

# Connections

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# 22! APRIL 1995



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Stones  
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ISSN 1320-5595



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ALWAYS full of NEWS

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3rd Proud Year of Independent Publication

FOR A NEW WAVE OF INSPIRATION

SEE SONY ON STAND 13 AT AES

For the latest switched on ideas take a look at the new releases from Sony. Starting with the DAE D5000 digital audio workstation/editor, PCM-800 digital audio multitrack recorder, MDSB3 & MDS B4/P mini-disc and the F-700 series dynamic microphones. Other products include the Sony PCM-9000 MS disk mastering recorder, DMX B4000 digital audio broadcast console, DAT recorders, wired and wireless microphones and the CDP3100 CD player featuring time code operation.



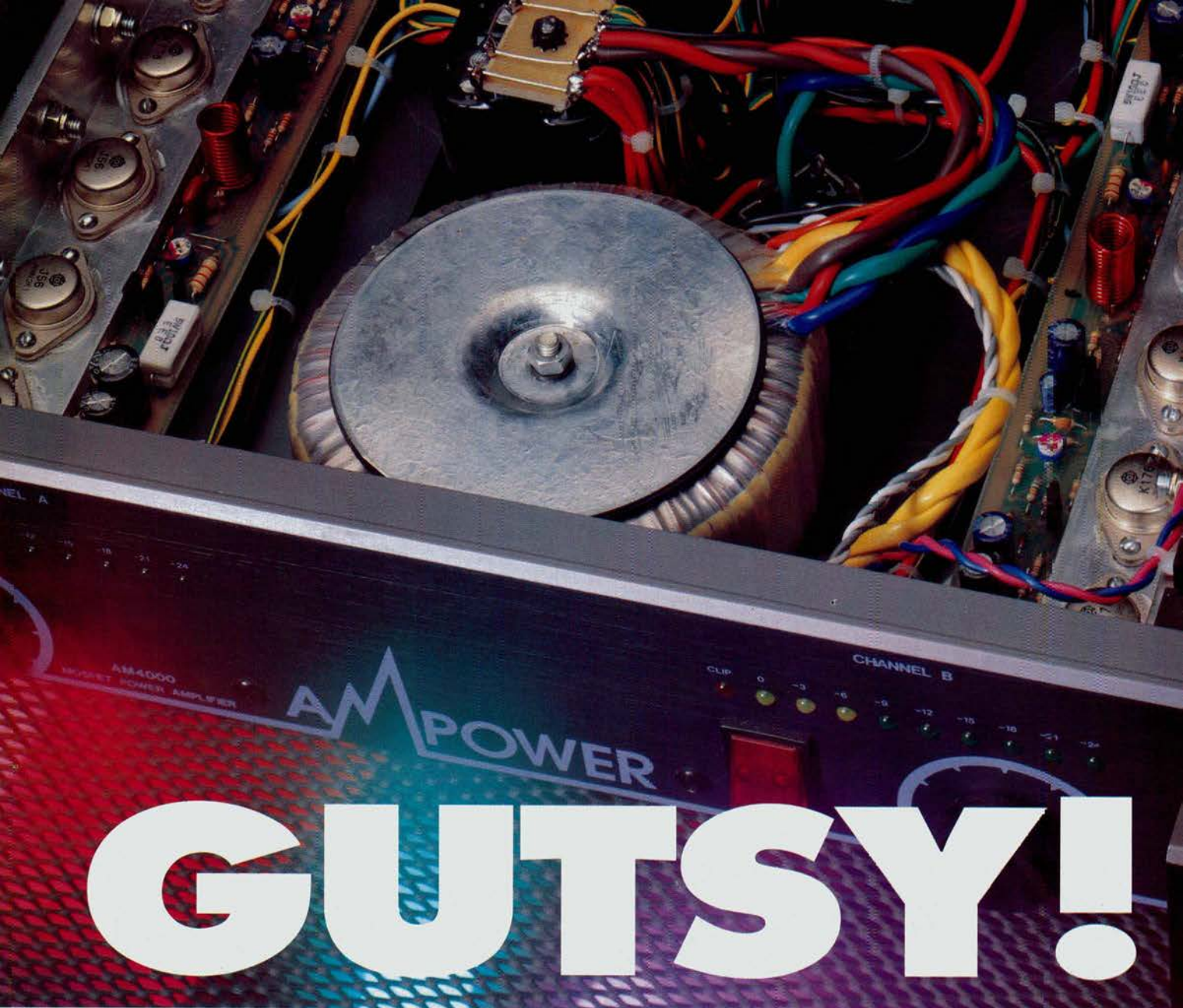
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# Connections

APRIL 1995. Number 22

## CHEEKY KIWI'S

*Who'd have thought it'd pay to ship a New Zealand PA System to Australia for one tour? Well it does.....*

**T**o run a semi across Australia on an average tour costs about \$25,000, so if you cut the number of trucks needed, you save money. With this a factor, Paul Dainty hired Auckland based Oceania to provide PA for the recent Cliff Richard tour. Because they have something no-one else has right now, and it's something the Cliff Richard Organisation wanted. They demanded it.

Oceania have purchased a Turbosound Floodlight/Flashlight PA system, the first really 'new' speaker system technology to find a home anywhere in the region in the past decade. It is also smaller than other systems, thus the trucking costs saved.

Turbo have a strong presence in Australia and New Zealand already, with more than 300 TMS-3 cabinets spread across half a dozen larger audio rental companies. Market leaders are Jands Production Services of course, and they are known to have been actively considering purchase of some new speaker system technology for some time, to join their main type, the Clair Brothers S4 system - and to possibly to replace their existing Turbosound TMS-3's.

Floodlight is a 50° dispersion version of Flashlight, itself a 'high Q' 3 way cabinet of modest and compact dimensions, with 25° output spread. Pink Floyd tour with this kind of system too.

FULL STORY: SEE PAGE 52

**SEEK STORIES**  
WHERE IS YOUR STORY/  
NEWS? SEND TODAY!

## IT'S PRO AUDIO TIME

*Pro Audio punters head to Sydney for largest-yet local AES*

AES is the vital event for those working in audio, the bi-annual Audio Engineering Society convention moves to Sydney this month, from Wednesday April 26 through Friday April 28th.

Pilgrimage to the AES is mandatory for broadcast, recording and live audio people, engineers, producers, technicians and consultants alike.

AES is not a show for doing

**BY JULIUS GRAFTON**

business, rather it is a show for talking about it - the business of sound. A meeting place for professionals, academics, theorists - and the rest of us too! Workshops, white papers and theory abound, presented in an atmosphere of exploration. Chairman Michael Falk says all attendees have the chance to learn about audio developments

at AES, so come and do this.

For me the attraction is the exhibition, where virtually all of the major brands are on show, and the opportunity to meet experts and internationals 'one to one' arises all in one place.

**Cost: \$15 or \$5 for students. Hall 4, Syd. Exhibition Centre.**

- *Gander for AES - see next page.*
- *AES Wireless Forum - see P. 7.*
- *Full AES Preview - starts P. 62.*

## AUSMUSIC IS WORTHY - Report

*Report embargo lifted ahead of Industry Summit on April 27th*

**T**he Federal Government hired Coopers & Lybrand last year to review funding of music industry bodies, and despite being completed last October, the report was only supplied to us on our deadline.

Not surprisingly it states Ausmusic has been hampered by its wide charter and continuing uncertainty over funds. Thus the report recommends five years funding for the national body, headed by Pete Steadman.

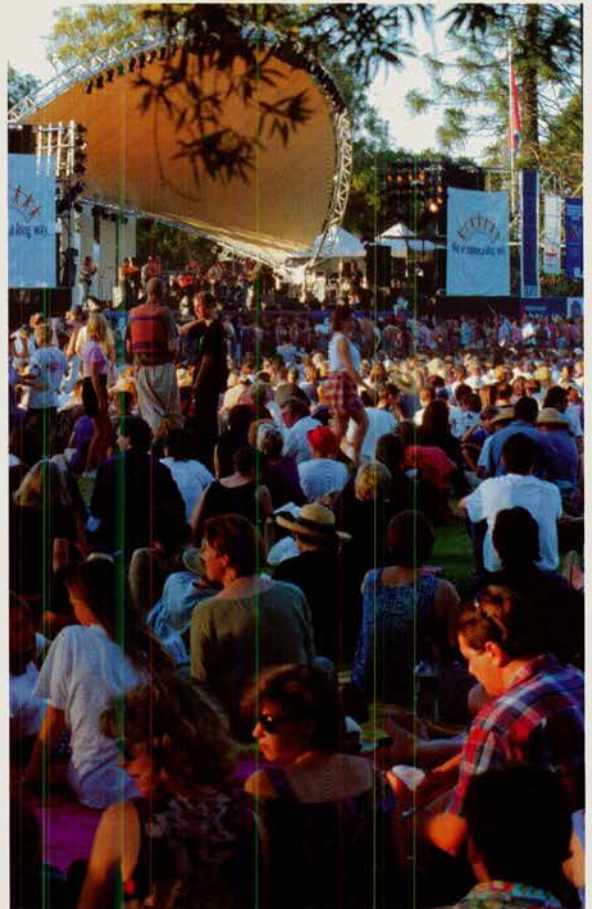
Since the report was commissioned the government delivered the Creative Nation statement, and announced a music industry summit which has now finally been convened as a 'consultative forum'.

Scheduled for April 27 in Canberra, it will comprise 70 participants from the music industry and governments.

The future of the Music Industry Advisory Council 'is now unclear'. Coopers say its funding should cease, and in future government should research directly when it seeks advice regarding the music industry.

Austrade 'should review provision of money for showcases overseas', the report is critical of Export Music Australia, and warns that a proposed resurrection under ARIA 'may favour major record companies over small companies'. **-Julius Grafton.**

• *'EMA's proposed Asian foray' - letters, P44*



*Womadelaide - music & culture in the sun. See Page 9.*

## MOVED

### Connections Moves

We surprised ourselves with a hasty move as this issue was printed, our PHONE, FAX and MAILING address remain the same, but you can now find us at Century Plaza, 41 Rawson st, Epping NSW. Come & say 'gday.

### Chameleon Touring

Systems Pty Ltd has moved, now located at: Unit 7, 41 Bourke rd, Alexandria NSW 2015. Phone (02) 310-5222, fax (02) 310-5511.

### AM STAGING (Syd)

Moved just before X'Mas, to: 73A Burrows Road, Alexandria NSW 2015, phone (02) 550-6511, fax (02) 550-6802.

### Digidesign Australasia

Have moved, to: 1/4 Rowland street, Kew, 3101 Victoria. Phone: (03) 817-6886, Fax (03) 817-6887.

### PEOPLE, CONNECTIONS

**Danielle HAYES** comes on board to handle the YEARBOOK project. **Daniel COLE** starts as our Broadcast writer. **Catrina FORCER** labours under labour, expecting her and Rick's first child ANY goddam minute now!

### PEOPLE SHIFT AT SOS

The long established Sydney based outfit owned by Michael White (and now split into two, with the hire and production arm mostly run by John LeStrange) has had some shuffles after moving recently.

Robert duRose has left after some years, but is still doing projects for the firm. It's all cool, according to John LeStrange.

Peter Wait has come on board as Technical Producer, and Kevin Richards now handles lighting and special projects. Their hire and production number is (02) 667-0062, fax (02) 667-0266.

# V-GUITAR STUNS!

*A sensation for what it is now, this first true new adaptation of the electric guitar by ROLAND is also a sign of the future.*

If you're not a guitarist then Roland's new V-Guitar system is just a very interesting device. If you play, then in the words of Diesel, this is 'Science Fiction'. He really meant non-fiction, and he was himself agog after seeing this new adaptation of the electric guitar. This is a system that totally, completely redefines the guitar for the first time since the thing was electrified in the late 1930's.

This system takes a guitar and turns it into other things as well, but it's not a guitar synth as you know it. V-Guitar uses a very cunning divided pickup, a split device (which in its own right re-defines what a guitar pickup can do) and a foot operated digital sound processing unit. Based on COSM -

## Music

Composite Object Sound Modelling - they make magic, and encourage non-players to learn how. Best of all, V Guitar disposes of effects, pedals, preamps, amp and speakers, It makes guitar playing dross-free.

Imagine you can tell your guitar that the E string is stereo left, and the A string stereo right. How about snap changing the 'virtual' position of the pickup to anywhere on the guitar? I said, anywhere - and this is the whole point with the V-Guitar system. It is a digital sound modelling system that uses the sound and expression of the

guitar string through the Roland divided pickup as its source. This is the essential difference between V-Guitar and a straight guitar synth, which uses the string to 'trigger' a sound.

Of course you can 'play' different instruments from your guitar too, in some cases several at once. In this sense it is like a guitar synth, itself a general concept that has been around since 1977. In fact, the brass emulation is very nice, through to a gliss or portamento slide.

What is most remarkable about the V-Guitar is that it is everything you need. It replaces your amplifier. Sure you say, plenty of effects processors can do that too,

*(continued on page 22)*



## Gander for AES

AES governor Mark Gander will be flying in from the US to present a paper on digital integration in studio monitoring at the 5th regional AES Convention at the Sydney Exhibition Centre this month.

The paper will be a technical explanation of the development of the new JBL DMS-1 digital monitoring system and its merits over conventional systems.

Mr. Gander was elected as AES governor last year for a two year term. Recently he got a new role at JBL" Vice President/Strategic Development, overseeing engineering standards and product quality. He is, in actual fact, quite down to earth for a technical guy!

• **Mr Gander's paper will be presented at the AES in Sydney from 2.15pm on Thursday 27th April. Book: (03) 525-6755 or at AES.**

## OPINION

*By Julius Grafton*

### HOW TECHNOLOGY KILLED LIVE MUSIC

**I**f the golden era of the Australian Rock Industry was the early 1980's, it helps to realise WHY this was.

Do you wonder why the very best movies are very old? Those classics, many in black & white, point the way to the decline of live music as we know it. Technology is the guilty party, because after mankind discovered how to utilise the film medium, it ran out of good story ideas!

Remember Jimi Hendrix? You can map the development of live rock music with the sounds that were invented and exploited by pioneers like The Jimi. Guitar got loud and the Wah-Wah effect was born.

Rock music became a new experience for everyone, and technology assisted in keeping it all fresh. The column PA systems of the early 1970's gave way to the big PA. The live sound engineer was born.

Milestones kept popping up. Music kept thriving on the changes, because people kept coming back for new sounds. FM radio arrived in '79 lifting standards. Until then the PA system was the first time most people had EVER heard anything over 12kHz, the tizz and zing of cymbals at a live gig worth travelling for!

Who can forget the impact that the W bin created, wholly to thump you. Rock audiences PAID for that.

The CD came in 1985, keyboards delivered sounds that hadn't been invented before. Milestone - Mondo Rock release 'Come Said The Boy'. Why can't we forget the clarity, airspace and fresh keyboard sounds? Psueo Echo advanced on the back of the sequencer. New sounds.

By the time we got to 1988, most sounds audible had been created and synthesised, and the exploration became passe.

# STUDIO NEWS

With Caroline Grafton and John Zulaikha

• **48v STUDIO** celebrates *1st Birthday* in Sydney with party yay! Turning it on in appreciation for all. Nice studio, good vibe, impressive 'Darling Harbour Studios' complex and recording facilities including choice of Studer 2" A-80, 3 x Tascam Da-88's and a 24 track Tascam digital multitrack (got enough tracks yet!) plus DD1000. Quality outboard inc. Lexicon 480L into a 56 input Amek Hendrix automated console with ATC monitors. 48 Volt reminiscing - **Screaming Jets** christened the studio last Feb and have just completed recording and mixing their 3rd album with Irish producer **Robbie Adams** of U2 fame.

48v wish to thank all those who have used the facilities and apologise for all those names left out above. All here at Connections congratulate Claire and staff for doing it so well and making their first year such a success. Call (02) 211 6663.

• **CHARING CROSS** (Sydney) are presently modifying their Neve 8106 - updating modules with Mute Groups and lockable solos - ultimately to physically link up with their other Neve into one housing, to make a 60 channel console. Charing Cross Classic Mike Hire is now open for business. Call Dave Sykes on (02) 387 8362 for info.

• **VANDERSOUND STUDIOS** (QLD) is now C.E.S. approved, funding Jobstart students for Vandersound Audio Engineering and MIDI Certificate Courses. A recent graduate has had his first recording released on compilation CD **Get Freaked** sponsored by **Radio 4ZZZ** featuring many of Brisbane's new breed Metal Bands. Call Eric on (075) 46 8100.

• **BIG** news this month is **RUPERT NEVE**, at the AES.

(continued page 74)



## AUSTERO GOES DCS

Techtel have installed a large DCS network at Sydney's 2DAY FM, after recent similar installations at sister stations B135 and SAFM.

This leaves 2MMM in Sydney (studio pictured at top) as a candidate for the system, which typically has 18 Gb of hard disk storage for over 30 hours of music and 10 hours of commercials. This is all networked together in a simple Novell network on PC's.

The 2DAY system, pictured above being used by Vanessa Dunka, has two production workstations, 2 studio workstations, and a carting workstation. The server is also mirrored. Techtel say many systems work without direct supervision, and they will show it at the forthcoming AES Convention in Sydney. \*Call Peter Chamberlain at Techtel for more, (02) 906-1488.

## \$17,268- for WHAT?

Triclops is an industrial performance group who the Australia Council for the Arts have just given \$17,268. Their project, "takes the techniques and methods of heavy industry and adapts them for performance". Got that?

Based near Wellongong in the small industrial town of Coalcliff, they create 'alchemical episodes of industrial voodoo'. Using buckets of molten metal, a raging furnace generating heat to 1700°, slags of coal, stokers and, of course, the necessary protective

gear, this group of young men create spectacular visual and theatrical expression. Triclops will continue to forge a strong relationship with BHP Refractories in Port Kembla. They have developed their own cupola furnace especially for the staging of molten iron events. Their project, entitled *Molten Godhead*, will continue to investigate the potential of molten metal for performance, the link between art and technology and the cultural significance of heavy industrial activity. (This is a genuine story.)

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**NEW OFFICE ADDRESS**

**FROM APRIL 1995:**

Century Plaza, 41 Rawson St, Epping 2121, NSW.

Phones: (02) 876-3530

Faxes: (02) 876-5715

**International:**

call +61-2-876-3530

fax +61-2-876-5715

E-Mail: Julius@Next.com.au

Compuserve: 100242,3662

Editor: Julius Grafton

Lighting Editor: Catriona Forcer

Studio Editor: Caroline Grafton

Laundromat: Natalie Apostolou

Broadcast writer: Daniel Cole

From Detroit: Buck Freeman

Photographer: Suzi Precanica

**Contributing writers:**

Duncan Fry, Howard Jones,

Michael Orland, John Zulaikha

and YOU, the reader.

Advertising: Caroline Grafton.

Concidence: Elaine Auld

Graphic Art & Layout:

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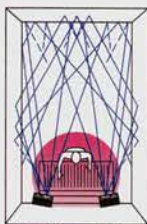
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# The Truth From Left To Right

The truth...you can't expect to find it everywhere you look, or *listen*. But when mixing music, hearing the truth from your monitors will make the difference between success and failure. You'll get the truth from the Alesis Monitor One™ Studio Reference Monitor.

## Room For Improvement

Fact: most real-world mixing rooms have severe acoustical defects, with parallel walls, floors and ceilings that reflect sound in every direction. These reflections can mislead you, making it impossible to create a mix that translates to other playback systems. But in the near field, reverberant sound waves have little impact, as shown in the illustration. The Monitor One takes advantage of this fact and is built from the ground up specifically for near field reference monitoring.



The pink area in the illustration shows where direct sound energy overpowers reflected waves in a typical mixing room. The Monitor One helps eliminate such complex acoustic problems by focusing direct sound energy toward the mixing position.

## The Truth From Top To Bottom

The Monitor One's proprietary soft-dome pure silk tweeter design delivers natural, incredibly accurate frequency response while avoiding high frequency stridency and listener fatigue—typical of metal-dome tweeter designs. The Monitor One overcomes wimpy, inaccurate bass response—the sad truth about most small speakers—with our exclusive SuperPort™ speaker venting technology. The design formula of the SuperPort eliminates the choking effect of small diameter ports, typical in other speakers, enabling the Monitor One to deliver incomparable low frequency transient response in spite of its size.



Alesis SuperPort™ technology gives you the one thing that other small monitors can't: incredibly accurate bass transient response. No, the SuperPort doesn't have a blue light, but it makes the picture look cool.

The result? A fully integrated speaker system that has no competition in its class. You'll get mixes that sound punchier and translate better no matter what speakers are used for playback. The Monitor One's top-to-bottom design philosophy is a true breakthrough for the serious recording engineer.

## Power To The People

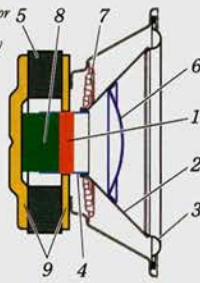
While most near field monitors average around 60 watt capability, the Monitor One handles 120 watts of continuous program and 200 watt peaks...over twice the power. The Monitor One provides higher output, more power handling capability, and sounds cleaner at high sound pressure levels. If you like to mix loud, you can.

## The Engine

Our proprietary 6.5" low frequency driver has a special mineral-filled polypropylene cone for stability and a 1.5" voice coil wound on a high-temperature Kapton former, ensuring your woofer's longevity. Our highly durable 1" diameter high frequency driver is ferrofluid cooled. Combined, these two specially formulated drivers deliver an unhypped frequency response from 45 Hz to 18 kHz,  $\pm 3$  dB. The five-way binding posts provide solid connection, both electronic and mechanical. We even coated the Monitor One with a rubber textured laminate so when your studio starts rockin', the speakers stay put. Plus, it's fun to touch.

A cross section of the Monitor One's proprietary Alesis-designed 6.5" low frequency driver.

1. 1.5" voice coil.
2. Mineral-filled polypropylene cone.
3. Damped linear rubber surround.
4. Kapton former.
5. Ceramic magnet.
6. Dust cap.
7. Spider.
8. Pole piece.
9. Front and back plates.



## The New Alesis Monitor One™

You don't design good speakers by trying hard. It takes years and years of experience and special talents that only a few possess. Our acoustic engineers are the best in the business. With over forty years of combined experience, they've been responsible for some of the biggest breakthroughs in loudspeaker and system design. The Monitor One could be their crowning achievement. They're the only speakers we recommend to sit on top of the Alesis Dream Studio™.

See your Authorized Alesis Dealer and pick up a pair of Monitor Ones. Left to right, top to bottom. They're the only speakers you want in *your* field.

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VISIT STAND NO.24  
AT THE AES  
SYDNEY CONVENTION



## A BAND WHO DONT USE LIGHTING

The current trend for minimal lighting continues, with Pearl Jam employing candles (very low rental costs) and that other hip band The Cranberries keeping their rig simple.

Old rockers like The Rolling Stones, Phil Collins and ELO stick to keeping the manufacturers and rental companies happy!

Oh well, you don't leave the show humming the lighting anyway, do you?

**Connections office address is now: Century Plaza, 41 Rawson Street, Epping. Phones, Fax and postal address remain UNCHANGED.**



## THREE EUPHORIC DAYS & NIGHTS OF MUSIC

**W**omadelaide 95, the 'Global Music Event of the International Year for Tolerance', was held last month at Adelaide's Botanic Gardens. Running over two days, the festival attracted a crowd of 55,000 altogether with 20,000 at any one time drifting between the various performance spaces. A third of the visitors were from interstate.

Womadelaide is presented every year by the Adelaide Festival Centre and the Adelaide Festival and its aim is to showcase world music. The event attracts around 60 acts and a wide selection of stalls many with an 'alternative' theme. Alcohol is freely avail-

able but despite such large crowds, and extreme heat this year, the atmosphere is very non-threatening with kids running around.

Production manager, David Malacari of the Adelaide Festival, had the task of setting up the event in an area where there is no power or facilities.

"Putting in the power and facilities is one of the major expenses," he said. "Fortunately we had sponsorship from ETSA who put in all the power for us."

There were four performing areas - Stages 1 and 2, the Tent and the Dell. This year, the Adelaide Festival Centre's Sound Shell was used for the main stage - Stage 1 - with a Meyer

MSL sound rig supplied by Audio & Recording and run by Ian Richardson. Stage 2 used locally hired sound equipment from Osmond Electronics, MSL3 rig, with Tom Cowcill of the AFC acting as sound engineer. The tent was also run by Tom.

"Both Stage 2 and the tent suffered from popularity with too many people trying to get near the performance," said David. "The fourth area, the Dell was away from everything else with no power, thus was acoustic.

Lighting design for all performing areas was by Peter Taylor who hired most of the necessary equipment from Adelaide's Osmond Electronics. **-Cat Forcer**



## An Inspector Calls

Currently touring around the country is the National Theatre of Great Britain's production of J B Priestley's 'An Inspector Calls' which has taken the theatre scene by storm.

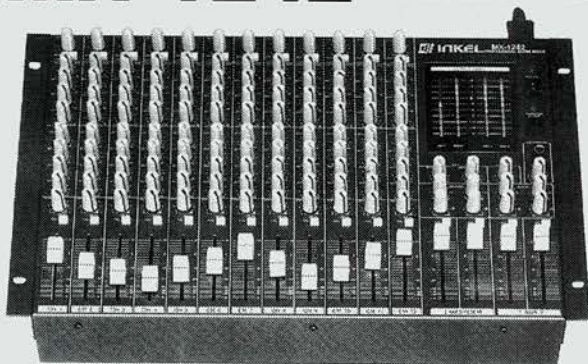
Huge critical acclaim has been received by the director Stephen Daldry and the designer Ian MacNeil for their innovative approach to what is a well known and used play. The play has won four Tony awards. The set for the play features an Edwardian house which disintegrates and then magically pulls itself together again before the audience's eyes. During the play the house also tips forwards sending crockery smashing around the cast and later, it reasserts itself.

Original lighting design is by Rick Fisher and sound designed by Rod Mead. **-Cat Forcer**

# INKEL PA

**Korea's No.1** Pro Audio Manufacturer for more than a decade.

## MX-1242 Professional Audio Mixer



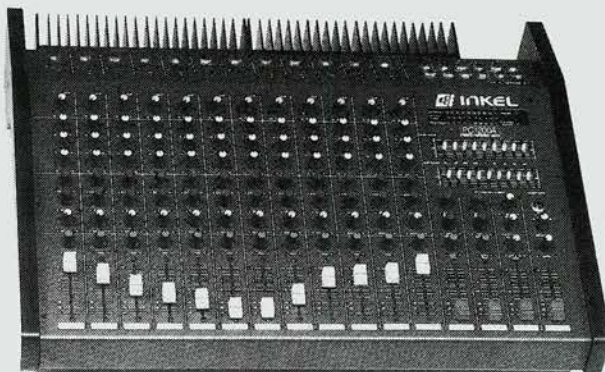
- 12 Inputs & 6 Outputs  
2 aux output, 2 effect sends  
& main output left & right
- 4 Band Tone Controls
- Gain Control & Peak Indicator
- 4 Effect Returns
- Output Monitoring
- PFL on each Input
- Rack or Table Mount
- Phantom Power



## PC-1200A Powered Mixer

Features include:

- 12 channel inputs
- 4 channel outputs
- Reverb function
- 9 band graphic equalizer
- Stereo 250W/4Ω
- Phantom power



## PC-800A Powered Mixer

Features include:

- 8 channel inputs
- 4 channel outputs
- Reverb function
- 9 band graphic equalizer
- Stereo 150W/4Ω
- Phantom power

For more information on the INKEL range of products, contact your nearest INKEL dealer or phone:

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**New Zealand:**  
Magna Techtronics (NZ) Ltd.  
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## GONE TO PARADISE

Usually I consider myself a reasonably street wise person but on the approach to Paradise, I ziggled when I should have zagged and found myself confronting something akin to the description of New York under anarchy in the novel 'Down To A Sunless Sea', a book worth reading in case you haven't.

The down and out of humanity have purloined the part of Sydney I now found myself in and very nearly drove over several sightless bodies in my panicked escape. Finally back on track I see the blessed four foot high letters '70 Judge Street', desperately ring the door bell and find sanctuary in Paradise Recorders.

Yet another disappointment - no Bill Field. Now Bill had explained to me that during his time in the industry as a piano playing big band leader best known for his hit 'Bad Habits', he really had had enough publicity and the story was to be focussed on the studio not himself, but I kept hoping. Bill now concentrates on his own music and apart from his financial input into the studio and using the facilities for his own projects he really wants to leave the day to day running up to 31 year old Lien Chew B.E. - Studio Manager, which he has been doing for some 8 months full time.

My disappointment though was short lived, as from the moment you walk through the rough sawn (for those who don't know, 'rough sawn' is when the timber is not fine cut and sanded to a smooth surface - I'm a chippies daughter) timber front door you cannot help but be enveloped in the natural aroma of

timber, not just in recording rooms but everywhere you turn. Walking up stairs you pass through 15 years of memories for the walls are adorned with various awards for artist recordings including, Richard Clapton, Swanee, INXS, Dyvinals, Ice

House, Midnight Oil, Jenny Morris, GangaJang and of course Mr. Bill Field. Continuing upstairs you find yourself in a large comfortable sitting room complete with lounges, kitchen and billiard table. On this level you'll also find

### STUDIOS

With Caroline Grafton

the offices, the overdub room with excellent line of sight vocal booths and the tech rooms. Enscenced on a sofa sipping tea with Lien, the light streaming into the room through the huge ancient branches of one of the only trees in the area, one feels recovered from the last 15 minutes angst,

(continued page 15)

Lien Chew B.E. - Studio Manager at rebuilt Harrison/Polfield console



Those video achievers, the Big Picture Company who we featured last issue were very popular with Janet Jackson. Days after Jackson's manager priased the company, he extended their contract.

Big Picture are now in Europe for an extra 7 weeks, instead of finishing the Jackson Tour in Thailand. It seems the extra air freight cost for the 4 tonnes of video was deemed worthwhile, given the high standard enjoyed by the entourage.

**FIXUP:** In the story last issue we failed to mention the Pioneer Video Cubes were hired from Image Design Technology in Sydney. Apologies to Jerry Wilkins and co. Call them on (02) 439-3929.

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## AMX MAKES MUSEUM WORK

By Julius Grafton

**N**uns on the Run is my favourite part of the most interactive museum in Australia. While not a heavy museum goer, I've seen a rush towards touchy feely interactive displays, and can report they enhance the experience - especially when they work. It's how they work that interests us, the actual museum part is less important.

If you press a button in a museum you expect something to happen. On a recent visit to the Powerhouse museum in Sydney many buttons did nothing, which after a while caused some discontent. The new Mary McKillop museum in Sydney was first noted in these pages in February, and upon visiting it I declare it an interactive masterpiece!

The show business company Wintergreen produced the place at an overall cost of around two million dollars. This is petty cash considering it includes building works within the existing premises, and it covers the presentation of all artefacts, and most importantly the actual audio visual equipment installation.

Confronted by a blank screen you push a button and a laser disk player kicks in with a spoken scene. Go into the one room and six screens run concurrently with six people arguing. This is timed to the frame, and fired by the mother control that runs this whole place - an AMX ACCESS system. Go into the Ernie Dingo Theatre and you see an audio visual presentation in surround sound, which includes a gas fire which pushes up through the floor, and an effect speaker which is used for a dog barking. Everything is run on ACCESS.

If you are a control freak it's worth looking into the new wave of advanced remote control systems. Simply put, this kind of system takes computer commands and triggers switches and remote

(over)



JOHN Z. VISITS a Sydney home studio run by guitarist *Extraordinaire* JOHN ROBINSON

## Blackfeather Music Productions

**First impression as I walked in** was a great vibe, dark, lots of little lights, comfortable, definitely not antiseptic clean - with some real grunge time warping atmosphere. In the corners were some huge ominous speaker enclosures... I felt at home.

Unlike most Project Studios there was no computer in sight, no monitor, no video, just buckets of gear neatly spaced around. A fairly long control room with a comfy couch at the rear, perfect for artist/producer lounging. Between the 15" 3808 Tannoys with passive Sync-Source time-aligning (delays the horn about 8 milliseconds) a very heavily modified Allen & Heath mixer, of which all inputs have been re-designed by Peter Strokorb and all outputs now have Avalon Audio Class A amps, into a QSC 3200 power amp rated at 380 watts per side.

Not turreted on by flashing panning, or even wide stereo, John demands the image be clean and centered - in phase - a stable image. John's *Seasons Of Change* was **BLACKFEATHERS** memorable hit in the early 70's had a heavy orchestral flavour on top of rock.

Centred around the latest AKAI DR8 2.4 gig (approx. 6 hrs) hard disk recorder, this project studio gets serious. John says he can operate the DRE almost as fast as his MC500, and witnessing an MC-500 in flight

you appreciate comparable speed manipulations from a hard disk.

John has retained the MC500 Mark II sequencer, completely bypassing the tedious de-bugging 3rd party pass the buck trauma associated with music computers. Being able to arrange on paper and in his head, having a screen wasn't of any real advantage.

In doing so it has saved him time and dollars by sticking with what works.

### GEAR

**Reverbs:** Yamaha SPX 930, ART DR1, Ursa Major 626, all balanced NO ground loops. **Compressors:** Aphex Compellor, Symmetric, Ashley SC50. **Mic Pre-Amps:** Giles tube, Harrison solid state. **Gtr Pre-Amps:** Bogie tube, Rockman. **Tape:** Yamaha DTR2 DAT, 4 track Tascam with DBX. **Sync:** Syncman Pro. **Mics:** 2 x Neumann KM 88's multi-pattern, Shure 57/58, Sony Electret condenser. **MIDI:** Oberheim: Expander, Drums Roland R-3m. with all sound cards, Korg T3 master keyboard, Korg 01R/W, Roland MKS 20 Pianc Module and favourite MIDI Bass through Ashley compressor into Rocktron noise reduction.

### TIPS

One thing John like to do is loop sequencer and solo guitar to tape then dump to hard disk and edit,

saying he really likes the sound that tape gives to guitar. He often tracks Kick and Bass to tape too.

A muso first, studio operator 2nd, John isn't into complex fader movement during mix down. He prefers to organise and MIDI automate the mix down paying particular attention to giving an almost complete finished

headphone mix to the singer whilst tracking vocals. When John produces, he also Midi's up the song/arrangement with the singer in mind arranges a hole for the vocalist to slot right in. Encouraging the vocalist to bring out the best miking technique combined with compression to deliver a balanced sound. The less fiddling, the less over production, the better the product.

John also pays attention to gate times, the length of the tail of a MIDI note. The correct length of a note is likened to the tail of reverb that is often added during mix down to smooth out the playing. In doing so, his productions can be cleaner and not washed out. Attention to MIDI pre-mixing, adjusting levels and fades with continuous controllers is standard.

It began to dawn on me, no phone calls and I couldn't see a clock! **His phone number is 909 2707 (tell him to get an answering machine).**

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## INTERACTIVE MUSEUM (cont)

equipment to a routine. The relentless advance in processing speed and data storage makes possible today what was a dream a few years ago.

A common control protocol, or language, is not necessary. This is where AMX and their competitor Crestron are leaping ahead, and according to Paul Van Der Ent, who handled the integration at this museum, AMX are ahead due to the versatile number of control possibilities.

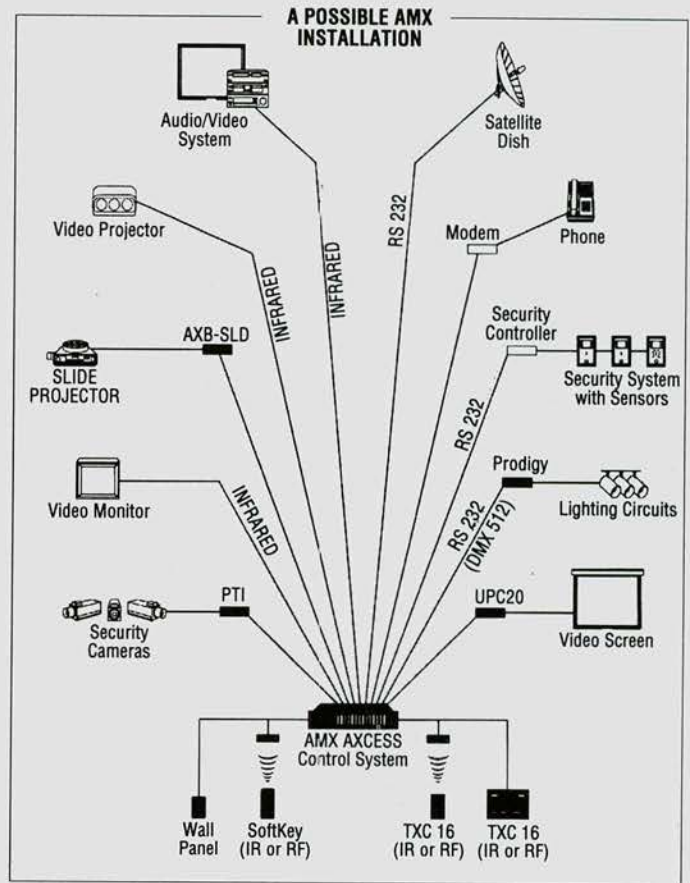
"We run everything on the AXCESS system, including air conditioning, lighting, audio and it's even linked to the security system", he told me. In the case of the laser disk players, an RS-232 command is sent to the respective player when the button in pressed next to a 21" monitor down on the museum floor. It fires the laser disk within about 2 seconds.

Technical trickery exists right throughout this most unconventional union between the Catholic church and the 21st century. As a

museum the place leads the customer on a half hour browse that twists and winds through a renovated building. The ambience is very cosy, very Australian, and the subject matter is actually quite interesting. The first mentioned Nuns On The Run is actually a machine operated model that brings out the kid in all of us. It is a fun piece, engineered by a firm called Machine Ability of Sydney. The museum has animatronics by Planet Productions too, fired off course by the AMX System.

John White from White Noise Pty Ltd wrote the control sequence for the system, and it can be remote accessed via a modem. In addition, a 'Soft Key' hand held wireless control panel can be used to change settings from anywhere in the museum. There are four RF receivers throughout the building to keep the Soft Key unit within range.

If anyone else has designed and implemented a better museum, could they please call me? -JG

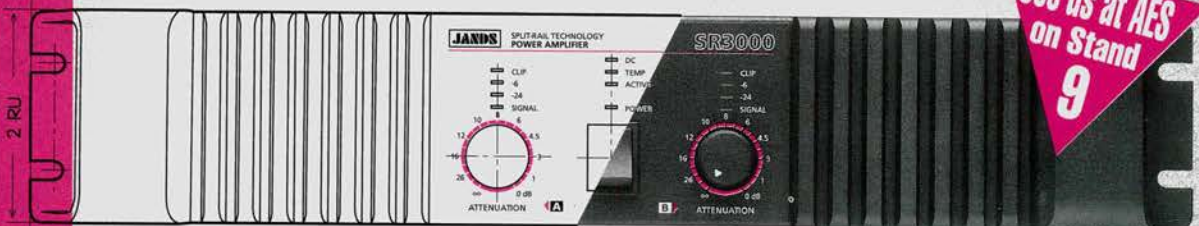


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## AMX - MORE

This ACCESS system used at the McKillop museum is a modular, rack mounting, system for remote controlling almost anything that runs on electricity. Things gas and liquid can be controlled too, if there is a possible switching mechanism connected to electricity. It is a cardframe that can carry 16 cards, these can be any of 29 different types of card. Each card has connections on the rear for wiring to the remote devices.

This system is the largest AMX installation in the land, with eight card frames, 1 mini card frame, 120 cards, 2 enhanced cards with extended memory, 1 softkey remote, 1 x 16 button remote, AMX touch screen & more.

The installation comprises 30 Pioneer LD-V4300D Laser Disc Players, 30 Sony 21 inch monitors, 2 Sony 1271 Video Projectors, 4 Quest video switchers, Sony VHS, and Kodak Ektapro projectors. 300 lights were driven through 108 channels of Dyalite dimmers.

Audio was 7 Denon DN980f mini disc players, 1 Denon DN-980R mini disc recorder, 12 Crown D-75 amps, 3 Audio Telex amps, Yamaha graphics, Tannoy, Bose and Sony speakers.

The AMX system is integrated with the fire and security systems, and controls all air conditioning, extractor fans, pond pumps and more.

The system was put together by Paul Van Der Ent, who is an AV and Electrical consultant. (Call 06-247-8488).

AMX Programmer: John White.  
AMX from AV Technology, (03) 764-8443.

## PARADISE

(continued from page 11)

Paradise Studio itself has a character that combines technology with nature. Originally designed and constructed by Sierra Audio USA and supervised by Tom Hidley, the facility can accommodate approximately 35 musicians. Recording areas include the Main Studio which opens onto a Variable Decay Isolation Room which can be as live or as dead as you want, finished with marble flooring, floor to ceiling glass with velvet curtains. Also attached to the main room is the drum cage, vocal booth, airlocks and the access is a dream load. All recording areas have bass, room and/or piano traps and are constructed on floating floors.

The control room itself is still evolving with current technology and features a 40 channel Harrison MR2 recording console. But looks can be deceiving. This ain't no ordinary Harrison desk! The console has been de-constructed, modified and rebuilt under the guidance of Tony Polson, Bill Field with Bruce McBean in an advisory capacity and is affectionately known as the 'Polfield'. According to various producers and engineers the Polfield modification has been a success. Though not yet fully automated the studio offers 24 tracks on both Studer A800 and Tascam ATR80-24, Audio Kinetics Q-Lock synchroniser, 1/2 and 1/4" 2 track, Tascam DA30 digital mastering, 2 x U-Matics and Amcron, Yamaha, Technics & Perreaux Amps. Monitoring includes JBL/TAD Main Monitors as well as Yamaha NS10s, AR18s and Aurotones. Lien Chew holding a Bachelor of Engineering degree means maintenance is

of the highest level. "we don't wait for something to break down, we constantly overhaul equipment before it has a chance to fault" Lien tells me. A wide array of outboard gear and microphones is available and is inclusive of booking cost. A 14hr. lockout with assistant engineer will cost you \$850 with casual rates starting from \$75 per hour.

In the current market the studio is enjoying a reasonable patronage with most recent acts tracking including, Alchemist, Welcome Mat, Rat Cat, Screamefeeder - Engineered/Produced by Wayne Connolly, Downtime, Lee Kernighan/Marc Hunter, David McLeod, Durcan James and Simon Holmes.

In house staff include assistant engineers Tony Wall and Jason Lea, Prue Field on administration with Lien Chew as manager and studio co-ordinator.

### MICROPHONES:

Sancken CU41; Neumann TLM170, U87 x 4, U47 x 3, KM84 x 4; Sennheiser MD421 x 3, MD441 x3, 531 and 509 Black Fires; AKG C414 x 3, D12, AKG C451 (+CK1 cap.) x 3, CK5 capsule; Shure SM57 x 4, SM58 x 2, SM77 x 2; Beyer M88; EV RE20 x 2; PML DC96; PZM PA18; Active DIs x5; Valve ADL (2 ch.) DIs;

**Available at extra rates:** AKG Valve C12 (The Tube) and Neumann Valve U67.

**Additional Mic Pre selection:** Telefunken V76 x 4, V77 x 6; Avalon Class A; Neve Class A 1073s inc. EQs x 4; Benchmark MIA 4 ch.; Jenson Twin Servo 990 Class A; Yamaha MLA 7

8ch.;

### HEADPHONES:

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### OUTBOARD:

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*Paradise Recorders Pty. Ltd: 70 Judge Street, Woolloomooloo, NSW, 2011. For bookings contact Lien Chew, Studio Manager on Ph: (02) 357 1599, Fax: (02) 357 1841.*



STUDER MULTITRACK RECORDER



# SOUND DESIGN FOR 'THE EMERALD ROOM' - A New Australian Musical

The sound department at the Adelaide Festival Centre has been putting systems together for musicals, large and small, since Tonight: Lola Blau and Evita in 1979. Their latest local credit is The Emerald Room - a brand new Australian musical by Dennis Watkins and Chris Harriott, premiered by State Theatre in The Playhouse of the Adelaide Festival Centre during last November and December.

I suppose you could describe the show as a small musical with a cast of only four principals, five chorus and four musicians, presented in a 600-seat, 2 level proscenium venue, but as many of you know, an untried production of any size presents its own difficulties.

The Emerald Room was no exception, with less time and money available than the sound department would have liked to plan, install and road test their work (so what's new!). But experience and talent won out. The show opened with only one public preview but all involved agreed that the sound show was as smooth as silk. Even the critic for the Adelaide Advertiser, who is happy to single out the sound department if he doesn't like what he can or cannot hear, wrote "The balance of the four piece band and singers was cool and clear and designed so that every last lyric could be heard." (*Name this Critic - Ed*).

The sound design called for a capsule radio mic on each of the four principal singers and each of the five chorus members/dancers. Feeds came from four musicians who between them played a range of keyboards (2

players), electric guitar plus FX, and acoustic drum kit plus pads. There were also SFX and music to be played back by the FOH operator off open reel tape, DAT and CD. The music and FX had a disco flavour with lots of subsonics. The design needed to aim for a cool, crisp and clear lyric

## THEATRE

with plenty of level. In addition, the sound department was to provide video playback facilities on stage as well as the usual show comms - talkback, CCTV and paging.

The sound designer was **Keith Livsey**, senior sound technician, system design and engineering, who has been with the Adelaide Festival Centre since 1972. Keith is an experienced designer who's credits include 42nd Street and A Chorus Line.

FOH operator was **Jane Rossetto**, senior sound tech with the centre since 1989. Jane is an experienced FOH operator who's credits include the recent tours of 42nd Street and Me & My Girl.

The radio technician and video operator was **Andrew Copeland**, a sound tech with the centre since 1990, and also very experienced in the job having worked as radio tech on many tours including The King & I, High Society and Me & My Girl. The show crew also included **Julien Gibson** as trainee radio tech (forward planning in action - Andrew's wife was due to give birth to their first child mid-season). These four, plus sound tech **Terry McKibben**, spent three days installing the rig for sound and video, then a day of system alignment and

sound checking with the band and singers before two days of tech/dress rehearsals.

Their approach was very much team-based with lots of compromises going on during the bump in and tech/dress rehearsals. The flown centre cluster had to be moved three times to accommodate unplanned changes to the placement of the movable scaffold set, and the FOH left and right speakers relocated even more times to make room for the cast who ended up sharing the same platforms as the loudspeakers for some scenes.

**GEAR.** Now down to the nitty gritty bits. All the gear came from the Adelaide Festival Centre's sound stock which kept the hire costs down for the State Theatre Company. The FOH speaker system was designed in two parts - a system for vocals with a separate system for band and SFX. There was a flown centre cluster of only 2 X Tannoy CPA10S speakers (140 degree horizontal dispersion) for vocals, with vocal front fill for the stalls provided by 6 X Tannoy CPA5's located on the front of an asymmetrical thrust stage. The Tannoy CPA10S speakers were a major feature of the sound design, their pattern being wider than most, allowing better coverage with less boxes and reducing the problems of combing and rigging - just as well since they were rigged and derigged often!. The band mix and SFX were sent to FOH left and right loudspeakers, being 4 X Nexo 212's (2 per side, on platforms each side of the proscenium, aimed at balcony level), 2 X  
(Sorry, but now go to page 24)

*The new headset mics (Shure WCM16) worked very well, although they occasionally presented a problem for the love scenes! Keith first saw them at Entech '94.*

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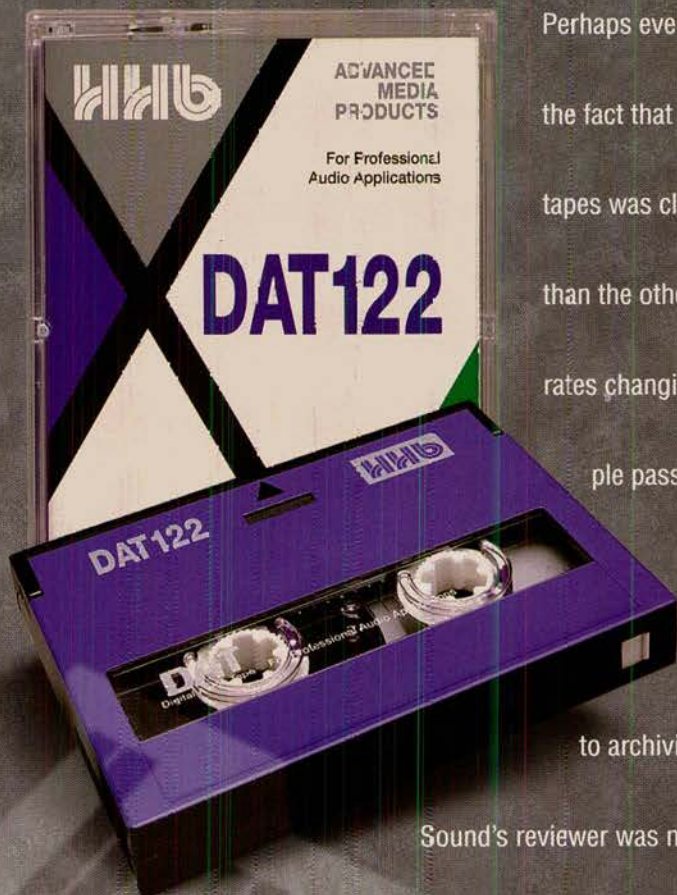
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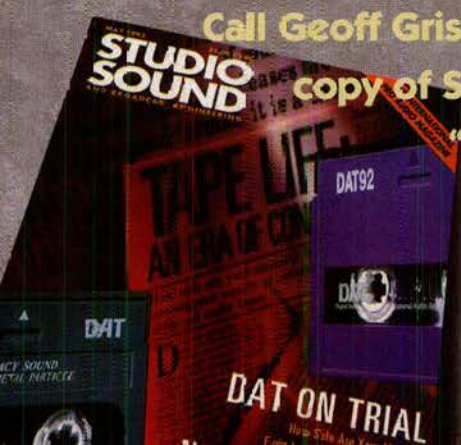
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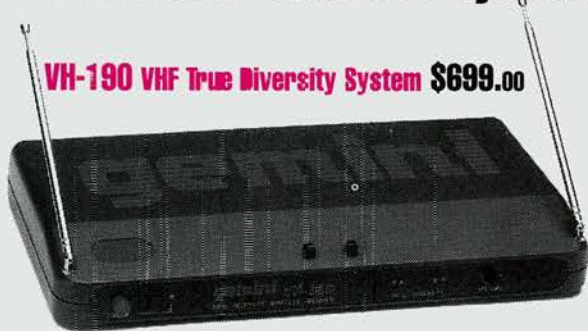
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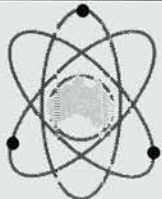
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# AUDIO

## for Hey Hey It's Saturday or, 'Have you ever watched TV with the sound turned down?'

By Daniel Cole

Well have you? You can make out the basics but the crucial element is missing. Audio for television is very much taken for granted, common thought is that 'it just happens'. In fact it is involved beyond expectation. Audio for pre-taped programs such as drama or information shows can be demanding, but when it comes to live to air television, the technical demands multiply.

