

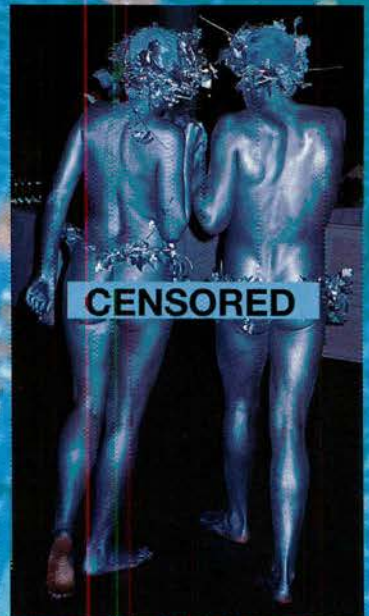
Connections

SOUND • LIGHTING • STUDIO • AV • MUSIC TECHNOLOGY • THEATRE • TOURING • SHOWBUSINESS

DIGITAL WARS



Sony join Tascam, vs. Alesis & Fostex ADAT



This is Business Theatre, BMW style. See: *Performing Arts*

POWER

HOW MUCH FOR YOU?

STUDIO NEWS: SSL debut 96 track tapeless system, Roland surprise with DM800 workstation.

INTRO: VIDEO PROJECTION

CLUB NEWS, MI NEWS & MULTI-MEDIA PAGES

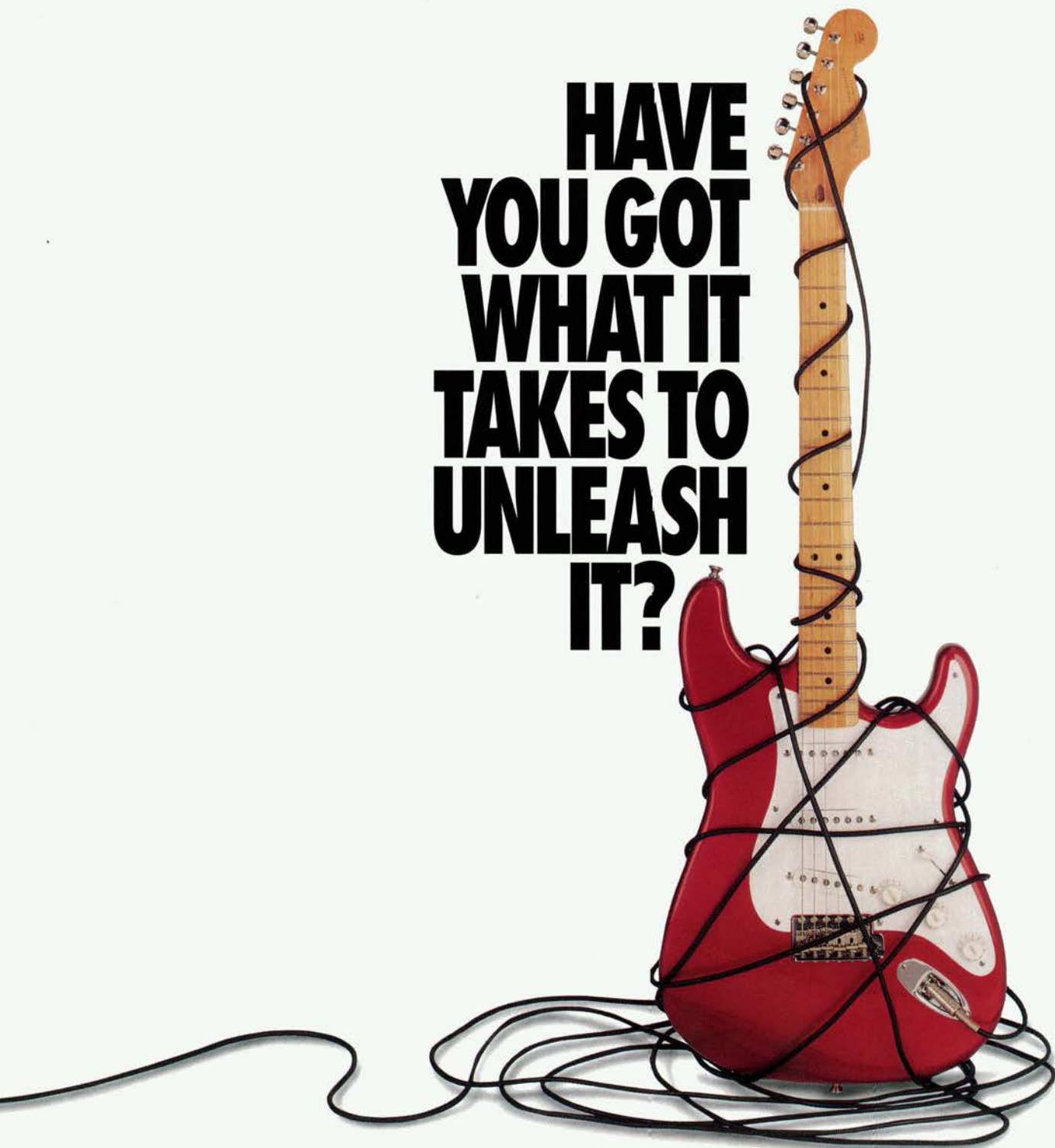
LIGHTING SEEKS THEMES AT LDI



High End Systems LDI display, photo courtesy Amy Davidson

PET SHOP BOYS & THE MIDI GURU

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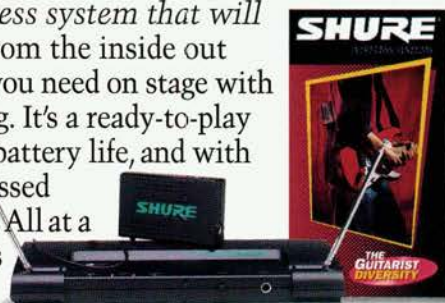
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Write in Reader Service number: 118

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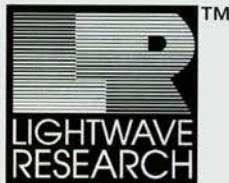


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SHOWBIZ

NEWS & UPDATE

Raft of new dial in services target you

ONLINE TIME

By Julius Grafton

The Internet is like sex, everyone talks about how great it is and how much they get, but do they really? Surely the media have hyped this beyond necessity?

If only for cheap messaging you should crop everything and get online right now. We started using CompuServe a while back, and now think the I-Net is the way forward. This is a serious money saver, as you can send a computer text file (a letter created on a word processor) anywhere in the world for less than a dollar.

It happens that two very strong and credible fellow publishers have just offered dial in on-line services that make life easy for you.

Next OnLine is a dial-in service created by the publishers of Australian Rolling Stone, for \$30 they will ship you a disk with a graphic interface you need a 9,600 baud modem (common as hens teeth, get a 14,400 or 28,800 if you can) and then you go for it.

The monthly cost is as low as \$25 for five hours on line, and there are some seriously good things to be had aside from mail.

ETEC is a new service launched at LDI by Pat MacKay, publisher of lighting Dimensions. This is a closed network of production people and is available for you to sample for a month free of cost.

Like Next Online, ETEC offers a host of tasty excerpts, files and information on the opening screen once you log on.

All these services let you download interesting files for later consumption at your leisure.

Obviously we are looking very closely at these services right now, and will keep you in the loop.

- Next Online, call (02) 310-1433.
- ETEC, call USA 212 229-2965.

Yamaha Re-Engineering

VISION STATEMENT

Yamaha Music Australia Pty Ltd have announced revenues of \$46 million and profit before tax of \$2.5 million to March 31st 1994, signalling growth of more than 10% for year ending March 31st, 1995. The local operation was established in 1986, and has been managed by Masami (Sam) Takeuchi since 1990.

