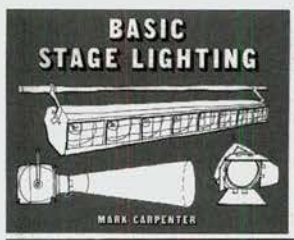
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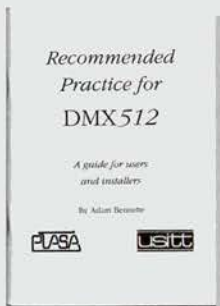
## Basic Stage Lighting \$17

By Mark Carpenter.  
Written in 1982, but a good introduction to the art of lighting the stage. 114 pages, illustrated. Covers everything except DMX and Moving Lights.



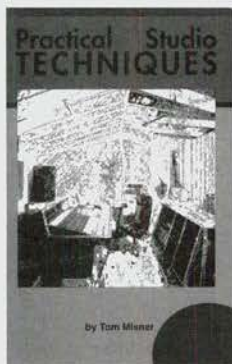
## Hums & Buzzes Explained \$9

By Laurie Nethercote. **NORMALLY \$12.95 - special price.**  
A small handbook written in plain english for sound engineers and musicians. Explains earth loops and magnetically induced noises. No maths, no formulas, just down to earth trouble shooting tips!  
**INCLUDES:** Project; Build your own transformer isolation unit.



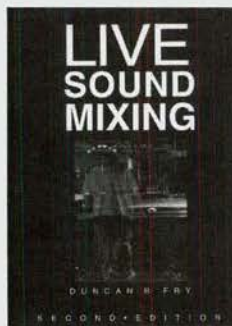
## Recommended Practice For DMX 512 \$19

By Adam Bennette.  
A Guide for users & installers. Explains the DMX512 specification and offers advice and professional advice on how to set up a successful DMX512 system. 80 pages, illustrations. An authoritative study of the standard Lighting Control protocol.



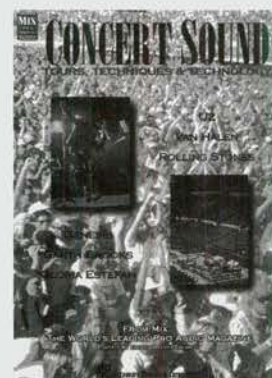
## Practical Studio Techniques \$40 with CD

By Tom Misner.  
Down to business tips and hints for dummy's and pro's alike. Recommended for anyone interested in, or practicing studio audio. Comes with a CD that is equal to a second book ... with easy to follow actual audio tips and lessons. 102 pages illustrated, **With unique CD!**



## Live Sound Mixing \$35

By Duncan Fry.  
This Australian publication in its second edition and has sold well around the world, and has an easy style. It deals with everything PA in a matter-of-fact manner, and is a good reference work for those of us who forget what we know! 176 pages.



## Concert Sound \$44

By David (Ruby) Trubitt. 166 pages, written 1993. This is a very useful book, Connections say that if you are interested in, or work in, the live sound field, get it! details touring sound for bands like U2, Stones, Van Halen etc. Has gear tips, rigging, pix of major systems, and is well put together!  
What more do you want?

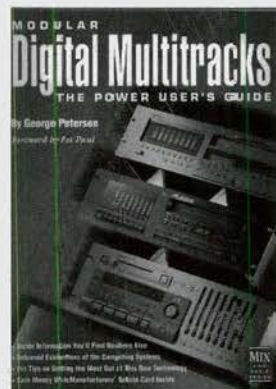
## The CD

Very handy for audio people, this test CD has: Tape deck alignment tones, sine waves, 10kHz through 20kHz; 1/3 octave tones, (30 seconds of each); Square waves, (30 seconds of each); Frequency sweeps, 20Hz to 20kHz, sweeps down and up; Phase test at 250Hz, in phase and out of phase; Digital 'black', 1 minute of pure silence to find faults with; Dry instrumental performances, without ambience or reverb; and SMPTE/EBU time code. Produced by MIX Magazine. PRICE: \$29



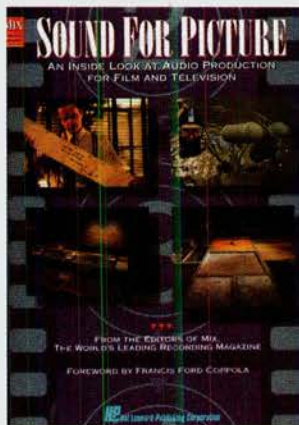
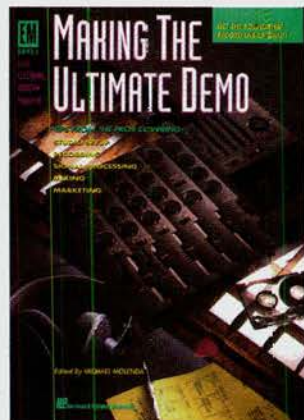
## Modular Digital Multitracks \$49

By George Petersen. 120 pages, written 1994. This guy knows his chops, he is an editor at MIX, the world's greatest studio magazine. This book covers everything you need to know plus more. It details the ADA, DA-88, RD-8, ADAM and DMR-8 systems, talks about tape, techniques and how to make your own cables.



## Making the Ultimate DEMO \$32

By Michael Molenda. 128 pages, written 1993. Find out how to record and market your demo tape, record killer vocal and instrumental tracks, and improve your mother's cooking!

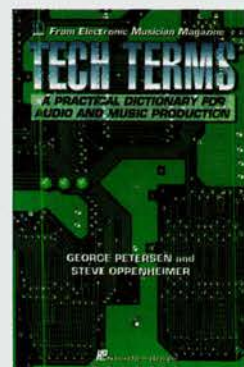


## \$32 Sound for Picture

From the editors of MIX. 134 pages, 1993. An inside look at audio production for film and TV. Includes section on sound effects, with case studies.

## Tech Terms \$18

George Petersen and Steve Oppenheimer. 50 pages. 1993. For a quick, accurate definition on using music technology, this is for you. The practical dictionary of audio and music production terminology, explaining 300 of the most commonly misunderstood words and phrases. Get savvy!



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- T11S Equip. relocation ...  T Shirt \$14.00 \_\_\_\_\_
- T11L Equip. relocation ...  LONG Sleeve T/S \$19.00 \_\_\_\_\_
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\*If not Australia, see international shipping costs in SECTION B

**THANK YOU!**

we ship within 48 hours!

# Clubland

## Night Club and DJ News

### SIB RIMINI SPECIAL

with Natalie Apostolou and Caroline Grafton

## SIX LITTLE AUSSIES ...and THEN THERE WERE NONE

By Caroline Grafton

When the Italian Trade Commission phoned and reinvited me to Italy for SIB '95 all I could do was say "Yes! I mean: si".

Being an aspiring O-To-Be-Italian, the offer was too good to refuse. I was then requested to submit several nominations to make up the balance of three people for the Australian delegation.

The areas of expertise were Nightclub Owners, Nightclub and Show Designers (Interior/Lighting) and Importer/Distributors. I complied with a reasonably substantial list and the Italian government went about vetting with questionnaires and short lists.

Finally the decision was made. By a twist of fate five, not four, company representatives were chosen: Myself for Connections, **Peter Hotson** for Magna Systems Engineering, **Sam Frantzeskos** from The Metro Nightclub Melbourne, **Mal Nichols** of Mal Nichols & Associates, and **John Culverhouse** of Ashton Admor Perth.

At first I found this a little dis-

appointing as I was hoping for a fully gay contingent - I do get sick of the gossip about me, you know - and I didn't even know half of them! But hey, I thought "I'm an easy going kinda' gal, I'll get by".

Now I knew Peter well, so we boarded in Sydney together for the 8 hour flight and met up with John who I also knew in Singapore during the 2hour layover.

So then the search began. What the hell do these other cudes look like? Without seeming to cast aspersions, trying to imagine a Greek Nightclub owner can throw up some pretty strange mind pictures- and L.D.'s, (think about it) can come in many strange shapes and colours. But through careful investigative journalism I managed to locate Sam's seat number on the next leg of the journey.

On boarding for the next leg to Rome I finally met Sam who didn't look like a 'Marfiosi' type at all.

He explained that Mal had decided to bring Dawn (his wife) and was elsewhere on the plane due to  
(continued over)

## WHAT IT IS, AND WHY IT'S IMPORTANT

For many people SIB means nothing. Some may know it as "Rimini" (the town in which it is held each year) while others may know it as The Italian Disco Show. For those who don't know what SIB means and is stay tuned for enlightenment. SIB of course are the initials for Salone Internazionale Delle Attrezzature E Technologie Per Discoteche Locali Da Ballo E Service or the International Exhibition of Equipment for Discoteques, Dance Halls and Services.

But really what SIB is, is a celebration of all things for the Night Club industry. From catering to furniture, gaming machines to robotics, DJ equipment to full public address systems and everything in lighting from your foyer table lamps to the most hi-end of hi-end moving light luminaires.

And, if you are a theatre or film boffin don't go away as every second year SIB combines with another entity known as MAGIS and this was one of those years. MAGIS is an Exhibition of Technologies and Furnishings for Theatres, Cinemas, Film/TV Studios and Show Business.

SIB is a show where trends are set for the international dance market and boy, do they play hard

at it. Before SIB even opens its doors, the push is to get the punters through the doors. The whole feel of SIB is 'Night Club' and for this you need the sweat, the noise, the fog, the beat and most important people, approximately 25,000 of them.

To get them, invitations are handed out in every Night Club in the vicinity of Rimini, a summer resort town in northern Italy. Why would the PUNTERS come you ask? Because most of all the Italian's love to dress (or undress) up and show off their wares, not all Italians mind you, but in a traditionally conservative country, when they break loose they really break away and the result is *exotic*, to say the least.

Because of the size of the European Discotheque industry international designers and manufacturers use SIB as a launch pad for product and go to amazing lengths to induce a higher market share.

This is most obvious in the lighting sector where manufacturers battle it out for dominance of the market place. *Huge* exhibits

(continued on page 50)



You meet all kinds at SIB.



LOVE those CREAMY shoes....

## SIX LITTLE AUSSIES

late seat allocations and we'd meet him in Rome. We all settled down for the 13hour flight and Sam sat there seat dancing to the inflight music, then finally drifted into a deep sleep.

Peter and I would have been sleeping too, but Sam's headphones which had become dislocated from his head were blaring music at an undetermined rate of decibels. Peter finally reeled them from their socket and we all fell into a dreamy state.

On waking I as usual went to the bathroom, gave myself a body wash, changed my clothes and felt like a million dollars..... well nearly. Finally decent, landing and the realisation that John's luggage had not been checked all the way to Bologna, our next port of call.

This was going to be tight. The flight was already on the board... could we collect and recheck John's luggage in time?

Now, Rome airport at the best of times is chaos, seething with every variety of human, from Kaftan'ed Africans and Abaya clad Moslems to the ever-so-stylish central Europeans dressed to kill.

Everyone loves to be noticed in Italy even the airport staff and the police, and at times it can be a little difficult motivating people and this was one of those times. We all realised we were going to miss the flight, so we decided to split up. Sam and I would race for the flight as I knew who we were meeting in Bologna, while Peter (who speaks reasonable Italian) would stay with John and sort out the luggage situ and the next flight.

Dawn and Mal, at this point were still to be sighted, we assumed they had already boarded.

So, Sam and I board the plane and meet Mal and Dawn, who I did already know after all. On landing in Bologna after a 1hour flight, we cleared customs and commenced trying to find our contact with the mini-bus. Hmm! no bus.

We wait and still no bus. I explained to the others that "this is Italy and you must be prepared to wait" but in the back of my mind I knew something was amiss. I finally decided to phone our hotel



*Simona Bernardini, Christina Pierotti, Alëa Nichols, Caroline Grifton and Paola Dorsini prepare to give Melbourne's Metro boss Sam Frantzeskos an offer he can't refuse? ....*

in Rimini, where I knew our contact with the Italian Trade Commission was already established, and try and figure out with her where the bus was.

After an incredibly protracted series of errors with acquiring smaller currency denominations for the phone card vending machine, several of which refused to be co-operative, I finally made contact. Christina Pierotti who was the Australian delegation minder, explained to me that "I was not really there, that we were supposed to arrive on the 11am (strangely enough this was the flight Peter

and John were on) not the 9am flight and the bus would not be there till then."

Fair enough!!! I explained to the others "that we were not really there" and they just looked at me with bemused expressions and succumbed to Italy and a 2hr. wait. Don't you just love it. There's a saying in Italy..... When will the bus be here? The reply..... When it comes I love it.

Finally Sam The Bus Man. (who we will now call Iceman) from the Commission arrived and we proceeded to load the luggage. Then  
*(continued over page)*

## Who is APIAD?

APIAD The Association of Italian Disco and Theatre Equipment Manufacturers is the sponsor of SIB. Established in 1983 APIAD's focus is to promote worldwide "Made in Italy" products. In Italy there are 600 disco and theatre equipment companies, employing 10,000 people and reaching AUD\$280,000,000 in annual revenue. Most manufacturers are based in the Northern and Cen-

tral regions of Italy, these areas holding the highest number of discos and dance halls, 7000 of Europe's total of 50,000. While local trade is fruitful Apiad member companies export 40% of their production, predominantly to Germany, France, England and USA with a further increase of 8% predicted for 1995 with expansion into the Japanese, Chinese and Pacific Rim markets. -CG



*Nicola R. Ticozzi, APIAD President 2nd from left)*

## MUSIC VIDEOS

The format of music video is undeniably an integral aspect of modern club entertainment. We checked out two of the biggest outfits to find the diff.

**Showbiz Video**, began in Perth in 1981. Record companies and promoters also call on Showbiz's talents for customised videos for touring artists and promotional material. Director Tony Varano explains, "We are very excited about our moves into custom programming. Providing clients with a more complete package."

Their most popular club tapes are Club Mix and Radio Activity. Each service costs \$438 monthly/\$102 weekly.

**Club Mix** 60 mins

Exchange Frequency-2 tapes weekly. You have 6 tapes total.

**Radio Activity** 90 mins

Exchange- 4 weekly, you have 6 tapes in total.

**Club and Radio combined**

Exchange- 3 per month, 15 tapes total. \$767 mth./\$178 wk.

•Rates are based on a 12 month min term.

**Showbiz** are based in Sydney with outlets nationally.

Tel-(02) 660 8999

Fax (02) 660 7916.

**Nightlife Music Video**, based in Brisbane have been operating for the past decade.

Nightlife pride themselves on video creation, often producing in-house videos for popular dance tracks that have yet to make visual accompaniment. Recent clips include *Here's Johnny*, *Speed*, and *Ar-nihilating Rhythm*.

The company also rent hardware and video jukeboxes.

Their most popular compilation club videos are:

**Chart and Dance** 90 mins each. 5 tapes, with monthly updates.

Prices start at \$50 weekly/\$217 monthly.

**Nightlife Video**, 50 Cribb st, Milton Queensland.

Tel-(07) 367 1045

Fax-(07) 369 8376.

-Natalie Apostolou.

# Melba's Entech Baby

Our very own ENTECH trade show is directly responsible for Melba's on the Park's smashing \$70,000 Universal Lighting refurbishment! The equipment was all bought at and inspired by Entech and swiftly installed for the spectacular revamp.

Although Melba's has been a staple inclusion to clubbing life at Surfers Paradise through the years, its new lighting show has projected it into the league of one of the most popular and consistently happening haunts. Venue owners Chris Kennedy and Paul Allen are delighted with the results and are reporting 500 capacity crowds every night until closing time at 5am.

DJ's Mark Allen and Jamie Mac are playing all the latest dance tracks and Top 40 hits, combined with Nightlife's video system for all the current and classic visuals.

The pumping sound system is a Mick James Electronics creation.

• **Door Prices:** \$6 Sunday to Thursday; \$8 Friday and Saturday

• **Melba's on The Park,** 46 Cavill Ave. Surfers Paradise. Gold Coast. (075)38 7411.

## Lighting

- 7 Abstract Futurescan III DMX Moving Lights;
- 18 Abstract Scene Setter 100 DMX
- 4 Abstract Gladiator Saga 250 DMX;
- 2 Abstract Starburst 1000 DMX;
- 18 Abstract Scatterspot White;
- 1 Abstract Monster Moon 250;
- 1 Griven Centron 650 MkII;
- 4 Lightwave Research Emulators;
- 2 Optinkinetics White Lightning Strobes;
- 3 Astroraggi 150;
- 60 m Coloured Neon;
- 1 F100 Fog machine.

## Lighting Control

- 1 Abstract Futurescan DMX/Midi Controller;
- 2 Abstract Masterstoke DMX/Midi Controller;
- 1 Light Processor PP4 Controller;
- 1 Light Processor Commander;
- 1 Lightwave Research Emulator Controller.

## Video System

- 1 Nightlife Video System (with 10 in 10 out video matrix switcher);



- 30 Sony 20" Monitors;
- 1 Sony Video Projector.

## Audio System

- 4 JBL System 44 Speaker Cabinets;
- 2 JBL System 12C0 Bass Cabinets;
- 6 Bose 802 Speakers;
- 1 Jands SR3000 amplifier;
- 2 Jands 516 amplifiers;
- 1 Yamaha Graphic EQ and Processor;
- 1 Numark DM 2160 Audio Mixer;
- 2 Pioneer DJ500 CD Players;
- 2 Technics SL1200 MKII Turntables.

-Natalie Apostolou.



## NAT'S MEDICAL REVIEW

### Shot in the dark

The familiar strains of club owners yelling for a plumber after a particularly heavy night when those 'damn syringes have blocked the system again', can be a thing of the past. It's a simple solution that will be sending lads around the country blue. It's not new ambient lighting but a practical innovation to stop junkies dead in their tracks (bad pun). The way it works is that the pursuit of a fresh vein will ordinarily be an easy task in standard artificial light, which has a lot of red in it, but impossible to poke in blue light which makes veins invisible. The connotations are trippy for revellers already on their way to brain anaesthesia who stumble into the blue bathed cubicle for the first time. Be prepared! Use BLUE lighting!

### Saturday Night Pus Fever

Months ago, this very column profiled the foam craze that swept through our clubs with ferocity during Summer. Yet, despite its immense popularity, a few vicious side effects have come out in the wash. Punter beware! The Medical Journal of Australia, features an article from one Dr David Cherry, GP of Sydney's Liverpool. The article chronicles the sorry tale of a 21 year old veterinary nurse that broke out in an itchy rash with small pus riddled spots after whiling away the night at a foam party. Upon viewing the spots, the nurse immediately attributed it to an allergic reaction, as she had been saturated with foam. Unfortunately tests revealed the presence of a bacteria called *Pseudomonas aeruginosa*, a festering thing linked to urinary infections and causing woundpus. Dr Cherry described the foam party concept as a "possible health risk". Although the rash cleared in a week with antibiotics, the delights lurking under the froth and foam might leave punters a bit dry.



## SIX LITTLE AUSSIES

Peter and Johns flight arrived and for the first time the entire group was in one place at the same time. John carted his luggage through customs and Peter asked where his was. "What do you mean? was my reply. Well here we go again....

Peter had thought I would have cleared his luggage but I hadn't for obvious legal reasons, so once again we set about retrieving luggage, going reverse through customs and re-clearing.

Bingo! We finally had all the luggage loaded in the mini-bus, contracted our weary bodies onto the seats and smiled wistfully as the engine refused to turn over. A burst of laughter was followed by the verbal establishment with Ice-man that it was in fact a manual vehicle. We then alighted and pushed the Bus, cursing and giggling hysterically the whole time.

Ignition! A dishevelled shamble back into the bus and off we go on a 1hr. ride to Rimini, absorbing the landscape, architecture and the sight of vehicles accelerating at speeds not even seen in Australia.

My excitement was heightened by the final exit from the expressway and by the time we arrived at the hotel was reaching fever pitch. Christine appeared on the entry steps and I raced to meet her. We had remained in contact since we met in Rimini the previous year and it was a delight to see her again. But there behind her was everyone else I knew from the

Rome Commission: Paola, Simona and Alessandria. Hugs and kisses and tears were exchanged with the rest of the Australians looking on in confusion. I hadn't really warned them of my emotional attachment to these amazing women and it must have been quite a sight.

Anyway, we all seated ourselves and were briefed on what I think all of the Australian contingent will remember as an incredible experience both in business and pleasure.

The women of the Rome division of the Italian Trade Commission spent each day working alongside their appointed delegations, visiting Italian Design and Manufacture exhibits, translating for the various international delegations from China, Israel, Japan, USA and of course Australia. They also for the next six days treated us to hospitality unmatched in the world.

After each day spent at the SIB

'95 Trade show we enjoyed restaurants based in ancient buildings with catacomb wine cellars or modern style with an ocean view. Local pasta, pizza, fish (*pesce*) bread (*pane*) and cheese (*parmigiano*) the likes of which you rarely find anywhere else, were in abundance, not to mention the local wines (*vino rosso and bianco*), but it is not just the food and wine that I remember so fondly.

Thankyou Christina, Paola, Simona and Alessandria from those noisy Australians..... (*rumorosso Australianos*), we won't forget you.

From Caroline 'Carolina' Grafton, Peter 'Petro' Hotson, Sam 'Scummy' Franzeskos, John 'Giovani' Culverhouse, Mal 'Malcoma' and Dawn 'Alba' Nichols. •

•Caroline also caught pneumonia in Italy and we had a bad scare. She is recovering well. -Editor.

## Rimini wrap

(from previous page)

are constructed many with theatrettes, offices and hospitality lounges, but writing business makes it all worth while, this is a trade show after all.

Mind boggling is an expression I would use to describe SIB. 36 000 sq.mtrs. of technology and intensity. You can take a break in a discotheque and have a drink or expresso and admire an architect and interior decorators latest designs. Or why not go off to the hottest DJs in Europe who are endorsing someone's product. Or better still lets go and have a look at another moving light. The sheer number of scanner manufacturers at SIB is dare I say frightening.

I will say that it was pleasant to escape to the quiet sanctuary of MAGIS where one could be enveloped in the colour of fabrics without a scanner blincing you while travelling on its pre-programmed destiny.

(continued on page 52)



Send us your club news! Fax (02) 876-5715 or call (02) 876-3530.

## OPENINGS

### ◆ The Capital 111 Club

The Sydney Capital Hotel -111 Darlinghurst Road, Kings Cross. This spanking new dance venue has been set up to please the punters every whim. A sound and lighting system, promising to keep up with the competition on Darlinghurst Rd includes an EHT Sound System, a Roboscan and intelligent lighting system enhanced by a multitude of projection effects. Two new club nights were launched at the end of April, Fridays-Fantasy with DJ's Spindocor J & Cee Bee purveying their groovey mix of 70's disco classics and latest dance grooves. Saturday nights has POP with DJ Shambles and Little Tim, spinning party classics and top 40 hits

◆ **BLITZ** -Delaney's Hotel 106-110 George st, Redfern. Phone 319-3919. Presents a brand spanking new evening of Hi Energy dance with Special guest DJ Paul Holden, Dynamic + Jason. On Every Friday night and admission is free.