How does a show like 'Hey Hey It's Saturday' work from an audio aspect? I went to TCN 9 to talk to the audio people whilst they were in Sydney doing a live to air show.

*(At this point we need to say the Hey Hey audio crew were not too pleased we had chosen Sydney to review their work. The studio they've worked from for 20 years in Melbourne is well setup for the show, and there are compromises in doing the show from Sydney. They asked us not to run this story, we counter offered to come and see the show run from GTV sometime soon. So, please consider this while reading. -Ed)*

'Hey Hey It's Saturday' is unique as it combines efficiently a myriad of events; live music, various talking heads, pre-taped items, sound effects, talent and the un-talented -all with a live audience.

When the program comes to Sydney the audio is co-ordinated out of a tiny room by John Simpson, full time audio director at TCN 9. John mixes the live to air signal so I asked him how the various audio signals were organised to air:

### Audio Paths

"Hey Hey is fairly involved. There are 60-70 mics on this show, all coming up to the desk via active splitters, from here they are sub-grouped where necessary, then mixed to air. I send signal back down to where ever it's required."

After watching behind the scenes at TCN 9 for the afternoon, the maxim for TV audio would have to be everybody has to be able to hear everybody else all of the time, hence a involved foldback mix is required:

"Daryl needs for instance John Blackman clean on a small speaker and all Murray Tregonning's effects on another. The band have a split of John Blackman and Murray as well the rhythm section, they can also have a full program mix if they want.

We're also providing the feed for the punters' (live audience) as well as the larger speakers for acts. In all there are between 10-12 sends coming out of the desk."

From here two split program signal appears on a monitoring desk, one, a program mix and two, an auxiliary mix that fills in gaps or 'trims up' the main mix. This stage is operated by Scott Barry on the studio floor. He is in charge of audio requirements at 'ground level'; he looks after change overs and monitors and has an assistant to help as turn arounds have to be quick, usually in commercials.

"Mixing monitors for TV is difficult as there is no front of house to bounce off the back wall - so



*TCN's John Simpson at the SSL for Hey Hey*

you get some bizarre monitor requests so, wedge positions become critical'

A point in case: whilst I was there Billy Thorpe was rehearsing with the Hey Hey band and was, of course, asking for more foldback. It is also for ease and proximity that a monitor desk is there - yet if more level is required Scott still has to ask the control room in the case of Billy Thorpe, he is receiving post sub-grouped sends, i.e. one channel may have three vocals. Scott also looks after all radio mics which, with the program mix from John Simpson, are organised on a Yamaha FM 2800M console. Australian Monitor provide power, Creative Audio 3821 active 2-way wedges are used for live acts

#### **Band**

The Hey Hey band is an audio event in itself - they were all brought up from Melbourne. John uses 24 mics in total: 8 mics on drums, bass line D.I., 6 keyboard lines, stereo guitar and 5 piece front line. Occasionally there are back-up singers - tonight Billy Thorpe is the guest.

'I sub-group the rhythm section and the frontline down to a couple of VCAs' (groups) that is then split to the foldback desk (Scott Barry). The mix comes from me as well as program and sound

effects - some acts get loud but the Hey Hey band doesn't require huge amounts of foldback.'

The house band is mixed directly to air, any guest or live bands go through a series of active splitters, foldback and then John upstairs in the audio control room.

#### **Technology**

It is no surprise that you can't see anything from the audio room

except via TV monitors - TV is a visual medium. The majority of the 12ft by 7ft room is taken up by a 56 channel SSL 6000E desk with sub desk at right angles. It used to be the biggest in the southern hemisphere. Melbourne has a larger 80 channel SSL. I asked John about processing when mixing:

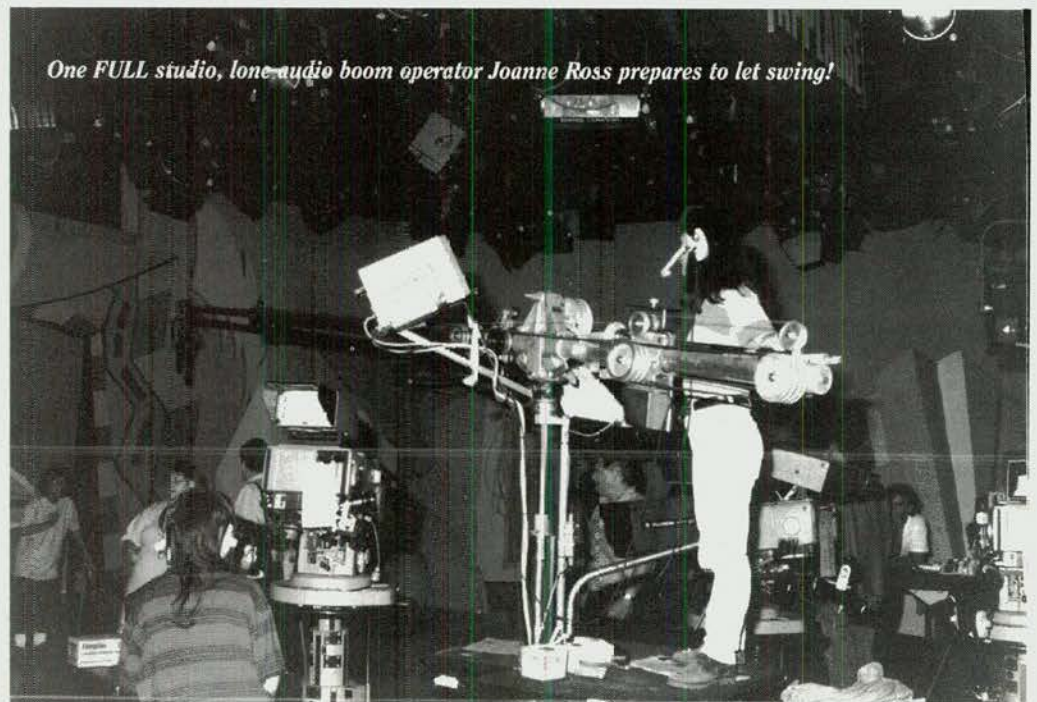
"The SSL has gates, expanders, compressors on every channel but I don't like to let limiters do my

mixing for me - I regard it as a process of reducing floor dynamics so that nobody at home is struggling to hear anything, reaching for the remote to adjust the volume - you're competing with volume level of commercials in this regard. There's no heavy duty limiting just subtle compression smoothing the end product out.

I also compress the band but in groups - a little bit across the front line, a little across the rhythm section to reduce the overall dynamic and keep it tidy".

John Blackman and Daryl Sommers are both dynamic performers so is compressed as well. John Blackman has additional processing which is a phone filter for his various character voices. Reverb wise it's fairly straightforward; Yamaha Rev 5 and 7 as well as a 480L and plate reverb. Monitoring is from either PAS TOC speakers (for more full range) and KRK 6000s' which in John's opinion are "the best monitors".

Murray Tregonning, who is responsible for all sound effects for the show is next to the main console and his racks of carts take up a fair amount of space. He does a submix on a 16 channel Yamaha which is then sent to the main desk. More on Murray below. Also in the control room is Steve  
*(continued over)*



*One FULL studio, lone audio boom operator Joanne Ross prepares to let swing!*

Delmenico, assistant audio. Steve's job is to assist in the running of the audio, confirming running order as the show happens. He also attends production meetings and sorts out what is required audio wise. In Sydney, John White sets up the control room in advance which takes on average 2 hours.

#### Audio Sources

Host microphones are routed direct to the control room. Daryl Sommers has a condenser AKG 414 desk mic as well as a Sennheiser wireless lapel mic. In fact Hey Hey is using the latest Sennheiser wireless system as used in the upcoming Miss Saigon. (A neat TV audio trick: stopping noise from disguised lapels is to wrap them in silk and roll the top end off at the desk to stop noise.)

On the studio floor is a Fischer boom. It is a moveable pole either manual or mechanised with a shotgun microphone attached at the end. Without the boom operator people literally 'disappear' - the death on TV - not being heard. It is one of the most difficult jobs in TV. As John suggests:

"They've got a pretty tough call, they've got to be everywhere at once and no matter how much they try they aren't and we're always complaining that they should have seen it coming!"

I spoke to Joanne Ross who is the solitary boom operator for the show:

"The hardest thing is shadows and not getting in shot and with this (read: 15ft, 300kg boom plus attachments) I'm constantly swinging around between audience and talent." Due to the nature of the show Daryl is very likely to do something unpredictable so the crew has to be alert "When he does that I've got to find that person and get to them or you won't hear them." Joanne prefers the Sennheiser 416 to the 816 which is more directional and less forgiving, the 416 has a broader pickup pattern.

There are three to four microphones for the audience in stereo configuration. According to John, the Sydney studios are much livelier so he prefers to use Beyer ribbon mics whereas Mike Smith (audio director, Melbourne) uses instead condenser mics on the audience. So that the audience can hear everything, in front of each audience

chair is a tiny Fostex speaker - this is used for dialogue and routines, giving an even spread of sound whilst in the grid are full range speakers for music. Keeping the audience sound-happy is yet another distinct feature of live TV - the performers need audience reaction, each has to hear the other or the performance of the show could be affected. The audience reactions are also mixed into the live to air signal. John: "Getting audience reaction is probably if not the most important aspect of the whole show."

There are seven audio operators for Hey Hey It's Saturday. Three in the control room; John Simpson, Steve Dolmenico, Murray Tregonning, and four on studio floor; Scott Barry plus an assistant, another audio assistant for general work, and the boom operator, Joanne Ross. The term audio assistant in this case is general. Murray Tregonning:

"If you are in the recording business you are called a recording engineer - if you are in TV you are called an audio operator. It's a very broad term."

Through his role with Hey Hey It's Saturday, Murray Tregonning stretches even these terms. He is part of the original core group, (23 years), and is a show 'character'. His role is primarily audio co-ordination but Murray is also what may be termed a 'sound performer': watching the show run from the control room, Murray works both technically - supplying sound bites - but also creatively; anticipating dialogue, interpreting and constructing humour within the Hey Hey It's Saturday style. This practice is rare in Australian TV. More on Murray Tregonning in an upcoming issue

At 5.30pm the broadcast started. Due to daylight saving they were live in Melbourne and off-tape in Sydney. So if my calculations are correct, they have in fact come to Sydney to go live into Melbourne? (Yeah, right Dan. -Ed)

Once the show gets started process and skill take over. They're an efficient and good humoured team - if not put upon and overworked. Absolute professionalism makes the show go smoothly from a technical aspect and it should be remembered that Hey Hey It's Saturday's longevity must be also credited to the technical staff that run it - in this case audio. •

# Mark IV Audio News

#### EV Release S60 and S80 Systems.

New from EV are the **S60** and **S80 Compact Speaker Systems**, featuring a stylish European design. The **S60** and **S80** utilise a paintable vinyl covered wooden cabinet with moulded ABS baffles. Both units are magnetically shielded for AV applications and can be mounted using EV or series 75 OmniMount hardware.

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#### EV installed at ANZ Stadium.

During March 95, **Sound on Stage Communications** installed **EV MH 6040** and **MH 940 Arena** manifold horns for the ANZ Stadium (Brisbane) Evacuation system. Also for the ANZ Stadium, **Impact Technical Solutions** applied **32 Deltamax DML 1152** systems and controllers for the entertainment system.

#### Queens Park Theatre Chooses Deltamax.

**A.A.A. Productions** in Perth have installed six **DML 1121s** and two **DML 2181 subs** in The Queens Park Theatre in Geraldton (WA). This system will be used for both live shows and cinema.

#### Seen at the Indy Grand Prix.

120 **University PA 430T** paging horns were installed around the track by **Australian Concert Productions**.

#### Channel 9 Wireless.

Three **Vega 600 series U.H.F.** wireless systems were used by Channel 9. Supplied by **Sonlites and Studio Supplies**.

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# Roland's V-Guitar

(from Page 6)

but not like this. The digital sound modelling in this system will emulate your amp via its Composite Object Sound Modelling trickery. Is your amp a JCM-120? Do you mic that with an SM-57? No problem, V-Guitar will emulate that end sound, and at the output provide it. You plug it into the PA or whatever, even listen on headphones. The line level output is the same 'final' mix 'ready' sound you'd get if you had a Marshall stack miked with a Shure SM 57 microphone.

The amplifier and speaker emulation is amazing. You can set the angle of the virtual 'microphone', set the type of speaker, the microphone can be one of several classic kinds. Roland modelled the possibilities using the actual circuits of various amplifiers, looking at the waveform.

Digital Sound Processing technology like this makes all the dross that a guitarist carries around redundant. No more pedals, effects, preamp, amp, speakers. No more plugging in, or fiddling with settings. No more plug packs and batteries.

What you do get is 64 pre-set patches and 64 user patches. More with a memory card. No more volume hassles, because the amp emulation deals with that. All you do is feed a line output (either balanced or unbalanced) to a PA, and play.

This technology will filter down through the guitar world, and maybe end up as inbuilt on many guitars. At this time Fender and a few other manufacturers have been licensed by Roland to make products with the V-Guitar pickup inbuilt. You can also option on a GK-2A divided pickup onto your axe. As it is, the V in V-Guitar could stand for 'viable' because even at around \$4000, the system saves you an amp and all the aforementioned things, while it gives you a real-now digital guitar 'synth' (remember it's not a synth as you know it) as a bonus.

Except the flute sound, as demonstrated, isn't too hot to our ears. But there has to be SOMETHING we don't like.....

## HOW TO LAUNCH WITH IMPACT....

There are new products lugged around stores and hyped by rep's. Then there is the 'new product tour', where a few customers are invited into each dealership to try something.

**Then there is the EVENT.**

Australia rates small in music markets globally, at least in terms of population, so event-type launches are rare. Roland are past masters at this art form, and the V-Guitar night in Sydney's Metro Nightclub was a ripper.

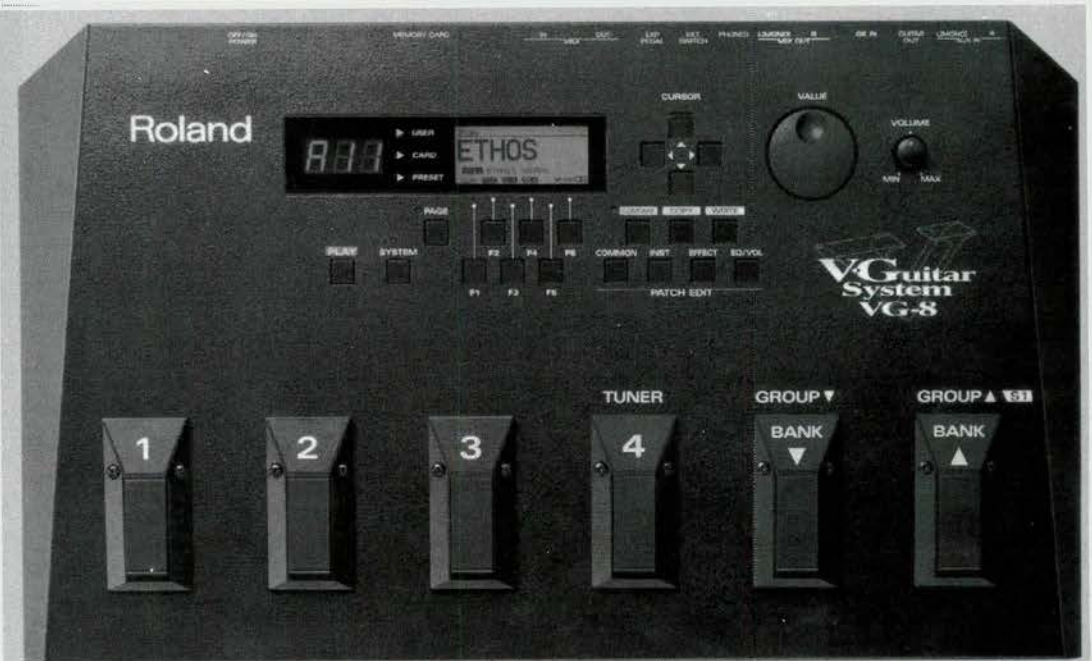
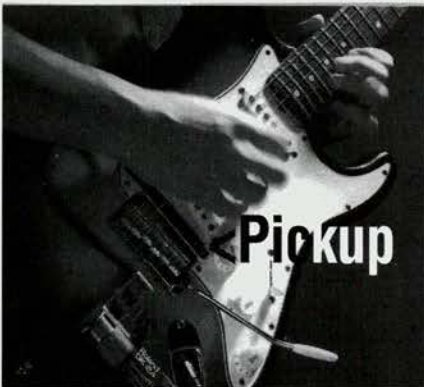
The PR promised celebrities, grog and Diesel playing live, so a Tuesday night is a dead cert for a crowd. The place was jammed, and Roland shipped in a lot of dealer/customers too. We drank, we networked, then we went in to see the product. The expectation level was not all that high, even amongst guitarists present.

The preamble was OK, then Ike Ueno demo'ed the V-guitar. At about his tenth word he had the audiences full attention. When he did a virtual split of the pickup diagonally he had them agog. When he moved the pickup up to just under the twelfth fret they were converted. When he open tuned the guitar without touching anything except the foot controller the crowd gasped.

All the possibilities were shown. As Roland Boss John Egan said, 'we had one hour in which to get the message across'.

And they did.

## Music



## WHAT IT DOES

Roland say it best in their brochure: "The guitar has a natural expressiveness that surpasses many of the unavoidable limitations of keyboards. This is because of the tactile nature of the strings and fingerboard". Hey, the guitar is almost organic.

The divided pickup at the core of the system takes each string individually into a DSP realm, this being Digital Sound Processing. Due to the relentless march of technology, the processing power needed to do what V-Guitar does has arrived. Down in the heavy duty foot-operated control box, DSP handles two basic algorithms.

You emulate classic guitar sounds by the DSP combining characteristics of various components like pickups, transformers and speakers. The 'virtual' pickups that you can select let you change from a humbucker to a vintage single coil pickup sound, for example.

The second algorithm allows you to create completely new sounds, it isolates the vibrations of a string and lets you add, delete or intensify certain harmonics to make new sounds. This is unlike a MIDI guitar synth, which uses pitch and level information to trigger a sound generator.

After your guitar sound is 'modelled', it passes into the digital effects part of the V-Guitar, where you can do predictably normal things like modulation, delay, reverb and add equalisation (tone).

Best of all, Roland very politely say the unit offers 'easy operation designed for guitarists', and herein lies the rub. Are guitarists sufficiently inventive to use the V-Guitar? Only time will tell!

**-Julius Grafton**

- **REPLItech International**, Vienna, April 4 - 6.
- **NAB International**, Las Vegas April 9-13
- **AES 5th Australian**, Sydney Apr 26 - 28 (Local Audio Industry on show)
- **Broadcast Technology Indonesia**, Jakarta, April 26 - 28th.
- **NSCA**, Indianapolis USA, April 30 - May 2 Contracting audio and systems.
- **VMA '95**. Venue Managers Association, conference & trade show, Sydney May 14 - 16.

# Trade Events

- **IMM Music Industry Convention** Singapore May 17-20
- **MIDEM Asia**, Hong Kong, May 23 - 25. Recording Industry.
- **Software, Multimedia expo**, Melb. June 2-4
- **REPLItech International**, Santa Clara USA. June 13 - 15.
- **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.



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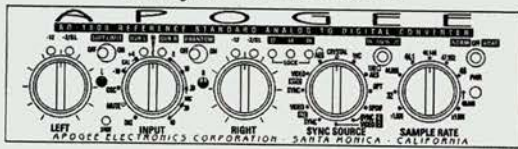
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## The Emerald Room

(continued from 16)

Nexo 115's (1 per side, hung off scaff pipe fixed to the underside of the Nexo 212 platforms and aimed at the stalls). Also for the band mix and SFX, there were 2 X Meyer USW sub woofers built into the thrust plus 2 X Nexo subs placed in the off-stage voids, downstage of the proscenium. The Playhouse has an array of old Tannoy speakers built into the rear walls of the stalls and balcony which were also used for some band mix and SFX.

Stage foldback for the singers and dancers started as a simple mix of the band sent from FOH to a single Bose 802 per side, hung off booms just upstage of the proscenium. This trebled in size during the first few weeks of the run with the inevitable developments that always seem to happen with a new show in its first season.

The four member band (located upstage OP) had the luxury of a small mixer each which meant they could choose their own mix from the four aux sends coming down from the FOH console, being vocals, keyboard 1, keyboard 2, guitar/drum/FX.

Each musician heard their foldback on their own Adelaide Festival Centre sound "Fluffy box" - basically an EV S200 in a carpet covered wooden wedge. The band was prerecorded in the Adelaide Festival Centre sound studio for additional effect for two scenes, and the click track (left output from a 2 track Revox) was sent via an in-house headphone splitter to the MD (keys 1) and drummer, each with their own volume control.

The Playhouse normally houses a rack of 6 X Yamaha 2002 stereo amps, and these were augmented by 4 X HH VX1200 stereo amps to drive the various speakers in the rig. 4 X ARX EQ60 and 1 X AL15 stereo graphic equalisers were used to tune the speakers, with an extra ARX EQ60 inserted across the footmic subgroup. Yamaha 1030 delays were used to improve the imaging of the band and vocals with Rane DC24 compressor/limiters used across some of the vocal matrix outputs. Auxiliary effects included vocal reverb using a Lexicon PCM70 digital reverb and a Yamaha SPX90, and stereo band reverb provided by a Yamaha SPX1000.

The FOH main mixer was a Soundcraft Vienna II (40:8:2+1 with 8 auxiliaries individually switchable pre/post) with 8 VCA's. Version II of this desk was developed by Soundcraft after requests by Adelaide Festival Centre Sound. Jane was happy with the desk features and layout although she found the mute masters annoyingly small and too close to the main left, right and mono output masters, and also the safe switches dangerously close to the mute allocation switches.

The microphone rig contained a range of professional instrument, vocal and foot mics, with 11 X Sennheiser capsule radio mics and two new Shure headset boom mics (WCM16 Isomax condensers) for the vocals which needed very close miking to achieve decent level over the band. These new headset mics worked very well, although they occasionally presented a problem for the love scenes! Keith first saw them at Entech '94.

The radio tech's job was demanding with the principals and chorus of singer/dancers having numerous costume changes during each performance. Andrew mounted all the capsules for the chorus over their ears to cope with hats and wigs going on and off, and most of the transmitters created costume modifications so they could be readily and aesthetically contained in their skimpy outfits.

In all, Andrew (and later Julien) did about 40 mic/pack changes each show as well as playing back 2 video clips off S-VHS to a Panasonic video projector and Sony Profeel monitor, and keeping in touch with Jane via ICOM 40G UHF transceivers with ICOM headsets.

\* Jeanne Hurrell

*(Jeanne has worked as a sound operator and stage manager at the Adelaide Festival Centre since 1979, and also instructs part time in sound at the Centre for Performing Arts' Associate Diploma in Technical Theatre Production.) Connections appreciates submissions from readers like this, where the subject matter is dealt with in a breezy and readable manner. Thank you Jeanne!*

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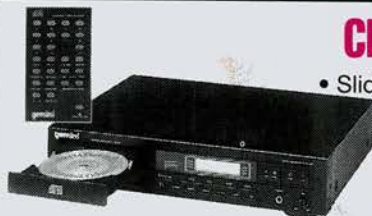




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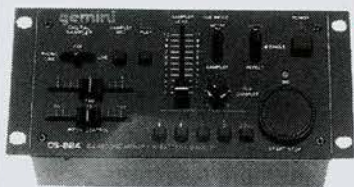
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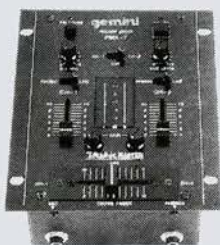
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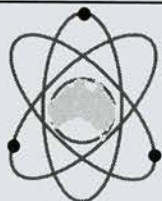
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# Radio's Community Voice

*Daniel Cole ventures out into the world of Community Radio to see how the oily rag makes one run....*

Not quite underground but certainly under the Paddington Town Hall, Sydney is a radio station. If you are familiar with Sydney you have probably driven past it a number of times. The building is a classic example of Victorian Civil architecture which is now a centre for information dispersion. Within it's walls are the A.F.I. cinema, Metro TV, Paddington Library, and, Radio Eastern Sydney.

Radio Eastern Sydney is part of a network of independent radio voices serving communities around Australia. In Sydney, the last count was

14 stations on the FM band. In most cases they are region specific and Radio Eastern Sydney's 'footprint' is large.

According to station manager Philip Shine "If you draw a straight line from Glebe to the airport then back from the eastern seaboard, around the harbour then down the coast you have RES's area."

Subsequently, the scheduling of RES's must reflect the diversity within this area. 2RES is respected for it's jazz programming and it's Greek program has a large following. The station is also establishing a different and younger audience for their techno and soul/blues programs which are proving popular:

"People tend to listen to community radio in grabs" says Philip, "although our broadcasting philosophy is diversity, it would be a rare being who would tune in all day"

On the role of community radio Philip suggests that it should serve those in the community 'not catered for by other sectors'. This includes comment, opinion, music, yet the 'nature' of the community network is changing for a number of reasons. This includes more 'user pay' arrangements as commercial organisations become aware of the particular audience catered for in the community. The ad-

vent of newer techniques in radio production is another change, raising the expectations from audience and broadcasters. Finally, the emergence of digital technologies is an issue which may in fact cut straight to the idea of diversity:

"Our role as a broadcaster could be undermined in the advent on Digital Audio Broadcasting (DAB) You could have a scenario of a plethora of specific services having their own part of the spectrum, for example, a 24 hour techno show or dedicated language stations"

DAB is already in place in parts of Europe - in August the BBC will start digital broadcasting in



*Well, it works....*



the London area. It may be a case of pre-planing

"If we (community radio) are not included in the DAB spectrum we could become relegated to the FM band and become what vinyl is to CD".

This scenario is a few years ahead. For the time-being, RES are updating some of their equipment. The second off-air studio will be refurbished and Philip will install a MiniDisc/DAT edit/mastering system. Each MiniDisk blank disc is re-readable up to a million times, eventually saving the station tape costs. It is a way of 'going digital' without huge capital expenditure. On other changes, "We're also installing the cable for a RadSat dish (community broadcasting satellite) and at the moment we are relocating our transmitter to the Telecom tower in Waverley - but it all costs..."

Radio Eastern Sydney depends on both user pay/sponsorship and funds from the Community Broadcasting Foundation - an arm of the Department of Communications and the Arts. The station employs two people full time and the rest is co-ordinated by volunteers which are in excess of eighty people.

It is here that the energy of free-lance or volunteer radio makes community radio relevant and invigorating. In Philip Shine's opinion, the stigma of community radio as sub-standard quality wise is changing:

"There are many programs here which are equally as good as programs in other sectors which have large backup - for example, the Monday Arts Live team would dedicate 3-4 days a week to their three hour program, the Magazine program is also time consuming - all things considered, they're all doing a wonderful job".

Volunteers are welcome. If you wish to be involved contact Philip Shine, (02) 331 3000.

Radio Eastern Sydney, 89.7 FM  
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## Man Offers To Help Artist's Release CD's

Unsigned artists who are attempting to release and distribute their own CD could try a new service called DisCulture instead. It's a music brokerage, offering a consultation for services required, free to the client with the commission coming from places offering services - ie recording studios. The other arm is distribution which is unique in terms of originator Jason Nairnsey's method. "I see myself more as an agency for people who want to do their own thing."

When it comes down to the unknown artist the existing marketing set-up doesn't always suit their needs or work efficiently, he says.

DisCulture's promotion strategy

involves sending out sample CD's and releases to retail (100 outlets), press and radio (80 stations inc JJJ). "It all comes back to saying you believe in your music so let's get it out there".

One of the biggest hurdles for unknown artists is airplay, JJJ being the target, I wondered how he was getting around their programming. "It's a case of not what you know but who you know and part of my package is working with a publicist (from *That's Bizarre Management*) who is talking to people at JJJ etc on a weekly basis. It is easier to get people to notice you if you are coming from a company background. Really, as far as radio is concerned, I'm like an

other record company to them."

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•By Natalie Apostolou

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# THEATRE LISTINGS for April

SHOW	THEATRE	COMPANY	STATUS	SHOW	THEATRE	COMPANY	STATUS
<b>New South Wales</b>				<b>Victoria (continued)</b>			
Dead White Males	Concert Hall, OH <b>S</b>	SydneyTheatre Co	March 9 - May 6	Twelfth Night	Alexander <b>M</b>	Bell Shakespeare	From April 28
Oscar's Turn To Sing	Drama Theatre, OH <b>S</b>	-	Ends May 26	La Traviata	VAC <b>M</b>	Australian Opera	April 8,12,19,22
Burning	Bondi Pavilion, <b>S</b>	NinetyNine & Half	Until April 8	Julius Caesar	VAC <b>M</b>	Australian Opera	April 1,4,7,10
Madame Butterfly	Opera Theatre, OH, <b>S</b>	Australian Ballet	Until April 6	Patience	VAC <b>M</b>	Australian Opera	April 5,6,20,29
Divergence	Opera Theatre, OH <b>S</b>	Australian Ballet	Until April 6	Turandot	VAC <b>M</b>	Australian Opera	April 11,18,22,26,29
La Bayadere	Opera Theatre, OH <b>S</b>	Australian Ballet	April 11 - May 1	Rigoletto	VAC <b>M</b>	Australian Opera	April 21,28
Afternoon of a Faun	Opera Theatre, OH <b>S</b>	Australian Ballet	April 11 - May 1	Come Back for Light	Beckett <b>M</b>	-	April 18 - April 29
Jardi Tancat	Opera Theatre, OH <b>S</b>	Australian Ballet	April 11 - May 1	Refreshments	-	-	-
Dead Funny	Wharf 1, STC, <b>S</b>	Sydney Theatre Co	April 22	All Souls	Merlyn <b>M</b>	Playbox	April 11 - April 29
Falling From Grace	Wharf 1, STC, <b>S</b>	Sydney Theatre Co	Until April 8	The Rebetes	Cub Malthouse <b>M</b>	Antipodes Festival	Until April 15
Poor Super Man	Wharf 2, STC, <b>S</b>	New Stages	Previews from March 31	Best of British	Miettas <b>M</b>	-	April 1 - April 21
Pericles	Footbridge <b>S</b>	Bell Shakespeare	Opens March 28	Mr Cha Cha Says Dance	Miettas <b>M</b>	-	April 3 - April 15
West Side Story	Capitol <b>S</b>	Victoria Opera	Until late April	<b>South Australia</b>			
Phantom of the Opera	Theatre Royal <b>S</b>	Cam Mac	Indefinite run	An Inspector Calls	Her Majesty's <b>A</b>	Nat. Theatre,GB	March 30 - April 8
Tent of Ideas	St Georges Hall, <b>S</b>	One Extra Co.	Until April 9	Circus Oz	Her Majesty's <b>A</b>	Circus Oz	April 20 - April 29
Hello Dolly	Her Majestys <b>S</b>	-	Previews from April 15	Galax-Arena	Playhouse <b>A</b>	AFCT	March 24 - April 8
A Midsummer Nights Dream	Botanical Gardens <b>S</b>	-	Through April	<b>ACT</b>			
Danny & The Deep Blue Sea	Stables <b>S</b>	-	Until April 2	Falling From Grace	Canberra Theatre	-	From April 19
The Death of Peter Pan	New Theatre <b>S</b>	-	Until April 8	<b>Western Australia</b>			
Chicago	Ashfield Town Hall <b>S</b>	Ashfield Musical S.	April 1,2,7,8,9	My Fair Lady	His Majesty's <b>P</b>	M.T.C of WA	April 5 - April 29
Just Wild About Harry	Pilgrim <b>S</b>	Global Village	March 29 - April 29	A = Adelaide M = Melbourne S = Sydney B = Brisbane P = Perth			
Oklahoma	Hurtsville Civic <b>S</b>	Hurtsville Light Op.	April 5,7,8	Submit show details, fax (02) 876-5715, PO Box 439, Epping NSW 2121			
Les Miserables	Glen Street <b>S</b>	Forest Youth Th.	April 8 April 29	<b>Nullarbor Floods</b>			
Picasso at the Lapin Agile	Belvoir St <b>S</b>	-	Until April 2	<b>Wreak Havoc and Cost</b>			
Pygmalion	Newtown Studio <b>S</b>	nomad	April	<b>Thousands of Dollars</b>			
The Removalists	Newtown Studio <b>S</b>	-	April 26 - May 13	The recent Nullarbor floods wreaked havoc on Australian showbiz with numerous sets stranded.			
Bitch/Dyke/Faghag/Whore	Seymour Centre <b>S</b>	Penny Arcade	April 4	The <i>An Inspector Calls</i> sets were marooned on the WA side causing the loss of a few Sydney performances and large financial costs to the Adelaide Festival Centre Trust. Circus Oz fared much better with the performers flying to Kalgoorlie where they flung together a set and put on a show called <i>Bobby Be Blowed</i> , after the cyclone.			
Money and Friends	Zenith <b>S</b>	Phoenix Theatre	Until April 8	The sets and costumes of Cliff Richard and Janet Jackson had no hope of getting through. John Seymour of the Cliff Richard Organisation, was forced to air freight the gear to the cost of \$100,000. Despite this, the first show in Perth still had to be rescheduled.			
The Quartet from Rigoletto	Q Theatre, Penrith	Q Theatre	Until April 12	There have been bizarre rumours, and we at Connections are always ready to pass them on, of truckies holding fancy dress parties far into the Outback night. The game was to guess which outfit was Janet's and which one was Cliff's.			
Peter Pan -The Musical	Jetty, Coffs Harbour	C.H.M.C.C.	April 13 - April 29				
<b>Queensland</b>							
Sanctuary	Cremorne, QPAC <b>B</b>	-	Until April 8				
An Inspector Calls	Lyric, QPAC <b>B</b>	Nat. Theatre, GB	April 12 - April 22				
Hamlet	Cairns Civic	La Boite Co.	April 27 - 28				
<b>Victoria</b>							
Summer of the Seventeenth Doll	Playhouse, VAC <b>M</b>	Mel. Theatre Co	April 21 - May 27				
Shorts	The Fairfax, VAC <b>M</b>	Mel. Theatre Co.	April 26 June 3				
Romeo & Juliet	Botanical Gardens <b>M</b>	-	Through April				
An Inspector Calls	Comedy Theatre <b>M</b>	-	Opens April 26				
Jack Dee	Comedy Theatre <b>M</b>	-	From April 10				
Sean Hughes	Comedy Theatre <b>M</b>	-	From April 4				
Vaudeville Extravaganza	Comedy Theatre <b>M</b>	-	April 4 - April 15				
Crossing The Line	Comedy Theatre <b>M</b>	-	April 4 - April 15				
Lano & Woodley	Athenum <b>M</b>	-	Opens March 29				
Camping Out	Universal <b>M</b>	-	March 28 - April 9				
Alan Davies	Universal <b>M</b>	-	April 3 - April 8				
Umbilical Brothers	Comedy Club <b>M</b>	-	From April 5				
Steady Eddy	Comedy Club <b>M</b>	-	From April 7				
Totally Wicked	Big Top, City Sq. <b>M</b>	FlyingFruitFlyCirc.	April 1 - April 23				
Sanctum/On The Spot	Alexander <b>M</b>	Aboriginal I. Dance.	April 5 - April 8				



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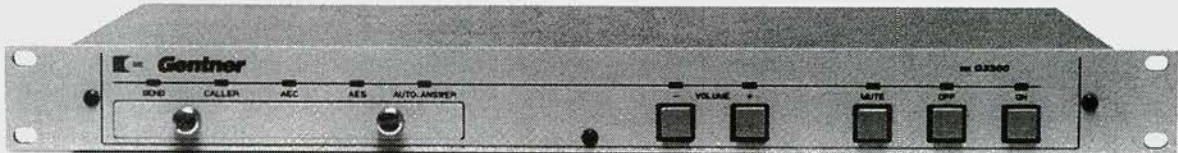
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# Studio Duo Crack USA

*Out of the studio and into the fire of the US music market, Damien Gerard's own Elia Bel sets off down the wonderland Avenue of US deals, tours and stardom with Once Upon A Time. Story by Natalie Apostolou.*

Musically, Once Upon A Time's reference points seem hard to pin down. They are a band of complementary contradictions and it is during a live performance that their originality and eclectic style is dramatically showcased.

In the face of the trials and tribulations of trying to get record company attention, Elia and Damien Gerard partner, Marshall Cullen decided to start their own label Foghorn Records. Releasing their first ep and album through the label, Elia attributes the experience of running a label on every level as a formative processes in dealing with her American label, Trauma, and getting signed.

"I spent 6 months negotiating so I got to know them. It wasn't a standard negotiation as I'd already paid for the recording of our ep and album etc so it had to be a combined licensing/signing deal." The deal itself comprises a seven year, seven album arrangement,

with the first U.S. release coming out in early April, which will be an amalgamation of the best tracks from their local release ep and album. Signing with the William Morris agency was also a networking coup, considering the difficulty in getting agents support in their own city.

"Just making that step from Australia to America is such a big one and the other thing I got lucky with was only a couple of months after signing to Trauma it became part of Interscope." Elia explained, which is the home to bands of the calibre of Nine Inch Nails, Helmet and Tom Jones. The resources available to the label are understandably huge as Atlantic/WEA are the umbrella company. "When they(American's) talk about independent labels, they've got 30 staff, a board room

with video screens. Trauma make all the decisions and deal with the artists. It's been great so far."

"Something I said to them at the beginning was that I wanted to retain artistic control because I'd done everything myself, I re-

ally wanted to be a part of it; and they said to me that's why we are signing you because you've done all of this so far by yourself."

Setting off for the US in only weeks, OUAT will head straight into an extensive tour with stablemates Bush, currently charging through the charts in the US with their album 16 stone, and then into the studio to work on the next album.

It's been a long strange trip for the almost mythical Elia Bel as America lets her indulge her generous creative spirit. Perhaps Once Upon A Time serve as telling tale for our industry about the nurturing of promising talent and the merits of taking a risk.

Once Upon A Time's album Cog is out now through MDS.



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# TOURING ITINERARIES

**Al Jarreau** 10-16-Sydney Hilton,19/20/21/22-Melbourne Hilton on the Park, 24- Hilton Hotel, Brisbane

**ALTERNATIVE NATION**- Faith No More, Violent Femmes, Primus, Pop Will Eat Itself, Body Count, Ice T, Tool,L7,LIVE, Flaming Lips, Ween & Therapy.; April 13/14-Chandler Sports Complex Brisbane,15-Eastern Creek Raceway,16-Olympic Park Melbourne. Promoter: Frontier Touring/Michael Coppel.

**Andy Priebow** 11-Van Gough's Earlobe, 12-Newcastle Uni, 13-Selinas, 19-Metro Sydney,

**Bonnie Raitt** 1-Palais Melbourne, 2-Festival Theatre Adelaide,4/5-New Regal Theatre Perth.

**Country Music Concert Tour 1995** 1- Dallas Brooks Hall, Melbourne, 2-Princess Theatre Launceston, 4-Wrest Point Entertainment Centre Hobart, 5-Perth Concert Hall,6-Festival Theatre Adelaide,7-Darwin Performing Arts Centre, 9- Cairns Civic Centre, 11-Townsville Civic,12-Mackay Entertainment Centre, 13-Pilbeam Theatre Rockhampton,14-Moncrieff Theatre Bundaberg,15-Mt Isa Civic Centre, 17-Southbank Piazza Brisbane,18-Rumours Cabaret Toowoomba,19-West Tamworth Leagues, 20-Newcastle Workers,21-Yallah Woolshed, Yallah, 22-Revesby Workers. Promoter: John Whale Productions.

**Dinosaur Jr** 1-Selina's, 2-Metro

Sydney(all ages), 4-Metropolis Perth, 6-Thebarton Adelaide, 7/8-Palace Melbourne,12-ANU Bar Canberra, 13-Waves Wollongong.,14-Selinas Promoter: Golden Sounds..

**East Coast Blues Festival**:Featuring Michelle Shocked,Margie Evans ,John Hammond,Mick Taylor's Blues Allstars, Renee Geyer,Vicka & Linda Bull,Jackie Orszarky, The Mighty Reapers & many more

14/15/16-Belongil Fields, Byron Bay  
**Foreigner & The Doobie Brothers** 22-Perth, 26-National Tennis Centre,28-Bruce Stadium Canberra,29-Sydney Entertainment Centre,30-Newcastle Ent Centre.

**James Taylor Quartet** 7/8-Metro Sydney, 9-The Palace Melbourne.

**John Hammond**4/5/6- The Basement, 7- Fly By Night Musicians club,8-Adelaide, 9-11- Continental Cafe Melb, 12- Van Gough' Earlobe  
**L7** 22-Selinas Promoter: Frontier Touring

**Lee Evans** From April 1-Universal Theatre Melbourne, 26/27-Harbourside Brasserie. Promoter: Adrian Bohm

**Live** 11-The Metro Sydney Promoter: Michael Coppel

**M People+The Grid** 1- Brisbane Festival Hall,3/4-Metro Melbourne,6-Thebarton Theatre Adelaide,8-Ferry Passengers terminal Perth Promoter: Michael Coppel

**Michelle Shocked** 2/3- Van Gough's Earlobe,4/5-Metro, 6-ANU

Bar, 8-Hobart University, 10/11-Central Club Melbourne, 13-Synagogue, Adelaide,15/16-East Coast Blues Festival Byron Bay.

Promoter: Adrian Bohm

**No FX** 18-ANU Bar, 20 Youth Centre Wollongong, 21/22-Phoenician Club, 27-Bar On The Hill Newcastle, 28-The Roxy, 29-The Playroom

**Phil Collins** 2/3/5/6-National Tennis Centre Melbourne, 8/9-Brisbane Entertainment Centre, 11/12/14/15-Sydney Ent. Centre

**Pop Will Eat Itself** 14-Easts Leagues Club, Sydney

**Rolling Stones** 1/2-SCG, 5-Adelaide Football Park,8-Perth, 12-ANZ Stadium QLD. Promoter: Paul Dainty.

**Phil & Tommy Emmanuel** 2-Labour Club Canberra, 4-Riverside Theatre Parramatta, 5-Sawtell RSL 6-Twin Towns Tweed Heads, 7-Suncorp Piazza, 8-Enmore Theatre, 12/13-Burswood Resort Casino,

**Shanley Del** 1/2-Rooty Hill RSL, 4-Yallah Wool Shed Wollongong, 8-ID's Alexandria

**Sheryl Crow** 21-Festival Hall Brisbane, 24- State Theatre, 26- The Palais. Promoter: Michael Coppel

**Suicidal Tendencies** 4 May-Thebarton Theatre Adelaide, 5- The Palace Melbourne, 8-Bowan's Warehouse Perth, 10-ANU Refectory, 11-Newcastle Uni, 12-Selina's, 15-Festival Hall Brisbane

**The Tea Party** 13-Selinas, 17-

Roxy Brisbane, 20-The Tivoli, Adelaide Promoter: Frontier Touring..

**Tony Bennett** 21-QPAC Concert Hall, 23-Sydney Opera House

**Tool+Regurgitator** 17-Selinas.

**Village People** 24 May-Townsville Entertainment Centre, 26-Brisbane Entertainment Centre, 27-Sydney Entertainment Centre, 31- Melbourne sports & Ent centre, 2 June-Adelaide Entertainment Centre, 3 June- Perth Entertainment Centre

**Violent Femmes** 1- City Hall Hobart,3-ANU,4-Waves Wollongong, 6-Newcastle Workers,10/11-Perth,13/14-Thebarton Theatre Adelaide. Promoter: Michael Coppel

**Ween** 12-Roxy Brisbane, 22-Metro Sydney,

## Local Tours

**Hunters & Collectors** 1-Revesby Workers Club, 2-Parramatta Leagues, 4-St George Sailing Club, 5-ANU, 7-Taree RSL, 8-Tamworth Workers, 9- Sawtell RSL, 12- Ballina RSL, 13/14-Seagulls Tweed Heads, 15/16-Galaxy Mooloolaba,

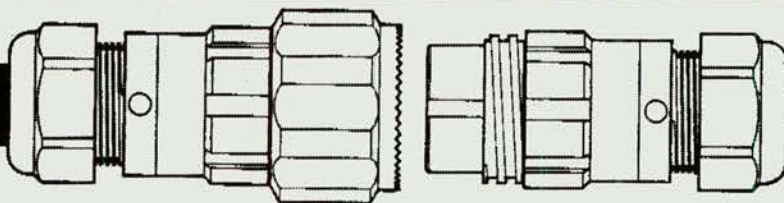
**Things of Stone and Wood** 6- The Metro Sydney, 7-Van Goughs Brisbane, 8-Leo's Rock cafe, 9- The Edge Gld Coast, 13/14-Prince Patrick Hotel, 16-The Synagogue,SA.

Compiled by Natalie Apostolou.  
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# BRYAN FERRY

*Engineer talks to Cat Forcer*

Ex-patriot Jon Lemon was here last year as sound engineer for the Depeche Mode tour which finished in July. After a break, he started the Bryan Ferry tour in September.

After Europe and the USA, Bryan selected a new band for the second leg of the tour which included Robin Trcwer, who produced the Mamouna album with him, on guitar and an incredible bass guitarist Alvin Davies.

"It's been enjoyable for me on two levels," said Jon. "One, because it's a Britannia Row job, I've been sorting out a definitive theatre system in terms of the Flashlight and the Floodlight and the combinations thereof. Britannia Row sent us out with 24 bass cabinets, 16 Flashlight high packs and a dozen Floodlights - way more than I'd ever need. We've worked out that 18 Flashlight bass cabinets, 14 Flashlight high packs and 8 Floodlights seem to be able to do every venue whether it's stacking or flying. The Floodlights are used for really close in and the Flashlights still work well in a theatre situation once you're at least 50ft away from them.

"Unfortunately we haven't got them here. We wanted to use Jancs because it's easy and talk Eric into getting the stacks and racks from Oceania, but Cliff Richard has them all. But that stimulated me to go forward a bit. I've been doing some stuff with Turbosound and Brit Row - BSS have just bought out a new crossover called the Omnidrive which was shown

at the AES. It's not quite in production yet, there are only a few of them around, but it's a digital crossover that stores so much information. It's similar to the Yamaha one except it's another step forward in quality. British quality as opposed to Japanese which is always functional but can sound sterile and not as musical."

The Omnidrive from ESS is a new digital loudspeaker management system, a 2U 4-way crossover system which has 60 user memories in which to store the integral limiter, delay and parametric equalisation settings.

"Turbosound have all their products programmed into it so you can time align etc., and Peter Ratcliffe of Jands said it would be no problem to use it on their system," continued Jon. "It's really interesting because they use the BSS 200 Series and it's just amazing the difference it makes to the system locking it all in phase wise and time aligning. Their TMS-3 system is so well maintained anyway but combined with this new digital crossover, everyone is commenting on how nice the system sounds."

John bought his own board, a Midas XL3, with him as well as racks and his usual plentiful amount of valves or in his words 'anything that costs the artist money!'. His standard combination of effects included Lexicon 480s, PCM70s, Ultra harmonisers ST3000, and AMS reverb. Also there were Summit TLA 100s and

*(continued over)*



Photo- Rob Merregoni

## YET ANOTHER GREAT DAY TOURING EUROPE

*By Mike Vegas, Lcstiwka, Guitar Tech*

It's the 26th of January, 1995 and the Crash Test Dummies 'God Shuffled His Feet' Tour has finally finished three days ago. It started on the 17th of January, 1994 in Victoria, B.C. at Harpo's nightclub. It finished on January 23rd, 1995 in Geneva, N.Y. at the Smith Opera House. The tour spanned 203 shows in 17 countries. Here's a little rundown about it for your reading pleasure.