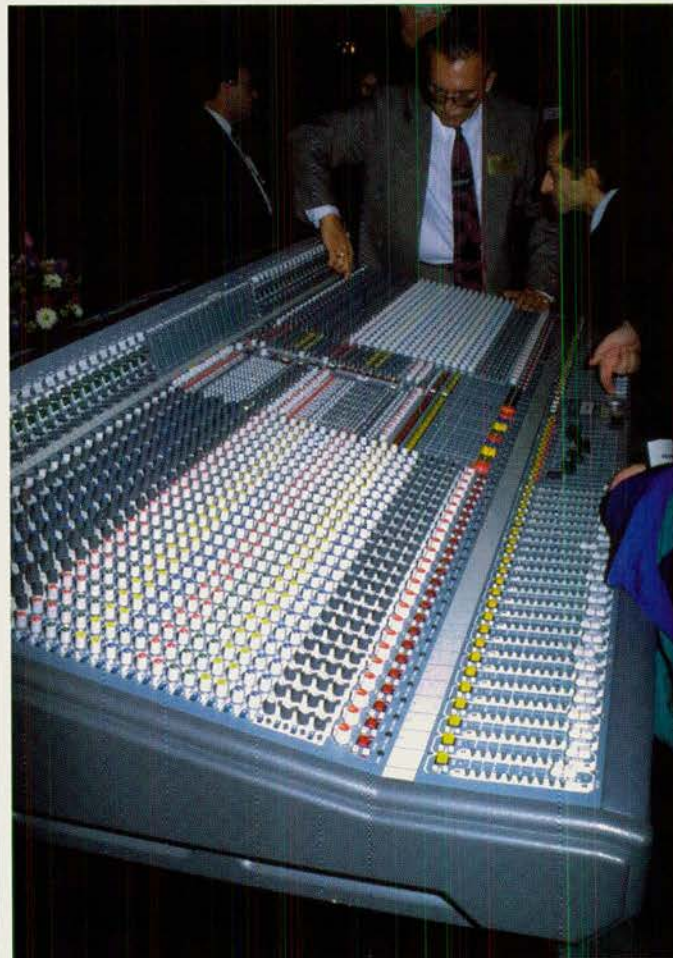
According to a newly released

Corporate Profile, YMA are the largest distributor of musical instruments in Australia. The introduction 'Vision' pledges that Yamaha Australia will continue to be re-engineered, despite significant reorganisation having taken place. This includes performance based remuneration and outsourcing of support functions. In addition a new organisational structure of five divisions, including hi-fi, has been introduced.

Consoles dominate at AES

MIDAS launched the XL-4 live sound console (*below*) at the San Francisco AES, console releases for SSL, Crest, DDA, Yamaha and

Soundcraft dominated, while Digidesign drew record crowds and Roland sprung a surprise. Much more on AES inside



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MOVES etc

• **Roanwatt Audio** has been a leading PA company in the Newcastle area for the past 25 years. Managing Director **Bob Watterson** is proud to announce being appointed sole dealer for Roland products in the Hunter Region.

To get the ball rolling, Roanwatt ran a Rock Seminar at Western Suburbs Leagues in late November, where Roland and Australian Monitor demo'ed products and punters had a chance to win a Mackie mixer. This kind of promo is hard work to organise, but done right - as this one looks like it was - is a real winner with customers!

ROANWATT, call 049-435853.

• **Australian Monitor** have promoted **Francesca Peskops** as National Pro Audio Sales Manager for Australia and New Zealand. Good to see a woman rep!

• **Lots Of Watts**, the well regarded and growing Sydney lighting and audio outfit will relocate at 01 February 1995 to bigger, better premises in their current suburb, Rydalmere. 1 Mary Parade, phone stays same at 638-0302. Gaff will still be \$12 a roll, they say!

• PA People Canberra is changing name to: **EVENT SOUND PEOPLE**, same address, call Lindsay Gesling on (06) 280-6411.

• **Production Audio Services** have appointed new dealers -Acoustic Technologies (QLD), Archer Sound (NW), Topstage Productions (ACT), Warehouse Sound (Melb). Products available from these outlets include Community loudspeakers, Countryman microphones, Crest amps and mixers, Nady wireless microphones, Biamp, Advantage and Ashly audio products. Call (03) 852-0900.