◆ **FIRST BASE** is a new dance night for Sydney's South side. With DJ's KC and MC D-Man. Every Saturday on the Cnr of Focky Point and Ramsgate Foeds in Ramsgate.

◆ **The Brooklyn Hotel** on the corner of George and Crossvener st, Sydney, has been newly revamped and is currently packing in the city's punters with a yen for dance music. Entry is always free, even Fridays extra groovy 'Gold Hedging' night with special DJ Stephen Ferris. Saturday nights boast top bill live entertainment. Their music policy is strictly soul/funk and crowds pack into 350 capacity hotel every night. Ph. 247-6744

◆ **ROGUES** Sydney's most stylish late night/early morning hang, Rogues is under new ownership. Their successful format stays the same for now.

◆ **BONDI** has truly evolved as the cultural mecca for the glam, hi-o and hype ridden. To accompany the hectic pace they've given their own station, Radio Bondi 88FM, a dance kick. For glamsters and sackers alike.

-Natalie Apostolou



# Aztecs Nightclub

Brisbane's Loganholme Tavern Creates Club

Nestled at the midpoint between Brisbane and the Gold Coast, Loganholme is rapidly emerging as South-East Brisbane's latest boom town. Suitably catering to the growing populations needs, the Loganholme Tavern and Convention Centre addressed the void through the creation of **Aztecs** nightclub.

Warren Webb (Webb & Harcourt Architects) and Mark Ryder (Creative Lighting), have concocted a design evoking an Aztec theme. Vivid, lush earthy colours

comprise the decor, with Aztec wall hangings, fixtures and vibrant ceiling designs creating a striking South American odyssey. The natural timber fittings and intricate patterning on the dancefloor create a stylish and relaxed ambience, that is adaptable the varying modes of the clubs atmosphere. The video installation designed by Videopro and featuring the Nightlife Video system, has all the latest video releases as well as classics.

Mike McKew from Access Audio designed a powering sound system complemented by a stunning light system courtesy of Mark Ryder from Creative Lighting.

-Natalie Apostolou.

### FACT FILE

#### Disco Lighting

- 1 Custom Radial Tri-Truss rigging;
- 4 Abstract Scatterspot white;
- 8 Abstract scatterspot colour;
- 2 Abstract Hypermoon;
- 2 Abstract Wildstar;
- 2 Abstract monstermoon ;
- 1 Abstract Starburst;



- 4 Orion Disco strobes;
- 3 Infinity sate raggi;
- 8 Par 56 cans;
- 6 Ultra Violet fittings.

#### Control

- 2 Orion Mini-Chasers;
- 1 Fulsar switching unit.

#### Stage Lighting and Control

- 1 Circuit Tube Power Bar (3 m);
- 4 Par 56 cans;
- 1 Eynalite studio 4 dimmer/desk.

#### Room Treatment

- 30 Mtrs 4 circuit tube lighting;
- 15 Mtrs Brass Steptreading.

#### Audio

- 2 Technics SL1200 Turntables;

- 1 Denon DN2000F CD player;
- 1 Lem DM82 Stereo Mixer;
- 1 Yamaha Q2031 Equaliser;
- 1 Yamaha GC2020 Comp/Limiter;
- 1 Audio Logic Crossover;
- 1 Audio Telex Radio mic;
- 2 JBL AD44 Top end boxes;
- 2 JBL 550 subs.

#### Video

- Nightlife video system;
- 6 NEC 48CM monitors.

**Loganholme Tavern**  
Cnr Bryants Rd & Pacific Hwy  
Loganholme, QLD 4120

## Tropo's New Juice

Club Troppo has been delighting droves of Gosford's party loving population since its opening in September 1991.

Situated in the Central Coast Leagues club, the 'Troppo' was conceived out of the ingenuity of Harry Della and Marc Christowski of Rock Circuit Promotions.

Their original ideas in theming and design - all based around a tropical, jungle theme - have maintained the clubs success over the past few years, with crowds still reaching 2,000 capacity on Saturday nights.

The passage of time and the desire to keep up-to-the-moment in the latest club technology has resulted in a massive refurbishment, courtesy of Sydney's Total Concept Productions (TCP). The results are sure to amaze regulars and attract new devotees as well!

### Audio (added to installation)

1 Shure Radio Microphone and Transmitter (ELS-24/58)-RCP;  
2 Shure Headset Microphone and Transmitter(L11 + WCM 16) RCP;  
6 JBL System 44 Cabinets and Speakers;  
1 Numark Mixer.

### Videos and Monitors

12 x 68cm Sanyo Television Monitors;  
5 Video Distribution Amplifiers;  
1x 8' x 6' Fixed screen;  
6 Spring Loaded Screens-Variou sizes;  
2 Samsung 13cm monitors;  
1 Citronic Unit;  
6 Projector Brackets;  
12 Pivotelli Brackets;  
1 Sharp Converter;  
8 Sanyo PLC 200 Projectors.

### Intelligent Lighting

30 Abstract Scene setters and controller

### Lighting

1x 9 m Circular Truss (New Location);  
3 Motorised triangle trusses-arms(4.5m);  
9 Pieces Neon Triangles;  
4 Neon Transformers;  
1 Diffusion Fog Machine;  
1 x 2' Mirror Ball;  
20x120 Scanners.

## GRAND ORBIT, NEW LIVE CLUB

**BRISBANE'S LATEST BOASTS MULTI-FUNCTION FORMULA, FORMATTED FOR ALMOST ANYTHING!**

Brisbane has a new live music venue called Grand Orbit, which specialises in a multitude of entertainment pleasures. The upmarket stylishly designed room has been planned to encompass several levels of different entertainment formats.

Venue directors James O' Kane, Andy Duke and Stewart Fraser worked on this multi-functioning formula claiming; 'the flexibility will allow us to accommodate a greater variety of performances such as, caberet, comedy and regular standing room only shows.'

The capacity for the entertainment room is 500 with the rest of the complex featuring Restaurant, Cafe, Squid Bar, Library and Gallery holding a combined 760 capacity.

A dazzling Lighting and Sound system was designed by Mick James, ensuring that every night and event has the most dynamic and apt sound and lighting available. **-Natalie Apostolou.**

### CURRENT FORMAT:

Monday- Art Exhibition openings + cult films+video.

Tuesday- Laugh Lounge; Sienfield + Live Comedians.

Wednesday- Dance+Fashion.

Thursday- Cabaret style performance.

Friday + Saturday- Freestyle DJ+Live Bands.

Sunday-Funky Features 'Drag, Grab & Thrust'.

*Door policy-Smart Casual,*

*Music Policy-Eclectic,*

*DJ's-Kesson,*

*Currently Spinning-*

*Contemporary dance,*

*Door Price- \$6 Wednesday, \$8*

*Friday & Saturday*

### FACT FILE

#### Background Music System

6 Pairs Yamaha S15 speakers  
1 Sony ST x 411 Tuner  
1 Sony TCK-315 Tape deck  
1 Sony CDP C910 10 Stack CD  
7 Sony TAF 245 R Amps

#### Nightclub Sound System

4 Acoustic Technologies 15"  
McCauley Bass Cabinets;  
8 Acoustic Technologies 12" + 2"  
McCauley Mid/High cabinets;  
1 Rane AC22 Stereo 2 way crossover;  
2 QSC Mx-3000 Power Amps;  
4 QSC USA-1300 Power Amps ;

#### Disco Drive System

1 Numark 2160 Mixer;  
1 Numark 7020 Dual CD;  
1 Sony Tape Deck;  
1 Yamaha GC 2020 Comp/Limiter;  
1 Yamaha GQ 2031 Graphic Equaliser;  
2 Technics SL 1200 Turntables;  
1 Shure Microphone.

#### Band Drive

1 Yamaha Mx 2403 Console;  
3 Phonic Dual 31 G/EQ's;  
4 Acoustic Technologies 15"  
Wedges;  
2 QSC USA 850 Power amps;  
1 Yamaha SPX 990;  
1 Yamaha GC 220 Comp/Lim;  
1 Multipinned 30 way FOH M/Core

#### Band Lighting

1 x Jands Stage 12 Lighting Console;  
1 x Jands Digital Dimmer Rack;  
16 x Chrome Par 56 Cans;  
4 x 650 watt Profile Spots;  
Gridded Stage Lighting Bars/Electronics;  
16 x 56/Rays.

#### Disco Lighting

6 Abstract Futurescan III & Controller;  
4 Orion Strobes;  
2 Abstract Hypermoons;  
64 Infinity Pinspots;  
3 Y1 Smoke Machines-Le Maitre;  
12 White Scatterspots-Abstract;  
Dressing Room; Yes, backstage.  
Stage; 3.5 metre x 5.5 metre

#### GRAND ORBIT,

EAGLE ST PIER,

BRISBANE.

TEL-(07)211 3322

## Rimini wrap

(from previous page)

signs for studio and theatre lit by static luminaires and filmed by the latest in film and video technology. MAGIS this year also displayed an emphasis on education with various conferences and debates on subjects including, New Frontiers in Cinema Filming, Cinema Integration and Automation in Theatrical and Architectural Lighting

Product launches this year at SIB and MAGIS were many, with some manufacturers breaking new ground in their product lines in both audio and lighting. But so as I don't bore and/or confuse you, all product has been dissected into audio and lighting and can be pawed over in the appropriate product sections of this issue.

Well I guess that's about it for me on SIB and MAGIS this year, maybe I'll see you there next year.

**If you are part of the Night Club and Dance industries this is the trade show you really can't afford to miss SIB!**

Just look for the tall red-head with a big Nikon. **-Caroline.**

## MORE RAVE HASSLES

Outdoor raves are being scrutinised by police again(yawn) after April 9 's heavy police attendance at a Sydney Vibe Tribe event. Residents complaints sparked the attendance of 6 paddy wagons, 12 police cars, and a police rescue truck at Sydney Park Oval. Numbers multiplied as the time ensued and a number of arrests took place as a rep from South Sydney council ordered the closing down of the event. All accounts reveal that the arrests and attempts to remove party goers were vicious.

The event in question was free, issues certainly need to be addressed for all parties participating in events such as this lest we end up with the same Criminal Justice Bill antics that quashed the rave scene in Britain last year.

**- Natalie Apostolou.**

*<Editor notes: I'm totally certain the only readers who approve of illegal raves are those who work at them in exchange for money.>*



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# System's Westside (PA) Story

*System Sound's Kelvin Gedye describes the audio and the methodology behind the Capitol Theatre season of Westside Story*

This is the third venue that the show has been presented in. The original season opened at the Princess Theatre in Melbourne in Feb' 94, played until mid June and then was moved to the Festival theatre in Adelaide for a four-week season which ended in July '94.

One of the difficulties we had in the early days of the show in Melbourne was that the director (Ian Judge) had some very definite ideas about the use of radio mics. Mr Judge has mainly directed Opera and Shakespearean theatre in England and evidently has had some bad experiences with radios mics in the past. While he recognised that they were a necessary evil for singers he was totally opposed to their use for dialogue.

We had prepared a preliminary radio plot that called for sixteen radios. All principals whether they sang or only spoke would require a radio. At Judges' direction this plan was abandoned during the rehearsal period (prior to the get-in) which involved cutting the planned radio system down from sixteen to something like nine radios. This meant telling our number two radio operator she didn't have a job. As you can imagine, this was not a great day for all concerned!

Once we'd got to the preview stage it was apparent that there were problems hearing some of the dialogue. The director spoke to John, two days before the opening night, and reversed his previous direction on the use radios for dialogue.

Of course adding radio mics to a show at this late stage was not an ideal situation although we'd half expected it to happen. Consequently, the sound for opening night was not as smooth and as controlled as we would have liked and the consensus was that it was still too quiet in parts. As the season progressed, we made improvements to both the system and the operation of the show and things fell into place.

For the Adelaide season we basically added a few more radios bringing it up to thirteen and generally "tidied up" the system in various minor ways. By then the director had developed confidence in our approach which made our job a whole lot easier.

For the Sydney season John redesigned the system considerably the detail of which is outlined in the section on the Capitol theatre setup.

The Capitol presented a few problems for us. Firstly, this was the first musical and the biggest show to be mounted there since the restoration and being a "new" theatre there were a few bugs to be ironed out. For instance, we had to get a couple of penetrations made though the solid brick orch pit wall to allow us to run speaker leads etc from the basement where our amps were to FOH and also to get signal multicores to FOH.

It's tragic how many new theatres just don't seem to have made proper allowances for temporary cable runs. I can't tell you how many venues we've worked in that either have incredibly tortuous paths for multis to FOH and/or where we've had to bend fire regulations by running cables through fire doors and/or where we've had to cajole/plead/demand that a penetration be made though a brick wall. Anyway, I digress.

Fortunately the staff at the Capitol have been fantastic. Nothing was ever too hard, despite the pressure of coping with an incomplete building and demanding West Side Story technicians. Good humour and helpfulness were the order of the day and if a problem didn't get solved straight away it got solved eventually.

**The biggest problem of all, the acoustics of the venue, have proved to be, as always, the hardest to solve.**

For those of you who don't know the Capitol it's a large auditorium

with well over 2,000 seats decorated in a style that's been called "Hollywood Rococo" amongst other names.

Typical of this style of architecture, it features a mish-mash of Greek columns, statues, stuffed birds, arches and alcoves along the auditorium walls above which is a curved sky blue plaster ceiling a bit like a huge upturned bathtub.

The whole ceiling is smooth and peppered with tiny globes and fibre optics mimicking stars in the night sky, the only break in which are the three lighting slots that are revealed when the motorised sections of the ceiling are driven upwards as the house lights are dimmed to allow the FOH lights to hit the stage.

Naturally, a big room with such a large expanse of curved plaster is very reverberant. It probably would be great for opera or ballet but for a musical, especially one like West Side Story, it's pretty hard to get a good sound. It's not unpleasant sounding reverberation, in fact it'd probably be great if it was coming out of a reverb unit and you could control it! However, when you have an orchestra in the pit, actors onstage rapidly delivering lines in various kinds of American slang, some with a Puerto-Rican accent, in a large reverberant room and then try and amplify the whole shebang, you have a recipe for disaster.

To make matters just that little bit more difficult, the sound in the stalls underneath the balcony, which includes the mixing position up the back, is *totally different* to the sound in the bulk of the rest of the auditorium.

Because the ceiling over the back half of the stalls shields that area from the reverberation being produced by the main "bathtub" ceiling as well as being fairly absorbent itself, the FOH operator has *no idea* what the mix sounds like for the majority of the audience.

What would sound as clear as a bell at the sound desk could sound like an absolute, unintelligible

mess in the middle of the stalls and the first half of the balcony. Usually in a theatre, the sound at the desk is worse than everywhere else, here it was the reverse!

We tried numerous ways of adjusting the various speaker groups and tuning the system so that Julian was able to do a mix that would make sense from his perspective but would also work for the rest of the house.

This proved to be an even more difficult task than we'd originally expected. By opening night we were still struggling with the problem and scored a couple of negative reviews for our pains. Unfortunately too late, a third review from the same night praising the sound surfaced halfway through the season.

We'd already made plans to make some more adjustments when two or three letters of complaint were sent to the theatre after the opening from patrons saying they weren't able to hear dialogue and vocals. This naturally served to accelerate our plans.

In the first few weeks of the season we had two major sessions, tweaking, tuning, re-arranging speaker positions and re-thinking the operational approach to try and get a result we were happy with.

This process made life even more difficult for Julian and especially for Don as he was in the middle of learning to mix the show while we were still making changes. The cast was also very aware of any adjustments we made, generally loving it when we turned them up and hating it if we turned them down. Surprise! Surprise!

John and I have also since made a number of scheduled supervisory visits to hear how the show's sounding generally and give directions to the operators which is what we normally do for a show that runs for more than a few weeks.

Although the final result means the spoken and sung vocals are often amplified more than we

would ideally like, I think I can say we've arrived at a situation where everybody involved in the production (and apparently the audience) are fairly happy with the result. Phew!

#### PERSONNEL

John Scandrett is the sound designer and also the managing director of System Sound. Your writer, Kelvin Gedye, is the sound supervisor and a full time-employee of System Sound and has been involved in the production from the beginning, including co-operating FOH for the early part of the Melbourne season.

Julian Spink is the head of the department—he's also been with the show since it began and is the number one operator. Once the show has settled in he operates the desk on average four times a week then two shows a week he'll be backstage on the radio B plot.

There are two people backstage on radio mics.

The A plot is normally done by Leigh Williams who has joined the show for this season. She has come straight off the same job at "The Phantom of the Opera".

The B plot tends to involve fitting the mikes to the rest of the cast and monitoring/troubleshooting—basically handling anything that may go down during the show - video, communications or if an amp dies. Don Eickhoff mainly handles this job and he's

also the second operator- he and Julian operate on average FOH four shows a week each.

There are two people doing radio mics backstage because of the number of mics— there are 18 radio mics in the show plus a spare so there's a lot of work in preparing, handling and maintaining them.

The A plot usually involves fitting the mics on the principal actors and being the person who is floating around dealing with both scheduled pack changes as well as emergency ones.

We've also had two "swing" radio technicians on the show - there's always a period when the second operator is learning the show and consequentially someone has to cover their backstage job. Also, to allow for any member of the crew being sick, every job has to be covered. The Show must go on!

Because of the logistics of "sharing" swing radio operators with the "Phantom" sound crew ( as it's also a System Sound show) we ended up with two swing operators .

Mark Hostetler and Alix Campbell have been covering the two swing positions. Alix has been operating Phantom FOH since it opened in Sydney as well as doing radios and Mark has been also looking after radios over there.

#### MONITORING

With a show of this nature with people wearing body mics it's really impossible to give vocal foldback to the cast and so it's not even attempted.

The band hear each other (or not) acoustically although there is one small powered foldback speaker (Anchor AN1000) for the drummer who has a split from the piano.

We always try to keep foldback to an absolute minimum as too much simply smears the "image" and coherence of the vocal and music sound field . Foldback on stage is fundamentally 4 x Apogee SSM speakers which are very compact two way passive (but processed) speakers sending a stereo orchestra mix onto stage for the cast. There are also three compact Yamaha S10X speakers secreted in various locations on the set to give localised foldback in the "shadows" of the general foldback coverage. The only vocal foldback the actors hear is what they get back from the house and spill around the proscenium.

This is usually the standard practice for musicals of this kind and is typical of what happens on shows like Phantom and Miss Saigon. Of course, this situation makes the actors very conscious of how much amplification they're getting at any particular moment and makes life somewhat more complicated for the operator!

#### SPEAKER SYSTEM

The main FOH system is basically all Tannoy- mounted just inside either side of the proscenium are a pair of Tannoy CPA10S "Superdual" two-way co-axial speakers coupled with a single CPA12 low frequency speaker. There's also a cluster of three CPA10S's and two CPA12's hanging from a truss suspended above the proscenium with the "12's"

We're running the CPA10S's passively (you can run them either passive or active which is very handy feature) crossing over between those and the CPA12's at about 180Hz but also rolling the twelves off at about 100Hz.

This is plenty of bandwidth for a vocal system but to achieve full bandwidth for the orchestral mix we have a pair of Yamaha SW18's located in front of the proscenium in an alcove on either side- a location which might seem odd at first but which we found was very efficient for low frequency as well as being unobtrusive.

Both the Proscenium left and right speakers and the cluster are used for vocals whilst the orchestra mix appears only at the proscenium speakers.

This is the first time we've used these particular Tannoy speakers and we're quite pleased with them. The CPA10S's are very compact (although no lightweights at 27kg) but can handle peak program of  
*(continued over)*

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## WESTSIDE SOUND

(from previous page)

800 watts and they're very smooth sounding with a good even coverage.

Also mounted in the truss with the vocal cluster are a pair of Bose Wave Cannons which we're using for sub bass for various traffic sound effects. For those of you who aren't familiar with these devices, picture a 4m long high density plastic "pipe" wide enough to take a 12" LF speaker that's capable of going as low as 30Hz or thereabouts.

The remainder of the vocal system consists of five front fill speakers (more Apogee SSM's) mounted in front of the stage floor hidden behind wire mesh grey mesh as well as a rear delay system. These are seven SSM's mounted under the rear of the stalls ceiling and another five SSM's mounted in lighting slots in the auditorium ceiling to service the rear of the circle.

There's also a speaker fitted inside a Jukebox onstage in the "Doc's diner" truck for a piece of music in one scene and a yet another pair of SSM's mounted upstage on a lighting bar for various effects.

The SSM's are impressive little speakers we "inherited" from the musical "Joseph and the Amazing Technicolor Dreamcoat" which we did a couple of years ago. They're very compact and sound great, perfect for theatre.

Amplification is all Yamaha PC2002 and PC2002M of which there are sixteen in use and a spare. We have quite a few of these units and although they're getting a little long in the tooth they're very reliable and clean sounding.

### FRONT OF HOUSE

We chose to add some new features for the Sydney season as we had the time and John wanted to make some improvements to the design. One was to fit our PM4000 with an automation system we've been developing that gives us channel on/off and V.C.A. assignment programmability as well as machine and midi control. It's our

third Desk automation project to date.

The first two were for our PM3000's one of which has been out on "CATS" and the other on "Hot Shoe Shuffle". Peter Jago has been managing that project in-house at System Sound and getting the hardware and software designed and built for us.

We use an IBM thinkpad notebook computer running the software and that gives us a graphic display of which cue or program you are in and basically allows you to step from one cue to the next.

There's a second computer set-

next cue and that turns channels on or off, designates the VCA master for each channel, flips the Midi devices to their next state and rolls the CD as required. It gives the operator more time to concentrate on the real job at hand which is mixing the show. (This could be a great item for general sale, if System were to release it onto the market. -Editor)

There is no level programming with this system, all the levels are set manually as well as eq etc. so it's still a very busy show operationally.

There are 18 radio mics used

Soundcraft are starting to deliver more affordable desk automation systems suitable for live work and Yamaha have projects in the pipeline but we couldn't wait - so we built our own!

The sound effects are all mixed and level controlled (and "effected" where necessary) by a Yamaha DMP11 rack mounted 8 into 2 digital Midi controlled digital mixer which allows us to crossfade between "scenes". The three outputs of the mixer are then sent into a 360 Systems AM16 midi controlled crosspoint switcher, the outputs of which are then sent to all the various speaker groups via the PM4000. Obviously this allows us to send any sound effect to any pre-ordained speaker at any time.