### One Typical Day:

9:20 AM, Wake up in my bunk in the crew bus somewhere. 9:30 AM, Eat breakfast and survey the venue. 10:00 AM, Have another coffee while Lighting and Audio are finished getting their rigs in

the air. 12:00 PM, The drum tech & myself roll out the carpet we carry to cover the deck, by 1:00 PM, backline is up and wired, go get your lunch. 1:30 PM, Start to re-string and set up the intonation etc on 4 to 6 guitars depending on the day of the week. I might also do some cable maintenance or repairs. 5:00 PM, Soundcheck. 6:00 PM, Dinner is served. 7:00 PM, Doors are opened, I start to round up towels and water etc for the stage. 8:00 PM, Support act takes the stage, I start tuning 10 guitars for the show. 8:30 PM, Changeover and line check. 9:00 PM, Crash Test Dummies show time. 10:30 PM, End of show, In

*(continued over)*

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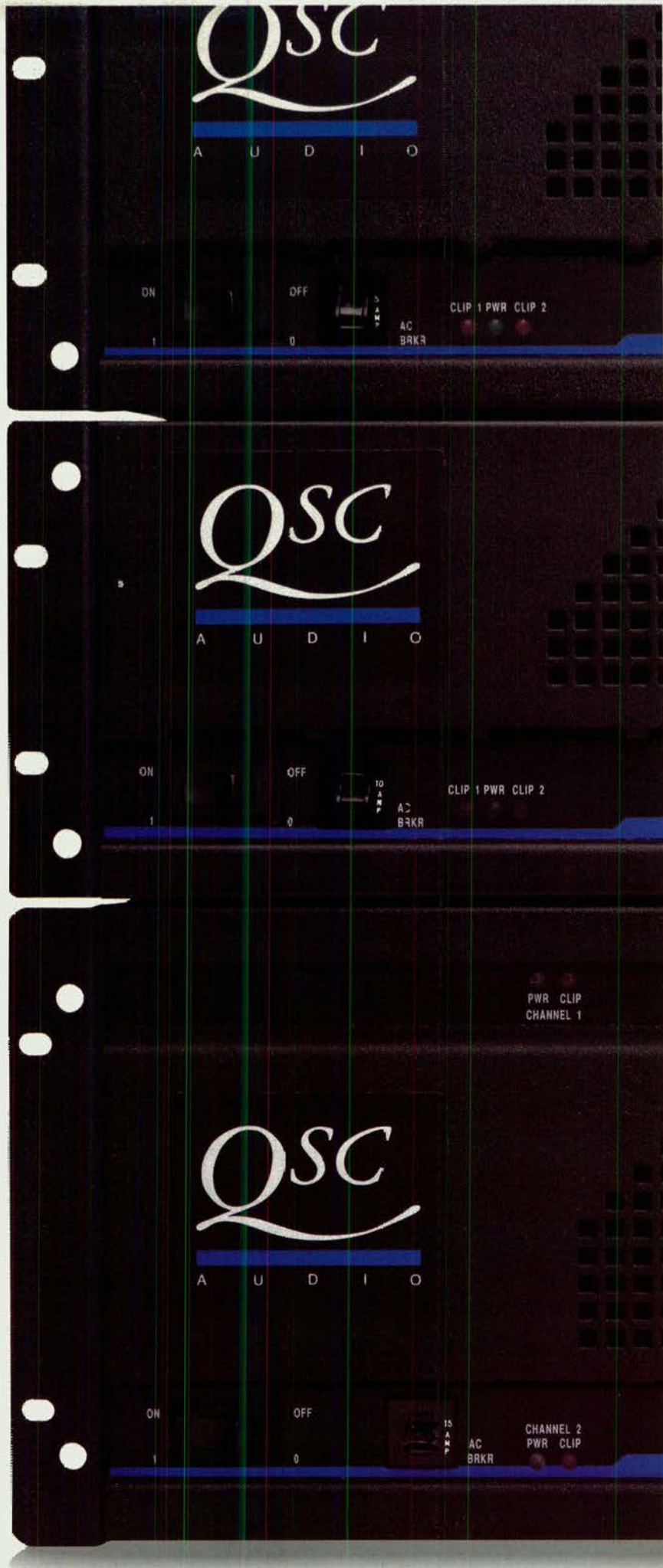
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## Ferry Sound (continued)

DCL 200 compressors, Summit equalisers and the SSL type stereo compressors made by Al Smart.

"I'm EQ-ing the system with Varicurves and Dual Varicurves, staying in a minimum filter domain, which all adds up to a fairly crisp sound," said Jon. "I had been talking to Midas about bringing the prototype XL4 to Australia but, although their standard is so high, the thought of being on the other side of the world if something went wrong was not appealing."

The other reason Jon was so enjoying the tour was the exceptional quality of the band with Bryan only wanting the best.

"The show is great to run because you are dealing with musicians who are so consistent they end up doing quite a lot of the work for you!" admitted Jon. "I just add the sparkly dust on top."

The last time Jon did a show in the State Theatre was with Peter Allen and the Sound On Stage WRM V2 system, probably about twelve years ago. It wasn't the right system for an act like Peter Allen and consequently Jon's memory of the theatre was fairly horrible. With twelve more years experience of theatres around the world, Jon now concedes that the State is actually a very nice venue.

"Even with a small system like this one, 12 TMS3's and 10 subs, it's great and I'm quite impressed," he said. "Everyone has told me that the coverage is good and I can only believe them. Mind you, I used to tell people that when I worked at Jands!"

Monitor engineer was Gareth Williams and fellow Australian Dave Bracey was system engineer.

Microphones were a bit different on this tour for Jon who has been experimenting with AKG. After talks with AKG, Jon looked at their relatively new C5900 vocal condenser mic.

"I tried them out on Bryan and they are just unbelievable," said Jon. "We had to have a few adjustments made to them by the factory in Vienna but it's an incredible vocal mic. They're not exactly what you'd give Jimmy Barnes to pour vodka into and throw against the wall. We're also using them for the backing vocals and all the guitars and stuff are 414's. Also

using Shure 98's on the toms and AKG 461's for the high hats."

The first gig of the tour was at Newcastle's Entertainment Centre or 'cowshed' as Jon describes it. Jon is convinced that Valium is poured into the water in Newcastle as there was little reaction from the audience until right at the end when they apparently went crazy.

### LIGHTING, STAGE:

Original lighting designer for the show was the famous Jonathan Smeeton but, for the second part of the tour, Vari\*lite operator Liz Berry took over.

The set consists of three concentric C-shape trusses which have customised drapes which go between them giving the effect of an Arabic tent. In the original design the drapes were white and Martin Roboscans were used to project onto them. When Liz took over she decided to get rid of the white because, although it looked great when it was lit, it was difficult to conceal when trying to concentrate the lighting downstage only. The problem was solved by painting the drapes grey.

"We lost a crew member who looked after the Roboscans and I didn't have the time to learn about them so we replaced them with four upstage VL2c's," said Liz. "They go with the twelve VL2c's that we already have. It was done simply because I knew how to bodge stuff in that would be very effective and do the same job. To be honest, I also knew that they wouldn't freight the Roboscans around the world and they're not available everywhere. There was stuff that the Martins did that was fantastic so I miss them in some ways but I did the right thing."

"Bryan and production wanted the show the same but different if you know what I mean. There was no harm in a re-light in certain cases, I traded in the tubular ripples that we had for some strobes. The spirit of what Jonathan did is still there but there's also my personal stamp there."

The rig has 86 Par cans which all work very hard and Dave Gibbons runs the conventionals in this case with a Celco 60 although he has been using an Avolites Sapphire. Dave went into the yard at Jands and reproduced the show perfectly from the Celco. •

## YET ANOTHER GREAT DAY TOURING EUROPE

(continued from previous page)



Bryan Adams and band to do 'Everything I Do' for umpteenth encore. The show goes past the union curfew of 11:00 PM. Too bad it was a Sunday night and all the union labour was on at double pay.

**May 3, 1994.**  
**Vancouver, B.C.**

The first night for Elvis & The Attractions. This is Elvis' first North American tour with the original band in 11 years. I remember growing up listening to the set list, Elvis' crew happen to be the nicest bunch

of guys as well over the next 7 weeks we manage to get up to all sorts of debauchery together.

**June 30, 1994.**  
**Toronto, Ontario.**

We played a 14,000 seat arena in the bands home town of Winnipeg, Manitoba on the 28th. The following day we flew to Toronto and had the night off. Today we are supposed to play an amphitheatre on the shore of Lake Ontario in downtown Toronto. By 12:00 PM the gig has been blown out, Brad, Kathy, Paul, John and Scott have all been diagnosed with acute food poisoning. In the end everyone survives and no one else gets sick.

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**July 9, 1994.**  
**Turku, Finland.**

Everyone is feeling much better. Last night we played the Forum in London, England, tomorrow we are in Munich, Germany (the Agent was told 'as many people as possible in one month, 'hence flying all over the place to do festivals). The festival is called Ruisrock, our Production Manager tells us about the mud when he

(continued over)

### A Few Memorable Days:

**February 19, 1994.**  
**New York City.**

The band played on the syndicated 'Saturday Night Live' television show. Which is viewed in North America by 15 million people, weekly. This also happened to be my 23rd birthday. The house band leader G.E. Smith let me drool over his vintage guitar collection.

**March 7, 1994.**  
**New York City.**

Tonight the band supported Bryan Adams at the infamous Madison Square Gardens. Sting is playing downstairs at the Forum. He joins

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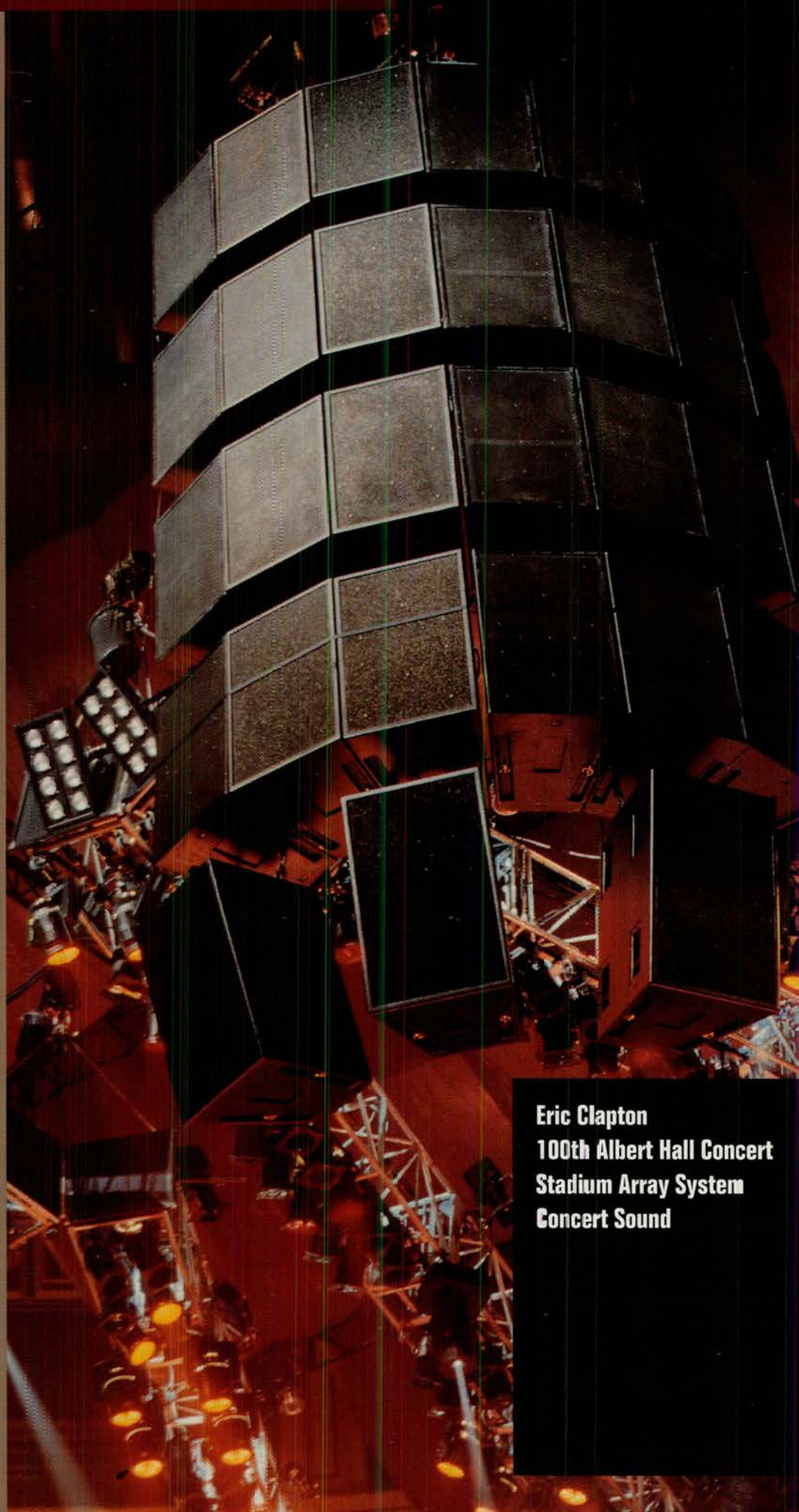
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**Eric Clapton  
100th Albert Hall Concert  
Stadium Array System  
Concert Sound**

## YET ANOTHER GREAT DAY TOURING EUROPE

(continued from previous page)

was here 8 years ago with Katrina & The Waves. Fortunately it's 30 Degrees Celsius and no mud today. There's 25,000 drunk Fins wandering around the beach including one woman who is stark naked. A few Scandinavian bands play who I've never heard and forgot the names of, as well as John Hiatt, The Pretenders and Crash Test Dummies. We return to Finland to do the Helsinki Ice Hall in November and find that 'Mmm Mmm Mmm' has been #1 at radio for 22 weeks.

**July 31, 1994.**

**Thurles, Co. Tipperary, Ireland.**

We are on the Fiele festival bill between Bob Geldof and RagAgainst The Machine. Due to an Air Traffic Controller strike we are delayed at Heathrow airport. We arrive at the venue 35 minutes before show time. We're still patching when our backline is being rolled out onto the stage. Somehow, we go on bang on time. It's pissing down rain but 30,000 Irish kids are going mental on this football pitch and somehow it makes it all worthwhile. Tomorrow we're going home for 3 weeks off, I can't wait to get one the plane.

**August 24, 1994.**

**Victoria, B.C.**

The bands first show since the Fiele Festival in Ireland. Tonight is a free show at the Commonwealth Games. The organisers are expecting 25-30,000 people...70,000 show up. Welcome back to work.

**August 28, 1994.**

**Dallas, Texas.**

We now have a 10 day break while the band shoots a video in Halifax, Nova Scotia. On the 8th of Sept. We'll start another 4 week American tour. Everyone is flying home The L.D. and myself are picked to drive a 2 Tonne cargo truck of backline to Toronto, Ontario. We do the 2400 Km drive in 24 hours and 10 minutes from the hotel in Dallas to the L.D.'s house in Hamilton, Ontario. And with no speeding tickets.

**October 26, 1994.**

**London, England.**

We're 10 days into an 8 week tour. The Royal Albert Hall. Cream, Hendrix, Clapton, the Beatles, Stones, Elton John. Everyone big



Your writer, Mike 'Vegas' Lastiwka, Super Guitar Tech

you can imagine has played this hall, I hope their crew had as much fun loading in and out as we did. A two storey ramp from the stage to the lobby, through the lobby, down a staircase, onto the street and then into the truck. 3 1/2 from end of show until one 44' trailer is loaded. Only 280 degrees of P.A. coverage required. This place is great, I can understand why everyone wants to play here, NOT!

**November 1, 1994.**

**Glasgow, Scotland.**

We've been warned that the Barrowlands Ballroom is 4 stories up with no elevator. We move load-in time forward one hour, put extra men on from the local crew. 14 rather large Scotts show up and have the entire truck contents upstairs in 50 minutes flat. Then they proceed to play football on the dance floor for an hour before tea 'To let off some energy'.

**November 18, 1994.**

**Berlin, Germany.**

Huxley's Neue Welt-Huxley's New World needs a crew to replace the sorriest excuse for a house crew I've ever seen. I mean the laziest, bad attitude, know-it-all, unwashed (Euro-Pit) slob in the world. One of the locals smells so bad, Gord Reddy the P.A. tech. sprays the guy's armpits with mosquito repellent to kill the smell. The hall is on the third floor. This place has an elevator that won't fit

the Europa or SM24, up the fire escape they go. The Germans refuse to do it at first so all 8 of our crew and 4 locals do it. If one more German house crew tells me how much better German P.A. companies are and how much lighter their cases are I will commit murder (Hey! Herr Sluggo, you get paid to slugg gear, start slugging and shut up!). We have brought our 35 tonnes of gear that all runs on 120 Volt AC at 60 cycles. Consequently we have rented 2 transformers in England, Lighting needs 400amps, Audio & Backline needs 200amps. The lighting tranny weighs in at 680Kg and doesn't fit in the elevator. We run feeder from the building primary out a window, down three stories to the tranny (which is parked in the alley way) then back upstairs to our distro panel. Yet another great day touring Europe.

**December 10, 1994.**

**Munich, Germany.**

Tonight is the last gig on this tour, and my 'Give A Fuck Meter' (standard equipment for any tech. touring Europe) is just pinned. The entire crew seems a little tired of Europe in general. The last 11 days have been hell. We have done Barcelona, Madrid, Manresa, Bremen, Milan, Firenze, Cesna, Zurich, Paris, all back to back then we have a day off to travel to Munich. We are at a venue called Ter-

minal 1 the former Munich Airport. They still have the destination board on the wall. The signs telling you the toilets this way, baggage claim that way etc are still in place. The ticket counter is now a bar, the runway is used as a market on weekends, this is one interesting venue. Large stage with wings and a good trim height and fly points, a nice way to end this tour.

**January 23, 1994.**

**Geneva, N.Y.**

The last real show for this album. Tomorrow we'll do a live TV show in Toronto, but for us this feels like the last one. Somehow a year flies right by you when you do a tour like this. It's somehow funny to look back at how a year ago the band was playing in a bar in Victoria that holds 500 people hoping that when we hit the U.S. we would do at least 500 people a night there. I don't think anyone ever imagined the record to sell 2,000,000 in Europe. But then again, other than Taxes, Death, Load-Ins and Load Out, Not much is really certain, right?

**Thanks and hello's** should go to all the great support acts we had this year. October Project, Mae Moore, Spirit Of The West, Milla, Jack Roberts, Sarah McLachlan, and Bass is Bass.

(continued over)

# MACKIE.



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## LM-3204

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**Prisma Music** It doesn't feel like a computer, it feels like a studio! Prisma Music™ is the first of Spectral's new application-specific user interfaces designed expressly for music production. The mixer screen looks just like a mixer and it has functions that you already use in music recording studios, with two parametric EQ's and precision metering on every channel. Prisma Music™ features 99 virtual track, 4 layers deep and the system can simultaneously access 8 tracks record or play, plus 2 tracks for mixdown. Spectral design systems from the ground up with hardware & software optimized for the job, you get more power for your money.

**The TRANSLATOR™**  
The all-new Translator™ performs direct digital audio format conversions between different digital audio standards, eg ADAT to/from DA-88. The four standards/models currently supported are: Alesis ADAT/Fostex RD-8, Tascam DA-88, Yamaha DMC 1000 & DMR8, Spectral AudioEngine & Prisma.



### CAD Equitek Series

Ultra high quality condenser microphones designed for critical applications such as recording, broadcasting and sound reinforcement. Unique servo design provide extraordinary transparency and flexibility. Made in the USA, all CAD microphones carry a full 2 year warranty  
Models: E200, E100

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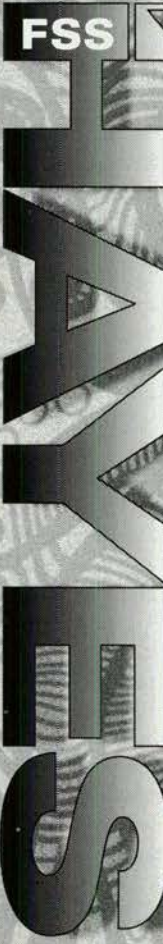
Rugged, high quality hand-held dynamic and condenser microphones constructed to handle the rigors of live performance and the specific demands of recording. Most models feature CAD's exclusive Flex-Form™ non-dent grille and INR™ shock mount system. Made in the USA.  
Models: CAD 92, 89, 88 28, HM-50VC

### CAD 100 Series

Designed for the sound contractor field, these are solidly constructed, high quality, high performance microphones. Models feature electret condenser mini-gooseneck, hanging mini-gooseneck and surface-mounted boundary microphone. Made in the USA.  
Models: MG-115, MG-120, CM-100B, ST-100



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“Contact us directly for pricing details, and the location of your nearest Hayes retailer.”

## YET ANOTHER GREAT DAY TOURING EUROPE

(continued from previous page)

### The Gear:

The 'Dummies' (as the crew affectionately calls them) Have to be the most endorsed band I have ever worked with. Drums and Hardware were supplied by Pearl. Cymbals by Sabian. Sticks by Vic Firth. Drum Heads by Remo. Triggers by Kat. Keyboards and Samplers by Kurzweil. Basses & Bass amplification was provided by Warwick. Guitar Pickups & Amplifiers came to us from Seymour Duncan. All strings were by Dean Markley.

Incidentally if you are wondering we used 140 packs of Blue Steel 4 string set Bass Stings and 65 packs of Blue Steel 5 string Bass Strings. 500 packs of Bronze Phosphor Mandolin strings. 360 Jim Dunlop 1.00mm Guitar Picks. 110 Snare Drum Heads, As well as 45 sets of Tom Drum Heads for all four Tom Toms. Mitch lightly went through 60 pairs of Drum Sticks. Addidas gave us Shoes, Clothing & baggage, with the exception of Drummer Mitch Dorge who has a deal with Reebok.

The P.A. system in North America & Europe was provided by Jason Sound Industries from North Vancouver, B.C. The Desks were a Soundcraft SM24 monitor Desk (40 input x 24 Mixes), A Soundcraft Europa at Front Of House. The Europa provided us with a few memorable experiences, A fire escape load-in in Berlin comes to mind. The console is 104 inches long in it's case and weighs in at 997 lbs. It doesn't go cross-wise in a truck, but as far as F.O.H. desks go, the only thing it doesn't do is make coffee for the engineer (the lighting tech. had a espresso machine in his tool case for that purpose).

A BSS Vari-Curve Controller with 4 Vari-Curve units was used to EQ the F.O.H. Speakers. In the F.O.H. Racks were Custom Built JSI Power Supplies for the desk, 2 x BSS DPR 402's, 2 x BSS DPR 404's, BSS DPR 901, A Drawmer 2 Channel Noise Gate, 2 x Yamaha SPX1000's, A TC Electronics 2290 Delay, A Lexicon LXP15, A Stereo BSS 31 band 1/3 Octave Graphic EQ for insert capabilities, Teac DAT and Analog Tape Decks, and a CD player of which brand escapes me.

In the Monitor racks were Custom Built JSI Power Supplies for the desk, an Alessis Quadraverb, 12 x BSS 31 Band 1/3 Octave Graphic EQ's. Each Monitor Desk in the JSI collection is 'mated' with it's own EQ and Amp racks. Each Package is completely De-Buzzed, Grounded, & Terminated as a package. All the Speaker cabinets employed by JSI are of a proprietary design, we used 2 x J63's & 2 x J62's per side for F.O.H. mains complimented by 3 x J23's per side for centre fill. The Subs were 6 x J31's. Onstage we were using a total 13 of the J17 monitor wedges and one J35 Sub for drum fill purposes to compliment the drummer's 'In Ear Monitors'.

The entire JSI rig is powered by Carver Amplifiers with modifications and calibration being done to the amps by Jason Sound Industries. Crossovers are Klark Teknik 5 ways. The J63 box has a range of 170Hz to 20kHz and is loaded with 4 x JBL 2202 Drivers, 3 x JBL 2446 & 2380A Drivers, 4 x JBL 2402-05 Drivers powered at 1700W RMS continuous, the high compression mid-range horn design is completely proprietary.

The box is 46" x 46" x 24.5" with a directivity of 70 degrees x 40 degrees which is reversible and can be flown or stacked in either focus pattern. The J62 has identical dimensions of the J63 but it's powered at 1200W RMS Continuous to drive the 2 x JBL 2241's and a compact proprietary medium compression horn. The directivity of this box is 90 degrees x 90 degrees and again is reversible for either flying or stacking. It's frequency response range is 70Hz to 170Hz. The J23 centre fill boxes are a trapezoidal utility box, although we did use it for extra balcony fill amongst other odd applications. It handles up to 450W RMS and takes care of supplying 70Hz to 13kHz in a 90 x 40 pattern which gradually broadened below 1000Hz.

The J31 subs were powered at 1200W RMS to drive 2 JBL 'push-pull' '18' components in the 45Hz to 400Hz range which was conveniently packaged in a 46" x 28" x 24.5" housing. The J17 monitor wedge utilises 2 x 12 'JBL woof-

ers and a JBL 2" throat compression driver. Its sound and size went over very well with the band. They liked the fact that the box could deliver a solid dynamic punch along with pristine clarity and still only stand 12.5" high and 26.5" wide. It's frequency response range is 70Hz to 18kHz. Monitor Engineer John Sulek found that with their directional focus he could keep the individual monitor mixes very well isolated from other mixes. The on J35 Drum Sub is a mere 23" x 28" x 24" housing a single 18" direct radiator JBL component.

We used no 'Side Fill' boxes whatsoever as per the specification of the monitor engineer, John Sulek. Instead John chose to use mid stage Wedges for more accurate source point monitoring when the band members would move away from their main monitor mixes. These Mid-Stage Boxes were placed mid-stage left, centre, and right, then focused down stage for a 'Back Fill'. Multi-Instrumentalist Ben Darvill, Singer/Guitarist Brad Roberts and Bass Player Dan Roberts, found that they quite liked the 'surround' feel to this system.

Westsun Vancouver from Burnaby, B.C. provided lighting for the tour. The rig had to be compact enough to occupy only 1/2 of a tractor-trailer and be set-up by the operator and Lighting Technician 'Dick' Tracey Ploss. On the other hand though it still had to contain enough features to create diametrically different looks for each song.

To make the situation even more interesting, this was Westsun's first time ever on an overseas tour. Needless to say they came through with a smart package and great tour support. Westsun utilised 15 sections of Thomas Pre-Rigged truss to compose a three truss show.

The rig was loaded with 6 x 2K Bambinos, 18 x 6 x 12 Lekos, 160 Par 64's loaded with Very Narrow bulbs, also used were the 12 Intellabeams.

Softgoods were an upstage Cyclorama with Black legs, and a White Mid-stage curtain split in the middle with swag lines sewn in, with black legs framing it. This

curtain remained closed for the support acts set and was swagged open during the Dummies intro tape.

Cyc Bay Lamps were passed over in favour of Scrolling Molefays, 4 Track spots, and 2 bars of 6 with Narrow bulbs. The rig was operated entirely by designer Kevin 'Kov' Smith using a Avolite 90 channel QM500 and powered by 72 Channels of Dilor dimming at 2.4K per channel.

Spots in North America were two Lycian 1200W's hung off the down stage truss on Thomas Truss Turrets. Kov opted to use them in the house in Europe due to the fact that a good number of the European halls we played did not have enough fly points. Therefore lighting would be put in the air using Super Towers or Genie Lifts.

### The Band:

Brad Roberts, Singer/Guitarist. Dan Roberts, Bassist/Backing Vocals. Ellen Reid, Keyboard/Backing Vocals. Mitch Dorge, Drums. Benjamin Darvill, Harmonica Percussion, Mandolin, Acoustic Guitar. Kathy Brown was hired to play extra Keyboards for the tour.

### The People:

Jeff and Sandy Rogers, Business Managers. Paul Tozer Production Manager and F.O.H. Engineer. John Sulek, Monitor Engineer and Stage Manager. Kevin 'Kov' Smith, Lighting Designer and Operator. Rob Menegoni, Drum and Keyboard Technician. Mike 'Vegas' Lastiwka, Guitar Technician, 'Dick' Tracey Ploss, Lighting Technician. Dean Roney and Gord Reddy, P.A. Technicians. Scott Patterson, Tour Manager. •

*\* Connections is indeed delighted to have received this story from Mike 'Vegas' Lastiwka, himself a 23 year old guitar tech. Vegas got in touch via E-Mail and offered to write, we said 'yeah, sure' and thought nothing of it. Then, the story and pix arrived by airmail. It gives us an insight into touring life on the other side of the world, and if anyone would like to get in touch with Vegas, Email him on Compuserve 74654,1346.*

# AUDIOPRO

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Yorkville's continuing research in new high efficiency designs, sets new standards for quality, reliability and performance in sound reinforcement. AUDIO-PRO amplifiers deliver more power and weigh less, thus representing a significant advance in analog power amplifier design. MOSFET's are where they should be - in the driver stage. Their immunity from secondary breakdown less than reliably drive bipolar output devices. A toroidal transformer reduces weight while minimizing hum and noise. High efficiency power conversion approaches levels normally associated

with switching power conversion but provides the superior transient response and low distortion of the best analog designs. A specially designed, switchable sub-sonic filter boosts the "bottom end" 3.6 dB by transferring wasted energy from below 30 Hz to between 35 and 70 Hz. The quiet, variable speed fan assures a consistent operating temperature by crawling cool air in from the side and forcing it out the back\*. AUDIO-PRO amplifiers feature full DC, load and thermal protection. The front panel AC switch also serves as a circuit breaker.

### FEATURES & SPECIFICATIONS

MODEL NUMBER	AP-1200	AP-3000	AP-3400
	Config. A/B*		
Continuous Average Power (Both Channels Driven):			
Watts @ 8 ohms	250 (x2) / 350 (x2)	475 (x2)	750 (x2)
Watts @ 4 ohms	400 (x2) / 600 (x2)	750 (x2)	1200 (x2)
Watts @ 2 ohms	600 (x2) / NA	1200 (x2)	NA
Watts Bridged	1:00 @ 4/8 ohms	2400 @ 4 ohms	2400 @ 8 ohms
Burst Average Power (Both Channels Driven - 1 kHz)			
Watts @ 8 ohms	400 (x2) / 525 (x2)	625 (x2)	1200 (x2)
Watts @ 4 ohms	750 (x2) / 1000 (x2)	1200 (x2)	2175 (x2)
Watts @ 2 ohms	1325 (x2)	2175 (x2)	NA
Watts Bridged	2:6:0 @ 4/ 2000 @ 8	4350 @ 4 ohms	4350 @ 8 ohms
Freq. Response ( $\pm 1$ dB)	20 - 20 kHz	20 - 20 kHz	20 - 20 kHz
Hum & Noise	-103 dB	-105 dB	-105 dB
THD (1 Hz, 4 ohms)	<0.004%	<0.004%	<0.004%
THD (20-20 kHz, 4 ohms)	<0.005%	<0.005%	<0.005%
Slew Rate (V/us)	.15 (50 bridged)	25 (50 bridged)	25 (50 bridged)
Damping Factor	>600	>600	>600
Crossdist. (1 kHz/20-20 kHz)	-75/-60 dB	-75/-60 dB	-75/-60 dB
Input Imped. (Bal/Unbal.)	30/20 Kohms	20/10 Kohms	20/10 Kohms
Input Sens. (VRMS sine)	4 (33 dB gain)	1.4 (36 dB gain)	1.4 (39 dB gain)
CMRR @ 30 Hz (Min/typ)	48/56 dB	48/56 dB	48/56 dB
Stereo or Mono (S/M)	S/M	S/M	S/M
Turn On/Off (mw sec)	<15, 0.5 Wpk	<15, 3.5 Wpk	<15, 0.5 Wpk
Max. Output Current			
Repetitive/Continuous	60 / 30	100 / 50	70 / 35
Power Consumption (Typ/Max)	600 / 1440	800 / 1440	800 / 1440
Protection	DC, Load, Thermal	DC, Load, Thermal	DC, Load, Thermal
Cooling	Fan (Side > Back)	Fan (Side > Back)	Fan (Side > Back)
Input Connectors (x2)	LR / 1/4" Phone	XLR / 1/4" Phone	XLR / 1/4" Phone
Output Connectors (x2)	Binding Post	Binding Post	Binding Post
Rack Spaces	2	2	2
Transformer	Toroidal	Toroidal	Toroidal
Weight lbs./kg.	35 / 16	40 / 13	40 / 18
Dimensions (in. - DW+)	15.8 x 19 x 3.5	15.8 x 19 x 3.5	15.8 x 19 x 3.5
Dimensions (cm. - DWH)	40.3 x 48.5 x 9	40.3 x 48.5 x 9	40.3 x 48.5 x 9

\* Configuration A - Maximum power into 2 ohms. Configuration B - Maximum power into 4 ohms. Specifications subject to change without notice.



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# NEW



## AMS NEVE LOGIC 3, 16 faders

Owners of NEVE LOGIC 3 consoles can upgrade to 16 faders, the firm announced at Paris AES. AMS-Neve is a wholly owned subsidiary of Siemens AV.

HSV Channel 7 in Melbourne has purchased two Logic 3s with 16 output AudioFile Spectras. One system will work exclusively on the drama 'Blue Healer' while the other will be used for general TV

production.

NEVE is available here from Syncrotech Systems Design in Sydney, call (02) 417-5088.

◆◆◆

Although long gone from Neve, you can meet legend Rupert Neve at the Sydney AES this month. Breakfast with Rupert Neve is on Thursday April 27 at 8am. \$22.50, call (03) 525-6755 to book.

## CD GROOVES STORAGE SYSTEM

Gizmo Design of Sydney have a neat product, CD Grooves storage systems consist of 20 vertical components, having the capability to hold 27 CDs one one module, 63 with two and 99 with three, etc.

The storage system (pictured at right) is attractive and affordable at \$49.50 (retail) per module. That holds 27 CD's.

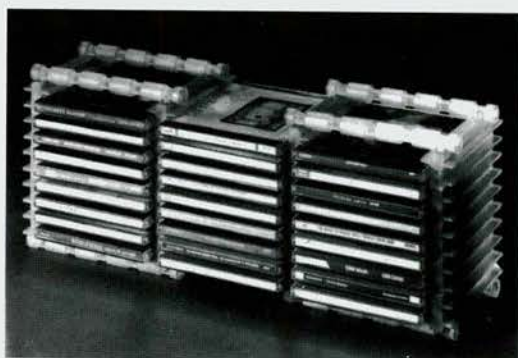
It's like a sculpture. Gizmo-type man

WRITE READER SERVICE NUMBER 221 ON FREEPOST CARD & SEND FOR INFO.

Graham Ambridge told Connections it was intended for the consumer market, but his first big sale looks like being to a radio station seeking to reorganise their library!

The system uses grooves to interlock the components, and is shipped in a kind of 'flat pack'. You add modules as you add CD's. It's fun and easy to assemble, too.

•CD Grooves, call (02) 315-8425.



## MARTIN EM-15 HAS UNIQUE H/F

Martin Audio UK have released a mini loudspeaker system with some serious grunt. The EM-15 has an interesting technology inbuilt, namely the high frequency section. It's called Inductive Coupled Transducer technology, or ICT for short.

This is a high frequency diaphragm which floats freely in the high frequency magnetic field generated by the low frequency driver voice coil. There is no electrical connection, and so the high frequency section cannot burn out.

This is kind of like a high tech version of the old fashioned 'twin cone' speaker, which used to give you some high frequency, but nothing like the

*Martin (UK) boss David Bissett-Powell with the EM-15 in Sydney (right)*

WRITE READER SERVICE NUMBER 222 ON FREEPOST CARD & SEND FOR INFO.

range Martin's baby offers. They say the EM 15 is effective up to 22,000kHz, where it is only down 3dB. This is well above your editors hearing limit of 14,500kHz, as tested using the Connections Shop Audio Test CD!

EM-15 has 2 x 5" drivers on board, one of which is the ICT unit. It takes 50w AES or 200w peak. With no crossover required, it just gives. A subwoofer is offered, which itself is a bandwidth design so no power sucking crossover is inbuilt. You can run up to 6 EM-15's (16Ω version) and a sub from one amp channel for a 3.2Ω load if required.

• Details: AR Audio Engineering, (02) 299-3666.



## Anthony DeMaria Labs ADL-1000

Anthony Kitson at ABK Audio Engineering in Perth has picked up the Anthony DeMaria Labs product, and announce the ADL-1000 Compressor, pictured below.

This is an all-discrete vacuum

tube compressor, with no IC's or transistors in the signal chain. Instead, the unit has four tubes.

It has a frequency response of 15Hz to 30kHz, custom input and output audio transformers, large

UV metre readout with a switch for viewing output or gain reduction. You can stereo link a second unit too.

•ABK, call 015 381-584.

READER SERVICE NUMBER 101

USE OUR **FREEPOST READER SERVICE CARD SYSTEM** TO GET MORE INFORMATION ON PRODUCTS THAT INTEREST YOU IN CONNECTIONS. JUST WRITE IN THE NUMBERS & SEND.





## See CONNECTIONS- Stand 15 at AES, for:

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Extra titles available at the best prices, T-shirts and the **MIX TEST CD** too.

### •SUBSCRIPTIONS

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**Please drop by, have a coffee, and tell us what you would like to see MORE or LESS of in these pages.**

# Take me to your rack



No, it's not a UFO. It's just the best rack accessory ever! It's the Furman **PL-PLUS Power Conditioner & Light Module.**

Take it to the top of your rack and let its ten switched outlets provide clean power to your equipment while its twin slide-cut swiveling lamps discreetly illuminate their controls on stages, in studios and in dark places everywhere. The PL-PLUS protects your delicate electronic equipment from spikes, surges and RFI with well designed and highly effective clamping and filtering circuitry. Its lamps feature smooth-sliding Delrin bushings, easy to replace 7-watt bulbs, and a dimmer control. And in between, there's a handy LED line voltage meter that reads from 180 to 256 volts. The PL-PLUS is rated at 15 amps and comes with a heavy duty 10 foot cord.

For even better protection, take one of Furman's other power conditioners to your rack. Like the **AR-230** and **AR-PRO AC Line Voltage Regulators**, which correct high or low voltages and let you plug in to clean power, anywhere in the world. Also check out the **new PS-8 Power Sequencer**, a rack-mount conditioner that powers your equipment up and down in a 3-step delayed sequence, avoiding large inrush currents that can trip breakers and loud pops that can blow speakers.

## FURMAN

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Ph: (02) 585-1011 Fax (02) 585-1317

Write in Reader Service number: 139

# APHEX Four Channel Rack Packs



**APHEX Easyrider**, a four channel intelligenter compressor that varies attack and release characteristics dependent on the texture of the input signal. Just dial in the amount of gain reduction, choose fast or slow time constants and adjust for output gain - it's that simple.

**APHEX Logic Assisted Gate**, a four channel fully parametric noise gate with ultraclean audio path and click free performance. Logic assisted detector circuits ensure absolutely positive and consistent operation, and allow the user to quickly and easily find the right threshold.

Call **EAST COAST AUDIO** now for the name and location of your nearest APHEX stockist. Phone **(03) 428 9797** or **013 381 481** or Fax **(03) 427 9898**.

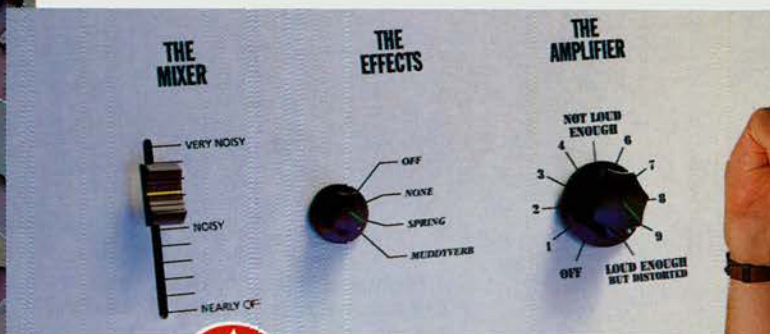
Broadcast Technology Pty Ltd. A.C.N. 006 689 752. RAY WELCH ADV.



Write in Reader Service number: 136

# POWERSTATION

## THERE'S ONLY 3 THINGS WRONG WITH MOST POWERED MIXERS



### Why Do You Need a Powered Mixer?

*You don't - if you want to keep carrying a separate mixer, reverb unit and power amp to all your gigs. Let's face it, it's enough hassle setting up instruments and mics without worrying about another set of leads. PowerStation gives you everything you need between stage and speakers in a single, rugged package.*



### Why Compromise?

At Spirit we believe that quality doesn't have to carry a price premium. However, designing PowerStation gave Spirit's design guru, Graham Blyth, greater challenges than mere affordability. In 25 years of mixer design Graham had steered clear of low-cost powered mixers, because he didn't want to be associated with the terrible reputation many had for poor audio and build quality. However, when we told him that PowerStation had to be a tool that audiophiles would be proud of he soon changed his mind! Read on to find out how he designed a console that gives you performance, power and change in your pocket.

With PowerStation Graham Blyth has excelled himself: a new pre-amp design that will take any signal you throw at it, plus a subsonic filter to tackle rumble without zapping you using bass EQ. On-board digital effects are by Lexicon - the choice of large studios around the world. Even the power amp is an audiophile's dream, realising its specifications to deliver 300 watts (peak) x 2 of pure Spirit sound\*.

So what's missing? Just the hiss, muddy reverb and distortion that you expect to find on a powered mixer at this price. Read on to discover how it's done.

#### Bullet-Proof Mic Pre-Amps

With gain ranging from 1 to 60dB Graham's new UltraMic™ pre-amps give you even more signal handling capacity, to connect signals ranging from low output dynamic mics to

active DI boxes without fear of clipping. Just as important, at -129dBu EIN their noise performance exceeds that of many so-called professional mixers.

#### High Pass and Subsonic Filters

A new no-nonsense 100Hz High Pass Filter with an 18dB/octave cut-off means you can tackle low frequency rumble even more effectively. An additional 40Hz subsonic filter across the outputs lets you create bass-heavy mixes without overloading PA cabs with frequencies they can't handle.

#### Mono and Stereo Inputs

You won't just be using mics on stage, so we've given you two full-spec stereo line input channels in addition to the 8 mono mic/line channels - ideal for keyboards and samplers. We've also included a stereo return, a 2-track tape return and inserts on the mono channels.

#### LEX Appeal

Lexicon effects have pride of place in the effects racks of studios around the world. A carefully selected range of breathtaking effects algorithms adds a final polish to your music.

#### British EQ

Everyone knows British EQ is the best. PowerStation's mono inputs use Graham's acclaimed 3-band EQ, with swept mid for the fine control over your sound that's not available with simple tone controls.

#### 7-Band Graphic EQ

Don't believe manufacturers who tell you that their simple graphics will solve feedback problems: to isolate the 'ring' at exact frequencies really needs at least 27 very steep, close-spaced filters. Instead, PowerStation's graphic EQ has been designed as a creative tool to give you a brilliant sound whatever the room acoustics. 6dB of cut or boost is available for precise fine tuning of your sound.

#### The Right Controls, for Real Control

New 60mm channel faders offer smooth response, and 100dB of attenuation for complete silence on fade outs. Custom-designed controls provide an even spread of gain, ensuring that you will never get annoying leaps in level with even the smallest adjustment.

#### Flexible Routing

Configure PowerStation to exactly your requirements. Aux 2 can either be routed internally or to an external processor and Aux 1 is switchable pre/post fade too, for pre-EQ stage monitoring or more effects.



We've even given you a comprehensive patchbay above the master section. This allows you to bypass the power amp to drive a bigger PA, feed another mixer into the power amp, or even route external signals (or the aux outputs) through the graphic EQ.

#### Power Amp

Most powered mixers deserve their reputation for using poor quality power amps that don't actually meet their power rating specifications. PowerStation, whose 300 watts (peak) x 2 stereo amp\*, designed by UK power amp guru Douglas Self, offers both audiophile performance and enough power to blow your socks off. Road tested around the world for a year, we can guarantee this amp exceeds its specs.

#### Rugged Good Looks

PowerStation is built like a tank. Period. A hinged cover protects the mixer from beer, dust and roving hands that shouldn't be playing with your knobs. Rack ears are available too for rackmount use.



**SPiRiT**  
By Soundcraft

**JANDS**

Jands Electronics Pty Ltd  
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Stand 9**

\* 265 watts RMS x 2, continuous into 4Ω  
Write in Reader Service number: 119

# NEW AT AES

## DIGITAL RECORDERS GALORE

### ROLAND COME OUT SHOOTING WITH DM-800



AES is always a hotbed of audio technology, this year the Hard Disc recorder is ready to challenge digital tape based systems.

Roland's approach is firmware, the DM-800 digital audio workstation is a 'plug and record' one box unit, with provision for an internal hard disc and 2 x SCSI ports for external drives. You can hook-on a Syquest type drive, or a Magneto Optical drive, or even just a fixed hard disc drive. Video out allows

an external video monitor if required. In addition, you can create up to 300 'virtual' tracks, and the unit has an eight channel mixer built-on. They say it'll do 'tape like' punches and outs too. Go see for yourself.

**ROLAND ON STAND 21A**

## SONY'S MUCH AWAITED PCM-800 FOR AES

First shown in these pages at Christmas time, the PCM-800 is a DA-88 compatible 8 track digital recorder.

Sony have optioned-up the Tascam built unit, and see it going to post production and serious audio houses.

It has AES/EBU digital audio in and out, and balanced audio XLR inputs and outputs for each of the eight tracks.

Up to 16 machines can be linked with the optional DA3K-801 inter-

face board, which offers time code synchro from an inbuilt time code generator, MIDI machine control, and video sync.

The RM-D800 remote control will handle up to 6 PCM-800's at once, for 48 digital audio tracks.

Sampling is, of course, selectable, and you get 108 minutes of recording on a Hi8 video cassette.

It'll be interesting to see the price vs. Tascam's DA-88, which will also be at AES. Go ask them both!



**SONY ON STAND 13**

## EMAGIC LOGIC E-X-P-A-N-D-S

Logic Audio is an object oriented MIDI/Digital Audio recording, sequencing and notation program which joins the Logic range from Emagic.

They produce a variety of PC and Mac based products, starting with budget prices versions of Logic. You get 'crossgrade' prices once you buy an Emagic product too.

Logic Audio is offered with a new EXTENSION series. The Digital Factory power utilities consist of:

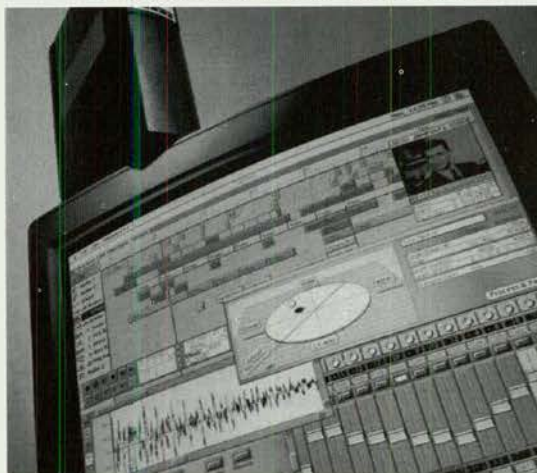
The Time Machine, The Groove Machine, Audio to MIDI Groove Templates, Audio to Score Streamer and Sample Rate Conversions.

The TDM extension for logic allows it to be run on the new Digidesign ProTools III system.

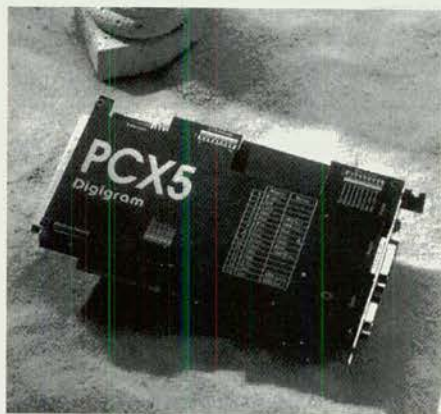
An AV Extensions lets logic Audio utilise the Apple Sound Manager, for digital audio-to-Mac.

Finally, the Yamaha CBX extension allows Logic Audio to run 4 tracks of audio on a Yamaha CBX.

### ELECTRIC FACTORY ON STAND 24



## AMBER INTRODUCE DIGIGRAM



Amber Technology have recently been appointed exclusive distributors of DIGIGRAM hardware and software systems for PC based multi-track recording/editing.

The PCX series is a range of high performance digital audio cards specifically designed for use within the PC/AT environment. Features include 2-channel record/play, real time

data compression under "Musicam" format, internal synch for multiple cards, MIDI in/out, and more.

Digigram Xtrack is a powerful digital editing software package for PC's using one or more PCX cards. It offers virtual editing in real time, and more.

**AMBER ON STAND 2**

>>>GO TO PAGE 62 for more

### DISCLAIMER.

There are about 60 exhibitors at the AES Convention. Only 20 or so sent us information, (and only a bit of it is newsworthy or can be used here) despite us contacting all on the list supplied us by AES at 15th March.

