

MARKET REPORT: PLASMA DISPLAYS

Connections

PROFESSIONAL AUDIO & VISUAL TECHNOLOGY

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All about **AMPLIFIERS**

ISSN 1320-5595



Vision, lights and sound for Sir Elton

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FP2200 (not shown)

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FP2600 (not shown)

- 840w per channel @ 4 ohms
- 8kg, 2RU

FP3400 (not shown)

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Locked Bag 30,

EPPING NSW 1710 Australia

Web: www.conpub.com.au

Email: mail@conpub.com.au

Phone: +61 2 9876-3530

Fax: +61 2 9876-5715

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Julius Grafton, (Publisher)
julius.grafton@conpub.com.au,
call toll free 1-800-635-514
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Publisher: Julius Grafton
julius.grafton@conpub.com.au
mobile 0408 498-180

Editor: John Grimshaw
john.grimshaw@conpub.com.au
mobile 0408 833-394

Melbourne: Mandy Jones
mandy@conpub.com.au

Contributors: Worldwide.

Tax, finance: Jennifer Royal

Front Desk: Lovely Candice II

Cover Photography: Dario Gardiman

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Lawyers: Squabble & Collect

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bking@ozemail.com.au

Platform: Mac and PC together. Uneasy.

This publication is checked by virus scanning software to ensure your safety while reading. Some spelling and grammar mistakes have been deliberately included for you reading pleasure. Apostrophe man, where are you?

May 2002 Issue: #98

From the editor...

OHS and Insurance

In the last few weeks, I have had occasion to think a little carefully about Occupational Health and Safety. After researching, writing and delivering the OH&S course Connections recently ran for the first time at TAFE, it has occurred to me that they are likely to be plenty of venues that are not complying with Australian national standards. This is because there are a few things to consider when looking to be OH&S compliant.

Do you have a designated OH&S officer? Is your venue providing an OH&S induction to the workspace for every worker or visitor to the set or backstage? If you are a contract worker, are you getting an OH&S induction when you walk into a venue or performance space?

There are some venues that are implementing these protocols, to the point of making you sign a form saying that you have received the OH&S induction.

When we designed the OH&S component to the course we are running with TAFE, we looked carefully at numerous documents and standards. However, by far the most useful one was the "Safety Guidelines for the Entertainment Industry" - a document that was created by the Media Entertainment & Arts Alliance and the Australian Entertainment Industry Association (the workers union and the employers' association).

You can find this document on the Alliance website at www.alliance.org.au/hot/images/safetycode.pdf - and I would recommend that you download a copy and read it carefully, because it is highly likely that you will have to work under these guidelines whether you like it or not.

Almost all of us in the industry have stories about accidents and near misses.

Thankfully, only very few of us have stories the involve death of a workmate, and this is the main reason why are industry is significantly less regulated than areas like construction.

Theatres and sound stages are really just as dangerous as a construction site, but the fewer fatalities and serious injuries can be directly attributed to the fact that each of us that work backstage are very careful about what we do.

So, we have a safety code rather than enforced regulation. In my opinion that is a good thing, but this comes with a responsibility to make sure we abide by the safety code - otherwise it will be hard hats backstage, and a handrail along the edge of the stage.

On another front, Connections is looking into the issue of Public Liability insurance. This is because it would seem that this issue is going to have a more direct impact on our industry - beyond the producers of shows finding it more expensive to stage a show.

If your company rigs any piece of equipment over people (even a light), changes by numerous insurance carriers could have serious implications for you. We want to know if you have discovered a massive increase in your Public Liability insurance.

Alternatively, if you are interested in meeting with other managers to discuss solutions to this issue, let me know by email. If enough people contact me, then we will make it happen.

John Grimshaw

john.grimshaw@conpub.com.au



Publisher writes...

Doing more for less - and loving it!

I was reflecting on what the hell to write here, at 3.28am on deadline. Uncharacteristically sober, too. Then it hit me.

Australians Michael Orland, George Gorga and Chris Thompson have all been around a while, and they are all doing what they love - which is making sound. The point of this is that they are doing it better, cheaper, and smaller than ever before, thanks to technology.

All feature elsewhere in this issue, so read about how they use smaller equipment that costs less, to do more.

The advent of the digital multitrack in particular has changed the world, and in the case of George Gorga, allowed him to breath

life into an old mobile studio.

Now extend what Grimshaw says above. We have an increasingly complex society where work is becoming more regulated, albeit sensibly where safety is concerned. There are increased costs in complying with all the regulations and practices we now face, while revenues for our services are always tight.

The thing that saves us time and money, thus the reason many of us continue to do what we love doing, is technology.

I'm doing what I love, using technology.

The cost of technology is coming down, in some cases falling down, and hard.

Enjoy yourself, keep updated, read on!

julius.grafton@conpub.com.au



This is the fastest growing market for visual technology. See page 7

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Sir Elton John repays his fans with superior production values. Page 26

30 YEARS OF ROCK SOUND & LX!

The Daze of our lives continues... Pg 69

On the Cover...

Here's the other side of the picture! The Powersoft is a new ultra compact amp. Thanks to Graham at Corporate Audio Services for the great picture.



UPCOMING REPORTS:

June - Luminaires,
Small PA Boxes
July - Wireless Audio,
Video Distribution

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Technical Training

"This course is exceptional value for money"

"I didn't think you would have equipment this good!"

Connections Magazine presents **technical training**. We come from the live audio and lighting production industry, and have compiled these courses with exhaustive feedback from employers and venues. These are PRACTICAL, PROFESSIONAL INDUCTION courses.

Courses are properly structured to provide a learning outcome for each lesson. In NSW, our courses are partnered by TAFE. And, we supply lots of modern equipment.

"I am enjoying myself so much that I am already looking into more courses." **Patrick Currie, Home Nightclub, Sydney**

"Excellent information, very good flow. Practical and theory content a good balance." **John Mitchell, Carnarvon Civic Centre, WA**

"Excellent presentation of Occupational Health and Safety. Content was well chosen and centred on the basics of Entertainment Industry safety. I would like to recommend a your course to any person, at any level, involved in any type of live entertainment presentation. It could save a life." **Tim Kirkland-Morris, Peak Events and Entertainment, Sydney**

"Frying my brain! Most courses I can turn off a while. This one keeps my interest" **Wayne Brennan, Gilgandra, NSW**

"I think you are all very capable and knowledgeable. I like that it is all very relaxed" **Courtney Rich, Petersham, NSW**

"Chance to benefit from vast experience" **Phil Dodd, Holder, ACT**

SYDNEY: July 2002

• **OH&S & Industry Practices Induction**

• One full day, part of the five day course(s) below.

• **Professional Performance Lighting Induction**

Host: John Grimshaw. \$550/\$690 (includes OH&S day)

• Five day block, Monday 8 July to Friday 12 July

• **Professional Live Audio Induction**

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• Five day block, Monday 8 July to Friday 12 July

MELBOURNE: Sept 30 - October 4

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Lower price above is for 21 days or more advance booking. Higher price is standard course fee, booked less than 21 days before. All prices include gst.

Connections

The Asia/Pacific Professional Audio and Visual Technology Monthly

MAY 2002

FASTEST GROWING CONCERT SCENE

More muso's, more tech's, more new equipment ordered. What's going on here?

The staggering reality is that the first million dollar order for live digital mixing consoles in Australia -ever- is for a church. Hillsong, in Sydney to be exact. But this isn't a fluke, a weird aberration. It's a trend.

How can a house of worship generate more pro sound investment funds than any performing arts venue across the region?

Consider the reality. There are growing numbers of live worship 'rock' albums committed to CD and DVD. The worship business is exponentially expanding, driven by a youth constituency that has seen CDs go gold and beyond, but not be recognised as such by ARIA because they are metaphorically sold on a Sunday at church.

At presstime Oxford Falls Christian City Church (Sydney) released a CD and video called Higher, which was recorded live by George Gorga and John Simpson. This location recording project involved a weeks work on site in the former Jands mobile, which is now owned by George. The 48+ tracks were then mixed down in the A+R Recording Studio at Botany.

Getting the material onto tracks was not as straightforward as one would think.

The live lineup comprised: drums, percussion, 2 bass players (we are not sure why!), 4 guitarists including mandolin, 3 keyboard players, 15 horns, 1 cello and a choir of 120. Plus, the typical onstage complement for a charismatic church can comprise six main vocalists, the main pastor, plus guests.

Church technical director Peter 'Doc' Woods explained that the live take was everything: and only the choir was overdubbed later.

"We got them in and ran the multitracks straight through for ninety minutes, to maintain the vibe. They were miked with 16 SM 58's would you believe, almost close miked. It's a very different world to concert sound. I need to remove people from technology and let them worship".

Doc mixed monitors for the show, from a Ramsa SX-1 console, to 21 sends - 20 in ear.

A growing number of professional musicians populate the Christian music scene, playing alongside enthusiastic amateurs, "putting something back". - **Julius Grafton.**

Bank 'unable to discuss' invisible Connections

Readers may be surprised to learn that after ten years, Connections doesn't really exist. This is the view of the Commonwealth Bank, who have had enormous difficulty providing us with basic banking services of late, including issuing cheque books.

In the defence of the bank, we did make the grievous mistake of incorporating a new company, requiring a new account, and new merchant (creditcard) facilities. In declining our application for a third merchant account, the bank executive stated: 'we are unable to discuss the factors that led to this decision', which leaves us wondering.

Perhaps Connections has been naughty in the past? Maybe we have pushed some rules regarding loan limits? Abused managers and staff? Or maybe we have - shock horror - bounced a cheque?

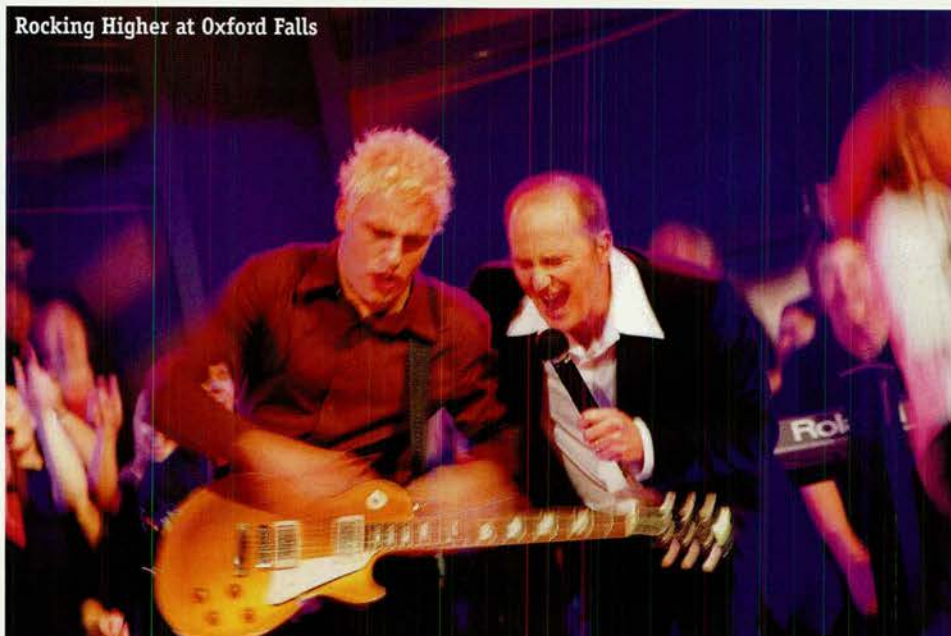
Sadly, none of the above applies. How boring!

The answer lies with the main problem this bank enjoys. Because they have sacked staff and removed managers from branches, businesses are supposed to dutifully and gratefully report to regional offices where overworked young graduates try to administer accounts by remote control.

The way the banks recognise their business clients, and thus 'service' them in this manner, is from loan applications.

Connections forgot this rule, and failed to borrow any money from its bank. So, the bank doesn't know we exist. They know nothing.

Caught in this no-mans-land, we suppose we'll need to borrow some money from our next bank.



Rocking Higher at Oxford Falls

Who is doing what?

Teaching Grandma

Show Technology has embarked on an expanded training programme, including sessions on the new GrandMA lighting console. Show Technology's Professional Products Manager **Andrew Winslade** runs the seminars. Check the Show Technology web site www.showtech.com.au for future seminars.

Labs power major Radio Network

Jansen Professional Audio & Lighting (NZ) finalised a deal with Rhema Broadcasting Group that will see all their studio's powered by Lab Gruppen LAB300 amplifiers. These 300w 1RU fanless amplifiers were chosen for their low ambient noise and high quality clean output.

Rhema Broadcasting is responsible for three radio networks: LifeFM, Radio Rhema and Southern Star. Check out their website www.rhema.co.nz Also see: www.labgruppen.se

Spintech FX

New Sydney based company, Spintech FX is headed and owned by Mardelle Collins, formally from GUET and Show Technology.

"Spintech FX was borne out of my desire to wholesale lighting and effects products to the Industry," says Mardelle.

Their range includes MTC Parcans and accessories, MTC Effects Lighting, and ASHA Bubble machines.

• Spintech FX +61 2 9596 0610
www.spintechfx.com

Coemar drop prices on their entire CF Range

Apparently against all current thoughts and trends, Coemar have now dramatically reduced all pricing on their "CF" (Carbon Fibre) Range of wash and hard edge moving yoke devices up to 28%.

• Coemar De Sisti Australia Pty Ltd +61 3 9467-8666
www.cdaust.com.au



BYTECRAFT ADD TRUCKING

Newly moved and split, Bytecrafft Entertainment hits the accelerator

Approaching the new Bytecrafft Entertainment complex in Danderburg South, one could be forgiven for thinking of a firm in California or Munich, such is the scale of the building. The firm moved in recent times following the amiable split between the founders, Stephen Found and Teg Fregon. Fregon retains the automation and manufacturing business at the previous address.

Once inside the facility, the reason for the scale becomes obvious, with a large electronics service operation based there servicing gaming machines across Melbourne. The gaming business employs over 100 technicians who are despatched continually from a secure control room.

The lighting side of Bytecrafft also employs over 100 full and part time people in Melbourne, and about 50 in Sydney. It has the largest rental inventory in the southern hemisphere, having absorbed the lighting rental business of Jands Production Services last year.

Rental manager Jay Davis (pictured left) and his assistant Allan Anderson (right) explained the inventory is split between the states according to historical need, with the Jands stock of Vari-Lights formerly being based in Sydney.

"There are a few Vari-Lite customers in Melbourne, so we have a small stock here" said Allan, "but broadly speaking we specialise in High End (moving lights) here with VL and (Martin) Macs in Sydney.

To manage the two stocks, each is maintained separately on HITS software, a DOS based system used by some large rental firms overseas, and also by Jands. It doesn't allow multiple locations, like Rental Point does, so any transfers from one state

to another are treated as sub rentals.

The art of moving equipment around the eastern seaboard caught my attention, courtesy of a very shiny new Kenworth Aerodyne articulated truck and trailer combination that Bytecrafft have just added. The K104 has a 520 horse power Cumming engine, and an 18 speed gearbox, mated to a 45' pantech.

Jay Davis schedules his trucking movements about a week ahead, with the gaming division providing a schedule of movements that sometimes has the Kenworth working overnight to move poker machines around the city. Another two pantech trucks of 8 and 3 tonnes capacity form the fleet, joined by a new 130kVa silenced generator truck on a 5 tonnes chassis.

According to Jay, the decision to buy trucking is to improve service, so that "some guy with a bad attitude in a blue singlet" doesn't mess up a customer relationship. There'll still be plenty of contracted trucking used by Bytecrafft, and at \$65 an hour around town for a semi or \$1500 for a trip up to Sydney the temptation to let some owner driver go broke delivering your gear is high.



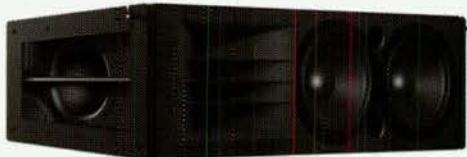
Meyer build a Manzil Room Line Array

New baby line array products catch industry by surprise. But where's the Manzil Room?

Meyer have shrunk their line array offering, given that their top of the range offering, the M3D, is an industrial strength device.

The new self powered M2D utilizes Meyer Sound's exclusive REM (Ribbon Emulation Manifold) to couple a single Meyer Sound MS-2010L compression driver with a 1.5-inch exit (4-inch diaphragm) to a new horn with 90-degree constant-directivity horizontal coverage.

The M2D mid-low section comprises two new 10-inch cone drivers with lightweight neodymium magnet assemblies, housed in a compact, vented trapezoidal enclosure. To assure smoothest response in the critical



midrange, the M2D incorporates a complex crossover design similar to that pioneered in Meyer Sound's UPM loudspeakers: at the lowest frequencies, both 10-inch drivers combine to reproduce powerful, coherent bass, while in the mid frequencies the

crossover feeds only one of the two drivers. This ingenious technique eliminates interference between the drivers that would

otherwise occur at shorter wavelengths, and maintains optimal polar and frequency response characteristics.

The M2D's cabinet 991 mm x 307 mm x 445 mm and weighs less than 55kg with rigging attached. Its operating frequency range is 60 Hz to 16 kHz, with maximum peak output of 136 dB SPL (each cabinet) at 1 meter.

You really need a subwoofer, as you do with just about every other speaker cabinet on the planet.

The dual 15-inch M2D-Sub High Power Compact Subwoofer has an operating frequency range of 35 Hz to 80 Hz. In combination with companion M2Ds, it extends the overall system power bandwidth and frequency response to 35 Hz.

M2D-Sub affords 139 dB SPL peak output capability and employs Meyer Sound's new MS-415N, a ferrofluid cooled, back-vented driver that features a 4-inch voice coil with lightweight neodymium magnet structure and is rated to handle 1200 AES watts.

An integral two-channel class AB/H complementary MOSFET power amplifier provides 2250 watts burst capability (1125 watts per channel).

Integral peak and RMS limiters protect the speaker components from over-excitation and over-heating. The M2D-Sub is compatible with Meyer Sound's RMS Remote Monitoring System, allowing the full range of operating parameters to be monitored continuously over a network using a Windows computer.

The trapezoidal, vented M2D-Sub cabinet measures 991 mm x 612 mm x 445 mm with rigging attached, and weighs under 77kg.

www.meyersound.com



Ken Flower. Clarification

In 1996 Australian Business Theatre (ABT) submitted the slide-tape audio visual program 'One Sight, One Sound, One Sell' (the module) into the AMI and Focus Award festivals under the category of Meeting Modules. The program won at both.

ABT acknowledges that Ken Flower was the Creative Director and Co-Producer of the event for which the module was produced, and he devised and wrote the strategy, format, structure and the original treatment outline for the proposed module.

ABT acknowledges the high quality of Ken Flower's concept and creative treatment and the fact that such input significantly contributed to (the) success of the module.

ABT wishes to clarify that Ken Flower/Dreamscapes should have been credited as scriptwriter on the awards entry forms.

ABT also wishes to clarify that no sleight was meant to the reputation of Ken Flower.

Further, Ken Flower has expressed concern that Peter Grose and representatives of ABT have made allegations about Ken Flower to the effect that he distorted the truth by taking too much credit for the work done by him in respect of the project.

Peter Grose and ABT wish to clarify that these allegations about Ken Flower are not true.

Peter Grose regrets any damage these occurrences may have caused to the reputation of Ken Flower/Dreamscapes. Peter Grose and ABT have always held Ken Flower's creative direction, event design skills, honesty, integrity and professionalism in high regard.

New Staff

Altronic Distributors has appointed two new sales representatives to their Melbourne sales office. **Doug Page** and **John Lay** join current sales staff **Laurie Reggio** and State Manager **Paul Zervaas**.

Australian Audio Supplies has appointed Mr **Terry Memory** to the position of General Manager



- Sales and Marketing. Terry will oversee the complete retail network serviced by Australian Audio Supplies which covers the Pro Audio, MI and Home Theatre/Hi Fi markets.

Rod Street takes over as General Manager of Staging Connections, Tasmania

OPENINGS, CLOSINGS

Cork-based **LDPS** - theatre and venue technical consultants and specialists in lighting design and technical production services - will soon open a New Zealand office.

We are wondering what LDPS actually stands for?

Anyhow, the details are:

LDPS NZ Ltd, PO Box 31388, Lower Hutt, WELLINGTON, New Zealand +64 4 471 4081
www.ldps.ie

Connections has moved BACK to the old place, out of the new place. Confused? It's all about doing more with less. So scratch 6d Villiers street off the Filofax. Too grunge for us delicate types.

Plus, John Grimshaw wanted to move into his loft office up in the scrubby hills of Woodford and not take the train. Lucky sod.

Our OLD phone numbers are back, so call +61 2 9876-3530, fax +61 2 9876-5715, and change our postal address to:

Locked Bag 30,
EPPING NSW 1710 Australia

If sending gifts, bottles, cash or inducements that won't fit in the bag, call for a street address.

Who is doing what?

Technician Accreditation

CREATE Australia is the national body currently defining competency levels so that Australia can have a national standard of competency for people in the entertainment industry.

CREATE has a current project running to review the national industry training package for all sectors of the entertainment industry. CREATE will be liaising throughout the project with people working in the industry to obtain their advice on the content and structure of industry training.

CREATE are about to enter Phase 2 of the Review of the Entertainment Training Package, which was the first attempt to delineate official certificate levels for our industry.

You can view the main document (National Qualifications Framework) they created in the Connections Website at www.conpub.com.au/Industry_Info/II_MAIN.htm

John Grimshaw, (Editor of Connections), is on the Steering Committee for this project. If you would like to talk to John about what's available for training technical staff in entertainment you can contact him on +61 2 9876 3530 or email john@conpub.com.au

To become involved in the project, contact CREATE create@createaust.com.au or call Dianne Vincent on +61 2 83992655.

Chameleon Audio Finds Aussie Distribution



High-end British touring and installation manufacturer, Chameleon Audio, has marked the introduction of two new monobloc amplifiers by appointing its first distributor in Australia, Victoria-based ATT Audio Controls.

Developed over the last 12 months by Chameleon Audio MD Paul Houlden and his team in response to customer demand, the 2200 DP/2M and 4000 DP/2M amps have been designed for bass or sub-bass use in two-, three- or four-way PA/install systems.

Both models have the capability to deliver a significantly higher output thanks to an extended impedance intolerance. For example, the 2200's output can be as high as 3kW and

the 4000's to 4kW – apparently this is into just 1 ohm and at less than 0.005% total harmonic distortion.

All Chameleon Audio models have a high tensile stainless steel casing and polished fascia, unique Flat Wire Transformer power supply, five-way circuit protection, plus Speakon, XLR and 1/4in jacks.

Commenting on the appointment of ATT, Houlden states: "This is excellent news. Although Chameleon Audio has a comprehensive distribution network in Europe, areas such as Australia have so far eluded us."

- ATT Audio Controls +61 3 9379 1511
www.attaudiocontrols.com

Recording Lightshows

The new Martin LightCorder is a small DMX recorder that allows you to record and playback any DMX-512 output. The built in scheduler allows recorded shows to be played back at any given time or date. It can have the show loop up to 255 times or loop continuously. Playback parameters can be set up in the Scheduler directly using the LightCorder's LCD display or uploaded via the RS-232 connection to any computer and then saved back into the LightCorder.



Three multi-function custom faders on board the LightCorder can be assigned to any controllable DMX attribute. This allows direct access to dimmer, colour, strobe etc controls as required.

A memory card is included with 8 MB of memory (expandable to 64 MB). 8MB allows from 6min to 3hrs of recording time - total recording time depends on the desired refresh rate and number of DMX channels used.

The LightCorder can also be remote controlled via RS-232 and DMX-in.

- Show Technology +61 2 9748 1122



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Now thousands of R100s worldwide are upgraded to V2.00 software, users have all the tools to manage 5.1 mixing at 2Fs.

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SONY

Who is doing what?



Banking on a new club

When John Stephens opened his club, named The Lounge Bar, in Launceston's heritage-listed ANZ bank building he decided to make a feature of the architecture.

Inside, the bank's main desk was transformed into a bar that runs the length of the room. Outside, the beautiful window bays are transformed at night with light from three Martin Exterior 200 fixtures that are secured onto the eaves of the second floor.

"The client wanted quite a fast sequence of colour change," said Tim Laing of KW McCulloch who installed the fixtures. "There are five colours that change at three second intervals. The control is a basic stand-alone set up with the fixtures simply linked together by DMX cables to run in synch."

Because the Exterior 200 has an on board memory of up to 20 scenes for stand-alone replay, these units can be connected together via DMX, and run without the need for a controller.

Since the Exterior 200's have been in place at The Lounge Bar, Tim reports there has been an increased interest in the lighting of buildings in the town.

DISHY SOUNDS

Food, music, DJ gear and JBL in a seductive mix at Savage

By Madeleine Murray

Combining music and food, Savage is a wildly inventive, deliciously appealing new Sydney venue. Owner Nathan Head, a DJ and record producer, was very particular about the sound in his bar/restaurant/music shop, and fitted it out with JBL systems.

Set in a spacious, airy renovated warehouse, Savage is on two levels. Downstairs is the restaurant, serving brilliant food, accompanied by great music. If you like the music you're listening to as you eat gazpacho with scallops marinated in pink grapefruit juice, or lamb confit, you can order it and ask the waiter to add it to your bill. Head, who knows his music, thought up the concept himself, and ran with it. Since the place is based on great music combined with exquisite food, he wanted top quality sound.

Upstairs is a lime-lit DJ haven, the walls lined with vinyl in white covers. Two sets of turntables are at one end for DJs and aficionados to listen. DJ accessories such as Stanton head shells, needles, and cartridges are for sale, as well as Shure cartridges and styli.

Four JBL MP412 speakers are placed around the music room, as well as a front loaded JBL 4642 dual 18-inch sub. "It's normally used for cinemas," Head said, "but we needed something in here where we could get that good sound. We're really happy with the sound here - it's great. The retail area has the big speaker stuff, so that the DJs can get a really good idea what something sounds like before buying their vinyl to play in the clubs. It's going very well - I read that DJ turntables are outselling electric guitars 10-1 in the States now."

Across from the music room is the bar, all white moulded chairs and moody lighting, as well as six JBL Control 28s and two JBL Control SB2 10-inch subs. "The sound here is fantastic," Head said. "The SB2s are in diagonally opposite corners in this room which really help give a

warmth to the sound. We're not pumping it loud like a nightclub, but the bass gives a very deep feeling to the room. If we didn't have them, it would be just noise coming from above."