### MICS

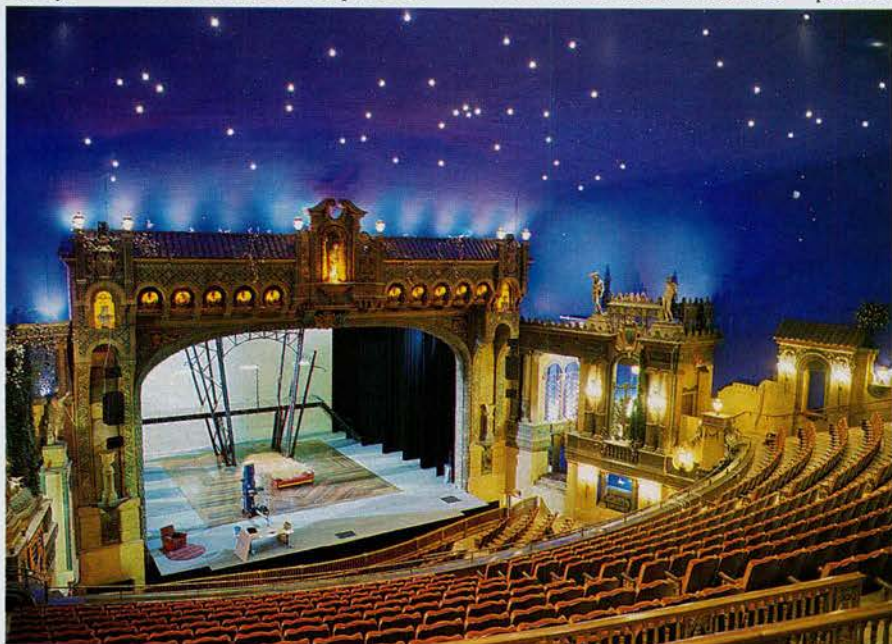
There are 27 musicians in the pit, comprising 8 violins, 3 celli, 1 double bass, a guitarist playing (bugged) acoustic and electric guitar, a keyboardist on grand piano and DX7, an extensive percussion rig, drumkit, 3 trumpets, a four-person reed section that plays something like fifteen instruments between them, 2 trombones and 2 french horns.

The whole pit is covered using only 22 channels as generally instruments are miked in pairs (eg: violins, trombones) or sections (eg: trumpets). We're also only using two mics each on the kit and percussion rig which will no doubt surprise the rock & rollers reading this!

This approach has two advantages, firstly it give us a more natural, open sounding orchestra mix, secondly it keeps the number of mics, stands, leads and channels down to a manageable and affordable number!

Mics for the pit are mainly a mixture of Sennheiser MKH 40's and 50's, AKG CK3's, CK3X's, CK22's, AKG 414's and Neuman KM84's.

The radio mic system is part of the same system that's going into "Miss Saigon", namely Sennheiser SK2012 transmitters with EM1036 receivers running a mixture of 500Mhz and 900Mhz frequencies



Capitol Theatre, at completion of rebuild

ting beside the first as a backup. For external control there's a contact closure box which is driven by the computer which allows us to trigger other devices like CD players and a modified Yamaha MPC1 midi controller which gives us program change control of all our Midi devices.

All the sound effects for the show are on CD except for a sampled gunshot effect we've added during the run to augment a rather erratic "practical" prop gun used on stage. We use the actual sound of the blank going off picked up by the radio mic the actor is wearing to trigger the sampler. It means that even when the blank is quiet it still sounds like a "real" gun.

The whole package means that the operator has a "next" button that is pressed at the right moment in time (hopefully) which makes the computer recall the

and because of the nature of the show there are often 8-10 mics on stage open for dialogue or song and occasionally almost all of them.

We've been toying with various forms and levels of automation for many years now in the belief that it enhances an operators ability to deliver complex sound mixes with much more repeatability and control and this is another step in that direction.

I was fortunate to operate the first automated Cadac console in this country for the opening season of "The Phantom of the Opera" in Melbourne way back in 1990 and that sold me on the concept of automation.

Unfortunately, the Cadac being the "Rolls Royce" of sound desks comes with a price tag to suit and is out of the reach of the average sound budget.

A few manufacturers like

of which we're using 18 on stage. We're using Sennheiser MKE-2 microphones with the transmitters. For monitoring the performance of the radios we have the Sennheiser computer monitoring system which employs an Amiga computer located at the radio rack. This displays the RF and audio levels for each receiver whilst a second monitor at the FOH desk duplicates this display.

The only set mics are three PCC160's used primarily for foot mics in some of the big chorus scenes as well as being available to help out in the event of a radio mic dying on stage.

There's a makeshift chorus booth sitting offstage right used to both augment some of the onstage chorus's as well as provide the offstage voice for the song "Somewhere" which features in a fantasy dance scene. A Neuman U89 is used for these jobs. We also use four Beyer M69's just for the

intro for the song "Maria" allowing us to send the voices of the four offstage boys to four different speaker groups.

The denizens of the chorus booth get their own foldback mix on headphones from a Rane HC-6 headphone amp and watch proceedings on two video monitors, one showing the stage and the other the conductor.

#### FOH PROCESSING EXTRAS

There are 3 Yamaha SPX1000's, one each for vocal reverb, orchestra reverb and special effect reverb.

All our main EQ is Yamaha DEQ5 and DEQ5E digital equalisers [1 x DEQ5, 3 x DEQ5E] the 5Es' are the slave units. Each of those is a stereo device. These are handy units being programmable, transparent-sounding, remote-controllable and capable of adding delay which saves on extra delay units for speaker groups.

A venerable Yamaha DEQ7 is

used for eq and programmed level-control for the stage foldback and three Yamaha DDL-3's are used for various special programmed delays for radio vocals.

#### COMMS & VIDEO

For the wired talkback system we're using the in-house system augmenting it where necessary with some clearcom units to give two-channell capability. We're also running six Motorola GP300 mobile transceivers fitted with headsets with a duplex base station so that the two A.S.M.'s, three Mechs and two Electric's people can listen and speak to the main talkback loop.

So the sound operator can communicate to the radio operators (and so they can talk to each other we have a seperate simplex Motorola base station for FOH and two GP300's backstage.

These use a different frequency to the general stage radio comms

but all nine of the GP300's have identical sets of frequencies and so sound can talk to stage management and vice versa.

The video system utilises two monochrome CCD cameras, one on the balcony facing the stage and the other set into the false forestage facing the conductor. Video monitors showing the FOH picture are provided to the stage manager, automation operator, fly floor, radio operator and chorus booth. Monitors showing the conductor are provided for the stage manager, sound operator, chorus booth and cast (two 24" units mounted on the balcony, facing the stage)

Juilan has built a clever little video switcher that turns the FOH monitors on and off automatically at the appropriate moment under control of the desk automation to minimise spill onto the audience.

• *System Sound* (03) 529-2633.



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A Member of the **Amber Communications Group**

# BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
<b>New South Wales</b>			
<b>A# Sharp Studio</b> Jeff Cripps (02) 534 4440 24 Track 1*			
Astral Taxi	Jeff Cripps	Jeff Cripps	CD
John Spray	Jeff Cripps	Jeff Cripps	Demo
Seizure	Jeff Cripps	Jeff Cripps	Cassette
Steve McNaughton	Jeff Cripps	Jeff Cripps	Demo
<b>Airmotion Studios</b> Kristen Wolek (02) 5506576 24 Track			
Mick Harvey	Tony Cohen	Tony Cohen	Album
Louis Grimaldi	Louis/Janet Grimaldi	Lackian Mitchell	Classical Guitar Album
Backsliders	Dominic Turner	Guy Dickerson	Record Album
<b>Albert Studios</b> Leesa (02) 953 2544 48 Trk Digital & Fairlight MFX 2 Studio			
Nitocris	Tony Cohen	Stuart Day/DC/Alternative Album "Fuse Box"	
Don Walker	Tony Cohen	Stuart Day/DC/Alternative Album "Fuse Box"	
Masters Apprentices	Tony Cohen	Bart Elsmore	Record & Mix New Single
Hoodoo Gurus	Tony Cohen	Bart Elsmore	Record & Mix New Single
John Paul Young	John Brewster	Sam Hershburgh	Pre-Prod.
Angels	Doc Neeson	Bart Elsmore	Overdubs - New EP
<b>Artrage</b> Andy Mison (02) 564 2509 24 Track			
Seattle Show		Rasty Jovasevic	Demos
Vanilla Chainsaw	John Bee	Rasty/John Bee	EP
2000FM	Rasty Jovasevic	Rasty Jovasevic	Relaxation Music
Amir Koeswoyo	Rasty Jovasevic	Rasty Jovasevic	EP
Circus	Rasty Jovasevic	Rasty Jovasevic	EP Tracking
<b>Blackfeather Music Studios</b> John Robinson (02) 909 2707 8 Tk Digital Hard Disk/Multi Tk Analogue			
John Robinson	John/Karl Seglins	John	CD 'Amelia'
Tim Buc 2	Tim Bosshetter/John	John	Demos
Duo Oriole	Roger Frampton	John	Demos
John Geminis	John Geminis	John	Demos
<b>Bush Tracks Recording Studio</b> Ruth Miller (066) 89 1290 24 Track Rec. & Multi Media Studio			
The Bourkenbacks	Band/D.Highet	Dave Highet	Album
David Reeve	David Reeve	Dave Highet	Demo
Gaia Films	J.Kendell/P.Tait	Dave Highet	Soundtrack Material
Ewan James	E.James/D.Highet	Dave Highet	Demo
<b>Charing Cross Studio</b> David Sykes (02)387 8362 - 24 Trk Neve			
Solar	Nick Mainsbridge	Keith Cooper	Album Mixing
King Clam	Greg Henderson	Dave Trump	EP Mixing
Electric Hippies	Steve Balbi/Justin Stanley	Keith Cooper	Album Tracking
Jackson Code	Craig Portells	Dave Trump	Album Mixing
Caravan	K.Cooper/Band	Keith Cooper	EP Tracking & Mixing
Mental As Anything	Martin White	Martin White/Keith Cooper	Tracking & Mixing
<b>Crystal Clear Recordings</b> (02) 975 3769 David Tozer 24 Tk Digital ADAT System & BRC			
One Head Jet	D. Tozer/Band	Dave Tozer	Album Tracking
Frown	D.Tozer/Band	Dave Tozer	EP
Big Fat Mama	Dave Tozer	Dave Tozer	Demos
Welcome the Terron Federation	Dean/Vojra	Dave Tozer	EP Tracking
Briana Berson	Dave/Brian	Dave Tozer	Album Tracking
Danger In Lost	D.Tozer/Band	Dave Tozer	EP Mixing
<b>Damien Gerard Studios</b> Contact Marshall (02) 660-8776 2 x 16/32 Track			
Panadolls	Carl Christie	Russell Pilling	EP
Glen Skuthorpe	Jim Hilburn	Tim Powells	Album
New Christs	Rob Younger	Russel Pilling	Album
Boneman	Bernie	Dave Trump	Album
Asteroid B612	R.Pilling/John	Russell Pilling	Album
Jon Stevens	Jon Stevens	Russell Pilling	Demos
<b>David Hinds Re.Studios</b> David Hinds 065.811235 8 Tk. DAT Mastering			
New Music Network	David Hinds	David Hinds	Comp. CD of Nth.Coast Artists
Lyn Finch	David Hinds	David Hinds	Album Tracks
Jenny Marks	David Hinds	David Hinds	Album Tracks
Ghost Road	David Hinds	David Hinds	Demos
Coomera Motor Inn	David Hinds	David Hinds	Jingle
Cash Traders	David Hinds	David Hinds	Jingle
<b>Eastern Acoustic Rec. Studio.</b> Dave Best 0049.621855 16 Tk. 40Ch. Sabre Console. Full Midi Suite			
Second Cousins	M. Harragon	D. Best	Demos
Fire N' Ice	S.Pickett	D. Best	Album
Roar Boar	S. Cats	D. Best	Album
Fanny's Nightclub	S. Pickett	D. Best	Promotional Jingle
<b>Eclipse Music Studios</b> Elise Huntley/Jodie Sharp 24 Tk. Analog/32 Tk Digital SSL 4000E Series			
Margaret Ulrich		Kevin 'Caveman' Shirley	Mixing Album
Diesel	Diesel	Brendan Morley	Mixing Live EP
Downtime		Kevin 'Caveman' Shirley	Mixing Album
Screaming Jets		Kevin 'Caveman' Shirley	Mixing Album
Nitocris		Kevin 'Caveman' Shirley	Mixing Track
The Meanies		Kevin 'Caveman' Shirley	Mixing
<b>Enrec Studio</b> Steve Newton 049 34 7844. 4,8,16,32 Tk.			
Roger Knox	S.Newton/R.Wilson	Steve,Rob& Ken	Album Completion at SBS
Vince Brophy	V.Brophy/S.Newton	S.Newton	Album
John Williamson Live	Phil Matheus	S.Newton/Robin Gist	Live Recording
<b>Enterprise</b> Graeme Storer (02) 564 3225. 8 Tk. Midi Suite			
Corporate		G. Storer	Soundtrack
Corporate		G.Storer(Composer)	Jingles
Enterprise Songwriters Group	Various	Various	Songwriting/Prodn.
<b>48V Studio</b> Clare Britton (02)211 6663 48 Track, 24 Digital/24 A*log "Fabulous Vibe"			
Below	Rob Taylor	Rob T/Dom.	EP
Screaming Jets	Grant Walmsley	Dave Henderson	Re-Mixes
Biff Bang Pow	Jamie Carter	IanThompson/J.Carter	Mixing
Regurgitator	Dave Henderson	Dave Henderson	Mixing
Hound	Grant Walmsley	Grant/Dave	Demos
Glare	Craig Beck	Craig Beck	Mixing



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# EX-TRACK

With Caroline Grafton  
and John Zulaikha

• **48V Sydney NSW, Rob Taylor** is finishing off **DEF FX** remixes with 'Duane' from Melbourne and is about to work with **Caligula** on their next release. **Dave Henderson** is back on the road with **Catfish**. Lots of producers are gracing 48v with their illuminating presences **David Hemming, Craig Portel, Kevin Shirley** and **Simon Sheridan** to mention a few... Call Clare Britton on (02) 211 6663.

• **AIRMOTION STUDIOS St. Peters NSW**, have upgraded recording space with two new rooms adjoining the studios. This includes dead space for overdubbing and a dedicated machine room alongside the control room. **Chad Wackerman** (ex LA) and his 24 track drum studio are still resident at Airmotion attracting both local and international talent. A MIDI suite **SKRATCHPAD** is due to open shortly. Call Kristen or Julee on (02) 550 6576.

• **BASF** add a new member to the Melbourne team who will be in control of all Studio product servicing the southern states is **Yuri Schwatschko**. Yuri comes from a recording background originally in Canada and since his arrival in Australia 5 years ago has been involved with pro audio and video tape sales. Contact Yuri on his direct line (03) 9212 1569.

• **CRYSTAL CLEAR STUDIOS Sydney NSW**, has moved 9 Bridge St Rydalmere and taken over the **THE WAREHOUSE STUDIOS** 5 room rehearsal complex (still operating under the same name) and have extended rehearsal hours from 10.00 am till Midnight. **CRYSTAL CLEAR** now has a much larger control room/studio at the same \$35/hr for 24 tracks of ADAT. Call Dave on (02) 684 1152.

• **DAMIEN GERARD SOUND STUDIOS Ultimo NSW**, both studios A & B have been practically booked out with various projects. **Russell Pilling** worked with producer **Craig Calhoun** in Studio A as well as projects with **The Panadolls, Mr Blonde, Disaster Dora, Pete Wells, Cindy Ryan, Asteroid B612, World Service and Madnet**. Russ also worked with **Rob Younger** mixing the **New Christs** album. Younger also dis-

appeared into lockout in the rehearsal rooms for **Died Pretty** production with **Wayne Connelly**. While **Dave Trump** steered the console for **Bone Man** and **The Hunchbacks**. **Jim Hilburn** from The Angels has been producing an EP by **Glen Skuthorpe** with **Tim Powles** at the console. Call Bob Armstrong on (02) 692 9915.

• **DAVID HINDS STUDIOS NSW**, compiled a sampler CD organised by Port Macquarie based New Music Network and backed by Ausmusic. The CD features 19 original tracks by Mid North Coast artists entitled 'Is That A Fish In Your Pocket?' (065) 811235

• **DIGITAL PARADISE Queensland** - 32 track digital (4 x DA-88's) studio is setting up 2 local talent compilation albums with promotional support. Contact Ian Peters on (07) 27 0722.

• **ECLIPSE Sydney NSW**, are still celebrating with the recent chart success of **Silverchair's** debut album **Frogstomp** reaching No.1 in the charts not to mention the soon to be released **BMG AC/DC** tribute album featuring some of Australia's hottest rock acts. Call Jodie Sharp on (02) 264 7734.

• **GREVILLE RECORDING STUDIOS Brisbane Queensland**, have added a **Harmonia Mundi Acoustica bb103** Sample Rate Converter and a **Model 280-D** Digital Loudness Meter by **Dorrough** to their mastering room. The **SRC** features 20 bit 120 db dynamic range and the **Dorrough** provides an accurate measurement of 'perceived loudness' by representing the relationship between peak and average levels on one meter. Call (07) 262 8422.

• **KAKADU STUDIOS N.T.** are embarking upon a music trading development - an accredited training course in music/video/audio to produce demonstration material for development of marketing initiative into the Asian market. Looking at putting in a complete mobile recording system including 3 ADATS - computer hard disk editing system - travelling to Arnhemland communities recording traditional and contemporary - as well as combine a 6 months DEET Dept of Employment Education and Training. To achieve

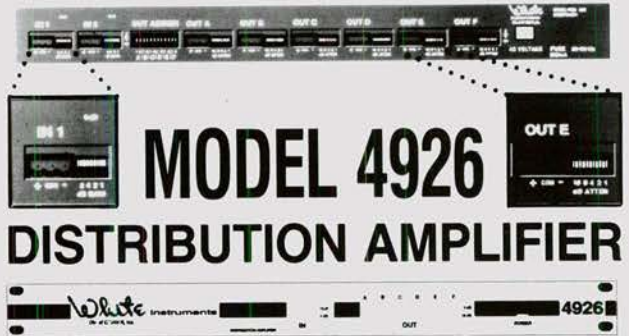
ARTIST	PRODUCER	ENGINEER	PROJECT
<b>Glebe Rec. Studios</b> David Jacobsen (02) 692 9399 24/48 Trks. 4 x DATS			
Lee Kernaghan	Garth Porter	Ted Howard	
Col Joye	Garth Porter	Ted Howard	
Romeo	David Jacobsen	Ted Howard	
Norma Murphy	Rod McCormack	Ted Howard	
Tanya Cassidy	Garth Porter	Ted Howard	
<b>Main Street Studio</b> Rob Specogna 042 834 515 16 Track			
Iccream Headache	Band	R.Specogna	Demos
Loaded Dog	Band/R. Specogna	R.Specogna	CD Album
Jules Honey	Jules Honey	R.Specogna	Cass. Album
The Ritz	The Ritz	R.Specogna	Demos
Shot to Pieces	Band/R. Specogna	R.Specogna	CD Single & Demos
Ed Tacey	Ed & Rob	R.Specogna	Demos
<b>Megaphone Studios</b> Kristen Wolek (02) 516 3917 24 Track			
Aiken Drum	Tom Kazaz	Tom Kazas	Rec.Rhythm Tracks
Blind Society	Steve McNally	Steve McNally	Album
Vein Compositions	David Wilson	Nick Hartely	Rec/Mix Jingles
Blair Greenburg	Blair Greenburg	Jason Blackwell	M x Album
<b>Mirage Studios</b> G. Nixon (02) 211 3915 16 Track Digital, 48 Tk. Digital 24 Track Analogue			
Mark Williams/Martin Armingier	Martin Armingier	Mike Stavrou/Guillaume	Sydney Dance Co.
Julie Anthony	J.Stewart/M.Harvey	David(DC) Cafe	Mixing Album
Power Supply	Tom Misner/Mark Kennedy	Tom Misner	Tracking Album
Allan Lancaster	Allan Lancaster	Martin Ferretti	Single Prodn.
Ginta Serakang	David Cafe	D. Cafe	Single - King Studios - Kuala Lumpur
Thatcher	Jason De Wilde	J.De Wilde	Demos
<b>Paradise Studios</b> Bill Field (02) 357 1599 48 Track A'log, Custom Mixer,			
Ratcat	Paul Mc Kercher	Paul Mc Kercher	Album
Val Dosty Experiment	Brad Thompson	Ted Howard	Soundtrack
Elena Kats-Gherin	Greg White	Glen Phimister	Soundtrack
<b>Pathways Studio</b> Frank Kerestedjian 048.721336 24 Tk. 2" Analog			
Exploding Daisies	Buzz Bidstrup/Greg	Greg Henderson	Album
OS Rock	Frank Kerestedjian	Frank	Album
Anthony Donelli	Frank	Frank	Demos
Allana Dargin	Mark Callaghan	Frank	Album
<b>Powerhouse Studios</b> Doug Henderson (02) 318 1220 Neve Console 8128 Input/Studer A800 24 Trk.			
SPDFGH	Nick Dalton	Craig Beck	CD
Zenego	Band/Craig Beck	Craig Beck	CD
Patricia Wade	Leon Berger/D.Henderson	D.Henderson	Single
'Ayre'	The Band	Craig Beck	EP
Street Ruffian	Band/John Darwish	John Darwish	CD
'The Stepfords	Alan Thorn	Alan Thorn	EP
<b>Q. Recording</b> Gordon Sullivan (02) 212 4851 24 Trk. Analog. Protocols Editing			
Animal Boy	David Price	David Price	EP Tracking/Mixing
Psycho Zydeco	Psycho Zydeco	Alex Wong	Album Tracking/Mixing
Parkside Killers	David Price	David Price	EP Tracking/Mixing
Guy Redmayne	Guy Redmayne/Alex Wong	Alex Wong	EP Tracking/Mixing
Child	Child	Torie Lista	EP Tracking/Mixing
Steve Bennet	David Holmes	Gordon Sullivan	Album Tracking
<b>R. &amp; R. Recording</b> Robert Zimola (02) 624 4484 16 Track 1"			
Power of Ten	Band	Robert Zimola	Album Pre-Prod.
Shakin All Over		R.Zimola	Demos
Estranged	Band	R.Zimola	Demos
C.J.J.M.	C.M.J.M.	R.Zimola	Album
Eye Cue Communications	P.Saunders	R.Zimola	Various Corporate Projects
Shattered Mass	Band	M.Mathesson	Demos
<b>Sony Music Studio</b> Ross A'Hern (02) 332 0320 24 Track			
Charlie Chan	Louise Taylor		CD
Graham Jesse	Simon Tonx		CD
<b>Sound Level Pty Ltd.</b> Joe Breen (02) 552 3200 32 Channel - Live to DAT, Multi Track available.			
Big Mexican Dinner	John Soane		Demo
Deep End	John Soane		Demo
Central	Jim Iveson	Paul Gannell	Demo
Cruel Sea	Matt Crosby	Matt Crosby	Demo
Alan Smith (Youth Rock)	Alan Smith	Fulvio Colaiacolo	Demo
Colin Bloxsum Unplugged	Col. Bloxsum	John David	Album
<b>Soundwarp Audio Services</b> (02) 905 7144 Meredith Brooks Mastering			
Bob Barnard	David Seidel	Meredith Brooks	CD Master/Comp.
Sawung Jabo	Rasty/Sawung	Meredith Brooks	CD Master/Comp.
Tony Martin	Tony Martin	Meredith Brooks	CD Master/Comp.
Us Not Them	Jason/Chloe	Meredith Brooks	CD Master/Comp.
Amir Rueswoyo	Rasty	Meredith Brooks	CD Master/Comp.
<b>Studio Arts Productions</b> (042) 849128 Ed Lee. Independent Recording Studio			
Pod 5	Band/Ed	Ed Lee	Demo/Mini Album
Ed Lee	Ed	Ed Lee	Soundtrack Image Video
State Emergency Service	Gary Peardon	Ed Lee	Promo Campaign
Lex Lands & The Drifting Pods		Ed Lee	Demo
James Keene	James/Ed	Ed Lee	CD
<b>Studio Shift</b> Nonda/Tom Kazas (02) 3984268 24 Track 2"			
Andy Timmins	Andy Timmins/Nonda	Nonda/A. Timmins	Personal Project
Tony McGinley	Willow	Nonda	Demo
Willow	Willow	Nonda	Demo
Aiken Drum	Tom Kazas	Tom Kazas	Album
<b>Tracking Station Studios</b> Contact Martin Cass (02) 281 8899 24 Track A'log			
Atlas String	Greg Henderson	Greg Henderson	Single
Becy Cole	Martin Cass	Martin Cass	Pre Prodn. Album
Wayne Law	Martin Cass	Martin Cass	Album
Jamie Rigg	Jamie Rigg	Mal Shepherd	Midday Show Theme
Sila	Sila	Steve Pomfrett	Album
Honey Men	Honey Men	Steve Pomfrett/Aaron Ruig	Single Remix
<b>Troy Horse Studio</b> Michael Lewis (02) 557 3129 24 Track			
Disneyfist	Band	Bruce Waite	CD Compilation Track
Godstar	Nic Dalton	John Rafferty	Album
Lawnsmell	Band	John Vittoria	Triple Live Album
Renegade Funk Train	Rosanno	Ramesh	Album