It's impossible to keep everyone happy. If your product didn't appear on these pages feel free to call us to lobby or chastise. But keep it fair, and remember everyone is treated equally in these pages.

## Band Manager Totally Loses It

To Natalie Apostolou:  
I am sending you this fax as I have just come across your review of the Sydney BIG DAY OUT (Issue #21 March 1995, page 15) & obviously feel compelled to respond due to my disgust concerning the content of your subject matter.

Before I continue, I would seriously like to question your capabilities of assuming the role of journalist - quite frankly, I believe you are, what we deem on the North Shore, a HOAX.

Your review, in general, is ridiculous - a personal diary account revolving around your blatant 'star seeking' conquests. Despite being quick to sarcastically condemn either persons or situations which you should have never been allowed the privilege of having access to, I (seriously) cannot believe your so called 'cultural' report (what a f.....g joke!) was actually accepted by Connections.

Please note that I am one of the seven core persons who work on the organisation of the BIG DAY OUT each & every year. My company, IMC also represents a number of prominent artists (both in management & agency capacities), with which I state this as I will obviously remember your name for future reference. The future reference I keep in mind is to make sure that you never are given the privilege to attend in any concert I am involved with ever again. Your sheer lack of journalistic integrity & obvious scathing personal bias (being positively the worst case of irrelevant garbage I have ever come across) leads me to pass on this piece of crap to all those you have insulted.

I manage RATCAT. Simon Day

has been a personal friend of mine for many years. I hire him each year to do artwork for the solo international shows for the BIG DAY OUT. In return, he receives access to guest Artist bar areas - ie; he is my personal guest, & retains the right to be where-ever he wants to. How f.....g dare you enter this area; spy on any person you may think fit to do so & then report their personal enjoyment in such a scathing manner.

You utter bitch! I cannot even extend my anger into words for fear of tacking a whole page to produce every insult I can think of towards you. Would you make the same bloody comment - 'Simon Day was trying hard to prove he still existed' - if you were to have seen him in the supermarket!!!!?

OUR NATALIE LIKES TO READ HER DIRTY LETTERS WHILST AT THE LAUNDERETTE.....!



Despite all your other pathetic jibes - (do you personally know the mothers of Silver Chair - I do & I take huge offence to your description of them) - you have personally insulted myself with your remarks regarding Simon. I find it totally impossible to believe that you had the appalling hide to make such a remark towards him when he was there for his own pleasure - ie; having drinks with his girlfriend (& friends) and minding his own business in the process. Yet you - you pathetic moron - have to question & remark his reason for being there, using the words that he was trying to prove that he still existed!!

Please don't make yourself known to me if we are ever placed in the godforsaken position of being in the same area together as

you will hear all of the above & more with which I will certainly make a point of humiliating you in the process.

Basically - you should back off & find a more appropriate vocation in life - perhaps working in a laundrette where you will find such similar company to extend your words of gossip to. You are a fool!

• **Joe Seg, International Music Concepts, Mosman NSW**

## Email Accurate

I just read your article on "An Idiots Guide to E-Mail".

I think it was the simplest description I have read while still being accurate.

One point of note, Internet addresses are case sensitive - ie: capitalisation needs to be followed accurately.

• **Malcolm Larkin, Microsoft.**  
\*Thanks. Our email address is julius@next.com.au. Email us!

## Report? What Report

I write in response to the brief articles/News bits appearing in your Sept/Oct and Dec./Jan issues regarding the Coopers & Lybrand report.

Your Sept/Oct issue indicated that the report was due by September 9th 1994, and I gather from the Dec/Jan issue (page 82) that the Report has been handed to Senator Peter Cook for future action.

I guess that my question is simply this. Will the Report be made public, and more importantly, will the Report be made available to the industry prior to the much talked about Music Industry Summit?

I submit that the Report should be widely disseminated, discussed and its recommendations hopefully agreed to well before the Summit, in order that the Summit not degenerate into a whinge-fest, with those bureaucracies targeted for extinction mounting a survival campaign, and hijacking the process.

My second area of concern is in regard to EMA - reputedly one of the areas considered by Coopers and Lybrand in the formulation of their Report.

Your readers will be aware of the fairly caustic views about EMA ventures into the U.S expressed by Michael Thomas of Weddings, Parties, Anything and the perhaps

even more critical comments by ex-pat Ted Gardner, driving force behind Lollapalooza (along with Perry Farrell). Having spent the years '82 to '92 in the U.S. I support the views expressed by Ted and Michael - bureaucrats should simply act as facilitators - the music, and the acts, will stand or fall on their own merits, providing they are presented in the best possible context and circumstance, and local knowledge supplied by ex-pats can only enhance their chances of being properly presented. This is not about being parochial. This is about working smart.

Perhaps utilising ex-pats such as a Ted Gardner in management and agency matters, a Mark Holden in publishing and recording matters, a Spy Matthews in production matters would not guarantee success, however that be measured. Perhaps utilising ex-pats would have made the difference. We will never know.

It is important to recognise that involving people like those listed does not necessarily mean utilising their companies. EMA, or anyone contemplating a U.S. foray, should be utilising their local knowledge and their contacts. Equally important is the tapping into the resources on this end - the people who have "been there", wherever "there" happens to be.

## False Claims?

That list of individuals is substantial.

To put these matters into context:- You will be aware of a plan from EMA relative to a proposed foray into Singapore, Malaysia and Hong Kong, scheduled for May '95.

My specific questions are :-

\* What level of support will be provided by EMA, and via EMA by the Federal Government?

\* What guarantee will the acts selected have that their trip will be targeted and focussed effectively?

\* Will EMA ensure that the highest possible production standards will be met?

\* How will EMA ensure that in each city visited the "right" guest lists are constructed?

\* Will EMA make use of appropriate sponsorship opportunities to maintain cost control?

\* How many non musicians, non technical types, non management types will be travelling at

tax payer expense?

Rumours are widespread that the Coopers and Lybrand Report may suggest that EMA be rolled up, that MIAC may be rolled up or reconstructed, that AusMusic be declared the peak industry body. Clearly these issues should be well discussed and all views canvassed prior to the Summit, as Federal Government funding and its appropriate role in industry development seem a vital and logical topic of debate at that forum.

• PHIL EASTICK, ADELAIDE.

*\* This letter pushed us into action chasing this report, which we've been doing since October. Lo, the Department of Industry, Science and Technology sent us a copy! Ausmusic were still operating under an embargo, and confusion reigned relentless. The 'forum' still hadn't been finalised at presstime, and we feel slightly like we think Phil Eastick does - mushrooms we all are. -Editor.*

I read last month's editorial that accompanied the Moving Light buyers' guide and must say that this type of thing strengthens the content of the buyers' guide, however the suppliers of the information should really consider the content of their editorial to you.

In the article "Moving Lights You Can't Buy" the icon information says that it claims to have the brightest beam of any moving luminaire, which surely has to be questioned with the likes of the Coemar NAT TM2500 (2500W HT) discharge lamp source, the Telescan 2500W MSR fixture and probably a few more. Comments such as this can be very misleading to the lay man and hence a supplier should not make such open statements. We at CDA have had numerous experiences re the light output of moving lights, and we had an instance recently where a rental production used Coemar

NAT 1200's, High End intellabeams 700's and Clay Paky Super Scan 1200's and it was overheard that the operator of the Super Scans was told to open the dimmer up as they appeared quite dull against the NAT's. The operator responded to the request with the fact that the dimmer was open wide! The proof of the pudding is surely when the units are compared together.

Another interesting article was the one on the new Arri products where mention was made of two new products utilizing a 625mm fresnel lens. These lenses have been about for quite a while, in fact De Sisti has been using a 625mm lens in its Superleo 20K Quartz halogen fresnel which has been out on the market for over 4 years. • Peter Kemp, CDA, Melb.

*\*We note the items are prefaced with the word 'claim'. But we take your point & stand corrected -Ed.*

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# "More Power"

FROM PAUL MATTHEWS

Further to Doug Ford's comments in March, I would like to add some further comments and suggestions in relation to "Power". It was a shame that I was unable to attend this Entech Workshop myself, but it clashed with a (paying) job!

Eventually most of us techies are faced with having to run a P.A. system off a "small" single phase generator - you know, the single cylinder variety which should never be lifted from the building site cages in where they normally prowl like lions ready to swallow any unsuspecting PA system connected to them. For many community jobs, the luxury truck mounted Agrekko or Viking is not available, usually because of the lack of \$. Of course, there are also those dreaded carnival floats which need power too.

Don't despair. It CAN be done. We do it every year in fact - using about eight of these monsters it is possible to power a small P.A. and lighting rig (instead of paying for a

truck, the local promoter supplies the beasts, complete in a caged trailer...)

Phil Allison's comments about the RMS rating of power amps is all too correct. 10 Amps per 1k of amp power is OK eh? Not when you are running from small generators. This is because of "spinning reserve" - i.e. the ability of the generator to recover speed after a sudden rush of current. Typically when running P.A. equipment off small generators it will be necessary to upsize your supply by up to 300%. This means that a single 1k amp needs around 25A (5kVa) of building site growler just to keep up. The larger flywheel and rotating machinery mass of the larger units will help to prevent disaster when a sudden inrush of current occurs. Having only one cylinder means there are four rotations per power cycle - and it can take seconds for a small generator to recover voltage after being "knocked down" by that over-enthusiastic vocal scream.

The result is usually a horrible

buzz from your system as the electronics try to compensate. The long term casualty is the huge speaker protection relay in your amps - this will be forever opening and closing with the poor voltage regulation - under full load - resulting in flashovers, contact meltdowns, blown output stages and very quiet gigs!

OK So HOW is it done? - HERE ARE THE RULES...

1.) 1 x 5kVa genny per 1kW of speaker load. The genny should run just the amp plus about 500w of tungsten lamp for ballast. This is vital - without it the genny will usually provide very poor regulation. This is because these small monsters use "self exciting" alternators which need a constant field strength to regulate properly.

2.) Connect the rest of your P.A. rig (i.e. the signal processing, and the stage backline, etc.) to another 5kVa, again ballasting with about 500w of tungsten. No Backline? Maybe you can go for a 1.2kVa with safety for this job.

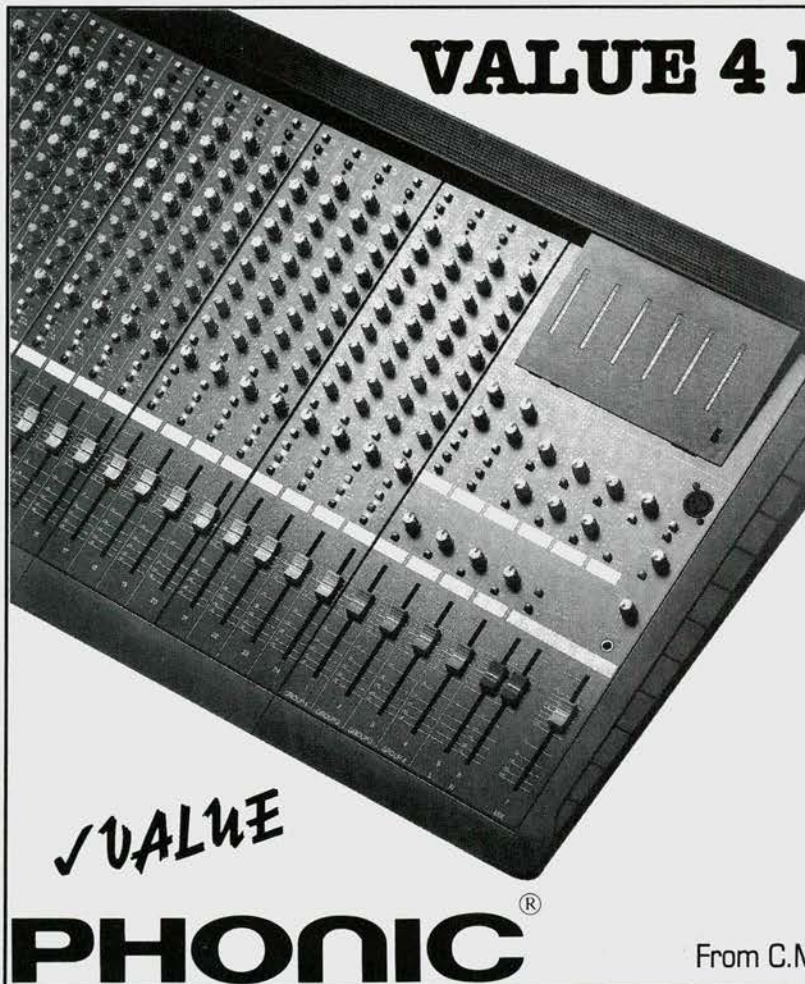
NEVER connect the signal processing or stage gear to the same genny as your amps!

3.) Now all you have is lights. NEVER try and connect a 3 phase load across single phase generators - you'll melt the neutral wire. Just keep it simple and single phase - and load the gennies with about 1kW of tungsten = 1.5kVa of genny power. Discharge lamp loads should always be run with about a 1:1 ratio of tungsten as ballast on these small gennies. Avoid dimmers if you can.

4.) These noisy monsters should be run away from your show so the P.A. doesn't have to compete. 20 Metres is a good distance. You could run dozens of extension leads but why bother? Use a spare multicore! Park as many vans and cars between the "den" and the stage as you can ...

5.) The local Lions Club turns up with their genny. Avoid the temptation. Keep everything separate - but run their monster in your "den" with an extension lead

(to page 49)



## VALUE 4 BUSS MIXERS

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- ✓ Four Subgroups
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### FROM RUSSELL E. WILLIAMS

"Connections" has, over the past year, or so, run a couple of articles on the use of wireless microphones. The last one (March 1995) was a lengthy piece by Murray Tregonning in which he sought support for a group to lobby the government(s) to have wireless microphones recognised as a "primary service", and not a "secondary service".

I am writing to try to provide a balanced perspective on the complex subject of needs and wants in relation to the use of the radio spectrum and its impact on the entertainment industry.

Some of the information in this article was produced in previous "Connections" articles.

# LOBBY FOR WIRELESS?

## Introduction

A radio emission is defined as:

"... a radio emission is any emission of any electromagnetic energy of frequencies less than 420 terahertz without the use of continuous artificial guide, whether or not any person intended the emission to occur." *Radiocommunications Act (No 174) 1992. Part 1 Section 8.(1)*

The radio spectrum is addressed in Australia by two Acts of Parliament. The *Radiocommunications Act, 1992*, covers all the radio spectrum except those bands set aside for AM and FM radio, and VHF and UHF television, which is addressed in the *Broadcasting Services Act, 1992*.

It gets worse. The Spectrum Management Agency administers the Radiocommunications Act, while the Australian Broadcasting Authority administer the Broadcasting Services Act.

## Wireless Audio Transmitters

A Schedule of the *Radiocommunications Act, 1992*,

titled "RADIOCOMMUNICATIONS CLASS LICENCE (LOW INTERFERENCE POTENTIAL DEVICES)" was gazetted in July 1993, and permits, under a Class Licence, the operation of certain radio devices. In some cases it is as open as "All transmitters", and in other cases it is more specific and calls up such things as "Wireless audio transmitters".

"Wireless audio transmitters" is a generic term to cover such things as radio linked microphones, music instrument links, in-ear monitor systems, and some stage intercoms, or, whatever else you may call them... I gather that the intention is to allow the use of radio equipment to be used for connecting microphones, guitars etc... to public address systems. There doesn't appear to be any concise definition.

## PRIMARY VS SECONDARY SERVICES

A "Primary" service is licensed to operate on a particular frequency, with a particular power output, at a particular location and enjoys a high degree of protection from interfer-

## READERS FORUM

ence by other radiocommunications services.

A "Secondary" service, on the other hand, operates on the understanding that: "No interference shall be caused to any radiocommunication, sound broadcasting or television station or service and no protection from interference by such stations or services shall be afforded.". Frequency and power may still have to be co-ordinated with the licensing authority.

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**MORE POWER.** From Page 46

to their van - less noise to compete with.

6.) Remember - PETROL!

And for those carnival floats which need big PA's on the back...don't forget the many high powered 12 volt amps available now - the ones normally heard splitting the sidewalks at Bondi Beach on Friday night - make great stuff for "Rock & Roll". Many of the larger units can easily deliver 350w/chan into 4 ohms - but to do this they chug about 100A intermittently from the battery. Use really fat cable from the battery (16mm House wiring grade building wire is fantastic), put the 'ute in 1st gear and keep the revs at around 2k... and blow'em off for miles!

We do some pretty weird jobs 'round here. We just finished months of wiring thousands of little flashing lights for spaceship cockpits for the Power Rangers in Sydney... yeah, the same film gig where Premier supplied hundreds of dim-

mer racks. One of these cockpits used 71 different chaser circuits. (How did I get onto that!)

OK - So you think you're OK - you've managed to convince the local club to lend you some power for your outside community gig instead of obtaining power from the caged monsters. Think again!

I remember one gig at Cronulla Beach where this turned out to be 120 metres of flex stretched and snaked from the local surf club, over a road, down a garden, over part of the beach (buried in sand) and finally to the "stage". At the club end this connected to a power point on the manager's desk which itself was fed from another flex that ran 'round the room to a GPO - and the switchboard was on the other side of the building. I had a meter that night and with 500w of tungsten, we had 170v at the stage. 2kW sent it tumbling to just 70 volts! Of course the show went on... but that's another story...

However we still successfully do gigs with over 120m of 3 phase run

out to parkside stages, usually the cable is only 2.5mm size too. So here are the hints :

1.) If the run is short (less than 30m) then run the P.A. off thick extension leads from the "power source" separate to the lights.

2.) If a cable run in excess of 40m is on the cards, you will need to run three phase. This is because (as long as the phases are more or less balanced) it effectively halves your voltage drop, which is calculated as a percentage of 415v instead of 240v.

3.) The problem of a "lazy neutral" can be used to your advantage. For a typical long run (say, 100m), use 2 phases for lights and the third for P.A. and stage backline loads. The P.A. phase should have about 1kW of CONSTANT tungsten on it as a ballast to prevent overvoltage spikes caused by the long neutral wire. Assuming the lighting phases should have about 4kW of load most of the time, the neutral imbalance will work to your advantage and deliver you a fine 250v on the third


phase for your P.A. If you are using 2.5mm cable then it'll be warm, and your tungsten will be running at about 210v on the loaded lighting phases...but the show will go fine on that. We have successfully run 10kW PA rigs this way with no undervoltage or spike problems.

4.) If you're desperate, then drive a huge earth stake into the ground and earth the neutral. As long as your power source is not protected by a safety switch, then it should help to bring your neutral back down to mother earth. What you are effectively doing is providing another M.E.N. point. All of this is of course the preserve of a licensed electrician... so unless you have that blue card then "don't try this at home kiddies!" •


*Paul Matthews operates P.A. Matthews Audio Co, from St Marys in Sydney. Phone (02) 623-2860. He has earned an extra 12 months on his subscription (valued at \$39.90) PLUS a Connections Shop Voucher for \$135.00 for this story!*

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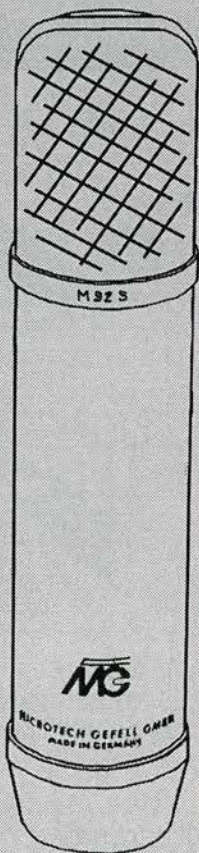
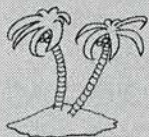
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# PRODUCTION & HIRE NEWS

With Caroline Grafton

• **Tone Road Productions** has serviced NE Victoria and Southern NSW for over 5 years supplying audio and lighting (crewed/uncrewed) production for local, metropolitan and recording/touring acts. Artists include: COMEDY - Jimoin, Greg Champion; RECORDING/TOURING - Choirboys, Things of Stone & Wood, Caligula, Nick Barker, Archie Roach & Ruby Hunter, Neil Murray, Spiderbait, Clowns of Decadence, Fireballs, Spudgun, The Giants, Subrosa, Penny Flanagan, Andrew Firth (jazz), Michael Hedges (folk); heaps of METRO bands too!!! Tone Road are now pleased to announce that they will soon be opening a Melbourne branch enabling them to cover metropolitan and surrounding areas. Call Paul "Max" Murray on (057) 22 3156 or 21 9946.

• **Blacksheep Productions** Sydney NSW, have burst into the new year with another national product launch for Qantas. This time the star was the Direct Agency Access computer system, incorporating Viva! Holidays, Travelscene and Qantas Jetabout. Just think, 6 weeks around Oz with a full-time crew of 5 with video, audio, pyro and lighting - Sheep, Gerbils and Gaffer Tape! The "Trilogy of Travel" theme was based on searching for the perfect holiday with Indiana Jones (a.k.a. Lochie Daddo). Each of the 10 venues was transformed into a rainforest thanks to hundreds of metres of cammo nets (which are now on sale), rainforest sound FX, a great set from FX Staging (good work Tom!) and, of course, lighting. The highlight was at the Sydney Sheraton Wentworth where a crew of 10 titillated 1,400 travel agents with a Bose surround sound system, 10 x Vega radio mics (headsets & lapels), and audio feeds from a Denon 2000F C.D. player, tape deck and Betacam, UVW-1800SP recorder, all into a Soundcraft 24ch SPIRIT Live 4. The two 8'x6' rear projection screens had all the action from three cameras (Sony 537's, except for the lipstick "ark" - cam), PLUS video inserts (7 in all), the first to be produced entirely upon their new non-linear edit suite. Call (02) 212-7222.

• **SOS Communications** (Sound on Stage Pty Ltd.) Sydney NSW, have two new locations. Contracting, Sales & Installation is at 42 Belmore Street, Surry Hills. Phone Michael White on (02) 281 0077, Fax (02) 281 0022, Mobile 015 941 120 or 018 228 155. Hire & Production is at 1/566 Gardeners Road, Alexandria. Phone John L'Estrange on (02) 667 0062, Fax (02) 667 0266 and Mobile 015 800 029 or 018 616 621.

• **BURKINSHAW CONSULTANTS** Vic, Phil Burkinshaw produced, directed and staged a spectacular night and day of entertainment for the Pizza Hut Conference recently. Two huge truss lines were rigged across the ball room of the Carlton Radisson featuring two video/slide screens with a full on nightclub system behind the audience, worked as a reveal after the awards function was held. Guests partied on into the wee small hours and returned for the morning semi-

nar session a little worse off. Over 160 lighting fixtures were rigged, 10 of which wobbled. Seminar P.A. was a double Bose system with subs and the nightclub was 'Just Bloody Loud'. 'Crewed by, Phil Burkinshaw (Direction), Kim Lowes & Peter Rickman (Video Shoot), Richard Lawrence (A.V.), Andrew Parris (Audio) Rolf Greve (Lighting) and a crew too numerous to mention but thanks heaps guys and girls. Phil Burkinshaw is now affectionately known to his Pizza Hut crew as Old Cec. Why? Special mention to Trevor and Barry at C.L.S., Phil has also been busy with supplying a Stage system to Myer, as well as stages for Active Lighting, SAAB, Como Centre etc.

• **WILD GRAVITY** Cairns Nth Q'land., have recently worked with Dream Makers, IDA kinda stuff and Yothu Yindi at the James Cook University, with 60 cans and Deltamax 1152 PA with 8 F/B sends and a 40 ch Yamaha M2000 on FOH. WG also provided 4 x Video Projectors & Theme Lighting at the Breakwater Entertainment Centre for the Cowboys welcome to the Winfield Cup. A live cross between Crushers, Cowboys, Auckland Warriors & Perth Club. Call Noel Anthony on (077) 21 3540.

• **CONCERT LIGHTING SYSTEMS** Melbourne VIC, has had its busiest Summer of the last 19 years. Various staff have been working on CATS Sydney Season, Hoodoo Gurus Tour, Melbourne Moomba Festival, BMW Compact 3 Launch at Ken Done Gallery, British 60's Tour, Harry Connick Junior Tour, Pizza Hut Awards, Sydney Mardi Gras, Crown Casino, Big Day Out, Victorian Police Dance Party, Ford LTD Launch (Melb.), D.C. Talk (Melbourne and Adelaide), AMWAY (Canberra), Yellow Pages (Melbourne) Sally Yeh (Melbourne and Sydney) and Desperate and Dateless Ball just to name a few!!! Call (03)646 8444.

**Grafton Sound** Sydney NSW, now has in rental stock Spirit Powerstations replacing the EV Entertainers that have been in hire stock forever. GS has added lots of copper to their Power distribution Racks, over 500 metres of Titanex 6mm 3 phase cable with the suitable distribution boxes with Earth Leakage Breakers. This commitment to serious AC distribution follows closely on the heels of the equipment requirements for the Rocks Market contract which Graftons were successful in winning for 2 years providing sound, lights and power to the market stall holders. Pearl Jam Security used Graftons at Eastern Creek and Canberra for the security systems (pity they didn't in Melbourne). 4 x Remote area power supply sound systems with FM tuners and an auto reverse cassette fed the messages into the FM transmitter supplied by Pacific Motor Sport Communications. Mardi Gras '95 - once again the car park at Grafton's looked simply stunning after the thirty odd floats dumped their loads there after the parade! Call Chris Royal on (02) 698 7777.



## STONES BRING PRISM PA

Widely regarded as the best PA system in the world, Showco's PRISM system is here with the Rolling Stones. Showco is a Dallas based company which recently celebrated its 25th anniversary. It is also the controlling entity of Vari\*Lite, so you can appreciate the technology heritage they have!

PRISM is a system conceived from the ground up to work as one whole, the picture below (right) shows the cabinets arrayed together, totally flush. In addition, it can be arrayed to a complete 360° circle.

The system has been seen here with Paul McCartney, and before that on the INXS 'X' tour. The usual arena configuration is to hang four cabinets high, and eight wide.

PRISM is loaded with 'proprietary' components, widely thought to be modified JBL VGC drivers.

The setup is fast, with the 'bumper' or hanging frame hooked to the first eight cabinets, then raised. Additional cabinets are scooted in and long pins inserted (below). The visual size of the full 8 x 4 array shown at right is 11' high x 20' wide.

A stereo pair of Prism arrays will cover 270°. Showco say the single point source of a Prism array makes it sonically accurate in tonal balance, and it offers an unprecedented ratio of direct vs. reverberant field sound.

Control of the system is through the Prism Digital Control System, named PDS for short. These electronics do all crossover, time alignment and internal EQ corrections. PDS comes in three, so an additional cluster can be used where a full 360° cover is needed.

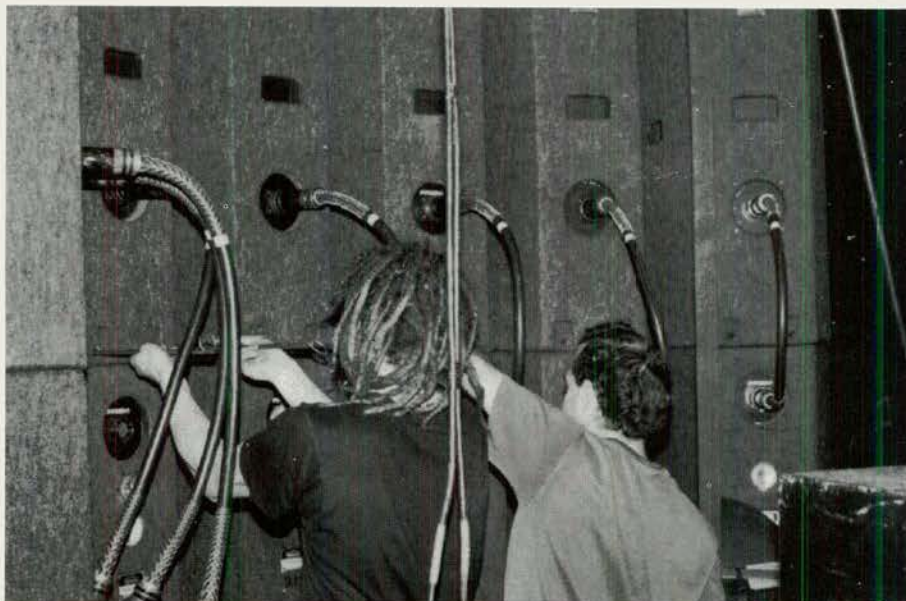
A real clever thing is a single, remote level control. It's a volume control for the whole

system.

An array of 32 cabinets like shown weighs in at 4 tonnes. Each four cabinets are driven by one rack of five Crown amps, so the array below requires eight racks.

The Stones are touring the equal of two of these arrays per side, plus sub woofers. Showco say you don't really need subs with PRISM, and most acts carry just a few.

Showco number many leading acts as clients, and can tour up to 20 systems like the one shown below, at once. A large number of PRISM cabinets are available in Japan. -JG



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# SOUND

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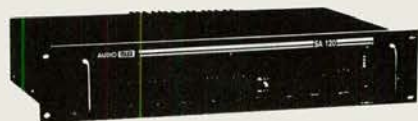
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# OCEANIA BUY TURBOSOUND FLOODLIGHT/FLASHLIGHT

Leading New Zealand audio company Oceania, run by Greg Peacocke (*below*) have invested heavily in Turbosound's new Flashlight/Floodlight system.

The system has just toured Australia for Cliff Richard, whose sound engineer Colin Norfield says "it's just the best quality there is". Norfield first used the rig when he was one of the engineers on the Pink Floyd tour last year.

The Flashlight is a high Q device, meaning the dispersion is tight, at 25°. It is only available with BSS amplifiers, so the 16 that Oceania bought are thus powered. The rack for 8 Flashlights (one side of the system) is shown at right. The Floodlight is a wider (50°) dispersion box, and it need not be bought with the amplifiers. Oceania have 20, and are buying more.

They are a quality outfit, all Oceania's equipment is very neat and clean. They own a Yamaha PM 4000, a PM 3000, a Ramsa W840 monitor console which can create 24 outputs, and a Soundcraft Europa for theatre work.

The standard amplifier used by Oceania is their own. The racks are shown at right, and comprise four modules in each rack, each mod-

ule is either a tri amp (3 channel) or quad (for foldback). One three phase power supply feeds each rack, and the amps are uncommonly stable. To demonstrate just how stable, Greg pulled OUT the three phase supply to one WHILE it was working! The amps all re-started without fuss once the power was restored. Try doing THAT with a rack of Perreaux's!

The amps run 8 ohms, the triamp modules drive the three-ways of each Floodlight. The Floodlight, and indeed the Flashlight, have a 1" high frequency driver working from 8k. a 6.5" cone midrange speaker is fitted to the top 'axehead', working between 1.7kHz and 8k. A 12" speaker is in the bottom, with it's own 'axehead', it works 180hz to 1.7kHz.

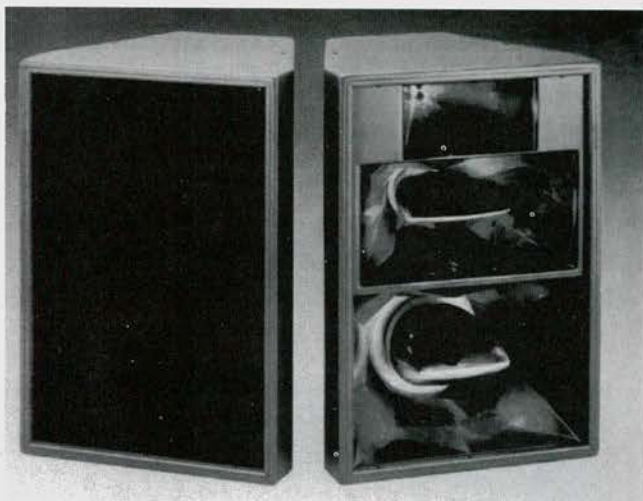
The low end of the system is a 21" woofer, of which Oceania had 8 running per side.

I walked the entire venue, Sydney Exhibition Centre, while Cliff Richard performed. I was surprised at the amount of high frequency getting to the very back rows, and impressed at the lack of tooth combing and apparently seamless coverage the system provided.

In addition, it occupied just two-thirds of one semi, and so saved the promoter a lot of trucking costs.

**-Julius Grafton.**

Greg Peacocke (*below*)



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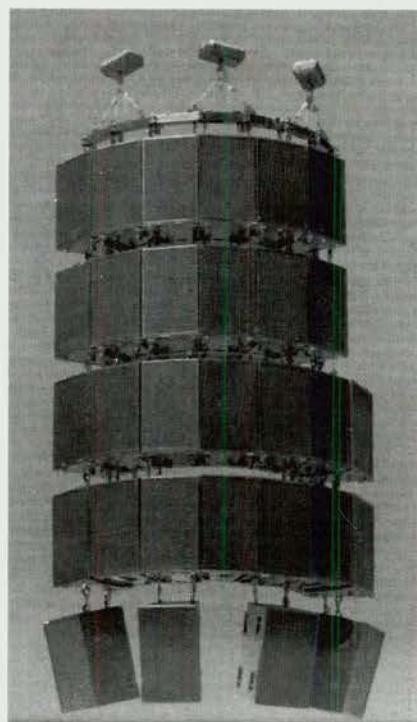
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Ocecnia's racks at right, compulsory BSS/Turbo rack for Flashlights at left.



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## EAW Announces PAS

WHITINSVILLE, MA — Eastern Acoustic Works announces the appointment of Production Audio Services Pty. Ltd. as the exclusive distributor for its professional loudspeaker systems throughout Australia. "With offices in Melbourne and Sydney, Production Audio Services is well positioned to serve the type of high end professional clients and end users who understand and appreciate EAW's quality, reliability and value," said Joe Manning, who represents EAW's interests overseas.

"Their reputation and credentials are solidly established in the Australian market with more than a decade of experience in serving a professional clientele."

"The Australian market is highly sophisticated and operates on professional standards equal to those of any other industrialized country," commented Production Audio Services' National Sales Manager Graeme Stevenson. "Our dealer network is accustomed to meeting the needs of demanding touring sound companies and facilities. We are eager to apply EAW's advanced technology to solving the problems of these high end professional users."

Production Audio Services, established in 1982 by Colin F. Stevenson, continues to expand its presence in Australia's professional audio markets. Pro audio lines currently distributed by Production Audio Services include Countryman Associates microphones and DI's, Crest Audio power amplifiers and mixing consoles, Gentner teleconferencing equipment, digital hybrids and signal processors, and ProCo cable.

**Production Audio Services will also show EAW at the forthcoming AES, on stand 23. Call them on (03) 415-1585**



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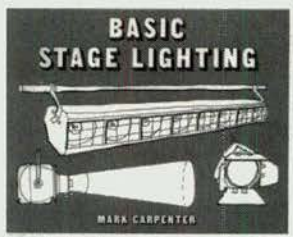
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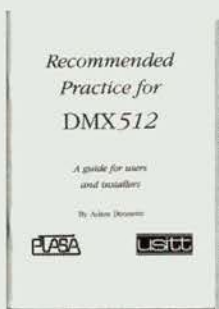


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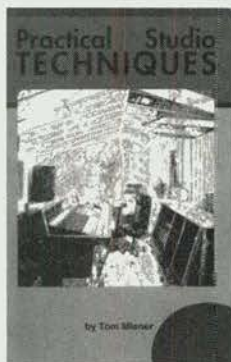
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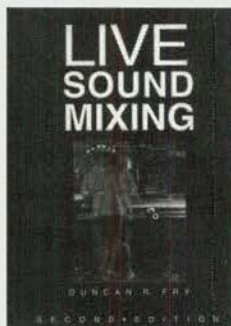
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## \$35 Live Sound Mixing

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.

**YES**  
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## 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?

**YES**  
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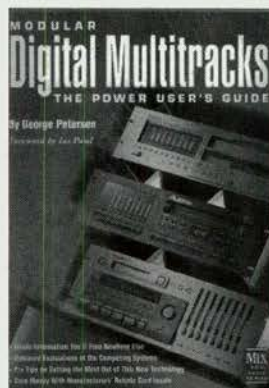
Very handy for audio people, this test CD has: Tap; deck alignment tones, sine waves, 10kHz through 20kHz; 1/3 octave tones, (30 seconds of each); Square waves, (30 seconds of each); Frequency sweeps, 20Hz to 20kHz, sweeps down and up; Phase test at 250Hz, in phase and out of phase; Digital 'black', 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



**YES**  
Tick to order this item

## \$49 Modular Digital Multitracks

By George Petersen.  
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# Duncan Fry- Random Noise

## The 100 greatest pop songs of all time? Puh leeze!

There's nothing better than sitting down on a Sunday, with a big pot of tea, some croissants and Nutella, and reading the weekend's papers. (*Have you been raiding the kid's lunchbox again, Dunk? Ed*). And, to tell the truth, I suspected the worst when I read the headline in The Weekend Australian 'The 100 Greatest Pop Songs of all time'. According to whom, I wondered?

Reading further, it became obvious; it was the gospel according to a bunch of navel gazing Poms, all apparently bending over forwards to help their careers. That's right, pearls of wisdom from those wonderful folks who gave us Bros and bands of dwarfs with baggy pants and beanies

The list was spread over a period of three weeks, to keep you at least buying the paper until Bruce Springsteen won, and was compiled by representatives of The Times, the BBC, the music business and the songwriting profession in Britain.

Not Australia. But published in The Australian.

And, noticeably absent from this mutual admiration society was anybody who might have actually paid money to buy a copy of any of these songs, like someone from the record buying public, for example. No, it was you-mention-mine-and -I'll-mention-yours, in a big way.

What on earth have these people's thoughts on popular music got to do with Australians, I wondered. Who cares what they think. Haven't we grown out of the colonial grunge by now? Obviously not. We're supposed to be awed by what the English music industry thinks is great music. If they had called it The 100 Greatest Songs of all time according to the Brits, it would have been more honest, and then I'd be quite happy.

The articles were bylined 'The Vulture'. I suppose they call him or her The Vulture because all he or she does is pick over the corpses of articles in overseas newspapers, (in this case The Sunday Times is my guess) and with minimal work make them appear to be original.

But, as I read on, it appeared that all was not lost. As a token gesture towards making this hogwash palatable to Australian readers the whole thing had apparently been vetted by 'The Australian's pop culture authority', who had 'washed the results through an Australian perspective'.

Well, if that's what he meant by washing, then I'd hate to see his undies! Looks like he didn't use enough Cold Power and also forgot to turn the machine on! Wake up, would be pop culture authority - time to put down the bong and start paying attention!

When I started reading, it became obvious that the Australian angle only received very cursory attention. Reached # 89 in Australia, never charted, that sort of thing. And if you're talking chart positions, then as everyone in the industry would know, nothing under #40 means a thing. Nearly everything under #20 is record company hype. A record is only really selling if it charts above #20. 20 down to 40 is an extremely grey area; chart stores are very susceptible to favours from record company reps. 40 and under is fairytale land.

I know, I used to hype records for a living.

Now, call me a Philistine if you will, but as far as I'm concerned, for a song to be one of the 100 greatest songs ever, people have to have bought it and liked it.

There's no real success without commercial success, especially in the songwriting business. If people like it they'll buy it and it'll chart, whether they've heard it on Triple MMM, Triple JJJ or Community Radio.

So to ascribe everlasting success to songs that no-one in Australia has either bought, liked, or heard played on the radio strikes me as meaningless in the context of popular music in this country.

For example:

#91 Virginia Plain. Surely not the song that anybody in Australia remembers Bryan Ferry for? Since it peaked at #99 on the charts in 1972 it's hardly surprising.

#68 Fairytale of New York. Who the f\*\*k has heard of this in Australia? Nobody, it seems, since, and I quote, 'the song has never appeared in the Australian charts'

#47 Shipbuilding. About the British shipyards. Really relevant to Australians. I remember Triple JJJ playing this a bit. Chart action/sales in Oz: Bugger all.

#45 Ghost Town. 'The soundtrack to the British inner city riots of 1981 in Brixton'. Inner suburban angst set to a Ska beat. Chart action/sales in Oz: Less than bugger all.

#30 There's a light that never goes out. Hooly Dooly, more self righteous self pity from The Smiths. Chart action/sales in

Australia? I suspect less than zero. And this is meant to be the 30th best song in the world? Spare me.

Sadly enough, it didn't get any better when The Australian's pop culture authority wannabe and assistant chose their version of Australia's Top Ten, with the smug we-know-what's-best-because-we're-so-f\*\*king hip disclaimer that 'the list will not please everyone'. Shit, I'd be surprised if the f\*\*king list pleased anyone apart from the people who wrote it and the people on it.

The Ship Song by Nick Cave is Australia's second best song, ever? Despite the fact that 'the single didn't chart and the album only reached #90!' Must have really impressed the punters. Look, I like Nick Cave's sense of anarchy in music, but I think even he might question this one!

And Cattle and Cane, 'from the Go Betweens' almost completely ignored album Before Hollywood? Hey, if it was almost completely ignored, isn't there a message there? Maybe no-one liked it! Did that ever occur to anyone? Personally I admire the Go-Betweens courageous decision to put art before success, but shit, these pop culture authority guys have got their heads up their arses in a major way.

Can you imagine them sitting down and cobbling their list together? "No Cold Chisel, no AC/DC, nah - those guys are successful, we want to write about stuff that nobodys heard of so we look cool."

Get real.

At least they got Eagle Rock right. As Pete and Dud would say, 'small consolation in this sordid little affair'.

Australia is a unique country with its own unique perspective on the world. We are nicely removed from much of the excesses of the US music biz, and thankfully nearly totally removed from the depressing bleakness of UK music.

If we are going to have a list of 100 greatest pop songs of all time, surely we deserve a list that really is relevant to the Australian perspective.

So send me your 20 or 40 top songs of all time, care of Connections, (Fax (02) 876-5715 or PO Box 439, Epping NSW 2121) and let's see if we can put together a top 100 list that means something to Australians.

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# FAQ

Where we (try to) answer  
your QUESTIONS!

## BRIDGED?

Reading the March issue, I come to page 52, FAQ, bridged?

I suggest a mistake has been made concerning the hookup of the single mono speaker between the "+" and the "-" terminal of the other channel.

While this will work, it won't produce the summed power.

Instead, hook up the two "+" terminals and ignore the "-".

An example of amp spec:

Stereo: 240w into 8Ω

Stereo: 350w into 4Ω

Bridged: 700w into 8Ω.

Beacuse of 'push/pull' from both sides, the amp sees a 4Ω load available in month when in bridge.

-Paul Zamarian, Fawcett Sound, Victoria. \*Thanks, Paul. -Ed.

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)

## Rack Earthing

I read your FAQ about wooden racks and earthing problems and thought that the issues raised deserved further comment. (*This is POLITE for 'You Gave The Wrong Answer'.* -Editor)

The simplified theory is this: every device connected to the mains should preferably have a connection to mains earth - this is achieved via a 3 pin cable and plug where one wire is dedicated for the exclusive use of the earthing circuit. The audio components contained within each device have a 'ground' reference - this is a circuit connection common to a good part of the overall componentry, and which is held to be at a potential of 0 volts.

To ensure that circuit 'ground' is in fact equal to 0 volts it is convenient for the circuit designer to link the circuit 'ground' to the mains earth. Because this earth connection (for safety reasons) is normally a very secure, very low resistance path to earth, the 'ground' reference within any given audio device can then be

held to be truly at 0 volts. If an audio circuit 'ground' reference drifts away from 0 volts, then all the voltages within the device are offset by a relative amount. This introduces a range of undesirable effects which can be categorised as noise.

Say we live in a fantasy studio where every device has a mains earth. When we make audio connections between these devices using our fully balanced cables (this is a fantasy studio remember), then we can lift (ie open circuit) the earth/ground/shield on the connecting cable because each individual audio circuit is individually grounded.

By open circuiting this ground connection (at one end only), we make it physically impossible for current to flow, and therefore theoretically impossible for ground loops to occur.

In the case of equipment powered by a plug pack, however, we have a very different situation. Such a device has no earth - to what then is the circuit ground

referred ? The simple answer is : nothing. The real answer is : it's going to try to reference itself to ground via the shield on the connecting audio cable.

In all likelihood this will involve significant currents flowing in earth connections - in other words, a ground loop. How do we make the audio connection to such a device? There is no simple answer to this one. If the device uses only unbalanced connectors then there are real difficulties - such a circuit must have the cable ground connected at both ends, since the audio circuit requires it. Do you get the impression that I don't think much of plug packs?

Finally, wooden racks are quite a valid way to begin tackling a studio layout, especially if all the equipment has it's own secure mains earth. The classic example of a wooden rack installation in Sydney was John Mulligan's design for the rebuild at Black Inc some years ago.

-Howard Jones.

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# WILL MIDI SHAKE HANDS WITH ETHERNET?

John Zulaikha asks...

If... someone made a MIDI to Ethernet converter, an idea I credit to Stuart Ferguson Systems Engineer, someone else might be tempted to include an Ethernet socket along side MIDI on a keyboard. If MIDI was on the Ethernet, then music would be connected to a computer industry standard 10 megabits/sec network, compared to the mini network of MIDI at 31.5k. I'm not implying MIDI would be any faster, but it would be shaking hands.

Ethernet is supported by Fairlight, Digi Design, Digital Audio Research, Studer Editech, Sadie and other music companies, so in theory control communication is in the wings just waiting.

Now that MIDI is connected to the Ethernet all one needs is a single cable connecting any and all Ethernet devices including Mac and IBM, printers, modems etc. with just a terminator at both ends

and the whole shebang is one animal....one computer. Now your MIDI system is a part of a network of computers and you could even dispense with all those MIDI IN OUTS and THRU's.

Your next music software update will enable communications between programs, like telling each other the time, exchanging and sharing data, and let you organise them all into a complete system. More software talking to each other will open up possibilities left un-tapped, saving money in the spin-offs.

Neat features like... there is no master because there are no slaves ie. Stop, Play, Go To, Cut, Paste, etc. is performed on all platforms with one command. So going to a program running a sequencer on a Mac and deleting bars 4 to 8 will also cut the same position of the hard disk running on the IBM. The 2 computers are not only in sync, but act as one. All of a sudden you

have two computers running two programs with 2 screens and 2 mouses acting like one complete system.

This isn't a new idea. Lone Wolf has developed the MediaLink Studio Network, previously prohibitively expensive but now supports MicroTao, a device low enough in cost to be used in consumer items like CD players VCR's, Video Games and the kitchen toaster... but intended to provide high performance capabilities for control, monitoring and communications to DAT machines, Computers, Tape Decks, Recording Consoles and Hard Disks etc.

2 software programs by Lone Wolf called Virtual Venue (you build an icon view of your environment) and Virtual Control Surface (faders EQ knobs etc) to operate monitor and control all your gear from the computer.

Sounds a bit like Lone Wolf are trying to create a new networking

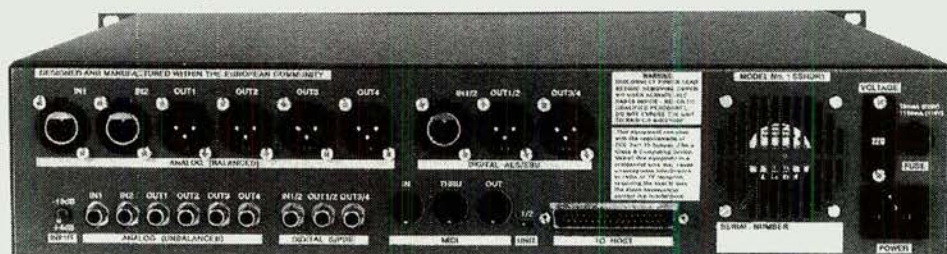
standard. On the other hand, Ethernet is an industry standard and supported.

There are some that might say that Ethernet isn't fast enough, but they are referring to the transfer of bulk audio and video data, and for those who demand throwing 24 channels of audio across the room can use ATM... but at a cost. For those who only need to use control data, just the way MIDI does (nobody actually uses MIDI Sample dump to exchange samples do you) and does it so well, so too Ethernet is cost effective, simple, powerful and available.

A studio in a box is a nice idea, but in practise it isn't likely to be a reality in this universe now or in the future... well maybe in the year 2011, but there exists a variety of boxes to choose from, each designed specifically to do a particular job. Networking can make all your favourite separate boxes

(continued over)

## SOUNDSCAPE Digital Multi-Track Hard Disk Recorder



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| <b>Reliability</b>   | • As a result of quality design and low reliance on the host computer, users have commented that "their systems never crash".   |
| <b>Continuity</b>    | • Soundscape is based on a hardware platform allowing future upgrades and easy addition of DSP processors, inputs and outputs. Software upgrades have been FREE to existing users and third party applications will be announced shortly. |
| <b>Affordability</b> | • Soundscape does not require an expensive computer or large amount of memory for audio processing and is priced within reach of the average user.  |

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## NOT ONLY .....