The downstairs bar area is a transition space, with two JBL Control 25s. "It's a bridge between the downstairs restaurant and the upstairs. We wanted to keep the continuity of sound, we didn't want any silent areas."

The sleek but cosy restaurant is open for everything from morning coffee, to dinner. It's fitted out with four JBL Control 28s and two JBL Control SB2 subs diagonally opposite each other. "We were originally going to have six Control 28s in here, but it would have been a bit of overkill. The Control 28s are so good that we didn't need six to fill this area. The sound in here is fantastic, we've had people rave about it.

"We are trying to sell CDs to people who are having dinner, who normally wouldn't be exposed to some of this music. We have to play it to them not loudly, but clearly, so that they can hear what's going on in the music without being overwhelmed by it. That's the key to good sound - getting clarity at a comfortable level."

All equipment was supplied by Jands Electronics. System design and installation was provided by Strop (George Stavropoulos) from Slave Pty Ltd.



Color Cyc: Uniform diffusion to maximum level

Clay Paky's new accessory Color Cyc (left) can be applied to all the Clay Paky 575W, 1000W and 1200W Stage Color washlights by just removing the front cap of the projector and replacing it with the Color Cyc one.

Color Cyc consists of a support containing

a high quality microlens filter designed for a uniform diffusion of light, and has a beam angle of 80 degrees.

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Who is doing what?

Z-Systems Unveils Optipatch Lightpipe Router

System stores and recalls up to 99 digital audio I/O routing patterns



Z-Systems Audio Engineering has announced the remarkable OptiPatch Matrix Audio Router that handles multiple sets of 'ADAT Lightpipe' format digital inputs and outputs.

Although Lightpipe connections are an easy way to transfer eight channels of digital audio at a time between mixers, recorders and signals processors, patching can sometimes be a problem.

OptiPatch represents an ingenious solution to Lightpipe-format patching, eliminating wear and tear on

optical I/Os caused by repeated plugging and unplugging of connectors.

Users can simply connect inputs to digital

audio sources, and outputs to digital audio destinations, press one front-panel button and the patch is made. Up to 99 I/O routing patterns can be stored and recalled by the unit.

The unit's rear panel features a total of eight Lightpipe inputs and eight Lightpipe outputs, for a total I/O capacity of 64 digital audio sources and 64 destination channels.

The price of OptiPatch is \$995 (inc GST)

• Studio Connections +61 3 9874 7222

RETURN OF THE CORNER SPEAKER

Wharfedale Systems new Programme Corner Speakers (PCS) come in two different models, each with the option of a black or white painted finish. There are also 70V or 100V transformer versions. The lightweight, impact-resist ABS plastic enclosure is also paintable.

PCS speakers feature a 125mm Kevlar woofer and 25mm Titanium Neodymium driver. PCS speakers can be mounted flush on the wall or in a corner. Alternatively, a compact array of four Corner Speakers will give a smooth 360° sphere of coverage.

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- Motorized focus
- Variable iris
- CTO filter
- Colour wheel
- Indexable rotating gobos
- Strobe/shutter
- Electronic ballast
- Absolutely silent operation



Who is doing what?

Upgrading Burswood Casino

The Burswood International Resort Casino in W.A has made several additions to its lighting infrastructure since its opening in 1985.

The latest redevelopment of the Burswood complex saw changes made to several areas. The tender documents provided for the project included the reuse of several pre-existing products in the Nightclub area, and additional specifications for the Nightclub area included reference to the popular Reel EFX DF50 Diffusion Fogger.

The lighting of the Atrium area was made more complex with the addition of several large sails installed to reduce glare within the dome. The major lighting for this area came in the form of Futurelight MH series moving yoke fixtures. A combination of MH860 and MH840 spot and wash yokes were chosen after comparative testing.

Equipment Listing installed includes 9x Futurelight MH-840 - 575w Moving Head Colour Wash Fresnel and 2x Futurelight MH-860 - 575w Moving Head Profile

The equipment was supplied locally by Kospro International Pty Ltd.

• Coemar De Sisti Australia Pty Ltd +61 3 9467-8666
www.cdaust.com.au



Eighty Sets in Eighty Seconds

DMX controlled slide projectors on stage



Picture scene from "In the Thicket of the Cities", Freiburg's intimate theater

If you think about the use of new media in the theatre, the first thing that comes to mind is video projection. Moving pictures are part of our everyday life. Only few know that the classical 35 mm slide projection is by all means a new stylistic device. The quality of a projected slide outmatches the video picture in regards to focus and brightness by far.

The modern slide projection has nothing in common with the old classical "slide evening". New computer generated control techniques, brighter projectors, niftier dissolves, fast slide changes and ultimately the integration of the DMX-512 system enable a totally new usage of this media on stage. The projection becomes part of a dynamic set. It visualizes topics and becomes an indispensable part of the dramaturgy.

These new aspects of projection have been discovered by the small theaters. Ultimately, because of their often tight budget.

The staging of "In the Thicket of the Cities" by Berthold Brecht was realized at the intimate theater of Freiburg last year in a fascinating way using slide projectors. "We

were looking for a flexible way to show the fast and frequent scene changes of a large city setting. Basic thought was to show the city as an urban space of agitation as well as the change and the fleetingness of it, while we have no assurance that what we see actually exists or is only projection" describes the set-designer Karina Nölp-Wagner as the main thought of her staging.

With eight networked projectors and a moving stage setting Brecht's early work was staged in a fascinating way.

Kodak's EKTAPRO projector takes less than a second for a slide change. Additionally any slide in the tray can be directly selected within 3.5 seconds.

Bässgen (a German firm) – well known in the AV business – integrated a DMX controller on a plug-in card. This card is simply inserted into the EKTAPRO 7020 or 9020 AV slot. One DMX card allows up to four projectors to be connected. Further cards can be integrated into the system.

• www.baessgen.de

Hot Box: The TC Electronic M300 is a full on stereo FX and reverb processor with real TC algorithms and THAT sound - and it sells for \$899. In pro audio pricing terms, that is a



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8Ω and 4Ω: 0.1% THD @ 1 kHz 2Ω: 1.0% THD @ 1 kHz

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Who is doing what?



Portable Dual CD

With the new Superscope PSD300, stand-alone CDR's have moved out of the studio and into the live performance/field recording environment. This new unit is one of the first CD recording systems for the performing arts that combines a professional CDR/RW recorder with a CDR/RW player featuring CD manipulation controls.

Working together the CDR deck can record the manipulation of the CD player deck - an ideal facility for fitness studios

wishing to record a complete workout on a single CD including speed manipulation. The CDR deck can also be used to record a live performance, to analyse a practice session or a multitude of other applications.

The PSD300 is a fully professional package with built-in speaker, XLR microphone inputs and built-in condenser microphone, automatic and manual recording, headphone output, remote control options and double speed CD duplicating facility. A\$2,995, \$NZ3,595.

• Technical Audio Group +61 2 9810 5300

Tannoy Bass Loudspeakers

New: the B400 is a 15" horn loaded subwoofer with very high output capacity capable of delivering remarkable sound pressure levels with extremely low levels of distortion.

Both the B475 and the B950 use 13" bass drivers, a single driver in the B475, and two in the B950. Both speakers will extend the power bandwidth of Tannoy Dual Concentric sound reinforcement systems to below 30Hz. Ideal for sub-bass in club, theatre and concert applications.

The B475 and the B950 can be used on the ground and be close stacked, or they can be flown with the main system. Capable of delivering high sound pressure levels with extremely low distortion, while maintaining a uniform frequency response throughout the dynamic range.

For further details and full specs, contact Syntec International on 02 9417-4700, or visit website, www.syntec.com.au

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Contact Syntec International 02-9417-4700, or visit our website www.syntec.com.au for further information.

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Shure U4D's cordless mics
Meyer CP10 dual channel parameter EQs
Jands SR3000 amplifiers
Complete Klotz FOH multicore
Fold back multicores
Full power distribution
ALL ROAD CASED



Soundcraft SM 20 stage monitor console

System can be purchased as a complete unit or it may be broken up. It is available to be viewed at Total Concept Projects in Silverwater

For further details please call Anthony Musico or Richard Skarzynski on +61 2 9648 3444

Fundraising for the Royal Childrens Hospital, Melbourne

Shaggy UV Effect

UV/FX scenic productions of Los Angeles have recently completed the set design and painting for Shaggy's current tour. The Grammy nominated artist wanted a muslin backdrop 8.5m x 12m and 2 side legs 8.5m x 3.6m. They would portray a traditional Jamaican beach scene under normal light and transform to a magical night scene of the beach under UV illumination.

According to UV/FX president Richard Green "we had been speaking with Shaggy's people for a while and we finally decided to do a mixed Day to Night and Dual Image style".

With the addition of the side legs and some smaller scrims designed to work in the front of the stage, the set had many lighting options and the multiple scenic elements gave incredible depth to the stage.

The scenery was designed to work well under any lighting conditions and to simulate different times of the day based on the type of colored light used.

When Lighting Designer Bobby Baskin added the UV light, the audience receives the total transformation and responds with collective wows of amazement according to the tour production manager, Paul Lee.

- UV/FX (Los Angeles)
www.uvfx.com



Every year on Good Friday a fund raising charity day is held in Melbourne on behalf of the Royal Children's Hospital. For many years Channel 7 have been involved in this event including an evening variety show held at whichever venue donates a week of space to the appeal. Many of the production crew do not work directly for HSV-7 but take a week off their usual jobs to help out.

This year the concert was held at the Concert Hall in the Victorian Arts Centre. The concert goes live to air in Melbourne with highlights shown elsewhere in the country. Acts this year included Marina Prior and the Umbilical Brothers.

"As it's all for charity the lights, audio and general production is all done well and truly below cost or even donated," said David Tidy, lighting director for Channel 7. "Show Technology and Lightmoves very generously arranged for us to have an MA Lighting grandMA and a grandMA ultra-light desk for use on the show."

David had only one training day with Show Technology's Professional Products Manager Andrew Winslade but he finished the day very confident that he would be able to operate the console on the night.

"It is a very, very easy desk to use mainly because it is so logical," said David. "I can't stress how logical the desk is - it's so simple. I'm sure I only used about 5% of the console's capabilities but after only one day of training I was very comfortable to use it on the largest

variety show that we do at HSV-7. I had no hesitations or worries in doing that. I can't wait to get one for a bit longer and really get my teeth into it!

Brad Allcock found the grandMA ultra-light so inspiring he felt he had to put pen to paper to sing its praises...

"Wiser people than me have often said there is nothing more certain than change, and just as you thought you were coming to terms with the Hog or any other console that may be a personal favourite somebody comes along and raises that bar just a little bit higher."

"I've spent countless hours plotting with consoles trying to work out just why they thought a pig was the best attention grabber for a lighting operator. I really can't say enough for the grandMa - it's very hard to make a comparison between this desk and any other except maybe a WholeHog. The difference is the huge colour TFT screens that really do make a huge difference on every level. You will really thank the Germans eight hours into the plotting session when your eyes are still working - not straining trying to see an LCD display. Also being able to place key programming button on any display means no reaching about the console. The console really is laid out well."

"I really must thank everyone at Show Technology and Lightmoves for enabling us to have the grandMA for the Good Friday appeal and in particular Andrew Winslade."

Video of ChromaPanels

Check this: there is a video on the pulsar website showing 12 ChromaPanels in a 3x4 layout.

You can see the video by visiting www.pulsarlight.com and clicking on the link in the ChromaPanel area or to view the video directly follow this link www.pulsarlight.com/multimedia/chromapanel.wmv

The video is 2.3MB therefore can take quite a long time to download

NEW 'IQ FOR WINDOWS' SOFTWARE VERSION 5.1 AVAILABLE FROM CROWN

Crown International have announced that IQ for Windows software version 5.1 is now available for free download at www.iqaudiosystems.com. The new version

offers two key improvements over its predecessor: firstly it fully supports Crown's six new CTs Series amplifiers, including the four-channel CTs 4200 and eight-channel CTs 8200.

Secondly the new software now implements a drag-and-drop methodology for the creation of custom user control panels.

For example, by simply clicking on a desired control, such as a fader, on the standard control panel and dragging it onto the control surface, v5.1 automatically links the component into the signal chain. To group faders together, all one needs to do is take another fader from a different control panel and drop it on top of the first fader and the program will link them together as a master control.

IQ for Windows v5.1 is a powerful 32-bit software application designed for configuring, controlling and monitoring Crown IQ Systems and is compatible with Windows 95, 98, ME, 2000/Professional and NT 4. +.

May, 2002

Welcome to Coemar De Sisti Australia Pty Ltd

Electronic Contacts

Peter Kemp
Managing Director
peter@cdaust.com.au

Richie Mickan
Technical Product Manager
richie@cdaust.com.au

Scott Polkinghorne
NSW Sales Manager
scott@cdaust.com.au

Simon Pricor
Sales Executive
simon@cdaust.com.au

Fabian Barzaghi
Sales Executive
fabian@cdaust.com.au

David Lee
Television and Film Lighting
devic@cdaust.com.au

Stacey Baxter
Sales Support
stacey@cdaust.com.au

Stav Smaragdiou
Office Manager
stav@cdaust.com.au

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Just some of our suppliers
who you can visit on the web.

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Only 150 watt moving
head with glass and metal
patterns/precise geared
indexing gobos

Clearer image than any
other 150 watt
and most 250 watt
moving heads

The only light using PPF
(Programmable Playback Facility)

575

Integrated Features:

Super high output from
575 watt lamp

12 indexing rotating
gobos on 2 independent
wheels

14 dichroic colours
and 2 wheels - which
combine for up to
63 unique colours

Beam angle between
21° and 27° with
"step zoom"

High definition achromatic
focus and stepped
zoom lenses



**...to be brighter,
use less power,
and run cooler than any light in its class.**

M E L B O U R N E • S Y D N E Y • B R I S B A N E

Who is doing what?

TCN9 choose Compulite for upgrade

The revamp of one studio within TCN9 Sydney saw Geoff Sparke (Head of Engineering), Steve Turner (Production Manager) and Andrew Veitch (Lighting Director) evaluate their options with regards to lighting consoles within the studio and the purchase of additional luminaires.

The fact that the production team at GTV9 Melbourne had been down this road before and chosen Compulite control and De Sisti lighting had some bearing on the selection of products to be evaluated, however systems from numerous suppliers were evaluated.

Following these comparative trials, Compulite and De Sisti equipment was chosen. Amongst the gear ordered was the Ovation 4D console, which controls up to 2048 DMX channels. The channels can be flexibly assigned to control 1536 dimming channels (including scrollers) and 250 moving lights or other DMX controlled devices.

CDA's Technical Products Manager, Richie Mickan, provided intensive training for the operators at TCN9.

The gearlist for the installation includes a Compulite Ovation 4D Console with 3rd Video option and Online Tracking Backup.

• Coemar De Sisti Australia Pty Ltd +61 3 9467-8666
www.cdaust.com.au



National Museum makes a colourful start

Performance and Architechural lighting meet in a massive new installation

The intention for the National Museum of Australia in Canberra was not to be the same old museum concept with new technology. Both educational and entertaining, the Museum employs a fresh and exciting approach to Australian history, culture and the environment.

From its setting on the foreshore of Lake Burley Griffin, the Museum has expansive views to the city, the parliamentary zone and farther afield to the National Botanic Gardens and the Brindabella Ranges.

One of the most spectacular views of the Museum is from the Commonwealth Bridge and at night the building is lit up in a sea of ever-changing colour.

Four Studio Due CityColor 2500 colour change floods wash the external wall facing the Commonwealth Bridge. The CityColors scroll through a variety of colour changes every night.

The building is a stunning new look on the Canberra skyline.

There are over 1300 channels of lighting controlled by a Dyalite "ControlSoft" system. A central computer controls all building lighting uses a Dyalite Dynet-DMX Bridge Node to interface the two system's requirements.

This installation is unique as the NMA required not only overall control from a central location, but also multiple interface points throughout the galleries, with the many localised AMX systems that are controlling a variety of visual technology shows throughout the building.

To facilitate this, the system was broken down into a high-speed data trunk with slower speed spurs using the Dyalite network bridges to filter network activity and stop congestion. Some areas allow dual control via standard DMX when required.

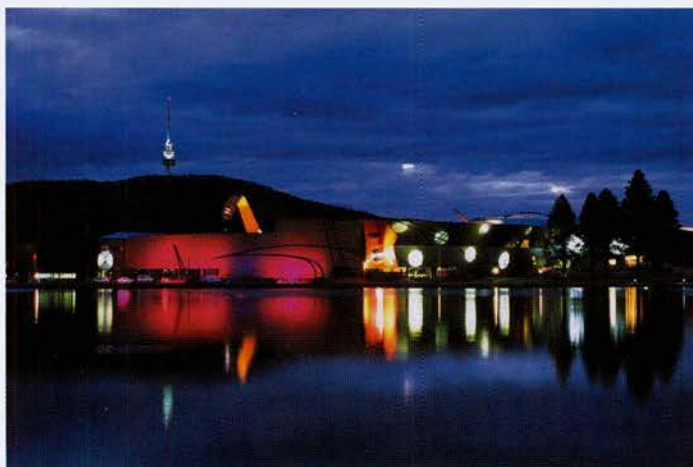
This was particularly important in the Main Hall & Temporary Gallery due to the constantly changing exhibitions. Day to day operation is scheduled via ControlSoft utilising Planview which gives a quick visual indication of the status of all galleries.

Display lighting in the Museum comprises Selecon Aureol Beamshapers and Beamspots, Selecon Astral PC's, Fresnels, Zoomspot's and Wall Washers. All fixtures are finished in a

custom chrome finish and supplied with UV filters.

The Circa Theatre is a rotating theatre, divided into four sections, where visitors are introduced to the Museum's three main themes of Land, Nation and People.

"One of the more interesting and complex areas is the Circa introduction," said Norman



Korte, managing director of Sound Advice Australia.

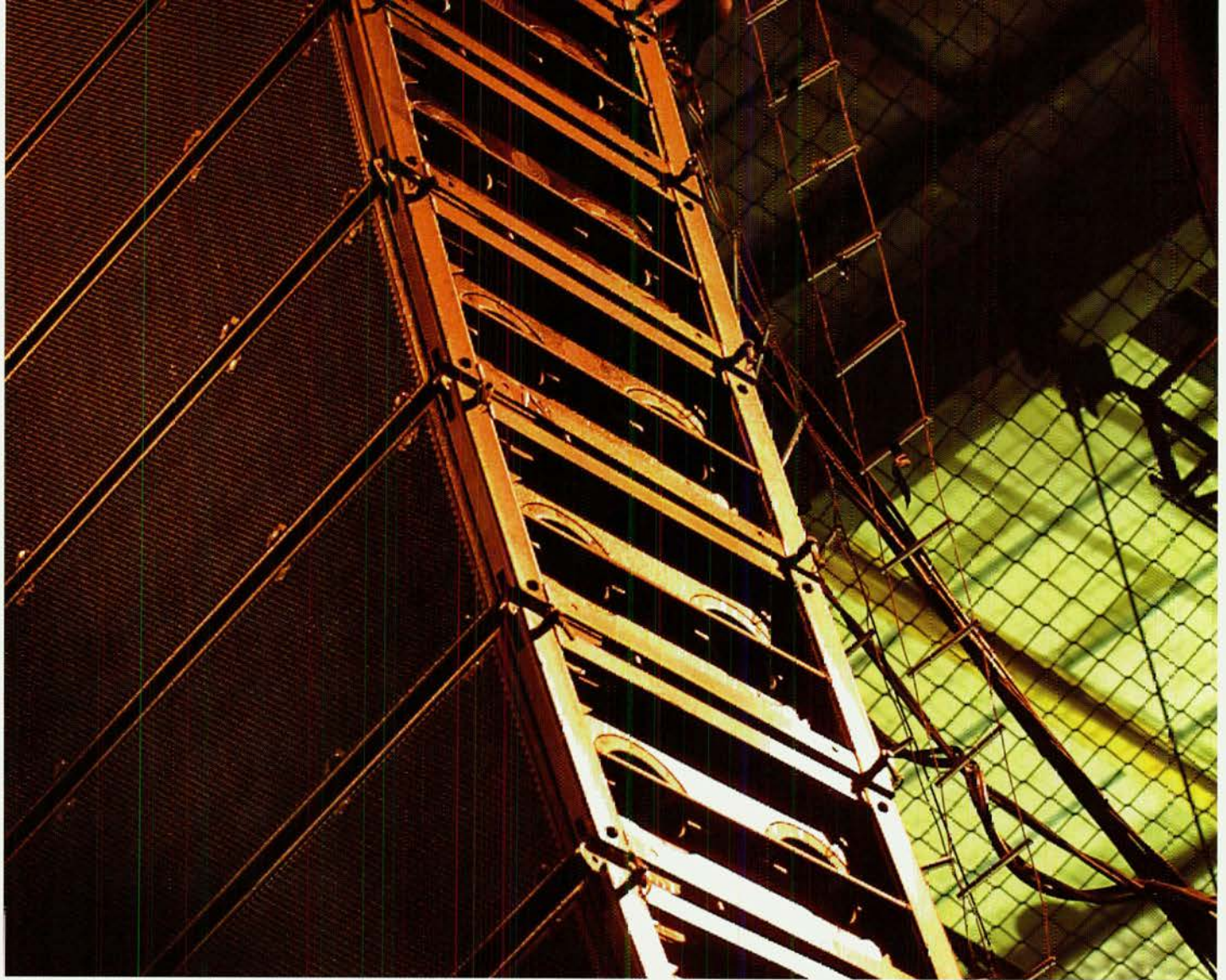
"This is a ride-on turntable holding a total of 120 people. Visitors are loaded into seating at the main gallery's entrance and then rotated through 90 degrees into three introductory AV theatres before spilling into the main gallery of the NMA."

The first theatre, entitled Land, uses four Martin MiniMACs as well as four Martin CX2 colour changers. The Martin MiniMacs are used to mimic the MinMin phenomena - a weird natural night-time effect that happens in Northern Australia that looks like a floating orange rockmelon. They are also used to highlight emotions as part of the Eternity exhibit.

Also in the Land section are Selecon Cycs, and motorised Plasma Screens that float over a rear projection screen with full surround sound. Simultaneously the Nation and People quadrants use multiple visual displays such as LCD projectors, TV's and Plasma Screens with mood lighting via multiple channel HF Ballast Controllers colour mixing colour wrapped fluorescent tubes. All of the lighting is dealt with as one show using Showcad software linked to the SMPTE time code supplied by the AMX control system.

"A few sleepless nights went into this one!" said Norman. "All of the programming of the Circa Theatre was by Brett Fraser from Sound Advice Australia."

Consultant: Vision Design Studio,
Melbourne - Steve Brown



“Awesome. But isn’t that a bit much for the Manzil Room?”

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Note (2) All M Series Loudspeakers are Self-Powered



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The Wife is a sophisticated DMX and MIDI analyser that is remarkably compact and simple to operate. More than just an excellent faultfinder, the Wife provides features often required by stage technicians.

As a small hand-held DMX 512 receiver and transmitter, the Wife can operate as a moving lamp tester, a flicker finder or as a rigger's remote. It

is powered by an internal rechargeable battery with a normal life of 25 hours, and uses a high brightness backlit LCD screen.

According to distributor – Show Technology, users who are familiar with either DMX 512 or MIDI should find that a quick scan of the manual is enough to get started. After switching on, and the Wife immediately begins to display received DMX512. Two key presses are all that is required to start flashing through the rig.

The built-in fixture personality library can test all the attributes of over 200 lamps. Up to 36 channel attributes can be tested, and the fixture library can be edited and customised.

Also available are 12 preset memories, which contain individual level settings for all 512 channels. Presets can be programmed with pre-defined patterns, by adjusting individual channels or by capturing received data. All data is held in flash memory, so that your preferred settings are always kept intact.

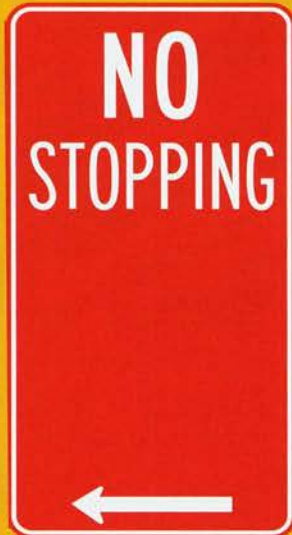
The Auto-Backup feature allows the Wife to be connected in-line between a lighting desk and dimmers. The Wife monitors received DMX512 and, should the signal fail, switches one of the 12 Presets to the output. When the backup mode is triggered, the user can snap between presets.

The Wife is also equipped with a Dark Level feature that allows the channels normally at zero in the 'Rig Check' or 'Transmit Dynamic' modes to be set to a level. This is effectively a pre-heat function and can significantly improve lamp life, as the lamp filaments are kept warm during rig check.

There is also a handy Power Save option – though that can be disabled to allow the Wife to transmit continuously. This is particularly useful when being used as a battery powered DMX buffer.

The Wife DMX Tester also comes with a nice protective pouch and a set of 5pin / 3pin converters, and is priced at \$1599.

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SIR ELTON'S MUSICAL MASTERPIECE

You can hope, but not often do you find production values this high. Sir Elton John rewards his audience. Connections reports how:

By Julius Grafton

AS SIR ELTON JOHN'S TOUR WOUND around the region last month the press reviews became more and more favourable as they bounced off the office fax.

"Three hours of quality songs"; "a concise presentation"; "emphasis on the heart" and so it went. Clearly this was a show not to be missed, and I am very glad to have seen it.

Like Neil Diamond, Cliff Richard and John Farnham, Sir Elton John understands that audiences expect high production values. This show delivered, it was a straight forward

concert with a five piece band upstage, a simple stage set, and a ten foot ebony Yamaha grand set slightly OP.

The more I hear line array systems, the more convinced I am that they are an exponential leap forward in sound reinforcement quality. Sitting at the extreme Prompt side at this concert, I heard clarity and detail that was hard to believe. I actually heard the harshness of the VCA's (voltage controlled amplifiers) on the ancient Yamaha PM 4000 that Clive Franks mixed the show on.

The Clair Brothers i4 system was the line
(please turn the page)



Mandy Jones reports on the lighting design

Elton John's Lighting Director Kevin 'Stick' Bye (left) has been working in the industry since his college years. He worked as a DJ in clubs around New Orleans and hosted a regular radio show. Then, with a computer science and theatre background, Stick started lighting shows in a club on


the famous Bourbon Street. He continued in clubs for the next couple of years as he worked his way up the tiers of the business. A job with Vari*lite hinted at big things to come, and after several years with them, Stick went out as a freelance LD. Stick has recently moved his home-base to Las Vegas for the five or so months a year he doesn't
(please turn the page)

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Sir Elton John's tour

Lighting

(continued)

tour.