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Enquiries Lien Chew

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# BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
<b>Queensland</b>			
<b>Grevillea Recording Studios</b> Malcolm Jacobson (07) 262 8422 24 Track			
Sarah Cunningham		Mal.Jacobson	Single
Ludy Sigrist	Michael Myers	Mal. Jacobson	Demos
Diana Woods	Phil Ross	Mal. Jacobson	Mastering
Vicky O'Keefe	Vicky O'Keefe	Mal. Jacobson	Demos
Max Phillipps	Tony Byrne	Mal. Jacobson	Mastering
<b>Studio 19</b> Allan Castleton 077 757 375			
James Cook Univ. Chamber Orch. Prof. Bon		Allan Castleton	Live Recording
Jennifer Malachowski	Allan Castleton	Allan Castleton	
Peter Moxon	Allan Castleton	Allan Castleton	
<b>Suite 16 Audio Prodn.</b> Murray Lyons (07) 369 8733 24 Tk. Analog/24 Tk Digital			
Retravision	Garry Smith	Julian Lynch	Commercials
Suncorp	Garry Smith	David Richards	Commercials
Wayne Vitari	Wayne Vitari	David Champion	Demos
Terry Hartung	Garry Smith	Julian Lynch	Demos
The Footy Show	Garry Smith	David Richards	TV Show Opener
The Old Bulls	Garry Smith	David Richards	Commercial
<b>Taramalin Sound</b> Allan Lahey (07) 208 9736			
Andy McDonald & The Rhythm Whores	Andy	Allan Lahey	Pre Prodn. for Mushroom
Geoff Whitehead	Bob Moore	Bob/Allan	Demos
Who Man Beanz	Gordon	Allan	Pre Prodn.
Fire Fly	Band	Allan	Pre Prodn.
Out of the Blue	Band	Allan	CDR
Feebles Junkie	Band	Allan	CDR
<b>Vandersound Studios</b> Eric Vandersande (075) 468100			
Stevy Bee	E.Vandersande	Steven Black	Demo
Blain Watson	E.Vandersande	Blain Watson	Demo
Darcy Moore	E.Vandersande	E.Vandersande	CD Album
Scott Patterson	E.Vandersande	Scott Patterson	CD Album
Soliloquay	E.Vandersande	E.Vandersande	CD Album
<b>South Australia</b>			
<b>Mixmaster Productions</b> Mick Wordley (018) 822 986 24 Track 2" Dolby			
Jeff Lang	J.Lang/M.Wordley	M.Wordley	Album Mix
Jeanette Wormald	J.Schumann/M.Wordley	M.Wordley	EP/Tracking
JBE	C.Davies	S.Fieldhouse	Album Mix
Free Moving Curtis	Band/M.Wordley	M.Wordley	Album Mix
Blue Experience	R.Giles/M.Wordley	M.Wordley	Tracking
Ear Candy	P.Bungey/M.Wordley	M.Wordley	EP Mix
<b>Victoria</b>			
<b>Bel Air Sound</b> Danny Olesh (03) 563 7887 32 Track Analogue 8 Track Digital Hard Disk			
Violet Hour	S.Segal/G.Keyes	Simon Segal	Album
Jonestown	S.Segal/R.Smith	Simon Segal	Album
Brad Waller	Brad	D.Olesh	Demos
Jabulani	Jabulani/Olesh	D.Olesh	Demos
Blah	Blah	D.Olesh/S.Segal	Demos

<b>C'est Ca Audio-Visual Services</b> Moira McCourt (03) 419 1506 Auto 24 Trk.-			
Strange Tennants	Ian Hearn	Siiri Metsar	Album
Snapdragons	Girl Zone	Siiri Metsar	Album/Single
Penelope Swales	Penelope	Siiri Metsar	Album
Tim O'Connor	Tim	Siiri Metsar	Album
<b>Exodus Music</b> Greg Evans 050 238 388 Midi, Adat & Pro-Tools			
Peta Lowe-Evans	Peta	Greg Evans	Album
Geoff Evans	P.Lowe-Evans	Greg Evans	Album
Mike Hancock	P.Lowe-Evans	Greg Evans	Album
Tony Smith	Greg Evans	Greg Evans	Demo's
Variuos	Kenneth Fox	Greg Evans	Album
<b>Gotham Audio</b> Tom Kehoe (03) 879 9400 48 Track Dig./SSL Console			
Insurge	Kalya Tonuma	Kalya Tonuma	Album
Horsehead		Paul Annison	Demos
<b>Hot House Audio</b> Craig Harnath(03) 525 3703			
Rowan Smith	Ross Cockle	Ross Cockle	Album
O.O.K.	Woody Annison	Jed Starr	Demos
Adrian Vaughan	Craig Harnath	Adrian Vaughan	Jingle
Roger Chapman	Mark Forrester	Mark Forrester	Demo
Drama Queen	Craig Harnath	Craig Harnath	EP
Natalie Gillespie	Dorian West	Dorian West	Album
<b>Metropolis Audio</b> David Warner (03) 696 2111 24/48 Tk. Analog or Digitala SSL & Harrison Consoles			
Dave Graney	Victor Van Vugt	Victor Van Vugt	Album Mix
Bad Loves	Doug Roberts	Tim Johnston	Album Mix
Tommy Emmanuel	Robyn Smith	Doug Brady	Album Mix
Hugo Race	Tony Cohen	Tony Cohen	EP
Metal Skin	J.Clifford White	Scott Hemming	Film Soundtrack
Charlie Owen & Louis Tillet	Tony Cohen	Tony Cohen	EP
<b>Newmarket Studio</b> Contact David Bates (03) 372 2722 24 Track 2 Studios			
Hotter Than Six	Brian Kelly	Daniel Desiere	Album
Kieren McCarthy	Kieren	Robert B.Dillon	Album Tracks
Barrwarn	Band	Tim Cole	Album Mixing
Storyville Jazz	Allan Leake	Robert B.Dillon	Album Tracks/Mix
Celtic City Sons	David Bates	Chris Corr	Album Tracks
Terry Crisp	Paul Czmadia	Chris Corr	Single Tracks
<b>001 Recording Studios</b> Contact George Siew Ooi (03) 348 1300 24 Track Audio/Midi Suite, 2 H/DRecorders			
D.B.	Anthony Dales & Vince	Paul Marsh	Album, Sony Music
Tlot Tlot	O.Bolwell/George Ooi	Marty Robinson	Album
Kismet	Band	Mark Ingraham	EP
Micka Dred	Micka	Martin Robinson/Micka	Comp. Album MDS
Ransom	Ransom	Martin Robinson	Comp. Album MDS
Jane McGracken	Mick Ronson	Stanley Paulzen	CD Rom
<b>Pink Noise Studios</b> Rodney Beuthin (03) 349 1043 Digital Mastering/Editing & Post Prodn.			
Entropy Theatre	Entropy Theatre	Byron Scullin	Pre Prodn.
Jimeoin	Artist Services	Rodney Beuthin	Broadcast
Kadoonka	Byron Scullin	Byron Scullin	Mixdown
4 Quarters	H.S.V.7	Rodney Beuthin	Broadcast
Melb. Comedy Gala	Melb.Comedy Festival	Dave Hannan/Rodney Beuthin	Post, Broadcast
3WRB Football Show	Bulldog Radio	Dave Hannan/R. Beuthin, M.Kennedy	Broadcast
<b>Platinum Studios</b> Jim Mountford (03) 827 7483 48 Trk. SSL/24 Trk			
Ultrasound	Ollie Olsen	Laurence Maddy/Adam Rhodes	Remix
The Meanies		Andy Baldwin/Adam %Rhodes	AC/DC Album

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# BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
Ground Level	Tony Espie	Tony Espie/Karl Moellar	Mix
Rebecca's Empire	Laurence Maddy	Laurence Maddy	Mixes
Elegant Mess	Piet Collins	Mark Forrester	Single
Darren Moss	Laurence Maddy	Laurence Maddy/Adam Rhodes	Mixes
<b>St. Andrews Recording Studio</b>	Mark McCormack (03) 583 2341 or Paul 018 102519 24 Track	M.McCormack	Album
Cry Mercy	Steve Rowe	Mark/Paul Skerritt	Album
Pegasus	Mark		
<b>Sing Sing Phil &amp; Kaj</b> (03) 428 4622 48 Track			
Fragment	Robbie Rowlands	Robbie Rowlands	Album Mix
Rygel Band	Archie Roach	David Davis	EP Mix
Greg Champion	Greg Champion	Mike Letho	Single Mix
C.J. Dolan	C.J.	C.J.	Mix
The Jaynes	Tony Cohen	Mat Thomas	Album
Hugo Race	Tony Cohen	Stewart Day	Album
<b>Studio 52 Paul Higgins</b> (03) 417 7707, 32 Tracks Studio/A		Studio B ADAT 8 Track	
Flush	Band	Andrew Wright	Album Studio A
Anything for Lucy	Band	Andrew Wright	Demos Studio B
Damian Manassa	Trevor Carter	Trevor Carter	Album Studio A
Sanctum	Band	Trevor Carter	Single Studio A
Viscera (NSW)	Band	Trevor Carter	Nu-Music II Track Studio A
Terramaze	Band	Andrew Wright	Demo in Studio B
<b>Studio RBX Ross Burton</b> (03) 429 6199 24/48 Track/SSL Console			
Damaged	C.Townshend	M.McDougall	EP
Desert Mouth	M.McDougall	M.McDougall	EP
Sally Boyden	Sally Boyden	Matt Voigt	Demos
Greg Champion	Greg Champion	M.McDougall	Various Projects
Gary Woods	Ross Burton	M.McDougall/M.Jagic	Theatre Tracks
Brady/Coppine/Severini	B/C/S	Various	Jingles
<b>The Boothouse Jamie Durrant</b> (057) 633293 12 Trk Analog		Digital Mastering, Valve & Old Vintage	
Degenerates	Jamie Durrant	Jamie Durrant	Album Tracking
Spudgun	Jamie Durrant	Jamie Durrant	Mastering/Compiling Album
Michael Meeking	Jamie Durrant	Jamie Durrant	Mixing EP
Guiseppie Romeo	Ivan Durrant	Jamie Durrant	Benalla Arts Festival Sculpture Site
Richard Stringer	Ivan Durrant	Jamie Durrant	Benalla Arts Festival Sculpture Site
<b>Whirled Records Craig McArthur</b> (03) 427 1436			
Hard Candy	Craig/Band	Craig	Album
The Icecream Hands	Band	Craig	Album
The Clip Clop Club	Band	Craig	TV Prodn.
Pray TV	Band	Craig	Demos
Jack	Band	Craig	Demos
Elegant Mess	Mark Forrester	Craig	Single
<b>Wombat Road Studio</b> (051) 454204 Barry Clissold 24 Trk.		Plus full Midi Facilities	
Common Thread	Band	Barrie Clissold	Demo/Album
Crenagh Manion	C.Manion	Barrie Clissold	Demo Tape
Riviera Jazz Band	G.Cross	Barrie Clissold	Album
Gypsy River	Band/B.Clissold	B.Clissold	Demo Tape
Scott Gardner	S.Gardner	Gardner/Clissold	Album Post Prodn.
<b>Northern Territory</b>			
<b>C.A.A.M.A Music Studios Richard Micalief</b> 089 523 744 24 Trk With Soundstage			
Willingyn Band	Shane Howard	Stan Satour	Top End Band Album
Blackstorm	Gordon Robertson	Steve Tranter	Album
<b>Kakadu Studios Ken Hutton</b> 089 411344 24 Track, Mobile, Digital Mastering			
A.Mellios	K.Hutton/A.Mellios	K.Hutton	CD Originals
A. Taare	K.Hutton	K.Hutton	Originals (Cassette)
George and Julie	K.Hutton	K.Hutton	Covers (Cassette)
Glen Brown	K.Hutton	K.Hutton	Originals
Mimi Band	K.Hutton	K.Hutton	Originals CD
Paul Francis	K.Hutton	K.Hutton	Covers CD
<b>Maestro Music Lindsay Masters</b> 089 321 754 8 Track			
Jenny Taylor	L.Masters	L.Masters	4 Track Demo
Soul Angels	L.Masters	L.Masters	C.D.
<b>Western Australia</b>			
<b>Bonsai Recording Studio Tom Thorpe</b> (09) 349 6029 24 Track			
John Pin	Tom Thorpe	Tom Thorpe	Album Tracks
Criminal Force	Tom Thorpe	Tom Thorpe	Demo
Fanatik	Tom Thorpe	Tom Thorpe	Demo
Andrew Breen	Tom Thorpe	Tom Thorpe	Album Mixdown
Cad Interface	Tom Thorpe	Tom Thorpe	Music for Video
The Early Hours	Tom Thorpe	Tom Thorpe	Album Tracks
<b>Planet Sound Studios Contact John Villani &amp; Denise Preston</b> (09) 382 2211 48-32-24, 2 Rooms - Both SSL			
Novak Langer	Novak/J.Villani	John Villani	Album Tracking
Wendy D'Souza/Mintu	Wendy/Dindae/J.Villari	J.Villani/Les Williams	Album Tracking
Surge	Jim Bonneford	Jim/Les Williams	
Botticelli's Angels	J.V./Band	J.Villani/LesWilliams	CD Single
Paul Pomfrey		Les Williams	EP
Allegiance	J.V./Band	J.Villani	Album Tracking
<b>Poons Head</b> (09) 339 4791 Rob Grant 32 Track			
Spank	Rob Grant/Band	Rob Grant	Album
Ditch Witch	Rob Grant/Band	Rob Grant	Album
Hedonists	Rob Grant/Band	Rob Grant	Album
Header	Chris Dickey	Chris Dickey	EP
Spooky	Rob Grant/Band	Chris Dickey	EP
<b>Troppy Sound Mick Connolly</b> 091. 922 394. 24 Trk. Dolby S			
Various	Ben Raja	Alan Pigrum	Youth Album
Knuckles	Band	Brett Lyons	Corrugation Road
Renovators	Band	Mick Connolly	New Album
Bob Wright	Self	James Edwards	Mega Album
<b>Wilزند Recording Studio</b> (09) 331 1818 Alan Dawson 16 Track			
Stephen Charles	Alan Dawson/Stephen Charles	Alan Dawson	Album
The Lost Dogs	Alan Dawson/Band	Alan Dawson	Album
Neon Ceiling	Alan Dawson/Band	Alan Dawson	Album
Mother Star	Alan Dawson	Alan Dawson	Album

EXTRACK (continued)

this Kakadu Studios has formed an alliance with the Top End Aboriginal Bush Broadcasting Association network. Call Ken Hutton on (089) 41 1344.

**Megaphon Acoustic Designs St. Peters NSW**, in conjunction with the **Fraser Construction Group**, (the team responsible for both Megaphon & Airmotion Studios) has almost completed work on the 15 room Music Studio facility for the Uni. of Western Sydney. Acoustic Consultant is **Shane Fahey**. Call Kristen or Julee on (02) 550 6576.

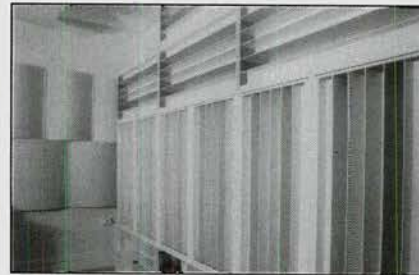
**MIRAGE Sydney NSW**. Whilst in Stockholm **Tom Misner** was approached by **Neena Cherry's** management to mix tracks for release. The masters have been sent to Sydney to mix at Mirage. Also Tom is working pre-production for 2 'dance songs' for **Leo Songs** publishing. **Dave Cafe** is busy recording and mixing acts as far apart as from Kuala Lumpur and Noting Hill Gate. **Allan Smith** brought **Guy Bidstrim** and **Greg Henderson** in

to mix tracks for the 'Exploding Daisies'. One of the highlights of the month were 2 original tracks by **Martin Armiger** put down for the **Sydney Dance Company - Mike Stavrou** engineering, **David Newman** and **Guillane Bourgeois** assisting. **Mark Williams** singing great vocals! **Mirage: 02 211 3915.** **MIXMASTERS PRODUCTIONS Adelaide SA** is busy as usual! Just added 4 x Neve 33115 Mic amps & 4 Sytel Mic amps imported from Chicago. Call Mick on 018 822 966 **ROCKING HORSE STUDIO Byron Bay NSW** is pleased to announce the opening of Studio "B" 24 track MCI 2" and 32 channel MCI 500 Series desk with automation and loads of outboard gear, live and vocal rooms set up in the beautiful Byron Bay. Hefty discounts for the first 60 days of trading opening Monday 8th of May. **Alan Devendra** on 066 884 131.

**STUDIO 259 Manly Vale NSW, Terence Meaney** has just completed the soundtrack to "Longboarding Aussie Style" a video documentary made for overseas/ Japan release - traces the history of Longboarding in Australia. 015 274353

**STUDIOS 301** Some of the hottest news is that Studios 301 not a traditional BASF tape user have switched to the newly released BASF Hot Tape 900 Maxima. The new tape is an extremely attractive alternative when it comes to both archiving and analog multi-tracking. Tony Espie while recently operating at 301 gave the product the thumbs up with an ad endorsement quoting "I gave up the analog multi-tracking format about six years ago because of the high sonic demands made by working with electronic music. After one project with BASF 900 I'm back, this format is a winner". Although BASF are a little late in the delivery of this latest format, according to several producers and engineers it's been worth the wait. Call 301 on (02) 2177701.

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# Duncan Fry- Random Noise

## The Lighting Guys

Lights - are they really the curse of every sound guy's life? Or an essential but over-complicated part of the production? Well, like most things it's really neither one or the other. An exciting thing at a concert level and really important - lighting can make or break a show.

But, let's face it, at a grass roots pub gig level, they're the sort of thing that are not too hard to set up, compared to a PA. What is there to it? Plug up 16 or so lights in pairs, then try to get excited about switching them on and off for 3 hours.

Of course, due to Parkinson's Law that work expands to fill the time available, lighting folk have learnt to drag this seemingly simple chore out so that they are always frantically running around at the last minute with ladders, crashing into the PA and stage equipment. Perhaps that's why just about every lighting guy I've worked with has been a little, well, eccentric shall we say.

Eccentric or else overly fond of uncontrolled amounts of controlled substances! Of course it's such a boring job at lower level gigs that to get any kind of buzz from it you have to be either very easily pleased or totally out of it! "Wow, look at the colours, man!"

We nicknamed a couple of the guys who worked regularly with one of the cover bands 'The Bong Brothers'. Every time the band had a gig, off we would go - the two of them happily chuffing away in the truck while I drove. "Where's the gig, Dunk? The Astrodome? Hmm, sounds like a six pipe trip to me" and so on.

Once at the gig, after the truck was unloaded, they'd set up their little kettle and teapot for some tea, have a pipe while they were waiting, sit back with their cuppas and browse through 'The Book Of Gels' (truly the lighting guy's Bible).

They would endlessly flick through these sheets of coloured gel, and murmur in reverent voices to each other as they gazed upon them, searching for inspiration. "What do you think - a 141 on those cans? Or should we use the 132 tonight? Although perhaps that's a bit too cold. This is a tricky one."

Then they'd have another pipe while they gave the matter some more thought, and maybe about three quarters of an hour or so think about hanging up some lights. "Do you ever worry about smoking so much dope?" I asked one night. One of them looked at me seriously with his road map eyes. I swear, if we'd ever got lost we could have navigated our way to Deniliquin with those eyes! "Well, you know mate, it's like this," he said. "I just get up in the morning, have a look out the window, and I think to myself 'What a great day

for a bong' How could you answer logic like that? I worked with these guys fairly regularly until one fateful gig at the Astrodome. For those unfamiliar with the place, it was a converted picture theatre at Traralgon, a couple of hours South East of Melbourne.

I had set up the PA and gone to sample the culinary delights of downtown Traralgon (fish and chips) while the Bong Brothers were still farting around with their lights. When I came back the stage was all blacked off and in darkness. I rechecked the monitors and the console, got myself a drink and waited for the band to start. The gig itself was unmemorable, and at the end of the night I was up on stage pulling everything down.

The boys had put along black drape around the front of the stage, hiding my nice new grey carpet covered bi-amped monitor wedges. As I rolled back the black, a smoky, burning smell wafted out. The idiots had laid two Par 64s on my brand new wedges, and burnt two great big scorch marks into them. Hopping mad, I ran over to where one of them was up a 20' step ladder unplugging lights. "You f\*\*king stupid idiot" I yelled at him, "Look what you've done to my new monitors".

I shook the ladder vigorously, like shaking apples from a tree. He hung on like grim death and looked down at me nervously. "Oh, sorry mate, but I just had to have the lights there - it looked really great, didn't it?" "You f\*\*king dipshit", I yelled back at him. "That's the last time you do something like that!" and I ran back to the offending lights, took a flying kick and sent them soaring offstage on to the polished wood dance floor 6 feet below.