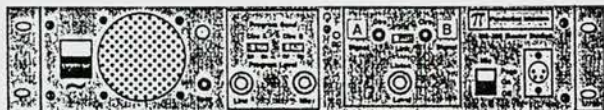
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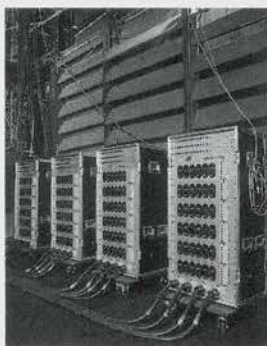


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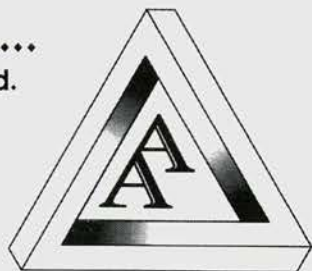
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## ETHERNET & MIDI

(continued)

become one... and remain useful, or does this sound too good.

The object has always been to interface and get the absolute best quality of performance, and this has remained steadfast....all the while technology is racing ahead of us, leading us around trying to catch it, as we play cat and mouse. Every now and then we see a means to an end in sight.

As more gear is released that you can't not buy, there comes a day when one just can't reach or control it. Control is putting handles on the box, stacking it in a rack mount, and remote controlling at our fingertips without making too many visits to the tip... and having it all appear as One.

## COMPUTERS

We operate eight Macs and one PC at Connections, but none of the Macs are PowerMacs. Equally, we reject the latest version of most software, in particular Word 6.

Stone age? Far from it. We use Mac because the graphic user interface is marginally better than PC, and because all our film output houses use Mac too. The font handling is more reliable too.

But the Mac era may be almost over. The PowerMac could see to that, because to convert to this platform we would need to buy a serious amount of software upgrades for each and every Mac we have. And, we would need new extensions and utilities too.

Apple say the PowerMac will emulate existing software, but I am confident my Quadra 800, running 40 meg of RAM and a 2Gb hard disc will outperform ANY PowerMac emulating my own software. So why shift?

I think we are not alone. The cost in upgrading almost makes it worthwhile to hold off another year and then possibly go to the PC instead.

Staying on 68040 Mac's is getting hard too, we recently had to buy a used machine, a Quadra 650, because the range is being phased out rather too quickly.

But for now, our existing technology is all we need. Apple look out!

**-Julius Grafton**



**WITH HOWARD JONES**

This month on the workbench we've been working our way through a pile of small things, like cassette and DAT walkmans. These can present some of the most interesting and difficult repairs. One such was a Sony TCD-D7, a very small portable DAT recorder.

The customer brought this machine in with a tape stuck in the transport and showing no sign of wanting to eject. He also reported that the machine would just turn itself off. With this model, it is possible, by disassembling the recorder and removing the main circuit board to get at the underside of the DAT mechanism.

When I had got this far, I could see that the tape was still laced around the drum assembly - trying to remove the cassette whilst the tape is in this position means that, as the cassette ejects, the lid closes down on the loop of tape still hanging out of the shell. The creasing this causes to the tape permanently damages it, of course. The customer didn't say if this tape had anything of value recorded on it but I preferred in any case to try and remove the cassette without any damage to the tape.

Step one was to wind the loading gears by hand thus bringing the retractable guides back from the head drum. And then, because in this model you can get to the cassette reel hubs, I was able to manually wind the supply hub backwards and draw the tape loop back into the shell. Finally, by toggling the door release lever, I could pop the tape out of the machine.

At this point, it was time to survey the situation. Looking around, it was apparent that the main actuator cam was way out of alignment. In the D7 (in common with many domestic grade VCRs) the health of virtually the whole machine is dependent on this actuator and the surrounding gear set being correctly aligned. The slightest misalignment tends to cause intermittent failures or odd error

## WORKBENCH SMALL IS DIFFICULT

messages. So, after stripping down and repositioning the gear set, I reassembled the PCB and the mechanism and powered the unit up. Excellent - the front panel display came up and all seemed well. However, when I pressed the Eject button, the lid would not open - in fact, the recorder powered itself off for a moment, then came back on. Several attempts at this produced the same result, so it was obvious that the problem wasn't simply going to disappear!

I thought I'd outsmart it and, opening the lid manually, put a tape in the machine. I then powered the D7 up, fully expecting it to load the tape. The recorder whirred - I could hear clicking of gears - but, as before, it powered itself off and then on again and didn't actually begin to load the tape. This was starting to look like a really puzzling fault, so I stopped for a moment to turn the problem over in my mind.

I kept coming back to the idea that the mechanical alignment of these machines is all important, but couldn't see that anything was obviously at fault. Was there some kind of failure of the reset or power circuits causing the microprocessor to shut down? So, casting around for a new way to tackle the issue, I decided to power the unit whilst monitoring its power consumption. A little repatching of leads saw the D7 being run from a bench supply via an ammeter. Repeating the attempt to load the tape showed that when the recorder was trying to load it was drawing upwards of 300 mA current and instinctively, this seemed too high.

So, at last we had something at least on which to focus. I tried loading tape several more times, with much the same results - the current would peak and the unit would switch off. After a moment, it would turn itself back on again. Hmm... Thinking about it, and listening closely to the noises the unit was making, the realisation

dawned that the DAT was straining like hell to load the tape, but not getting anywhere. In fact, it was driving the loading motor very hard indeed before shutting down. So, it seemed that there was a very good reason for the unit's behaviour - the microprocessor was so smart that it noticed the loading motor drawing excessive current and simply switched off all power. Having once been turned off, the motor stopped trying to drive, the current consumption went back to normal and the micro turned everything on again!

The final step remained to determine why the loading motor was trying so hard and not getting anywhere. Because the alignment of the gears on the underside of the DAT still seemed normal, it was time to spread the search further afield. I removed the lid - which also contains the display panel - and examined the top side of the deck. Here at last was the final clue. When the Eject button is pressed, the loading motor causes a specific gear to rotate and this gear has a cam which contacts the door opening lever.

When the door springs open, the micro gets a 'door open' signal and removes power from the motor. In this particular unit, the opening lever had been subtly bent, so that during rotation of the gear the cam would sometimes slip underneath. In this condition, because the door hadn't opened, the micro never received the 'door open' message and kept up the drive to the motor until it realised that something was wrong. Once the lever was straightened, the door opened every time and the DAT never again switched itself off!

*Howard runs Studio Solutions in Sydney, call (02) 906-4363*



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# Careful!



Look, we're human too. We know that inserts in a magazine can be a real nuisance when you want to get down to reading all the hot gossip.

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**IT'S AUSTRALIAN FOR AUDIO**

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## AUDIO EDUCATION FAIR

A feature of this year's AES Convention will be the debut of the Audio Education Fair. This concept will consist of a tour of three education establishments, namely JMC Academy, the School of Audio Engineering and the Australian Film and Television School on Wednesday morning, and will culminate in the presentation of a display of the various educational institutions which offer courses, diplomas and degrees in audio.

This display will inform prospective students of the educational and training opportunities which exist in the field of audio and provide a forum where they will be able to talk to the educators and find out more about what the establishments offer.

Admission will be free and this includes the exhibition, to any student who can present their current student card or a letter from their principal. The Fair will run from 1.00pm through until 7.00pm on Wednesday, April 26.

## AVC- Audio Visual Communications

On display will be a new version of 2.2 SADiE, audio disk editor. This is based on a 486 PC platform. The basic system comes with 1 gigabyte of hard disk storage and can be expanded to 28 gigabytes.

STAND 62 AT AES

# CADAC CONCERT CONSOLE AT AES

*Clive Green flying out to detail customised console range which is expanding beyond theatre*

Cadac's latest arrival - 'Concert' - is a unique design specifically for large arenas, concerts and broadcast. The Concert distils Cadac's extensive experience providing sound designers and operators with a unique approach supporting speed of operation and flexibility.

The Concert complements the successful Cadac J-type theatre mixing console. It also reflects Cadac's highly specific design focus on the live sector. A J type is currently performing in Cameron Mackintosh's newest production in the West End - Oliver!

This console is specified with motorised faders and a 16 by 28 matrix. Sound design for the show is by Mike Walker and Paul Groothuis, who wanted to achieve a very transparent system. The show features a substantial complement of 32 radio mics and a sizeable orchestra - 25 pieces in all. Mike Walker elaborates:

"We use a lot of sound effects, which are controlled by eight channels with motorised faders, each channel going direct out to a programmable router. This is certainly one of the larger 'J-types' that I have worked with, and we are using all the facilities on the desk quite extensively. There are over 100 computer cues used in

the running of the show, dealing with sound effects, delay changes plus VCA and muting control of the input channels."

Both the Concert and the J-type will be demonstrated at the Sydney AES, and Clive Green, Cadac designer will be on hand at the System Sound stand to spread the good word.



## SYSTEM SOUND STAND 36

## QSC CLAIM VALUE

AR AUDIO Engineering recently won the QSC amplifier distribution business for Australia. The USA series amplifiers (below) come in at \$1395 (retail) for 2 x 425w, and \$2150 for 2 x 650w. Various QSC amps are available.

STAND 37 AT AES

## Virtual Audio from LAKE DSP

Also at AES this year, Lake DSP will have a range of virtual audio equipment on display. Lake specialises in performance processing, specific design of hardware, software and algorithm requirements as well as their own virtual audio systems.

One product on show is *The Huron Digital Audio Workstation*. This system handles applications in virtual acoustics and simulates three dimensional sound environments. Huron is capable of handling 256 channels of 24 bit, 48kHz data and is controlled through host hardware.

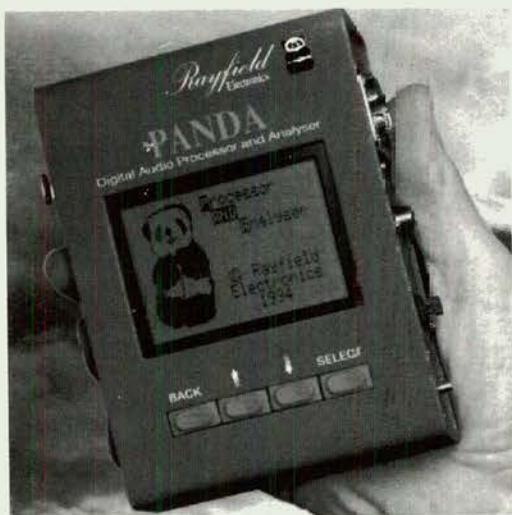
Also, the *FDP 1 Plus* Digital Audio Convolution Processor. Used in acoustic modelling in virtual systems, it can emulate over four seconds of room response. Driven

by a Windows program, the system is applicable to test and measurement filter situations.

For specific room equalisation, *Lake EQ* combines both traditional graphic and parametric systems in the one unit, enabling high accuracy frequency tracking - with zooming, a resolution of 0.3Hz can be made.

STAND 18 AT AES





## PANDA DIGITAL AUDIO PROCESSOR

The PANDA Digital Audio Processor and Analyser won product of the show at APRS last year, and it is available here from DW Productions. Panda will noise shape

while adjusting gain and doing more. It has built in 16-bit DAC and ADC for audio monitoring, and will display CD and DAT subcode. See it at AES!

**DW Productions Stand 26**

## OSC DIGITAL AUDIO SOFTWARE

Central Musical Instruments (CMI) have picked up OSC, who make a neat range of products.

DECK II (below) is a Power Mac native sound recording and editing program, which will play back 24 tracks of 16 bit digital audio with no additional audio cards required. Voted 'best new music/sound product' by MacUSER in 1993, and recently nominated for a TEC award for best software, DECK is priced at \$795.

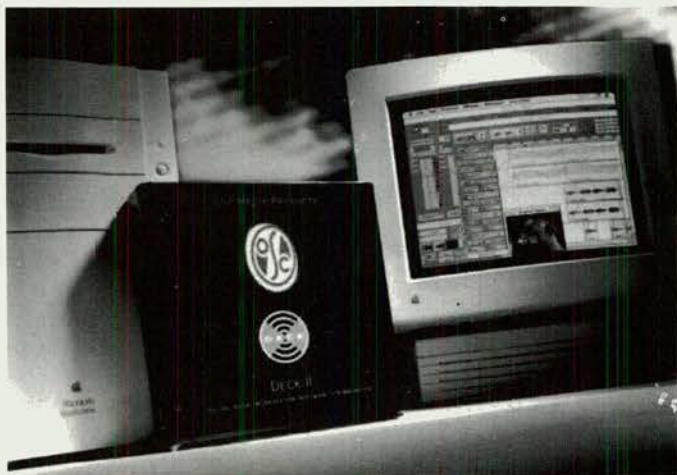
METRO is a sequence package

to compliment DECK II, and it will also run alone. \$445.

OSC also have some radical samples available on CD, the Sharp Stick Library has some AIFF files called: fried tooth fairy; resonant dog meat; alien sinus problem; noisemaker acic waterfall; charred radio; tiny robot hairball; glass rodents and tidal wave of shoplifting. Ge: the idea?

"To help disrupt your multimedia presentation we've gone heavy on the clip tunes" they say. Yeah!!

**CMI ON STAND 65**



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**AES**  
stand 45

**AMEK**  
**LANGLEY**  
**TAC**  
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**KJAER**  
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**BSS**  
signal processing

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**ACOUSTICS**  
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## NEW AT AES

### Digital Sound Systems

*Soundscape* have released Version 1.16 of their software which includes features such as audio scrubbing, new fade tools, noise gate tool. On display also, *SPL Vitalizers* which incorporates sub bass, mid range and harmonics enhancement as well as a surround sound processor. **SEE SOUNDSCAPE ON STAND 41**

### JBL AND JANDS- CORRECTION

Last issue we reported the new EON portable sound system from JBL would be released later in the year, and used words to the effect that Jands were delaying the launch of this product. In actual fact, Jands boss Paul Mulholland has pointed out that he has ordered extremely heavy numbers and that he cannot get allocation from JBL until around June this year.

Connections apologies for the suggestion, un-intended, that Jands were in some way lagging in the launch of this product, which caused quite a sensation at NAMM in January.

Likewise anyone else to whom our words cause occasional offence is invited to come biff Connections' editor on Stand 15 at the AES

### STUDIO CONNECTIONS CAP BIG YEAR AT AES

With an array of new agencies including Studer Dyaxis, Lexicon, Alen & Heath, Genelec and XTA, Studio Connections have most recently expanded into NSW with the appointment of Don Dowling.

Product for AES includes the new XTA DP100 delay and EQ Processor. This has extras like ambient temperature compensation, the option of digital inputs and outputs, and 80 memory presets for recalling system configurations.

The DP100 EQ functions stretch to a full 3 band parametric on each channel. Memory locations can be recalled via MIDI, and front panel settings can be locked.

Allen & Heath's new GL-4 console will also be on show, this is a dual purpose FOH or monitor console with live or recording applications. It could be used as an eight bus live mixer, or a ten send monitor board.

**STUDIO CONNECTIONS STAND 10**

### JBL LARGE FORMAT DIGITAL MONITORS



The AES will be the launch pad for the new DMS-1 digital monitoring system from JBL.

JBL's Mark Gander will fly down and present a paper on the development of this system, and digital integration in studio monitoring.

"The DMS-1 integrates digital technology with advanced transducer technology", Mr Gander said. It features what they say is the worlds first professional neodymium low frequency transducer, a neodymium h/f transducer and a very low distortion constant directivity horn.

The DCS490 Digital controller which is supplied with each DMS-1 system is optimised for system performance. It does system crossover, signal alignment delay and EQ in one processor. The system will deliver very high SPL.

\*Mr Gander will present his paper at 2.15pm on Thursday April 27. **JANDS: STAND 9**



### TECHTEL

*Studioframe* version 6.0 has received its latest update which enables the system 24 track capability with simultaneous input and outputs. *Studioframe* is a complete digital recording, editing and mixing system for either film style or disk recording. On display will also be DCS digital storage system as installed at 2 Day FM.

**TECHTEL ON STAND 16**

## New Media Systems

Some new products show-cased this year include the *AVT-24*, a high performance DSP echo canceller designed for video and audio conferencing systems. The *DE-4080*, a 8 channel automatic mixer with 3-band eq per channel and a non processed auxiliary output bus, useful for teleconference applications.

Also, the *SSC-200*, a DSP based video split-screen encoder/decoder designed for large scale video conferencing.

**STAND 54**

## Yorkville Sound

On display will be the full range of Yorkville sound technology including the *Elite* speaker cabinets, *Audiopro* power amps, and studio monitors.

Australian distributors Dynamic Music will also enter the Audiopro AP 1200 Amp in the amp comparison that AES are running.

**STAND 68**

## Audio Test Products

Tektronics will display it's full range of audio test products including the *764 Digital Audio Monitor* which employs interpolation to calculate audio levels. It also operates as an audio phase and level meter. Also on show is the *AM 700 Audio Measurement Set* which comes complete with analog and digital signal analysers, generators, diskette drive, and memory. For more portable applications, the *AM70 Handheld Digital Audio Analyser* designed for trouble-shooting audio systems and components.

**STAND 42**

## Australian Monitor

On display will be the new range of amps including the *Opal 1202*, the *C300* and the *AM2400 Dual* bi-amp. In addition, they have just released the new Contractor C-300 and the ERA hi-fi range.

**STAND 28**

## Thunderous Enclosures

On display at AES will be a new company Techstream. They are offering what they say is a new design approach to loudspeaker enclosures and acoustic design. Starting with the basic design of low to mid frequency enclosures,

Techstream have employed transmission line theory to extend low frequency response.

The first product is the TLB 320 Sub-bass enclosure. It produces a flat acoustic response down to 18Hz at high level, low distortion utilising design that couples air with the driver as opposed to sealed, vented or reflex enclosure technology. This is the making for earth moving sound, they say.

Although concentrating on Hi Fi market, the design approach enables use for professional markets, and componentry is of high pro standard.

Also available are two crossover units. The FFX-25 provides a stereo fixed frequency crossover with filters aligned to sum the output to a constant level. The second unit, the SFX-25 is an active crossover providing electrical filtering for signal splitting between loudspeakers. Both units include a infrasonic filter.

For more details, Network Sound and Vision, phone or fax (03) 569 1578, or visit them on the Techstream stand.

**TECHSTREAM ON STAND 46.**

## THE WORLDS NO.1 LOUDSPEAKER



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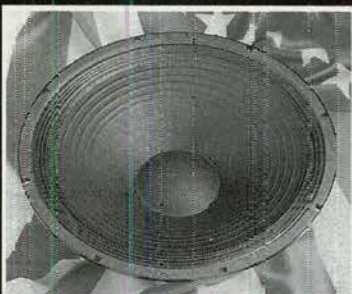
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**PS15-500**

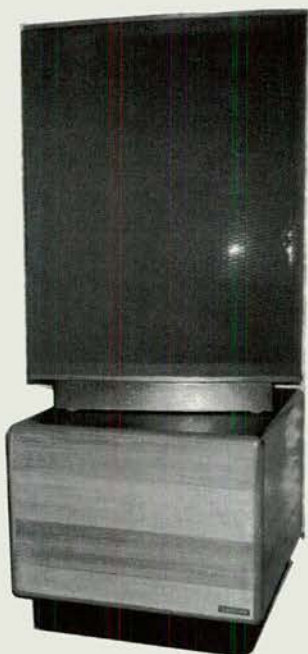
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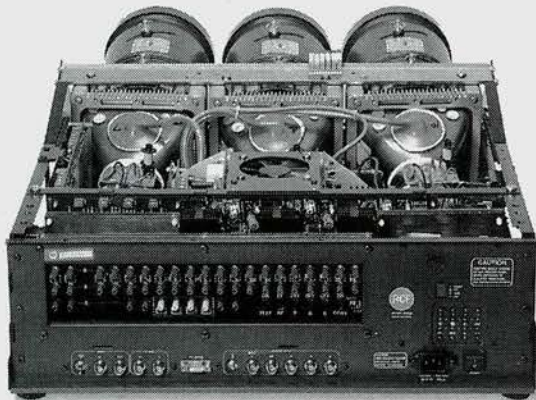
- "Clean, LOUD and crisp" RICHARD LUSH  
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## NEW AT AES

### Pro Tools III Ships 1000 units

Digidesign, the manufacturer of Pro Tools has announced it's 1000th shipment of Pro Tools III. It is designed specifically for the music and post production industries, with the latest version, enhancements and plug-ins can be added (to be viewed at AES, Sydney). Pro Tools III provides up to 48 tracks of record/play, up to 64 analog or digital channels, and vir-

tual digital mixing - essentially becoming a digital console. With Pro Tools III also comes a Digidesign operating system and a new version of application software.

Pro Tools III is priced under \$15,000. Pro Tools III is to be seen on two stands at AES:

**ISMT STAND 12**  
**SOUND DEVICES STAND 21**

## Studio Supplies

Bruel & Kjaer 4000 series studio microphones, Dynaudio Acoustics studio monitors and amplifiers, Soundcorp patchbays at balancing systems and Panasonic DAT recorders are features on the Stu-

dio Supplies stand, # 45.

B & K's Morton Stove and Dynaudio's Ross Caston will be on hand to answer questions too. Both firms will debut new products at AES.

### Universal Automation System from Mackie

Mackie have some wordmasters slaving over hot Macs in Seattle. We'll let them tell you what they offer for AES:

Mackie have espoused the theory behind their new creation - a universal automation system, by, about, and for the people - a revolutionary product that will enhance the creative spark in millions of frustrated musician/engineers around the world.

This universal automation system has three components;

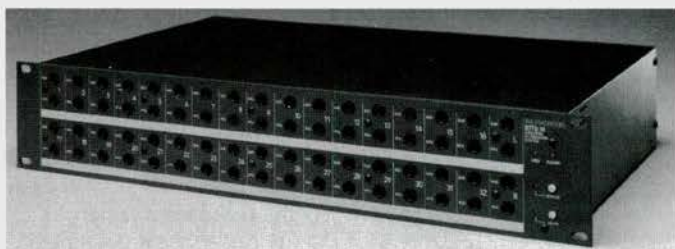
OTTO-34. Housed in a 2U rackmount cabinet, OTTO-34 External Gain Cell Unit, contains 34 VCA gain cells and all other hardware necessary for level and mute automation of 34 audio channels.

OTTO-34 (pictured) can be added to Mackie 8•Bus consoles, but obviously it will function admirably with most competitors' mixers - or for that matter, any line-level device such as effects processors.

Ultramix Pro has been designed from the ground up with powerful new features such as graphic editing, ability to play MIDI files produced on any platform, full OMS 2.0 compatibility, and reduced system requirements for dramatically faster operation. Because Ultramix Pro is PowerMac native, it's already compatible with the Mac's of the future, yet it also runs smoothly on lesser Macs, including the Classic II.

OTTOPILOT 16 Automation Interface is the missing link in Mackie's groundbreaking automation package. The OTTOPILOT 16 provides a high quality, versatile physical surface for the Mackie Universal Automation System. Bank switching provides direct volume, mute and solo control for up to 128 console channels, and controls 8 group masters, 8 effects control sliders, and standard MIDI Volume and MIDI pan.

AUSTRALIAN AUDIO SUPPLIES STAND 31



# AES EXHIBITORS

(AT 15 MARCH)

## Stand 2

Amber Technology  
Unit B, 5 Skyline Place,  
Frenchs Forest NSW 2086  
Tel (02) 975 1211 Fax (02) 975 1368  
New Releases: Otari Radar Hard-Disk Recorder, available in 8, 16 or 24 track configurations  
Avid Audiostation digital audio editing system, making its Australian debut.  
Neutrik AO10 Digital Test Option:  
TC Electronic.TCM5000 Digital Effects Processing System  
Neutrik XX Series Solderless XLR's FAIRLIGHT ESP  
Products to be Exhibited: Fairlight MFX3 mainframe 24 track system & MFX3 mini compact system

## Stand 3

Yamaha Music Australia P/L  
17-33 Market Street,  
South Melbourne VIC 3205  
Tel (03) 699 2388 Fax (03) 699 2332  
New Releases: Yamaha PM3500 professional mixer with midi control & VCA, dsP16 hard disk workstation with Promix01 interface, CBNXD budget hard disk recorder, MX200 budget stereo mixer, MX400 budget 4 bus mixer, RM800 budget 8 bus recording mixer, MM1402 budget multi source mixer, REV100 budget stereo reverb & P Series budget power amplifiers

## Stand 5

Crestron Australia Pty Ltd  
15 Portland Street,  
Nedlands, WA 6009  
Tel (09) 389 8105 Fax (09) 389 8149

## Stand 6 & 8

Bose Australia  
11 Muriel Avenue  
Rydalmere NSW 2116  
Tel (02) 684 1022 Fax (02) 684 1665  
New Releases: Panaray Long Throw loudspeaker system Model 3202, 4402, 1802 for large venues, Business Music Systems - Freespace 6 inc Model 8, 25, 32 ceiling and surface mount loudspeakers, BMA 125 amplifier, Panaray 502B portable subwoofer, Crown IQ System Drone controller, matrixers, intelligent mixers smart amplifier

## Stand 9

Jands Electronics,  
578 Princes Highway,  
St Peters NSW 2044  
Tel (02) 516 3622 Fax (02) 517 1045  
New Releases: Jands SR400 studio reference amplifier, JBL Array monitor wedges, JBL dual 14 studio monitors, Soundcraft K1 live mixing desk, Urei DSP product

## Stand 10

Studio Connections Australia  
34A Main Street,  
Croydon VIC 3136

Tel (03) 723 4300 Fax (03) 723 4306  
New Releases: Lexicon reflex multi-fx unit, LXP-15 MK II multi-fx unit, PCM-80 multi-fx unit and Opus, Allen & Heath mixing consoles - GS1 and GL4, Studer-Editech Dyax's II, Euphonix digitally controlled mixing console.

## Stand 11

Ogenic Technologies Pty Ltd  
34 Great Eastern Highway,  
South Guilford WA 6055  
Tel (09) 479 1711 Fax (09) 479 1713  
New Releases: Impact workbench software, Maestro professional broadcast mixer, & Encore on air mixing console

## Stand 12

Innovative Sound & Media  
188 Plenty Road  
Preston VIC 3072  
Tel (03) 416 9688 Fax (03) 484 6708  
New Releases: Avid Audiovision V30 - digital audio workstation, Digidesign Pro Tools III

## Stand 13

Sony (Aust) Pty Ltd  
33-39 Talavera Road,  
North Ryde NSW 2113  
Tel (02) 887 6666 Fax (02) 805 4351  
New Releases: Sony DAE D5000 - digital audio workstation/editor, PCM - 800 digital audio multitrack recorder, MDSB3 and MDS B4/P - professional min disc, F-700 series dynamic microphones.

## Stand 15

Connections Publishing Pty Ltd  
8 Hermington Street  
Epping NSW 2121  
Tel (02) 876 2612 Fax (02) 876 5715  
New Products: Coffee, Tea, couch to sit on, inspect the editors charisma bypass.

## Stand 16

Techtel  
Unit 2/49 Hotham Parade  
Artarmon NSW 2064  
Tel (02) 906 1488 Fax (02) 906 1480  
New Releases: All systems will be exhibiting pre-released versions of their latest software.

## Stand 18

Lake DSP Pty Ltd  
4/166 Maroubra Road,  
Maroubra NSW 2035  
Tel (02) 314 2104 Fax (02) 314 2187  
New Releases: Lake will be releasing new room simulation product from the Huron digital audio convolution workstation. Room acoustics can be sampled or synthesized for re-creating the most realistic room reverberation. Lake will also be demonstrating technology for professional virtual audio reality applications.

(cont. over)

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■ Lexicon ■ Signex ■ Studer Editech ■ Studio Techniques ■ 12 Gauge

**Stand 20**  
AWA Distribution  
Unit 2/175 James Ruse Drive,  
Rosehill NSW 2142  
Tel (02) 898 7666 Fax (02) 898 1135  
New Products: AWA Distribution will be exhibiting a range of professional audio products by Denon, AKG & TOA. The TOA SAORI integrated sound processor will be featured and demonstrated by product specialists. This processor serves as an all inclusive link between mixing console output and power amp input in a component line sound reinforcement system. Additionally, the latest mini disk cart players and recorders will be displayed featuring PC based software for windows and a suitable RS-422A/RS232C interface.

**Stand 19**  
EAV Technology  
79 Little Oxford Street,  
Collingwood VIC 3066  
Tel (03) 417 1644 Fax (03) 417 7704  
New Releases: Instant Replay from 360 systems USA, Digital audio hard disk sampler with 500 hot key -presets, Valley Audio-730 digital dynamics processor, Audix microphones, powered speakers & monitors.

**Stand 21**  
Sound Devices  
265 Sussex Street  
Sydney NSW 2000  
Tel (02) 283 2077 Fax (02) 283 1337  
New Releases Protocols III - a new dimension of power, expandability, ease-of-use, and value to professional random access digital audio production offering up to 48 disc tracks, up to 64 channels of system I/O a comprehensive internal digital mixing environment and award winning software interface.:

**Stand 21a**  
Roland Corporation (Aust) Pty Ltd  
PO Box 18,  
Dee Why NSW 2099  
Tel (02) 982 8266 Fax (02) 981 1875  
New releases: Roland's new generation of digital audio products.  
DM800 Non Linear Hard Disk Recorder, compact stand alone digital 8 track non linear recording system, RSS10 Roland Sound Space System - 260 degrees sound placement hardware, AFP-700 Digital Anti-Feedback Processor, de-

signed for live sound applications SRV-330 digital reverb, SDE-330 digital delay and SDX-330 digital expander, all of which include algorithms from the acclaimed Roland Sound Space technology.

**Stand 22**  
Tascam,  
106 Bay Street,  
Port Melbourne, VIC 3207  
Tel (03) 646 1733 Fax (03) 646 4776  
New Releases: Tascam DA-P1, Portable DAT recorder with XLR inputs and phantom power, digital I/O and multiple sampling frequencies. DA-30 MKII DAT Master recorder with a DATA & Shuttle wheel. M-5000 Console perfect for post production - 32-40 input/output modules in 24 groups. M-2600, the quintessential 8 buss recording console for the project studio - bi-directional split EQ super quiet operation. ES-60/61 machine synchronisation and editing controller.

**Stand 22**  
Music Lab  
1F Flanagans Bldg,  
288 Abbotsford Rd,  
Albion QLD 4010  
Tel (07) 862 1633 Fax (07) 862 1578  
New Releases: Audio Processing Technology (APT) DRT 128 digital audio ISDN terminal including built in terminal adaptor.

**Stand 23**  
Production Audio Services  
6-8 Elizabeth Street,  
Richmond VIC 3121  
Tel (03) 415-1585 Fax (03) 415-1595  
New Releases: Biamp programmable graphic equalisers and powered mixers, Community CSX S2 loudspeakers, new Countryman microphone models, Crest Audio CA-12 1200WPC amplifier and mixing consoles, Gentner ET100 teleconferencing unit, Nady in-ear monitor system (UHF & VHF) & IFB wireless systems, and announcing a range of USA made EAW speakers

**Stand 24**  
Electric Factory  
188 Plenty Road,  
Preston VIC 3071  
Tel (03) 480 5988 Fax (03) 484 6708  
New Releases: Alesis - Matica 500/900

power amplifier, monitor two, Q2 effects processor & MIDIVERB IV effects processor

**Stand 25**  
Ampex Media Int'l Corp  
Suite 104 51 Rawson Street,  
Epping NSW 2121  
Tel (02) 869 0600 Fax (02) 868 5775  
New Releases: Ampex 489 extended play ADAT tape (60 minutes record time), New formulation 467 digital audio u-matic tape. New achivaly stable binder technology for 499 Grand Master AE gold audio mastering tape. Ampex album DATpak storage system for multiple R-DAT projects and more to be announced!

**Stand 26**  
DW Productions Pty Ltd  
Tel (02) 907 9683 Fax (02) 907 0863  
**Stand 27**  
Acoustic Technologies  
8-10 Staple Street,  
Seventeen Mile Rocks,  
Brisbane QLD 4073  
Tel (07) 376 5793 Fax (07) 376 5795  
New Releases: New generation Tomcat concert speakers. New range of Acoustic Technologies sound reinforcement speaker systems.

**Stand 28**  
Australian Monitor  
53 College Street,  
Gladesville NSW 2111  
Tel (02) 816 3544 Fax (02) 817 4303  
New Releases: Australian Monitor Opal reference monitors & 1202 amplifiers  
Products to be Exhibited: AM, K, & C Series Pro amplifiers, QMX Series speaker systems, Era top end hi fi components, Opal S1 reference monitors & 2802, 1202 amplifiers

**Stand 29**  
Amps Unlimited  
3/141 Sherbourne Road  
Montmorency VIC 3094  
Tel (03) 435 1745 Fax (03) 434 7708  
New Releases: Ampower Installer Series amplifiers, RGBS1 Multisystem switcher, architectural speakers & PA and studio series amplifiers

**Stand 30**  
BASF (Australia) Ltd, Professional Products Div.

500 Princes Highway  
Noble Park VIC 3174  
Tel (03) 212 1500 Fax (03) 212 1511

**Stand 31**  
Australian Audio Supplies  
256 Victoria Rd  
Gladesville NSW 2111  
Phone (02) 879-6124 Fax (02) 817-1049  
New Releases: Mackie Designs Ultamix Pro - powerful affordable 34-136 channel MIDI automation for the Mackie 8-Bus Series. Mackie Designs LM-3204 - Mackie's new 16 channel stereo mixer with 2 mic preamps. Hayes F80 - revolutionary studio monitors featuring the new Fractal Spatial System (FSS).

**Stand 32**  
Entertainment Services of Australia (ESA Audio)  
703 Heatherton Road,  
Clayton South VIC 3162  
Tel (03) 562 4605 Fax (03) 547 6683  
New Releases: Apogee Sound digitally controlled power amplifiers, featuring media link network control - winner of Theatre Craft magazine's 1994 Product of the Year award and Apogee Sound AE-9 loudspeaker system, winner of Mix magazine 1994 TEC award for loudspeaker product of the year

**Stand 33 & 34**  
Mark IV Audio (Aust) Pty Ltd.  
Unit 24 Block C Slough Bus Dis,  
Slough Avenue, Silverwater, NSW 2141  
Tel (02) 648 3455 Fax (02) 648 5585

New Releases: Midas XL200 and XL4, Klark Teknik spectrum analyser and graphics, Dynacord processors

**Stand 35**  
Syntec International P/L,  
60 Gibbes Street,  
Chatswood NSW 2067  
Tel (02) 417 4700 Fax (02) 417 6136  
New Releases: SSL Scenaria post production mixing system, Tactile Technology M4000 digital mixing console, Fostex Foundation 2000 digital audio production platform

**Stand 36**  
Mr. John Scandrett  
System Sales P/L  
58 Porter Street,  
Prahran VIC 3181

# ROCKARD

**COATINGS**  
**FINALLY! THE PAINT**  
**THE ENTERTAINMENT INDUSTRY NEEDS,**  
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Phone: (02) 550-3828  
Toll Free: 008 804-994  
Fax: (02) 550-6919

Tel (03) 529 2633 Fax (03) 529 4897  
**New Releases:** Cadac concert console. The concert console is the newest release model by Cadac being the result of over 3 years research and development.

**Stand 37**  
 AR Audio Engineering  
 Level 4 140 Sussex Street  
 Sydney NSW 2000  
 Tel (02) 299 3666 Fax (02) 299 2240

**Stand 39, 39A & 40**  
 Syncrotech Systems Design  
 9C Gibbes Street,  
 Chatswood NSW 2067  
 Tel (02) 417 5088 Fax (02) 417 8360

**Stand 41**  
 Digital Sound Systems Ltd,  
 PO Box 27159 Mt Roskill  
 Auckland NEW ZEALAND  
 8th Floor, 35 Spring Street,  
 Bondi Junction 2022  
 Tel (02) 386 1043 Fax (02) 387 6861  
**New Releases:** New software release 1.16 on Soundscape and also featuring hardware upgrades e.g. removable hard disk., SPL Vitalisers and Equal Magix..

**Stand 42**  
 Tektronix Australia Pty Ltd  
 80 Waterloo Road,  
 North Ryde NSW 2113  
 Tel (02) 888 7066 Fax (02) 888 0125  
**New Releases:** AM700 digital and analogue audio measurement set, 764 digital audio monitor, SPC422 digital TV sync generator with AES digital audio

**Stand 43 & 44**  
 ATT Audio Controls  
 439 Gaffney Street  
 Pascoe Vale VIC 3044  
 Tel (03) 379 1511 Fax (03) 379 9081  
**New Releases:** new AMEK, Turbosound, BSS Audio, Langley & TAC  
**Products to be Exhibited:** Selected items from the AMEK, Turbosound, BSS Audio, Langley & TAC product ranges

**Stand 45**  
 Sound Supplies Pty Ltd  
 72 - 90 Cambridge Street,  
 Collingwood VIC 3066  
 Tel (03) 416 1066 Fax 419 6963

**Stand 46**  
 Techstream  
 PO Box 934,  
 Mount Waverly VIC 3149  
 Tel (03) 751 1989 Fax (03) 751 1987  
**New Releases:** The AES 95 Convention is the venue for the release of the first of the new Techstream Truebass professional audio bass loudspeaker systems. The theory behind the design is also to be presented at the conference. The special feature products on display will include: Techstream Truebass B300 sub-bass enclosure, FAX/1 audio crossover, SAX/1 switchable crossover & power amplifier A300.

**Stand 48**  
 Acoustisearch  
 Thirkell Holdings Pty Ltd  
 36 Lever Street  
 Oakleigh VIC 3166  
 Tel (03) 568 4022 fax (03) 568 4667  
**New Releases:** New range of acoustic modules, Harrison/AT&T digital audio and automation system information

**Stand 50**  
 Audio Services Corporation Pty Ltd  
 32 Punch Street  
 Artarmon NSW 2064  
 Tel (02) 901 4455 Fax (02) 901 4229  
**New Releases:** HHB PDR1000 T/C timecode portadat, Sanken CSS-5 stereo/mono shotgun microphone, Cooper Sound portable ENG audio mixer, Stelladat DAT recorder by Sonosax

**Stand 51**  
 Mr Robert Bonstchek  
 East Coast Audio  
 PO Box 2333  
 Richmond VIC 3121  
 Tel (03) 428 9797 (03) 427 9898

**Stand 52**  
 Alcatel Components Ltd  
 248 Wickham Road,  
 Moorabbin VIC 3189  
 Tel (03) 555 1566 Fax (03) 553 3801  
**New Releases:** AC Series coloured nuts (backshells), Premiere Audio Series connectors with machined contacts, panel mount solderless receptacles, range of test adaptors including Phantom power testing, gauge testers, RFI filters and DB Attenuator pads.

**Stand 53**  
 Musitronics Australia  
 139 Richmond Road,  
 Richmond SA 5033  
 Tel (08) 234 2789 Fax (08) 234 2791  
**New Releases:** RCF Italy. Event Series of cabinets with new generation speakers and N300 top end driver, H100 flare, High power/crest factor speakers, Monitor cabinets and sub woofer

**Stand 54 & 55**  
 New Media Systems Pty Ltd  
 1/47 Penrose St,  
 Lane Cove NSW 2066  
 Tel (02) 418 6388 Fax (02) 418 6767  
**New Releases:** The AVT-24 is the highest performing digital echo-canceller on the market today. It can be easily integrated into the most challenging video/audio teleconference system

**Stand 56**  
 The Resource Corporation  
 P.O.Box 323  
 Balwyn VIC 3103  
 Tel (03) 888 6555 Fax (03) 888 6613  
**New Releases:** Eurocable starquad & multi-starquad cable & AES/EBU digital audio cable, Soundwires bantam patchbays with DIP switch normalising & D connector multipin wiring

**Stand 57**  
 ARX Systems  
 PO Box 15  
 Cheltenham VIC 3190  
 Tel (03) 555 7859 Fax (03) 555 6747  
**New Releases:** ARX MSX-4 microphone splitter, Powerdrive amp with built-in speaker processor, Mixx and Mixxmaster 1 RU mixers, Easi EQ computer controlled equaliser

**Stand 58**  
 Audio Telex Communications  
 149 Beaconsfield Street,  
 Silverwater NSW 2128  
 Tel (02) 647 1411 Fax (02) 748 2537  
**New Releases:** Merit and Spark professional mixing consoles, Symetrix 488 Dyna squeeze compressor for digital recorders, Sonus Microprocessor controlled PA System.

**Stand 59**  
 Australian Studio Importers  
 and Distributors Pty Ltd (ASID)  
 410 Smith Street,  
 Collingwood VIC 3066  
 Tel (03) 416 1564 Fax (03) 416 0188  
**Full range of Groove Tube Electronics,** including MD1 & MD2 valve microphones, EQ1 Valve equaliser, MP1 Valve mic pre amp, D75S valve reference amp, SE11 valve speaker emulator., Russian Dragon timing accuracy meter, and full range of Digidesign products

**Stand 60**  
 Zomba Production Music Aust Pty Ltd  
 25 Burton Street, Glebe NSW 2037  
 Tel (02) 552 6366 Fax (02) 552 4889

**Stand 61**  
 Maser Technology Group  
 Suite 9, 3 Vuko Place,  
 Warriewood NSW 2102  
 Tel (02) 970 7644 Fax (02)970 7621  
**New Releases:** Sonifex digital sound recorder - hard disk based, Spectral digital audio workstations & RVR radio transmitters & P.A.

**Stand 62**  
 AV Communications  
 Unit 1, 19 Kent Way  
 Malaga WA 6062  
 Tel (09) 249 6688 Fax (09) 249 6858  
**New Releases:** Sadie disk editing system Version 2.2, AVC BM100 broadcast mixer console

**Stand 63**  
 Connetics Pty Ltd  
 PO Box 432  
 Unit 6, 198-222 Young Street  
 Waterloo NSW 2017  
 Tel (02) 318 1077 Fax (02) 699 9325

**Stand 64**  
 Mainly Multitrack Pty Ltd  
 Unit 20, 2 Garden Boulevard  
 Dingley VIC 3172

**Stand 65**  
 Central Musical Instruments

Unit 3, 13-21 Thomas Street,  
 Yarraville VIC 3013  
 Tel (03) 315 2244 Fax (03) 315 2115  
**New Releases:** Ross RCS 2842 stereo mixing console, Megatech range of high current reference amplifiers and power amplifiers, DOD DR 828 power distribution and light module unit, DR 410 PA/Monitor Processor & DR 811 Digital Room Delay, Digitech Studio Vocalist vocal harmony processor & Studio 5000 Instrument Harmony effects processor

**Stand 66**  
 Freedman Electronics,  
 283 Victoria Road,  
 Rydalmere NSW 2116  
 Tel (02) 638 6666 Fax (02) 638 7505  
**New Releases:** Rode NT-2 transformerless studio condenser microphone designed and manufactured in Australia and exported throughout the world, Aura Systems loudspeakers from the USA featuring patented radially oriented Magnet structure - full range from TV speakers to 18 concert sub bass drivers.

Stage Accompany from Holland for their computer controlled sound systems present new Concert Series ribbon high frequency drivers utilising Neodymium magnet structure with high frequency response and distortion characteristics unmatched by any other driver. Freedman matrix audio switcher featuring full computer control

**Stand 67**  
 Mr Hugh Salmon  
 Broadcast Engineering News  
 PO Box 5487  
 West Chatswood NSW 2057  
 Tel (02) 372 7399 Fax (02) 419 7399

**Stand 68**  
 Mr Michael Hanlon  
 Dynamic Music Pty Ltd  
 2-6 Short Street  
 Brookvale NSW 2100  
 Tel (02) 939 1299 Fax (02) 938 2072  
**New Releases:** Yorkville Elite Cabinets EX161 & EX600, Audiopro MP8dx powered box mixers, new range of Yorkville Subwoofers and studio power amps

## VISIT CONNECTIONS AT AES.

### Stand 15

- **Book sales**  
*(additional titles on hand)*
- **Subscriptions**
- **Hospitality**
- See the MAY issue made before your eyes for release on **May 1!** *(We do it fast!)*
- Tell us what we need to do to **make this magazine BETTER!**

# BUYERS GUIDE

## Signal Processors

BUYERS GUIDE this month deals with Signal Processors - which means anything in the signal chain. Some VENDORS got this wrong and sent us EFFECTOR information, effects and reverb devices are NEXT issue, they are not in the signal chain. Here you'll find a sampling of Equalisers, Compressor Limiters, Noise Gates and Crossovers - and a lot of integrated digital devices that do all this at once too.

Remember we've limited each brand to four products, so the listings here are INDICATIVE only. Also, some brands are not represented because the vendor forgot or was too busy to respond on time, and in this rushed climate this is quite forgivable.

**ARX : Phone (03) 555 7859 Contact Duncan Fry or Colin Park**

**ARX AFTERBURNER** : Dual or single channel enhanced Comp./Limiter. Dual Band (Low/High) in single channel mode. Unique! Beautiful metering; lots of LED's. No. of Channels: 1 or 2; Balanced In: Yes. Balanced Out: Yes; Size in R/U : One; Connectors: Jack and XLR. Retail Price : \$1129.00 inc. tax. **SIXGATE**: Six Channel Noise Gate. Release, Depth and Threshold Controls,

Sidechain/KeyInputs. Unique! No. of Channels: 6; Balanced In: Yes; Balanced Out: Yes; Size in R/U : One; Connectors : Jack; Retail Price \$1208.00 Inc. tax. **QUADCOMP** ® : Word's First 4 channel Comp/Limiter. Threshold, Ratio and Output Controls. Stereo Links, Lots of LED's. No. of Channels: 4; Balanced In : Yes; Balanced Out : Yes; Size in R/U : One; Connectors : Jack; Retail \$1365.00 Inc. Tax.

**EQ60** : Dual Channel Constant Q Third Octave Graphic Eq. Ultra low noise, looks cool, sounds great. No. of Channels : 2; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 3; Connectors : XLR and Jack; Price \$2102.00 Inc. Tax.

**ARX** makes a complete range of professional signal processing, plus EQ's, Amps and Processor Controlled Speaker Systems. All fully Australian made.

**RAMSAUDIO PTY LTD : Phone (02) 477 7377 Contact John Paillas**

**RAMSA WZ-DE40**: Digital Multi Equaliser, 20 bit AD/DA, GEQ and PEQ, Notch Filter, Spectrum Analyser, 107db Dynamic Range, 99 Memory, Midi In, Midi Thru, Midi Out. No. of Channels : Two; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : XLR; Price \$6800.00 inc. tax.

**AMBER TECHNOLOGY : Phone (02) 975 1211 Contact John Fitzpatrick.**

**TC ELECTRONIC** 1128 Fully Programmable 28-Band EQ/Spectrum Analyser, +/-12 or 16 dB Operation, 100 Pre-Sets, Auto Feedback "Search & Destroy", Versions for Full Remote Control and Crown IQ Bus. No. of Channels : 1; Balanced in : Yes; Balanced out : Yes; Size in R/U : 1; Connectors : XLR; Price \$5460 R/R Inc. tax.

**DRAWNER DL-241** Dual-Channel Compressor/Limiter featuring switchable automatic or manual attack and release, single control expander/gate, peak limiting, hard wire bypass and full metering. No. of Channels : 2; Balanced in : Yes; Balanced out : Yes; Size in R/U 1; Connectors : XLR In/Out; Price \$1895.00 R/R inc. tax.

**DL-251** Dual-Channel "Spectral" Compressor with "Spectral Enhance" section to restore HF energy normally lost during Broad-Band Compression, Automatic Attack/Release as with DL-241. No. of Channels : 2; Balanced in : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR; Price \$2295.00 R/R inc. tax.

**DS-201** "Frequency Sensitive" gating via variable Hi & Lo-Pass Filters, Switchable Gate/Duck on each channel, key inputs,

stereo linking. No. of Channels : 2; Balanced in : Yes; Balanced out : Yes; Size in R/U 1; Connectors : XLR; Price \$1695.00 R/R inc. tax.

**1961 Vacuum Tube Equaliser** - each channel with 4 main EQ sections each with 6 selectable frequencies, bandwidth & +/-18dB Cut and Boost. Variable Hi & Lo Pass Filters, Insert Points. No. of channels : 2; Balanced in : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : XLR; Price : \$4395.00 R/R inc. tax.

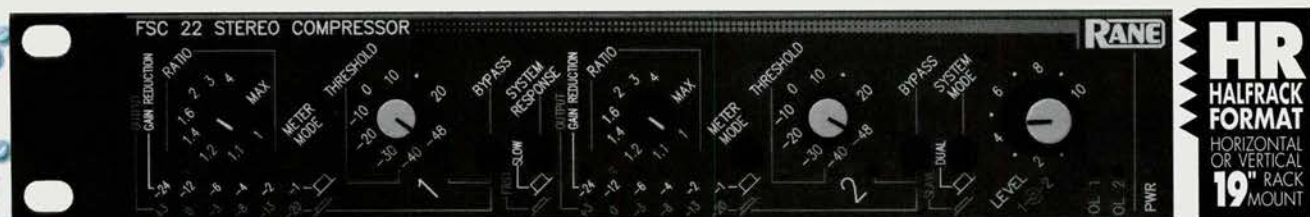
**HORWOOD AUSTRALIA Phone (02) 585 1011 Contact Brad Smith.**

**FURMAN QN44B** Four Independent Noise Gate Channels. Key Input on each channel allows external signals to control gating for the creation of special effects. No. of channels : Four; Balanced In : Yes; Balanced Out : yes; Size in R/U : 1; Connectors : XLR & Phone; Price : \$1369.00 RRP inc. tax.

**LC-6B Stereo Compressor/Limiter/Gate**. No. of channels : Two; Balanced in : Yes; Balanced out: Yes; Size in R/U : 1; Connectors : XLR & Phone; Price : \$1299.00 RRP Inc. tax.