The rig for the Australian leg of the Elton John tour was designed by Steve Cowan and then handed over to Stick to act as Lighting Director for the tour.

"I work with Steve Cowan. He designs a lot of the big shows in the States and he does a lot of big television shows. He lets me take the design concept and run with it which is great. Steve takes a look at the plots I design and he approves them, then I take them out," explained Stick.

The stage design features a large circle screen hanging above the stage on a steep angle. Coming off each side are four spidery looking truss arms.

"I tried to design something that was extremely user friendly. It's based on what's easily available travelling over here and through Europe.

"Curved trusses and basic structures are pretty easy to get so I'm just trying to keep it simple. The design is also borrowed from some of the solo stuff Elton did. When it was just him and the piano the circle really leant itself to doing a nice surround of the piano, but now that we have a band in there I've pumped it up a bit.

"That's the versatility of the design that I don't have to reprogram every time I go out. I can just move the lights around a little bit and make it look fresh and utilise the basic structure of the show I have.

"I've adapted the rig a little bit from the overseas tour because we didn't have a lot of production rehearsal time. So I adapted the rig with the existing programming and I've programmed a little bit offline with my computer."

The tour is promoting Elton's new album 'Songs from the West Coast' which he describes as a "back to basics" album for him. This simplistic approach was taken on board for the stage and lighting design so that the rig wouldn't detract from the main focus. Stick explained he has a fairly good idea of what Elton

Sound

(continued)

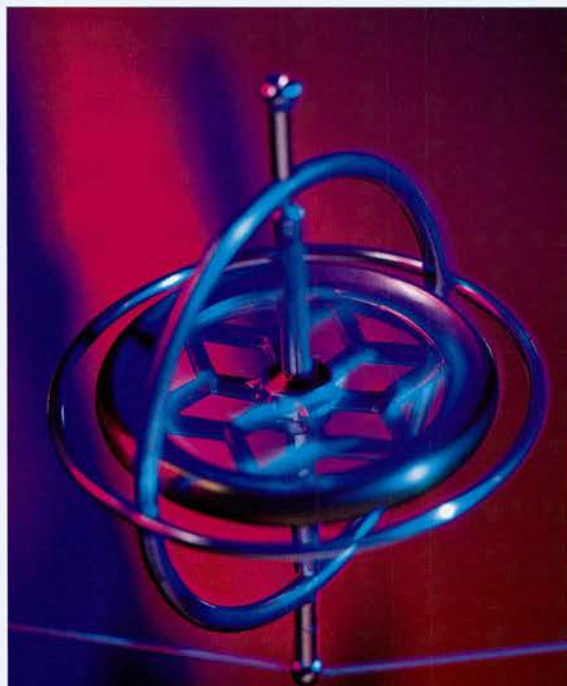
array system used, from Jands Production Services. JPS offer this as their third line array brand, alongside JBL's Vertec and L-Acoustic's V-dosc. JPS reinvented themselves two years ago as line array specialists, and reaped a lot of work as a consequence.

The i4 is a 'proprietary' design, with each cabinet containing 1 x 18" bass driver, 4 x 10" mid-high drivers, 4 x 2" high frequency compression drivers, and as many as nine

Piezo devices.

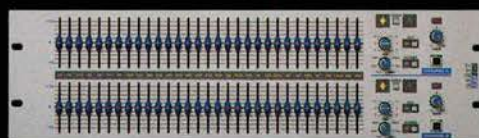
Each cabinet, slightly larger than a V-dosc, takes 2,325 watts from Crest amplifiers. Clair use one 10004 amp, which delivers 4 x 1,225 watts at 4 ohms, and one 9001 for 2 x 2,200 watts at 4 ohms. Each rack of two amplifiers drives four i4 boxes. Clair do not fly their amp racks, they achieve long speaker cable runs.

Unlike most first generation line array systems, Clair opt for a bass extension cabinet which is also a line array design. This cabinet is less wide, but deeper, and Connections could not establish what they are loaded



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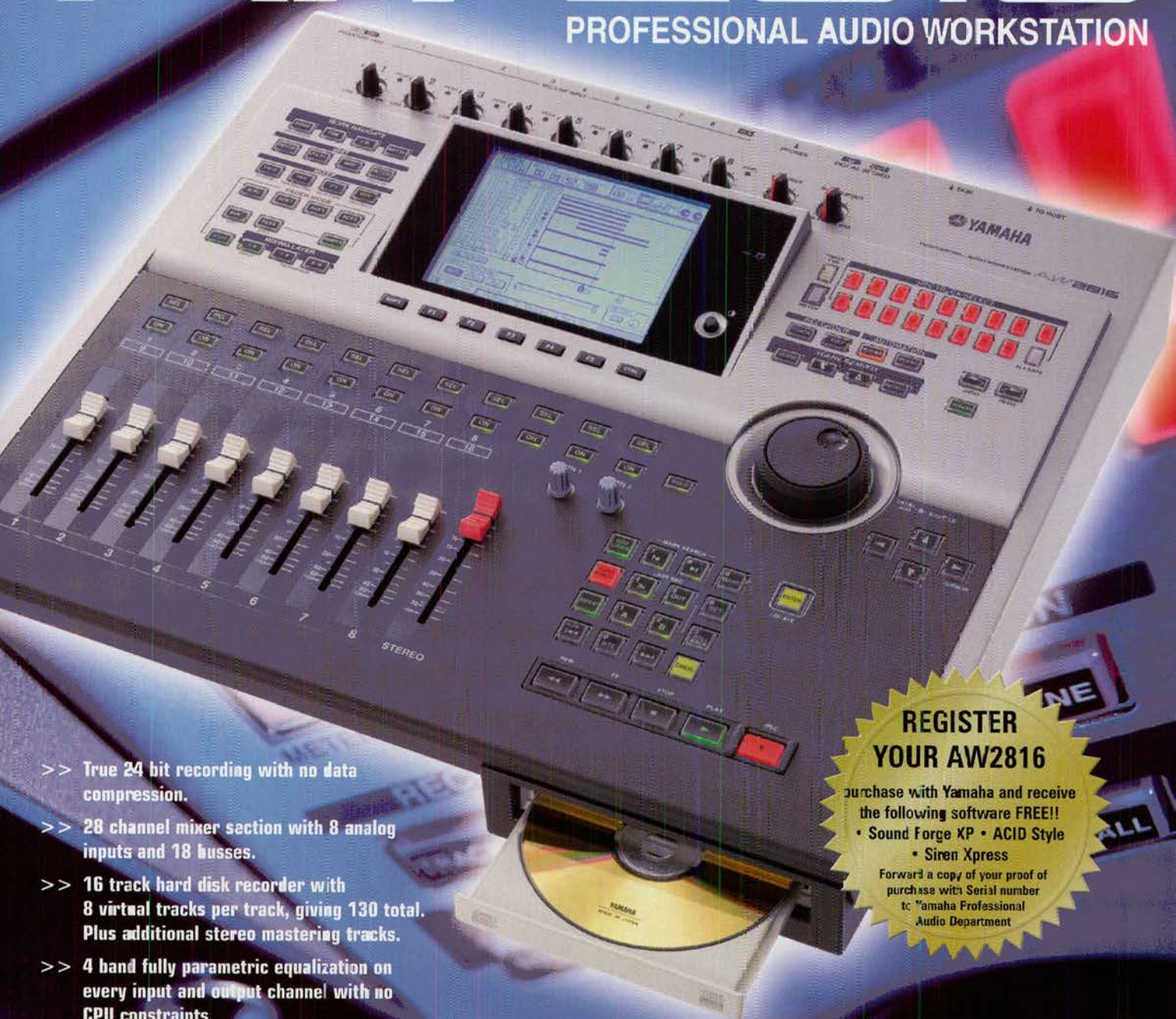
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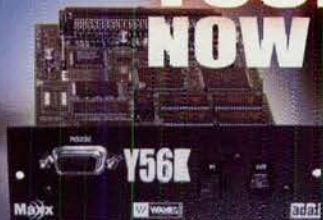
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*Sir Elton John's tour***Sound**

(continued)

with. Clair Brothers are notoriously secretive about their proprietary designs. A vertical line of i4 bass cabinets are flown directly next to the main i4 array. This gets the bass off the floor, making life more pleasant for the premium seats down front.

The i4 system is currently processed by XTADP226 units using custom Clair Bros software presets, but the new Clair Brother's i0 box will shortly take over. This is a custom built digital processor built in Sydney by Lake Technology and part designed by Australian live sound guru Bruce Jackson.

Moving to FOH, the mix expanded magnificently, and Clive Franks demonstrated how complete mastery of a domain allows the engineer to actually produce

Lighting

(continued)

wants from his light shows having worked with him for two and a half years. "I've been almost exclusively with Elton for the last couple of years, and because he works a lot, he keeps me busy. I work anywhere between six to eight months a year which is fairly good.

"Elton has a couple of things that he doesn't like but I'm pretty much given free reign to do what I want. He doesn't like lights in his eyes so I have to be very aware of angles and make sure that everyone can see him and that he's not uncomfortable. Especially with his glasses, if the angles aren't steep enough then it creates a big flare.

"He surrounds himself with good people that have been with him so long that they know what he wants so they're usually the ones that come to me and tell me what I can and can't do. But then he'll come out the front and look at it and tell me it looks cool. So that's always nice."

Surprisingly Elton doesn't mind haze being used during his shows. Stick uses two hazers to accentuate the beams, and said that if Steve Cowan was touring with the show then he probably would have used six!

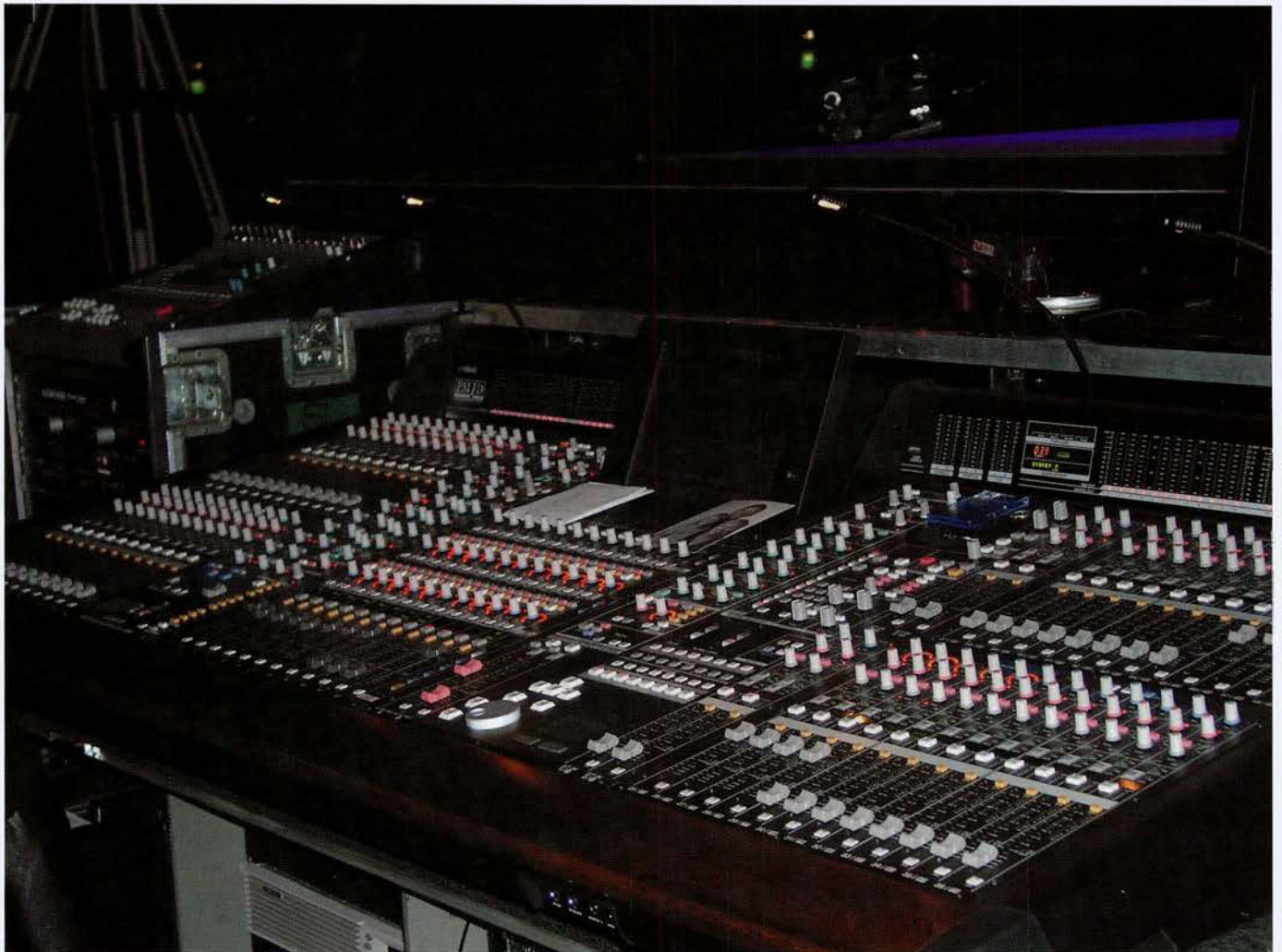
With Stick's Vari*lite background, it's not surprising that the rig is predominantly Vari*lites apart from conventional units such as Source Four profiles and Molefays.

"I do like using Vari*lites. I like the lights. I like the colours. You get really pure colours out of a Vari*lite but once again a lot of what we do is adapted from an existing show and we've had Vari*lites on it for a long time.

"This rig is made up of 55 fixtures - VL5Arcs and VL6C's. I like the VL5's for their colour mixing and I love the snapping colour changes you get out of the VL6. Unfortunately the new VL1000's weren't available here but I'm going to try to get some for Europe."

For control, Stick couldn't go past the Vari*lite Virtuoso console which he described as "really cool". "Right now the Virtuoso is my desk of choice, otherwise I use a Hog ...but everyone uses a

Yamaha's PM1d digital live sound console, seen here on monitors - the first time a working example has been used in the region. Three of these are due shortly for installation at Hillsong Church in Sydney.



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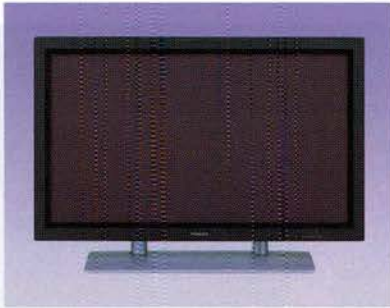
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For the AV installer and consumer, the cut-throat world of display technology is saturated with choice.

It seems that every week we find a new company introducing plasmas or projectors to their range. In this report, we have a plasma new-comer, Sharp, who tell us they will be aggressively attacking the consumer and pro-markets with their new displays.

This report is designed to give the reader a snapshot of what is available in the market for pro users. The list is sorted by screen size, then number of pixels and then by brand name. As a result, the size/quality of the displays (and therefore the price) should increase the further down the list you travel.

There are some notable omissions - Pioneer couldn't respond in time. Plasma makers Thompson and Toshiba are also focused on the consumer market rather than the pro-market, so they have not submitted info for this report.

Considerations:

Burn In - a plasma that is left on the same image (particularly white images like text) can have that image permanently 'burnt' onto the screen. After burn in occurs, the display is still useable, but a ghost of the burnt image will always be visible. In bad cases of burn in, the image can even be visible with the display turned off. Displays have features to protect against this problem, including screen savers.

Limited Life - unlike CRT displays, a plasma uses a consumable medium to create its image. As a result, eventually, the display will use up this consumable

Model	Display Size	Contrast	Power Consumption	Brightness	Weight	Special Image Features
Other Features	List price					
Sony PFM32C1	32inch 1024x852	Contrast not spec'd	270W	650cd/m2	22kg	accepts worldwide HD signals, screen savers
		built-in amp, optional speakers, brackets & stand				\$ 10,999
Hitachi CMP307XU	37inch 1024x768	400:1	390W	150cd/m2	29.8kg	Triple Burn-in Prevention
	4:3 Aspect Ratio	\$ 16,995				
LG Electronics MT-40PA10	40inch 640x480	500:1	310W	330cd/m2	33kg	4:3 aspect ratio, standard definition
		\$ 12,999				
LG Electronics MT-42PZ10	42inch 852x480	350:1	310W	310cd/m2	33kg	standard definition
		\$ 12,999				widescreen,
Panasonic TH-42PWD4AY	42inch 852x480	3000:1	295W	780cd/m2	29.5kg	1080i/50Hz, anti reflection coating
		Built in multi screen capability 4 or 9 screens				\$ 11,995
JVC Professional GD-V4210PZWA	42inch 853x480	1200:1	310W	360cd/m2	35.8kg	capsulated RGB colour filter, anti burn-in
		auto power save function				\$ 11,999
NEC 42MP3	42inch 853x480	1500:1	280W	700cd/m2	28.5kg	CapsulatedColour Filter, progressive scan converter
		No fan for quiet operations, low power consumption				\$ 10,999
NEC 42PD3	42inch 853x480	1300:1	295W	Brightness Not Specified	29kg	Progressive scan converter
		AccuCrimson, portrait display & multi-screen walls				\$ 10,783
Fujitsu PDS 4241 WS	42inch 1024x1024	1500:1	330W	750cd/m2	28.5kg	burn-in prevention, accepts Aussie HD1080i 565p
		optional speakers desktop wall and ceiling kit				\$ 14,000
Hitachi CMP4121HD	42inch 1024x1024	700:1	360W	750cd/m2	31kg	Triple Burn-in Prevention
	16:9 Aspect Ratio, Long-Life ALIS Panel.	\$ 13,995				
Sony PFM42B2	42inch 1024x1024	Contrast not spec'd	400W	550cd/m2	29.4kg	accepts worldwide HD signals, screen savers
		avail in silver or dark grey, opt. Brackets/stand				\$ 13,970
Sharp PZ43HV2M	43inch 1024x768	1000:1	319W	350cd/m2	44.5kg	HD ready speakers stand dual pict 160 HV teletext
		tuner system stand 4video input, RS232C, off timer				\$ 17,995
Sharp PZ50HV2M	50inch 1280x768	900:1	371W	350cd/m2	52kg	HD ready speakers stand dual pict 160 HV teletext
		tuner system stand 4video input, RS232C, off timer				\$ 23,995
NEC 50MP2	50inch 1365x768	1200:1	480W	Brightness Not Specified	44kg	CapsulatedColour Filter, progressive scan converter
		Pip, AccuCrimson, true XGA, digital zoom				\$ 24,443
Sony PFM50C1	50inch 1365x768	Contrast not spec'd	490W	500cd/m2	42kg	accepts worldwide HD signals, screen savers
		built-in amp, optional speakers, brackets & stand				\$24,000 approx
Fujitsu PDS 5001WH/S	50inch 1366x768	3000:1	594W	550cd/m2	45kg	burn-in prevention, accepts Aussie HD1080i 565p
		optional speakers desktop wall and ceiling kit				\$ 20,900
Fujitsu PDS 5003 WH/S	50inch 1366x768	3000:1	594W	550cd/m2	45kg	burn-in prevention, accepts Aussie HD1080i 565p
		optional speakers desktop wall and ceiling kit				\$ 22,500
JVC Professional GD-V500PZW	50inch 1366x768	3000:1	530W	300cd/m2	45kg	
						\$ 26,999
Panasonic TH-50PHD3A	50inch 1366x768	3000:1	530W	500cd/m2	45kg	1080i/50Hz, anti reflection coating
		Built in multi screen capability 4 or 9 screens				\$ 21,995
LG Electronics MT-60PZ10	60inch 1280x720	250:1	700W	180cd/m2	70kg	widescreen, high definition
		\$ 39,999				
NEC 61MP1	61inch 1365x768	700:1	660W	Brightness Not Specified	61kg	CapsulatedColour Filter, progressive scan converter
		Pip, AccuCrimson, true XGA, digital zoom				\$ 39,999
Fujitsu PDS6101WH/S	61inch 1366x768	1500:1	748W	600cd/m2	61kg	burn-in prevention, accepts Aussie HD1080i 565p
		optional speakers desktop wall and ceiling kit				\$ 42,400

element, and the display will lose its ability to show saturated colourful images. However, this process takes a very long time.

Weight and fragility - because of the nature of the device, plasmas are very heavy and this should be carefully considered when mounting. They are heavy due to the large glass plasma panel - which

itself is fragile and does not like flexing movement. There have been examples of mounting brackets putting too much torsional stress on the screen and snapping the glass in half - a very expensive installation mistake.

Contrast and Brightness - The specified contrast ratios that some manufacturers say do not accurately reflect the contrast ratio in 'real world' testing. Just like brightness in projectors, don't trust the numbers and test the unit for yourself. The brightness levels shown here are a measurement of the emitted light at full white. Remember, some displays reduce the overall brightness level if it increases beyond a certain point. This is to help increase the life of the unit and reduce its power consumption.

Fujitsu	Fujitsu	+61 2 8822 2500	www.fujitsugeneral.com.au	9
Hitachi	Hitachi	1800 032 689	www.hitachi.com.au	2
JVC Professional	Hagenreyer	+61 2 9370 8888	www.jvc-australia.com	2
LG Electronics	LG Electronics	+61 2 9684 8000	www.lge.com.au	3
NEC	NEC Australia Pty Ltd	131 632	www.plasmasync.com	5
Panasonic	Panasonic	+61 2 9986 7400	www.panasonic.com.au	2
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NIDA Rebuilds the Parade Theatre

by John Grimshaw

It had been on the cards for a long time – knocking down the old Parade Theatre and replacing it with something more modern including better facilities.

When the Centenary of Federation Fund provided \$25 million, and Mel Gibson donated a further \$2 million to NIDA, a pipe dream was on its way to becoming a reality.

NIDA itself raised another \$5.5 million and the most well known drama training institution in the country began preparing.

Prior to the big opening with Mel Gibson last month, Tony Youlden (Technical Director at NIDA) took John Grimshaw on a tour...

For more than nine months, planning for the new venue was pursued.

Various venues around the country were examined to define what worked and what did not. The intention was to create a space that suited the intimacy required of drama without that restriction of limited seating. One of the main considerations had to be that the venue was commercially viable to hire out so that NIDA could build a much needed venue stream.

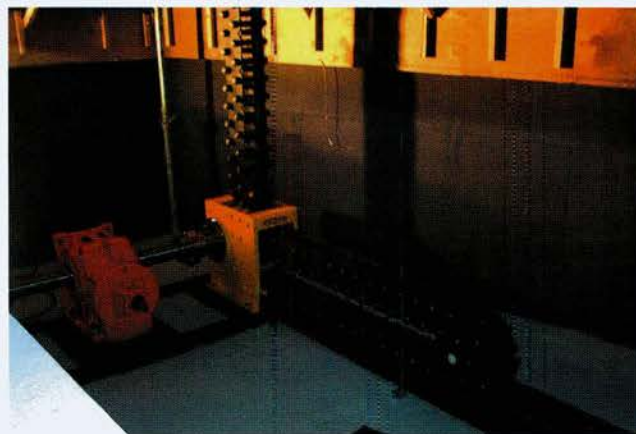
Some of the venues that were considered as good templates to start from included the Dunstan Playhouse in the Adelaide Festival Centre and the Canberra Playhouse. Architects drew up plans for the site to include a spacious glassed in foyer, a second 'black box'

venue, drama library, various rehearsal rooms, dance studio, set building workshop, loading dock, carpark, dressing rooms, and of course a 727 seat main venue.

While most of the building works could begin immediately with the money available, it was decided that the fitout for some of the rooms could wait so as not to compromise on the building itself.

With such a tight budget, the choices for the lighting fitout had to be carefully made to ensure that enough lights and dimmers were purchased to be able to effectively use the venue, while still purchasing high quality technology.

Despite the fact that the theatres do not yet have the full compliment of equipment



Renovations & Building

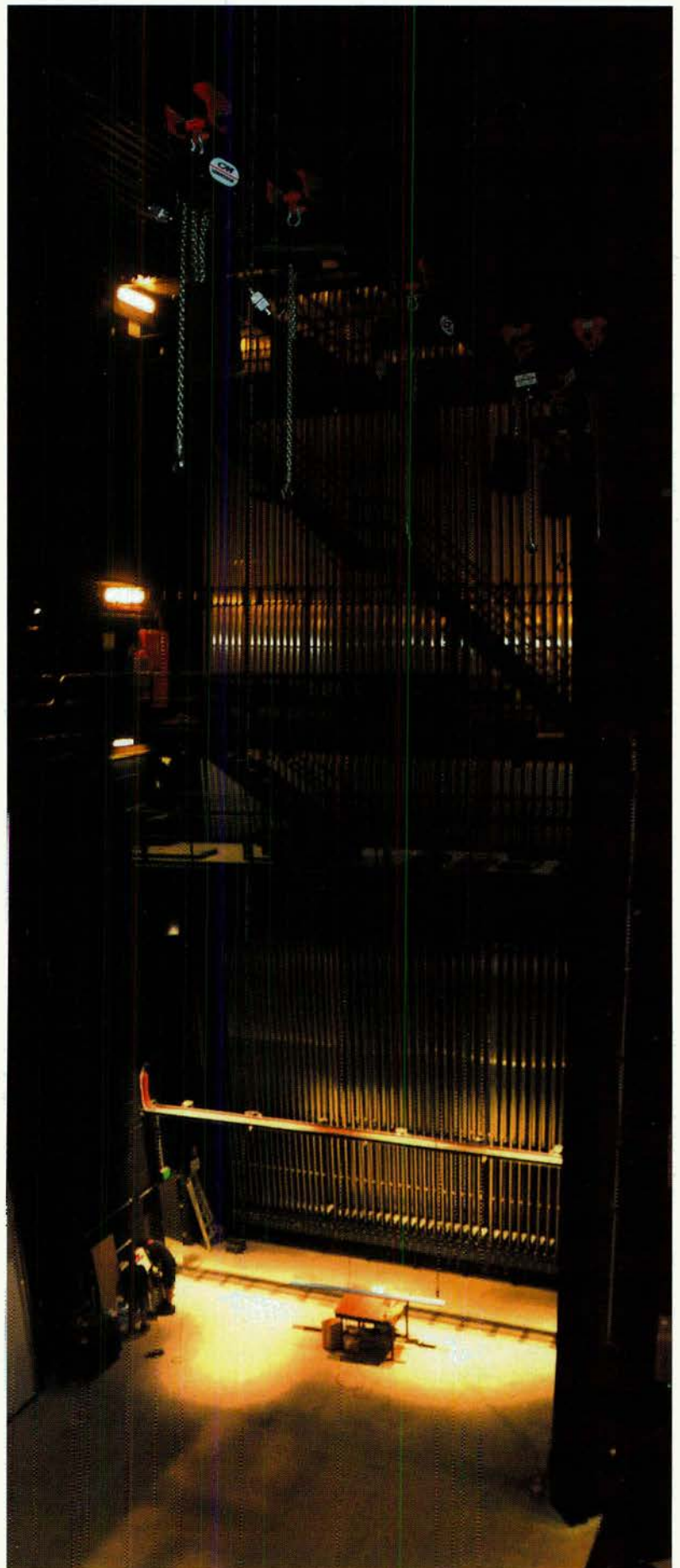
that Tony would have liked, he said that they have done everything possible to get the venues designed to take any foreseeable upgrade. There are conduits and Cat5 cable running throughout the new building. An abundance of 3 Phase power has been distributed to every location thought to need it.