NewAUDIONewAUDIONew

Lone Wolf Debut Products at AES, and draw some heat

AES usually draws more than one big corporation looking for gold. Recent entrants have been displaced aerospace manufacturers trying to turn Skunk-Works type technology to more pedestrian needs. They usually make a big splash by exhibiting at AES, then realise just how small the global pro audio industry really is.

This year Echelon, a giant in industrial control software, have possibly had some questionable advice and launched themselves into the audio control network market against Lone Wolf's Media Link. "Computer control is coming to professional audio and companies are looking for the right technology" said Michael R. Tennefoss, Echelon's product Marketing Manager.

Only problem for the Palo Alto firm is that their LONWORKS technology isn't quite up to speed, it's more at home administering air conditioning and process control applications. Time will tell?

• The AES is, of course, a society - an industry association, dominated by some very intense and worldly technical types, whose wisdom outshines yours and mine combined. It stands for Audio Engineering Society, and as they did with AES-EBU, they like to help each other, and thus us, by defining standards.

SC-10 is a sub-committee charged with finding a computer control protocol or standard for the audio industry. It has met for several years now, and has two key Lone Wolf people on board. David Warman and David Scheirman is the pro audio liaison guy. He's the one who flew down for Entech. They both decline to discuss the SC-10 committee. It is a touchy subject at Lone Wolf.

Key observers believe the eventual SC-10 deliberation will be that part of Media Link is filleted off to become a new AES standard. My sources insist it is codenamed BALI, named like the island. -JG

YAMAHA D5000 DELAY

New device has multi-tap delays and balanced in/out

Extra long multiple delays are the offer with Yamaha's new D5000. The delays can be configured as 'dual mode', with 3 independently programmable delays per channel, or 'single mode' with six independent delays. In dual mode, the unit can work as a stereo in/out, or a mono in/stereo out device.

Delay times are adjustable in 1msec or extra-fine 0.02 millisecond increments. As is fitting of a unit that may be used for all of live sound, studio and contracting applications, this delay can be

set for time delay zones by using time (in milliseconds), distance (metres), music temp (beats per minute, very handy) and SMPTE frames (choice of 24, 24 or 30 fps).

Feedback loops on each delay stage can be used to create effects. The feedback paths have switchable phase and adjustable low-pass and high-pass filters with programmable cutoff frequencies. In addition, a 'freeze' function can sample an audio signal and play it indefinitely. \$2695 retail.

•Yamaha Music Aust. 03 699-2388

Corrections

DOUG ROBERTS

Last issue we credited Entech Award winning producer **Tony Cohen** as having produced the Badloves debut album. Of course this is untrue, because Doug Roberts did the deed. The Awards returning officer noted readers nominations next to the winners, some readers nominated Cohen for an album he didn't make! Nevertheless, he did win hands-down on projects that were REALLY his own!

JOHN HENDERSON

Is not **Greg Henderson**, who is a quite famous recording engineer. This is the editors fault, and incorrect names in print don't help anyone. Very sorry everyone. (Sob. Blub. Sincerely!)

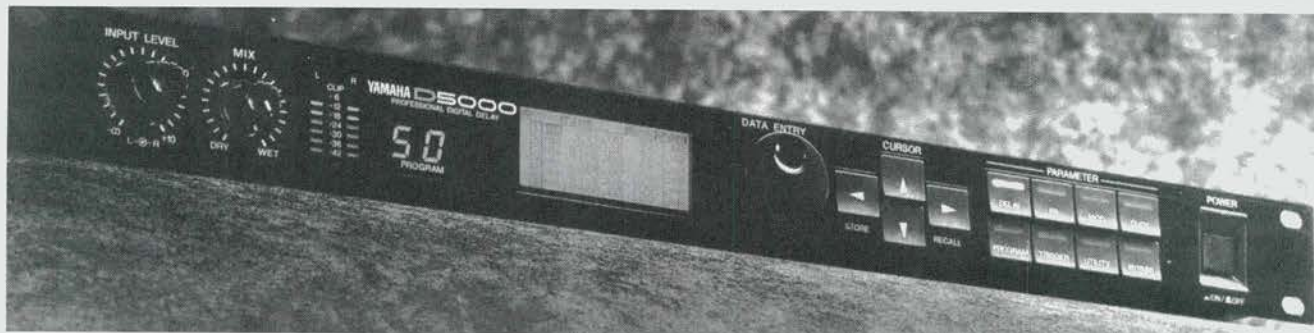
We had a lot of calls re. the two above FUBARS, and always invite corrections which hopefully won't be needed too often.