**X324B** 24dB Per Octave Rolloff Slopes. Near Field/Far Field Selection Switch. No. of channels : 2; Balanced in : Yes;

# COMPRESSED COMPRESSOR



Meet the little cousin to the widely acclaimed DC 24... but don't let the size fool you.

The FSC 22 is very big on performance and features. Like switchable attack/release response, dual-mode metering to display either gain reduction or output level, and an Input Trim switch to match -10dBV or +4dBu systems for minimum noise and maximum headroom. It's even got those clever new Neutrik connectors that accept three-pin or 1/4" connectors!

Back these features with the superlative VCA performance that made the DC 24 famous, and you've got yourself a top-notch compressor/limiter that's ideal for studio or home recording, live sound, broadcast or post-production. Mount two horizontally for 4 channels in a 19" 1U space. Or rack-em up vertically for 20 channels across for patching into console inserts.

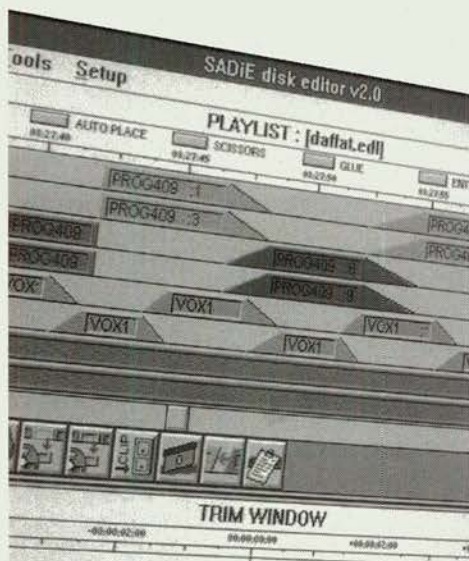
No job is too big or too small for this pint-sized wonder.



## FSC 22

STEREO COMPRESSOR / LIMITER

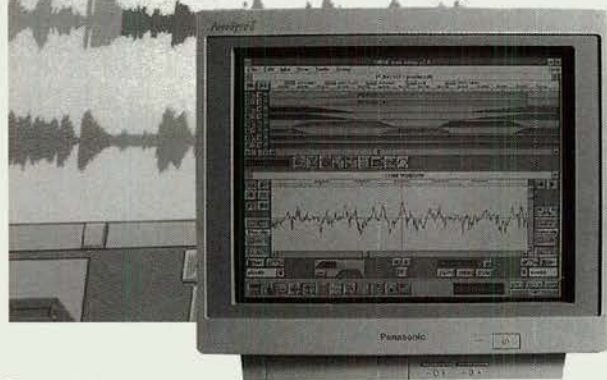
JANDS ELECTRONICS 578 Princes Hwy St Peters NSW 2044 Ph: (02) 516 3622 Fax: (02) 517 1045  
ACN 001 187 837



SADiE™ systems have sold world-wide into:

- Broadcast - TV and Radio
- Audio and Video Post Production
- Music and Mastering Recording Studios
- Cassette Duplication Facilities
- Industrial and Educational Institutions

SADiE™ is a fast, intuitive and cost-effective tool for any audio editing and recording task, be it stereo master editing, post-production, radio, sound to picture or multi-tracking.



## STUDIO SOLUTIONS

Suite 105, 511 Pacific Highway, Crows Nest, NSW 2065  
Phone (02) 906 4363 Fax (02) 439 6444

Excellent audio specification and a clear understanding of what professionals want and need is what TL Audio is all about.



### TL Audio Valve Pre-Amp Compressor

Features include: • High Pass Filter & +48v phantom power on inputs • Stereo mode with ganged controls • Mic & Line inputs electronically balanced • Front panel stereo AUX input (un-balanced) • Triode valve on compressor stage • Frequency conscious compression • 'Soft knee' variable ratio compression • Sidechain processing available • Bypass for easy A/B comparison • Twin illuminated VU meters.

Also available in the TL Audio range: • The Classic Neve EQ • Valve EQ • Valve 8/2 Mixer

SEE US AT THE AES SYDNEY CONVENTION STAND NO. 62



**YOU DIDN'T MISS IT!!? .....  
WHAT???**



**THE MOST**

**SIGNIFICANT PROFESSIONAL**

**AUDIO EVENT HELD IN AUSTRALIA!**

- Over 50 leading suppliers of professional audio exhibiting the latest technology & equipment.
- Leading international industry figures including Rupert Neve, Mark Gander, Louis Fielder, David Robinson, Roger Quested, Clive Green, John Knapton and Roger Furness.
- Major Workshops on ISDN, Film Sound Recording, Console Design, Midi Technology, Live Sound, Computer Modelling, In ear Monitoring & radio mics.
- 28 Technical Papers.
- Frequency Spectrum Allocation for Radio Microphones Forum.
- Tours of leading Sydney venues & audio establishments including SBS, ABC Ultimo, Opera House, Capitol Theatre.
- An Audio Education Fair where the audio people of the future can consult with the educators.



MAKING WAVES

**5th Australian Regional  
AES Convention  
April 26-28, 1995.  
Darling Harbour  
Exhibition Centre  
Enquiries : (03) 525 6755.**

## BUYERS GUIDE

FURMAN (continued)

Balanced Out : Yes; Size in R/U : 1;  
Connectors : XLR - Phone. Price  
\$1249.00 RRP inc. tax.  
Q152B Dual 15 Band Graphic. Long  
Throw Sliders Contant "Q". No. of Chan-  
nels : 2; Balanced in : Yes; Balanced out  
: Yes; Size in R/U : 2; Connectors : XLR  
& Phone. Price : \$1299.00 RRP inc. tax.

**CENTRAL MUSICAL INSTRUMENTS :**

**Ph: (03) 315 2244 Contact Peter Shillito**  
DOD DR-231 Dual 31 Band Graphic  
EQ in two rack space. +-12dB 20 Hz-  
20Khz bandwidth, Input Gain, Low Cut,  
Bypass Switches. No. of Channels : 2;  
Balanced in : Yes; Balanced Out : Yes;  
Size in R/U : Two; Connectors : 1/4"  
TRS (XLR Optional). Price : \$1189.00  
inc. tax

DR-834. 3 Way/Mono 4 Way Crosso-  
ver. 18dB/Oct. Dual Range Sweepable  
Mid's. 40Hz Hi Pass Filter. Phase Inver-  
sion. No. of channels : 2; Balanced in :  
Yes; Balanced Out : Yes; Size in R/U :  
One; Connectors : 1/4" TRS (XLR avail-  
able as optional extra). Price \$679 RRP  
inc. tax.

DR-866. Dual Compressor Limiter.  
Stereo Linkable, DBX VCA's. No. of  
Channels : 2; Balanced in : Yes; Bal-  
anced Out : Yes; Size in R/U : One;  
Connectors : 1/4" TRS (XLR available as  
optional extra). \$599.00 RRP inc. tax.  
DR-844. Quad. noise gate. DBX VCA's.  
No. of channels : 4. Balanced in : Yes;  
Balanced Out : Yes; Size in R/U : One.  
Connectors : 1/4" TRS. (XLR Available  
as optional extra). \$599.00 RRP inc.  
tax.

Also available : 2/3 Way Crossovers and  
various EQ's.

**AUDIO TELEX Phone (02) 647 1411  
Contact Don McConnell.**

SYMETRIX 425. Dual Mono or  
Stereo Compressor/Limiter/Expander.  
Separate thresholds for expander, com-  
pressor and limiter. Sidechain Input/  
Output. No. of Channels : 2; Balanced In  
: Yes; Balanced Out : Yes; Size in R/U :  
1; Connectors : XLR (Balanced) 1/4"  
jacks (Balanced, Unbalanced) :  
\$1200.00 inc. tax.

602 Stereo digital Processor. Analogue  
and Digital Inputs and Outputs. Features  
parametric eq, De-essing, Compression,  
digital delay, MIDI control, 256 presets.  
No. of Channels : 2; Balanced In : Yes;  
Balanced Out : Yes; Size in R/U : 1;  
Connectors : XLR (Balanced In and Out,  
AES, EBU In/Out) RCA/S/PDIF In. :  
\$4850.00 inc. tax.

421 Automatic Gain Controller. Main-  
tains desired output level irrespective  
of changes in input levels. No. of Chan-  
nels : 1; Balanced In : Yes; Balanced  
Out : Yes; Size in R/U : 1; Connectors :  
XLR (Balanced) 1/4" jacks (Unbalanced)  
Screw Terminals. \$1150.00 inc. tax.

488 Dyna-Squeeze. 8 Channel compres-  
sor/Interface for digital recorders. De-  
signed to provide higher average rec-  
ording levels and retain digital resolu-  
tion. No. of channels : 8; Balanced In :  
Yes; Balanced Out : Yes; Size in R/U : 1;  
Connectors : 1/4" jacks (In and Out). :  
\$1285.00 inc. tax.

Other Symetrix products include voice  
processors, SPL computers, headphone

amps, mic pre-amps, output delays,  
crossovers and gates.

SABINE FBX Solo-SL610. 6 Filter digi-  
tal automatic feedback exterminator,  
will automatically eliminate feedback  
using 1/10 octave notches, without any  
degradation in audio quality. No. of  
Channels : 1; Balanced in : No; Bal-  
anced Out : No; Size in R/U 1/6; Con-  
nectors : 1/4" TRS; : \$750.00 inc. tax.  
FBX901. Industry Standard 9 filter digi-  
tal feedback exterminator. Automatically  
eliminates feedback using 1/10 octave  
notches. No. of channels : 1; Balanced  
In : Yes; Balanced Out : Yes; Size in R/  
U : 1; Connectors : XLR (Balanced) 1/4"  
(Unbalanced); \$1400.00 inc. tax.

ADF1200. 12 Filter digital workstation,  
incorporating adaptive (FBX) or para-  
metric filters, presets, noise gate, out-  
put delay, password protection, RTA.  
No. of channels : 1; Balanced In : Yes;  
Balanced Out : Yes; Size in R/U : 2;  
Connectors : XLR (Inputs & Outputs).  
\$3600.00 inc. tax.

REAL Q RQ1001. Fully digital artificially  
intelligent EQ will maintain a desired  
room curve, irrespective of acoustic  
changes, such as temperature and size  
of audience. Expandable to 3 channel.  
No. of channels : 1; Balanced in : Yes;  
Balanced Out : Yes; Size in R/U : 2;  
Connectors : XLR (Input, Output, Refer-  
ence Microphones). \$8600.00 inc. tax.  
Also available is the FBX Solo with mic  
pre-amp, FBX1802 Dual channel,  
ADF2400 Dual channel, Real Q 2 and 3  
channel models.

**SYNTEC INTERNATIONAL Phone (02)**

**417 4700 Contact Mark Setchfield**  
dbx 363. Dual channel noisegate;  
independent operation or for stereo. In-  
dividual control of Threshold, Hold and  
Release functions. Push button selec-  
tion for speedy set up. No. of channels :  
1; Balanced In : No; Balanced Out : No;  
Size in R/U 1/2; Connectors : 1/4" phone  
jacks. : \$499.00 inc. tax.

1531. Operate as 2/3-Octave two chan-  
nel 15 band or 1/3-Octave mono 31  
band graphic. Selectable +/-150dB or +/-  
-7.5dB range. Selectable high-pass fil-  
tering. No. of channels : 2; Balanced in :  
Yes; Balanced Out : Yes; Size in R/U :  
Single; Connectors : XLR (Balanced) &  
1/4" phone jacks (Unbalanced).  
\$9969.00 inc. tax.

274. Quad expander/gate. Each channel  
individually switchable for gating or ex-  
panding. Stereo couple switches and in-  
serts. No. of channels : 4; Balanced in :  
Yes; Balanced Out : No; Size in R/U :  
Single; : \$899.00 inc. tax.

3031C. Single channel professional  
graphic equaliser. 31 Bands, cut only  
equalisation. No. of channels : 1; Bal-  
anced In : Yes; Balanced out : Yes; Size  
in R/U : 2; Connectors : XLR & 1/4" jack  
tip-ring-sleeve. : \$1499.00 inc. tax.  
dbx Offers a range of compressors,  
gates, limiters, enhancers and mic pro-  
cessors. Suitable for the studio and live.

**ESA AUDIO Phone (03) 562.4605 Con-**

**tact J. Monty**  
IRP PROFESSIONAL  
VOICEMATIC DE-4080. Automatic mixer  
with automatic level controls, 3-band

## BUYERS GUIDE

EQ on each Mic/Line input and complete remote control. No. of Channels : 8; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : Removable screw-clamp Terminal Block connectors. \$4279.00 ex tax.

VOICEMATIC DE-4040. Automatic mixer with automatic level controls, 3-band EQ on each Mic/Line input and complete remote control. No. of Channels : 4; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : Removable screw-clamp terminal block connectors. : \$3279.00 ex tax.

VOICEMATIC DE-4024E. Automatic mixer with remote controls for input channel sensitivity, Aux input level, master output level and auto/STD mixer mode operation. No. of channels : 4; Balanced in : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : Removable screw-clamp terminal block connector. \$2564.00 extax.

APOGEE SOUND CRQ-12. Parametric Equalizer. "Multi-Mode" Parametric Equalizer with 3 distinct configurations, 6 bands per channel, 2 outputs per channel. No. of channels : 2; Balanced in : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : 3-Pin XLR. \$5222.00 ex tax.

### SYNCROTECH Phone : (02) 417 5088 Contact Paul Heaton

GML 8200. Dual channel, 5 band Parametric. No. of Channels : 2 Stereo; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : XLR; : \$7741.00 ex tax.

8900. Dynamic range controller. No. of channels : 2 St.; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : XLR; : \$10,058.00 ex tax.

CALREC R2D 6400. Twin Stereo Unit (2 x Stereo Pairs). No. of Channels : 4 Stereo; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR; : \$4179.00 ex tax.

RQP3200. Pre-Amp as well. No. of Channels : 2 St.; Balanced in : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR; \$4179.00 ex tax.

AMS NEVE V-RACK. Rack ready to accept up to 10 modules. Fitted with 1 x EQ and 1 dynamics module. PSU included. No. of channels : 2-10 stereo. Balanced In : Yes; Balanced Out : Yes; Size in R/U : 5; Connectors : XLR; : \$9101.00 ex tax.

33609. Stereo comp/limiter with PPM gain reduction metering. No. of channels : 2 stereo; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : XLR; : \$5631.00 ex tax.

RMX-16. Stereo Digital Reverb. No. of channels : 2 stereo. Balanced in : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : XLR; : \$10,856.00 ex tax.

### JANDS ELECTRONICS PTY LTD Phone : (02) 516 3622 Contact Peter Twartz

JBL M552. 2-Way Stereo, 3-way Mono (3-way Stereo, 4-way Mono) with variable crossover points, JBL horn EQ & Mono LF output. No. of Channels : 2; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR; : \$1095.00 inc. tax.

M644. Compressor/Limiter with Adjust-

able Attack, Release & Threshold. No. of Channels : 4; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : 6.5mm Jack; : \$1095.00 inc. tax.

M712. Compressor/Limiter with Adjustable Threshold, Attenuation, Attack & Release with independent Gate Threshold. No. of Channels : 2; Balanced In : Yes; Balanced out : Yes; Size in R/U : 1; Connectors : XLR; : \$1095.00 inc. tax.

5547A. 1/3 Oct. Graphic with variable Input & Output Levels & variable High & Low Cut Filters. No. of Channels : 1; Balanced in : Yes; Balanced Out : Yes; Size in R/U : 2; Connectors : XLR, 6.5mm Jack & Barrier Strip. : \$2895.00 inc. tax.

UREI LA-12. Compressor/Limiter with Smart Slope Soft Knee Compression, Peak and/or Average Gain Reduction, Auto Mode. No. of Channels : 2; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR, 6.5mm Jack & Barrier Strip. : \$2245.00 inc. tax.

LA-22. Similar to LA-12 but with addition of side-chain EQ and downward expansion. No. of Channels : 2; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR & Barrier Strip. : \$2545.00 inc. tax.

PLATFORM ANALOG. Rack Module System, Comp/Limiter module, Gate Module, Parametric EQ Module. No. of Channels : 12; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 3; Connectors : XLR; : Approx. \$900 per module inc. tax.

PLATFORM DIGITAL. Rack Module System, Crossover, Digital Delay, Graphic, Parametric EQ Functions. No. of Channels : 24; Balanced in : Yes; Balanced out : Yes; Size in R/U : 3; Connectors : Euro; : Approx. \$1500 per module inc. tax.

RANE ME30. 1/3 Oct. Graphic, Variable High and Low Cut Filters, Constant Q design. No. of Channels : 1; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : 6.5mm Jack. : \$1295.00 inc. tax.

ME60. 1/3 Oct. Graphic, Variable High and Low Cut Filters, Constant Q design. No. of Channels : 2; Balanced In : Yes; Balanced Out : Yes. Size in R/U : 2; Connectors : XLR, 6.5mm Jack. : \$2095.00 inc. tax.

AC22. Stereo 2-Way, Mono 3-way (Stereo 3-way, Mono 4/5-way) variable Crossover Points. No. of channels : 2; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR or 6.5mm Jack. : \$1295.00 inc. tax.

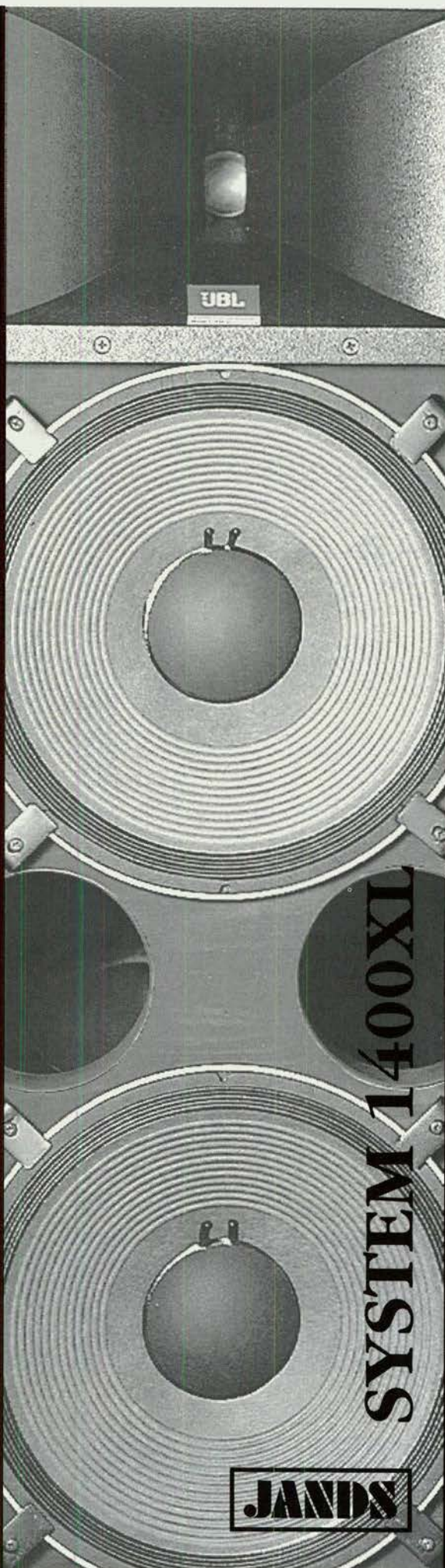
DC 24. Separate Threshold for Compressor, Limiter & Gate. Crossover function with variable frequency. No. of Channels : 2; Balanced In : Yes; Balanced Out : Yes; Size in R/U : 1; Connectors : XLR; : \$1895.00 inc. tax.

DISCO WORLD Phone : (03) 735 0588 Contact Archie Kamakaris

GEMINI EQX-30. 2 Ch. EQ - 15 2/3 Octave Bands each. Each Channel +/- 12dB of Boost/Cut - Centre Detented Potentiometers - LED Level Indicators - Low Cut & By Pass Switching. Gain Control to compensate for the EQ.

<All prices as supplied @ 15 Mar. '95>

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SYSTEM 1400XL

JANDS

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# BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
<b>New South Wales</b>			
<b># Sharp Studio</b> Jeff Cripps (02) 534 4440 24 Track 1*			
Astral Taxi	Jeff Cripps	Jeff Cripps	CD
Karma Zoo	Jeff Cripps	Jeff Cripps	CD
Steve McNaughton	Jeff Cripps	Jeff Cripps	Demo
<b>Airmotion Studios</b> Kristen Wolek (02) 5506576 24 Track			
Mike Harvey	Tony Cohen	Tony Cohen	Record Tracks
Blair Greenburg	Blair Greenburg	Bruce Blackwell	Vocal Overdubs
RTA	Peter Glashoff	Jason Blackwell	Rec VO's
<b>Albert Studios</b> Leesa (02) 953 2544 48 Trk Digital & Fairlight			
Doug Ashdown	Doug Ashdown	Bruce Brown	New Album
Film - "Babe"	Kennedy Miller Pictures	Anthony Gray	Dialogue & SFX Editing
John Paul Young		Bart Elsmore	Demos
Desert Mouth	Bart Elsmore	Bart Elsmore	Pre-Production
<b>Blackfeather Music Studios</b> John Robinson (02) 909 2707 8 Tk Non Linear Digital Hard Disk/Multi Tk			
Analogue			
John Robinson	John/Karl Seglins	John	CD 'Amelia'
Tim Buc 2	Tim Bossheter/John	John	Demos
Karen Taylor	Karen/John R.	John Robinson	Demos
Peter Sait	Peter/John R.	John Robinson	Demos
<b>Bush Tracks Recording Studio</b> Ruth Miller (066) 89 1290 24 Track Rec. & Multi Media Studio			
Greg Gardner	G. Gardner/D. Highet	Dave Highet	Album
Hi Home I'm Honey	Band/D. Highet	Dave Highet	Mini Album
The Bourkenbacks	Band/D. Highet	Dave Highet	Album
Crabapple	Band/D. Highet	Dave Highet	Album Track
Gaia Films	J. Kendell/P. Tait	Dave Highet	Soundtrack material
Manju Winkler	Dave Highet	Dave Highet	Demo
<b>Charing Cross Studio</b> David Sykes (02)387 8362 - 24 Trk Neve			
Electric Hippies	Steve Balbi/Justin Stanley	Keith Cooper	Album Tracking
Mental as Anything	Martin White	Aaron Pratley	Album Tracking
Peyote	Paul Mc Kercher	David Trump	EP Mixing
Tumbleweed	Paul Mc Kercher	Aaron Pratley	EP Mixing
Sugarbone	Justin Stanley	Keith Cooper	EP Tracking
Dog Trumpet	Martin White	Aaron Pratley	EP Mixing
<b>Cloud Studios</b> Parris Macleod (043) 532 429 48 Trk Analogue/Digital Mastering Suite			
Amsterjam	Band/Parris M.	Parris M./K. Lemke	Album
Looking Glass	Band/Parris M.	Parris M./K. Lemke	CD EP
The Stul	Parris M./Band	Parris M./K. Lemke	CD Demo
Az Kirwin	Parris Macleod	Parris Macleod	Pre Pro.
Icarus Eye	Band	Parris M./K. Lemke	Demo
<b>Crystal Clear Recordings</b> (02) 975 3769 David Tozer 24 Tk Digital ADAT System & BRC			
Southend	Band/D. Tozer	David Tozer	Single Tracking
Danger in Lost	Band/D. Tozer	David Tozer	EP
Bruce Mathiske	Bruce Mathiske/D. Tozer	D. Tozer	Album Mixing
Jeremy Smith	Jeremy/D. Tozer	David Tozer	Demos
Brian Benson	Brian/D. Tozer	David Tozer	Album Tracking
Ben Woodman	Ben/D. Tozer	David Tozer	Demo
<b>Damien Gerard Studios</b> Contact Marshall (02) 660-8776 2 x 16/32 Track			
Cyndi Ryan	Cyndi	Russell Pilling	Album
New Christs	Rob Younger	Russel Pilling	Album
Caravan	Tim Powles	Tim & Dave Trump	EP
Medicine Show	Dave Slade	Carter	EP
Pete Wells	Pete Wells	Marshall Cullen	Single
<b>Eclipse Music Studios</b> Elise Huntley/Jodie Sharp 24 Tk. Analog/32 Tk Digital SSL 4000E Series			
Silverchair	Kevin 'Caveman' Shirley	K. 'C' Shirley	Album
Margaret Urlich		Kevin 'C' Shirley	Mixing Tracks
Blitz Babies		Rick Will	Mixing Tracks
Yothu Yindi		Kevin 'C' Shirley	Mixing Tracks
Bellydance		Martin White	Mixing Tracks
Big Bang Theory		Glenn Ferguson	Tracking & Mixing



# BASF

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# EX-TRACK

• **CRYSTAL CLEAR RECORDINGS** this week saw the album release from thrash metal band **EEZEE** released through **Warhead Records** branded by a **Recommended by Hot Metal Magazine** sticker and a rave review, engineered and mixed by Dave Tozer. CCR also scored Hot Metal **Demo of the Month** for the **Apache Reign EP**, eng/produced by Dave. CCR now do colour artwork and design recently installing a Pentium computer, colour printer flatbed scanner etc.. Good for cost effective inde release cassette or CD covers. Ring Dave on 02 975 3769.

• **DAMIEN GERARD SOUND STUDIOS** has seen **Pete Wells** putting down a single with **Marshall Cullen** on the console. **Tim Powles** producing **Caravan's** debut release. The pre-production room has been busy with **The Jackson Code** prepping for their next album to be recorded in **Trafalgar Studios** and Melbourne's **Suicity** and Sydney's **Anti Anti** both in pre-pro mode with the **Caveman**. New assistant **Phil Drew** has worked on sessions with **Big Electric Cat** and **The Panadols**. And **Russell Pilling** has been doing some interesting overdubs with **The New Christs** using **Sitars, Tablas** etc. Other happenings at DG's include re-configured Apogee units with the power supply shifted as far from the AD500 as poss. decreasing the chance of nasty noises even further. AND last but not least DG's now has carpet in the foyer. Good one guys, lets see how it copes with the next launch or party. Call (02) 692 9915.

• **ECLIPSE MUSIC STUDIOS** staff aren't complaining... yet, but

they're not getting much sleep because they're booked around the clock! (that's rock around the clock guys). Studio A has been in major mixdown mode with **Margaret Urlich, Silverchair...** not to mention BMG's **AC/DC** compilation featuring **Yothu Yindi, Blitz Babies, Anti Anti** and many more. The technical staff have also been busy re-wiring Studio B to accommodate sound to picture clients.

• **HULLBALOO MUSIC** have sold their premises and are moving to Chandos St. St. Leonard's official as of Monday 20th March. **Glen Heaton** and **Geoff McHarvey** compose record and sync music. Currently working on **World Video Atlas**, a 52 episodium for ABC TV and pre-recording a live **Australia's Wonderland** show with **Keith Scott** doing his inimitable character voices. Geoff said he was looking forward to building Ho! Ho!... but it isn't Xmas? Call (02) 684 2039.

• **MAESTRO MUSIC** in Darwin is currently working on demos for voice-overs and jingles in a quest to capture the Northern Territory corporate and media market... good luck. Call Lindsay Masters on (089) 321 754.

• **MIRAGE STUDIO** has added a **Yamaha Pro-Mix 1** for effects returns to their Neve VR console totalling 52 flying fader channels. **Mike Harvey** and **Jay Stewart** have been producing with **Dave Cafe** engineering **Julie Anthony Live** at Sydney Town Hall-The Fazioli Concert Grand mix. DC also pulled a session with American Jazz trombonist and composer **J.J. Johnson** with **Brian De Palmer** producing. DC also mixing Rap & Dance singles for **Leosong** with

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**Jay Stewart and Phil Mortlock** producing. Rumour (spread by Gerry no doubt) DC seen dining and drinking Perrier at the Greeks... must be on a health kick! Ooo. Call (02) 211 3915.

• **POONS HEAD STUDIO** have installed Duntech Regent Mastering Monitors as well as a Hammond L6 and Leslie 145 for studio recording. Call Rob Grant on (09) 339 4791.

• **TK ENTERTAINMENT...** Returning from a well earned north Queensland holiday last year, **Doug Roberts** has been eng/co-producing **The Badloves** new album, a single for **Mother Hubbard** and producing debut EP for **Manic Suede**. Doug has also mixed a re-release for **Jimoen**. Congratulations to Doug and Christina on the birth of their second child Matt. **Doug Brady** has recorded the just released **Terra Firma** album from **Phil and Tommy Emmanuel**, completed mixing **The Lovers** debut album and **Diesel - Live in**

**Concert. David Price** has recently completed eng/production for **Coughing Up A Storm** for **Frenzel Rhomb** and continues to work on the **Parkside Killers** project. For Management bookings call Tom Kehoe on (03) 879 9400.

• **TROY HORSE THE HORSE IS BOLTING!** relocates *some* of its operations to up market down town Alexandria. New *chunkblowin'* premises will include Record label offices, cassette duplication, Loopy Green digital mastering suite and a new 24 track studio which will feature 3 live rooms and a HUGE range of gear and facility... true Trojan Horse style. Existing premise rehearsal and printing will remain in Newtown. Call (02) 557 3129.

• **UNDER NEW MANAGEMENT.....** **Jeremy Allom** has been producing **DIGs** Direction in Grooves new album at **Megaphon**. **Brent Clark** has been eng/producing **Radio Zero** around town and also mixing **Ghostwriters** at

**Trackdown.** **Iva Davies** is composing music for **Berlin** for the Sydney Dance Company. **Greg Henderson** is busy engineering the **Exploding Daisies** at **Pathways**, demos for **Dogzuki** and **David Lane** at **Rhondor**, mixing tracks for **King Clam** at **Charing Cross** and **Adam Reilly** at **301**. **Brenden Bam Bam Morley** is heading back into the studio with **Diesel**. **Mark Moffet** has been doing some tracks for **Audio Murphy Inc.** producing and composing the soundtrack for the feature **Back of Beyond** in **The Vault**. **Craig Portel** is cutting tracks for **Terence Trent D'Arby** at **TTD's** home studio in the States, and on home soil has produced a single for Sydney band **Mother Hubbard** at **Festival**. Currently eng/co-producing **The Jackson Codes** at **Electric Avenue** and **Charing Cross**. **AND** the **Caveman** is so busy there isn't enough room. •••

# BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
<b>Enrec Studio</b> Steve Newton	049 34 7844. 4,8,16,32 Tk.		
Abusement Park	Band	Steve Newton/Peter Smiter	Rock Album
Roger Knox	SBS Studio	Steve, Ken, Rob	Koori Music Album
Jeff Hawthorn		Steve Newton	Demo
John Williamson	Electric Ave.	Steve Newton/Rob Gist	Movie S/Track
<b>Enterprise</b> Graeme Storer	(02) 564 3225. 8 Tk. Midi Suite		
Corporate	G. Storer	G. Storer	Training Tape Audio
Jingle	G. Storer et al		Advertising
Schools			Computer Consulting
Rural Chemical Ind.	G. Storer/B. Ruth	G. Storer	Product transcriptions
Enterprise Songwriters Group		Various	Songwriting/Publishing
<b>Festival Studio</b> Anne Bellairs	(02) 660 3927 24 Analog, 32 Trk. Dig. Neve		
Quinn Gardner Kane	Rick Will	Rick/Mark.T.	AC/DC Tribute Track
Blitz Babies	Rick Will	Rich/Mark.T.	AC/DC Tribute Track
Anti Anti	Kevin Shirley	Kevin/Mark.T.	AC/DC Tribute Track
Mal Eastick	Mal Eastick	Mark Thomas	Remix
Louie Shelton	Louie Shelton	Mark Thomas	Album O/D
<b>4BV Studio</b> Clare Britton	(02)211 6663 48 Track, 24 Digital/24 A'log "Fabulous Vibe"		
Def FX	R.Adams/S.Lowry	R.Adams/R.Taylor	Re-mixes - Singles
Face Plant	Grant Walmsley	Dave Henderson	Mix - EP
The Bright Side	Jamie Carter	J.Carter/D.Lumsdaine	Mix - Single
Darryl Mather	Darryl Mather	Rob Taylor	Recording - Album
Caligula	Rob Taylor	Rob Taylor	Demos
Regurgitator	Dave Henderson	D.Henderson/Rob Hunt	Demos
<b>Hullabaloo</b> Glenn Heaton	32 684 2039 24 Track, Pro-Tools	Editing	
Heaton/McGarvey	Heaton/McGarvey	Heaton/McGarvey	TV Series/Music
Heaton/McGarvey	Heaton/McGarvey/Disney	Heaton/McGarvey	Disney Fashion Launch
*Heaton/McGarvey/Langford	Heaton/McGarvey	Heaton/McGarvey	Australia Day Awards Music
Strum Jungle	Heaton/McGarvey	Glenn Langford	Demos
Gary Boulter	Gary Boulter	Daniel Bowers	Demos
<b>JMF Studio</b> Fran Esther	(C2) 790 4097 24 Track		
Sanctus	Band	Ralph Esther	Demo
Tony Martin	Tony Martin	Ralph Esther	CD Album
Grace Tabernacle Christian Group	Camillo	Ralph Esther	CD
Fields	Fields	Willie Sweet	CD Album
<b>Main Street Studio</b> Rob Specogna	042 834 515 16 Track		
Lira	Lira	M.Nicholas	Demo
Shot to Pieces	Band/R.Specogna	Rob Specogna	CD Singles
It's Country Today	R.Specogna	Rob Specogna	Voice Overs
Dane Ward	Band/R.Specogna	Rob Specogna	CD EP
Tim Col	Tim Col	Jeremy Thomas	Demos
Robertson Bros	G.Robertson	Rob Specogna	Demos
<b>Megaphon Studios</b> Kristina Wolek	(02) 516 3917 24 Track		
Orangehorse	Chad Wackerman	Michael Letho	Mix Album
Tumbleweed	Paul Mc Kercher	Paul Mc Kercher	Rec/Mix Tracks
Crow	Paul Mc Kercher	Paul Mc Kercher	Rec/Mix Track
<b>Mirage Studios</b> G. Nixon	(02) 211 3915 16 Track Digital, 48 Tk. Digital 24 Track Analogue		
Pelican Jed	Jason de Wilde	Jason de Wilde	EP
Gabriel & Raf Chapman	The Chapmans	Jason de Wilde	Demo
Jay Stewart	Phil Mortlock	Dee Cee	Single
Hungarian Rap Sadists	Jackie 'O'	Dee Cee	Live Album
J.J. Johnson	Brian de Palmer	Bones Hawe	Film Score
Ray Barretto	Claudia Young	Dee Cee	Album
<b>Paradise Studios</b> Bill Field	(02) 357 1599 48 Track A'log, Custom Mixer,		
Simon Holmes	Simon	Tom Blaxland	Tracking
Lee Kernighan/Marc Hunter	Garth Porter	Ted Howard	Tracking
Chris Phantom		Glen Phimister	Tracking
Oliver	Wayne Connolly	Wayne Connolly	Tracking
Downtime		Lien Chew	Tracking
Knievel	Wayne Connolly	Wayne Connolly	Album
<b>Rathouse Studios</b> Mark Macedone	(069) 622307, 018 270 731 16 Track		
Labotomy	Band	Mark Macedone	Demo
<b>R. &amp; R. Recording</b> Robert Zimola	(02) 624 4484 16 Track '1'		
CJM	CJM	Robert Zimola	Album
Nu-Skin	Robert Zimola	R.Zimola	Corporate
Street Theatre		Robert Zimola	Demos
Eye Cue Communications	Peter Saunders	Robert Zimola	Corporate A.V.
<b>Rocking Horse Studios</b> A'an DeVendra	(066) 884 131 24 & 48 Track Analogue Studio		
Yothu Yindi	Kevin Shirley	K.Williams	Album Track
Juice	Colin Simpkins	Colin Simpkins	Album
Fur	Kevin Shirley	Keith Williams	Single
<b>Sound Level Pty Ltd.</b> Joe Breen	(02) 552 3200 32 Channel - Live to DAT, Multi Track available.		
Crush	Fulvio Colaiacolo	Fulvio Colaiacolo	Demo
Blue Max	Paul Gannell	Paul Gannell	Demo
True Foundation	Phil Lake	Phil Lake	Demo
Jo Campbell	Paul Gannell	Paul Gannell	Demo
The Deep End	Sean McGuire	Joe Breen	Demo
Mungoop	Simon Mills	John Soane	Demo
<b>Soundwarp</b> Meredith Brooks	(02) 905 7144 Mastering/Post Prodn.		
Daniel O'Donnell		Meredith Brooks	CD/Cassette Master
Circus Baroque	Rasty/Sawung	Meredith Brooks	CD Mastering
Ian Stephen	Ian Stephen	Meredith Brooks	CD Mastering
<b>Studio Arts Productions</b>	(042) 849128 Ed Lee. Independent Recording Studio		
Gulliver	Ed Lee/Band	Ed Lee	Demo
Gigliota Miccolli	Ed Lee	Ed Lee	Japan Tour Demo
Kindred	Band	Ed Lee	U.S. Cass Album

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ARTIST	PRODUCER	ENGINEER	PROJECT
Spleen	Band	Ed Lee	Demo
Chuck Mansu	Ed & Chuck	Ed Lee	Double Album Set
Blink	Ed Lee	Ed Lee	Album Pre Prod.
<b>Trackdown</b> Geoff Watson	(02) 550 6890 24 Trk., 8-16 Tk. A-Dat, 8 Tk		
Ghostwriters	Rob Hirst	Brent Clark	Album
Heartbreak High	Todo Hunter	Kathy Naunton	Tracks for TV Series
Blinky Bill	Guy Gross	Tim Ryan	TV Series Soundtrack
<b>Tracking Station Studios</b> Contact Martin Cass	(02) 281 8899 24 Track A'log		
John Fields	John Fields	Massimo Setteni	Demos
Mulray Show Band	Terry Murry/Mark Marriott	Martin Cass	Music Grabs
Sila	Sila	Steve Pomfrett	Album Tracks
<b>Troy Horse Studio</b> Michael Lewis	(02) 557 3129 24 Track		
Midget	Band	Matt Maddock	Demos
Incentive Movers	Michael Levy	Ramesh	Telephone Game Soundtrack
Cannanes	Band	John Rafferty	Singles
Man Bites Dog	Fifi Le Bonk	Michael Lewis	Album
Peg	Band	John Rafferty	Single
Colin Wright's Luv Chunks	Colin "Climax" Wright	Chris "Satin Sheets" Stephens	Instruct.Love Guide
<b>Wirra Wills Studios</b> Contact Will Rout	(02)605 1203 24 Track/8 Track Hard Disk		
TAFE "Tele Learning"	David Williams	Ian Cooper	Corporate Video
Liverpool C.L.C.	Matt Waking	Ian Cooper	Music & Ads. on Hold. CD
Lisa Howard	Rick Knowles	Will Rout/Ian Cooper	CD Album Track
Tribal Records	Dion Wilton	Ian Cooper	Corporate Video
Suresh Choudhary	Suresh	Will Rout/Ian Cooper	CD Single
MYLK	Eddie Barrilla	Will Rout/Ian Cooper	CD Album
<b>Queensland</b>			
<b>Burbank Productions</b> John Ryan	(07) 245 4314 16 Track/Midi Suite		
Paisley Wenzday	Phil Jackwitz	John Ryan	Album
Ronny and the Ramblers	Carmel & Ron Green	John Ryan	Album
Geoff Barnes	Geoff Barnes	John Ryan	Demo
Dupe	Band	John Ryan	Demo
<b>Grevillea Recording Studios</b> Malcolm Jacobson	(07) 262 8422 24 Track		
Jacaranda Strings	Matthew Jones	Malcolm Jacobson	Demos
Surfernia	Surfernia	Malcolm Jacobson	Demos
Crazies	Paul Bowden	Malcolm Jacobson	CD Mastering
<b>Sunshine Studios</b> (07) 844 6844	Leon Prescott 36 Channel Neve 24 Trks		
Peel	Joe Maloney	Joe Maloney	Demos
Michael Meyers	Michael Meyers	Leon Prescott	Demos
Evermore	Mark McElligott	Mark McElligott	EP
<b>Taramalin Sound</b> Allan Lahey	(07) 208 9736		
Late May	Band	Allan Lahey	Demo CDR
Dianne Bevan	Rob Fisher	Allan Lahey	Demo CDR
Fruit	Band	Allan Lahey	Demo
Loose Ends		Allan Lahey	Country Demo
Catch 23	Band	Allan Lahey	Demo CDR
101FM Blues Box	Brett Parker	Allan/Simon	12 Bands/Album
<b>Vandersound Studios</b> Eric Vandersande	(075) 468100		
Bradley Steel	Eric Vandersande	Eric Vandersande	Demo
Scott Patterson	Eric Vandersande	Scott Patterson	CD Album
Soliloquy	Eric Vandersande	Eric Vandersande	CD Album
So What?	Eric Vandersande	Eric Vandersande	CD Album
Jake Gilroy	Eric Vandersande	Eric Vandersande	CD Album
<b>South Australia</b>			
<b>Disk-Edits</b> Neville Clark	(08) 340 1377 Digital Editing & Mastering Suite		
Anthony Marciano	A.Marciano		2 X Masters for CD Albums
Alex Fear	Aa. Fear	N.Clark/R.Eyers	Demo
John Atwell	J.Atwell	N.Clark	Mastering CD
Donald Alexander-Grieve		Kubitsky	Mastering CD
Various	Scala/Rob.Childs	Various/N.Clark	Mastering CD
Ricky J	Ricky J/Juice	N.Clark	Vocal O/Dubs/Show Tapes
<b>Mixmaster Productions</b> Mick Wordley	(018) 822 986 24 Track 2" Dolby		
Blue Experience	R.Giles/Band	Mick Wordley	Tracking
Violets	S.McQueen/M. Wordley	Mick Wordley	Single
Push Button Sun	M.Wordley/Band	M.Wordley/S.Fieldhouse	EP
Free Moving Curtis	Band/Wordley	M.Wordley	Mix Album
Nick Vall	N.Vall	M.Wordley	EP
Blue Harmony	J.Grace/M.Wordley	M.Wordley	Tracking
<b>Victoria</b>			
<b>Allen Eaton Studio</b> P.L. Robin Grey	(03) 534 0752		
Scott Tinkler Quartet	Scott	Robin Grey	Album
Paul Retke Quartet	P.Retke	Robin Grey	Album
<b>Bel Air Sound</b> Danny Olesh	(03) 563 7887 32 Track Analogue 8 Track Digital Hard Disk		
Lani Zateman	Simon Segal/Gerry Keyes	Simon Segal	Demos
Violet Hour	Simon Segal	Richard Smith	Demos
Lust Bucket	Band	Simon Segal	Demos
Brad Walker	Brad Walker	Daniel Olesh	Album
Lick	Lick	Simon Segal	Demos
Jabulani	D.Olesh	D.Olesh	Demos
<b>C'est Ca Audio-Visual Services</b> Moira McCourt	(03) 419 1506 Auto 24 Trk. - Digital Mastering		
Snapdragons	Siiri Metsar	Siiri Metsar	Album "Girl Zone Records"
Penelope Swales	Penelope Swales	Siiri Metsar	Album
Tim O'Conner	Tim O'Conner	Siiri Metsar	Album
Three	Three	Siiri Metsar	Album
St.Francis Massacre	Band	Siiri Metsar	EP
Girl Zone 2	G.Zone Records	Siiri Metsar	Womans Comp. Album



# BASF

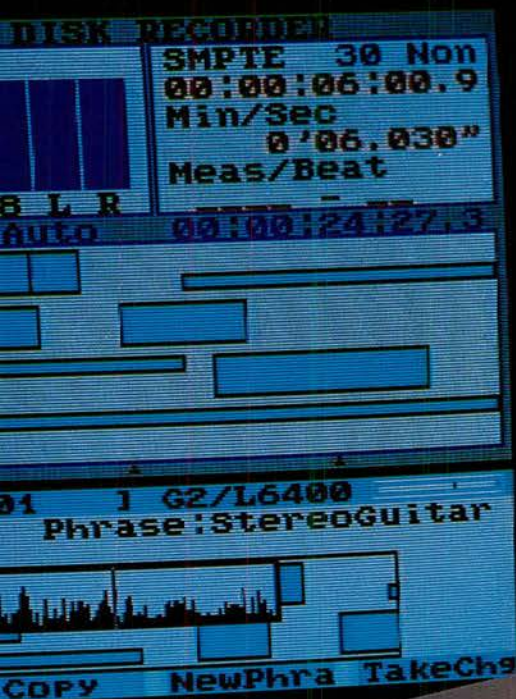
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ARTIST	PRODUCER	ENGINEER	PROJECT
<b>Exodus Music</b> Greg Evans	050 238 388 Midi, Adat & Pro-Tools		
Peta Lowe-Evans	Peta	Greg Evans	Album
Geoff Evans	P.Lowe-Evans	Greg Evans	Album
Mike Hancock	P.Lowe-Evans	Greg Evans	Album
Tony Smith	Greg Evans	Greg Evans	Demo's
Various	Kenneth Fox	Greg Evans	Album
<b>Gotham Audio</b> Tom Kehoe	(03) 879 9400 48 Track Dig./SSL Console		
The Lovers	Jeremy Alsop	Doug Brady	Mixing
Mother Hubbard	Doug Roberts	Doug Roberts	Single Record & Mix
Merril Bainbridge	George Ooi	Tony Espie	Mixing
<b>Hot House Audio</b> Contact Cryss	(03) 525 3703 24 Track		
Natalie Gillespie	Craig Hamath	Craig/Dorian West	Album
Silver Dollar Nipples	Cryss	Craig Hamath/Band	EP
O.O.K.	Paul Annison	Jed Starr	Demos
Frog	Craig Hamath	Suzie Dickinson	Demo
D-Generation	Ross Cockle	Craig Hamath	TV Theme
<b>Newmarket Studio</b> Contact David Bates	(03) 372 2722 24 Track 2 Studios		
Emma Franz	Emma Franz	Chris Corr	Jazz Album
Geoff O'Connell	Geoff O'Connell	Chris Corr	Stage Musical Demos
Lydia Robertson-Smith	Lydia	Chris Corr	Talking Book with music
Stephen Dinh	Stephen Dinh	Chris Corr	Mixing of Album (Vietnamese)
Albert Lee & Meg	Andrew Patterson	Chris Corr	Vocal & Guitar Trks for Album
Dixie Jive (Japan)	Mr.Arita/Roger Bielby	Daniel Desiere	Dixie Jazz Album
<b>001 Recording Studios</b> Contact George Siew Ooi	(03) 348 1300 24 Track Audio/Midi Suite, 2 H/DRecorders		
CDB	Vince & Anthony	Brian Marsh	Album
Tlot Tlot	O.Bowwell	Martin Robinson	Album
Micka Dred	A. Maiden	Micka Clayton	Demos
<b>Pink Noise Studios</b> Rodney Beuthin	(03) 349 1043 Digital Mastering/Editing & Post Prodn.		
Jimeoin	Artist Services	Michael Kennedy	Broadcast
National Business Summit	Jane Land	Steve Connellan	Broadcast
Kadoonka	Byron Scullin	Byron Scullin	Demos
Blue Heelers	HSV7	Rodney Beuthin	Broadcast
Autopsy Bandwagon	Katherine Armstrong	Byron Scullin	Live Sound
Martin Paton	Martin Paton	Rodney Beuthin	Digital Edit
<b>Platinum Studios</b> Jim Mountford	(03) 827 7483 48 Trk. SSL/24 Trk		
Manic Suede	Doug Roberts	Tim Johnston	EP Mix
The Big Easy	Chris Corr/Band	Chris Corr	EP Mix
Rebecca's Empire		Laurence Maddy	Remix
Dead Star	Barry Palmer	Kalju Tonuma/Phil Jones	Album
<b>St. Andrews Recording Studio</b> Mark McCormack	(03) 583 2341 or Paul 018 102519 24 Track		
Mad Dog	Band	Paul Sherritt	Demos
Rotten Dr. Johnny	M.McCormack	Mark McCormack	CD EP
The Haite	Band	Mark McCormack	CD EP
Rock & Roll High School	Greg Long	Greg Long	Mixing Comp.No.2
<b>Studio 52</b> Paul Higgins	(03) 417 7707, 32 Tracks & Studio 2 ADAT 8 Track		
Damian Manassa	Trevor Carter	Trevor Carter	Album
Equinox	Trevor Carter	Trevor Carter	Nu-Music Series 10
Camomille	Trevor Carter	Trevor Carter	Nu-Music Series 10
Anything for Lucy	Band	Andrew Wright	Demos
Terrormaze	Band	Andrew Wright	Demos
Inner City Cave Dweller	Steve Cooper	Phil Noble	Demo
<b>Supersonic Studios</b> Dave Hannan	015 352 348 Mobile Digital Multitrack		
Martin Holmes	Dave Hannan	David Hannan	Album
Midnight Special	Dave Hannan	Dave Hannan	Album
Gordon Clarke	Dave/Gordon	Dave Hannan	Album
Leigh Underhill	Dave/Leigh	Dave Hannan	Album
Meg Kirby	Dave/Meg	Dave Hannan	Album
Lola's Lost Weekend	Sonja Horbett	Dave Hannan	Demos
<b>Wombat Road Studio</b> (051) 454204	Barry Clissold 24 Trk. Plus full Midi Facilities		
Candy Apple Green	Band	B.Clissold	Album
George Rawlings	B.Clissold	B.Clissold	Album
A Tractor Prod.	B.Baker	B.Baker	Jingles
Woodhouse Family	R.Woodhouse	B.Clissold	Demo Tracks
<b>Northern Territory</b>			
<b>Kakadu Studios</b> Ken Hutton	089 411344 24 Track, Mobile, Digital Mastering		
Paul Francis	K.Hutton	K.Hutton	Album
Alex Taare	K.Hutton	K.Hutton	Original Album
Harry Melios	K.Hutton	K.Hutton	Original Album
Arnhemland Bands	K.Hutton	K.Hutton	Demo
<b>Maestro Music</b> Lindsay Masters	089 321 754 8 Track		
Jenny Taylor	L.Masters	L.Masters	4 Track Demo
Soul Agents	L.Masters	L.Masters	C.D.
<b>Western Australia</b>			
<b>Bonsai Recording Studio</b> Tom Thorpe	(09) 349 6029 24 Track		
Music Design Systems	Tom Thorpe	Tom Thorpe	Jingles
Andrew Breen	Tom Thorpe	Tom Thorpe	Demos
PM FM Morning Crew	Tom Thorpe	Tom Thorpe	Jingles
Criminal Force	Tom Thorpe	Tom Thorpe	Demos
Micro Plus	Tom Thorpe	Tom Thorpe	AV Presentation
True Learning Centre	Tom Thorpe	Tom Thorpe	Lecture Tapes
<b>Planet Sound Studios</b> Contact John Villani & Denise Preston	(09) 382 2211 48-32-24, 2 Rooms - Both SSL		
Dave Hole	Jim Gaines	John Villani/Les Williams	Album Mix
Craig Hardie	Craig Hardie	Les Williams	Album Tracking
Wormfarm	Les Williams	Les Williams	Mastering
Allegiance	John Villani	John Villani	Album Tracking
<b>Poons Head</b> (09) 339 4791	Rob Grant 32 Track		
Spank	Rob Grant/Band	Rob Grant	Album
<b>Wizend Recording Studio</b> (09) 331 1818	Alan Dawson 16 Track		
Stephen Charles	Stephen Charles/Alan Dawson	Alan Dawson	Album
Purgatory	Purgatory	Alan Dawson	Demo
Neon Ceiling	Alan Dawson	Alan Dawson	Album
Franc	A.Dawson/Franc	Alan Dawson	Album

GET LISTED: Either (a) Call Elaine, (02) 876-3530, OR FAX your stuff to (02) 876-5715

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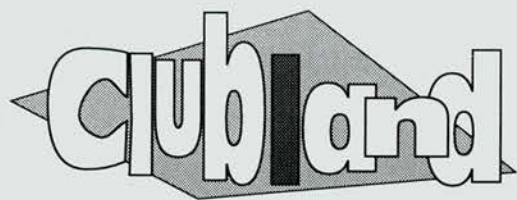
Roland – PO Box 18 Dee Why NSW 2099 Ph: 02-982-8266 Fax: 02-981-1875

**See It and Believe It at AES '95 Stand 21A**

Write in Reader Service number: 115

# Night Club and DJ News

with Natalie Apostolou



## Rumours, WA

Over the last decade, Western Australia has enjoyed the consistent entertainment value provided by Rumours, the No.1 club venue for all round R and R. Originally established as a sports oriented club, this jock spot is a proud sponsor of all major sporting clubs including the West Coast Eagles, WA football league, Perth Heat, Western Australia cricket association as well as other notable sporting organisations.