The satisfying 'Crump' of bent metal and the accompanying tinkle of expensive globes sent him scuttling down the ladder like a monkey on speed. He looked at me reproachfully. "You've broken them" he whined. "F\*\*king right I have," I yelled, "And the next time you do that I'll kick you down there with them!"

It was a very subdued trip back to Melbourne in the truck that night. The Bong Brothers sulked in the corner of the truck cab, chuffing and grumbling to each other while I drove and munched on my post gig hamburger with the lot. And, strangely enough, I never worked with them again.

Next gig, the band had a new lighting guy, one who did it all himself and was usually finished by the time I was. Yes, they do exist.

Believe it...or not!

•Lighting people should direct their anger to Duncan Fry, c/o this magazine, PO Box 439, Epping NSW 2121 Australia, fax (02) 876-5715.

# BUYERS GUIDE

## EFFECTORS. DELAYS, REVERBS

**MARK IV AUDIO** (02) 648 3455. Phil Webb Dynacord, made in Germany

**DRP10** Multi Effects device covering Reverb, Delay, Chorus, Flanger phaser, pitch shift etc. 20hz-20khz response from 24 bit processor. Midi compatible, easy to read LCD display designed for stage work. 1R/U. \$1999.00.

**DRP15.** Multi effects device covering Reverb, Delay, Extensive LCD display provides easy viewing and editing of all performance parameters, 20hz-20khz response designed for studio on line performance. \$1999.00.

**DLS223.** Digital rotary speaker and room simulator. 20kz-20khz response. All performance parameters are midi controllable. \$1649.00.

*Between the Dynacord and Klark Technic product range an extensive range of room and profanity delays are also available.*

**SONY AUSTRALIA** (02) 887 6666 Rod Sammut. Made in Japan

**HR-GPS.** Digital Signal processor for the guitar which can generate up to 7 effects - Compressor, Distortion, EQ, Amp, Simulator, Modulator 1 and Modulator 2. \$1197.90.

**HR-MP5.** Multi-effector, 51 Effects, Twin Effect blocks allowing serial or parallel effect connection. Intelligent pitch shifter, graphical display. \$1197.90

**DPS-D7.** Digital delay unit, 3 processing blocks, EQ, Delay and Auto Pan. Input Processor controls level, Phase and Pan. \$2178.00

**DPS-R7.** Digital reverberator, featuring 3 effects blocks, pre-effect, reverb, post effect, 23 algorithms, digital level, phase and pan. \$2420.00

*HR-RC5 Foot switch. Remote for HR-GP/MP5. DPS-M7 Sonic Modulator and DPS-F7 Digital Filter complete the DPS range.*

**EAST COAST AUDIO.** (03) 428 9797. Greg R. Joseph. Aphex made in U.S.A.

**AX104 Type C.** Aphex Aural Exciter has become a standard in all parts of the Audio Industry. Features "Big Bottom". \$665.00

**AX105.** Logic assisted four channel gate. Incorporating most of the prime features of the Aphex Model 622. Ease of use and gives excellent results. \$820.00.

**AX.106.** "Easyrider" four channel compressor. The detector circuits of the "Easyrider" monitor the peak to average ratio of the input and adjust attack and release times automatically. \$820.00.

**AX107.** The aphex tube, Mic, Pre-Amp - Two channels of tubessence magic. \$992.86.

**ELECTRIC FACTORY** (03) 480 5988 Ray

Kimber. Alesis, made in U.S.A.

**Q2.** Up to 8 simultaneous effects including chorus, flange, rotary speaker, pitch shifting, parametric EQ, delay and reverb, 2 outputs, stereo linked or separate channels, large LCD backlit display, balanced ins/outs and ADAT optical digital out. 1 R/U. \$1799.00

**Midiverb 4.** Multiple effects configurations in stereo or two channel. Effects include reverb, delay, chorus, flange, pitch shifting and Leslie. Large backlit LCD display, auto level sensing on input. 1 R/U \$899.00.

**SYNTEC INTERNATIONAL** (02) 417 4700 Mark Setchfield. Eventide, made in U.S.A.

**H3000/SX.** Studio Dynamic Ultra Harmonizer. Includes modular algorithm construction kit, 19 waveform function generator, 300 presets, six octave Multi-Shift algorithm, delays, reverbs, pitch shift. 3 R/U. \$4999.00

**AMBER TECHNOLOGY** (02) 975 1211 John Fitzpatrick. TC Electronic Denmark

**M5000.** Advanced digital effects processor. Mainframe can be configured/expanded from single stereo processor with Analog I/O to Quad stereo processor with Digital I/O. Options include Digital Dynamics, Sampling and "ATAC" remote. 2 R/U. From \$8500.00

**2290.** Stereo FX Control Processor. Programmable effects include Delay/Chorus/Flanging/Gating/Compression and expansion. Up to 4 effects may be combined. Options include 64 sec. Phase - Locked stereo sampling. 2R/U. \$5295.00.

**1280.** Stereo Digital delay. Up to 10 seconds/channel adjustable by time or distance, 5 microsecond resolution, optional RS485 I/F, security lock, 4 x Midi presets. 1 R/U. \$4330.00.

**1380.** Multi-tap digital delay. 1 In/3 Out, Max 5 sec. delay adjustable by time or distance, 5 microsecond resolution, 4 presets, optional RS485 I/F, security lock. 1 R/U \$4330.00.

**AUSTRALIS MUSIC GROUP.** (02) 698 444. Adam Church. Peavy. made in U.S.A.

**SDR20/20.** "Award Winning" stereo digital multi effects processor - 35 effects, midi in, out, thru, 44.1KHZ 16 bit sampling, 256 presets, mappable 256 programming, 20 character LCL user friendly interface. \$1795.00.

**Autograph II.** 28 band EQ with realtime analyzer, automatic room equalisation electronically balanced input and output, software security, midi controllable, switchable, 40Hz subsonic filter and an easy read 40 x 2 character display. \$1299.00.

**CDS2.** Dual channel compressor/limiter, deesser "soft knee" style compression assures

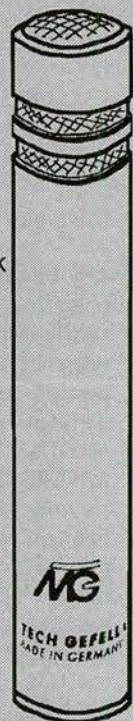
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(continued from previous page)

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**ADVERB II.** Stereo multi processor, reverb delay/echo, chorus, flange, resets, presets may be mapped to any midi programme number (01-128) effects may be modified, input level, effects mix and output level controls clip active leds, 680 M sec of programmable delay. \$699.00

**CENTRAL MUSICAL INSTRUMENTS** (03) 315 2244 Peter Shillito. Digitech. Made in U.S.A. **TSR-24S.** True Stereo 24 bit. 5-Disc DSP. User programmable algorithms. Real time midi control. Effects include reverbs delays pitch shifting, auto panning chorus and detune. Can be configured as two discrete processors (2 In, 4 Out). 1 R/U. \$1999.00.

**TSR-12.** Stereo 24 bit 5-Disc DSP. 33 Algorithms 256 programs. Effects include reverbs, delays pitch shifting and arpeggiators. Real time midi control. Instant module/parameter access. 1 R/U. \$949.00

**Studio 5000.** Intelligent 5 part harmoniser and effects processor. Uses include: Harmonising pitch shifting and image enhancements. 180 combinations of harmony reverb delay chorus and other effects. 1 R/U. \$2999.00.

**Studio Vocalist.** Up to 5 part intelligent natural vocal harmonies

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**ROLAND CORPORATION AUSTRALIA P/L** (02) 982 8266. Rick Gell. Roland made in Japan

**Roland SRV-330** Dimensional Space Reverb. Features 22 reverb algorithms including the revolutionary 3-Dimensional spatial simulator. That's right, reverb in 3-D. A/D/A conversion is 16 bit, sampling frequency is 44.1 KHz. Delivers a flat frequency response of 20Hz to 20KHz and S/N ratios of 78db or greater. 1 R/U. \$1795.00.

**Roland SDE-330** Dimensional Space Delay. Features the same specifications as the SRV-300 i.e. 16 bit A/D/A, 44.1 KHz sampling frequency, but features 3-D delays, as well as Multitap, Pitch Shift and Tempo delay function. 1 R/U. \$1795.00

**RSS-10 Roland Sound Space.** The new RSS-10 is the second generation of Roland's acclaimed 3-D sound processing hardware. A complete 360 degree reverb soundscape can be generated using the RSS-10, including digital processing of reflections, delays and Doppler effect. 1 R/U. \$4995.00.

**BOSS RV-70** Digital Reverb Processor. Uses the newly developed DSP chip in 199 powerful presets. 16 bit, 44.1 KHz makes this unit excellent for everything from live performance to home recording. 1R/U. \$995.00.

**BOSS RE-800** Digital Echo. Uses

newly developed DSP chip technology. This unit designed mainly for vocal processing applications including Karaoke. 2,000 msec of delay. D/A conversion is 16 bit, 32 KHz sampling frequency at the most affordable price yet. 1 R/U. \$595.00.

**STUDIO CONNECTIONS AUSTRALIA.** (02) 873 3994 Don Dowling (03) 723 4300 David Sloss. Lexicon made in U.S.A.

**PCM80.** True stereo and the ability to mix analogue and digital inputs together plus an exciting range of effects, reverbs delays, chorusing and dynamic spacialization. Successor to the immensely successful PCM 70. 1 R/U. \$5995.00.

**LXP15 II.** New software offers enhanced reverb, delay, pitch shift and chorus, 128 preset programmes plus 128 user registers. Midi controllable and parameter control via input level variation. 1 R/U. \$2895.00.

**JAMMAN.** Three unique effects processors in one - a tap-tempo echo, a sampler and a looping device. Switch between 8 loops via footswitch or midi, with midi clock out to control drum machines/sequencers. 1 R/U. \$1395.00.

**VORTEX.** A whole new concept in effects processing with audio morphing. 32 Effects, some based on classic effect like rotary speakers, autopan and chorus, others new and innovative such as aerosol, bleen and fractal. 1 R/U. \$1295.00.

**YAMAHA MUSIC AUSTRALIA.** (03)699 2338. Stephen Leonard.

Yamaha. Made in Japan.

**SPX990** - Professional Multi Effects Processor. 20-bit A/D and D/A conversion produces effect sound extremely smooth/natural - no digital noise and distortion. RAM Card memory expansion slot. Electronically balanced input/output. New warm reverb. Superior Pitch change precision through dynamic wave form analysis technique. 1R/U \$1995.00.

**D5000** - Digital Delay Effector. Unmatched for sound quality and advanced features. Has stereo VO, 6 taps with independent feedbacks. Delay time can be set by time, time code, MIDI, trigger, distance tempo. Duck & gate effects. Long delay (e.g. 10.4 sec/mono). Freeze - allows 20 bit sampling and capture freeze and sample and hold. 1 R/U. \$2695.00.

**REV100** - Digital Reverberation Unit. Sets new performance level for studio effects processing. 99 editable reverb programs including stereo reverb, gated reverb. True stereo processing - 2 inputs/2 outputs. Each program offers control of 3 parameters including decay, delay, balance wet/dry signal. 1 R/U. \$649.00.

**REV5.** Professional Multi Effects processor, Stereo, balanced I/O, Fine Control of ER/Reverb parameters, Professional standard. \$2995.00 (BO only)

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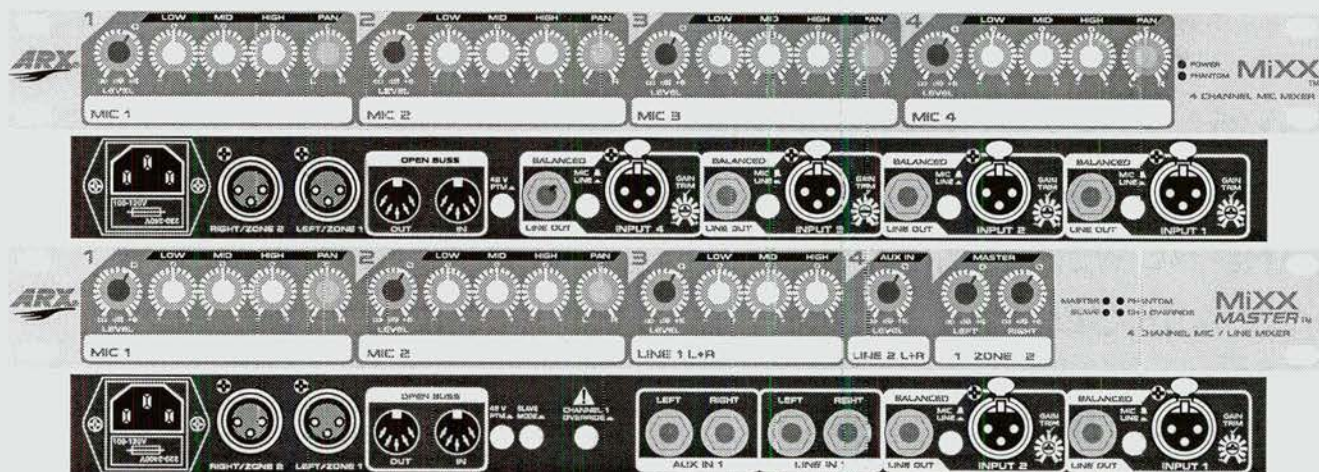
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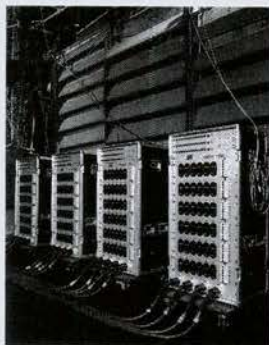


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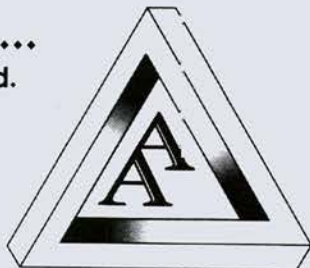
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Production Intercom

# 20 Years Ago

Join us as we visit May 1975 in Sydney, where the proprietor of Zapco Lightshows -and Connections editor- details the travesties of life in the Lighting lane. The trend towards bands carrying their own lighting hadn't really started yet, so promoters everywhere were forced to deal with Lightshow companies.

These retrospective columns, published each month during 1995, were conceived when the minder of the Connections car radio (Jessica, aged 9) accidentally dialled up a classic hits FM station on day. "Daddy, WHAT kind of music IS THIS?" she demanded. Um, that's The Eagles, he says, and ponders the possible worth of playing stuff 20 years old. Still, if it's good enough for the airwaves, it's good enough for you, dear reader.....

### DEAR DIARY ....

The tattered pages of the Letts show for posterity that on Thursday May 1st, 1975, as far as I'm concerned the Disco era officially started in Sydney. Trevor Smith, then a DJ at 2SM was also working with Digamae, a promotions company established by Rod Muir, who had some linkage with 2SM.

They did a deal with the Mayfair Tavern, a bar beneath the Kingsgate complex in Kings Cross. This opened as The Mayfair, on a trail basis for that Friday and Saturday night. 2SM flogged the concept, and several hundred idiots did The Bus Stop all night each night. It worked.

Zapco did what is arguably the first disco lighting installation of the disco generation, best remembered for the smug way the BVI Thermo Fogger was built into the bottom of the DJ booth. It was a weekly rental, Digamae paid twice what the gear would earn on the road!

### SAT. MAY 3

Balmain Town Hall with Jeanie Lewis and Toke Puddle- a band from New Zealand. The Baxter Ball at NSW Uni, and dances at Corrimal, Long Jetty and Gynea. We rent a Kay Rent-A-Truck, and get around delivering and picking up all these shows with our two panel vans.

### THE '75 JIVE

The diary says on May 10 I organised a gig at Balmain Town Hall. Uncle Bob's Band headlined (and were paid \$150), Blatant Outrage and Toke Puddle got \$100 each. The posters cost \$65 to print, the hall cost \$50 to rent. I put 20 Patt 23's, 8 UV's, 2 bubble machines, a fog machine, 2 strobes, 4 effects projectors and flashpots

into this show.

Funny how much of the rest of '75 I can remember like yesterday, but this night is vacant from the memory. Perhaps I didn't make a profit, but the diary seems to indicate the night at least broke even. In any case, Zapco paid itself \$60 for the lightshow! Oh, and the PA guy got \$40 for his efforts. I can't recall why Uncle Bob's band didn't provide the PA for everyone else - maybe they doubled that night and played somewhere else first?

### PHIL CULLEN AND THE QI's

If you've read the previous exploits in this series you'll recall a state of war existed with Mac Enterprises Lightshows, who had far in excess of most of the market cornered. I guess I was jealous of them.

The hostilities didn't stop us trading amongst each other, and in May I purchased the famous Mac Concert Rig. For \$380 I got 22 unique and amazing lights and two massive metal stands. These were Thorn outdoor 1000w floodlights, complete with weather-proof storm glass and a custom made folded tinsheet snout that Phil had devised. At the end of these was a Patt 137 colour frame, and as a concert flood they put a lot of light out the front. And the sides, the snout wasn't too well spill proof!

I think Phil outsmarted me, because he told me he was getting out of the concert business, but he promptly bought 50 Par cans off Model Engineering.

### THE HOUSE

By now we had moved the lightshow conglomerate into a terrace house across the road from my place in Palmer street East

What Happens When A Hirer  
Refuses To Return The Gear?

## REPOSSESSING YOUR EQUIPMENT

Possession is nine-tenths of the law they say, and this is never truer than when your business assets are in someone else's hands. You hire equipment out on a contract or agreement where the terms must include some provision regarding your right to repossess. But what happens when the crunch comes?

A condition of hire that states 'the Company (*that's you*) reserves the right to enter any premises at any time to take possession of the hired goods, and the hirer undertakes to co-operate and not to restrict access' is a good start. If you have this, then you are in a better position when the going gets ugly.

I had a variety of situations in my fourteen years of equipment rental, and never once needed to visit a solicitor or a court for help. In every case, I found a surprise visit was best, with at least two of us looking serious and waving the contract/agreement around usually worked.

Very early on I had gear in a gay nightclub controlled by a famous Sydney dyke club owner with at least three surnames. She still trades, I hear, so no names. After six weeks of bouncing cheques and bull, I raided the joint during an afternoon rehearsal. The secretary/shekel counter jumped on the phone to the boss as soon as I stormed in, and in three minutes there I was up a very tall stepladder unhooking gear.

The boss arrived and assaulted the stepladder, attempting to shake me off! My this time I was

really angry and so I confronted the lady, who wasn't too used to direct nose-to-nose stuff. The bluff wore off, and I got out with the gear.

Another notable was the mobile DJ who took off with two tonnes of stuff, half of it belonging to another firm. He also had a rental truck, so some weeks later we got a report he was in Cairns, 'on tour'. We lost him, but he turned up six weeks later in Kalgoorlie where a Perth based company we knew pounced on him. We then paid two guys to drive the truck back to Sydney, and it was missing all kinds of things, like rear view mirrors! It'd been for a roll in a paddock somewhere.....

The hirer who holds your gear and refuses to return it is almost a thief, but at law these things are usually termed civil disputes. The police have little interest unless you are on good terms with some of them, and only then in the right district. Stay calm, take reinforcements, strike fast and hard, but don't smash your way in. If you do your home work, you'll arrive at the right time to walk through an unlocked door, whereupon you quickly get your gear out. Keep your back covered, and most important of all, don't hit anyone!

In the worst case, the culprit's vehicle, with your gear on board, could get towed away by a tow truck driver you know ..... but that's another story, and not one I'd like to print!

-Julius Grafton

Sydney. It was a dump, but great for us because the whole ground floor was open so we could build shelves and dump gear everywhere.

The amazing and totally off the wall Col Greenfield moved in upstairs, a 6 foot 4 inch tall hippy with huge afro hairdo, tattoos and he always wore a sarong. Col was, we suspect, on the lam from the Navy. We think he'd been called up in the draft and decided Vietnam wasn't for him. In exchange

for living in his room upstairs he was our secretary, except he couldn't write very well. In any case, his exploits with females kept us agog, and it was good to have someone on the premises.

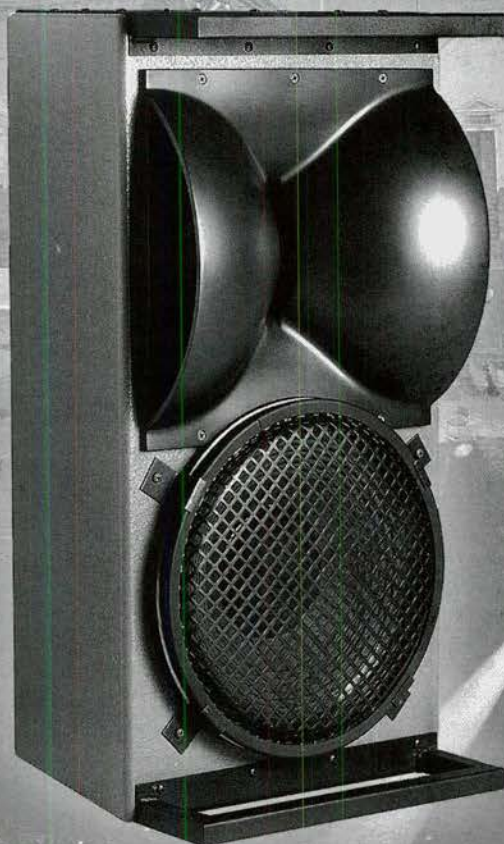
### THE BUDGET

Diary faithfully records that Zapco cost \$627 to run that month, made up of \$100 rent, \$70 petrol, \$133 hire purchase, \$44 to the Pink Pages, \$80 for 'living expenses', and another \$200 in equipment related costs.

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THE SYSTEM 500 IS IDEAL FOR USE IN MEDIUM TO LARGE SPACES, PROVIDING NATURAL SOUND WITH GOOD TONAL BALANCE. FINISHED IN DURABLE GREY PAINT WITH HEAVY DUTY PLYWOOD CONSTRUCTION, STEEL HANDLES, INTERNAL STEEL BRACING, A POLE MOUNT AND CAPTIVE MOUNTING NUTS, THE SYSTEM 500 DELIVERS PERFORMANCE, STRENGTH AND GOOD LOOKS.

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# LIGHTNING MONTHLY

May 1995

Edited by Catriona Forcer

## RIMINI



In this issue - all that's new in lighting products from Rimini including the new Martin 360° moving yoke luminaire pictured above.

Made of lightweight carbon fibre and utilising a 400w discharge lamp, the luminaire is currently only a prototype and as yet no further details are available on the product. Watch these pages for further information.

Martin are also believed to be developing their own laser system.

## RIMINI

### FUTURESCAN III MKII

Released at Rimini was the Futurescan III Mark II which is available in three lamp types - 150 HTI, 200 MSD and M33 (24v 250w).