Libel Action

A defamation writ has been lodged with the NSW Supreme Court by Noel Francis Crabbe, and a company which may have published the Sydney music industry newspaper On The Street. The writ claims an article published in Connections earlier this year was defamatory, and so the action seeks damages from Julius Grafton and Connections Publishing.

Lawyer Colleen Platford of Gilbert & Tobin has been retained by Connections, while Timmothy Somerville of Sommerville & Co will act for Crabbe and On The Street.

The matter will not be heard until late 1995 at earliest.



MIDAS XL4 PROVES ANALOG LIVES

It was the year of the mega mixer at AES, coming on the strength of the best year ever for the USA touring sound industry. I confirmed this with some senior audio touring guru's, it contrasts with the 1991 season when Saddam Insane created the worst year for audio.

Toiling for ten months of intensive consultations with famous engineers like Robbie McGraph, Lars Broggard, and two dozen in between, the svelte, impossibly handsome and perfectly formed Bob Doyle of Midas has specified the XL-4 live sound console. This is an imposing console, and to stand beside it at AES guaranteed the hoy polloy of audio would hap-

pen past.

After five quiet minutes I was rewarded- legendary Australian Resident Alien of the USA, Howard Page, Vice President of everything at Showco (Dallas) came shopping. Actually, Showco don't buy mixing consoles, Charlie buys them. Charlie Davis is Mercury Sound, and all he does is buy and rent consoles. I was privvy, via proximity and big ears, to the exchange.

Howard: "Bob, how easy is it to replace the fader panel with an automated panel?"

Bob: "No trouble, the software is on board already, you buy the automated panel for two thou-

sand dollars, and we give you back two hundred dollars for the old one". Much laughter at this.

Charlie will write an order for the Phil Collins tour, but only if Howard is certain the XL-4 is ready on time. Bob proposes January, Howard cuts like the surgeons knife: "Yes Bob, but HOW MANY will you ship in January? One? Two? I don't want to get caught with Cubby....." Robert 'Cubby' Colby is Collins engineer, fussy Showco customer, and one of the consultants Bob drew into the XL4 design process. I hear the price and ponder the effects of exchange rates and duty. You could see XL-4 here...

FEATURES: XL-4 has it all. An

input pod at top looks at first like onboard dynamics - gates or limiters - but isn't. Rather it keeps these controls at hand, instead of pushing them out of reach.

Just at the top of the input strip, a Direct output offers ADAT-on-tour recording, something everyone is doing these days because it makes them feel usefull and it gives the system engi-

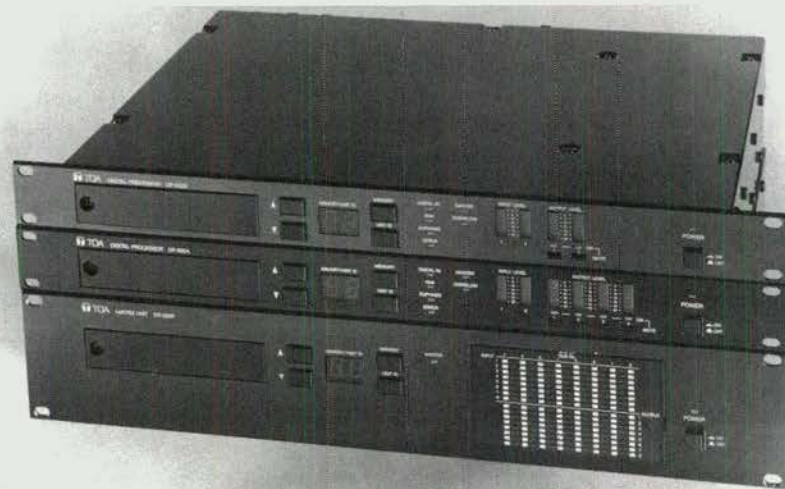
neer a new job - labelling VHS cassettes! The notion of mixing down after the gig looms large and ugly .