Hence, the extensive renovations recently completed are still riddled with sporting memorabilia of all kinds that blend perfectly with the new decor. Polished timber floor boards, stylish wooden finishings, exposed windows and a new colour scheme offset the new design scheme, which was created by Graham Taylor of Loxam developments.

The stylishly casual atmosphere means the venue is adaptable to all modes of partying and functions. Private functions being extremely popular with every occasion ranging from theme nights, birthdays, sporting and a myriad of social events all catered to. Patrons have four bars to choose from and the expertise of functions co-ordinator Alesha Anstey.

Rumours is also an established live venue show casing a host of

local and international acts through the years including, Bob Geldof, The Black Sorrows, Boom Crash Opera and Things of Stone and Wood. Every Friday, The Dizzy Prophets play covers of the likes of Pearl Jam, Silver Chair and Sound Garden. Celebrity guests have been a staple to their club scene as well as regular fashion extravaganza's and launch nights.

The club is open every Friday and Saturday evening with doors open at 8.00pm. Friday nights gets the weekend festivities happening with the 'Sundance Club', featuring \$2 drink specials, delicious food and a \$50 drink voucher for punters bringing 5 or more friends before 8.30PM.

The new lighting and sound system innovations means that music co-ordinators Scott Jones and Albert Dasabitino and lighting tech Andrew Collins are projecting the best sonic and visual sensations ever. Kathryn Sprigg, promotions manager, relays that with three times the power, from Sound Engineering and Stagecraft's best new intelligent lighting, "the creative trio are producing a pulse pumping atmosphere that lets the music take you higher on the extended dance floor that accommodates all club groovers!"

*\*Rumours is at 418 Murray street Westend. Call (09) 321-6887.*

## Reel to Real

Unless you were in a communications cone of silence over the past year or so, the insistent pumping beat of 'I like to move it', should be an easily retrievable sound file in your memory playlist. What may not be so accessible is details on the creators of the infectious world-wide dance hit. Enter American based Reel 2 Real, featuring the antics of the 'Mad Stuntman' and the creative mixing and producing genius of Erick Morillo.

Traditionally US rap has been a regular, if somewhat erratic contender in the European and Australian charts. Arrested Development, Run DMC, Public Enemy and even the Beastie Boys have sustained the genre in a commercial sense through the 90's, but the European market doesn't have the same self-sustaining core audience that the US enjoys. Yet with artists like Reel to Real, Chaka Demus and Ini Kamoze busting the charts internationally a market ripe for development has evolved.

Erik Morillo must be pleasingly overwhelmed by his crossover success that really can't be pinned down to anything other than talent and timing. Britain may well have welcomed Reel to Real's ragga vocal house style due to racial integrations sustaining cultural influences, Australians would perhaps have warmed to the commercial catchiness, while the Europeans just loved it.

Morillo has been DJ-ing since the tender age of 12, with influences coming from mentors L'il Louis, Louie Vega and Kenny Gonzalez. He describes himself as a post-disco producer, growing up listening to the results of early disco, 70's soul and 80's hip-hop rather than the original. Perhaps this has a lot to do with his age for at a mere 23, his direct influences don't span that far back. His youth may also contribute to a fanatical devotion to his generations created genre -house-, determined to remain within the territory of house music whilst pushing the boundaries to take on other influ-

ences.

The sum of his past gives a clear perspective of how the Reel to Real sound has come to be. While studying at New York's centre for media arts he accumulated as much equipment as possible in the hope of opening up a studio. With access to such technology in his hands, the path of a self-taught genius was set. This was his pre-house days so reggae, hip-hop and a heavy Latin influence where the definers of his early career.

Erik not only loves tinkering in the studio but also craves the live shows, which means the April tour should astound Australia's dance crowd. An artist driven by energy, which should reach manic levels on tour, he and his side-kick the Mad Stuntman from Trinidad will be exploring the possibilities and breaking the boundaries of house with reggae and calypso rhythms that should really move it!

### Club Dates

APRIL-5 Perth (venue TBA)  
7-Heaven, Adelaide  
8-The Metro, Melbourne (early under 18's)

The Metro (late)  
9-Heaven, Canberra  
12-Cafe Who, Hobart  
13-Bathurst Leagues Club  
14-Windsor Function Centre  
15-Deja Vu, Sydney  
16-Apiya Club, Sydney  
18-The Gig, Brisbane  
19-The Edge, Gold Coast  
20-Rock Cafe, Ipswich  
21-Caesers Palace, Darwin  
22-The Playpen, Cairns

## Techno for Metro

Get cosmic at the Metro with; Intergalactic a techno extravaganza featuring a live performance by The Grid (so known for Swamp Thing) and locals Vision 4/5 and Nadia with DJ's Sugar Ray and Pee Wee, with techy delights like a 5Watt argon laser by T.C.P and 20,000 watts of thumping sound. 9-2, 1st of April Metro on George street, Sydney.

SEND club news to  
fax (02) 876-5715



## Dance Capital Brisbane

An inspired group in Brisbane has seized on the telecommunicative topography we live in and channelled it into the development of music, of the techno kind. Transmission Communications, was formed in late 1992 as a record label for the express use of artists involved in music of an electronic nature and influence. The label is directly involved in the support and development of their independent releases and is capitalising on one of the most exciting and fastest growing areas of contemporary music.

Key representative Dennis Remmer, from Transcom, relates their major goal as attempting to establish Brisbane as the new centre for electronic music production and techno culture. He sees Transcom as a platform to expand upon the city's existing reputation for high quality artistic endeavours, and a tool to actively promote and launch new artists, styles and ideas. Although their sphere of operation is Brisbane centred, an active interaction and connectivity to the global Internet ensures that their activities extend interstate and internationally. As an independent label Transcom are allowed to indulge in extremes and take a punt on the unconventional (which is the cornerstone of progressive techno music), as they are unencumbered by the limitations beset by other dance labels that are merely an arm of a large multi-national.

An impressive aspect of this labels development is the emphasis placed on launching new releases in concordance with an 'event'. To date the label has co-ordinated and produced several releases and corresponding events; including *Evidence* and *Electronica*.

'Evidence', was Transcom's debut CD, and showcased the label's initial steps and intentions to much critical acclaim. Artists included in the compilation were chiefly from Brisbane but included contributions from Sydney, Melbourne and America. 'Electronica', was more performance based, being primarily an event, but incorporated an ep of experimental techno as a limited collectable. The artists involved in that par-

ticular event, including signed artists and a visual performance collective Nude Productions, have cultivated a tangible presence since that event, performing at dance parties, raves and tapping into a new sector of creativity in Brisbane music scene.

The next, and largest scale release will be *Cyberia*, and is defined as, "a descriptor for a technological/progressive electronic environment of clarity and minimalistic presentation. A concentration of sound, idea and intelligence, rather than distracting from the product with grunge-esque tactics." Transcom also boast that the unique and progressive compilation is equally comparable to product previously only available on import. And as Dennis reflects, "is a statement of our label/city's/artists ability to compete and even lead the way in the represented genre. It's a step further in our development of the Brisbane electronic music scene."

The launch event/presentation will be held over 2 nights (Cyberia 1 & 2) at Brisbane's **Institute of Modern Art**. The IMA being the perfect venue, having an established rep as a body that supports audio and visual contemporary performance. It promises to be a professional and progressive showcase and an insight into Australia's own innovative electronica.

Transmission Communications is bringing together the key players in the city's new electronic underground on the 7th and 8th of April which coincides with the IMA's 20th and Transcom's 1st anniversaries. The 7th will highlight the alternative synth-pop and industrial side of electronica (influences such as New Order, Depeche Mode, Nitzer Ebb etc who will be played) and feature Glitch, Blood Party and Pure Bunk (more TBA). The following night plays homage to techno, ambient, backbeat and the experimental sides of electronica (Orbital, Warp influenced) and features Now Zero, Pure, Stormboy and others.

For further info contact Transmission Communications- ph:07 8705710, net; <http://www.brisnet.org.au/transcom/com11.htm>

## UK Ravers Get Legal

The UK's rave drought is about to be quenched with the first legal outdoor dance party in over two years to be scheduled for May.

The organisers are certainly making up for time lost courtesy of the Criminal Justice Act's bureaucracy and general governmental bodies scare tactics. UK Tribal Gathering '95 will be jointly organised by promoter Universe and The Mean Fiddler. Munich was the setting for the last Tribal Gathering ('94), which attracted 25,000. An expected 20,000 is set for the UK, with momentum building due to the series of failed outdoor party projects last year. The backdrop for the event will be Oltmoor Park, Oxfordshire, and is licensed to run from 2pm to 7am.

Featured will be five dance areas, six marquees and live music will be provided by the likes of The Prodigy, Orbital, Moby, Chemical Brothers. As well as pleasing the hardcore technoheads there will be arenas devoted to jungle and house. The star-studded DJ line up includes Laurent Garnier, Carl Cox, Tin Tin, Norman Jay, Roger Sanchez and many more.

## PhD DJ's?

Groove spinning talent can come from the strangest of places. The latest notable novelty coming from England is the practice of plucking academics out of their mothball encrusted dens and setting their words of wisdom loose on the dance floor.

Director with the Institute of Psychological research, Celia Green, is making her vinyl debut with 'Emit 2295'. Her track, 'In the Extreme' was produced by Chris Allen and David Thompson who signed the controversial 60 year old to their recording label Time. The release, *Lucid Dreams*, features Green reading extracts from her watermark 1969 book, "Lucid Dreaming", which relays the experience of being aware while dreaming.

Elsewhere, Graham Wiggins a PhD physicist has packed in study to indulge in his band Mr Didg, signed to Hannibal Records.

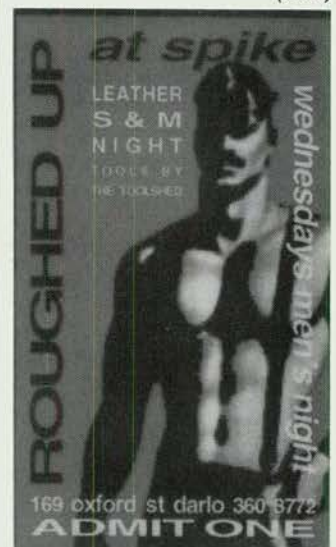
## SPIKE

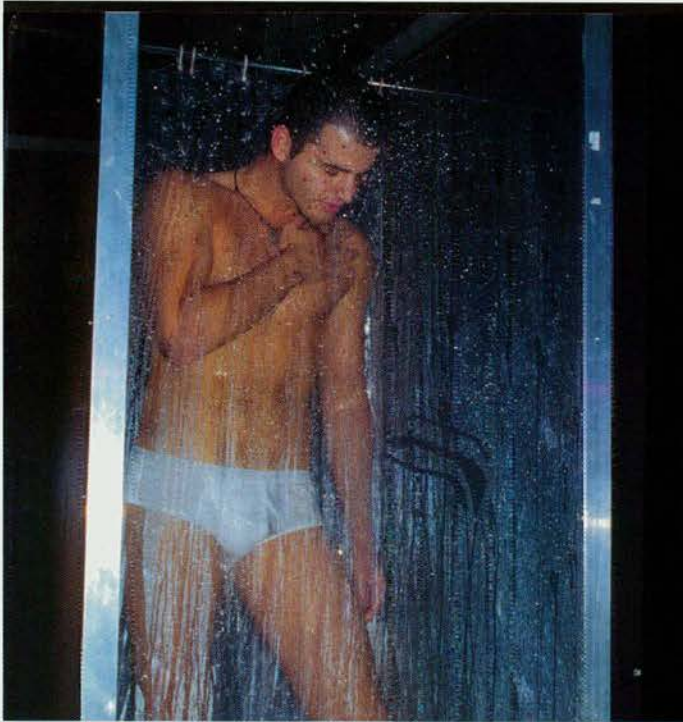
spike; *n* . a hard thin pointed object: a large nail: a sharp metal projection: a sharp-pointed metal rod set upright on a base on which to impale.; a very brief potentially damaging surge of power on an electronic circuit-*vt* . to fasten, set, pierce or damage: to make useless, to reject, inject, to form a spike or peak.

Its amazing how much a name can inspire ones more prurient fascination and imagination but in the case of SPIKE , fantasise and ye shall receive.

On the 15th of December, Sydney clubbers were graced with an innovative gay safe place, that literally renders Oxford street quaking in the wake of a huge night. Promotions whiz, ideas man and resident pretty boy Warren Duncan, tells me that everything had to be re-nailed, bolted down and reinforced, particularly the DJ booth which is now suspended from wall brackets to counter the overwhelming shaking and pumping that comes from being on the floor above Zoom and churning out an amazing amount of noise and body motion. The effects have taken their toll on the newsagent downstairs which has permanently warped concave windows and difficulty in getting the door open especially after a heavy night. But with refurbishment's out of the way, Spike has rapidly become the central pleasure dome for the gay scene, hosting wickedly adventur-

(over)





Shower dancer at SPIKE. Modestly covered for our pic, we are assured. Girls get down (left).

## SPIKE (cont)

ous theme nights, with amazing visuals (videos and slide shows) and great restaurant area.

For four months a phalanx of young bucks regularly champ at the bit to get past the discerning eye of doorman and erstwhile Forum celeb, Andrew. For those that pass the test, some unforgettable experiences are to be had. Past scintillations include the New Years eve-Wet Sex Party, which was the launch of the wet shower cubicle dancers concept. The Australia day party -Jailbait (a night in prison) with Sydney's finest DJ's, Robert Racic, Brent Nichols, Alex Taylor and on import from the UK- Dj Merran with Miss 3-D + boys performing a spectacular drag show. February 4th was TASTY, a must for aficionados of Melbourne's club scene as their most notorious promoters RAZOR hosted the night-DJ's were a who's who list; Lexi Bradfield, Gavin Campbell and the creme de la creme being London's Tasty Tim. Mardi Gras night at Spike was predictably massive with Cloee Dee performing live and DJ's Sweet Sherry, Neil Hume and more.

The weekly menu has something for every craving;

**Wednesday-** Roughed Up; a night of leather and S+M-90% men and 10% dyke. 2 for 1 drinks 11-12.

**Thursday-** I AM WHAT I AM-A bisexual night with house DJ Alex Taylor.

**Friday-** SPLASH- Live shower shows. Door \$5, members free.

**Saturday-** Spike's dance night with Lexi Bradfield, Milton + Simon Andrews. \$10 at door, members half price.

**Sundays-** DRAG BAR, the newest night for drag queens, with half price cocktails, 8 till 12.

### Equipment Listing

Fitted out by *Black Express Light & Sound*; (Call 02 559-4363)

- 12 X Mini star P.S.L lamps
- 6x Clay Paky Mini Scan 300
- 8x Par 56s 300 w
- 1x Martin Robozap
- 1x Kaos Multibeam unit
- 1X Mirage PSL
- 2x Jem MK3 Foggers
- 2x Beverly Effects
- 22 Par 36 Pincspots
- 4x Shinning light effects
- 8x 4 ft UV's
- 2x Solar 250 projectors
- 1x Aquarius 100 projector
- 8x Kodak sav 2000 projectors + auto changers
- 2x white lightning strobes
- 2x 12in mirrorballs+motors
- 2x16in mirrorballs +motors litespan truss
- Electralite C,P 1 controller
- Mercury Zero 88 controller

### Sound;

- 2x Technics SL1210 turntables
- Denon 2000F twin CD player
- Citronic SM550 mixer
- Jands amps
- 1x Phonic equaliser PEQ 3600
- Rane DC 24 Limiters x 2
- JBL system 44 speakers x 4
- JBL system 80 sub speakers x 2
- B.E. 100w monitors x 2
- 2 x Jet 12in + Horn speakers
- Technics RSB 105 cassette player.

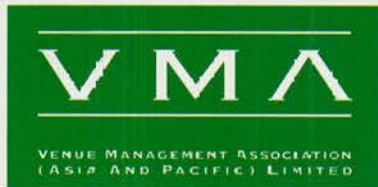


Ncva Management, the largest nightclub operation group in Asia, recently opened **Club Canto** at the former site of the Chameleon disco on the south side of Singapore. Drawing its inspiration from the Canto bar room of Neva's Sparks nightclub, the new venue features techno music in the main dance hall and a multitude of karaoke bars. Club Canto's lighting plot consists of 32 Cyberlight CX automated luminares from High End Systems.



# YOUR VENUE'S FUTURE IS AT OUR VENUE!

Government Pavilion, RAS Showground, Driver Avenue, Paddington, Sydney.  
Monday 15th and Tuesday 16th May 11.00am - 5.00pm



The Venue Management Association (Asia & Pacific) Limited 6th National Convention and Trade Show will bring together venue owners, operators and managers

Also, the suppliers of a host of products and services for this billion dollar business in the Australasian region.

## THE TRADE SHOW

VMA 95 is a must for architects, builders, designers, managers, owners, operators, planners, technicians, regulators, financiers, Associations...everyone in the venue business!

On show you will see equipment, products and services for sports, arts, entertainment, convention, exhibition, travel, tourism, accommodation and education venues.

Over 50 exhibitors will showcase the latest in:

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- Audio visual equipment, staging and presentation
- Cleaning, health and hygiene products and services
- Communications signage, security systems
- Display systems and services
- Facility design, construction and maintenance
- Food and beverage products and systems
- Management - systems and providers
- Seating, flooring, furnishing, lighting
- Sports and entertainment equipment
- Sports surfaces - indoor, outdoor
- Ticketing and registration systems

Admission is free of charge to trade visitors. Simply present your business card on arrival or complete a registration form at the door.

There is ample car parking space available for trade visitors - please enter via the "Vice Regal Gate" in Driver Avenue and follow directional signage to the allocated parking areas adjacent to the Government Pavilion.

## THE CONFERENCE "VENUES 2000 - THE OLYMPIC IMPACT"

The VMA conference is convened to discuss issues and technologies of common interest in a working environment specific to this industry. An impressive range of keynote speakers has been organised - and the special theme "Venues 2000 - The Olympic Impact" looks ahead to the business potential of the Sydney Olympics at the turn of the century.

For a conference registration brochure telephone (C2) 976 3245 or fax (02) 577 0336.

Organised by:

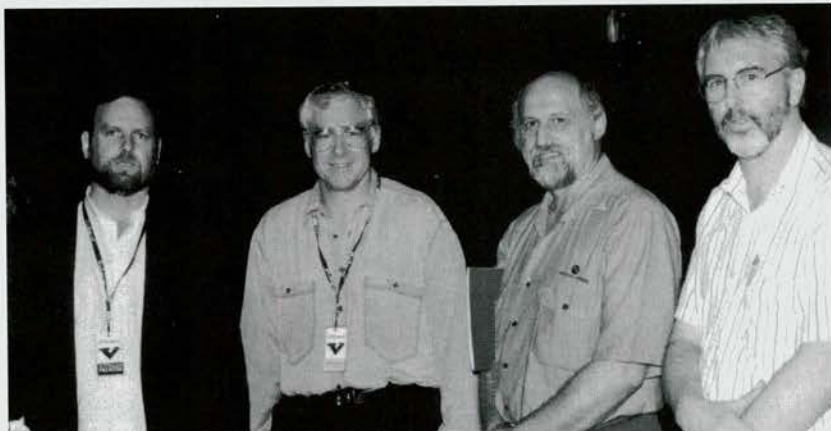


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Fax: (03) 546 1826

# Rolands V Guitar Launch



Dave Dwyer  
demo's the V-  
Guitar (left)



Don McNicol, John Egan,  
Ray Migocki and John Shiel  
(above, left to right)



One of the V-Guitar inven-  
tors Ike Ueno (left)



Pascal Fox and Bob  
Spencer (right)



Kevin Garant and Glenn  
Dodson (left)

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# LIGHTING

## MONTHLY

April 1995

Edited by Catriona Forcer

### new fully articulated wash luminaire from Lightwave Research

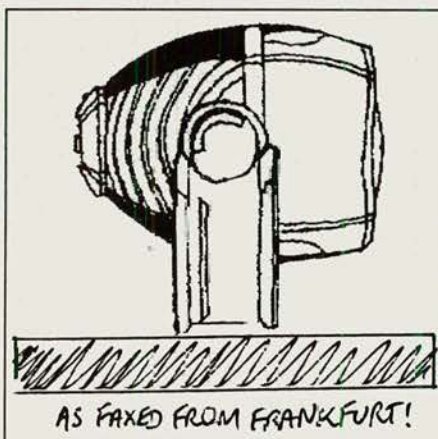
## THE TECHNICOLOR

Lightwave Research released their Technicolor™ automated full colour mixing wash luminaire at Frankfurt's Musik Messe last month.

The luminaire provides variable intensity, colour, positioning and beam angles in the single compact fixture. Technicolor employs a custom designed halogen light source of 750 watts. The colour changing system is achieved via three CYM wheels with Gaussian colour distribution used in combination with a seamless 5 colour plus white dichroic colour wheel. This combination produces a virtually unlimited selection of repeatable colours and shades. The Technicolor fixture's variable beam angle facility is achieved through the use of a variable power rotating lens. Any beam angle may be remotely selected in less than one second.

Technicolor also includes a switching power supply\* which keeps the lamp at a constant 100 VAC, automatically enabling the fixture to work on all voltages between 100 and 240 volts AC with no manual adjustment. The lamp is convection cooled and apparently virtually silent in operation. Optical design provides a reduction of 85% heat between the lamp chamber and the optical section, in fact Lightwave Research claim it's up to four times greater than other typical systems.

Dimming may be accessed in electronic mode, where the lamp itself is dimmed, or an optical mechanical mode via a micro stepped specially graduated disk. This mechanical mode allows for dimming without the colour shift problems associated with electronic dimming



AS FAXED FROM FRANKFURT!

and so should make the Technicolor useful for television and commercial photography applications.

At Frankfurt the new Technicolor worked the whole five days without reported flaw. Our spy reports the thing has two dimmers, an electronic dimmer gives you typical yellowing of a dimming lamp, while a mechanical dimmer retains colour temperature. This could be a very serious theatre fixture.

Our spy says the unit is not unlike a Vari\*Lite VL-5, and that the obvious next step is the fully articulated 360° moving profile, aka ICON and Vari\*Lite. The major difference, of course, will be that you can BUY High End Systems products, whereas Vari\*Lite have built their business on rental ONLY.

For further info call: GUVT (07) 358 4969.

## BCEC LX CONTRACT GOES TO LASER

Brisbane based company Laser Pty Ltd has been awarded the contract worth more than \$0.6 million to supply and install stage lighting at the new Brisbane Convention and Exhibition Centre to be opened in June.

Laser Sales Manager, Peter McKenzie said he was very excited that the local company had been awarded the contract from established companies all over Australia, and was looking forward to delivering a quality lighting system to the centre.

"This project puts Laser on the map as a leader in the stage lighting field, and I know there'll be much more business coming our way when we show what we can do at the

Brisbane Convention and Exhibition Centre," Mr McKenzie said.

The project features:

- Selecon Theatrical luminaires
- Selecon Accent Profiles and Fresnels
- Clay Paky Professional Show Lighting
- Martin Intelligent Lighting
- De Sisti TV Lighting
- Coemar Cyclorama Floods
- Jands Hog 250 Lighting Ccr.soles
- Jands Par 64, Par 38 and Pirspot Luminaires
- Lycian Long Throw Followspots
- Rainbow Colour Changers

For further info call: Peter McKenzie, Laser (07) 236 2333.

## SELECON METAL HALIDE PROFILES

Selecon have announced the introduction of a new range of Metal Halide Profiles. The Acclaim MH 150 "Condensor" is claimed to provide the projection accuracy and long lamp life required in permanent installations.

A very flat field for gobos and framing combined with 150w efficiency, 6000 hr lamplife and low heat output will help for those difficult projection jobs. All "M" size standard and custom gobos, including detailed glass DHA versions, can now be safely projected for long periods of time. Apparently the heat output is so low, you can project your finger, they say.

Simon Garrett and Selecon dealers around Australia report they are happy to demonstrate this trick and the unit to interested parties. Contact your nearest dealer for further info.



## Bits

● Coemar announce TAS Synchro sales to Townsville, a Melbourne rental company & Perth. A dedicated user of TAS Synchro's, Sam from Entertainment Warehouse in Melbourne said "the versatility and power of the Synchro make the ideal centre piece for any nightclub".

For further info: Coemar (03) 467 8666.

● Lightmoves PES (Melbourne) have just supplied a Diffuser DF-50 Hazing unit for a project in Kuala Lumpur, and Entertainment Lighting Supplies have just supplied 2 DF-50's to Movieworld on the Gold Coast.

For further info: Lightmoves (02) 560 000

**BUYERS GUIDE - TV, FILM, LOCATION LUMINAIRES - PAGES 90, 91, 92.**

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The Cyberlight™ automated luminaire is the most advanced and versatile fixture currently available, and represents an uncompromising approach to intelligent lighting.

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- 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 one open
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- Power consumption: 7.5A at 120VAC 60Hz.
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- High resolution micro stepping
- Self-test routines
- Break-resistant mirror
- Remote lamp enable
- Remote and automatic cooling system shutdown
- LED fixture status indicators
- Integral power factor correction
- MSR lamp technology improves output to age ratio with exceptional color stability throughout life
- Selectable LWR and DMX-512 protocol

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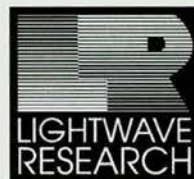
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Write in Reader Service number: 111



# CLIFF RICHARD

## STAGE AND LIGHTS

The Cliff Richard Organisation is a fairly tight knit group of professionals that the star relies on to help his career. John Seymour is employed full time by Cliff and on this tour he was responsible for the stage and set.

"Cliff told me that he wanted a stage set that was based on a jukebox and I worked it out from there," John told me. "The idea we used, immediately sprung to mind because we wanted something big, colourful, and gaudy."

John discovered that the only way to construct the arch of the jukebox was by using inflatables. A lot of research was put into how light could shine through the arch and which materials would be best suited. A quarter scale model was made up to experiment with and John admits he kept his fingers crossed. Another problem was constructing the inflatable so separate colours could be used within it. The 'tube' is split into two sections allowing two different colours to be used at once.

"We also had to decide which lights to put in it," said John. "Originally we were going to use VL2's with gobos because we were going to try create the look of 'bubbles' running through the arch like in the original jukeboxes. In the end we settled with gobos on the outside and VL5's inside. We've had to take heat into consideration, as with the VL5 all the heat comes off the back of them, and you never know what inflatables are going to do until they are built and inflated. The ends bulge, but I had allowed for that and the clearances are quite small. The VL5's fit in the base of the arch and behind the 'chevron' at the middle top."

Some aspects of the original design seen in the UK were not practical to bring to Australia including a '59 Thunderbird car on stage, a Mini which drove the band on stage and a coffee bar. The stage set fits into a 40ft container and the chevron is actually a dolly for the set. In the centre of the set, between the steps, there is access for a large mirror ball which comes



Go Cliff, Go!

up behind Cliff. Also a panel of numbers rises for a 'pick a number' stunt and these are lit by ten Par 64's.

The set was shipped from Ireland on December 27th and arrived in Brisbane just in

time for the first show. It was quicker to land the set in Fremantle and then drive it across the country as to ship it would have taken ten days longer.

The set only takes an hour and a half to put up and by 1.30pm the crew are usually ready to focus. The whole set is well draped off and masked as they did not want loads of hardware detracting from the jukebox. A lot of thought was put into not giving away too much of the stage set to begin with hence swagged drapes which only reveal the band in the first few numbers. Steps in the stage set have all the titles of the songs to be sung during the show written on them but these are not visible until lit. The set was built in the UK by Brilliant Stages and the inflatable was constructed by Air Artists.

"The tabs and tracks have been quite a game out here," said John. "It's all quite complex and our drapes are extremely heavy and very big."

So strong was the concern to disguise the hardware of the show, John designed some custom hoods for the front of stage Vari\*lites. It's an idea John has wanted to do for a long time and he found this show ideal to fit them in.

"With the concept of all the thrusts I was able to incorporate in the centre thrust a mid-fill sound system to cover the area immediately in front of the stage as well as the Vari\*lite and hood," said John. "The other two thrusts have Vari\*lites too which are sunk half into the ground."

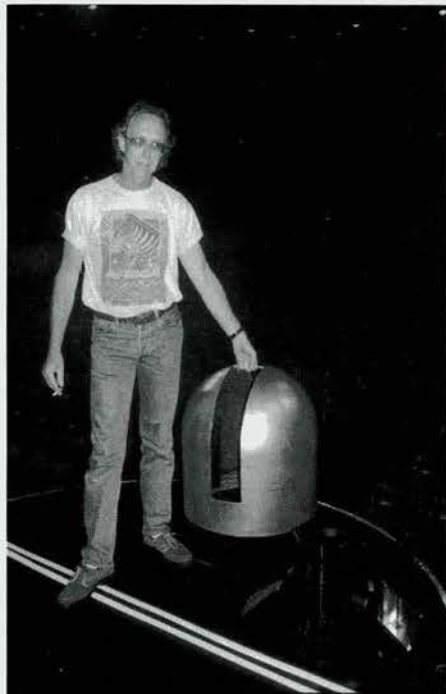
John has been working with Cliff for twenty years, fifteen of those permanently, and before that he worked in sound with acts such as Ike & Tina Turner and Three Degrees. Between tours he takes care of Cliffs audio requirements from car hi fi systems to garden parties!

"It's always interesting as there's always something to be designed and put together," he told me. "We also do gospel tours every other year with all profits to charity. Once a year he does a pro ce





CLIFF RICHARD (continued)



John Seymour and his custom Vari\*lite hood

lebrity tennis match which has become a bit of a production now. It's held in a 9,000 seat arena and we have a full lighting and sound rig installed. After tennis, Cliff plays a few numbers with people like Hank Marvin and the Salvation Army."

Lighting designer for the show was Mick Healey who first worked with Cliff in 1989 designing the stage set for two huge Wembley Stadium shows. For the last three years he has been lighting Cliff's shows including the 'Access All Areas' tour. This tour started in November in England and was originally to be the stage musical 'Heathcliff' based on

the book Wuthering Heights. By the June, it was decided that the musical would not be ready for another year. Mick had been working on the lighting and production for the show which was to play large arenas. The idea of a Hits Tour had always been in the background if the musical was not ready in time.

"The idea was to do his top number five hit songs over the past 35 years but when they added them up, they realised there were too many of them!" said Mick. "So they made it the top four instead. The first half of the show is made up of the top 4, 3 and 2 numbers whilst the whole of the second half is his number 1 records. It's quite a nostalgic evening really."

In the UK Cliff shows are phenomenally successful and on the last tour he had no trouble selling 16 nights at Wembley Arena. On this tour 10 nights were booked originally for 'Heathcliff' and sold as such, but were changed to the Hits Tour rather than cancel. "I've simplified the lighting rig a bit but not a great deal," said Mick. "I have the same amount of lights but I've made the truss a lot easier. The truss in the UK was built from 8ft sections with specially built angles and corner blocks so the truss actually came down in a circle all the way to the stage. It followed the curve of the jukebox and was all masked off. Here we've used straight truss at 45° angles.

"Basically the rig is 90% Vari\*lites - 46

VL5's, 26 VL2's and 12 VL6's - but there are 32 ACL's and 6 groundrows in there for a bit of cyc light. Also there are 4 audience blinders, 2 Lycian short throw spots in the truss, 1 smoke machine and 2 Cirrus crackers. There's quite a lot of set lighting built into the set. As well as the VL5's in the tube, the steps have three colours of lights in them so there's quite a lot of circuitry of actual set lights."



Lighting designer Mick Healey and Colin Norfield, sound engineer.

In the second part of the show there are three numbers from 'Heathcliff, the musical which has been put temporarily on hold. Something completely different was required for those three numbers as they hardly fitted in with the image of a 1950's jukebox. A painted gauze depicting the moors is flown onto the stage and for the first number Cliff sings behind it, lit up by eerie lighting. For another number an image of Cathy's face appears on the gauze.

After Australia, the show was shipped in it's entirety to South Africa for five stadium shows.

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Write in Reader Service number: 151

# THE JANDS 48-CHANNEL INSTINCT

a readers review by Tom Paterson

I am an amateur lighting designer of five years experience based in Canberra. I have recently begun working as a casual around Canberra, and my experience with the Instinct has been vital.

I began learning about the Instinct at Canberra Youth Theatre under the guidance of Poppy Wenham. The desk features 2 x forty eight channel presets, twenty four banks of

techs first plot on the board. The programming simply involves moving the cursor to the scene and bank no. that you wish to programme, set the levels on either or both presets and press record.

The time taken to learn on the Instinct is remarkably low. If a tech learns to operate on an entirely manual board, they can find themselves feeling overwhelmed by a computer-

manual and a computer desk. I operated manually for my first lighting design on a performance of *A Touchy Subject* with CYT and have run the Instinct as a computer desk on several shows. While often sold as a rock'n'roll desk, the Instinct finds a place as a theatre desk also. The Instinct is very robust, and handles the rigours of touring very well. It is fairly light, so it is also easy to man(person)handle. The board can be locked with a key so the programme is secure. The desk will happily hold a programme when the power is disconnected, or during a blackout and will continue its last step once power is restored.

*\*Jands stopped making the Instinct in favour of the EVENT a few years back.*

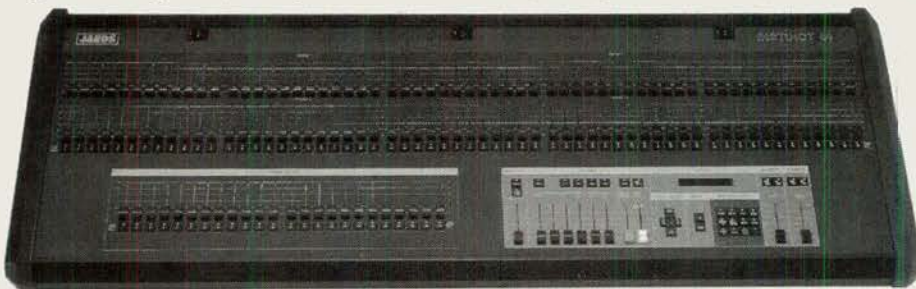
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## SERIOUS GROVELLING

Peter Robins of Channel 7 has some serious and humble grovelling to do to get himself out of deep doggy-do regarding last months article on the Colortran Gold Medallion.

Peter was credited for writing the evaluation where the actually author was Channel 7's beloved 'golden-haired-ski-bunny-love-guru-systems wizard' Kim Johr. Apparently Peter has been threatened with severe physical/internal violence with strange objects unless he sets the record straight.



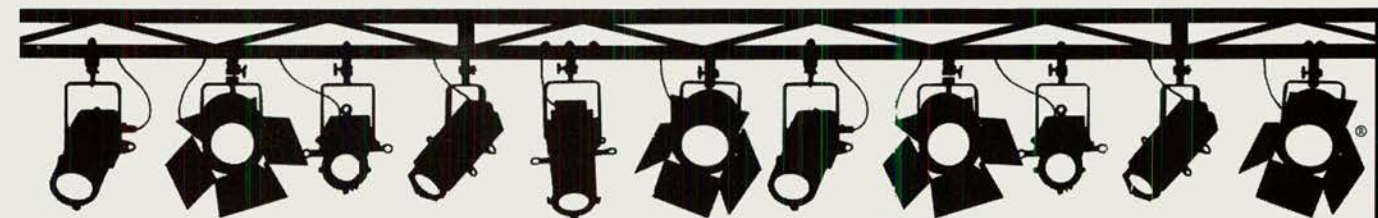
twenty four scene masters and twenty chases plus two chase controllers. The desk is semi-computerised and allows blind programming and reprogramming of scenes and chases.

As a lighting desk, the Instinct is by no means the most recent but the beauty of it is as a desk on which to teach. The simplicity of layout and the ability to operate the desk entirely as a manual desk allow a student several advantages. First of all, the new tech can operate a fully manual show without any hassles with the computer functions. After their first season, they can advance into using scene masters and chases. The programming is simple although changing individual channel levels within scenes is slow. This is ideal for the

ised desk. I did. The Instinct on the other hand, allows a smooth transition between the two.

Features to be careful with: The Instinct has an automatic crossfader with a 'sample' button next to the preset masters. This button is easy to bump, and I have seen several technicians accidentally press this, and find the desk is locked up. There are two chase masters, but only one set of chasers, so if you program chase one on master A, and then do the same on chase master B, you have simply reprogrammed the same chase. The flash buttons are always on either add or kill, never off, so watch out.

I have operated the Instinct as both a



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# TROPICAL NIGHTS AT CONRAD JUPITERS CASINO



*Tropical Nights*, a \$5.2 million Las Vegas style show produced by John Frost, recently opened at Conrad Jupiters Casino on the Gold Coast. Every twelve months Jupiters stage a different elaborate production of this nature.

All the shows that have been staged at Jupiters since the first, *Stars* in 1985, are in the same line of a variety, Las Vegas production show with huge budgets for costumes, sets and special effects.

"I don't think any other theatre in Australia stages shows like this," said Werner Henkel, Technical Services Manager at Jupiters. "They're not musicals, they are solely variety shows with international acts and quite spectacular dance routines. This particular show, *Tropical Nights*, is based on the Tropical Nights nightclub in New York City. The show opens up inside that nightclub and then travels to different places around the world. Each city visited in the world has another elaborate set, costumes and effects. The show runs for just over 90 minutes."

Werner Henkel originally came to Australia with the German company Siemens to install the first computerised lighting system in Australia at the Sydney Opera House. He then stayed to train the operators on the system and worked for the Opera House operating the lighting desk for most major productions. After four years Werner returned to Europe for eight years where he studied theatre and drama and when he returned to Australia he began work at the Brisbane PAC.

"Since the Casino opened I've been working here and I've done the lighting design for most

of the productions staged here," Werner told me. "We are now in our eighth production. I also freelance as a lighting designer for various companies doing many trade shows and conventions."

Although only one major production of this style is staged a year at Jupiters, Werner also has to take care of the conventions within the hotel complex and they can be rather large. About a dozen of these major productions occur each year.

The lighting design for *Tropical Nights* is by Don Byrnes with installation done by Werner. The auditorium at Jupiters holds 940 people and the stage is comparable with most lyric stages.

"It's incredibly well equipped with several lighting bridges, overhead light bars and sight lighting," said Werner. "We've got 500 different conventional stage lanterns - Fresnels, Profiles, 1kw, 2kw, 5kw etc. We also have a Dataflash system and nine Intellabeams in the show. We use a lot of other effects like dry ice systems and smoke effects. Nothing has been hired as we own it all. Because the shows run for twelve months it's not economical to hire stuff like the Intellabeams. Occasionally we hire things like at the moment we have a 35mm projection system."

Control is an Avab Expert lighting desk which controls 192 5kw Jands dimmers. The whole lighting system is hard patched through a patch panel system - six different patch panels in different areas of the building.

● Cat Forcer

## Bits

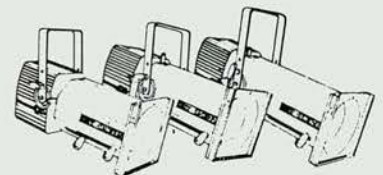
● Brisbane Convention and Exhibition Centre have chosen **Rainbow Scrollers** supplied by Laser. Eight of the new 15 inch 2k/5k tungsten and compact HMI scrollers with a further 16 of Rainbow 8 inch 2/16's running off the integrated "Maxipsu" DMX splitters and power supplies will form the basis of the new system.

The 15 inch scrollers are fitted with "Pluscards" giving a range of extra features.

● **Entertainment Installations** have been busy supplying the following: Neon signs for the corporate headquarters of the Stevens Group; supply and installation of 16 x Martin Robocolour 2's, 4 x Martin Pro 812's, 1 x Martin 2308 controller for the cabaret room at Bexley RSL Club; a Denon 2000F CD player and Jem smoke machine to Joes Garage in Gosford. *For further info: Entertainment Installations (043)24 3873.*

● **Chameleon Touring** have purchased the operations of Advanced Lighting Equipment, effective from January 24th 1995.

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# AUSSIE DESIGNERS WIN INTERNATIONAL AWARD



Congratulations to Steve Swift and Dave Harding who have won the UK Live! Magazine 1995 award for the best lighting/staging of a Small/Mid-Sized Tour for last years Crowded House tour.

## Bits

- Patrick Cahill, Theatrecrafts, has supplied an **ETC Microvision FX12** control system, complete with 48 channels of **Jands Digital Dimmers** and **Gam Command** riggers to Spare Parts Puppet Theatre, Fremantle.
- The West Australian Academy of Performing Arts (WAAPA) has purchased from Theatrecrafts an **Event 48 + V3**, a **Jands Hog** and 8 **Track Spots** as teaching aids for their lighting course students.
- Navigators Night Club, Hillarys marina has placed orders for **Track Spots**, **Emulator** laser simulator with **Lightwave Research Universal Controller** and a **Tas Syncro** centre piece with digital controller from Theatrecrafts.
- Mazenod Catholic College has just been equipped with a Theatre lighting and sound package from Theatrecrafts. This consists of **Prolite** luminaires, **Jands** dimmers, **LSC Axiom** Control desk, **Q Engineering** Auditorium Lighting Controls, **Inkel** Mixers, **TOA** Speakers and **Redford** wireless mics.
- **Lightmoves Technologies** have sold the Australian Opera a **Diffusion DF50** Hazing Machine. *Further info: (02)560 0000.*



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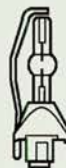
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# BUYERS GUIDE: TV, Film, Location Luminaires

Model	Lamp Type	Watts	Volts	Description	Price
<b>R. D. S. Category: Fresnels Distributor: Avtronics Ph: (02) 807 1444 Contact: P. Griffiths</b>					
PRIMO	T.H.	650 - 10,000	240V	Range of compact Fresnel spotlights ranging in wattages from 650, 1K, 2K, 5K & 10K. Available for both manual and pole operation.	from \$700 ex tax
S.M.T.	HMI	575 - 4,000	240V	Range of high performance Fresnel spotlights designed for rugged location work.	from \$4,000 ex tax
<b>R. D. S. Category: Softlights Distributor: Avtronics Ph: (02) 807 1444 Contact: P. Griffiths</b>					
S.F.	T.H.	2,500 - 5,000	240V	Range of softlights switchable in intensity, available for both manual or pole operation.	from \$1,500 ex tax
S.H.	HMI	1,200 - 2,500	240V	Range of softlights for 1,200W or 2,500W operation. Available with either standard or flicker free Ballasts.	from \$5,000 ex tax
<b>Selecon Category: Fresnels Distributor: Herkes Ph: (02) 319 3133 Contact: Tim Kennard</b>					
SF1200	T/29 or CP/90	1200	240V	7 inch High Performance Adjustable 7° - 56° Non Pole Op Fresnel.	\$545 ex tax
SF2000/25	CP72	2000	240V	10 inch High Performance Adjustable 8° - 60° Non Pole Op Fresnel.	\$920 ex tax
SF2500/25	CP91/92	2500	240V	10 inch High Performance Adjustable 8° - 60° Non Pole Op Fresnel.	\$1,080 ex tax
<b>Cosmolight Category: Fresnels Distributor: Lightmoves Ph: (02) 560 0000 Contact: Paul Owen</b>					
RC200	FEX/P2/27	2000	240V	Cosmobeam 2000.	\$532 ex tax
RC-80F	DXX	800	240V	Cosmobeam 800.	\$328 ex tax
RC-80P	DXX	800	240V	Cosmobeam 800 on gaffer grip.	\$355 ex tax
RC-110F	P2/20	1000	240V	Cosmobeam 1000.	\$395 ex tax
<b>Strand Category: Studio Softlights Distributor: Bytcraft Ph: (03) 587 2555 Contact: Durham Ritchie</b>					
ARTURO 1250	p2/10	1250	240V	Asymmetric softlight for constant illumination as subject approaches lantern. Accessories include egg crates and extra soft white reflector.	from \$650 ex tax
ARTURO 2500 switchable	p2/10	2500	240V	Asymmetric medium power softlight switchable from 2.5kw to 1.25kw for constant colour temp. Egg crates and extra soft white reflector available.	from \$1200 ex tax
ARTURO 5000 switchable	p2/10	5000	240V	Asymmetric high power softlight switchable from 2.5kw to 5kw for constant colour temp. Egg crates and extra soft white reflector available.	from \$2200 ex tax
ARTURO HMI	HMI	to 2.5kw	240V	High power soft light using HMI lamps up to 2500w. Can be used with conventional or flicker free ballasts.	from \$3000 ex tax
<b>Strand Category: Multipurpose Studio Light Distributor: Bytcraft Ph: (03) 587 2555 Contact: Durham Ritchie</b>					
GIANO SOFT/FRESNEL	CP+P2	2.5/5kw	240V	Combination 5kw softlight and 5kw fresnel for saturation rig studios. The lamps are switchable to reduce intensity without shifting colour temp.	P.O.A.
<b>Strand Category: Fluorescent Softlight Distributor: Bytcraft Ph: (03) 587 2555 Contact: Durham Ritchie</b>					
VIDEOLUX 72	2 x CFL	36	220/240V	2 Tube (72w) Compact Fluorescent Softlight for energy efficient studios. Available as direct Dim, 0-10v and DMX direct operation.	from \$1400 ex tax
VIDEOLUX 216	6 x CFI	36	220/240V	6 Tube (216w) Compact Fluorescent Softlight for energy efficient studios. Available as direct Dim, 0-10v and DMX direct operation.	from \$3300 ex tax
<b>Strand Quartzcolor Category: E. N. G. Lighting Distributor: Bytcraft Ph: (03) 587 2555 Contact: Durham Ritchie</b>					
PULSAR	A1/233	650	240V	Lightweight open face floodlight with glass fibre housing to minimise the heat. Designed for portable and video lighting.	from \$390 ex tax
REDHEAD	DXX	800	240V	The worlds most famous portable light used by news crews and video cameramen. Available in clamp, stand, 1000w and 24V 250w versions.	from \$283 ex tax
BLONDE	FEX	1000	240V	Lightweight, high power variable beam floodlight that together with the Redhead form the basis for most video and E.N.G. lighting.	from \$550 ex tax
REPORTERLIGHT	various	various	various	A range of hand held, camera mount, stand mount or grip mount lights using a combination of HMI, tungsten and low voltage lamps.	from \$1160 ex tax
* All the above lanterns are available in combination kits and can be combined with other lanterns for maximum versatility.					
<b>Strand Quartzcolor Category: Location Fresnels Distributor: Bytcraft Ph: (03) 587 2555 Contact: Durham Ritchie</b>					
Sirio 575w	HMI	575	220/240V	Compact general purpose exterior location daylight fresnel. Available for either single or double ended lamps with a full accessory range.	from \$4000 ex tax
Sirio1200w	HMI	1200	220/240V	Compact general purpose exterior location daylight fresnel. Available for either single or double ended lamps with a full accessory range.	P.O.A.
Sirio 2500w	HMI	2500	220/240V	Powerful exterior location daylight fresnel. Available for either single or double ended lamps with full accessory range.	P.O.A.
Sirio 18kx	HMI	18kw	220/240V	High power exterior location daylight fresnel with a throw of up to 80m. Large ballasts 600mm lens with a full accessory range.	P.O.A.
* Four other models of different wattages with variations including flicker free or mechanical ballasts are also available. Accessories include barndoors, cones and scrim sets.					
<b>Strand Quartzcolor Category: Studio Fresnels Distributor: Bytcraft Ph: (03) 587 2555 Contact: Durham Ritchie</b>					
MZAR 300/500	CP81/82	300/500	220/240V	Smallest studio fresnel in the range suitable for both studio and location use with heavy duty alloy body and a full range of accessories.	from \$400 ex tax
POLARIS 1000/1200	CP40/93	1/1.2kw	220/240V	Compact studio fresnel available in manual and pole operated versions with a full range of accessories. Can also take a 650w lamp.	from \$900 ex tax
CASTOR 2000/2500	CP41/94	2/2.5kw	220/240V	Compact studio fresnel available in manual and pole operated versions with a full range of accessories. Version available for 1.25 X 1.25.	from \$1300 ex tax
POLLUX 5000	CP29	5kw	220/240V	Lightweight fresnel available in manual and pole operated versions with a full range of accessories. Version available for 2.5 X 2.5.	from \$1800 ex tax.
* Five other models with variations including pole operation, switchable lamps and extra compact 'Bambino' variants also available.					
<b>Strand Quartzcolor Category: Location Parlamp Distributor: Bytcraft Ph: (03) 587 2555 Contact: Durham Ritchie</b>					
Quasar 12	HMI	1200	240V	Compact, powerful location PAR light with beam control by a combination of lens changing and focusing.	from \$2800 ex tax
Superquasar 25/12	HMI	1.2/2.5kw	240V	Compact, powerful location PAR light with beam control by a combination of lens changing and focusing. Will accept either 1.2 or 2.5kw lamp.	P.O.A.
Superquasar 40/25	HMI	4/2.5kw	240V	Compact, powerful location PAR light with beam control by a combination of lens changing and focusing. Will accept either 4 or 2.5kw lamp.	P.O.A.
* Variations including flicker free or mechanical ballasts and silent ignitors are also available.					