The flying system consists of 49 single-purchase counterweight flylines supplied by Jands and installed by Salken Engineering. The flying system comes with all the trimmings – Weights Bridge for loading the cradles, 750kg safe working load for each line, and a new nylon based rope. The Hempex rope looks like a normal hemp rope, but it feels smoother to touch. It also does not stretch like standard hemp.

Another interesting component to the installation is an orchestra lift that is using technology that had, until now, not yet made it to Australia. Tony tells me that he normally avoids wherever possible being the 'guinea pig' for new technology, but in this case the system has had numerous installations overseas, and it provided a good solution for their particular situation.

Imported and installed by Jands, the system is called the Serapid Linklift 100. It uses a system of very large chain-like links which, when stacked vertically, cannot deflect sideways. Thus with a motor driving them up under the platform, it can be raised to any point as required. When the lift is lowered and the load is removed of each successive link, the chain is directed sideways inside the bottom of the pit. The result for this platform is that it has a reasonable safe working load of 8.5 tonnes, a max lift height of 3.9m and an installation that does not require a deep penetration to operate. In fact, with the lift fully down, there is only around 1m of space for the entire lift mechanism (though Jands now recommends a minimum of 1.7m).

Other mechanical installations in the Parade include 10 chain motors for simple flying forward of the proscenium arch, and a large sound door which is the full width of the stage. The sound door reveals an extension to the scenery workshop. The space can either be used with the 8.5tonne door flown out to extend the stage a long way upstage, or when used as additional scenery workspace, the door provides a



(top left) Foyer - The large open foyer is likely to be used as a venue itself. One interesting point to this design is that it is not air-conditioned. An air cooling system has been installed, and is expected to be able to maintain a comfortable temperature with considerably reduced running costs. The main glass wall of this room faces east so direct sunlight would only be a problem in the mornings.

(bottom left) Orchestra Lift - These pictures show the main drive mechanism of the Serapid Linklift, and the drive links that make this system work.

(right) Flytower - The 49 flylines shown here in the Parade Theatre are in the last stages of their installation.

Renovations & Building



(top) Sound Stage - The new rehearsal/television studio. This picture shows some of the seats to be installed in the Playbox Studio
(above) Library - One of the most comprehensive drama libraries in the country has moved into its new home as part of the works.

(below) FOH - The FOH lighting positions are all on one level, with a small distributed patch system serving this area only.

(bottom) Backstage Stairs - The stairs that connect the various gantry levels surrounding the stage have two very logical design features. Firstly, they are stairs and not a glorified ladder - so you can ascend/descend facing the direction you are going and also carry a full load while you are doing it. Secondly, the rungs are wooden - making it possible to use them quietly.



30dB SPL cut.

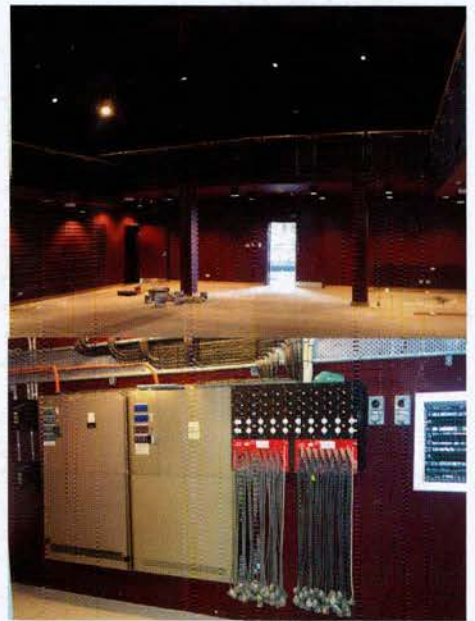
The idea behind the door was primarily to allow rehearsals to continue alongside scenery work.

The final result for NIDA is a venue with some excellent specifications - excellent sightlines for every seat, good room acoustics, ample power and plenty of wing space back stage. NIDA are already in discussions with production companies regarding the possibility of hiring the venue (particularly with the main Sydney Opera House theatre and the concert hall soon to go dark while they undergo some significant overhauls).

There is still another \$2.5 million for NIDA to raise to finish the fit-out of the Parade Studio, Sound Stage and Library.

As for the opening itself, Tony tells us that while all ordered equipment was not yet supplied and installed, "with the assistance of Jands, Bytecraft Entertainment, Stage & Studio and Austage who lent us gear, we were able to put on a show."

"Technically it went superbly and even the smoke detectors worked after the pyros in the finale."



(above) Parade Studio - this is a view of the second 'Black Box' type venue taken from the stage end. Flexible seating will allow numerous configurations. Below that is a picture of the patch for that venue. Removed from the old Parade, this patch system and old CTM dimmers have been reinstalled here.

Audio Equipment (Main System)

- 4x JBL Loudspeaker Processors JBL-EVOINET EVO Series System Controllers
- 1x dbx Digital Audio Processor DBX-480 Drive Racks
- 6x JBL Main Left & Right Loudspeakers JBL-EVOI324-WH 2-way Intelligent Speaker Systems
- 3x JBL Central Cluster JBL-EVOI324-BK 2-way Intelligent Speaker Systems
- 2x JBL Sub-Woofer JBL-SP125S Low Frequency Systems
- 4x JBL Stage Foldback Speakers JBL-SR4702X 2-way Stage Monitors
- 2x JBL Sound Effect Speakers JBL-SR4731XF 2-way High Level Full Range PA System
- 2x JBL Sub-Woofers SFX Speakers JBL-SR4718X Bass Sub-Woofers
- 6x CROWN Amplifiers CRN-CE4000 2 Channel Stereo Amplifiers

Audio Equipment (General)

- 3x DENON CD Players DN961FA
- 2x DENON MiniDisk Recorders DNM991R
- 1x SOUND CRAFT Mixing Console 328XD Digital Audio Console, 32 Channel Console
- 1x SOUND CRAFT Digital Interface SCF-RW5609
- 8x RANE Equalisers RAN-GE30 Graphic Equalisers
- 24x SOUND ADVANCE Surround Speakers SA2B Surround Speakers
- 3x dbx Digital Audio Processor DBX-482 Drive Racks
- 6x CROWN CRN-CP660 Power Amplifiers (four channel)

Lighting Equipment

- 1x Strand Lighting Strand 520i 250 Channel Control desk with Tracker, Communique and Networker software
- 8x JANDS HUB 24 - 15 Channel Dimmer Racks
- 15x BYTECRAFT APC 12 Channel Wall Mount Dimmer Racks
- STAGE & STUDIO DMX & ETHERNET NETWORK Three Stream DMX and Ethernet Distribution
- 18x STAGE & STUDIO LIGHTING BARS 6 metre internally wired Lighting Bars with Multi-core cables and Wieland connectors
- 24x SELECON Pacific VNZ 5.5 - 13 degree 1000 watt
- 60x SELECON Pacific 12 - 28 degree with GKV 600 watt Lamps
- 60x SELECON Pacific 23 - 50 degree with GKV 600 watt Lamps
- 20x SELECON Pacific 90 degree with 80 volt 1200 watt lamps
- 20x SELECON Arena PC 2000 Watt PC Spotlights with Barndoors
- 60x SELECON High Performance 1200 watt PC Spotlights with Barndoors
- 8x SELECON AURORA CYC 4 Square with 1250 watt Lamps
- 8x SELECON AURORA CYC 2 Vertical with 1250 watt Lamps
- 10x SELECON AURORA GROUND ROW 4 with 1250 watt Lamps
- 12x SELECON AURORA GROUND ROW Singles with 1250 Lamps
- 2x SELECON Performer MSR Follow Spots
- 60x KUPO PAR Cans 250 Volt PAR 64 Cans with CP61 Lamps

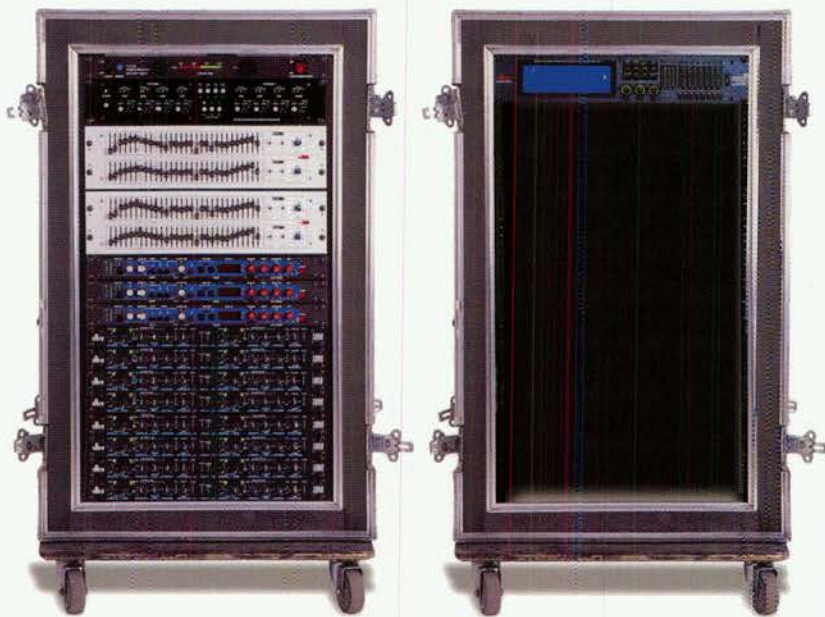
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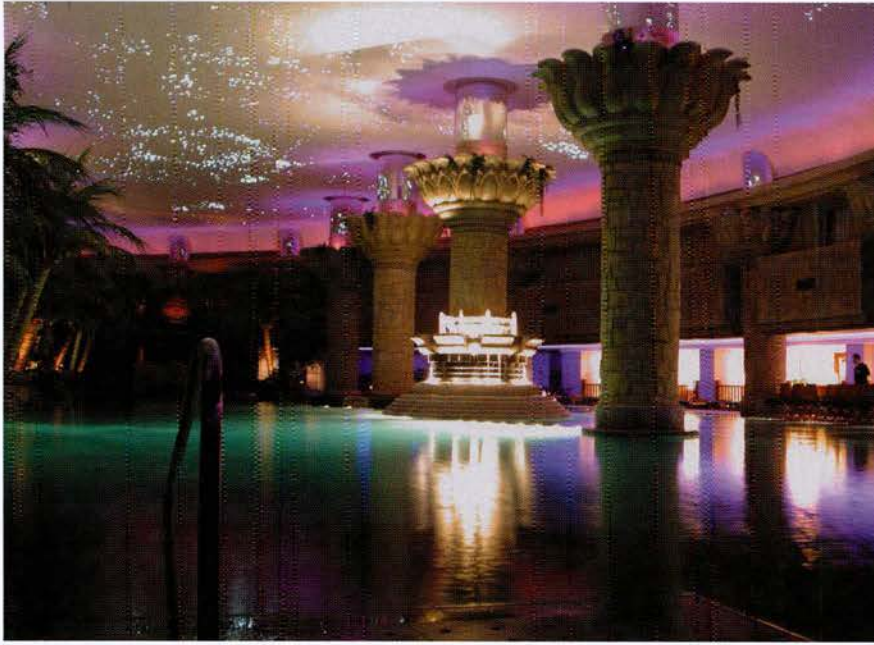
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Profiling the Industry



(top) Grand Hyatt Hotel Oriental Plaza Beijing completed 2002, control by Showpro

Lance Stewart: Making DMX Devices for Installations

Connections takes a look at a person who has tucked his company into a quiet corner of Ipswich, Queensland - and is busily building DMX control devices that are being installed around the world...



Lance Stewart

Our industry is full of people who have gone from gigs as a casual technician to managing their own companies – some even manage to start a business venture that survives (and even thrive) in the entertainment technology industry.

42-year old Lance Stewart has worked in the industry his whole life, though not always backstage. He readily admits that “as an actor (in the 70s) I failed spectacularly! I eventually scurried backstage where the money was at least regular, if not spectacular.”

In the mid-70s Lance worked briefly for Phil Cullen at Mac Lights and was making his own lights and hiring them before too long. Mind you, his description of the trial and error method of electrical wiring would be enough to curdle the blood of any OH&S person today.

After finally seeing the light and giving up on the acting thing, Lance gained full-time employment with Oliphant UV and then Lightmakers (having been turned down for a job to pop rivet par cans at Zapco by owner Julius Grafton). Then he joined Rod Salmon – later becoming his partner in Lightmoves. When they sold Lightmoves to a public company in 1988, the firm was turning over several million dollars in hire and sales from their Sydney, Melbourne and Brisbane offices.

Lance’s Brisbane operation purchased Hi-Watt Queensland, with Hi-Watt having previously purchased Harvey Theatrical – a firm which had been something of an institution in Brisbane since 1967. “We still have the same phone number that Harvey had from the seventies, though now it has a 3 in front and has been diverted to our new premises,” Lance said.

Called Creative Lighting And Sound Systems Pty Ltd, their new premises are in North Ipswich. “After almost 15 years of driving an hour each way into Fortitude Valley, I had had enough of both the driving and of paying rent.”

Over the past decade, Creative has moved away from productions, importing & wholesaling. It now specialises in both design and construction projects – using products from major manufacturers like Martin, Clay Paky and Abstract and designing/manufacturing niche products.

Lance’s designs - for projects as diverse as clubs, casinos, shops, galleries, churches, parks and theatres - have been recognised by no less than 16 lighting awards from the IES since 1989, including the Award of Excellence.

“The common threads tying these projects together were the need for a creative approach to the lighting, the need to achieve something that was new yet effective, and the willingness of the client or their architect to back our vision and our judgment,” Lance reflected. “And with all these projects, we found that there were gaps in the products available to do the job - products that we could make and then market to help other designers in the same situation.”

That approach has resulted in several interesting products designed by Lance with help from expert specialists and now made by Creative Lighting in Queensland. The range has grown from a single product in 1989 - the Touch-Tell – to now include several versions of the Showpro, a LEDlight, Lightsprays for casino and pub gaming areas, and C-light architectural lights.

According to Lance, the Showpro Control Freak range of automated controllers have been the most successful of all of Creative Lighting’s products. The recent installation in China of US\$800,000 worth of lighting - at the Grand Hyatt Oriental Plaza Beijing - under Showpro control is his case in point.

“Our agent in Hong Kong is particularly active for us and valued by us, though it has taken quite a few years to build up the relationship.” The Showpro range are available as lighting controllers, such as the twenty-five that were used on the Sydney Olympics and the five that were installed to run the major lighting upgrade at Reef Casino, or as sound and lighting controllers which store sound as WAV files and play them back with seamless integration into the lighting sequences.

More recently, Lance is making time to pursue his twin passions of lighting and writing. Amongst other things, his article series ‘The Power of Light’ can be read at www.creativelight.com.



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Shiva is quality throughout. Sleek die-cast aluminum case outside, inside: large optical path, AR & IR coated lenses, nine exchangeable gobos, nine dichroic colors + white, strobe and dimming. Shiva comes with standard DMX512 control (4 or 6 channels), and uses a HSD 200 lamp.



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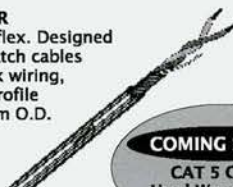
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NEW TECHNOLOGY SQUEEZES SOUND AND LIGHT RIG SIZES DOWN

While old roadies who smoke bong at the gig get to stay at home

PA systems are shrinking as better loud-speaker and amplifier technology produces more sound from smaller enclosures. And discharge lamps in automated lights mean less fixtures do more.

This has finally started to save money, because at the bread and butter end of the live production industry, you can now compress a professional high performance system into a one tonne van.

Michael Orland is a good case study – his company T.PAC once ran 5 and 8 tonne trucks, complete with several crew in each. Now he operates from a Mitsubishi Express Van, with a sound and lighting system that will deliver very good results for up to 1,000 people.

Michael is an older member of a new breed, that being the van brigade. He can mount a production single handed that would have needed three crew plus loaders a decade ago.

“Labour is the biggest cost” he states, “way ahead of the cost of equipment. Plus, I’m not spending two days a week chasing casual crew who can charge up to \$350 for a show. Because I do it all myself, I avoid the two things I really hate in life – trucks, and employing crew”.

Michael had years and years and years of both – and is scathing of the mindset of some supposed heavy weight crew – “imagine a middle aged guy sitting around smoking a bong at a gig”. So he sold his trucks and set about compressing as much production as he could handle himself into a van.

I arrived at a 1000 capacity suburban venue at 1pm and saw a non descript van fully laden arrive, with the equally non descript Michael Orland at the wheel. Wearing his working rig, Michael casually unloaded what seemed to be a lot of little things, unearthing the four larger JBL System 80 subwoofers which occupied at least half the van space.

Fully unloaded, the van carpet became the drum carpet – which illustrates that the whole production would fit onto a drum riser!

DIFFERENT APPROACH

Once set up, the scale of the system became apparent.

The stereo PA delivers 18,000 watts at FOH. That is serious SPL, as I discovered.



Michael also managed to create a very versatile lightshow from 12 Martin automated fixtures and four fixed specials.

Every one of the 24 mixer channels had full gating, and limiting dynamics. The system had extensive effects inserts and processing, with system drive done in the digital domain.

And, there were four foldback sends.

All this fitted into a van!

Michael’s system is considerably upmarket when compared to most van rigs, Mostly,

It may be small, but this combo packs a punch. The Yamaha 03D (below) boasts dynamics compression on every channel, plus a slew of SPX 990 styled effectors. And, you can mix four foldback sends at the same time as FOH. Not shown is the little analogue lighting desk which joins the Martin controller for a neat lighting solution



Live Sound



Innocent, but deadly. The JBL speaker system, we mean. Michael wouldn't hurt a fly.

these are based on a couple of dual 15" and horn boxes atop some dual 15" subs. The T-Pac variation is to use eight JBL 4892 cabinets, each loaded with a proprietary JBL titanium 14" woofer and a 1.5" exit throat compression driver. These sit, four per side of stage, atop two JBL System 80 subwoofers, each loaded with 2 x JBL 2242 18" woofers – the kind used in JBL's top end HLA box.

This is arguably the most expensive set of components you could squeeze into a van, and it is driven by two lightweight racks of amps. Two Camco Vortex 4 amplifiers (2,000 watts per channel into 4 ohms) and one QSC Powerlight to drive the four horns are fitted into a plastic rack.

This amount of power from 2 r/u lightweight amps was unheard of a few years ago. The only downside is that high power out, means a lot of mains coming in the other end. You need more mains capacity than what the amp delivers, because no amp is anywhere near 100 percent efficient. So the Vortex 4's need upwards of 20 amps of mains at peak output, although average mains consumption is lower.

The need for more mains power has turned another convention on its head – because Michael uses the omnipresent 32 amps per leg 3 phase power present at 99% of all venues to run the PA, while hunting down single 10 amps 240 volt power point supplies for the lights! What a turn around that is.

With a very potent and also highly acclaimed amplifier and speaker combination capable of blistering sound pressure levels, the rest of the system is similarly innovative. Out at front of house, a four rack unit tall system drive rack seems relatively in scale against the tiny Yamaha 03D automated digital mixing console.

Michael is obsessed with Yamaha's 01V and 03D, raving about just how great they are for live work. He demonstrated how the fader bank can be assigned with one push of a button to any of the four foldback sends. Then, any parameter is quickly at hand once the channel is selected. And, the extensive inbuilt dynamics are an eye-opener, according to Michael. "I read the manual, and Yamaha have sample settings like 'expansion' for drums – I tried it, and I like it!"

From the 03D (or 01V if Michael feels like a change) signal runs in AES-EBU stereo digital to the Ramsa WZ DM 35 digital equaliser and limiter. This is a very professional unit, just 1 r/u tall, and full of digital processing options. Out of the Ramsa, signal is fed in stereo to another single rack unit device, a JBL DSC 260 2

in, 6 out digital system controller. This provides the three way stereo split for FOH returns down the 75m multicore to the amps. It also does some JBL proprietary trickery that assists the Array box horn curves and cabinet EQ.

LIGHTING THAT MAKES SENSE

In keeping with the space saving scheme, lighting control is a Martin 2308 controller, which will handle 8 fixtures. Tonight there are four Pro 518 Roboscans, and eight Pro 400 Robocolor's on the mini back truss.

Out front are four stage wash floods, and two Fresnels, with little LitePuter dimmer packs at each position. They are daisy chained via a mic cable back to a little LitePuter analog desk.

This rig, along with a JEM Hazer, produces more variety and infinitely more colour washes than 24 Par cans and specials. The rigging hardware is so minimised – the stage wash floods, customised 500w outdoor floods with hoods and gels, are simply bolted to the top of an Array Box!

The back truss comprises two flat truss sections, on two stylish European chrome plated multi extension winchup stands that pack down into half the space of a common crude and non van friendly 12' winchup.

Michael programs the Martin controller for half an hour of so during the leisurely six hours he allows himself to set up. Then, he operates lights, FOH sound, and four sends of foldback, all alone from FOH.

MONITORS

Utilising the ability to switch all channel faders to the auxiliary send bus, the 03D makes controlling foldback easier than if you had an analogue desk. From the 03D, the foldback path then runs into one side of two tiny Alesis MEQ 230's, which Michael insists are good devices, despite not coming standard with balanced outputs. He has fitted his own balancing transformers.

"The Alesis fits the concept of small" he asserts, and with 2 x 30 bands of EQ in a one rack unit tall device, who would argue? They appear to produce enough control from almost impossibly short faders, because the gain through the onstage RCF ART 300A powered speakers (used on their sides as foldback wedges) is sensational.

Michael is a big fan of the ART 300, which these days is badged as a Mackie Industrial product – and possesses about 16 of them for general hire applications. On the subject of quantities of things, T-Pac also own a total of 24 Array boxes, whereas eight are used in this rig.

LOUD! SMALL CAN SATISFY YOU.....

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Electro-Voice's 75 years - what a history!



Electro-Voice Celebrates its 75th Anniversary: 1927 - 2002

Telex Communications, Inc. is celebrating the 75th anniversary of Electro-Voice, the world renowned professional audio company. EV, as it is known, makes wired/wireless microphones, loudspeakers, power amplifiers, electronics, and mixing consoles.

Originally founded in 1927 by Al Kahn and Lou Burroughs in South Bend, Indiana, Electro-Voice has grown into one of the true giants of the professional audio industry.

EV took its name from a P.A. system designed for a famous football coach and legend, Knute Rocke. Knute had a special electric bullhorn made for him but didn't know what to call it. He would yell for his assistant to get "that electric voice thing!"

Electro-Voice has earned the reputation of being one of the most significant designers, manufacturers, and purveyors of microphones and loudspeakers of the past century.

MAJOR ADVANCES

EV was first recognized for the invention of the humbucking coil in 1934 and the noise-canceling microphone in 1942 - two major advances which put Electro-Voice's annual production near 1 million microphones.

The company was also among the first to use Alnico magnets, which substantially

improved frequency response and handling noise. The development of Acoustalloy, a synthetic plastic, made dynamic microphones practical for studio use.

Electro-Voice, besides receiving a special war citation at the end of WWII for the development of the T-45 lip microphone (pictured below), won an Academy Award in 1963 for their advances in the world of film sound with the 642 shotgun mic.

EV also made significant contributions to the sound of jazz, blues, and rock 'n' roll. Archival photos of Elvis Presley show him performing with the classic RE10 dynamic microphone. Another development - Variable-D - prevents proximity effect (up close bass boost) and provides a more uniform frequency response. Variable-D is a key feature of the RE20, a broadcasting- and pro sound industry standard. More recently,



EV IN AUSTRALIA

The brand has been in Australia over 20 years, and today EVI Audio Australia is consistently amongst the most successful EV outlets worldwide.

I remember the enthusiasm of Ian Woodhouse, who managed the Australian operation when the agency was purchased from Eric Selwood. Woody was trying to get people to try these new Electro-Voice microphones. He loaned me a kit full, and although I didn't



buy any at the time, I came back later and bought truckfuls.

Shortly after, Ian Johnston arrived at EV Australia from Jands, and with Australian EV chief Colin Formston set about pushing the loudspeaker brand into the professional market.

They created the Cobra, and Australian-ised many EV loudspeaker designs.

Then the Tapco Entertainer arrived, the best powered mixer of the 1980's - along with the S100 speaker. This was the first moulded composite speaker cabinet, and sold as fast as it could be built.

With the arrival of the X-Array in the late 1990's, the firm finally had a loudspeaker product in every sound reinforcement category. X-Array went on to sell extremely well, ahead of the new X-Line virtual line array which is now already featured on concert riders.

EV internationally has changed shape and form in recent times, but the Australian operation has remained consistent.

- Julius Grafton

Specia! feature



From then to now, Cobalt is the latest range of microphones from EV.



Jack Bruce from Cream



The Fab Four, no less.....



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EV was the first to bring Neodymium-based dynamic microphones to market in the form of its N/DYM line.

Besides its accomplishments in the world of microphones, Electro-Voice has also earned an incredible reputation building some of the industry's most revolutionary loudspeakers. From the 30-inch woofer introduced in 1959 (known lovingly as the "30W", the primary component of the Patrician series of home Hi-Fi loudspeakers) to the contemporary X-Line line array loudspeakers, EV has become one of the most respected names in the loudspeaker business.