Four band full parametric EQ follows, full parametric means fully adjustable width on the cut and boost, from 0.1 to 2 octaves. 0.1 - that's a tight, tight notch.

Sixteen mono and four stereo auxiliary sends follow, and like XL-3 the '4 may be used as a monitor console too. In fact, the 'changeover' switches make it easy to do so. In this case the outputs possible would total 26 before you got creative and used the 16 way matrix!

Ten VCA masters, 16 sub masters, and more combo applicatons that you can poke a stick at. Allied with mute and VCA automation by OutBoard Electronics, you have a mega console that is very worthy of contention.

•Midas from Mark IV (02) 648-3455



DACsys does a lot

TOA show clever new digital PA processor at AES

DACsys is a weird name, but so is TOA. The Americans say T.O.A., whereas I always thought it was said 'Toah'. Does this matter?

TOA say the new DACsys II line of digital audio control products are capable of supplying over 20 different types of signal processing functions, signal routing and level control.

The system is made up of a digitally controlled 8 x 8 analog matrix/mixer, named DX-0808, shown at the bottom of the pile. The DP-0204 (middle) allows two inputs for four outputs, and will do signal delays of 1.3 seconds, compressor/limiter functions, and 16 band parametric as well as 2/3 and 1/3 octave equalisation and notch filtering. Crossover,

noisegates, Constant Directivity horn EQ and notch filters are some other things it does

16 presets can be programmed, stored and edited, and a Media Link interface is almost ready for this device - which makes it interesting, because it does virtually all signal processing in one box. For simple applications without Media Link you can hook up your IBM clone PC via RS-232C and RS-485 ports, and control up to 30 units at a time. Once the PC is removed, the unit continues to process as last instructed, making an excellent contracting tool. Set it and leave it!

The top device, DP-0202, is a two in, 2 out version of the above.

• TOA from AWA (02) 898-7666.

TRAVEL

Last issue we got to the end of this column and the thing just ended! The editor screwed up YET AGAIN. So we resume

YANKS BITCH ON....

Compuserve's travel forum is a fav haunt of ours, some gems: Eastern Airlines (went broke) former 757 aircraft were parked in the desert for some time, but the toilets were not emptied. This is offered as the reason the things now smell... and... Shock! Americans are getting too big for average plane seats!

ROAD FOOD

A recent test of the old standby, the PIZZA HUT has revealed the Pizza Wars have taken their toll. In the shabby Chatswood facility we examined the highly minimal menu repleat with Mega This and Mega That offers, tested the limp and limited salad bar, and pondered how 2 pizza's home delivered for \$16.95 is going to make any difference to market share if the restaurant service & food suffer.

UNITED SHUTTLE

This is the future of air travel, the new Shuttle operation in the USA is designed to fight mega profitable no frills Southwest Air. The seat pitch is very tight, the fares cheap if you prebook, expensive if not, and you board by zones. The window seats are Zone 1, centre seats Zone 2, etc. The service is a quick softdrink or fake coffee, your primary carry-on baggage storage is under the seat in front, and the turnaround is scheduled at 30 minutes. Well, you do get there. Flights are regularly overbooked. Cattle call? •

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Write in Reader Service number: 150

Australian technology shines at AES

Four Australian firms exhibited at the 1994 AES trade show in San Francisco - Australian Monitor and ARX are AES regulars, both export to the world. More recently Fairlight and Lake DSP have appeared on the export map. Each exporter has a different approach, we look at Lake DSP and Fairlight here.