Model	Lamp Type	Watts	Volts	Description	Price
<b>De Sisti</b>	<b>Category: Fresnel</b>			<b>Distributor: Coemar De Sisti Ph: (03) 467 8666</b>	<b>Contact: Peter Kemp</b>
MAGIS	GY 9.5 TH	300/500/650	240V	Compact stainless steel body spotlight c/w 120mm lens, 10A inline switch, barndoor colour frame & stirrup. Options: wire guard, cones, scrims.	\$575.00 ex tax
LEONARDO 1Kw,2Kw, 5Kw,10Kw,20Kw	G22/G38 TH	1000-20,000	240V	Compact spotlights c/w 150mm to 625mm lens, 4 leaf barndoor, colour frame, manual or pole operated stirrup & spigot. Options: 8 leaf barndoor, wire guard, cones, scrims. Also available in "Piccolo" range.	from \$950 ex tax
LEONARDO "PICCOLO"	G22/G38 TH	2000-10,000	240V	Compact spotlights c/w 150mm-350mm lens, 4 leaf barndoor, colour frame, manual or pole operated stirrup & spigot. Options: 8 leaf barndoor, wire guard, cones, scrims, high efficiency baffled cooling allows the use of compact housings with larger size lamps without affecting lamp integrity.	from \$1,370 ex tax
LEONARDO DUAL FILAMENT FRESNELS	G38q	1250/2500, 1250/3750 2500/5000 TH	240V	Compact spotlights c/w 250mm lens, 4 leaf barndoor, colour frame, manual or pole operated stirrup, spigot & rotary switch. Options: 8 leaf barndoor, wire guard, cones, scrims. Utilize standard 4-pin, dual filament lamps for flexibility in application.	from \$2,130 ex tax

\* Also available is the Michaelangelo Dual Source Fresnel/Softlight luminaire. Please contact CDA for details.

<b>De Sisti</b>	<b>Category: Discharge Daylight Fresnel Lens Luminaires &amp; Systems</b>			<b>Distributor: Coemar De Sisti Ph: (03) 467 8666</b>	<b>Contact: Peter Kemp</b>
REMBRANDT	Double Ended HMI/MSR	575,1200,4000, 6000,12000.	240V	Compact stainless steel body spotlight c/w 150mm to 500mm lens, 4 leaf barndoor, colour frame, stirrup, spigot, 7.5m cable, magnetic or electronic ballast. Options: 8 leaf barndoor, wire guard, cones, scrims, 7.5m and 15m extension leads, magnetic and electronic ballasts. Available with or without lamps.	from \$5,000 ex tax
REMBRANDT	Single Ended MSR	200,575,1200, 2500,4000	240V	Compact stainless steel body spotlight c/w 120mm to 500mm lens, 4 leaf barndoor, colour frame, stirrup, spigot, 7.5m cable, magnetic or electronic ballast. Options: 8 leaf barndoor, wire guard, cones, scrims, 7.5m and 15m extension leads, magnetic and electronic ballasts. Available with or without lamps.	from \$2,070 ex tax

\* Most of the Rembrandt range are available in the "Piccolo" range. High efficiency baffled cooling allows the use of compact housings with larger size lamps without affecting lamp integrity.

<b>De Sisti</b>	<b>Category: Discharge Daylight Softlight Luminaires &amp; Systems</b>			<b>Distributor: Coemar De Sisti Ph: (03) 467 8666</b>	<b>Contact: Peter Kemp</b>
RAFFAELLO	GY 9.5 MSR	200/400	240V	Compact steel body softlight c/w colour frame, manual or pole operated stirrup, spigot, 7.5m cable, electronic ballast. Options: egg-crates, 2.5m and 7.5m extension leads, flight cases, AC flicker free and 24/30V DC flicker free battery operated ballasts. Available with or without lamps.	from \$3,480 ex tax
RAFFAELLO	Double Ended HMI	575,1200,2500, 6000	240V	Compact steel body softlight c/w colour frame, manual or pole operated stirrup, spigot, 7.5m cable, electronic or magnetic ballast. Options: egg-crates, 7.5m and 15m extension leads, electronic, magnetic and electronic flicker free ballasts. Available with or without lamps.	from \$4,960 ex tax
GOYA	Single Ended MSR	2500/4000 6000	240V	Stainless steel body broadlight c/w colour frame, manual operated stirrup, spigot, 7.5m cable, electronic or magnetic ballast. Options: egg-crates, 7.5m and 15m extension leads, electronic, magnetic and electronic flicker free ballasts. Available with or without lamps.	New product Price TBA

\* Raffaello softlights also available in Kit Forms. Also available is the Michaelangelo Dual Source Fresnel/Softlight luminaire. Please contact CDA for details.

<b>De Sisti</b>	<b>Category: Tungsten Halogen Softlight Luminaires &amp; Systems</b>			<b>Distributor: Coemar De Sisti Ph: (03) 467 8666</b>	<b>Contact: Peter Kemp</b>
WYETH	Double Ended Linear QH	1000, 2000	240V	Compact steel body softlight c/w colour frame, manual or pole operated stirrup, spigot. Options: egg-crates.	from \$803 ex tax
BOTTICELLI	Double Ended Linear QH	1000, 1250, 1000/ 2000, 2500/5000	240V	Compact steel body softlight c/w colour frame, manual or pole operated stirrup, spigot. Options: egg-crates.	from \$870 ex tax
RENOIR	Double Ended Linear QH	5000	240V	Compact steel body broadlight c/w colour frame, 4 leaf barndoor, manual or pole operated stirrup, spigot. Options: stainless steel wire guard.	from \$1900 ex tax

\* Wyeth softlights also available in Kit forms

<b>De Sisti</b>	<b>Category: Cyclorama &amp; Groundrow Systems</b>			<b>Distributor: Coemar De Sisti Ph: (03) 467 8666</b>	<b>Contact: Peter Kemp</b>
GIOTTO	Double Ended	1000/1250 linear QH	240V	Compact stainless steel body cyclorama luminaire c/w wire guard, colour frame, manual or pole operated stirrup, spigot. Available in one, two, three and four compartment units with a variety of mounting configurations. Options: mounting brackets and screws.	from \$455 ex tax
DUCCIO	Single Ended	1000/1250 linear QH	240V	Compact stainless steel body Groundrow luminaire c/w wire guard, colour frame. Available in one, two, three and four compartment units. Units are hingeable for curved cycs etc.	from \$496 ex tax

## Discotheque...or...Professional

**Lyte Quest** USA



**\$330**

Smoke Machine including remote.

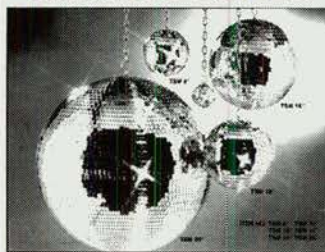
**Lyte Quest** USA



**\$265**

4 Channel Chaser 1000W Per Channel, Audio Sensitivity and Speed Control

**MIRROR BALLS**



**From \$16**

Available in: 8", 12", 16", 18", 24"

**ROPE LIGHTS**



**From \$60**

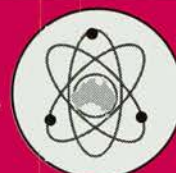
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**BUYERS GUIDE - TV, FILM & LOCATION LUMINAIRES (continued)**

Model	Lamp Type	Watts	Volts	Description	Price
<b>De Sisti Category: Focusable Discharge Open-Face Luminaires &amp; Systems Distributor: Coemar De Sisti Ph: (03) 467 8666 Contact: Peter Kemp</b>					
TIZIANO	Single Ended MSR	200	240V	Compact stainless steel body spotlight kit c/w carry case electronic flicker free ballast, 4 leaf barndoor, colour frame, 2.5m extension cable, feed cable, scrim set, battery, 200W MSR lamp. Options: scrims, 7.5m extension lead.	Units from \$2,070 ex tax
CARAVAGGIO	Single Ended Par 46, Par 64	575, 1200	240V	Compact stainless steel body spotlight kit c/w 4 leaf barndoor, colour frame, stirrup, spigot, 7.5m cable, magnetic or electronic ballasts. Options: 8 leaf barndoor, cones, scrims, 7.5m and 15m extension leads, magnetic and electronic ballasts. Available with or without lamps.	from \$4,100 ex tax
REMINGTON	Single Ended MSR	2500/4000	240V	Compact stainless steel body spotlight c/w 4 leaf barndoor, stirrup, spigot, set of lenses, 7.5m cable, magnetic or electronic ballasts. Options: 8 leaf barndoor, cones, scrims, 7.5m and 15m extension leads, magnetic and electronic ballasts. Available with or without lamps.	from \$16,000 ex tax
REMINGTON	Single Ended MSR	6000	240V	Compact stainless steel body spotlight c/w 4 leaf barndoor, stirrup, spigot, 7.5m cable, magnetic or electronic ballasts. Options: 8 leaf barndoor, lense set, cones, scrims, 7.5m and 15m extension leads, magnetic and electronic ballasts. Available with or without lamps.	New product Price TBA
<b>De Sisti Category: Portable Location &amp; Studio Luminaires &amp; Kits Distributor: Coemar De Sisti Ph: (03) 467 8666 Contact: Peter Kemp</b>					
VARIIBEAM	Double Ended	800,1000 linear QH	240V	Compact steel body portable luminaire c/w stirrup or gaffer grip. Options: 4 leaf barndoor (with or without wire guard), accessory holder, dichroic filter, safety glass, cones, scrim sets.	from \$310 ex tax
T.D.BEAM	Double Ended	2000 linear QH	240V	Compact steel body portable luminaire c/w stirrup or gaffer grip. Options: 4 leaf barndoor (with or without wire guard), accessory holder, dichroic filter, safety glass, cones, scrim sets.	from \$680 ex tax
MINIBROAD	Double Ended	1000 linear QH	240V	Compact steel body portable flood luminaire c/w stirrup and 4 leaf barndoor. Options: wire guard.	from \$350 ex tax
<i>* All De Sisti portable products are available in kit forms in flight cases in a variety of configurations. Also available is a complete range of stands and grip equipment. Contact CDA for further information.</i>					
<b>De Sisti Category: Cyclorama and Groundrow Systems Distributor: Coemar De Sisti Ph: (03) 467 8666 Contact: Peter Kemp</b>					
SEQUENZA	Double Ended	500	240V	Compact cast and extrusion cyclorama luminaire available with either symmetrical or asymmetrical reflectors c/w colour frame, stirrup. Utilizes a locking wedge system to allow multiple configurations to be produced and to be utilized as a Groundrow. Options: barndoors and locking wedges.	from \$280 ex tax
SEQUENZA	Double Ended	1000/1250	240V	Compact cast and extrusion cyclorama luminaire available with either symmetrical or asymmetrical reflectors c/w colour frame, stirrup. Utilizes a locking wedge system to allow multiple configurations to be produced and to be utilized as a Groundrow. Options: barndoors and locking wedges.	from \$310 ex tax
<b>ARRI Category: Fresnels Distributor: John Barry Group Ph: (02) 439 6955 Contact: Vince D'April</b>					
STUDIO JUNIOR	various	1000, 2000, 5000	240V	Various wattage lamp heads both pole or manual operated	\$1000-\$3000 ex tax
	various	300, 650, 1000, 2000, 5000	240V	Various wattage lamp heads.	\$900-\$2000 ex tax
<b>ARRI Category: Softlights Distributor: John Barry Group Ph: (02) 439 6955 Contact: Vince D'April</b>					
ARRI Switchable	various	2500	240V	Switchable 1.25/2.5k Softlight, pole or manual operated.	from \$1700 ex tax
ARRI Switchable	various	5000	240V	Switchable 2.5/5k Softlight, pole or manual operated.	from \$2700 ex tax

Note: All Vendors have much more than the (maximum) four products illustrated here.

**Buyers Guide on the Internet all year:  
go to NEXT.COM.AU, find us in 'Magazines'.**

Next month's Buyers Guide: Effects Lighting.



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

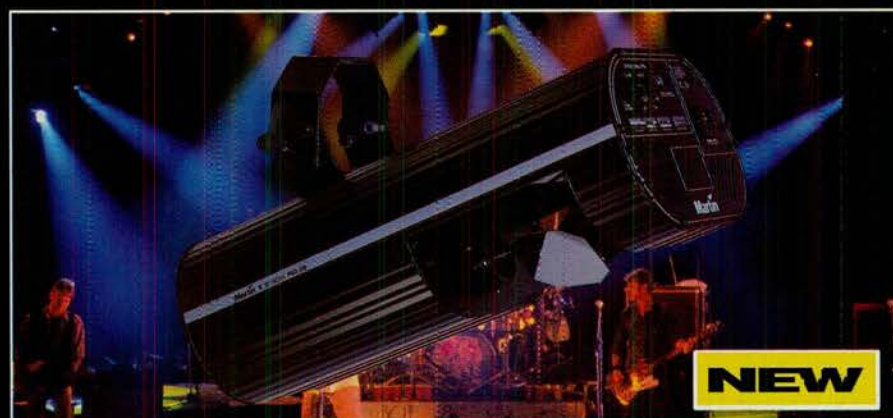
**RRP \$1,899**



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

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

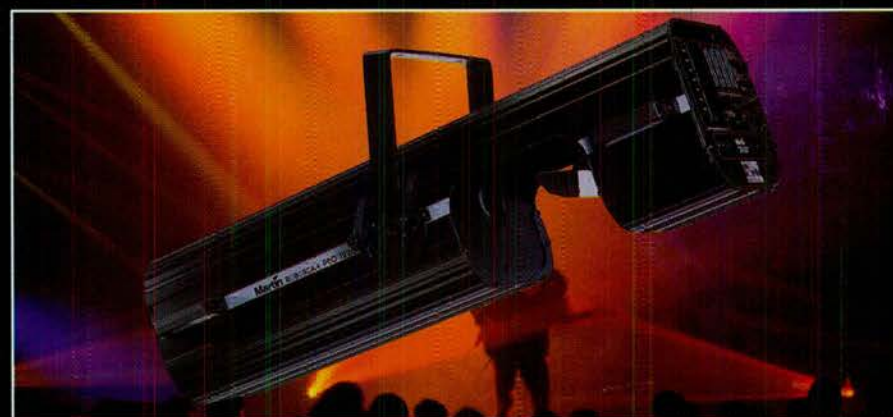
**RRP \$2,399**



## **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



# 20 Years Ago This Month.....

*Julius Grafton continues his memoirs from 1975 before he goes senile.*

Back in 1975 when you went touring it was in a two tonne truck. Most bands had just grown out of Transit vans, because the new PA configuration was either 2 4560's and a horn, or a couple of J Bins and a horn. The mixer was an eight channel Jands or ETI kit, and stage monitors were a new invention.

Your writer was trying to be king of the Sydney Lightshow scene, but Colin Baldwin and Phil Cullen were already way ahead. Jands owned 24 Patt 743 fresnels which amounted to an impressive concert lighting rig. Deep Purple had just done Sunbury festival, leaving behind 24 Altman Par 64 cans which Jands had copied at a metalwork place called Model Engineering.

The 1975 diary reveals much of the daily events from the era, a time when the writer was obviously prone to reflection by way of writing things down.

### THE KOMBI WRITEOFF

Last month we had just done a triumphant gig at Wollongong High School, and on the drive home the Kombi ran rough. Next morning, upon unloading, it was discovered a rented lighting stand was missing, of course I had left it behind because I didn't do an idiot check.

On the way BACK I drove down Bulli Pass in pissing rain and rounded a bend in third gear to find a semi going the same direction in low range, at about walking pace. The brakes failed and I just managed to steer the Kombi half way out into the right lane - crashing into the back of the semi.

The passenger front side of Kombi copped the impact, the trailer rear impacted all the way across the passenger seat and just stopped coming when it reached the gear stick! The windscreen continued on down the hill past the by now startled truck driver, who started to pull up as the Kombi fell over, dead. I was OK.

### ANY VAN NEEDED, FAST

Of course I wanted a Hi-ace like the Mac Lights one, but couldn't get one straight away. Lober & Co could sell me an HJ Holden 202 auto panel van for \$4003, I signed up for hire purchase with GMAC, they didn't seem to notice I was only 17 at the time!

### GIGS, GIGS AND MORE GIGS

St. Mary's is outside Sydney just before Penrith. A high school dance (worth \$45) at the Memorial Hall introduced me to Sparkle, another Cordon Bleu band who specialised in Doobie Brothers covers. I fell in love with Katie Krystall, which cannot possibly be her real name. She played Hammond Organ, and was married to the drummer whose name was Frank Manna. Go figure. Katie mostly didn't

notice I existed, which must have been hard as I spent the gig four feet right of her, perched at side stage operating the lights and ogling her.

That same night we had a Harbour Cruise booked by Ray Lynn, another agent around town, this one was for Rose Bay Girls Convent School! Doing two or more gigs a night be-



came common in April 1975. Mac Lights were by this time doing 11 or 12!

### HIRES AND PRODUCTION WORK

I had equipment hires every other day, people renting a strobe or a colour wheel, and was been sought by all kinds of people to light things. The reverend at St. Peters got me to shine lights through a stained glass window one night, and I'd done a theatre production (my first) in January.

The Voca Answering machine may have cost a packet, but without it ....

### RUBBER BAND

Ray Lynn booked these guys, they seemed to play 8 nights a week! I work with them at Sydney Uni in the Regiment Building. A \$30 lightshow. I have a Saturday night off due to lack of bookings, a guy from Vaucluse hires an oil wheel and a slow colour wheel. Must be a more sedate kind of party>

### STUDENTS UNION REFECTORY

It was about now I realised Uni gigs were slightly more turbulent than those outside. Renee Geyer and Captain Matchbox were playing, I was hired by Ray Evans. The Geyer band had a crew of two who arrived in a Budget F350 2 tonner, truly the truck everyone aspired to tour in. The Lightshow business still entailed lighting the hall with mirrorballs and projectors, and putting a bit onto the band - we usually had at least one Patt 23 with a colour wheel on each side of stage, more commonly two. With the motors switched separately they could be used as a pseudo colour changer. In fact, Strand had a colour wheel colour change system that had a remote switch box but it cost

around six months salary to buy.

Renee Geyer was on the way up, I'd worked with her at The Arts Factory three years earlier, in fact was there when she got up for the first time before an audience and sang with a jazz-rock band called 'Sun'.

### DANCES

Most gigs were suburban dances, this is the era before local residents got militant and figured out ways to stop the noise. There were a dozen regular dances across Sydney every weekend, the rest of our work was school dances, which most larger high schools ran every term, and private functions - again, usually in local halls. You could make as much noise as you liked until whatever time you wanted, no police, no EPA, no noise meters - what an era!

The school dances could get wild too, it seemed like a new innovation and clearly some of the teachers were into the bands and probably stoned too. The real wild

child school was Mosman high, where the punters were heavily into getting pissed outside and rooting anywhere they could. (*Hang on, my husband went there - Cat Forcer*)

Tune in next month for more!

## LIGHTMOVES TECHNOLOGIES appointed Australian Distributors for LITTLITE Gooseneck Lamps and Accessories

In announcing their appointment Lightmoves' Managing Director, Jonathan Ciddor said

"The range of products is extensive and to ensure that our customers are well serviced we have selected 22 key items, from the range of over 100, that we now have in stock and intend to carry as 'on the shelf' stock items. They include 12" and 18" free standing units with built in dimmer and 12" and 18" plug in units with XLR-3, BNC and XLR-3 right angle connectors, in both the standard 2.5w incandescent and also the 'HI' output 5w tungsten halogen models. There is a good selection of mounting bases and accessories including gel sets for colouring down the light source. Spare lamps, and plug packs with Australian approvals are also to be stocked."

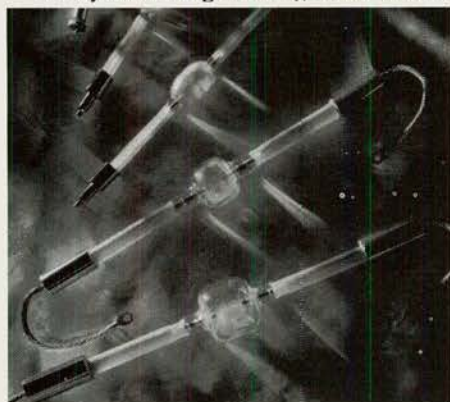
For further info call (02) 560 0000 or write in **READER SERVICE NUMBER 219.**



## SYLVANIA LAUNCH NEW LAMPS

Sylvania Special Products Group announces a new safer lamp for use in Audio Visual equipment. The new lamp, the 'Britescreen UV Stop' is specifically designed not to emit ultraviolet radiation, radiated by most discharge lamps. Apart from protecting the user, limiting the UV radiation reduces potential damage to UV sensitive material used in projectors or similar equipment.

The Sylvania range of single and double

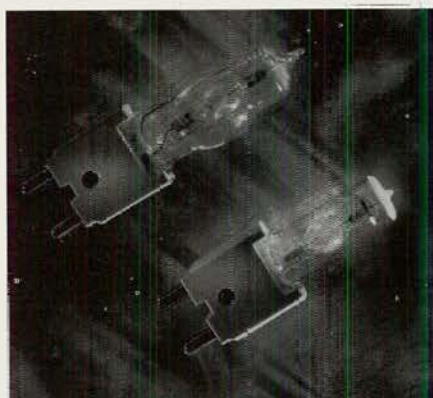


BriteArc Double Ended Range

ended BriteArc™ (HMI/MSR equivalent) and Brite Beam lamps are now available in Australia and New Zealand. Sylvania claim that with its steady colour temperature of 5600K through life, together with good colour rendering properties means BriteArc™ lamps are ideal for in and outdoor filming, stage, theatre, studio, video, discotheque and effects lighting.

Sylvania's latest development in this range is the BA200W single end version which is now available. With life of 200+ hours and a luminous flux of 15000lm it gives a high light output for a very low energy consumption.

Sylvania has launched a new version of the FEX and DXX double ended tungsten halogen lamps of, respectively 2000W and 800W, and they believe them to be the most advanced of their type for fittings used in television, film and news gathering purposes. The lamps, manufactured in the company's Belgium factory, incorporate a new coil support system. It comprises a spacer in the form of a spiral



BriteArc Single Ended 200W - 2.5KW Range

which centres the coil in the lamp. The outer end of the spiral is melted into the quartz to keep it stable.

For further information call: Benjamin Bath ph: (043) 29 8888 fax: (043) 28 2605 - or write in **READER SERVICE NUMBER 218**

## Bits

● CDA have just received a shipment of roller bearing spigots intended to suit any professional followspot operators. The quality of the spigot is in line with all of the **Doughty** products and the roller bearing is claimed to produce an extremely smooth par on the follow spot.

● A large order of 24 x **NAT TM1200's** and 8 x **NAT TM2500's** has just been sent to China for a Television Studio with **CompuLite Animator 48** supplier for control. A further 4 x **NAT TM1200's** have just been supplied to Thailand.

Further info: CDA (03) 457 8666.

● Lightmovers have supplied Jands Production Services with 14 **Optikinetic Terra Strobes** for use on the R.E.M., Janet Jackson, Bryan Ferry and Pearl Jam tours.

They have also installed a **Theatrelight CueMASTER** desk, **Dynalite** Dimmers, **Teatro** Luminaires and Creative Audio Paging and Intercom Systems to Kambala School.

## LEISURE LIGHTING DISCO EFFECTS

Leisure Lighting, mainly aimed at the mobile market are however also finding their way into disco installations. New models include:

**Supascats** - a basic disco effect utilising a low voltage 100w lamp to produce a static moon flower effect, available with either a white reflector or multi-coloured reflector utilising dichroic mirrors. \$ 159.00

**Rotascats** - again available with white or multi-coloured reflectors, when put through a chaser/controller they twist left to right, without a controller they will constantly rotate one way, producing a moon flower type effect. \$ 225.00

**Quadrascats 100** - similar to four supascats in one box, with a built-in controller that has 14 patterns. The in-built programs can be set to run automatically or be sound activated by the built-in microphone. The Quadrascats uses four 100W lamps and is fan cooled with a choice of coloured and multi-coloured reflectors. Ideal for mobile DJ use as you can sit the unit on top of a speaker cabinet and you have a fully contained light show in a box. \$ 655.00  
For further info call: Coemar (03) 467 8666.

## RAINBOW UNIVERSAL ADAPTOR

Rainbow announce the availability of a new "Universal Adaptor" which fits most 2kw to 5kw tungsten and compact HMI fresnels.

Standard on all future 15 inch "plus" scrollers, this adaptor is adjusted in seconds with a Philips screwdriver and fits a large range of fixtures including ADB, ARRI, De Sisti, Lee Colourtran, Sachtler, Strand, Mole and Selecon.

Standard barndoors can be retained in most cases and these units offer a silent choice of 10 colours or correction filters in seconds from your standard lighting desk.

Users report a considerable increase in filter life due to the linear fan with remote control. Adaptor kits for Iris 1's are also available. Contact your nearest Selecon dealer for more details.

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# THE CHANGING FACE OF THE LASER INDUSTRY

## A LOOK AT THE WORK OF ORACLE LASER PRODUCTIONS

Previously the laser industry was dominated by one or two large companies who until now have had a virtual monopoly on the market. This situation is fast changing with a few new players entering the market with new technology and attitude to the industry. One of these new companies is a local manufacturer, Oracle Laser Productions, who have entered the market with their own Australian developed technology.

The Oracle technical team consists of three full-time engineers covering software, computer hardware, electronics, manufacturing and optics. This combination of skills has enabled these young ones to design and build a laser system that rivals the international standards.

High tech is the name of the game and Oracle claim they have developed a system that puts the most CPU power ever behind a laser. They developed their system around a state of the art RISC CPU laser graphics engine. This same RISC CPU technology is used in virtual reality applications inside Silicon Graphics work stations. The system can control two full colour laser projectors from one board. Other boards may simply be added to control more laser projectors. An embedded 486DX computer controls all file access via ethernet link to the RISC board. Oracle have also developed another innovation with their wireless RF control system where up to 256 laser systems can be controlled from up to 30 km away. This is a big advantage at shows because the laser can be controlled from anywhere even mobile, with no control cables to get in the way.

Oracle also build state of the art laser projector systems. All of their systems utilize a new type of optical scanner capable of a < 70 degree scan angle with a 16 bit 4 billion pixel graphics resolution and twice as fast as the old industry standard GM120's. Their full colour systems utilize the latest technology solid state colour selection devices yielding over a trillion colours including bright pinks, purples and even browns. These colours were not possible

to obtain with the old RGB mechanical colour selection devices. However driving the scanners twice as fast and controlling the colour selector in realtime for both scan heads has increased the amount of CPU power required for three dimensional laser animation techniques dramatically. This is why Oracle have developed their RISC CPU board system that meets these requirements and has head room

RF link. The fifth computer remote controlled all the beam stops, dichroic filters in the Argon laser systems and a custom built scanner signal interchange unit. By computer controlling the lasers auxiliary functions and signal routing, we could preprogramme chase patterns with the lasers coming on and off on different colours and patterns much faster than can be done with manual control. The show

went particularly well until a thirsty punter decided to rip up the water main in front of the building!

Their next big project incorporates using over 9 separate laser systems in a vertical circular layout. The whole thing will again be computer controlled as no one can press this many buttons at once! With computers controlling everything, Oracle always have a large red emergency stop button at the controller which overrides all systems and blocks



the lasers just in case. for the future add ons. Laser control systems of this level of sophistication are already available from overseas starting at \$US50 000 with limited features.

The system is capable of utilizing the two or more scanner pairs to draw the one image coherently. For example one set of scanners could be drawing a 3D car rotating while the second set is drawing a 3D humanoid character inside the car waving to the audience as the car rotates.

Oracle have been kept fairly busy over the past few months picking up a lot of the large dance party work as well as corporate functions and club work and overseas interest. One recent job was the Prodigy Party on New Years Eve. They used two 5 Watt Argon systems and their 4 Watt dual scan full colour system in the centre. Rather than opting for the easy way out and have all the lasers doing the same thing all night, Oracle set-up 5 x 486DX computers to control the lasers. Two of these were used at the control desk over 100m away to generate scanner control signals another two computers controlled the colour system via

the lasers just in case.

On the subject of safety, Oracle commented that the YAG laser reviewed in a previous issue was no toy. A YAG laser running at 40 Watts pulsed mode is more dangerous than the lasers we are used to. A 40 Watt laser is dangerous in any case but the YAG is even more so due to the pulsed nature of the beam and can cause personal injury much quicker than a normal gas laser. These lasers typically have a large beam diameter and large divergence which makes them unusable for laser scanning since we use very small mirrors. A frequency doubled YAG laser outputs a lime green wavelength that has an equivalent brightness of a 100 Watt Argon laser but uses less power and water than your average 5 Watt laser.

Oracle also specialize in manufacturing smaller laser systems suitable for clubs, discos and small parties. High powered water cooled lasers are not usually needed for clubs and discos, not to mention the danger of using a 5 Watt laser in a small space but also wasting all that power and water at 8 litres per minute during a drought. A lot of the laser effects



systems out there are typically old technology and out dated.

Oracle's systems utilize the wide angle high speed scanners mentioned before and come complete with operator and control system with over 10Mbytes of pre programmed patterns, images and animations. The systems utilize air cooled Argon Lasers that use 10 amps single phase and are more than bright enough for most medium sized clubs. Oracle are also currently developing a small full colour system using air cooled lasers and will draw about 15 amps single phase. This system has been designed with clubs and nightclubs in mind. These systems are available for hire, lease or sale.

Companies who have purchased laser systems from overseas can find themselves stuck with an out of date system that they can not return and are in dire straights with when it



Chris Sifton in P. & D lab. Oracle build custom control cards and re-engineer existing laser technology.

breaks down. Oracle provide an upgrade option to their customers so that the laser system and software can simply be modified or updated when the client feels necessary. This way a high level of local support can be provided and no one gets stuck with a dinosaur after two years.

For further info contact Paul Mezlin or Chris Sifton at Oracle (02) 938 4466 or fax (02) 938 4504

# Bits

● **Lightmoves Technologies** have sold, via Glantre Engineering, to the Capitol Theatre the following:  
DMX Network - 108 Outlets, Patching & 6 DMX Amplifiers.

*Auditorium Lighting Control System & Dimming System* - Theatrelight Showmaster II 24/48, Dyalite Dynet Control System, Dyalite Project 12, 2.4Kw Dimmers - 24 Channels, Dyalite Project 6, 5.0Kw Dimmers - 30 Channels.

*Foyer Lighting Control & Dimming System* - Dyalite Project 12, 2.4Kw Dimmers - 36 Channels, Dyalite Project 6, 5.0Kw Dimmers - 12 Channels.

For further info call: **Lightmoves** (02) 560 0000

● Software sales continue for Coemar with Topstage in the ACT and Entertainment Services in Qld both purchasing **LIGHTSHOP**. For further info call: **Coemar** (03) 467 8666.

● **Lightmoves Technologies** have been supplying the pyrotechnics for Elston Hocking & Woods productions of *A Midsummer Nights Dream* in Sydney, Melbourne and Adelaide. Info: **Lightmoves** (02) 560 0000

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Beam Angle	Peak Candela	1200w		1000w		Lens Size
		Spot	Flood	Spot	Flood	
<b>Fresnels</b>						
Compact 6	7-50°	185,600	17,640	120,000	13,680	150mm/6"
Selecon 1200	7-50°	228,939	27,156	126,000	14,040	175mm/7"
Strand Cantata	7-70°	123,250	10,900			150mm/6"
CCT Starlette	6-57°	156,000	17,750	136,200	12,500	150mm/6"
Teatro Tratto	6-35°	138,500	24,600	132,400	21,000	150mm/5"
Teatro Spazio	8.5-50°			116,200	13,600	150mm/5"
<b>P.C.'s</b>						
Compact 6	5-60°	306,000	15,840	205,200	10,000	150mm/5"
Selecon 1200	4.5-60°	342,000	14,220	226,800	10,000	175mm/7"
Strand Cantata	4.2-49°	206,000	14,300			150mm/5"
CCT Starlette	7-38°	152,500	18,300	127,000	13,250	150mm/5"

NSW Lakes Ph: 0-2-319 3133 MacSound Ph: 0-6-778 4090

VIC LSC Ph: 0-3-561 5255 Three Arts Ph: 0-3-818 0397

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# OSRAM CHAMPION EFFECT LIGHTING WITH HALOGEN



Look: OK at the "Palladium Disco", Hamburg, where OSRAM Halospot 111 35w Halogen Aluminium Reflector lamps beam down.

Halogen lamps with aluminium reflectors are considered the "poor cousins" of the halogen lamp family despite the fact that they can sometimes offer superior performance in some lighting applications. Osram believe they have allowed competitors to get away with promoting dichroic reflector lamps for too long! In fact it has now got to the stage where quite a few people are surprised to hear that metal reflector lamps even exist.

"There is even the misconception that dichroic lamps produce less heat," said Klaus Engelhard of Osram recently. "All lamps produce heat, the reflector merely determines where the heat is directed to!"

"Halogen lighting made its name for the simple reason that it provided an avenue for spectacular effect lighting; it created contrasts and highlighted displays. Many of the first applications of halogen lighting were pure lighting magic. Lack of knowledge and imagination has now reduced this magical light source to the role of general lighting for which it was never really intended."

Klaus has drawn our attention to the recently refurbished Palladium Disco in Hamburg, Germany. The challenge to the Viso Design Group and their lighting designer Peter List was to illuminate the galleries and five bar areas in a manner that bathed the round table tops in those areas in brilliant light and to highlight the colourful drink concoctions served there. But it was important not to interfere with the central attraction, the dance floor. Table mounted luminaires were ruled out as they would have taken up too much space.

As the ceiling height is 6m, it was decided to use recessed downlights equipped with Halospot 111 35W halogen reflector lamps. For such mounting a beam angle of 4° was the ideal solution and each lamp had a luminous intensity of 33,000 candela. A total of 150 Halospots were used to achieve the desired effect. As the ceiling space available was only 70mm in depth, the ability of the Halogen 111 to reflect heat away from the lamp base, lamp holder and low voltage transformer was a bonus. For further info on aluminium reflector lamps call: OSRAM (02) 481 8599, or write in FEADER SERVICE NUMBER 220

## THE BSS SHOW

The Peter Kemp column

A lot of us forget about the local market when considering trade shows, and these are extremely important in a country the size of Australia. One such show I have just returned from is the annual trade show put on by BSS, in Adelaide, and I must say that once again I was very impressed with this show.

Many suppliers supported this show with the following equipment on display: Denon - audio, Gemini - audio, RCF - audio & video, AKG - audio, LSC - lighting, Ross systems - audio, DOD - audio, ARX - audio, Soundtech - audio, Klark teknik - audio, DBX - audio, Fostex - audio, Sennheisser - audio & Coemar De Sisti - lighting. Though I must say that very few of the suppliers supported the show by actually attending. Isn't it important for the suppliers to meet and talk with the ultimate users of their equipment? The sort of feedback one gains from these type of things is extremely important and can only be gained from this type of interaction with the users of your equipment. Therefore I strongly suggest that all equipment suppliers support their local distributors in this type of activity, you will gain greatly from it, and probably secure further sales.

Every year BSS hire a small theatre and for three days they conduct demonstrations of the equipment with pre-booked appointments and 2 open nights. The program usually consists of an extensive static display of audio & lighting equipment and then a full programmed show, highlighting a wide range of lighting and audio equipment. The show put on by BSS this year featured a new sound system they have available for rental, the Coemar NAT TM1200 moving lights, RCF large screen video projection, plus a whole lot more all tied together in a show running SMPTE time coding for synchronisation and lighting control by ShowCAD a PC based lighting control package. The show ran for approx. 5 minutes and then people were given a point by point run through on various pieces of the equipment used, after which they were invited to have a close up look at all the equipment and get personal attention to any questions they had. This was tried together with BSS's hospitality with food and drinks in the foyer of the theatre.

This year the show attracted a wide range of people, including a number of schools and their students (these are the future users of our equipment so we should educate them in the latest trends). The IES (Illuminating Engineering Society, Adelaide chapter), held their monthly meeting in conjunction with a special evening presentation put on by BSS for them. The members of the IES are usually architects, engineers etc. mainly involved in commercial lighting, so they were surprised to see some of the latest lamp developments etc. being put into practise in such a different way, than what they are normally used too. The educational role of these types of shows is extremely important to the industry as it allows a lot of other people to understand a little more of what our industry is all about, and also assists those teaching people in matters related to our industry by providing them with some hands on experience.

This was certainly the case with this show as could be seen by the intense interest shown in the latest lighting software that was demonstrated. In addition to these types of people the show was also attended by the majority of nightclub owners in Adelaide and a wide range of theatrical, television, and film type people.

BSS should be proud of the fact that ever year their attendance to the shows continues to increase, and many of the locals look forward to the show each year in order to see what is the latest equipment. Surely this is what all the commercial people in the industry should be trying to do, if your clients do not know about the products then they cannot buy them. It also gives people a chance to meet the full team of a company such as BSS, as in the normal trading with the company you may deal with only one person from the organisation.

(continued page 99)





# CYBERLIGHTS

Last month I made a radicle cock-up within the Buyers Guide on Moving Lights and GUVT were the hapless victims. Basically I didn't get the differences between the Cyberlight™ and the Cyberlight™CX correct and I also inadvertently offered the readers a highly discounted Cyberlight - nearly \$5000 cheaper! No doubt the phones at GUVT have been busy.



*The Cyberlight*

My punishment was to set the matter straight and so here I go.....

There exists within the Cyberlight™ automated luminaire range two models which share many identical features. The two models are Cyberlight™ and Cyberlight™CX.

Following soon after the introduction of Cyberlight™ in 1994, High End Systems introduced a new automated luminaire, Cyberlight™ CX to bring the engineering qualities and features of Cyberlight™ to the no less demanding nightclub and discotheque markets.

Both luminaires utilise a 1200w, 5600 degree Kelvin high intensity light source delivering significantly higher photonic output (50%) than typical 1200w based fixtures.

Other features identical on both models are fully remotely controllable and programmable focus, iris, eight position indexed colour wheel, dual gobo system combining an eight position indexed gobo wheel and four bi directional variable speed rotating gobos, variable speed strobe, multi image prism effect and selectable diffusion.

Standard and optional Lithopattern™ high resolution glass gobos deliver customisable, near photo quality image projection as a feature with both luminaires.

Both luminaires are dimensionally the same and both can be controlled by Status Cue™ lighting console, the LCD lighting controller for Cyberlight™ and of course USITT DMX512 control.

Cyberlight™ automated luminaire, in addition to the aforementioned features, also has fully remotely controllable and programmable zoom selectable between 13° - 22° or

16° - 26°, supplementary zoom lens, variable frost under program control from hard edge to soft edge with field angle up to 36° and an infinitely variable dichroic subtractive colour mixing system.

Cyberlight™ CX has a manually adjustable zoom whilst featuring the remotely controllable fully programmable variable focus.

Both luminaires pan and tilt angles are 170° by 110° respectively and the mirror head pan axis may be manually adjusted +/-22.5 degrees.

Cyberlight™ automated luminaire is supplied complete with lamp at a recommended list of \$13,251.00 excluding sales tax. Cyberlight™ CX automated luminaire is supplied complete with lamp at a recommended list of \$8,462.00 excluding tax.

All Lightwave Research products are backed by High End Systems, a world-wide network of service providers, and a two year parts/labour warranty.

For rental/sales outlet details, further information regarding the Cyberlight™ range of automated luminaires or any other High End Systems product contact Noel Bourne of



*The Miss USA Pageant*

GUVT by telephoning toll free 1-800-773-187.

Lightwave Research automated luminaires are currently on a host of 1995 tours including Prince (LD Justin Collie), Van Halen (LD Roy Bennett), Bob Dylan (LD Ken Mednick), The Eagles (LD Nick Sholem), Phil Collins (LD Patrick Woodroffe), The Grateful Dead (LD Candace Brightman), Queensryche (LD Howard Ungerleider) and Megadeth (LD Michael Ledesma).

Lighting director Dennis Rudge and effects lighting director David Chance used 54 Cyberlight™ automated luminaires on the 1995 Miss USA Pageant. Lighting was handled by Vanco, while the Cyberlight luminaires were supplied by Production Arts.



*Alan Jackson in concert, LD Jim Bauman*

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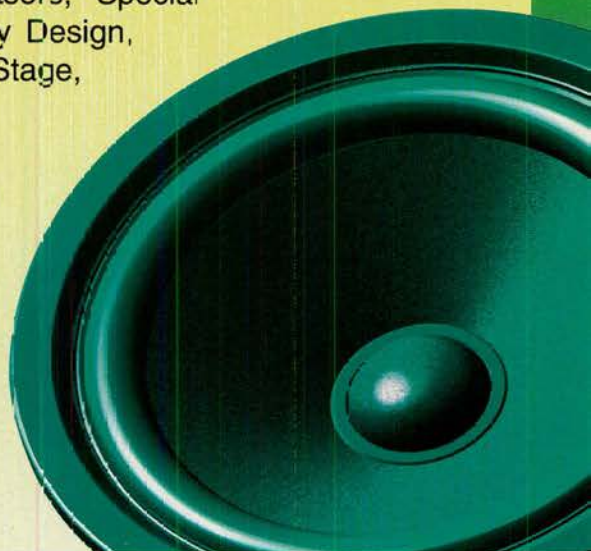
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Only SGM Linea 81P eight channel light control unit. • 1 Only Jet DMX101 disco mixer. • 1 Only ARX EC2 crossover unit. • 1 Only TEAC W410 dual cassette deck. • 1 Only TOA W7780 wireless microphone receiver 203.3 mHz. • 2 Only Sony CD players. • 3 Only purpose built aluminium road cases. All the above equipment was new stock with the exception of the near new CD players and dual cassette deck.

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# THE PA PAGE

## How to FIX failed Speakers

*Saving \$300, detailed by Michael Orland.*

They say there's no such thing as 'a bit pregnant'. You either is or you isn't. Well sure, some happenstances occur as absolute in life. But many more occur as degrees.

Many folks assume speaker failure can only mean a recone is necessary. But often it isn't. Repairing a speaker cone that is either open circuit (gives no response to a meter across its terminals) or scrapes (when the cone is gently and evenly pushed in and out) can be a tricky, hit or miss sort of affair. But with most reconings costing only a little less than the repaired second hand value of the speaker, it's always worth having a go. Your local official service agent is not going to try it for you. Why should he?

A repaired cone may last 10 years. Or 10 minutes. And if it's the latter you're going to feel ripped off for having paid him for having a go. Many such service personnel are therefore under instructions to never attempt repairs on cones, but to simply play it safe and replace the cone altogether at full charge. So if you like avoiding necessary expenses, cone repair is something you need to get in the habit of having a go at it yourself. Like sex, the more you do it, the better you get. I'm sorry, that was totally unnecessary, can we edit that out? (Sure, no problem. Ed) The worst thing that can happen if your unsuccessful is you'll have to revert to Plan A; taking it to be reconed; losing nothing.

If the speaker is open circuit and scrapes, it's safe to assume it's beyond repair. If it's open circuit and doesn't scrape, check for continuity between the terminals and the braid that leads to the cone.

If that's O.K., check the connection between the braid and the wire that runs down to become the voice coil. These are usually coated with glue, so you will have to expose them to make a good testing point. This can be done with a sharp blade or better yet with glue solvent, such as Methyl Ethyl Keytone, available from chemical suppliers.

If you do find a dicky connection, a touch up with a good soldering

iron may get you back in business.

If the speaker measures fine, but scrapes, there may be a number of reasons. Too much power or a faulty or clipping amplifier can overheat the voice coil. The glue that holds the voice coil to the former can fail and the loosened coil can scrape against the magnet. Sometimes the glue will bubble under the coil, distorting the former and causing it to scrape against the inner pole piece. Sorry. Either case is irreparable and requires full reconing.

Sometimes a speaker scrapes after it has been dropped, resulting in the voice coil being out of alignment. In some cases the voice coil can be realigned. Remove the dust cover and ascertain the point of contact between the former and pole piece. Carefully insert a shim of rectangular plastic at this point, pushing it down as far as it will go and forcing former and pole piece apart. These shims are often supplied with recone kits. If you don't have any, you can try cutting them out of the sides of plastic milk containers. After a week or so, carefully remove the shims and test for free cone movement. If successful, reglue a dustcap on and count yourself lucky.

Sometimes a speaker scrapes because of crap in the gap. Remove the dust cover and visually inspect the gap between former and pole piece under a good work light. Sometimes itty bitty metal splinters have found their way in and need to be removed. Cut a piece of masking tape, work it into the gap, sweep it round to the splinter and try fishing it out. Repeat using fresh pieces of tape each time until they come away clean and free cone movement is restored.

If the speaker is a JBL, it may have a thin piece of foam glued over the vent in the centre of the pole piece. As any bozo can tell you, foam of this type has a life of about 10 years after which it disintegrates. I've spent hours fishing these foam fragments out of speakers after they've been pumped into the gaps. Whenever you uncover one of these foam caps, remove them and re-

place them with a circle of fine wire mesh, saturating the edge with contact adhesive to ensure micro bits of mesh don't come loose.

Recently I had a Martin/ATC speaker which was scraping badly after the dust cover had torn apart and fragmented under pressure. It took about 6 hours of feeding tape into the tightest gap of any speaker I've seen and removing cardboard fragments to restore total free cone movement. Extremely frustrating business with no guarantees. At times I came close to testing the speaker's aerodynamics from my balcony, not entirely in the name of science. Still, a reconing for one of these is about \$300, and there's not many of us who wouldn't consider half a day of our time worth that.

I like the idea of this page having a forum kind of feel, and I value response. In my last article I bemoaned blotchy speakers in wedges as a result of drink spills. I'm grateful to a Brisbane reader who rang and offered an easy and, in hindsight, obvious solution, Scotchguard! Available in spray cans from Big W/K Mart/etc. The treatment of speakers with this is even recommended in Altec manuals for weather-proofing outdoor systems.

I've also copped a lot of flack from people over the inference that your average rock musician shared the intelligence level of dogs. I regret any offence this may have caused and I sincerely apologise to canine lovers everywhere.

*Michael runs The Public Address Co in Sydney, call (02) 799-7219.*

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