Other features include:

- 7 + 1 Dichroic Colours
- 8 Motorised Gobos
- Stepper Motor Control
- DMX512 Control or via Futurescan III Joystick Controller
- Strobe Effect
- Adjustable Focus/Dual Lens System
- Modular Construction
- Full Aluminium Extrusion Construction
- Lamp Saver Switch
- Fan Cooled by DC Fan
- Thermal Protection
- Pan Angle of 180°, Tilt Angle of 110°
- Stand Alone Operation to Sound available

For further info call: Universal Lighting & Audio (075) 290 688.

## CLAY PAKY TRIO RIMINI

Clay Paky have developed a new high-performance version of the Golden Scan - the HPE although there is no question of discontinuing the Golden Scan 3. The main feature of the Golden Scan HPE is that it offers individual control of all 12 functions and has many features not found on the GS3 or the Superscan Zoom.

There are four fixed and four rotating gobos, offering 24 combinations, and a new gobo-holding system to permit the use of glass substrates. Also there are four bi-directionally rotating prisms and one static five-facet prism, giving enormous pattern possibilities. Though not a colour mixing system, three wheels can be combined, with a wide choice of filters and dichroics, which can be used to create special effects.

The optical group has been redesigned to provide a wide-angled 23°, which can be narrowed to 15° in one increment. By adding a further lens the optics can be modified, switching the wide angled 23° aperture to 12.5° and the narrow to 8.5°.

Variable, rather than fixed level frosting, can be achieved with the HPE, fading from hard edge to total diffusion. Other features include Iris, Dimmer, Strobe and DMX512 control.

The Combicolor 300 is the latest intelligent colour changer from Clay Paky. It utilises a HTI 300w metal halide lamp with a rated luminous efficacy of 20,000 lumens and an average life of 750 hours. It's colour generation system features two combinable independent colour wheels with pure dichroic filters. It is possible to obtain up to 49 different colour shades, a rainbow effect, infinite combinations of bicolor beams and simulated Wood's light.

Two frost filters, installed on the colour wheels, generate a diffused light beam which is uniform over a wide surface. They can be used together with an colour to produce colour washes. The light beam diameter is adjustable and this beam reducing device in-

cludes also three positions for gobos. One gobo is fixed, two positions are available for standard E-size gobos, which can be interchangeable as required.

Combicolor features a double condenser optical system with parabolic, high reflectivity parabolic mirror and three interchangeable objective lenses. Four control channels are used and other functions include a dimmer and strobe.

The Astroraggi Power, a revamped version of the classic Astroraggi, was created by Clay Paky to meet the demands of the sixties and



Golden Scan HPE

seventies revival trends currently sweeping the disco scene. The AP houses a bright HSR 400 lamp and delivers up to 103 filiform beams of concentrated light which constantly move.

The functions which can be controlled comprise the speed of movement and number of light beams. The two channel control system can use all the most popular standard signals.

For further info: Show Technology (02) 898 1111.



Combicolor 300

### WHAT'S HOT FROM RIMINI THROUGHOUT THE LIGHTING PAGES

# The Roboscan family is Australia's No. 1



## **EENY** **Roboscan 812**

- Lightweight, compact and portable
- 11 radiant dichroic colors
- 11 gobos
- 150W HTI lamp
- Microstepping

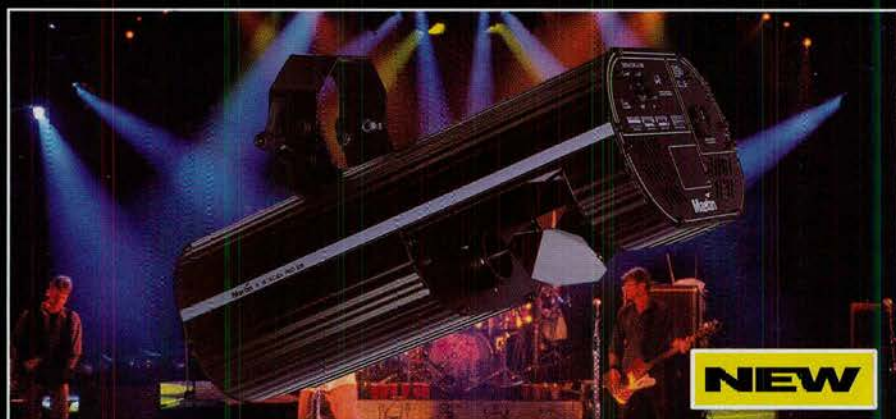
**RRP \$1,899**



## **MEANY** **Roboscan Pro 218**

- 200W MSD lamp
- 17 dichroic colors
- 18 gobos
- Fast shutter control for strobe effects
- 2000 hours lamp life

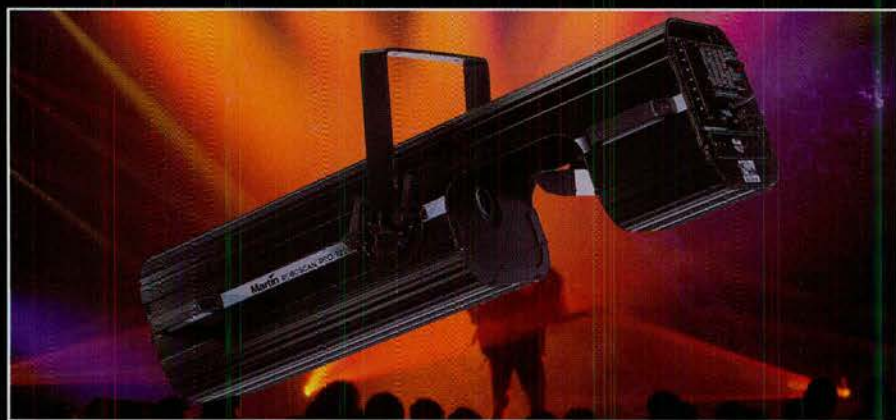
**RRP \$2,399**



## **MIGHTY** **Roboscan Pro 518**

- Rotating gobos
- Powerful color palette
- Prisms
- Frost filter
- 2000 hours lamp life

**RRP \$3,299**



## **MO!** **Roboscan Pro 1220**

- New version - Now with:**
- 1200W MSR or HMI lamp
  - Rotating gobos
  - Full DMX
  - Future protected

**RRP \$8,499**

# Martin



## CELCO SYNCHRONISE LIGHTING & VIDEO

Recently the guys at Celco, England, thought it would make sense to take a video controller, make use of its facilities, and hand it to the lighting operator. After showing their concept at P L A S A, Celco launched their Celco Video M9, a DMX512 Video Controller which can



synchronise lighting and a video wall simply and effectively by using the Celco Video M9 splitter.

The aim of the Celco Video M9 is to offer the lighting designer access to a visual medium with many possibilities. It is therefore particularly suited to concerts or discos applications where controlled by a common DMX512 signal. In Stand Alone mode, the unit can automatically run shows, making it suitable for point-of-sale display applications.

"The lighting designer can now treat the video wall like a ten channel dynamic backdrop to create a multitude of colours and effects," said Keith Dale of Celco. "All visual elements are controlled from any DMX console although for enhanced operation, use a Celco Navigator with a M9 Personality Card. In concept, what we've done is to make the controller operate from DMX and then we treat each monitor cube as a DMX channel. By raising or lowering the DMX level you can change

the colour, magnification, position of image and all the other usual visual effects. The long and short of it is that when you use it for live

shows, you can integrate and synchronise the videowall with the lighting without any complicated routing's."

After the Siel and Frankfurt exhibitions, Celco announced that every dealer who saw the M9 placed an order enabling Celco to sell video walls as well.

Keith believes that Celco, a division of Electrosonic, are the only manufacturers in the world to have expert knowledge of both lighting and video under one roof. He hinted that in the future we can expect to see more video products being launched by Celco.

### Technical Specification

Video Input	Composite, or YC. 1V pk-pk, PAL, or NTSC standards into switchable 75 Ohms. (Autosensing).
Processed Video Output	9 x 1 analogue RGBS into 75 Ohms).
Mains	90v - 264 VAC Universal 47 - 63 Hz.
Size - Stand Alone	433mm (w) x 260mm (d) x 1u (h).
Size - Rackmount	483mm (w) x 260mm (d) x 1u (h).
Weight (Net)	2.5kg (approx).
For further info call: Celco +44 (0) 1322 282 218.	

### RIMINI

## PROGRAMMI SISTEMI LUCE

Programmi Sistemi Luce launched a variety of lighting effects aimed for the disco market including the **Sirtaki**, a double moonflower effect with wide coverage and also the **Lone Star**, another sound activated moonflower effect. The **Dynamic Scan** simulates a laser with ever changing intense beams of colour and, according to Programmi Sistemi Luce, a totally new concept in moving mirror technology propels instantly changing coloured light to knife through the air with lightening speed.



The Talisman

The **Talisman** produces multicoloured blades of light forming two tunnels in sound-synch and free movement combination. It utilises a powerful 1000W lamp for maximum impact.

Also launched was the **Random Scan**, a light unit ideal for mobile DJs which fires off light beams from four highly polished motorised mirrors. Added to that was the **Light Bar** which also relies on effects created by four light beams.

For further info call: Black Express Light & Sound (02) 559 4363



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# The Illuminating Engineering Society

The Illuminating Engineering Society of Australia and New Zealand is a central organisation representing the six administratively and financially independent IES organisations which are located in the separate Australian States and New Zealand. The aim of the society is the advancement of the art and science of illumination and the dissemination of knowledge to all interested parties. The Society's diversified membership includes engineers, architects, educators, students, contractors, manufacturers and designers. There are two types of membership available; individual and corporate.

Each of the regional societies conducts regular technical meetings at which original and review papers are given by members and invited speakers.

An annual Lighting Convention held over three days provides a forum for discussion and new ideas and products are promoted. Exhibitions and demonstrations of new equipment are arranged as are visits to scientific establishments and to factories of the lighting industry.

Each regional society publishes a regular

local newsletter. In addition the IES of Australia and NZ publishes 'Lighting' magazine which it distributes to all its members. The journal, dealing exclusively with lighting, features technical papers, news and product information.

The societies play a prominent role in promoting lighting development and are actively represented on all committees drafting the relevant standards of lighting practice and equipment. The societies encourage lighting research in industry, government and educational institutions. They also promote lighting education in TAFE colleges and universities, assist in setting syllabi and members are frequently asked to lecture and participate in these courses.

The Societies hold regular competitions and make awards for meritorious lighting installations and luminaire design excellence.

Membership of the society is divided into technical and non-technical grades and these grades are recognised throughout Australia and New Zealand both within the lighting industry and in the design professions and government.

For further information write to: PO Box 495, Kogarah NSW 2217.

## SELECON CONDENSOR 12-28 1000/1200W

Selecon have announced a new luminaire style engineered from body components of their 1200 ellipsoidal Zoom profiles.



This new profile offers a very flat field from peak 2 to 1, for general lighting, to flat 1.5 to 1 for gobo projection and framing.

Features include:

- a new stubby cranked yoke.
- a combination of a Bi-convex lens fixed at the gate and Plano-aspheric forward of the spherical reflector for output, clarity and control of halation.
- independently adjustable reflector and Plano-aspheric condenser lenses giving maximum user control and easing lamp access.
- special 'clamp' type gobo holder to evenly hold the gobo to prevent distortion.
- beam angle 12-28 degrees.
- rotating shutter system.
- din standard colour frames and accessories.
- complies with EN60598-2-17 safety requirements.

Contact your nearest Selecon dealer.

### RIMINI

## LIGHTMOVES TECHNOLOGIES and the new TEATRO COLOURBOX 2

Colourbox 2 allows controllable colour mixing using either a DMX512 or analogue signal.

Utilising three separate belts, each containing two colours, Colourbox 2 offers three modes of operation - Six colour single, Six colour mix and Proportional. Combine these features with an access time between colours of less than 2 seconds and a guarantee of no

slip belt, colour stretch or sensor error and the result is an intelligent breakthrough in colour changing.

An alternative mounting plate to suit the filter frame dimensions of most manufacturers ensures that the Colourbox 2 can be adapted to most major luminaires.

For further info call: Paul Owen (02) 560 0000.

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# WILLIAM AKERS

## The Eye of the Australian Ballet

A veteran of the lighting and production world, 65 year old William Akers joined the Australian Ballet for its inaugural season in 1962 as Production Director and Lighting Designer. During thirteen years with the Australian Ballet he toured numerous overseas countries. He left in 1975 to become Theatre Planning Co-ordinator for the Victorian Arts Centre Building Committee and was later appointed Production Director for the Victorian Arts Centre Trust. William resigned from this position in 1983 to take up his appointment as Director of Productions for the Australian Ballet.

Other assignments in his career have included lighting and staging for every major ballet company in Australia and for productions by Sir Robert Helpmann for The Australian Opera.

William's work has been acclaimed in ballet houses throughout the world, including the Leningrad Kirov; the Royal Opera House, Covent Garden; and the Metropolitan Opera House, New York. In 1987 William Akers received the Green Room Award for Outstanding Achievement and in his fortieth year in the theatre was honoured by the Queen for his services to Lighting, Ballet and the Theatre. In 1992 he became the first recipient of the Green Room's highest award for lighting in Australian Theatre.

After an illustrious 25-year career with the Australian Ballet, William Akers retired from his position at the end of 1994. He continues his association as a lighting and production consultant to the company.

This year began with the designing of an exhibition commemorating the 30th anniversary



*Divergence*

sary of the Australian Ballet called 'Tu Tu Gorgeous'. The exhibition started at the National Gallery of Victoria touring to the other capital cities of Australia and it was so successful, it has since been staged at the Australian Embassy in Paris, several German cities and is now at the Australian Embassy in London.

On his return to Australia, William went straight into rehearsals for 'Madame Butterfly' which was on the program with 'Divergence', a ballet that William had designed the year prior. The other ballets William has designed for the 1995 season are 'La Bayadere' and 'Afternoon of a Faun'.

"I first did 'L'Après Midi du Faun' back in 1973 and I remember insisting that the Russian ballerina dancing the sweet, virginal girl leave the stage as she was wearing so many diamonds, I couldn't see the lights," mused William. "She had more diamonds than Mae West so we had a bit of a contretemp about that!

"The first ballet I did was in 1959 with Mr Borovanski and I learnt from him by taking notes at the side of the stage and over the years I got the technique in my head. When he died, I took over and lit 'Sleeping Beauty', which I had never seen before. It was assumed I was the lighting designer and I went on forever. I was the first person that actually got billing as a lighting designer in this country and that was at the insistence of Sir Robert Helpmann. Lighting design is only one half of the job I do as I'm also the production director. That means I take from the designed stage the costumes, scenery, props etc and have it all budgeted, manufactured and put together until it appears on stage. It amuses me because it's actually a much larger part of my

job than being a lighting designer but people remember you for lighting design.

"The Australian Ballet has a lighting rig which I've developed over many years to the rig it is today. It will virtually cope with any ballet we put in unless there is anything very specific or special required. Many of the theatres in this country have installed that rig because it will do almost anything.

"I have great staff - John Berrett (Head Electrician) and Frank Croese (Stage Director) - who know what I want. I start a design by going to the ballet rehearsals to learn the music and work to absorb them. What goes in my eyes I hope comes out of my eyes. My assistant calls me The Eye. I have in my mind's eye what I feel each cue and each state should look like. I think I have sufficient background knowledge and experience to be able to create what I see in my mind's eye. I'm not one of those people who say 'I want a 40° lamp there etc', as I expect my technicians to know which lamp I will need to achieve what I'm going to achieve. I achieve pictures. When Mr Borovanski was dying he said 'Bill, you will have to light Sleeping Beauty, don't worry you will be able to do it' and I replied that I didn't know how to light ballet. He said 'Look if you give a singer notes it doesn't make an aria, you give an actor words it doesn't make a play, you give an artist paint it doesn't make a picture - you have flat scenery on the stage which you have to bring to life by painting it with light'. I asked him when I would know if I had got it right and he said 'you'll know because you have the instinct for it'.

"Of course if the ballet is a new work, like *Madame Butterfly* and *Divergence*, you have to consult with the choreographer and de-



*La Bayadere*

# What family works hard, looks good, and is well respected in their community?

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## Trackspot®

The Trackspot® automated luminaire is the high performance, low cost choice in intelligent lighting. Trackspot is economical to operate and has a built-in audio sensor.

### Trackspot

- 8 Dichroic colors, color corrector & white
- 10 Bi-color beam effects
- 9 gobos plus open position
- User replaceable gobo
- 9° narrow angle lens available
- 8 forward and 8 reverse color spin effects
- 8 forward and 8 reverse gobo spin effects
- Variable speed strobe 1 to 5 fps
- Full electronic dimming
- 32 pre-programmed effects sequences
- External voltage selection: 100V, 120V, 140V, 200V, 220V, 240V, 50/60 Hz
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- Remote lamp enable
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- LED fixture status indicators
- Lamp replacement cost under \$25
- 500 hour average lamp life
- Self-test routines
- Break-resistant mirror
- Built-in condenser microphone
- Selectable LWR and DMX-512 protocol

## Cyberlight™

The Cyberlight™ automated luminaire is the most advanced and versatile fixture currently available, and represents an uncompromising approach to intelligent lighting.

### Cyberlight

- 1200w, 5600° Kelvin high-intensity light source
- 50% higher photonic output than typical 1200w based fixtures
- Variable frost, under continuous program control, from hard edge to soft edge, field angle up to 36°
- Programmable zoom (selectable: 12°-22°, or 16°-26°)
- LithoPattern™ hi-res glass gobos standard with fixture
- Variable iris, full optical dimming/fade to black
- Variable speed strobe- 1 to 13.5 fps
- Infinite/variable dichroic subtractive color mixing
- 8 position indexed color wheel with a versatile selection of dichroic colors
- Upward, downward, and centered color correction
- Dual gobo system combines 7 fixed and 4 rotating gobos and delivers gobo mixing facilities
- Multi image prism effect
- Bi-directional link sends serial data, lamp hours, lamps strikes, current and voltage, line voltage and fixture temperature
- Auto. selection of LWR and DMX-512 protocol
- Integral power factor correction
- Break-resistant mirror
- MSR lamp technology improves output to age ratio with exceptional color stability throughout life

## Intellabeam® 700HX

The Intellabeam® automated luminaire is the standard in the concert and touring industry and contains the performance and features required by most professional applications.

### Intellabeam

- 700w, 5600° Kelvin high intensity light source
- 11 dichroic colors plus white
- 12 dual colors
- 11 gobos plus cre cover
- Multi colored special effects patterns
- 10°, 12.5°, and 17° lenses available
- Full range optical dimming/fade to black
- Variable speed iris
- Variable speed strobe 1 to 8 fps
- Power consumption: 7.5A at 120VAC 60Hz.
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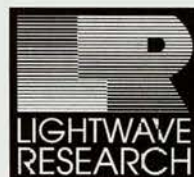
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signer. The designer wants certain aspects of his design featured and used in specific ways. With *Divergence* the set had to move, an extremely difficult and complicated situation, but being also the production director I knew the capabilities of that set. I thought *Divergence* was too dark, as did the critics, and I remonstrated with the designer on the morning of the opening but he explained what he was trying to achieve. The ballet is about the hardships of being a ballet dancer and he was actually making a very concise, public statement about how the company were feeling at that time. He wanted it dark in places to show that you didn't have to light everything like an aeroplane landing field. It was a comment directed to somebody else in the company who always insisted on so much light on the stage it would burn the dancers! I said I was aware of that but I didn't think the public would be. However *Divergence* was a fascinating piece to work on."

William explained one of his tricks he uses to keep choreographers happy is to show them what they think they want. They are usually unsure about his initial idea and so he changes the thing he knew he was going to change anyway and they think it's better.

"I think everybody goes about lighting something the same way in that you have certain instruments which you use for certain effects,"



William Akers

said William. "The main thing is to know what pictures you want. Ballet is a very visual art form with no speech and often it's a matter of achieving very beautiful pictures. You're dealing with beautiful people, beautiful surrounds, beautiful costumes and you have to separate those beauties out so that one will stand up against the other. Half the time when you light the ballet, you can't have dancers there so, as

you're lighting, you have to picture where the dancers will be on the stage and what their costumes will look like."

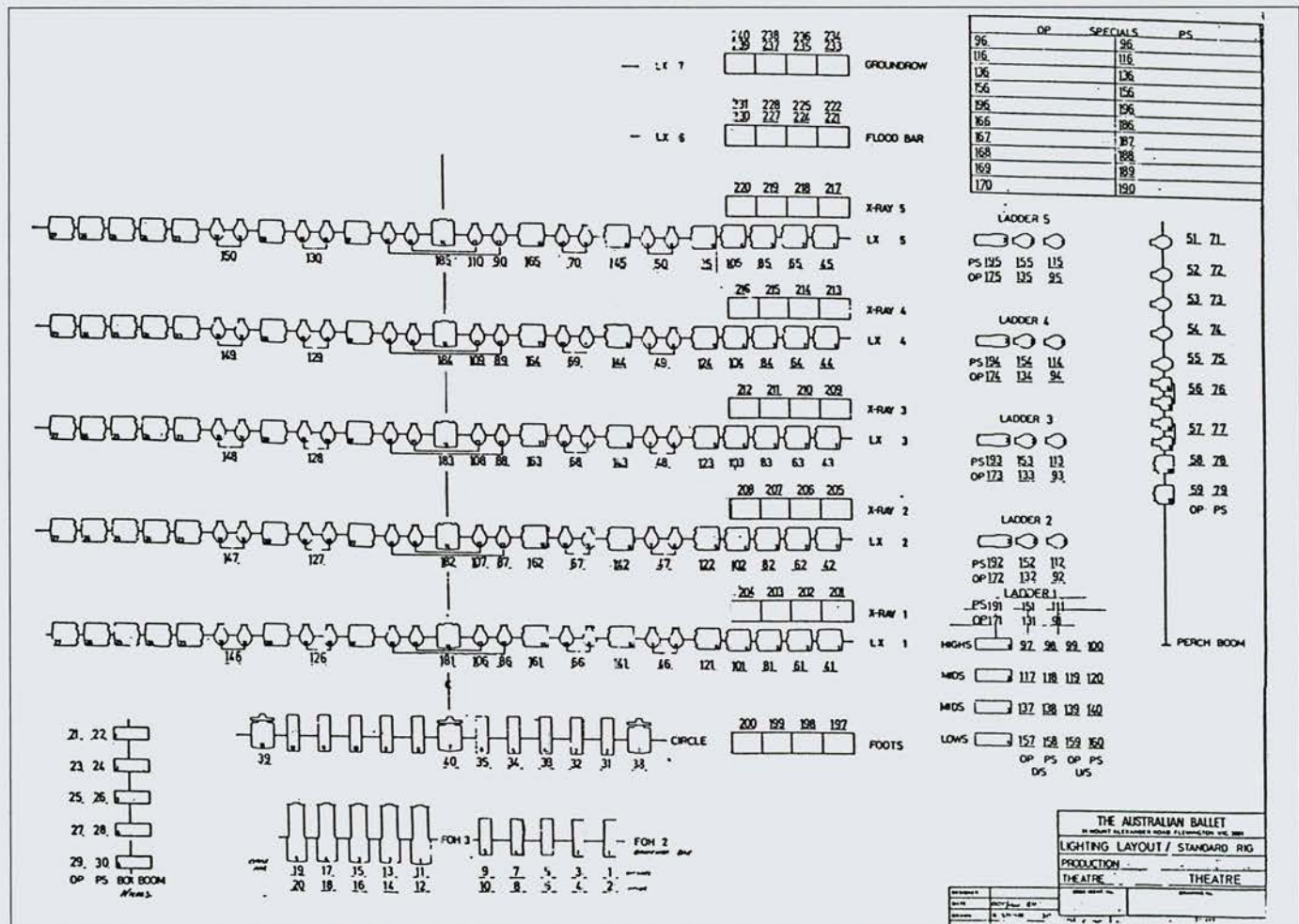
William also enjoys lighting modern dance because often he finds he is lighting bodies in space and not bits of scenery. He finds he can concentrate on making bodies float and sculpting them in a beautiful way.