David McGraph of Lake DSP in San Francisco

Smart Australians at large are a joy to behold, weaving through 300 exhibits at the AES in San Francisco you see big, bold and old concepts left, right, centre (and in mono too), and occasionally find a gem. All the better when it's home grown.

Lake DSP is a Sydney firm who operate in the outer stratosphere of audio, such being digital signal processing - thus the DSP in the name. Lake have developed products from the research of founder David McGraph, who has presented numerous white papers at AES conventions over the past decade. With partner Brian Conolly and other engineers cooking up concepts, they have forged a strong market in Japan, assisted by Tamiki Katoh from Austrade. Katoh was so determined to assist that he actually attended the AES, explaining that it was a better base from which to promote Lake's product because he would come into contact with more audio prospects there.

At AES, the Lake people demonstrated the Huron Digital Audio Convolution Workstation, which allows an acoustician to accurately predict audio behaviour in a proposed venue. Fur-

ther than actual prediction, it allows you to actually hear an audio programme from any point within the environment. Naturally, the environment could be changed at will, likewise the specification of the multi-speaker system proposed. This is but one application of the technology, another proposed use is Virtual audio-reality, and this was demonstrated too.

To display these applications, Lake had four small loudspeakers on stands, surrounding a chair in which you sat. A transmitter on a headset kept the processor informed as to your ear orientation, the spatial image could stay constant while you moved your head at will.

This kind of auralization modelling relies on extreme science, an understanding of the laws of physics, and geek-like ability to write (and understand) copious volumes of code. All of this your editor forsook in favour of more terrestrial pursuits some time past, so detailed analysis here is pointless, and most probably misleading!

Suffice to say, it is indeed refreshing to find commercially valuable audio technologies under development, and sold by, a local firm. •Lake DSP can be reached on (02) 314-2104.

Fairlight to take equity partner

David Hannay is standing at the rear of the Fairlight stand, surveying the result of 50 person-years of software development to date. John Lancken is delivering a demo of the MFX-3 Mini, and every seat is occupied. Fairlight will return an operating profit this year, after continual investment has now delivered a product that sells well.

Purely a post production tool until now, the firm is finding that the processing power of the MFX-3, tagged 'the worlds fastest digital audio workstation' is drawing interest from the music recording sector too. According to David Hannay, it's the real time ability of the system that wins the business. Fast disk transfer rates to and from the SCSI interface, and thus your hard disk drives - allows continual playback of eight audio tracks from one hard disk. Add more, and an MFX-3 will work in real time on 24 tracks.

Its been a long and winding road for the former Strand ex-

ecutive, who fell into running an audio firm when Rank shattered into fragments during the mid 1980's. From that was born Amber Technologies, who import Soundtracs and Beyer - the firm purchased Fairlight after its founders ran into difficulties.

Filling the mid-price workstation market is the goal of the MFX-3 mini, priced at around US \$28,000. Typical of users are EFX Systems, a Burbank based Post Production Facility who

used an MFX-3 to edit dialogue for the movie "Disclosure". Have you read that book? I have, and discovering that the movie version features the truly delectable Demi Moore, I cannot wait to see it!

Recent sales in Europe and Japan have included fully optioned systems that are replacing 24 track tape recorders. "We feel it is the first disk based system in the world to replace recorders", said John Lancken, international sales manager.

More news for the firm is the move to establish an LA office, where Wayne Freeman will service the market. David Hannay also mooted that recent investment capital the firm has attracted from Asia may generate an equity partner, with the firm making a profit this is a likely scenario.

To further develop its products, Fairlight has expanded the Sydney R & D team from five to eight.

-Julius Grafton.

• Fairlight can be reached on (02) 975-1211



David Hannay (left) with John Lancken at AES in San Francisco

A digitally controlled sound system that can handle the largest airport or stadium.

Crown introduces digital system control that's affordable for even small installations.

Installed sound is moving to digital control. But if you're like most contractors, the huge cost and steep learning curves of existing systems have made you think twice about spec'ing digital sound control.