During the 1970's EV pioneered the use of holographic speckle interferometry to study and control diaphragm motion. During the same time, EV became the first professional audio manufacturer to include Thiele-Small parameters on data specification sheets. Advances were also made in the world of horns as EV introduced "constant directivity" (CD) horns and began publishing full sets of 1/3rd octave polar responses for them.

Then, in the 1980's, EV developed Manifold Technology and began production of the MT-4 high output concert system used on some of the largest tours of the decade.

In developing the MT concept, EV engineers made a thorough review of existing concert systems and found a market glutted with systems that were much larger than they needed to be, while delivering inconsistent sound quality. The engineers also worked closely with several major sound companies, working to incorporate their input into this radical new design.

MORE MILITARY CONTRACTS

In early 1989 the U.S. Army Communications-Electronics Command appointed EV a certified "Blue Ribbon Contractor" for the company's headsets, handsets, microphones and loudspeakers. Only four out of more than 150 companies screened met the stringent requirements for membership in this program.

The innovation continued in the 1990's with RMDTM (Ring Mode Decoupling) which decreases mechanical resonances in transducers, the development of the professional touring loudspeaker, X-Array, and the Eliminator loudspeaker, which has

become one of the most popular models in the company's history.

Then, in 2000, Electro-Voice introduced X-Line Linear Array concert

loudspeakers, which have fast become one of the most sought after line-array products on the market, having powered the likes of Diana Ross, Rod Stewart, Puddle of Mudd, Tool, Incubus, B.B. King, and others.

Around this time, Electro-Voice also conceptualised and brought to market ClearScan, an auto-scan function for wireless microphones by which the

clearest frequencies in any location or venue are automatically picked up by the receiver by a simple push of a button.

With the 2001 opening of a new research and development facility at the 115,000 square foot corporate headquarters in Burnsville, Minnesota, EV continues to pursue technological breakthroughs in professional audio components.

The state-of-the-art facility is unique in the audio world and allows for the complete design, testing and evaluation of prototypes in a large-format 62 Hz anechoic chamber; one of the largest in the world.

Adjacent to the anechoic chamber is a 2300 square foot, fully dedicated training/testing facility known as "Telex Academy". Designed by Bob Coffeen, Professor of Acoustics and Engineering, University of Kansas, the room not only provides EV customers with an accurate critical listening room to personally audition new loudspeakers, system accessories and components, it also serves as an environment that allows confirmation and redefinition of existing products and product lines.

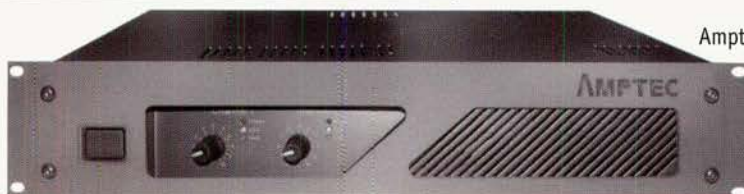


MARKETREPORT AMPLIFIERS

TWO CHANNEL AMPLIFIERS

Model	Size & Weight	Amplification Specification	Physical Features	Audio Features	Other
A.R.T. SLA1	1RU - 6Kg	130W @4ohms RMS per ch 3 Year Warranty \$799	Silent cooling with Smartfan		Low noise - discrete linear design
Acoustic Technologies E-1500	2RU - 19Kg	Channel Output: 350W-80hm, 500W-40hm, 700W-20hm Stereo Amplifier with Dual-Mono-Bridge Modes Over-load Limiting + Thermal & Speaker Protection \$1,995			
Acoustic Technologies E-2500	2RU - 21Kg	Channel Output: 500W-80hm, 880W-40hm, 1200W-20hm Stereo Amplifier with Dual-Mono-Bridge Modes Over-load Limiting + Thermal & Speaker Protection \$2,495			
Acoustic Technologies E-3500	2RU - 25Kg	Channel Output: 650W-80hm, 1200W-40hm, 1700W-20hm Stereo Amplifier with Dual-Mono-Bridge Modes Over-load Limiting + Thermal & Speaker Protection \$3,595			
American Audio V2000	2RU, 13.6Kg.	400W RMS/side @ 4 Ohms or 250W RMS/side @ 8 Ohms 2 HP filters 30Hz, 50Hz. 1.limiter per channel High safety Circuit protection + 3 Yr wrnty \$899			XLR & 1/4" inputs /Dual 2 speed fans & heatsink
American Audio V3000	2RU, 14Kg.	600W RMS/side @ 4 Ohms or 400W RMS/side @ 8 Ohms Buit in 2-way active crossover, input through High safety Circuit protection + 3 Yr wrnty \$1,449			XLR
American Audio V4000	3RU, 28Kg.	1010W RMS/side @ 4 Ohms or 600W RMS/side @ 8 Ohms XLR & 1/4" inputs /Dual 2 speed fans & heatsink Built in 2-way active crossover, input through High safety Circuit protection + 3 Yr wrnty \$1,999			XLR
American Audio GX300	2RU, 4.1Kg.	150W RMS/side @ 4 Ohms or 100W RMS/side @ 8 Ohms XLR & 1/4" inputs / Variable speed fan Input through High safety Circuit protection + 3 Yr wrnty \$499			
Amptec A 0.7	2RU at 13 Kg	2 x 350 watts (4 Ohms RMS) thermal controlled fan Intelligent input limiters \$1,499			
Amptec A 1.0	2RU at 13.5Kg	2 x 500 watts (4 Ohms RMS) hybrid power supply technology Damping Factor (8 Ohms 1kHz): 600:1 DC protection, soft start & delayed turn on \$1,799			
Amptec A 1.5	2RU at 14.9Kg	2 x 755 watts (4 Ohms RMS) exceptional build quality Sub-harmonic filter bi-polar output, constant gain \$2,799			
Amptec A 2.0	2RU at 15.8Kg	2 x 1000 watts (4 Ohms RMS) Slew rate: >40Vus XLR/jack input, link outputs \$3,499			
Arx ZR 550	2RU at 11Kg	2 x 250w into 4 ohms Dual speed fans, Ultrafin heatsink technology Plug in cards for processor/crossover/sub filter 2 years parts,1 year labour \$1,920			
Arx SX1500	2RU at 16Kg	2 x 700w into 4 ohms Dual speed fans, Ultrafin heatsink technology Softclip circuitry 2 years parts,1 year labour \$2,472			
Australian Monitor KA800	2RU at 15Kg	455W @4ohm RMS p/channel dual twin speed axial fans Optional high and low pass filter cards 2 year warranty \$1,759			
Australian Monitor KA1200	2RU at 17Kg	680W@4ohms RMS p/channel dual twin speed axial fans Optional high and low pass filter cards 2 year warranty \$2,089			
Australian Monitor KA1500	2RU at 19Kg	810W@4ohms RMS p/channel dual twin speed axial fans Optional high and low pass filter cards 2 year warranty \$2,599			
Base 1800 vi	2RU	600W @4ohm RMS p/channel Accepts Bose Plug In EQ Modules 1 Year Warranty \$2,399			

This Market Report asked the distributors about amplifiers. We have divided up the response into a large section of two channel amplifiers, and a group of amplifiers in other channel configurations. Each manufacturer was only able to list four of their available models, so there will be amps in the market that are not listed here. An indication of the alternatives is shown below in the "Models in Range" field. As usual, these are Australian prices, and they include the GST (tax).



Amptec A 0.7

Brand	Distributor	Phone	Web	Models in Range
A.R.T	Network Ent. Technology	+61 2 9905 5997	www.network-et.com	1
Acoustic Technologies	Acoustic Technologies	+61 7 3376-4122	www.acoustic-tech.com.au	3
American Audio	LSW	+61 2 95682100	www.lswonline.com.au	5
Amptec	National Audio Systems	+61 3 9434 1888	www.nationalaudio.com.au	4
ARX	The Resource Corporation (Eastern States)	+61 3 9877 8233		
	Audio Source (WA)	+61 8 9354 3185	www.arx.com.au	14
Australian Monitor	Audio Telex	+61 2 9647 1411	www.australianmonitor.com.au	3
Bose	Bose	+61 2 8737 9999	pro.bose.com	7
Bryston	Syntec International	+61 2 94174700	www.syntec.com.au	10
Camco	Group Technologies	+61 3 93814911	www.gtaust.com	3
Clarity	Network Ent. Technology	+61 2 9905 5997	www.network-et.com	4
Cloud	Bose	+61 2 8737 9999	www.cloud.co.uk	7
Crest	Production Audio Services	+61 3 9415 1585	www.productionaudio.com.au	41
Crown	Jands Electronics	+61 2 9582 0909	www.jands.com.au	45
E&W	Production Audio Services	+61 3 9415 1585	www.productionaudio.com.au	10
Ebony	Audio Assemblers	+61 3 9357 8595		16
Elektra	Neotec Audio	+61 2 9873 3994	www.neotec.com.au	2
Electrovoice	EVI Audio (Aust)	+61 2 9648 3455	www.eviaudio.com.au	6
Hafner	Network Ent. Technology	+61 2 9905 5997	www.network-et.com	4
Inter-M	Magna Systems Engineering	+61 2 94171111	www.magnasys.com.au	12
Jaycar	Jaycar Electronics	1800 022-888	www.jaycar.com.au	5
Jedia	Network Ent. Technology	+61 2 9905 5997	www.network-et.com	4
Lab Gruppen	Audio Telex	+61 2 9647 1411	www.audiotelex.com.au	10
Mackie	Australian Audio Supplies	+61 3 8415 1466	www.ausaudio.com.au	7
MC2	Funktion-One Australia	+61 3 9379-2433	www.mc2-audio.co.uk	4
Niles	Audio Products Australia	1800 642 922	www.audioproducts.com.au	3
Panasonic Ramsa	Ramsaudio	+61 2 9477 7377	www.ramsa.com.au	2
Parasound	Network Ent. Technology	+61 2 9905 5997	www.network-et.com	2
Peak Audio	CMI	+61 3 9315 2244	www.cmi.com.au	11
Peavey	Australis Music	+61 2 96984444	www.australismusic.com.au	9
Philips	MC communications	0412 522 100	www.philipscsi.com	8
Phonic	CMC Music	+61 02 9905 2511	www.cmcmusic.com.au	12 +
Powersoft	Corporate Audio Services	+61 3 9474 1066	www.corporateaudio.com.au	14
PSS	Network Ent. Technology	+61 2 9905 5997	www.network-et.com	3
Q4 Audio	Audio Sales & Marketing	+61 2 9585 1011	www.asmaust.com	4
QSC Audio	Technical Audio Group	+61 2 9810 5300	www.tag.au.com	
Quest Engineering	Group Technologies	+61 3 93814911	www.gtaust.com	1
Rane	Jands Electronics	+61 2 9582 0909	www.jands.com.au	2
Redback	Altronic Distributors	1300 780 999	www.altronic.com.au	7
Samson Audio	Electric Factory	+61 2 9480 5988	www.elfa.com.au	4
Sandart	Jade Sound	+61 3 9482 6166		4
TOA Corporation	Audio Products Australia	1800 642 922	www.audioproducts.com.au	4
Yamaha	Yamaha Music Australia	+61 3 96935111	www.yamaha.com	
Yorkville	Dynamic Music	+61 2 9939 1299	www.dynamicmusic.com.au	9

AMPLIFIERS

In addition to requesting product information, this month we asked a number of companies to write a small paragraph about the amplifier series, company or brand that they represent. The following text is an edited summary of comments gleaned from these submissions. In general, these are their words, not ours and should be read a discerning technical eye or two...

The **Acoustic Technologies** new generation E Series Amps feature some new ideas and solutions for high performance amplification including high headroom limiters activated by a set of internal sensors. This includes signal overload, imminent over temperature and loudspeaker fault protection conditions. Acoustic Technologies is based in Queensland.

Altronic's Redback Phase 4 range of amplifiers have been engineered and manufactured in Australia. They offer a Five Year warranty.

German designed and manufactured **Amptec** amplifiers are designed for the most demanding sound reinforcement applications of touring and installation. These amps utilize the latest hybrid power supply technology and a traditional bi-polar output stage. All models offer high standards of performance, build quality and reliability that comes with over 20 years OEM experience and come with a 3 year warranty.



Crown Pulse Series

Electrovoice P3000



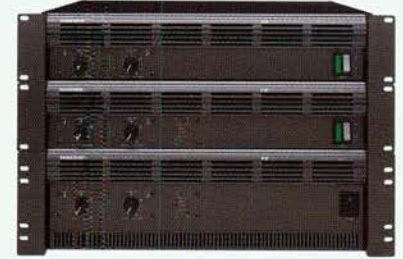
TWO CHANNEL AMPLIFIERS (continued)

Model	Size & Weight	Amplification Specification	Physical Features	Audio Features	Other
Bose 1600 vi	2RU	325W @4ohm RMS p/channel	Accepts Bose Plug In EQ Modules		1 Year Warranty \$1,999
Bryston 2B PROXLR	1RU at 8Kg	100W @4ohm RMS p/channel		Bridging, Ground lift switch	
		20 year warranty			\$2,611
Bryston 3B-ST-P	3RU at 13Kg	200W @4ohm RMS p/channel		As for 2B, and dual power supplies	Quad
		20 year warranty			\$3,420
Bryston 4B-ST-P	3RU at 18Kg	400W @4ohm RMS p/channel		Bridging, Ground lift switch	
		20 year warranty			\$4,539
Camco Vortex 6	2RU at 12.4Kg	3000w @2ohm RMS p/channel		Micro-processor controlled circuitry	Optional EUI allows computer control up to 99 amps 3 year warranty, \$9,495
Camco Vortex 4	2RU at 12.4Kg	2200w @2ohm RMS p/channel		Micro-processor controlled circuitry	Optional EUI allows computer control up to 99 amps 3 year warranty, \$7,385
Camco DX 24	3RU at 27Kg	1840w @4ohm RMS p/channel		Switchable to high current parallel-mono mode	Optional EUI allows computer control up to 99 amps 3 year warranty, \$5,495
Camco DL-3000P	3RU at 31Kg	1600w @4ohm RMS p/channel		Adjustable Limiters	Optional EUI allows computer control up to 99 amps 3 year warranty \$7,995
Clarity ES800	2RU - 8.0Kg	390W @40HM RMS per ch	lightweight - thermal protect		High low end integrity 3 year Warranty \$1,299
Clarity ES1000	2RU - 10.5Kg	500W @40HM RMS per ch	lightweight - thermal protect		High low end integrity 3 year Warranty \$1,699
Clarity ES1500	2RU - 12.5Kg	750W @40HM RMS per ch	lightweight - thermal protect		High low end integrity 3 year Warranty \$1,999
Clarity ES2000	2RU - 13.5Kg	1000W @40HM RMS per ch	lightweight - thermal protect		High low end integrity 3 year Warranty \$2,299
Cloud VTX1500	3RU	750W @2ohm RMS p/channel	Dynamic Clip Limiter	1Yr Warranty	\$2,900
Cloud VTX1200	3RU	600W @2ohm RMS p/channel	Dynamic Clip limiter	1Yr Warranty	\$2,500
Crest CPX2600	2RU at 22.3Kg	1000W @4ohm RMS p/channel	Intelligent temperature controlled extraction fan		Built-in Xover, 150Hz 24 dB/octave Linkwitz-Riley GCL Gain Comparator Limiting system \$2,795
Crest LT2000	2RU at 16.9Kg	1200W @4ohm RMS p/channel	(3dB headroom)	Dramatically-reduced net weight	Linear power supply/switching output stages Very low current draw \$3,995
Crest CA12	3RU at 30.5Kg	1200W @4ohm RMS p/channel	(6dB headroom)	Crest Audio's legendary "overbuilt" power supply	Latest high-speed, wide-bandwidth output devices Massive extruded aluminium heat sinks \$5,595
Crest 8002	3RU at 19.1Kg	1400W @4ohm RMS p/channel	(6dB headroom)	dramatically-reduced net weight	PowerLok technology rear-mounted, continuously variable-speed fans \$7,295
Crown XLS Series	3 RU/from 13Kg	Models up to 840W per channel	into 2 ohms	High-pass filter per channel, opto-coupler clip limiters	Affordable, high quality amplification 3 Year NO FAULT warranty From \$1195
Crown Macro-Tech Series	2 & 3 RU/from 17.9Kg	Models up to 2500W per channel	into 2 ohms	IQ compatible, loudspeaker offset integration	Worldwide industry standard touring amp 3Yr NO FAULT warranty From \$3895
Crown Pulse Series	2 RU/from 11Kg	Models up to 1500W per channel	into 2 ohms 2 & 4 ch,	Microprocessor ensures correct operation	Lightweight & reliable for touring or install 3Yr NO FAULT warranty From \$3795
Crown CTs Series	2 & 3 RU/from 10.9Kg	Models up to 1500W per channel	into 2 ohms 2, 4 & 8 channels,	comprehensive protection	IQ-PIP & IQ-MC compatible, VCA Remote option 3 Year No Fault warranty, can run 70V + 100V line From \$2695
E&W PS1000	2RU at 10.5Kg	500W @4ohm RMS p/channel		Dual switch mode amplifier	Notch filter circuitry provides solid bass H-rail technology \$1,795
E&W PS1500	2RU at 12.5Kg	750W @4ohm RMS p/channel		Dual switch mode amplifier	Notch filter circuitry provides solid bass H-rail technology \$2,195
E&W PS2000	2RU at 13.5Kg	1000W @4ohm RMS p/channel		Dual switch mode amplifier	Notch filter circuitry provides solid bass H-rail technology \$2,395
E&W PL2400	2RU at 20Kg	1200W @4ohm RMS p/channel		Linear power supply	Notch filter circuitry provides solid bass High efficiency \$2,645
Ebony EP300	2RU at 10Kg	150W @4ohm RMS p/channel		1/4" jack in 1/4" jack out	1 year warranty \$749
Ebony EP900B	3RU at 17.5Kg	450W @4ohm RMS p/channel		Balanced XLR in, XLR out	-thermal fan Bi-amp card, Signal & Clip LED 1 year warranty \$1,259
Ebony EM50X8	2RU at 15Kg	50W @4ohm RMS p/channel		Barrier strip IN Barrier strip OUT	8 identical amplifiers in 1 case 1 year warranty \$1,089
Ebony EC4504B	3RU at 29Kg	450W @4ohm RMS p/channel		Balanced IN Internal heatsinks - fan assisted.	2 Bridgeable pairs, biamp card, Signal & Clip LED 1 year warranty \$2,329
Electrovoice P1200	2RU at 17Kg	550W @4ohm RMS p/channel		Active balanced inputs	Fault protection controls 3 year warranty, Made in Germany \$3,149
Electrovoice P3000	3RU at 28 Kg	1300W @4ohm RMS p/channel		Dual power-supply	Switchable limiter & Lo/Hi-cut filter 3 year warranty, Made in Germany \$4,935

Electrovoice Q 44 output connectors \$2,079	3RU at 15 Kg Ground lift switch and speaker protection	450W @4ohm RMS p/channel 3 year warranty, Made in Germany	High-current Neutrik Speakon
Electrovoice Q 66 Rear mounted level controls \$2,580	3RU at 15 Kg 3 year warranty, Made in Germany	600W @4ohm RMS p/channel	State-of-the art limiters
Elektra Reference \$2,995	4RU at 27Kg Harmonic Distortion @ 1kHz 10W <0.005%	220W @8ohm RMS p/channel Custom designed electrolytic capacitors.	Heat sink cooling. Total
Hafler P1000 \$1,299	1RU - 5Kg	55W @4ohms RMS per ch MOSFET design	Low THD 3 Year Warranty
Hafler P3000 Warranty \$1,799	2RU - 10Kg	200W @4ohms RMS per ch MOSFET design	Low THD 3 Year
Hafler P9505 \$4,999	3RU - 22Kg	375W @4ohms RMS per ch MOSFET design	Low THD 3 Year Warranty
Hafler SR2800 \$4,499	2RU - 14Kg	700W @2,4,8ohms RMS ch true switch mode	Low THD 3 Year Warranty
Inter-M M500 Bridged Mono 500W @ 8ohm \$900	2RU at 12Kg	250W @ 4ohm RMS P/Channel Dual variable cooling fans	Thermal DC & PC Limiter, Protection
Inter-M M700 Bridged Mono 700W @ 8ohm \$1,000	2RU at 15Kg	350W @ 4ohm RMS P/Channel Dual variable cooling fans	Thermal DC & PC Limiter, Protection
Inter-M M1000 Bridged Mono 1000W @ 8ohm \$1,300	2RU at 17Kg	500W @ 4ohm RMS P/Channel Dual variable cooling fans	Thermal DC & PC Limiter, Protection
Inter-M M2000 Bridged Mono 2000W @ 8ohm \$1,800	2RU at 23Kg	1000W @ 4ohm RMS P/Channel Dual variable cooling fans	Thermal DC & PC Limiter, Protection
Jaycar AA-5010 Speaker Box mounted module \$429	255 x 255mm 6.5Kg (Sub Woofer Amp Module) Variable X-over, Variable phase control	500WRMS @ 4 ohms, 20 - 180 Hz Class D	
Jaycar AA-0508 Speaker Box mounted module \$369	250 x 295mm (Sub Woofer Amp Module) Variable X-over, Variable phase, auto on/off	350WRMS @ 4 ohms, 20 to 160 Hz Remote control	Speaker Box
Jaycar AA-0501 Speaker Box mounted module \$319	245 x 295mm (Sub Woofer Amp Module) Variable X-over, Variable phase, auto on/off	240WRMS @ 4 ohms, 20 to 160 Hz	Speaker Box
Jaycar AA-0500 Speaker Box mounted module \$319	200 x 250mm (Sub Woofer Amp Module) Variable X-over, Variable phase, auto on/off	150WRMS @ 4 ohms	Speaker Box
Jedia POWER300A Mini-mised transient pwr on/off 3 Year Warranty \$699	2RU - 9.5Kg	175W @4ohms RMS per ch Advanced protection circuitry	
Jedia POWER800A Mini-mised transient pwr on/off 3 Year Warranty \$999	2RU - 12Kg	410W @4ohms RMS per ch Advanced protection circuitry	
Jedia L1.5 transient pwr on/off 3 Year Warranty \$1,099	2RU - 12.3Kg	370W @4ohms RMS per ch Advanced protection circuitry	Minimised
Jedia L2.2 transient pwr on/off 3 Year Warranty \$1,299	2RU - 14.5Kg	550W @4ohms RMS per ch Advanced protection circuitry	Minimised
Lab Gruppen FP6400 Supply MLS- Allows power matching for different loads 5 year warranty, \$9,089	2RU at 10.2Kg	2300W @4ohm RMS p/channel	Regulated Switch Mode Power
Lab Gruppen FP2200 Supply MLS- Allows power matching for different loads 5 Year Warranty \$4,049	2RU at 7.9Kg	2 x 650 watts@4ohms	Regulated Switch Mode Power Supply
Lab Gruppen iP450 Excellent Signal to Noise Ratio 5 Year Warranty \$1,889	1RU at 7.5Kg	2 x 160 watts@4ohms	Convection Cooling (no fan)
Mackie M800 Directivity horn/Air EQ 5 Year warranty; Limiter \$1,695	800watts @ 4 ohms bridged	Superior forced-air T-Design cooling	Constant
Mackie M1400 low-cut filters 18dB/oct. subwoofer x'over \$2,195	2RU 1400watts @ 4 ohms bridged	Superior forced-air T-Design cooling	Variable freq.
Mackie M2600 x'over Selectable full-range & x'over low/high outs \$3,695	2RU 2600watts @ 4 ohms bridged	Selectable amp modes	24dB/oct. subwoofer
MC2 Audio MC1250 Factor 1 kHz, 8 ohms >1000 Sophisticated system monitoring \$7,420	3RU/32kgs	1250W into 4ohms/ch	Low noise vari-speed fans Damping
MC2 Audio MC750 signal drives full out into 4ohms Full 5-year warranty \$5,504	2RU/22 kgs	750W into 4ohms/ch	Class AB bipolar outputs Sens:+ 7dBm
MC2 Audio T2000 drive Full 5-year warranty \$4,386	2RU 1000W into 4ohms/ch	'Side-chain' clip limiter	Current driven floating
MC2 Audio T1000 Factor 1kHz 8 ohms >400 Optional internal crossover cards \$2,704	2RU/18kg	500W into 4ohms/ch	Low noise vari-speed fans Damping
Niles SI-275 trigger 1 year warranty \$1,495	2RU at 9.5Kg	2 x 75W RMS @ 8 ohms	Screwdriver level controls Music sense & voltage
Niles SI-245 trigger 1 year warranty \$995	1 RU at 7Kg	2 x 45W RMS @8 ohms	Screwdriver level controls Music sense & voltage
Panasonic Ramsa WP-1200 balanced design Class H circuitry \$1,680	2RU at 11.8Kg	200w into 4ohms servo control system	Highly
Panasonic Ramsa WP-1400 Highly balanced design VI limiter and Crow-Bar circuit \$2,000	3RU at 17.4Kg	400w into 4ohms superior radiation capability	



Inter-M M2000



Mackie FR Series (M800, M1400 & M2600)



Jaycar AA-0508

Australian Monitor's Pro Series is described by AM as one of the best built and best sounding amp range on the market. The KA Series build on this by offering the performance that pro-audio professionals have come to expect from the 'AM Brand' over the years.

Bryston amps are made by a Canadian company who have been involved in professional and consumer audio marketplaces for over 25 years.

Camco amps are a high-end touring class product capable of power levels up to 6,000 w at 4ohms (bridged, mono) and can drive into 1 ohm loads in parallel-mono mode. The Vortex series is a new generation of amp that aims to set new standards in technical and mechanical design.

Legendary for their power, sound quality, and rock-solid construction, **Crest Audio** amplifiers are a standard in professional audio amplification. Whatever the application, Crest Audio professional amplification offer exceptional audio quality, sound engineering and robust construction coupled with TourClass protection (except for the new EPX).



Peak EU-800



Peak UL-2000



Peavey PV2600



Quest Engineering QA 3000

Lab Gruppen has a high profile in Europe for their lightweight amplifiers and high-end product. Their reputation was built by pioneering the regulated switchmode power amplifier, a design that has been proven highly reliable in demanding pro-audio applications.

Mackie's FR Series amplifiers are the result of the same approach that gave the mixer market a good shake. FR stands for fast recovery, derived from proven circuits to reduce latching or "sustained clipping". This high-speed, latch-proof design (with extremely low negative feedback) eliminates high frequency sticking and gives the amp enhanced stability.

UK based **MC2 Audio** released their first amps in 1994. All MC models can be operated remotely from a PC and include the option of adding crossover cards.