"I once received a very embarrassing critique from an Adelaide critic about how I'd made the boys' bodies look," laughed William. "It went on about 'sculpting their beautiful thighs with golden light, emphasising the muscles...'. I felt that I should hide my head under a bush! But lighting bodies in spaces is wonderful, lighting a body mid-air when nobody knows where the light is coming from is quite a fascinating thing to do."

William was also responsible this year for lighting the auditorium of the Capitol Theatre.

"It was actually the first theatre I ever went to in my life," said William. "I was taken there by my very caring parents when I was three and a half years old. I was wearing blue forget-me-not flannelette pyjamas which I've never forgiven them for. I remember as a child asking how the stars flickered thinking it was magic how it was done."

● Cat Forcer



William Akers' standard lighting plot for the Australian Ballet



RIMINI

# COEMAR AT RIMINI

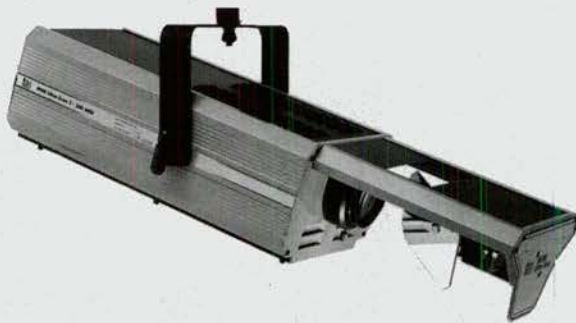
Coemar showed a host of new lamps at Rimini including the **MINI Ultra-Scan 2 200 MSD** which has a brighter beam than the earlier version, 8 gobo patterns (4 fixed, 4 rotating), 10 vibrant dichroic colours, black-out, spin function, strobing and chasing.

Also on view was the new **Micro Scan 3**, developed from the Micro Scan and Micro Scan 2, which weighs in at only 12.9kg. The Micro Scan 3 incorporates brilliant dichroic colours and bicolours as well as a strobe effect and high precision beam movement. There are two lenses: 9° or 12° and 4 static, 4 rotating gobos with variable speed control and an internal 9-colour colour changer. A professional dimmer facility has been added providing precise control of the light output. Also now available are the following:

**Devil** - produces 16 cones of light, which rotate and intersect amongst themselves to the beat of the music. Can also be controlled by any 0/+10v light console, thus allowing total control of rotation speed and direction at all times. Various colours can be added by simply inserting colour filters into the colour frames.



The Devil



MINI Ultra-Scan 2 200 MSD

**Duetto** - features include two separate colour wheels with interchangeable gobos, strobing effect and mirror movement. Its optical system produces bright output using low cost lamps.

**MINI Line** - designed to be used in on/off mode, the MINI Line creates a bright white blade of light and is ideal for use in multiples. By use of any standard controller, chasing and fading effects can be achieved in synchronisation. The blade of light can be coloured by use of colour filters.

**Colore 200 MSD** - a colour changer which incorporates 10 dichroic filters, wide beam angle, shutter and is normally used in multiples.

**Crono** - an evolution of the Symbol MSR 700, the Crono has a mechanical iris, rotating gobos, dichroic colours, black-out, strobe and chaser.

**MINI Tunnel** - designed to be used in on/off mode, it produces a hollow tunnel of lamp by means of a Roundlux lamp and is ideal for use in multiples. By use of any standard controller, chasing and fading effects can be achieved in synchronisation. The light can be coloured by use of colour filters.

**Bersaglio** - white rays, visible from long distance, break the darkness with rotating mov-

ments.

**Carosello** - suitable for mounting in any position around the dance floor, Carosello creates two rotating multicoloured light halos, moving in a sound-to-light mode. Colours are obtained by dichroic filters.

**Serie MINI** - a new series of small fixtures with a range of effects including multiple coloured spokes of light, rotating in sound-to-light mode or multiple chases of line patterns and light cones.

For further info call: Coemar De Sisti (03) 467 8666

RIMINI

## Infinity Scan Light 1200

The **Infinity Scan Light 1200**, manufactured by Sagitter, utilises either a MSR 1200w or HMI 1200w lamp with a colour temperature of 5600°K and flux lumen 110.000. It has remote focus control and a standard objective aperture 10.5° with a built in system that allows access to 12°, 14° and 16° beam projections.

It has a colour wheel with 8 standard colours through selected dichroic filters plus 16 colour combinations thanks to two colour correction filters. There are four indexable rotating gobos, plus open position, which are easily interchangeable. The iris is claimed to be totally noiseless and there is a frost filter. Variable speed strobe effect and instantaneous synchronisable black-out. Fully dimmable from 0% to 100%. For further info call: Black Express Light & Sound (02) 559 4363.

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# ELO

## AN EXPLOSION OF LIGHTS, LASERS & PYROS



Greg Szabo, tour manager and lighting designer, has been involved in the lighting industry for fifteen years and admits he cut his teeth on the Christian circuit culminating in a couple of tours with Cliff Richard. After being on the road for ten years, he got an office job quoting lighting systems but found it too stuffy so he returned to touring. He started working with ELO about two years ago touring places like Estonia and Latvia.

Although the band played the UK and Europe before Christmas, the Australian tour kicked off a new tour which was aimed to be more orchestral.

"They're aiming to play with orchestras in various parts of the world, culminating with a Christmas special in the States, with different orchestras," said Greg. "In Australia we are travelling twenty Australian orchestra members and we then pick up twenty-six more in each city. It's been a lot of hard work, I've been on the phone and fax constantly over the past two months.

"This lighting system is based on what we were doing in the UK when we were playing 2,000 seaters. It has a 40ft front and back truss although in the UK we had a ground supported back truss, which was a feature, with a screen in the centre for projection. I've just expanded that really. Having the orchestra on the raised platform, sightlines were obviously a big concern because I didn't want

to have legs anywhere. We still have the two towers at the side to give side lighting as opposed to everything coming straight down or floor lighting which takes up a lot of floor space. I like the beams to come from different angles, I don't like symmetry all the time."

The orchestra's music stands are individually lit but well shrouded to avoid any over spill. The stage was extended an extra 20ft and the orchestral section was raised 6ft higher than anybody else, making them 15ft above the ground.

"I wanted the stage to be something that was a little bit neater than having guitar cabinets all over the place and we couldn't go to the expense of having a grating system where we could put stuff underneath," said Greg. "So we raised the drum and keyboard riser up a bit and the cabinets are under there. I wanted to link Lou, the conductor, with the rest of the band so he wasn't up with the orchestra on his own so that's why there is a horse-shoe shaped ramp that comes around behind the drums and keyboards down to the front. The guys use it to connect the orchestra with the band. We've just taken an in-ear monitor system on the road which allows people like Mick, the violinist, to go anywhere he likes on the stage. In fact last night he went out into the audience at one point so it's working quite well. Unfortunately when you just play one nighters and production is local, it's harder for them to actually get their head round the concept of it."

Sound and lighting equipment was supplied by Jands in Sydney and Greg was disappointed that the next gig was in Perth with another production company

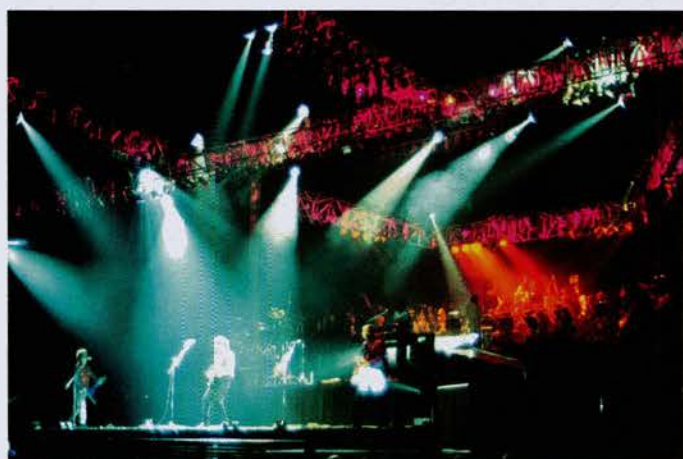
who could not supply the Intellabeams and VL6's. Instead Greg planned to use Goldenscan 3's which he said had its good and bad points.

The lighting rig was a figure of eight grid with two under hung 40ft trusses that follow the same line as the ramps from front to back at an angle. Attached were 58 bars of 6 par cans, blinders on the front and also onto the band and orchestra to give a bold white look, half Molefays with colour changers on them for washes on the orchestra and various ACL's around the place. A couple of cracked oil machines and two F100's were used, operated from the side of the stage. As usual at the SEC, Greg had trouble getting enough smoke generated and there were times he even wondered if the Intellabeams were on because the cones were not very visible. Fortunately the pyros and flames during the show helped with the smoke.

"I don't use followspots preferring to use Scars for spots as they give me greater control and I don't have to worry about cues etc," said Greg. "It also solves language problems as we travel the world. So I've got four Intellabeams on the front truss, five further back and then some others dotted around. There are also VL6's either side of the rig and again on the under hung truss as well as four on the floor. They're all controlled via two MA Scancommanders. I'm fairly flexible about a lot of things but I insist that I must have the Scancommanders and I'll only use Celco, MA or Avo desks.

"It was my first nightmare when I heard Jands were doing these shows because I thought I'd have to have a Jands board but I was assured that wouldn't be the case. Nothing against Jands, I just find it a nightmare to find my way around their boards. With an MA board, I don't have to think twice about what I've got to do with it. The Intellabeam controller for live shows is just a nightmare too and, if like here in Perth, I change to Goldenscans I can't change the show over.

*(continued on page 76)*







# BUYERS GUIDE:

## Effects Lighting/FX Projectors

Model	Lamp Type	Watts	Description	Price
<b>IMAGE PRO</b> Distributor: Lightmoves Technologies Phone: (02) 560 0000 Contact: Paul Owen				
IP 800	-	-	Makes full colour projection affordable, projects large format colour slides, patterns or other images. Sharp donut holder, pattern holder and slide holder as options. Fits Par 64 cans and 8" Fresnels.	\$565.00 ex tax.
IP 600	-	-	Makes full colour projection affordable, projects large format colour slides, patterns or other images. Sharp donut holder, pattern holder and slide holder as options. Fits Par 56 cans and 6" Fresnels.	\$523.00 ex tax.
<b>OPTIKINETICS</b> Distributor: Lightmoves Technologies Phone: (02) 560 0000 Contact: Paul Owen				
Solar 250 Projector	6958	250	An adaptable FX projector - 3 x 12v. Allows use of three effect attachments simultaneously.	\$675/\$875 ex tax.
Solar 575 Projector	575 MSR	575	Powered FX projector based on a single ended 575w metal halide lamp. 4000 lumen output.	\$7000 ex tax.
Solar System	n/a	n/a	Programmable attachment (DMX512) for any Opti projector combining 2 wheels, each with 8 slots, giving 64 gobo combinations.	\$4200 ex tax.
Quasar xe900	2CA1	160	Combines strobe and projection technology and uses Optikinetics beam and screen software.	\$1995 ex tax.
<b>SELECON</b> Distributor: Herkes Phone: (02) 319 3133 Contact: Tim Kennard				
MR16 EFFECTS ROTATOR 1-10 RPM	Accent Profile	50 - 75,	Moving effects drive for DHA/Rosco discs.	\$160.00 ex tax.
ACCLAIM EFFECT ROTATOR 1-10 RPM	T/27 MH150	650/150	650 size effects drive 125 x 125m DIN STD mount for DHA Rosco disc's.	\$236.00 ex tax.
120 RANGE EFFECT ROTATOR 1-10 RPM	T/29	1200	1200w size effects drive 185 x 185 DIN STD mount for DHA/Rosco disc's.	\$236.00 ex tax.
<b>N.J.D.</b> Distributor: Black Express Light & Sound Phone: (02) 559 4363 Contact: Con Andrews				
DATAMOON	A1/259	250	Flower effect with 7 colours + white, 5 gobos, strobe effect, variable rotation speed, forward and reverse and sound activation or DMX.	\$1099 inc tax.
DANCER	2xA1/231	2x100	Dual animated dichroic beam effect producing brilliant shafts of light criss crossing each other whilst changing angle and colour to music.	\$1199 inc tax.
<b>PROGRAM SYSTEM</b> Distributor: Black Express Light & Sound Phone: (02) 559 4363 Contact: Con Andrews				
DYNAMIC SCAN	A1/244	500	Laser simulator, propelling constantly changing coloured light to music beat.	\$992 inc tax.
DANCER SCAN	2xA1/244	2x500	10 effects in one. Two mirrors working in unison or opposite to deflect colour changing beams up and down or onto multi faceted concave mirrors.	\$1399 inc tax.
ROTOSTAR	4509X	6X100	Centrepiece effect - sound activated and does not require controller.	\$2635 inc tax.
PANIC	HLX 64655	250	4 coloured cones of light being independantly deflected to music while spinning.	\$1170 inc tax.
<b>SUPERSTAR</b> Distributor: AE Australia Pty Ltd Phone: (02) 896 4033 Contact: Rick Chisholm				
FULL MOON	EHJ 24v	250	A cone of white pencil beams that rotate back and forth to the music create a solar prismatic, laser effect.	\$570.25 ex tax.
MINI LASER	-	-	Produces various red laser beam patterns to the music beat - extremely small and mobile.	\$561.98 ex tax.
SKYLIGHT II	EHJ 24v	2x250	Pencil beams emitted from 18 lenses rotate back and forth to music. 36 coloured beams with a large beam spread.	\$652.89 ex tax.
SUPERSTAR COMET 2	2xEHJ 24v	250	2xcoloured beams from each coloured lens which rotate back and forth to music. 12 large lenses in total creating concentrated large beam shapes.	\$652.89 ex tax.
<i>*Fan cooled, full manufacturers warranty, data fuse holders, built in microphone with adjustable sensitivity, comes with lead and plug.</i>				
<b>PROFESSIONAL SERIES</b> Distributor: AE Australia Pty Ltd Phone: (02) 896 4033 Contact: Rick Chisholm				
DERBY	EHJ 24v	2x250	20 sharp rainbow coloured beams rotate and give a horizontal and verticle tumbling effect with the beams crossing over at the same time.	\$735.54 ex tax.
RAGGI DOUBLE LAMP	EHJ 24v	2x250	The same specifications as the Raggi Single but with two lamps that project two coloured pencil beams through each lens, 206 coloured beams in total which move to the music.	\$818.18 ex tax.
RAGGI SINGLE LAMP	EVD 36v	400	Traditional single lamped Astroraggi effect with flashing white beams - 103 lenses.	\$818.18 ex tax.
STORMTROOPER	R7 240v	500	Projects 10 sharp 'laser like' flat coloured beams of light through multi coloured lenses which criss cross and rotate to the music.	\$652.89 ex tax.
<i>*Built in mic with adjustable sensitivity on sound activated models, carry handles, removable base for easy maintenance and installation, come with lead and plug, fan cooled.</i>				
<b>LIGHT EMOTION</b> Distributor: AE Australia Pty Ltd Phone: (02) 896 4033 Contact: Rick Chisholm				
HYPER II	EFP 12v	2x100	Dichroic coloured beams dancing in multiples powered by twin lamps rhythmically interchanging in a fusion of colour dancing and changing to the beat of the music.	\$570.25 ex tax.
MINIMOON MUSIC ACTIVATED COLOURED BEAM SRL 12v		50	Sound activated dichroic mini moonflower. 3 way switch allows choice of static, rotating or sound activated beam movements. When switched to static, luminaire can double as a scatterspot effect.	\$239.67 ex tax.
SAGAZAP	EFP 12v 100 MR16 capsule lamp		Bright due to MSR 16 reflective capsule lamp. 4 way switch facility allows various combinations for constant sound to light animation of both colour changer and the barrel or concave reflector. Two reflectors offer completely different effects. 9 dichroic colours plus white.	\$577.69 ex tax.
TECHNOSCAN PRO	ELC 24v 250 MR16 capsule lamp		Economical alternative to DMX lighting projectors for stand alone use. Programmed with factory installed movements and gobo/colour changes triggered by internal microphone. A variety of music modes available by selection of dip switch settings. 5 gobos, 8 colours.	\$824.79 ex tax.
<i>*12 month warranty, large thumb wheels, heavy duty single sided locking screws, safe fuse holders, lightweight, come with lead and plug, multipositional mounting brackets which double as carry handles.</i>				
<i>* Built in mic for audio activation where applicable, all come with lead and plug and comprehensive warranty.</i>				
<b>S.G.M. ELECTRONIC LIGHT</b> Distributor: Ashton Admor Pty Ltd Phone: (09) 478 3800 Contact: Stan White				
SPINNER 575	HMI	575	A new colourchanger which allows rotation of 1 (or 2 superimposed) interchangeable gobos. A technologically advanced projector with programmable and remote controlled functions.	\$2190.00 inc tax.



Model	Lamp Type	Watts	Description	Price
<b>DJ SERIES</b>				
Distributor: AE Australia Pty Ltd Phone: (02) 896 4033 Contact: Rick Chisholm				
ET - 2 LENS	R7 240v	300	Projects thin, flat 'laser like' beams through sharply focused, coloured glass lenses - suitable for use with 4 channel controller. Lenses come in 7 different colours.	\$79.34 ex tax.
MINI STROBE	linear strobe tube	20	High output, compact strobelight with variable speed adjustment and mounting bracket, measuring 12.5 x 8cm, internal reflector ensures concentrated beam.	\$49.17 ex tax.
RAGGI MINI COLOURED REFLECTOR (TWIN LAMP)	64516 240v	2x300	Twin lamp double raggi reflector, internal reflectors projects two unusual beam shapes through each lens which rotate back and forth to music.	\$404.96 ex tax.
ROPELIGHT - SPIRAL 5m/10m	-	-	Heavy duty, 4 colour, 4 channel, 5 metres in length, 3000 hour lamp life, 44 watts, 62.5 mm lamp spacing, 21mm OD, 15 mm ID	\$74.38/\$123.97 ex tax.

\* Built in mic for audio activation where applicable, all come with lead and plug and comprehensive warranty.

<b>GRIVEN</b>				
Distributor: Universal Lighting & Audio Phone: (075) 290 688 Contact: Con Biviano				
CYCLOPE	HMI 575/1200	575/1200	Centrepiece which projects 8 rays with 4 dichroic colours either automatic or via controller.	\$3,883.00 ex tax.
HELIOS	HMI 575/1200	575/1200	Supercentrepiece which projects 16 rays and 100's of beams of infinite colours from dichroic mirrors.	\$6,610.00 ex tax.
MANTA	HMI 575	575	Powerful effects projector of 5 light rays which are projected onto small round mirrors to create hundreds of small, powerful beams of dichroic colours.	\$3,300.00 ex tax.
SMILE	Circular halogen	800	Produces 5 strong circular type beams created from the circular lamp used and then projected on mirrors moving to sound.	\$2,116.00 ex tax.

<b>INFINITY</b>				
Distributor: Universal Lighting & Audio Phone: (075) 290 688 Contact: Con Biviano				
ISATE 208	M33 x 2	2 x 250	A strong astroraggi effect producing hundreds of beams moving to sound.	\$742.00 ex tax.
ITL208 - TURTLE LIGHT	M33 x 2	2 x 250	Produces a mixture of flat beams and round beams moving to sound.	\$742.00 ex tax.
IRD500R STORM TROOPER	Linear halogen	500	This unit projects 7 flat beam coloured effects dancing to the beat of the music.	\$742.00 ex tax.

<b>ABSTRACT UK</b>				
Distributor: Universal Lighting & Audio Phone: (075) 290 688 Contact: Con Biviano				
GLADIATOR SAGA 250	HLX 250	250	Gobo, colour and strobe effect projector producing multiples of beams and colour washes reflected from its unique mirror barrel.	\$825.00 ex tax.
HYPERMOON 100/250	M28/M33	100/250	Incorporates every colour of the rainbow offering a rotating and sweeping moonflower effect.	\$577.00 ex tax.
GALACTIC STAR 100/250	HLX 150/250	150/250	Strobing or rotating moonbeam effect, DMX control, 8 selectable colours, or sound to light.	\$660.00 ex tax.
SCATTERBANK	M32 x 4	4 x 50	Four scatterspots in the one housing. Built in sound to light or pre-programs, gel frame fitted as standard. \$577.00 ex tax.	\$577.00 ex tax.

Note: All vendors have much more than the (maximum) four products illustrated here.  
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**SELECON**



# ELO

(continued from page 72)

With the MA, I tell it I'm now using Goldenscans and it does the rest for me. I just have to carry a memory card.

"It does mean I'm running the show from four desks - the Celco for conventionals, two MA Scanc commanders and a Colourmag Controller - but the other way would be to have an Intellabeam controller which is quite difficult. If I'd used any of the other Vari\*lites then I would have had to have a Vari\*lite operator to cue (as the VL6's are DMX, another DMX controller may be used). It's bad enough having to cue lasers and pyros on this show. Operating so many boards does become a bit of a problem sometimes but I manage."

Greg told me that the lasers were not specified by himself but the Australian promoter, John Whale, so they are only on the Australian leg of the tour. The lasers system was supplied by Laservision.

"We were meant to have a full colour laser last night, which was supposed to be the greatest thing since sliced bread, but it packed up after the fourth song," said Greg. "I don't tend to get on with laser people as they seem to have a totally different attitude to most people travelling on the road, the same as video people. I think they've burnt their fingers on this one. They've upset the sound guys, they've upset the lighting guys and so when the lasers packed up last night, the first thing the guys thought was they got what they deserved. Unfortunately the show was being shot for video last night. To me a laser is just a green wiggly line, there's not much art about them. Given the choice I would say no thank you and use the budget for more lights. We have nearly 400 lamps up there but I'd love to have twice as much and do even more."

Greg had been hoping to use a fair amount of projection, maybe a couple of BP4 projectors with images, but it was decided that the orchestra would play the whole of the show and Greg could not lose them in a sea of projection. For some numbers a gauze comes between the band and the orchestra.

"I specified a lightweight sharktooth gauze but the laser people said they needed something else and that they would sort it out," complained Greg. "They had this thing made that looks more like a fishing net although it managed to work properly for the first time last night. I've got some groundrows which I project onto that and there are also some groundrows behind the orchestra as well. That produces a nice amount of depth with a glow behind the orchestra."

Simon McCartney from Laservision was in charge of the lasers for the tour. After viewing videos of previous ELO performances and several discussions with Greg Szarbo, several



graphic images were produced for the entire show.

"We were given quite a bit of freedom considering the short amount of time we had to design the show," said Simon. "We used three of our own Laservision systems all networked together on a computer by an operator who could control all three at once. There were two 6watt Argon laser systems left and right of the stage and then a selection of lasers depending on which venue we were playing and whether the show was being videoed or not."

"Unfortunately at the first Sydney show, which was being videoed, there was a major electrical fault backstage which took out a \$100,000 piece of equipment which is now being repaired. It was one of those freak accidents with a brand new laser in fact it was one of the most expensive colour lasers that you can buy. Luckily we have many lasers at Laservision and we were able to replace it for the next night."

Pyrotechnics for the show were operated by Lou Stefanel of Pyromania.

"He's your typical pyro man really" said Greg. "They're all manic depressives. Last night he was a bit miffed because people kept standing over his pyros at the wrong time!"

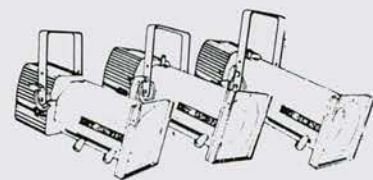
Lou laughed at the suggestion that he was a manic depressive although he admitted he did get a bit wound up at the first Sydney show.

"To do my show I run off cues and it's hard enough when there's the band on stage let alone cameramen and dancers everywhere," he said. "It was frustrating for me because I have explosives on stage and although the band know their cues, the cameramen and dancers don't really listen to you. I also couldn't do all of my bangs at that show because of the video, apparently they would effect the sound or something. I also hadn't slept for a couple of days as it was a pretty full on schedule. I love what I do, it's like a drug you have to have another pyro shot and it's frustrating when

you can't do your show properly. I did lose it a bit that night and carried on a bit! After that I was happy as a larry and the rest of the tour was great with the show the next night being really good."

The video of the show is currently being produced for general sale by Andrew Walsh of Accolade Productions, Sydney.

● Cat Forcer



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**Write in Reader Service number: 138  
Connections. May 1995**

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# LOCAL LASER DISPLAY SYSTEM MEETS LASER SAFETY STANDARDS

Laser safety issues have become of interest in recent months as both laser performers and production management try to understand the performance possibilities and limitations of the rules. This interest has focused on the safety features of the control equipment as the lasers themselves have numerable built-in safety features, to meet American (CDRH) laser safety codes. Laservision have now announced an Australian first for their control systems' 'Beam Fail' which they claim surpasses local safety standard for laser control and projection equipment.

Renowned for their high intensity graphics, text and animation, as well as their aerial laser effects, Laservision are one of the pioneers in both creative and technical innovation in Australia. Their resources and expertise have enabled the development of valuable export markets in recent years. Laservision has installed Australian manufactured systems and performed high profile presentations throughout Asia, the Pacific, the Middle East,

Europe and The Peoples Republic of China during the last six months alone.

In addition to meeting stringent overseas regulations for both equipment and operations, Laservision has now released new hardware to Australian Standard 2211 - Laser Safety.

"Laservisions' 'Beam Fail II' technology will meet the new Draft Australian Laser Safety Standard (1995) due to be published later this year," claims John Eustace, Laservisions' Marketing and Sales Manager. "It is very important that laser performance companies take these regulations seriously and develop products to meet the Australian standard.

"Laservisions' Beam Fail mechanism is the most recent safety device incorporated into our system design," John continued. "It exceeds the current standard by 250%, cutting off any static beam in one tenth of a second."

Beam Fail eliminates the potential hazard of stray beams unintentionally projecting into an audience or onto performers.

"No other manufacturers' equipment has an automated 'fail safe' system such as this," claims John. "Beam Fail responds to continuous real-time positional feedback from the scanners. Should any single scanner stop (for one tenth of a second), Beam Fail is activated. In the event of a power failure to the Laservision control module Beam Fail responds immediately. Beam Fail disengages as soon as the scanners respond to a new signal."

In addition, Laservision fit a manual Beam Fail device which can be remotely operated should any one or anything inadvertently wander into the display area.

"Unfortunately, we are the only company we know of who have successfully developed and adopted this technology," John concluded. "Foreign control system manufacturers remain unable or unwilling to meet Australian Laser Safety Standards (AS 2211), and there are no mechanisms to stem the importation of these units."

*For further info call: Laservision (02) 416 1262.*

**RIMINI**

## Galileo IV 575/1200



Main features of the Galileo IV 575/1200 are:

- 75 colours
- 2-tone beams
- rainbow
- 25 gobos supplied
- shutter strobe
- wood filter
- 0-100% dimmer
- electronic focusing
- 16 control channels
- soft frost and hard frost lenses

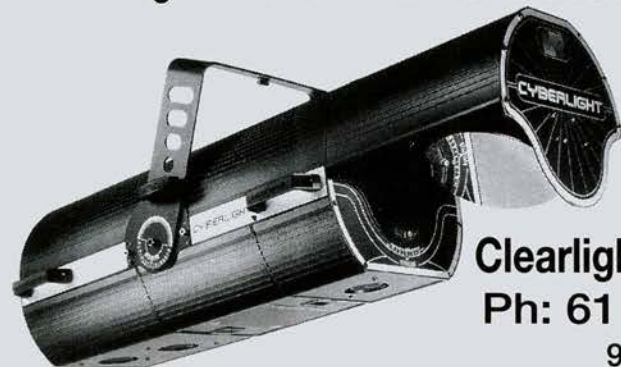
- 2 wheels of rotating gobos
- 2 bi-chromatic dichroic filters
- 1 quadri-chromatic dichroic filter

Also new for Ashton Admor from Rimini are the Chroma and Trichroma which will be featured in depth in next months issue.

*For further info: Ashton Admor (09)478 3800.*



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RIMINI

# NEW PRODUCTS FROM DE SISTI

DeSisti introduced the following new products and lighting systems:

**Rembrandt 12-18kW** - a Fresnel spotlight for double ended discharge lamps designed as a key or fill light for studio or location work where high output is demanded with size and weight restrictions.

**Remington 200W** - an open face PAR luminaire for single ended discharge lamps which features an innovative lens and accessory holder that eliminates any light spill.

**Remington 6000W** - an open face PAR luminaire for single ended discharge lamps which features a focusable high efficiency optical system that replaces and outperforms larger power sources. The lamps' unique focusing carriage also serves as a support to prevent bulb sag and its accompanying out-of-focus problem.

**Goya 2.5/4kW** - a high power Shadowlight PAR luminaire for single ended discharge lamps notable for its ability to illuminate wide areas from a single shadow source. The Goya can be used in any mounted position to suit virtually any setup needed. It can be used as a broadlight for wide coverage, a skypan for overhead lighting, a bounce light or a source for drops and cycloramas.

**Monet 1 & 2kW** - these quartz-halogen fresnel spotlights provide a smooth uniform field of illumination across the entire range of spot to flood focusing. Both are available in either manual and pole operated versions.

**Light Bars** - a lighting system for important works of art particularly designed for obtaining direct and longitudinal light emission at preset angles from quasi-punctiform input sources.

**Icarus** - an automated lighting system including fully motorised luminaires and suspensions. Icarus is basically a system for the full positioning control, memorisation and play back of fully motorised set lighting sources (base light) and fully motorised suspension equipment throughout the De Sisti range. The system features standard P technology for the control of the main protocol, with high speed of transmission.



*The Icarus Automated Lighting System*

RIMINI

# HIT OF THE SHOW?

According to Caroline Grafton, one of the most talked about items at Rimini was the Divine light manufactured by the Italian company La Novalight.

The Divine light acts as a centrepiece which can be used in a vertical or horizontal position and employs a HMI 1200w discharge lamp. There are 16 powerful beams of light that burst from the centre of the unit on to 16 reflectors, beams of light are then directed in many different position and directions. At the same time some of the beams are bounced off the centre reflectors that have unique surfaces to create combinations of light output.

Each outer reflector has its' own black-out/shutter and 4 colour system, and up to 8 units can be synchronised together.

The unit can be controlled using 0-10v (16 channels) or, with the small controller that comes with the unit you can run through over 3000 built in steps, both in music and sequence modes.

La Novalight products are not yet represented in Australia.

# Bits

- Queensland Performing Arts Theatre have installed 80 10 inch 2000w Selecon Fresnels.
- Victorian Arts Centre has recently been supplied a set of Rainbow 2/16 colour scrollers for its' Concert Ha.l by Bob Prosser of Premier in Melbourne.
- Brisbane Convention and Exhibition Centre have taken delivery of a wide range of 174 new Selecon luminaires. They range from 12v MR16 based profiles and fresnels to the large 2500w Arena 10 inch fresnels and narrow angle profiles.
- Following Staging Connections purchases in Sydney and Canberra, Melbourne now joins the growing group of corporate AV companies upgrading to the new Selecon Acclaims and 1200 Zooms and fresnels.
- Coemar De Sisti report that the TAS

Synchro's continue to sell well with a Perth nightclub installing another and Entertainment Warehouse in Melbourne purchasing another unit this month.

● Theatrelight have purchased LIGHT SHOP software, Preston TAFE a full design suite of LIGHT SHOP & SOFTPLOT and Patrick Cahill has sold STARDRAW 3D to the WA Australian Academy of Performing Arts.

● CDA have just supplied Laser in Queensland with a large amount of De Sisti portable kits for the Brisbane Convention and Exhibition Centre.

● CDA now stock Blakes Fireworks, a full range of pyrotechnics for professional use and they are looking to appoint distributors in State for the products.

For further info: CDA (03) 467 8666.

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### The Peter Kemp Column THE LATEST LIGHTING TRENDS

Having just returned from the SIB show in Rimini Italy there seems to be two current trends in new lighting equipment - the introduction of rotating gobo's in the smaller moving lights, (a feature that has normally only been found on the larger moving lights) and colour changers.

The addition of rotating gobos on the smaller moving lights is offered by Martin with their 518, Coemar with the Microscan 3, and the TAS Mini Ultra Scan 2. The Coemar Microscan 3, includes a dimmer, and the gobo's are indexable, meaning that you can record a position of the gobo and then recall it at anytime. This is useful when you are working with corporate logos which normally would not always be horizontal as you pan the beam around a room, with indexing it is possible to do this. The Microscan 3 also has a push button menu system with an illuminated display for DMX channel selection plus a number of other control/diagnostic features, thus no more fumbling for the dip switches in the dark or need to continually add up the dip switch values in order to set the DMX address. The TAS Mini Ultra Scan II also now offers rotating gobos with speed control.

I am sure that the addition of this feature will enable these smaller moving lights to find there way into the corporate production market which has normally been dominated by the large units, due to such features as rotating gobos. A quick point to finish off rotating gobo's, if you want to do logo projection with these moving lights be sure to get a unit with a reasonable gobo size as if the gobos are tiny then logo's with intricate wording or designs will not be possible.

Colour changers have been around for many years with the original unit being a motorised

wheel with colour filter medium, that fitted to the front of a spotlight, some of these used a continuously rotating wheel and some used allowed you to select one of the colours. Another similar unit was the semaphore colour changers which had the advantage of being able to have a sort of cross-fade between the last selected colour and the newly selected colour. All of these devices used standard colour filters and this is continued today with the range of colour scrollers on the market. The new trends in colour changers has stemmed from the use of dichoric colour filters in today's moving lights, though I can remember a unit from the UK some years back called the Pancan, this was a cage like unit with an inner cage that had fitted to it four different colour filters, also it incorporated a mirror with pan and tilt control - I suppose this was the beginning of today's scanners.

Some of the new colour changers purely have a wheel with selectable colours, others combine two wheels in order to extend the range of colours obtainable and the more sophisticated units incorporate a system for mixing colours being either RGB (Red, Green, Blue) or CYM (Cyan, Magenta, Yellow). With the colour mixing system you can vary then amount of each colour thus providing you with the facility to obtain a vast range of colours. In addition to the colour selection some of these current fixtures include gobo's, dimmer, strobe, zoom lenses, iris, frost etc. The advantages obviously are that one such fixture can do what normally would require a number of different types of fixtures, dimmers, scrollers etc.

Last year TCP wanted to be able to change the colour of a whole room on command. At first they planned to used a combination of Par can, fresnels

and colour scrollers, not forgetting the dimmer racks, they planned to use approx. 50 fixtures & scrollers, however after seeing the Coemar NAT PC fixture at ENTECH they found an easier solution being 5 of these fixtures and no need for dimmer racks. On top of this, these fixtures have full colour mixing, iris control (from 0-45 degrees with the zoom lense) and a frost filter hence they had a more versatile system. Naturally with these type of fixtures you set-up time is greatly reduced, saving in labour costs.

A number of the manufacturers offer some sort of colour changer fixture some of them being Abstract - scenesetter, Clay Paky - Polycolor, combicolor, Coemar - Baby colour, NAT PC1000, NAT PC1200 HMI, Leisure Lighting - Supaquest, Martin - Robocolor, TAS - Colore. Facilities and prices vary greatly and you should carefully consider exactly what facilities you need and then chosen accordingly. Also keep in mind that normally the more facilities a fixture has the more control channels are required and hence they can quickly eat up the channels on your control system.

Peter Kemp runs Coemar De Sisti Australia (03) 467 8666.

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# THE PA PAGE

## JBL, EV, ETONE - AND MORE

*The History Of Things Like Horns, detailed by Michael Orland.*

Looking back over the articles I've written for this magazine, one might raise an eyebrow at the number of times I've mentioned JBL components. Indeed, the more cynical reader may wonder just what sort of scam is going on here and how much some giant faceless corporation is shovelling into my secret Swiss bank account to repeatedly mention their product. Alas and alack, dear reader, sadly such is not the case. Although I wouldn't want any nice men out there in nice suits to think I was totally closed to such ideas. Just for the record, call me a traditionalist, but I like my Ferraris firehouse red and my Jaguars black on black.

Actually, I mention JBL stuff often for two reasons. Firstly, I've been using it for twenty years and I feel most comfortable yabbering about things I've learned first hand. Secondly, there's a lot of it about and therefore likely to be of interest to a lot more people. Introductions aside, I thought I might use this article to pass on some background and useful hints on JBL horn drivers.

In the early 80s JBL ceased production of alnico magnets in favour of normal ferrite magnets. This was a bit of a surprise at the time given their previously advertising "pound for pound alnico is far superior". Although I can't say I was present at any board meetings, the reason I heard for the change was that the price of nickle had soared making its continued use economically unfeasible.

During the prior alnico age, the large 2" throat drivers were the 2480/82 and 2440/41. Their 1" throat equivalents were the 2470 and 2420/21. The first of each of these had phenolic diaphragms which was kind of like an impregnated cloth. The latter of each had aluminium diaphragms. The performance of phenolic diaphragms was indicated by catalogues which described them as suitable for speech. As in public address, speedways, etc. And as opposed to aluminium diaphragms which were for music programme. Despite external similarities, the diaphragm of a 2441 could not be

fitted to an '82 without demagnetising, retapping and re-magnetising; a procedure only Etone were equipped to do.

Nevertheless, many of us opted for 2482s in high pressure rock'n'roll applications because they were tougher. The aluminium diaphragms would often fatigue and tear around the edges. The Meyer Corporation's cure for this was a smear of silicone around the edge. Altec's answer was a compromise with an aluminium diaphragm fixed to a phenolic surround, which they called "symbiotic". The trick for wringing the best performance from a phenolic diaphragm was to always use a top end roll off (active or passive) at about 6K. This may seem like a silly thing to do when '82s have so little response above 6K anyway. Folks were always teaming them with "rings" or other types of high efficiency tweeters for their top end. But these high frequencies, if left unfiltered from an '82, would create a sort of rippling effect on the diaphragm creating extra distortion.

With the switch to ferrite magnets also came the introduction of a new diaphragm material, titanium, resulting in the current 2445. Top end was extended such that the super tweeters became redundant in many applications. And I haven't seen one tear or shatter yet. The 2446 is the same driver fitted with the diaphragm that was developed for the 2450. Still titanium but ribbed for extra stimulation.

One minor design alteration with the introduction of '45s was the omission of locating pins for optimum orientation when installing diaphragms, which were a feature of '40s and '41s. There are 8 possible ways to install a diaphragm into a '45 driver but only 1 way is correct. 3 Screws hold the rear cover to the body of the driver via a rubber gasket. Lifting the gasket will reveal either a JBL logo or circle stamped into the top-plate. The diaphragm's positive terminal (red for 16 ohms or green for 8 ohms) must be aligned alongside this logo/circle. Close inspection of the driver's voice coil

gap reveals why. At one point the gap is widened to all proper clearance for the voice coil wire to fold back on itself to meet its terminal. Failure to observe correct orientation may result in scraping leading to diaphragm failure. This procedure should also be observed in all currentish 1" throat drivers (2425, 26, 27) except for the budget member of the family, the 2416, whose integral diaphragm/cap will go on any of the 3 possible ways.

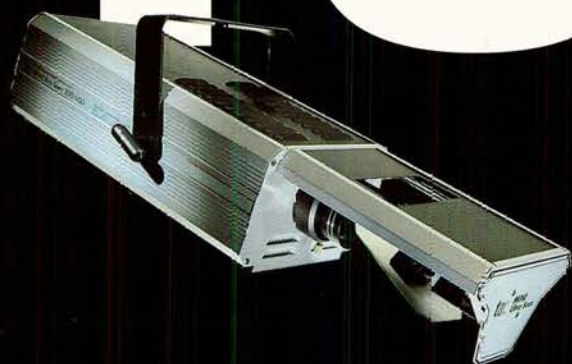
The 2425 was the first of the titanium/ferrite 1" drivers. This was replaced by the 2426 without any change to the diaphragm. The difference was in the refinement of the phase plug giving a smoother response. The other nice feature that not all 2426 owners are aware of is that the snout unscrews making it compatible with 1" screwthread hornflares. The 2427 is this same driver with a 1" to 2" adaptor screwed on.

The same diaphragm supplied for all these 1" drivers is compatible and retrofittable to all the old drivers, 2470s and all, and give a large performance boost in the process. You may have trouble with the locating pins which is easily remedied by carefully reaming out the often too small mating holes on the diaphragm assembly.

On a more general note, don't forget when installing any horn diaphragms to first inspect the gap carefully under a good light. Any bits of metal, scunge or whatever should be fished out with masking tape or even gaffer. And if you want to really cut down on the number of replacements, don't forget to install those globes! (Connections May '94). It does my ageing heart good to see new product from Jands/JBL, Etone and even the Asian clone factories installing lightglobes as standard in new lines. It demonstrates a concern for customers and a refreshing move away from the cynical "parent company free warrantee replacement stock killings". Now THAT'S a scam.

*Michael runs The Public Address Co in Sydney, call (02) 799-7219.*

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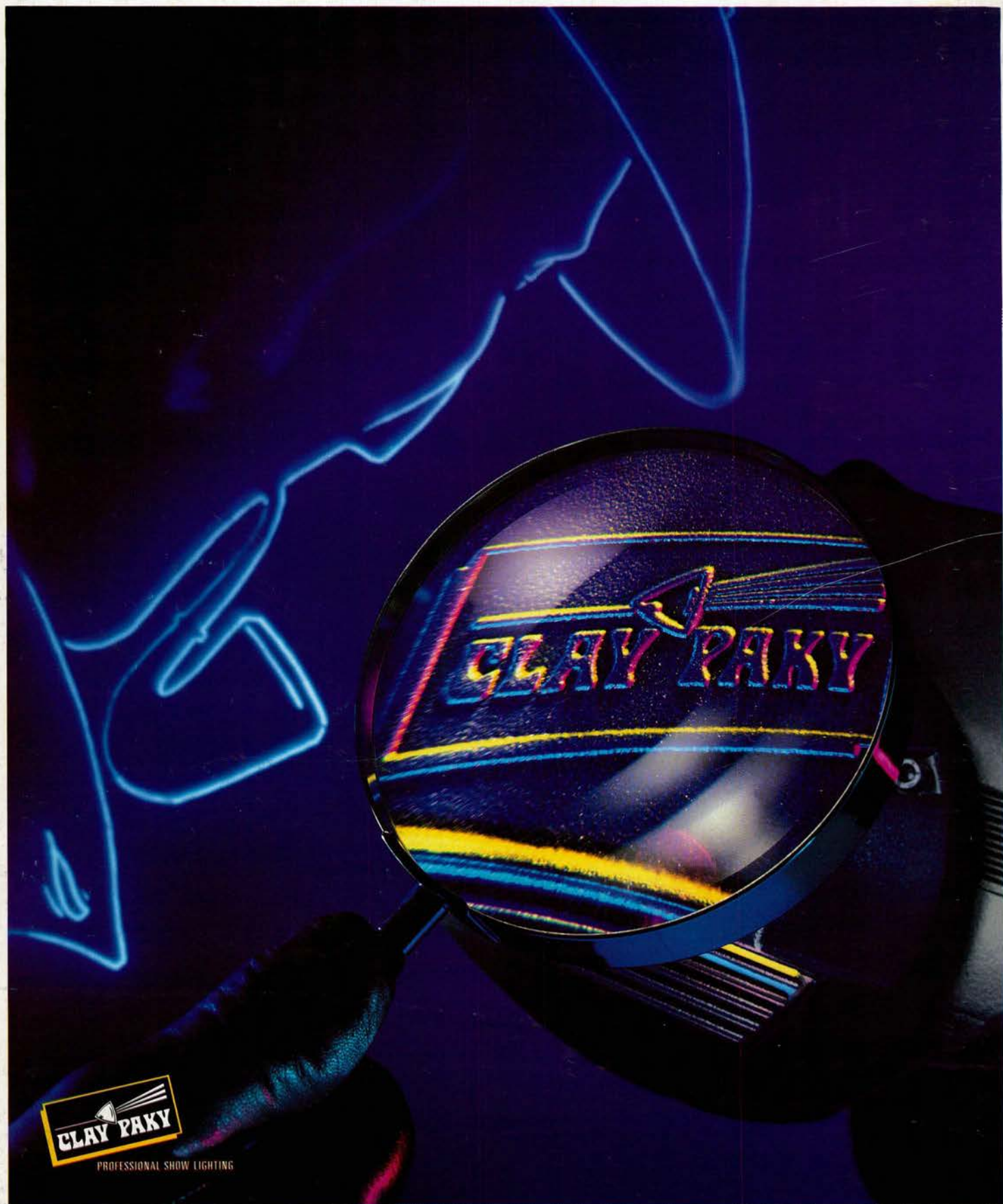
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