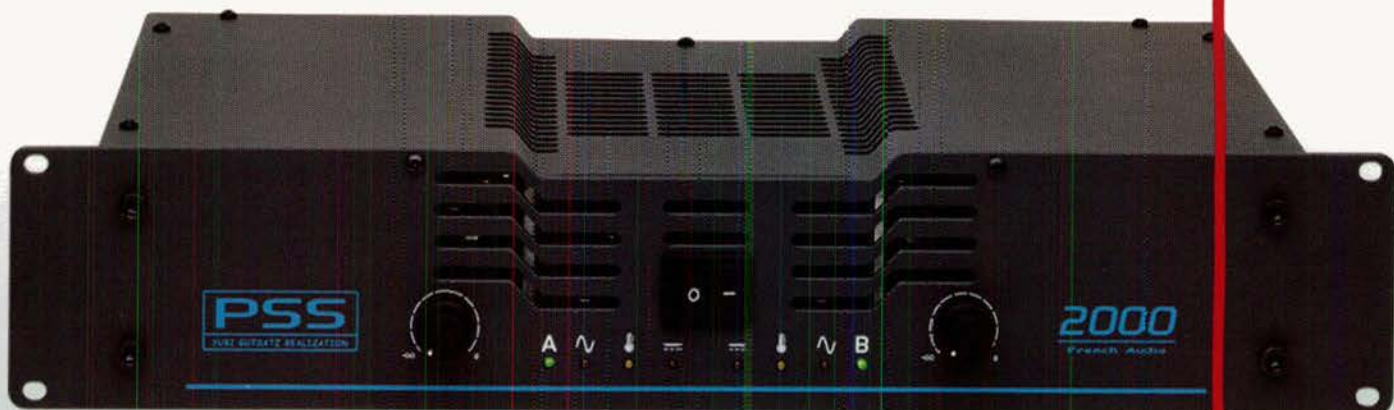
Peak Audio Amplifiers have an extensive range of amplifiers to meet most conventional applications that ranging in power from 125 watts to 1800 watts per channel. Competitively priced and ultra reliable.

TWO CHANNEL AMPLIFIERS (continued)

Model	Size & Weight	Amplification Specification	Physical Features	Audio Features	Other
Parasound ZAMPV2	1RU - 4Kg	45W @4ohms RMS per ch	Zone Amp		Uncompromised sound quality 10 year warranty \$649
Peak ST-5	2RU @ 5.5Kg	250W @ 4 ohms per channel	Thermal / DC / Current protection		Slow start power-up, Ultra Quiet Convection Cooled \$699
Peak EU-800	2RU @17.5Kg	400 @ 4 ohms per channel	Thermal / DC / Current protection		Slow start power-up, 31 step attenuation XLR inputs / Speakon Speaker Outputs \$1,099
Peak USA-1600	3RU @ 24Kg	800 @ 4 ohms per channel	Thermal / DC / Current protection		Input Sensitivity Switching Switchable Compression \$1,595
Peak UL-2000	2RU @ 13.5Kg	1000 @ 4 ohms per channel	Thermal / DC / Current protection		Low pass notch filter to enhance bass performance Switch Mode power supply \$2,395
Peavey GPS 3400	2RU	750W @4ohm RMS p/channel	Dual Variable-speed fan.		Initialization protection DDT speaker protection 3 year warranty, \$4,195
Peavey PV2000	4RU 25Kg	1000W @2ohm RMS p/channel	2-speed fan cooling		DDT speaker protection, High pass filter. 3 year warranty, \$1,895
Peavey PV2600	2RU 22.3Kg	800w @4ohms RMS p/channel	V-cooling design		DDT speaker protection 150 Hz crossover for subs 3 year warranty, \$2,495
Peavey PV1500	2RU 20.5Kg	500w @4ohms RMS	V-cooling design		DDT speaker protection 150 Hz crossover for subs 3 year warranty, \$1,395
Philips LBB1343/00	3RU at 12.7Kg	2X100W RMS 100V	19" Rack Mount	50-20KHz	Balanced Inputs \$3,609
Phonic MAX 860	2 RU	300W x 2 @ 4 ohms			20k balanced/10k unbalanced input impedance 5 year warranty \$795
Phonic MAX 1500	2 RU	450W x 2 @ 4 ohms			20k balanced/10k unbalanced input impedance 5 year warranty \$950
Phonic MAX 2500	2 RU	750w x 2 @ 4 ohms			20k balanced/10k unbalanced input impedance 5 year warranty \$1,095
Phonic XP 3000	3 RU	1000w @ 4 ohms/1400w @ 2ohms	Input connectors: XLR/TRS Combo		Damping factor: >500 @ 8 5 year warranty \$2,295
Powersoft D-1604	1RU at 9.5Kg	800W @4ohm RMS p/channel			Power Factor Correction (PFC) HP, LP, BP filters, 2-stage limiter, gates 3 year warranty, \$2,999
Powersoft D-4002	1RU at 9.5Kg	1100w @4ohm RMS p/channel			PFC, optional DSP based processor HP, LP, BP filters, 2-stage limiter, gates 3 year warranty, \$4,499
Powersoft DIGAM-7000	1RU at 9.5Kg	1910w @4ohm RMS p/channel			PFC, temp cont. fan system Clip limiter and permanent signal Compressor 3 year warranty, \$7,499
PSS PSS500	2RU - 11Kg	250W @4ohms RMS per ch	Advanced cooling features		Low distortion 3 year Warranty \$1,199
PSS PSS1000	2RU - 13Kg	500W @4ohms RMS per ch	Advanced cooling features		Low distortion 3 year Warranty \$1,699
PSS PSS2000	2RU - 15Kg	1000W @4ohms RMS per ch	Advanced cooling features		Low distortion 3 year Warranty \$2,399
Q4 Audio PTH3	2RU at 17.5Kg	330W @4ohm RMS p/channel	Temp controlled fans, XLR input, Speakon Outputs		Temp Control Via Limiting Non Linearity Restoration, 3 yr Warranty \$2,099
Q4 Audio PTH5	2RU at 18.3Kg	450W @4ohm RMS p/channel	Temp controlled fans, XLR input, Speakon Outputs		Temp Control Via Limiting Non Linearity Restoration, 3 yr Warranty \$2,599
Q4 Audio PTH7	2RU at 20.5Kg	720W @4ohm RMS p/channel	Temp controlled fans, XLR input, Speakon Outputs		Temp Control Via Limiting Non Linearity Restoration, 3 yr Warranty \$2,999
Q4 Audio PTH9	2RU at 21.7Kg	920W @4ohm RMS p/channel	Temp controlled fans, XLR input, Speakon Outputs		Temp Control Via Limiting Non Linearity Restoration, 3 yr Warranty \$3,899
QSC RMX Series	2RU at 16-20Kg	300-750W @4ohm RMS p/channel	Speakon Outs, XLR Inputs, 400m Deep.		Clip Limiters, HP Filter, Inrush Limiting. 3 Year Warranty, \$1395-2195
QSC PLX Series	2RU at 9.5Kg	400-1250W @4ohm RMS p/channel	Speakon Outs, XLR Inputs, 350m Deep.		Clip Limiters, HP Filter, Inrush Limiting. 3 Year Warranty, \$1695-3895
QSC PL2 Series	2RU at 9.5Kg	600-1300W @4ohm RMS p/channel	Speakon Outs, XLR Inputs, 350m Deep.		Clip Limiters, HP Filter, Inrush Limiting. 3 Year Warranty, Computer Control \$3295-5195
QSC PowerLight 9.OPFC	3RU at 27Kg	3400W @4ohm RMS p/channel	Speakon Outs, XLR Inputs		Clip Limiters, HP Filter, Inrush Limiting. Computer Control, Power Factor Correction \$16,995
Quest Engineering QA 3000	3RU @ 27Kg	1200W @4ohm RMS p/channel			Solid construction suits hire or installation High Damping Factor greater than 780:1 3 year warranty, \$1,895
Quest Engineering QA 2000	3RU @ 26Kg	600W @4ohm RMS p/channel			Solid construction suits hire or installation High Damping Factor greater than 780:1 3 year warranty, \$1,595
Quest Engineering QA 1000	3RU @ 22Kg	450W @4ohm RMS p/channel			Solid construction suits hire or installation High Damping Factor greater than 780:1 3 year warranty, \$1,295
Samson Audio S2000	3RU at 16.3Kg	1000W @4ohm p/side, 2000 watts @8ohm bridged			Dual temperature sensitive speed controlled fans Banana jack & Speakon connector outputs 12 month warranty

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AMPLIFIERS

New to the Australian market is Powersoft SRL who has developed some innovative engineering solutions - new switch-mode technology which utilises a combination of Pulse Width Modulation and load independent output-stage filtering. Greater efficiency in these amplifiers means that overall size, weight and power consumption has been greatly reduced. The output stages of Powersoft amps typically run at 95% efficiency, dissipating only 5% on the input power as heat.

PSS power amplifiers from France are a standard 2RU and have an array of internal protection strategies against direct current, accidental short circuits at output and abnormal temperature increases (up to 85°). PSS have been making amps for over 20 years and their amplifiers have a ten-year guarantee against any manufacturing defect.

Belgium made Q4 Audio amplifiers feature Non Linearity Restoration (NLR) where the amplifier references or 'checks' in real time the signal condition at a number of points within the signal path. Q4 Audio amplifiers also feature Temperature Controlled Limiting,



Yamaha P4500



Mackie Industrial UP4161



Redback Phase 4 A 4060



Redback Phase 5 A 1824

TWO CHANNEL AMPLIFIERS (continued)

Model	Size & Weight	Amplification Specification	Physical Features	Audio Features	Other
features Price					
\$1,999					
Samson Audio S1500	3RU at 14.6Kg	750W @4ohm p/side, 1500 watts @8ohm bridged	Banana jack & Speakon connector outputs	Dual temperature sensitive speed controlled fans	12 month warranty
\$1,799					
Samson Audio S1000	2RU at 16.3Kg	700W @4ohm p/side, 700 watts @8ohm bridged	Banana jack & Speakon connector outputs	Dual temperature sensitive speed controlled fans	1yr warranty \$1,499
Samson Audio S700	2RU at 14.6Kg	500W @4ohm p/side, 1000 watts @8ohm bridged	Banana jack & Speakon connector outputs	Dual temperature sensitive speed controlled fans	1yr warranty \$1,299
Sandart CTA400	400W into 4ohms				\$849
Sandart CTA600	600W into 4ohms				\$999
Sandart CTA900	900W into 4ohms				\$1,149
Sandart CTA1200	1200W into 4ohms				\$1,299
Toa IP-300D	2RU at 12Kg	2 x 300W RMS @4ohm / channel	Optional Interface for PC control	THD: .01%, S/N Ratio:110db	Hi capacity heatsink, stereo, BTL & parallel o/p's \$2,499
Toa IP-450D	2RU at 13Kg	2 x 450W RMS @4ohm / channel	Optional Interface for PC control	THD: .01%, S/N Ratio:110db	Variable Fan cooling, detachable handles \$2,799
Toa IP-600D	2RU at 18Kg	2 x 600W RMS @4ohm / channel	Optional Interface for PC control	THD: .01%, S/N Ratio:110db	Variable Fan cooling, detachable handles \$2,999
Yamaha P4500	2RU at 16Kg	720Watts into 4 ohms by 2 THX approved + EEEngine efficiency	EEEngine - high efficiency, low power usage	Bridges to 1440watts	\$3,980
Yamaha P3200	2RU at 15Kg	520Watts into 4 ohms by 2 THX approved + EEEngine efficiency	EEEngine - high efficiency, low power usage	Bridges to 1040watts	\$1,495
Yamaha XS350	3RU at 20Kg	350Watts into 4 ohms by 2	Economical high power amp	700watts	Bridges to \$1,295
Yorkville AP6040	3RU at 31Kg	2000W (x2) @ 4ohm RMS p/channel	Advanced Protection Circuitry Ultra-Quiet, Dual Silent fan Internal Cooling	2 yr "Unconditional" Warranty	\$4,195
Yorkville AP4040	2RU at 19.8Kg	2000W (x2) @ 4ohm RMS p/channel	Soft Turn On, Defeatable Filter	2 yr "Unconditional" Warranty	\$2,995
Yorkville AP2020	2RU at 15.9Kg	600W (x2) @ 4ohms or 2 ohms	Selectable Impedance	2 yr "Unconditional" Warranty	\$2,495
Yorkville AP800	2RU at 14.3Kg	400W (x2) @ 4ohms or 2 ohms	Protection (DC, Load, Thermal)	Selectable Impedance	2 yr "Unconditional" Warranty \$2,050

ONE CHANNEL AMPLIFIERS

Mackie Industrial UP4161	(1ch)	160watts RMS	Balanced/unbalanced line level inputs	Input sensitivity & HP Filter controls	Defeatable High Pass Filter \$1,495
Philips LBB1935/00	(1ch)	2RU at 10.2Kg	240W RMS 100V, 4/8 OHMS	Matching Plena Range Preamps 50-18KHz	Balanced Inputs \$1,300
Philips LBB1348/00	(1ch)	3RU at 16.4Kg	400W RMS 100V	19" Rack Mount	50-20KHz Balanced Inputs \$4,759
Redback Phase 4 A 4060	(1ch)	1RU at 8Kg	60W @ 100/70V/4-16ohms	Signal presence LED, VU meter, XLR input	Ultrathin. One RU rack space required. 5 year warranty, Australian Made \$545
Redback Phase 5 A 1824	(1ch)	2RU at 18Kg	125W @ 100/70V/4-16ohms	Overload protection, 24V DC operation, 3 pin XLR	Stylish and sturdy design 5 year warranty, Australian Made \$680
Redback Phase 6 A 1834	(1ch)	2RU at 18Kg	250W @ 100/70V/4-16ohms	Overload protection, 24V DC operation, 3 pin XLR	Stylish and sturdy design 5 year warranty, Australian Made \$875
Redback Phase 7 A 1844	(1ch)	2RU at 18Kg	500W @ 100/70V/4-16ohms	Overload protection, 24V DC operation, 3 pin XLR	Stylish and sturdy design 5 year warranty, Australian Made \$1,450

THREE CHANNEL AMPLIFIERS

Arx PowerDrive	(3ch)	2RU at 20Kg	2 x 580w into 4 ohms, 1 x 1050w into 2 ohms	crossover/processor	2 years parts, 1 year labour \$3,519
Rane MA3	(3ch)	2RU/11.8Kg	3 x 60W @ 4 ohms	Integral clip limiters and a sealed tunnel cooling topology	Intended for commercial & business music applications Optional 70/100V line output transformers available \$2,445

FOUR CHANNEL AMPLIFIERS

Lab Gruppen fp2400Q	(4ch)	2RU at 8.6Kg	4 x 380W @4 ohms	Supply	Regulated Switch Mode Power 5 year warranty, \$4,999
Philips LBB1346/00	(4ch)	3RU at 19.3Kg	4X100W RMS 100V	Balanced Inputs	19" Rack Mount 50-20KHz \$6,100
Powersoft Q-3204	(4ch)	1RU at 9.5Kg	800w @4ohm RMS p/channel	based processor	HP, LP, BP filters, 2-stage limiter, gates 3 year warranty, \$5,999
Toa P-60F	(4ch)	2RU at 10Kg	4 x 80W RMS @ 4 ohms/ channel	bridgeable	THD: <.3%, IMD:<.03% Electronically Bal and built in protection \$3,123

FIVE CHANNEL AMPLIFIERS

Bryston 9B-ST-PTHX	(5ch)	3RU at 29.5Kg	200W @4ohm RMS p/channel	3 position input selector	Also suits Home Theatre applications	20 year warranty \$7,306
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SIX CHANNEL AMPLIFIERS

Arx ZA600	(6ch)	2RU at 14Kg	6 x 125w into 4 ohms	Input link, output bridging		2 years parts, 1 year labour \$2,357
Elektra Theatre	(6ch)	4RU at 27Kg	150W @8ohms RMS p/channel	Heat sink cooling.	Optional balanced inputs.	Frequency Response 3Hz - 250 kHz +/-1.5 dB Massive 1.5KVA potted transformer \$2,975
Rane MA6S	(6ch)	3RU/15Kg	6 x 150W @ 4 ohms	Input Limiters; Quiet Vari-speed Fan;		Euroblock In/Out. Intended for commercial & business music applicationsOptional 70/100V line output transformers available \$5,745
Yamaha XM6150	(6ch)	3RU at 18Kg	150Watts into 4 ohms by 6 Six by 100/70 volt distribution amp - bridgeable	Each channel has attenuation and roll-off	Perfect for 6 speaker surround applications	\$1,695

TWELVE CHANNEL AMPLIFIERS

Niles SI-1230	(12ch)	3RU at 12.7Kg	12 x 30W RMS @ 8ohms	BusMatrix input selector	Music sense & voltage trigger	1 year warranty \$2,995
Parasound Z12	(12ch)	4RU - 25Kg	50W @4ohmsRMS x 12	12 Channel Zone amp		Uncompromised sound quality 10 year warranty \$4,899

designed to prevent amplifier shutdown due to overheating.

Yamaha's P4500 and P3200 amplifiers are badged with the highly demanding THX spec approval logo for theatrical applications. THX is a division of Lucasfilm who in turn instigate world-wide quality assurance programs for the entertainment and electronics industries. The THX logo is difficult to attain and is a serious industry vote of confidence for any product that carries it.



Yamaha XM6150

Amplifier Market Report was researched and compiled by Dan Grafton. The next report is "Small PA Boxes - 15" & horn (or smaller)". If relevant to you, email daniel@conpub.com.au and ask to be put on the mailing list.

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Clever place

UP AND AWAY AS LIGHTMOVES EXPANDS

Long term strategy and partnerships the key. Julius Grafton drives the staff car to Noble Park....

Lightmoves has settled into a very spacious new 1.8 acre complex at Noble Park, just 25 minutes from the Melbourne CBD on the freeway. The Lightmoves partnership between Andrew Sherar and Braham Ciddor is based on design, sales and service of high tech and conventional lighting control and commercial systems, and employs around 25 people.

Within the complex are joint venture businesses Resolution X – who hire modern lighting equipment and moving lights - and Browns Precision Welding, who build lighting truss and support equipment. These ventures each have their own managing director, in Tim Hall and Beau Southey respectively.

Lightmoves CEO Braham Ciddor explained the firm was forced to moved from three separate facilities closer to town when the landlord of one demanded unrealistic conditions on a new lease.

“We found this place and bought it, then the old place was empty for a year” he marvels, clearly bemused. The mortgage payments on the spacious complex equal what the firm paid in rentals previously.

Within the sprawling facility, previously a gasket factory, the internal driveway between Resolution X and Lightmoves equals as much floor space as the company had in one of the previous buildings. A quarter of the floor is unused, representing expansion space, and is sometimes used for free introductory lighting courses aimed at schools. There are three car parking areas, a decent loading yard, and relatively modern offices.

The strength of the growing firm is the combination of skills of management, with Sherar’s exceptional engineering skills matched by Ciddor’s strong marketing and management nous. The joint ventures with Res X and Browns are also astute management moves, provided a growing web of partnerships can be managed.

The secret to the success of Lightmoves could be sheeted home to a long term strategic decision to reinvest profits. “We’ve been going over 12 years and haven’t dipped into the profits” reports Ciddor. “Rather, we’ve reinvested”.

My cooks tour of the establishment was instructive, the partners have resisted lavish or unnecessary touches, and produced a clean, clear, well balanced and productive environment. “It’s not quite smoke free, through”; sighs Ciddor affectionately, “because of this thug!” The thug in question, Andrew Sherar grins sheepishly, and slinks off to light up.

Beau Southey, Andrew Sherar
Braham Ciddor and Tim Hall



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MARKET REPORT

EFFECTS and CONSUMABLES

Consumables

Model	Model No	Primary Function	Special Features	Price
Gam Window Grip	1816,1817,1843,1846,1856	Colour gel with self adhesive for temporary installation onto windows, leaving no residue	Available in 7.6m x 1.2m roll. .5ND, .9ND, Full CTO, 3/4 CTO and CTO+.3ND	\$574 per roll
Lee Filters Colour Effect	002-198,322-366,702-797	Colouring For Effect	Rolls (7.62m x 1.22m) & Sheets (1.22m x 0.51m)	Rolls \$162.80 Sheets \$15.40
Lee Filters Correction Filter	200-299,400-452	Colour Correction, Diffusion and Reflection Applications	Available in Rolls & Sheets in various size formats	Depends on Product/Formct
Lee Filters HT Colour Effect	HT004-HT797	Colour Effect for High Temperature Applications	Rolls (4m x 1.17m) & Sheets (1.17m x 0.56m)	Rolls \$158.40 Sheets \$26.40
Lee Filters Gobos	GB010-GB865	Pattern Projection	Available in A,B and M Size Formats	A, B or M Size \$24.20
Lighting By Design Gobos Beacon full colour Gobo		Full colour glass gobo ideal for custom gobo projections	Manufactured locally by Lighting By Design ensuring quick turnaround and efficient service.	\$808
Lighting By Design Gobos B&W Glass		B&W Glass gobos for stock image and custom projections	Using Beacon high resolution substrates	\$231
Lighting By Design Gobos Stainless Steel		Steel gobos for stock image and custom projections	From cheap stock images to customised logos	from \$28 to \$176
Mastercut Technologies Catalogue Gobos		Precision etched on stainless steel. Over 150 designs to choose from. Available in A, B, M and E size.		\$21
Mastercut Technologies Custom Gobos		Custom images/logos	Available in stainless steel or glass	POA
Optikinetics 6" Liquid Wheel	OK-FG7038	6" Effects wheel with layers of brightly coloured oils creating an engaging liquid effect		\$216
Rosco Supergel	rolls and sheets	High temp lighting filters	body coloured will not become sticky with heat, excellent for scroller strings. Non-flammable	\$various
Rosco Rosco E-Colour+	rolls and sheets	High temp lighting filters	single side coating suitable for theatre and high temp film lighting. European numbering system.	\$various
Rosco Gobos	steel & glass	design elements for lighting	1000 standard patterns plus custom design facility	\$various
Rosco Stage Hardware		making stage sets hold together	Hinges, braces, ties, for stage and event scenery construction	\$Various
Vari-lite VARI*IMAGE		Range of laser-etched gobos specifically designed for VARI*LITE automated luminaires	Select gobos from the VL Catalogue, create your own custom artwork, or now order any GAM pattern	POA

Device Accessories

Con'dome Condom 70cm	OCD723 70cm diameter base with cooling fan and circuit breaker protection for fixture	Inflatable domes are available in various sizes from 40cm to 1.6m	\$2,546
Con'dome Flightdome 90cm	OCD923 90cm diameter roadcase base with cooling fan and circuit breaker protection for fixture	Inflatable domes are available in various sizes from 40cm to 1.6m	\$4,888
Con'dome Upsidedown dome	ODU723 76cm diameter base that can hung below truss or extended horizontally	The condoms provide a water-proof housing for any non weatherproof moving light or video projector	\$3,072

Brand	Distributor (these companies will tell you your nearest supplier)	Items in Range
Acme Effects	Universal Lighting and Audio (ULA)	1800 648 111 www.ula.com.au 25
Lighting By Design Gobos	Lighting By Design	+61 7 5537 7002 www.LBD.com.au 3+
Flying Planet	Coemar De Sisti Australia Pty Ltd	+61 3 9467 8666 www.cdaust.com.au 11
Con'dome	Coemar De Sisti Australia Pty Ltd	+61 3 9467 8666 www.cdaust.com.au 18
FX Range	Coemar De Sisti Australia Pty Ltd	+61 3 9467 8666 www.cdaust.com.au 8
GAM	Coemar De Sisti Australia Pty Ltd	+61 3 9467 8666 www.cdaust.com.au 1
Reel EFX	Coemar De Sisti Australia Pty Ltd	+61 3 9467 8666 www.cdaust.com.au 2
DHA	Clearlight Shows Pty Ltd	+61 3 9553 1688 www.clearlight.com.au 6+
Geni	Show Technology Australia	+61 2 9748 1122 www.showtech.com.au 3
Griven	Universal Lighting and Audio (ULA)	1800 648 111 www.ula.com.au 2
Infinity	Universal Lighting and Audio (ULA)	1800 648 111 www.ula.com.au 50
Jem	Show Technology Australia	+61 2 9748 1122 www.showtech.com.au 20
Lee Filters	Mediavision Australia	+61 2 9816 4055 +61 3 9807 5133 www.leafilters.com 1760
Rosco	Rosco Australia Pty Ltd	+61 2 9906 6262 www.rosco.com lots!
Mastercut Technologies	Clearlight Shows Pty Ltd	+61 3 9553 1688 www.clearlight.com.au 150+
Optikinetics	Universal Lighting and Audio (ULA)	1800 648 111 www.ula.com.au 8
Swefog	Clearlight Shows Pty Ltd	+61 3 9553 1688 www.clearlight.com.au 2
Vari-lite	Jands Electronics	+61 2 9582 0909 www.jands.com.au 1

This month's Lighting Market Report looks at the various effect devices and consumable media that's out there!

We have divided this report into 5 separate categories:

- Consumables (like gel and gobos)
- Device Accessories (things to add to devices to make them more useful)
- Light Emitting Devices (all of those lighting effects that do not fit into any other report)
- Smoke Effects
- Other Effects (for those things that don't fit into the other four categories)

We specifically asked companies NOT to tell us about smoke fluids, as each smoke machine must use the specific fluid designed for it.

As part of the report, each company was given to opportunity to tell us a little more detail about themselves or their products. These are largely their words, so there may be some 'interesting' claims...

Lee Filters have recently released 11 new colours to further expand the 700 Series Designer Range to an impressive 46 colours. These new colours were created by 3 lighting designers Chris

Effects and Consumables

Davey, Chris Ellis and David Whitehead in the Lee Filters Research and Development Laboratories in Andover, England. The new Lee Filters Swatchbook with an orange pin is now available for you to sample the creations of these three 700 Series Designers.

Lighting By Design started manufacturing gobos in Australia in 1995. Introducing B&W glass and later, the Beacon full colour gobos. Co-operating with their competitors they revolutionised gobo manufacture in our region and have remained at the forefront of gobo technology in Australasia. Later this year will see the introduction of the Beacon Black Line gobos which will remove unwanted reflections.



Con'dome Column 1.2m OCC700/120 1.2m high, 70cm inflatable column for Con'dome 70cm Can house up to a 4k HMI fixture with full cooling \$522

DHA Lighting Limited Double Indexer Gobo Rotator Enables two gobos to be rotated about their centre axis, Direction of rotation, speed & indexing capabilities are all controlled via DMX POA

DHA Lighting Limited Yoyo ++ Enables two effects plates to be moved continuously in a linear motion Creates effects such as rising/setting sun, a car passing, door opening or swaying trees etc POA

DHA Lighting Limited Real Time Clocks 2 glass gobos (hour & minute hands) & 1 metal gobo (clock face) using a Double Gobo Rotator Multiple clockfaces & clockhands are available. Company logo can also be projected in clockface. POA

DHA Lighting Limited Animation Effects Creates moving images based upon a static gobo. Multiple effects can be created such as flames, rippling water, clouds, rain & snow POA

JEM ZR12 DMX interface JEMFOG040 Jem ZR12/Technofog DMX interface remote control Convert existing Jem ZR12 AL foggers into DMX control \$299

JEM Technohaze DMX JEMFOG021 Technohaze DMX interface remote control Converts existing Jem Technohaze into DMX control \$289

JEM ZR22 Remote JEMFOG030 Jem ZR22 Remote Remote control for JEM ZR22 \$225

JEM AF1 JEMFOG250 Jem AF1 DMX Fan DMX controlled fan, sealed motor \$225

Optikinetics 1/2 RPM Wheel Safe OK-FG0066 Protect Opti 6" effects wheels with this essential accessory for Solar 100C & Solar250 \$267

Optikinetics Opti Clock OK-FG6008 Real time projected anywhere \$2,514

Optikinetics GoboShow AutoChanger OK-GS6035 An attachment for the GoboShow range, 4 Rotating images set time and duration for GoboShow range \$1,860

Rosco I-Cue Convert lighting fixture to a moving light beam Random or DMX control to move the light beam

Rosco ImagePro Holder for custom image projection slides Low cost 'gobo' custom design images

Rosco Gobo Rotator Create gobo images that appear to move Various devices for lights to project interesting effects

Lighting Emitting Devices

Acme Effects Waterwave IMH-280 Projects a water like effect in four colours - a unique atmospheric effect 24V 250W lamp (included) \$299

300mm Alloy Box Truss

300mm Alloy Tri Truss

400mm Alloy Box Truss

500mm Alloy Box Truss

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Acme Effects Exerect	IMH-270M	Compact twister style effect, projecting images that rotate and change with the music	12V 100 lamp (included) \$269
Acme Effects Derby	IMH-308	The classic Derby is back! Project 16 multicolor beams which move to the music	Economical J500 240V 500 lamp (included) \$299
Acme Effects Thunderbird	IMH-110	A new concept, compact hypermoon effect, endless beams via dichroic mirror prism, sound-to-light	12V 100 lamp (included) \$299
Flying Planet Lighting Balloon 1.8m	FLP180HAL	1.8m, 1600w halogen lighting balloon (2x800w lamps). Helium filled with tie down ropes	Ideal for roadworks, special events, night skiing, building sites, etc \$4,048
Flying Planet Lighting Balloon 1.8m HSD	FLP180HSD	1.8m, 250w HSD lighting balloon with integral ballast. Helium filled with tie down ropes	Very bright with low power consumption. Requires minimal helium for inflation \$5,860
Flying Planet Lighting Balloon 2.4m	FLP240HAL	2.4, 2400w halogen lighting balloon (3x800w lamps). Helium filled with tie down ropes	Balloons collapse to approx 600 x 300 x 300mm case for transport \$5,404
Flying Planet Lighting Balloon 3m	FLP300STR	3.0m, 1500w strobing balloon. Helium filled with tie down ropes	Stunning attention grabber for promotional work. Can be sign written with self adhesive lettering \$12,626
Griven UV Gun	GR0102	400W UV Projector	\$677
Infinity Skyray	IMH-307	18 optical lenses projecting dichroic colour, sound activated	Dual 24V 150W lamps (included) \$469
Infinity Boogie	IMH-245	Double moonflower effect, independent sound-to-light operation for rotation and flashing	BRL 12V 50W lamps (included) \$299
Infinity Super Two	IMH-254	Two effects in one via remote control switch, 30 sound activated beams dance in time with music	J500 240V 500W lamp (included) \$349
Infinity Moving Revolution 100	IMH-855/B	A tumbling barrell effect creating a wide spread beam in the compact LightSpash casing	12V 100W lamp (included) \$282
Optikinetics Solar 250	OK-FG2020W	The original effects projector, an endless array of effects accessories avail	24V 250W lamp (included) \$1,520
Optikinetics GoboShow	OK-GS2051	High quality image projection with a huge range of options in a designer housing	Long Life HQI 150 Lamp (included) \$2,639
Optikinetics Solar 100C	OK-FG2056W	Economical image projection that utilises any of the Solar range effects accessories	12V 100W lamp (included) \$1,227
Optikinetics GoboPro	OK-GS2054	High quality image projection with a huge range of options in a designer housing	MSD250 lamp (included)

Smoke

FX Range Ice	ICE	Low smoke machine that uses ORDINARY ICE (not dry ice!) to produce low lying smoke	Runs on regular or Low smoke fluid, constant output, DMX remote control
FX Range Low cost hazer	HZ-400	Professional hazer using rotary compressor and diffusion fog fluid	Ver quiet, full DMX control and hand held remote. 2litre tank \$3,204
FX Range Compact smoke machine	F80Z	Low cost smoke machine ideal for small clubs and bedroom DJ's	10m remote control, 1 litre tank, runs on standard smoke fluid \$170
FX Range DMX smoke machine	F550X	High power, continuous output smoke machine with DMX control	Variable timer remote output, 2litre tank and full 12 month warranty \$1,050
Geni AF900	JEMFOG139	Atmosfog Smoke machine with remote - 800w	5 min heat up, DMX control, thermal protection \$229
Geni AF1200	JEMFOG103	Atmosfog Smoke machine with remote - 1100w	8 min heat up, DMX, thermal protection \$299
Geni RC-1 control	GENFOG050	Atmosfog Wireless Remote control	Convert Geni Atmosfog machines to wireless remote control \$99
JEM ZR33	JEMFOG139	ZR33 Hi Mass Fogger	twin pumps 1500w, DMX control - 1000cubic litre/min \$1,799
JEM TechnoFog	JEMFOG103	Small Smoke machine	\$699
JEM StageHazer	JEMFOG106	Haze machine	High output Haze machine DMX Control, 2 heat exchanges \$2,499
JEM Glaciator	JEMFOG090	Glaciator Heavy (low lying) Fogger	Single phase 15 amps, Fluid only (no gas required) for low lying fog, DMX controlable. \$16,999
Reel EFX DF-50 Diffusion Fogger	DF-50	Diffusion fog machine. The original, industry standard machine that started a revolution	Compact size, 5 year warranty, low fluid consumption, quiet \$5,902
Rosco Rosco Fog System		Creating healthy fog or simulated smoke	Various models of Foggers and chillers. Rosco system is health acknowledged
SweFog Ultimate 300		High output cracker hazer	The compressor & haze units are able to separate for the ultimate in quiet operation. POA

Other Effects

REEL Efx REII Wind Fan	RE-II	High output wind fan for Film and TV work. Variable beam angle and speed	Compact size, huge output and 5A mains input. POA
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Mastercut catalogue gobos are Australian made and owned.

Condomes can be used for many purposes, including providing weatherproofing to speakers, video projectors, lights and other equipment. Once deflated they stand only 25cm tall, allowing easy packing into trucks

Gam Window Grip is a unique solution to a problem that many TV and Film gaffers come across. Problem windows can be quickly and easily covered with Window Grip to reduce light and/or colour correct as required.



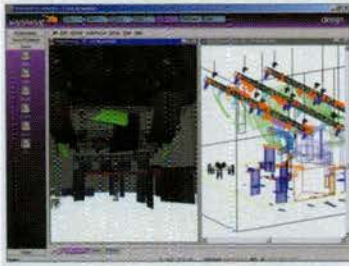
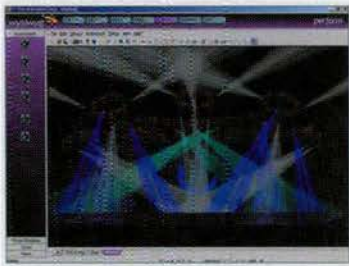
Geni AF1200



REEL Efx REII Wind Fan

Next Month: Luminaires - Conventional Lighting

Compiled by John Grimshaw



THE NEW WYSIWYG – THE NEXT GENERATION

The New WYSIWYG is the next generation in lighting visualisation software from Cast Lighting. Cast describe the new system as having an “updated graphical user interface that is more intuitive, with a large, easy to use navigation bar for selecting different windows, easy to read shortcut buttons, custom layers and scenes for complete control and management of information, excellent zooming and manoeuvring tabular editing of channel, dimmer, colour etc.”

The software is obviously much more advanced than the previous version 3.5, and Cast have dubbed it ‘The New WYSIWYG’ rather than Version 4. It is being released in three configurations:

‘WYSIWYG Report’ is the basic WYSIWYG package, and will allow 2D plots of set plans and lighting designs, as well as facilitating all the necessary paperwork involved in putting a lighting system together, including instrument counts and schedules, patch sheets etc. The paperwork and CAD systems are fully integrated, with error checking of production paperwork and hookups. WYSIWYG Report provides the perfect solution for people wanting

to use computers to simplify the design process. Plots can be printed up to A0 size.

‘WYSIWYG Design’ includes all the features and benefits of Report, and allows designers to create and explore their designs in a 3D environment. WYSIWYG Design’s key feature is the ability to create photo realistic renderings of the proposed design, including sets, backdrops, people, transparent and reflective surfaces including bounce, shadows, smoke, ambient light, colour and all the variables that make theatrical lighting an art form.

‘WYSIWYG Perform’ is the complete WYSIWYG application, including all the features of Report and Design, plus the ability to ‘control’ your virtual lighting system in real time from a DMX console, allowing you to pre-plot an entire show before entering the venue or hanging a single light. The WYGit 2 DMX interface receives the output of the console, and uses patch, fixture hang and inbuilt library information to precisely simulate fixture output on the screen. The WYGit 2 features a DMX Thru port that allows WYSIWYG to be run in tandem with the actual lighting system and the AutoFocus function, used with compatible

consoles, allows focus and colour information manipulated in WYSIWYG to be updated to the console automatically.

The New WYSIWYG is available from Jands Electronics.

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WYSIWYG 4 Reviewed: A look at CAD Lighting Design



The WYSIWYG family of CAD based lighting design software options has long been a favourite with numerous designers. With the introduction of the latest version, Jands ran a special introduction session for those who saw the software at ENTECH. We asked experienced WYSIWYG user and lighting designer Martin Kinnane to tell Connections a bit about what he saw at that day...

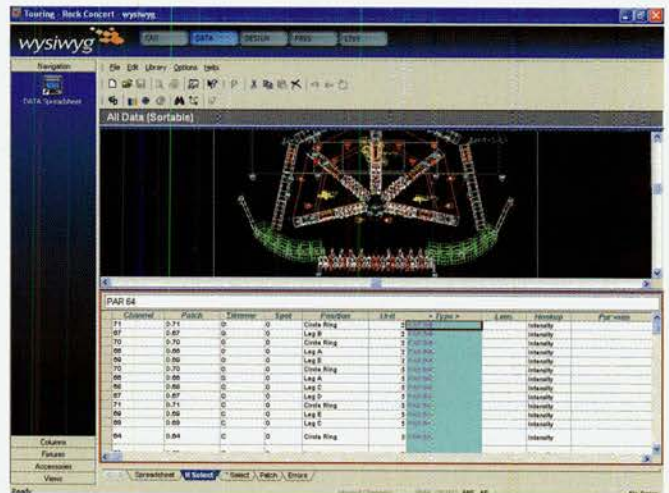
The latest version of WYSIWYG (What You See Is What You Get) has just been released onto the Australian market. It brings with it a major shift in the on screen layout, plotting methods and some comprehensive upgrades to its rendering abilities.

Our first view of it, apart from a few tempting pages on the CAST website, was on the Jands stand at ENTECH. Ben Sandford, then Director of training at CAST now at ETC as their Wysiwyg Manager / Trainer, was on the stand showing off the new bells and whistles to the many people wandering past the stand. After ENTECH there was a presentation to current and potential Wysiwyg users at the Jands factory run by Ben and Tim Kennard of Jands. This was a very useful day for both novice and veteran to learn the ins and outs of the new system.

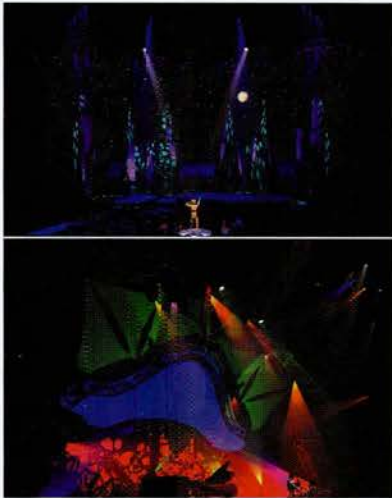
There are now three packages that can be purchased; Wysiwyg Report, Wysiwyg Design and Wysiwyg Perform. Report is the basic package allowing users to do all their 2D plans with a full library of fixtures, colours, gobos, etc. A fully integrated paperwork system allowing the designer to work solely on entering information into the drawing

(channel, colour, accessories, etc.) and the paperwork engine sorting out all the schedules, patch sheets, etc. in the background.

The Design package adds to Report with 3D plotting, multiple working views, the facility for rendering lighting states and libraries of textures and materials. This package is excellent for all the designer's needs. The plan drawing is a simple process with the importation of DXF and DWG files and easy to use truss placement and grouping. The placement of fixtures has been simplified with a new "short cut" approach to the fixtures. There is now the facility to place fixtures in the menu bar on the left of screen allowing for the quick selection of symbols. In the older versions you would have to go



Software Review



through the fixture library for each new fixture. This “short cut” system has also been applied to truss, gobos, colours, library items (such as people, props, road cases, etc.) and accessories.

Rendering has also been improved with more library items, better looking people (new round headed people rather than the old box heads), multi layered texturing which allows for one object to have several colours and textures i.e. rather than a car just being red it can now be painted red with black tyres. Not only that but you can choose the reflective nature of the surface, shiny red paint, dull black tyres. Also you can set the translucency and transparency of objects, clear windows on the car, or is that white cloth a cyc or a gauze. In the rendering stages you can also add various levels of smoke, haze, shadows and ambient light.

Wysiwyg Perform allows for all the aspects of Report and Design but also allows the Designer to patch a desk into the Wyg

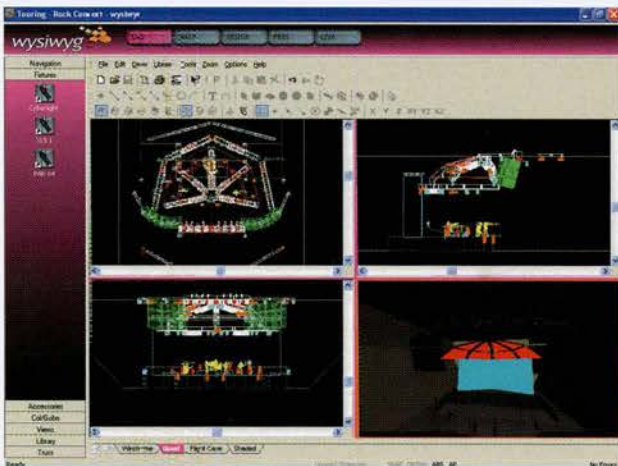
computer and in real time watch and plot the show which can be a major time saver on major events with multiple moving lights, as long as the fixtures get patched and rigged as in the Wyg plan. Another great aspect to the new version is the ability now to add “light emitting surfaces” such as projection screens, neon, rope light, lasers, etc. anything really

that produces light but is not a traditional fixture.

As a Designer I have been using various versions of Wysiwyg for four to five years now and it has been a fantastic asset to me. From its ease of use in the planning and plotting stages to its automated paperwork system as a basic lighting package it is great. But to add the aspects of rendering and pre-plotting make it a fantastically useful program. Even at a basic level I have used the rendering to show Directors ideas and looks for a show and I have also been able to sell ideas of designs and looks to corporate clients with poor visual minds and tight pockets. The facility to show another person your ideas for their show / event in the lighting field has and will change the way lighting is seen as a part of the design process not just a black magic art form that arrives at the Technical rehearsal and somehow fits into the dramatic and theming needs of the show.

Rendering Images & Selling Designs

It is interesting that in many other countries there are companies whose sole purpose is to create and supply renderings and preplot shows for Designers and production companies. In this country that facility is not readily available. While several production houses do have the programs, it is not readily available to the Designers out in the industry. I think that if a lighting hire company were to supply this service there would be some perceived pressure, real or not, to hire equipment from that company. If I had the time or the office space I'd love to set up such a studio for Designers to use as they wished and perhaps for young Designers and students to try out “bigger” ideas in a cyber world.



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Connections Sound and Lighting course delivers fresh trainees from near and far

"I didn't come here to UNLOAD A TRUCK!" was just one of many comments, but 41 other classmates made short work of the five tonner. Boys, Girls, and old technicians all mingled for five action packed days, including the fantastic feedback session on Friday. Julius Grafton reports:

We had forty two people roll up at North Sydney TAFE at 9am on Monday April 15th, looking expectant at the week ahead, and slightly apprehensive that the first day would be boring. That's because it was the mandatory OH&S module, which of course stands for Occupational Health and Safety.

They travelled wide and far - Lewis Calderwood from Wellington NZ and John Mitchell from Carnarvon were unsure who travelled the furthest in miles, but John won on the basis it took two days to get home again by air.

We spent the first day delivering our OH&S course, which John Grimshaw and myself have spent six months researching. We reasoned that this course needed to be absolutely industry specific, and that it ran the risk of being very boring if we didn't plan properly. So, we rolled out everything we had, which included the truck arriving with a load of sound and lights for the rest of the week. And, our team safely unloaded it, to the amusement of Gary from Lots of Watts who had never had so many loaders.

After the pressure of delivering a learning outcome as crucial as OH&S had abated that day, we split into two teams - sound and lighting, and sent ourselves to separate studios at the film & TV unit of TAFE.

John took the lighting team, which comprised one quarter females, and I took the fully male audio team. We debated the gender imbalance, and decided if it was actually legally possible at TAFE we may promote a 'sound for females' course at the end of the year, since it seems the prospect of being intimidated by men could be an issue.

Our students were a terrific lot, made up of young people finishing school, school teachers staying on top of technology, and actual working technicians - either boning up, or transitioning from lighting to sound, or vice-versa.

John had Martin Kinanne, a working LD of some note, working with the lighting group. They had a veritable Noah's Ark of Lighting to play with, including two Mac 500 and two Mac 600's controlled from a Jands Hog.

I got Peter Gage and Michael Orlard, both seasoned engineers and technicians, to help me with the audio group as I haven't been a practitioner for a while now.

The sound inventory included a couple of Allen and Heath consoles, Turbo TMS 3 composite speaker system, and a variety of two way speakers and monitors. We had one of almost everything so we could actively run demonstrations and experiments.

It was a very enjoyable week for us.

Keiren Oats, freelance tech and Simon Faris from Home Nightclub



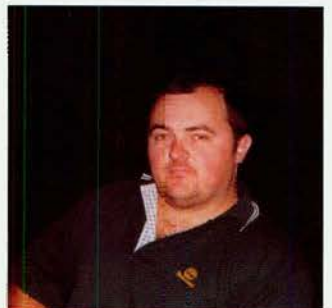
Tara Nandi, teacher



Tara Gange and John Meade from Riverside Theatre



John Mitchell from Carnarvon Civic Centre



i Course info

Professional sound induction and Professional lighting induction courses run for five days. See www.conpub.com.au for more.

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Tracking Guide

ARTIST	PRODUCER	ENGINEER	SESSION
Bush Traks Recording Studio +61 2 6689 1290 Ruth Miller (ruth@bushtraks.com) www.bushtraks.com: digital multi trk facility.			
Greg Warner	Greg Warner	Dave Highet	Album
Asia Lee	Brian Lee/Dave Highet	Dave Highet	Album
Damien Gerard Sound Studios +61 2 9555 1710 (dgss@optusnet.com.au) www.damiengerard.com:2* 24trk Analog ProTools Digital			
Intercontinental Playboys	Marshall Cullen /Playboys	Russell Pilling (eng) William Bowden (master)	Album
Rob Younger (Radio Birdman)	Rob Younger	Russell Pilling	record & mix solo project
Oyama	Russell Pilling		recorc & mix demo
Shifter	Shifter & Russ Pilling	Russ Pilling	record & mix album
Steve Grieve	Steve Grieve	Russ Pilling	record & mix album
Electric Ave Studios 0425 263 940 Phil Punch (Electricave@bigpond.com.au):Multi-trk analog & digital music recording facility			
Lovetones	Phil Punch Jason Blackwell/Phil Punch	Phil Punch/Jason Blackwell	Album
Don Walker	Phil Punch/Don Walker	Phil Punch	Album
Slim Dusty	Rod Coe	Phil Punch	Album
George Washingmachine	George Washingmachine	Phil Punch	Album
Post For Film And Television			
Wiggles	Wiggles	Robin Gist	Tv Score
Arizona Productions	Peter Kaldor	Phil Punch	Tvc
Feral Studios +61 2 62993224 Jon Robertson (replicate@austarmetro.com.au) :32 track recording and mastering studio			
Kandi Doz It	Jon	Jon	album tracks
Little Smoke	Jon	Jon	tracking
Juggernaut 101	band	Pricey	demo's
Gangstar Studios +61 2 4739 0451 (gangstar.records@bigpond.com) www.gangstar.com.au: 96trk digital studio & mastering suite			
Sarah Charlwood	Dave Dwyer/Rebecca Dwyer	Dave Dwyer	Fre-Production
Glister	Dave Dwyer	Dave Dwyer	Album
Giant (Feat. Andre Eikmeier)	Dave Dwyer	Dave Dwyer	Fre-Production
Bernie Segedin	Dave Dwyer	Dave Dwyer	Album
Mangrove Recording Studios +61 2 4362 3299 Fiona Simpson (bigsmoke@spin.net.au) www.mangrovestudio.com.au:			
Grinspoon	Phillip McKellar	Phillip McKellar	Album
Speedstar	Steve James	Tony Wall	Album
Mixbay 0407 488 697 Paul Gomersall (info@mixbay.com) www.mixbay.com:Pro production & mixing facility			
Jimmy Barnes/Gary Pinto	Paul Gomersall	Paul Gomersall	Single
The Whitlams	Daniel Denholm	Paul Gomersall	Single mix
Robertson Brothers	Michael D'arcy	Paul Gomersall	Single Mixes
Gone To Earth	Band	Paul Gomersall	Album Mixes
Major	Nigel O'Connell	Paul Gomersall	Single Mix
Nu-Town Studios +61 2 9516 3306 (nutown@yahoo.com) :Boutique recording & production facility. Mac G4, ProTools, Cubase VST			
K.E.L	Greg Hopping	Mark Worrall	Album
Daydream	Day Dream	Mark Worrall	Single
Groovy D / Shape Shifter	Sophie Loizou	Sofie Loizou	Single
Souther Outpost	Pa' Tric	Sofie Loizou	Single
Nelly	Greg Hopping	Sofie Loizou	Demos
Studios 301 +61 2 9698 5888 (steved@301.com.au) www.studios301.com: Recrding & mixing studios for all genres of music			
Hillsong Church	Brent Clarke	Brent Clarke	Album
Lee Kernaghan	Rob Feaster	Rob Feaster	Album
Oliver - The Musical	Rob Bailey	Richard Lush	Recording and Mixing
Georgie Parker and Michael Tyak	Di Drew	Richard Lush	Piano and vocal recording
Shakaya	Craig Portiels	Craig Portiels	Mixing
Soundwarp +61 2 9905 7144 Meredith Brooks (mastering@soundwarp.com.au) www.soundwarp.com.au:Audio Mastering			
Migration	Michael Stavrou	Meredith Brooks	EP
Rick Hopkins	Rick	Meredith Brooks	EP
Sugarhit	Sugarhit	Meredith Brooks	Single
Willow Connection	Monica	Meredith Brooks	Album
Melissa Stevens	Melissa	Meredith Brooks	Album
The Vault +61 2 9555 8298 James Cadsky (cadsky@ozemail.com.au) :SSL 4040E/G console 48trk analogue mix + protocols			
mixing tracking vibing			
Dean Manning	Dean	Cadsky	Album
Bp O'malley	Cadsky	Cadsky	Album
Jenny Queen	Matt Lovell	Pat Maloney	Mixes
Trackdown Digital +61 2 9550 6890 Mike Duffy (tdmail@trackdown.com.au) www.trackdown.com.au:3 x 64trk protocols digital			
Post for Film and Television			
Crocodile Hunter:Collision Course	Crocman Productions	Tim Ryan (E)	Feature - Music Editing
Garage Days	Garage Days P/L	Simon Leadley (E), Torei Lista (E)	Feature - Music Editing & Mixing
Swimming Upstream	Upstream Productions P/L	Katrina Schiller (E)	Music Editing
Fairy Tale Police Department /// Yoram Gross-Emtv ///	Torei Lista, Scott Ryan, Katrina Schiller, Erica Bell ///		Tv Animated - All Audio Post
Junior	Yoram Gross-Emtv	Katrina Schiller	Animated Links - All Audio Post

New South Wales

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Stargate will be relocating to it's new facility at Aspley Grove in June. In the next issue, we will be announcing updated contact details, as well as some great opening specials.



DEX AUDIO began mastering in 1982 and is Melbourne's longest running and Australia's first independent CD mastering facility. Dex Co-Director, Daniel Desiere, designer of Dex amps, speakers, consoles and the beefy Gedo Zen valve compressor/limiter/line amps, (not to mention the valve pre amps & DI's) designed their new custom mastering EQ.

This new EQ is a 4-stage stereo valve program EQ (not a parametric and not a solid state unit with a valve output stage, they say). It features switchable non-standard frequencies, shelving or broad bell filter options on each band, hefty (24dB/octave) hi & low pass filters to enable precise filtering without overly eating into program content (as with common 6 and 12 dB/octave filters) and funky cathode-ray meters.

This unit can handle an input of +34dB, has a dynamic range of 110 dB and a freq. response of 10Hz - 30kHz (+/- 0.5dB), excellent specs for a completely valve design.

• +61 3 9372 2266

Tracking Guide

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CHARTS



Alex Lloyd

Green

Produced by Magus Fiennes,
Engineered by Niven Garland, Ric
Fetherstone and Magnus Fiennes.
Recorded and mixed at The Town
House. Mastered by Don Bartlet @
301 Studios.



Selwyn

Way Love's Supposed To Be

Produced by Paul Begaud for PJB
Productions. Engineered by Paul
Begaud and Tod Deeley at Sony
Music Studios, Sydney. Mixed by
Richard Travali at Battery Studios
NYC. Mastered by Chris Gehringer
at Sterling Sound NYC



Something For Kate

Say Something

Produced by Trina Shoemaker and
Something For Kate.

VIC

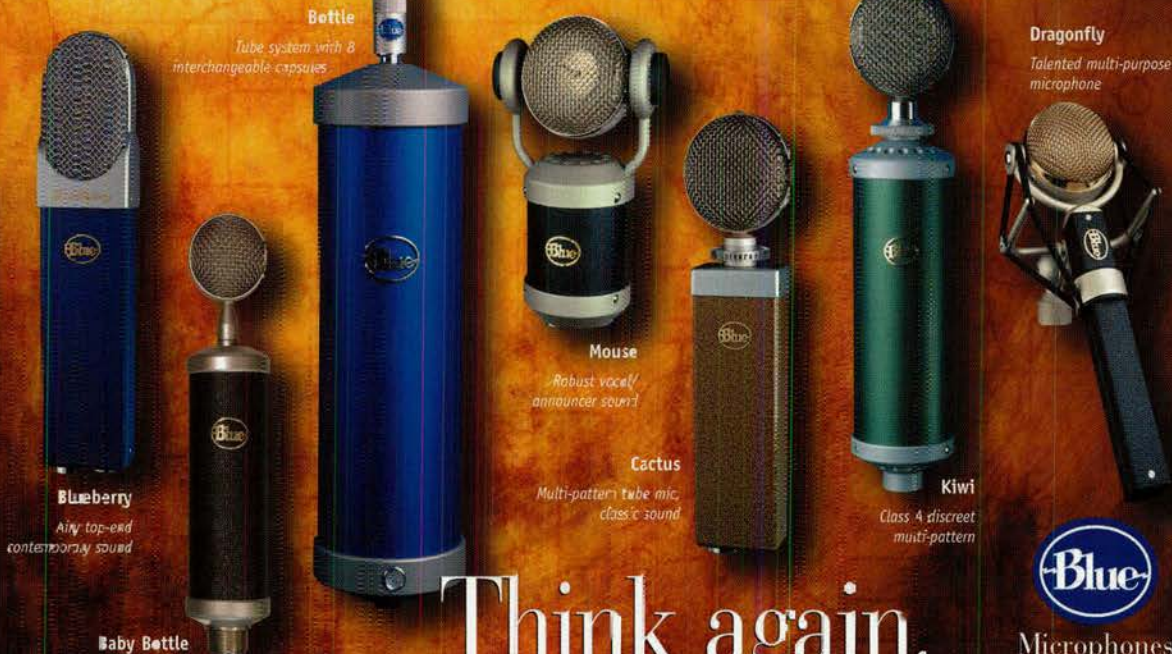
ARTIST	PRODUCER	ENGINEER	SESSION
Audrey Studios +61 3 9415 8599 (audreystudios@aol.com)	: analog, digital, & hard disc recording; advanced sequencing & sampling.		
Luckstar	Luckstar	Craig Pilkington	album mixes
Matt Chapman	Craig Pilkington	Album	
Saltwater Band (Arnhem Land)	Michael Hohnen/Craig Pilkington	Craig Pilkington / David Badrick	Album
Post for Film and Television			
The Bridge / Hothouse Theatre	Craig Pilkington	Craig Pilkington	Theatre Score / Sound design
Crystal Mastering +61 3 9326 2318 Joe Carra () www.crystalmastering.com.au:	Mastering Studio		
The Fauves	Chris Dickie/Band	John Ruberto	Mastering Album
Superheist	D.W.Norton/A.Rodes	John Ruberto	Mastering Single
The Anyones	Band	John Ruberto	Mastering Album
Rhibosome	Band	Joe Carra	Mastering Album
Dex Mastering +61 3 9372 2266 (mastering@dexaudio.com.au) www.dexaudio.com.au:	Since 1982. Sonic Solutions, SADIe 24.96		
Caroline Springs	Ben Hurt	Adam Dempsey	EP
Sand Pebbles	Chris Hollows	Adam Dempsey	Live CD
La Chambre	Tanaya Burgess	Adam Dempsey	EP
Rhema FM	Ross Wilson	Ken Shulman	Remasters
Earcandy Studio +61 3 9821 5580 Tony Hunt (earcandy@bigpond.com) :	a studio geared to singers / songwriters doing demo		
Denise DeMelis	Tony Hunt	Tony Hunt	demo package
Belinda Leitch	Tony Hunt	Tony Hunt	demo package
Lo Ricco Sound Studios +61 3 9701 6220 Marcello (info@lssproductions.com) :	Recording Studio		
Hansgroover	Hansgroover & Marcello Lo Ricco	Marcello Lo Ricco	EP
Patrick Fay	Patrick Fay & Band	Marcello Lo Ricco	Album (tracking)
Andrew Jones	Andrew Jones	Marcello Lo Ricco	Single
Cabernet	Cabernet	Marcello Lo Ricco	Demos
Metropolis +61 3 9696 2111 (info@metropolisaudio.com.au) www.metropolisaudio.com.au:	Music Studics; Film & TV Post		
Sum 41	Deryck Whibley	Forrester Savell	Tracking
The Pictures	Band	Forrester Savell	Mixing
The Anyones	Paul Mc Kercher / The Anyones	Paul Mc Kercher	Album Mix
Post for Film and Television			
Crackerjack	Gareth Skinner	Simon Pollinski	Film Mix
Til Human Voices Wake Us	Michael Slater	Michael Slater	Re - editing
True Form Recording +61 3 9391 0907 Neil Gray (trueform87@hotmail.com) :	24tk. Rec/Editor,Classic Analogue Console & Outboard		
Ampirellas	Bruce Milne	Neil Gray	Demos
Pillar	Neil/Band	Neil Gray	E.P.
Squair	Neil/Band	Neil Gray	Demos
Klinger	Neil Gray	Neil Gray	Mix Single
Select Sound/Coral Sea Studios +61 7 4031-1760 (selectsound@austarnet.com.au) :	Cairns' only acoustically-designed facility		
Acoustica	Michael Knopf	Nigel Pegrum	Live concert record/mix
Various Maori Artists	Indigenous Australia	Nigel Pegrum	Albums
Andy Collins	Jimmy Mann	Nigel Pegrum	Album
Stargate Music Productions +61 7 3260 6294 (Dash.Stargate@bigpond.com) www.users.bigpond.com/dash.stargate:	Killer Coffee!		
Lance Galloway	Mclvor / Galloway	Dash Mclvor	Album
Freddy Greensill	Dash Mclvor	Dash Mclvor	EP
Jim Cooper	Dash Mclvor	Dash Mclvor	Album
Adriaan Duda	Dash Mclvor	Dash Mclvor	Single
Earsight 0407 970 425 Steve Fieldhouse (earsight@senet.com.au) :	ProTools TDM Mix Plus Facility for Mixing, Trking, Editing, Sndtrks.		
Found Objects	Steve Fieldhouse/Chris Lambert	Steve Fieldhouse/Chris Lambert	CD Tracking
Matire	Matire	Steve Fieldhouse	CD Tracking
Post for Film and Television			
Found Objects	Steve Fieldhouse/Chris Lambert	Steve Fieldhouse/Chris Lambert	Film Music
Soundtrack			
Mixmasters Productions +61 8 8278 8506 (sales@mixmasters.com.au) www.mixmasters.com.au:	SSL/ Tools/Studer analog.		
Eric Bogle	Mick Wordley	Mick	Album
Craig & Co	Peter Blyton	Peter	Album Tracking
Colcannon	Don	Brett Taylor	Album
Moira Lawry	Moira	Brett Taylor	Album Tracking
Poonshead +61 8 9339 4791 Rob/ Sam (mail@poonshead.com) www.poonshead.com:	Audio Production, Recording, Mastering		
Flux Capacitor	Rob Grant	Rob Grant	Single
Blanche Du Bois	Rob Grant	Rob Grant	Mastering
Seahorse Radio	Rob Grant	Rob Grant	Tracking
Tantrum	Rob Grant	Rob Grant	Demo
Satellite Recording Studio +61 8 9470 4003 Darren Halifax (darren@satelliterecording.com) www.satelliterecording.com:	Pro Tools.		
The Fagans	James Hewgill	James Hewgill	CD
Jarandy Manidiu	Darren Halifax	Darren Halifax	Demo
KC Cortez	Oz Rock	Alfredo Malabello	CD
Paul Moylan	Paul Moylan	Darren Halifax	CD

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TRIPP ON TOM

Re 'We're fired! SAE Tom Cancels - (Connections March)

As a fellow publisher who has had to endure the vitriol of Tom (301 Misner) when he uses the only tactic he thinks will cause pain—cancelling advertising—I must applaud you for telling it like it is.

It made me recall that great saying that promoter Michael Coppel gave me so long ago—“Money is the way that people with no talent keep score”.

We all know, by the editorials in business magazines and any other media that will listen, that Tom has a lot of money.

So it's not unusual to watch him alienate another publication by playing the advertising card.

At the AustralAsian Music Industry Directory, we were unable to salve his ego when a listing that his former admin person, Jason DeWilde, put into our Directory turned out not to Tom's liking.

As a result, Tom—who had pulled his advertising before as a revenge tactic—decided that he did not want any of his operations like SAE, 301 Studios, 301 Mastering, etc., to be listed free in our humble publication.

We viewed it as kind of like asking Telstra to remove your free White Pages listing because you don't like the exhaust of a Telstra van on the M5. But we made sure to honour his request and that's why you don't see any presence for his operations in our book. We were happy to comply. It saved us money by not having his free listing and not having to send out a free directory.

Matter of fact, we increased our sales since his staff order paid copies.

I hope your experience will be more profitable than just the laughter.

**PHIL TRIPP, IMMEDIA!
SYDNEY, AUSTRALIA**

Visual Technology

I agree with your sentiments (Editorial, April, 2002) on what to call the visual components of the industry and I think the Visual Technology (VT) is as good as any (although I prefer Display Technology or DT). There are a couple of points I would like to note in response to some of your comments in the editorial however...

“VT requires a far higher level of skill than in previous times.”

Bollocks! Have you ever tried to line up a 3 gun CRT projector? How about lining up a 60 projector multi-screen slide tape presentation - not to mention making it work reliably and consistently. It's true that there are a lot more components to a large video rig these days than in the past and that technicians need to know more about maintaining high signal quality and the pitfalls inherent in various input signals but these skills are no different to the skills required 20 years ago - just a different knowledge and experience base. 20 years ago I was an AV tech. staging large conferences and in most cases my rig was more complex, more precise and required a broader range of skill and equipment knowledge than either sound or lighting - and there were a lot more things that could (and would) go wrong. Having said that I don't believe it has become any easier and video technicians need to understand a wide range of hardware to produce quality results. I would also like to mention the pressure the VT techs are under. If you loose a lamp in a lighting fixture or a cone in a speaker the average punter in the audience is not going to take that much notice. On the other hand if you loose a cube in a video wall or a projector it is very, very noticeable!

“More often than not the VT Technician will be an Audiovisual Technician...”

Audiovisual is still a valid description - for a type of technician. Every month the classified section of your mag has ads for AV technicians. The people required are not visual technicians, audio technicians or lighting technicians. They are all rounders that can set up a basic sound and lighting rig as well as make sure the video/data is displayed to a very high quality (the clients benchmark for data is their personal computer screen and their benchmark for video is their TV at home). In addition AV techs are required to set up staging such as screens, stages, lecterns, props, sets and room dressing as well as all the other stuff that came out of the Arc - whiteboards, overhead projectors, slide projectors, etc. They also require a high level of communication skills and a clean and tidy appearance - desirable but not necessary for lighting and audio technicians.

Now lets talk about Multimedia and what that means and open up a real can of worms!!!

Just a couple of additional notes...

The crossover between Entertainment technologies and Information technology is not

restricted to VT. Both audio and lighting are becoming entangled in the CAT5/Fibre/IT web and as we move away from analogue technologies to digital we move into the realm of IT - anything digital can be easily manipulated with computer technology given bandwidth!

The crossover between VT and LX will become blurred in the foreseeable future. High End say they have a patent on Catalyst but there have been many in the AV(VT) arena that have been discussing the potential of putting video/data projectors in moving light instruments ever since the first Varilite appeared. The main difficulty with getting DLP panels in lights is that the lighting manufacturers haven't been able to work out how not to fry the panel and still get the lux levels out of them. Catalyst seems to have partially overcome this - now all they need is perspective correction on the run and you have a very useful VT tool!

**Bruce Brown
Senior Project Manager
Audience Motivation Pty Ltd.**

Ed - Well, yes I have set up a number of 3 gun CRT projectors in my time. In fact, I still own an old Barco 600 which I will soon be retiring, but this and slide based presentations (oh my god I'm SO glad I do not have to do that) are mechanical skills. The point is that while today's "top shelf" VT technician still needs basic mechanical skills, they also benefit from a solid working knowledge of various data protocols including Ethernet - more so than many IT technicians who simply plug things in and follow a fixed setup routine. How many IT technicians have you met that don't really understand "why" something works, only that it does if you set it up a certain way. These are the technicians that freak out at the slightest requirement outside their realm of experience - which is something that VT technicians will more commonly do.

You must be kidding.....

I read with increasing horror the debut editorial (March) for a long time by publisher Grafton, who appears to be trying to beat up the events industry by painting all events producers as profiteering scum.

If Mr. Grafton would just get out of his business class seat for a few minutes and take a look at what production companies charge us:

Examples: 32/8 mixing console, retail price \$5,000, rental one week \$900. Microphone lead, cost to make \$25, rental \$15. Leads case \$75.

They charge me for a LEADS CASE!

Try running an event yourself, Mr. SmartGuy.

After you've decoded your latest invoice from a production company, up to 15 pages long (I kid you not) and been charged for every variation and special request under the sun, you'll be lucky to take the train.

- Name withheld.

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30 YEARS OF ROCK LIGHTING AND SOUND

By Grahame 'Yogi' Harrison and Julius Grafton

Back in the early 1970's, most-popular bands were accessible to huge audiences on a regular basis in local halls in suburban areas. Under-18 venues were numerous and promoters usually had a minimum of 4 bands on view per night at each location. A typical Saturday night dance might feature four top-line acts such as The Easybeats, Billy Thorpe and The Masters Apprentices etc.. Each act would do a 30 minute spot, pack up everything and move on to another venue. They each carried their stage gear and small column-style PA systems. Nobody shared equipment unless an emergency arose. If the band had a roadie, they were considered to be very successful and were accorded serious respect. Transport was usually the good old Holden station wagon or panel van.

The most-common PA systems were still 'column-style' boxes with either 4 x 12-inch speakers in each or 2 x 15-inch, sometimes with a tweeter or a small horn! The boxes were usually made from pine board. They sometimes exploded when wet! Lighting was still nonexistent, with the standard hall lights left on all night! Local audio manufacturing was starting to get serious. The self-powered mixer was well and truly invented by 1970! The Lenard version had four input channels, each with the dreaded high-impedance input and primitive 2-band equalisation. It featured 150 watts of thumping power!

A very early international show at Randwick Racecourse (circa 1971) featured Deep Purple, Free, Manfred Mann and Piranha (Oz support) had approximately 10 Lenard PA boxes per side mounted on trestle tables (you know, the ones with 'rocking horse' legs!) driven by 10 Lenard 'powered mixers' linked with guitar leads! No multicores, no huge audio consoles, no graphic equalisers; everything was done from backstage. You had to be there to believe it! But in those days, it was huge.

A Sydney venue in the early 1970's called 'The Arts Factory' unleashed 'psychedelic' lighting on stunned Sydney audiences, using overhead projectors and pyrex dishes filled with oil and water based dyes. Eddie VanDerMadden created fantastic lighting machines, based on old slide projectors. An example: he removed the heat glass, allowing the full heat of the lamp to melt slides and boil coloured dyes in tiny thin glass cham-

bers. He found that sticky tape on polarised plastic would effect when you rotated another polarised disk across the optical chain. These were wild, weird, and colourful devices!

The McSpeddon brothers also ran psychedelic lightshows in Melbourne, at the T.F. Much More Ballroom.

Lenard, Vase and Nova battled for market supremacy in Australia with PA systems. Al Butler had taken over NOVA and he and Wyn Milsom (one time pop star guitar player, and these days a senior JANDS engineer) changed from using Altec to using JBL and made their own transistorised power amps in 1970.

NOVA were building large-scale horn-loaded audio systems for concerts and their first audio console appeared in 1973.

Henry Freedman was importing Dynacord PA equipment from Germany by 1969 and had opened a retail outlet at Ashfield. He sold truckloads of PA systems to local bands and even provided one of the first portable reverb effect units. Henry was a gentleman and happily passed on his knowledge to young roadies and musicians.

Dynacord had powered mixers and also sold column speakers. The built quality was (and still is) superb and these reliable little units were the mainstay of many bands. Many years later his son, Peter, achieved success with an Australian-designed studio microphone series called Rode. Dynacord



Early WEM PA heads on tour with Cat Stevens - above - and Pink Floyd (below) Pictures courtesy of Billy McCartney



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30 YEARS

survives today as a member of the EVI Group which includes Electro-Voice.

Strand Electric ruled the lighting industry. The Strand hire department in Sydney was run for many years by the legendary Rob Nichols whose assistance to young lighting people was invaluable. The Pattern 243 Fresnel at 2000 watts was the brightest light in common use! Lights were operated by primitive switch boards, banks of ordinary household light switches set on a piece of wood.

The Strand SP 40 was the lighting controller of your dreams in theatre and on the road. Strand released a three-preset version. Strand also released tungsten halogen powered luminaires, the Pattern 763 and 743! The Miniset 10 was the standard dimmer in an era when dimming was a luxury and straight switching was normal control at rock concerts. Three phase power wasn't commonly available in rock venues and some adventurous lighting operators 'hard-wired' cables directly to power sources. This extremely dangerous practice was to continue for some time before venue operators finally got the message and installed legal outlets.

In 1970, Eric Robinson and Paul Mulholland purchased J&S Research. J and S stood for Jackson and Storey, who attended Vacluse Boy's High School together.

The Mulholland brothers, Paul and David, together with Eric Robinson and his brother, Eddie, joined forces with Phil Storey and JANDS started operating from above a shop in Rose Bay.

At the time, Jands specialised in lightshows, but they quickly turned to audio.

Bruce Jackson ran off to America to find fame and fortune as soundman to Elvis, Stringsteen and others. His is another story, as he is today widely regarded as a live sound guru and generally one of the top five live sound designers and engineers in the world.

Jands introduced the first locally manufactured strobe lights and colour organs which quickly became the new trend in dance halls.

Smart promoters like Phil Smiles (later to become a politician) and Donnie Sutherland were running new venues in youth clubs, surf clubs and community halls. The lighting in these halls was provided by small, part-time, independent operators like the fledgling MAC Lights (owned by Phil Cullen), Zapco Lighting (Julius Grafton) and Vibe Lighting (Colin Baldwin).

Rarely were the bands lit, illuminated instead by overhead light bulbs on the stage. The creation of the 'ambience' of the venue was considered to be more important. The Strand Pattern 23 and Pattern 123 were the

basic lighting equipment along with moving colour-wheels and/or 'flicker' wheels. These wheels usually featured 5 colours and revolved using a small motor. The first 'moving lights'!

Rows of lights inherited from old theatres



called 'groundrows' were often constructed from timber utilising 150 watt coloured mirror back floods. They sat on the floor and were used to provide a lighting 'wash' for the stage and later for illuminating walls for effect. Police-style beacons, ultra-violet tubes and 'dry ice' in fuel drums (for a fog effect) enhanced proceedings. Strand introduced the Pattern 23 mark 2, which featured a faceted reflector!

NEXT MONTH: the Par Can arrives

Sir Elton John has a very long relationship with Australia, having first toured here in 1971. He was the first customer for Jands' new outdoor PA system featuring Vitavox multicell horns. The top shot was taken at at Kooyong, the bottom at Randwick Racecourse. Pictures courtesy of Jands.

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DUNCAN FRY ON NEXT PAGE!

Great trucking songs of the 80's

Play it again, Jim

It was always good to have some music available in the truck when you were heading off to the countryside. After all, it was a journey that could take anywhere from 1 to 4hrs - maybe more depending on the distance and the state of the truck, although I never bothered much about in-truck entertainment with my first truck, since it very rarely went out of the suburbs. It was an ex bread van, an old Toyota Hi Ace with a tin box on the back. I guess its rated load would have been around a tonne or so, but like most rock transport vehicles of the time it spent its life overloaded to buggery. Trying to keep it between the kerbs took all my concentration,

Before Dunc



After Tree

leaving none spare for listening to music.

Filling up with fuel one day en route to a gig, I said to my trusty assistant Jim, "You'd better check the tyres - stick about 45 psi into them." "You're kidding," he laughed, as he stuck the air line on. "This one's already got 55 psi and it's still half flat!

We settled on about 75 psi, and the resulting explosion when the tyre burst some 10 k later sounded like the start of WW3!

The one time I did have a gig outside the metropolitan area, the little Hi Ace expired on the way back. Without warning the camshaft broke into pieces, the rods hit those pieces, and then poked their way out of the side of the block.

The replacement truck, a much bigger 7 tonne Toyota was a heavy duty vehicle from the word go. Enormous 20" wheels needed two people to carry them, and it never even came close to being overloaded, even with a Yamaha CP80 piano on board. In fact I drove it from Melbourne to Mt Gambier and back with a full load

and one flat tyre without any problems at all. The only problems came later, but I'll get to that soon. It had an aluminium box on the back with a peak that hung over the cab, ideal for putting lighting trussing and other awkward things into, and often sleeping, too. A blanket & doona and it was a real little home away from home.

Internally, though, the cab was a bit industrial. No heater, stereo or floor covering - apart from a thin piece of torn rubbery plastic, and a big soggy bench seat. So I set about making the cab area a bit more pleasant, since I was sure I'd be spending quite some time in there.

Several layers of rubber underfelt brought the inside noise level down to a dull roar, but it was still more noisy that was comfortable for long trips, and would require a stereo with serious SPL in order to have some music as we travelled. Sadly my \$20 NoNamo brand radio/cassette player with little monitor wedges gaffered to the dashboard was all but drowned out by the noise, and getting a better one just wasn't an option.

But some headphone jacks mounted in the dash made all the difference. Wired straight to the speaker outputs, they were plenty loud enough. We had some industrial ear muffs fitted with Sennheiser inserts to use as headphones. Put them on and you instantly slipped into a world of your own. With the bench seat being wide enough to carry three people in comfort, and four at a pinch, we could all sit there happily rocking away in

silence. It was probably highly illegal, but it meant that you arrived at the gig with much fresher ears than if you'd suffered the howl of the gearbox and the roar of the engine for four hours.

Driving back from the good old Traralgon Astrodome one night, we were all relaxing with Monty Python in our ears when our guest lighting guy - let's call him Roger - suddenly started clawing at the window and yelling "Stop, stop - I can smell smoke - quick, quick, stop the truck, we're all going to die!"

I yanked the wheel over and stood on the brake pedal, and Roger was out of the door faster than shit through a goose. Jim and I piled out behind him and we all ran away from the truck and knelt down behind some rocks to shield ourselves from the forthcoming blast.

After about as minute or so, there was no massive explosion, just the regular tinkling sound of the engine cooling down. We cautiously approached the truck, and Jim held the torch as I slowly raised the bonnet, expecting a sheet of flame to come belching out. Nothing happened, except that there was a slight smell of melted plastic. Jim shone the torch onto the engine, and then we saw the cause of all the panic.

A small wire, the one that went to the turn indicator on the mudguard, had sagged onto the exhaust pipe, melting a small patch of its insulation. At most, the worst that might have happened would be the light would have gone out!

A quick twist of gaffer tape (mechanic in a roll) and we were back on our merry way. Listening to a tape of the night's gig calmed us all down. There's nothing like laughing at the band for 'road buddy' bonding!

Anyway, the morning after the Mt Gambier gig I had arranged to drop the Jerries stage gear back at their house. Of course, this would be morning in musician's time zone, so I rolled up at about 2 pm in their fairly narrow suburban street. The boys were surprisingly awake, and even more surprisingly, quite willing to help me unload the stuff from the back of the truck.

I said goodbye, climbed into the truck, & did a U-turn outside the house to head back to the factory to check over the system, as I had a snow tour starting in 2 days. WHANGGG! A shudder ran through the whole truck.

Shit a brick, I thought, some bastard's run into the back of me! Fuming, I climbed out ready for some intense negotiating. Imagine my surprise when I found that no-one had run into me, in fact, the opposite had occurred. The big front peak of the truck had hit an overhanging tree, and popped every rivet on the passenger side of the pan. The doors had sprung open, there was a huge dent in the peak, and the whole side of the truck was hanging down on the ground!

With the aid of the trusty roll of gaffer, some rope and a couple of micstands to wedge the doors closed, I managed to drive the truck back to the factory.

After two days intensive work with the rivet gun, hacksaw and several tubes of silicone, the body was back in some kind of shape. Unfortunately I had lost the peak, it being too damaged to repair safely, so my convenient bed/ storage/ lighting area was gone forever.

But luckily the car stereo and headphone system survived, was transferred to the next truck when the Toyota finally bit the dust, and now it's in my car. Must have cost me about a dollar a year all up - they just don't make 'em like that anymore!



60's Bachelor Dunk

A close-up photograph of a man with a goatee, smiling broadly. He is wearing a dark t-shirt. The text 'MICROPHONE ENVY?' is printed on the t-shirt in large, white, bold, sans-serif capital letters. Below the text is a circular logo featuring a stylized 'S' with horizontal lines. To the right of the man, a Shure KSM27 condenser microphone is mounted on a stand. The microphone has a silver grille and a black body with 'SHURE' and 'KSM27' printed on it. The background is a warm, brownish-gold color.

MICROPHONE ENVY?



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102 Derby Street, Silverwater NSW 2128 - Ph. 61 2 9748 1122

Fax 61 2 9743 1499 - claypaky@showtech.com.au - www.showtech.com.au

CLAY PAKY s.p.a.
Pedrengo (BG) - Italy
Tel. +39-035-654311
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