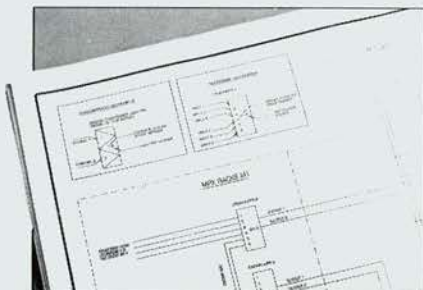
Crown changes all that with the introduction of the IQ System's MPX-6, SMX-6 and IQ COM-Q components. Now, the same IQ System with the capability to handle airports, stadiums and convention centers also makes economic sense in

IQ SYSTEM 2000 bringing digital control

to churches and boardrooms. With its intuitive operation, no other system is as easy to use as the IQ System.

A different approach to digitally controlled sound.

The IQ System is unlike existing digital systems which are expensive, difficult to learn and susceptible to total system failure. Designed around highly sophisticated yet relatively inexpensive components, the IQ System is easy to use and highly



The IQ System gives you the flexibility to design systems that match the exact needs of an installation—no matter how large or small.



Entry-level IQ System: MS/PC-DOS-compatible computer, Crown Com-Tech 200, MPX-6, loud-speaker and microphones. Approximate retail price of this system is \$3,700. Prices may vary depending on specific components and configuration.

reliable. IQ components are designed to keep the system operating even if a host computer should fail.

Because of its outstanding flexibility, the IQ System may be tailored exactly to installation needs, while leaving further expansion possibilities wide open.

As additional components are introduced in the near future, you'll discover there's no more flexible or cost-efficient system than Crown IQ.

MPX-6. Expanding signal routing and control capabilities.

The MPX-6 is one of two IQ System multiplexers which make sophisticated control and routing of signals easy and affordable. Digitally controlled by a host computer or IQ COM-Q tape controller, an MPX-6 can route and switch six mic/line inputs, two summed outputs and two independent bussing outputs. Any level of any input can be routed to any output with a controllable range of 120 dB in 1/2 dB increments. This ability to route both incoming and outgoing signals provides unsurpassed

system flexibility. But that's not all.

Multiple MPX-6 units can be combined to create 6x4, 12x2, 24x8, etc., mixing capabilities. In fact, you can control up to 24,000 inputs with just one IQ System!

The MPX-6 may also be used remotely in distributed intelligent control systems to reduce long microphone line runs.

With the addition of the MPX-6, the ability to route signals in complex routines is not only possible, but easy.

SMX-6. Sensing multiplexer.

The SMX-6 builds upon the MPX-6 with additional sensing and configuration capabilities. It contains six mic/line inputs and four outputs like the MPX-6, but adds the capability of monitoring the pre-attenuated levels coming into the inputs.

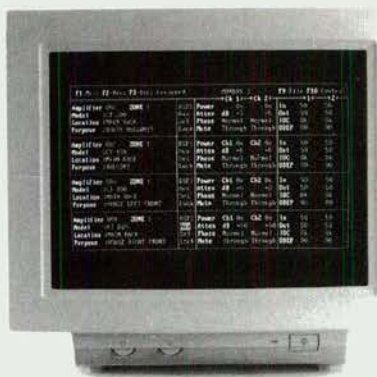
Unlike other devices such as automatic mic mixers, control and con-



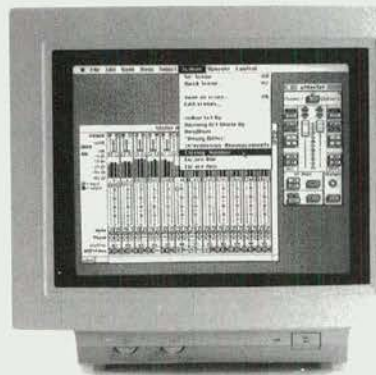
The Crown MPX-6 multiplexer and SMX-6 sensing multiplexer provide unsurpassed mixing and routing/switching capabilities.

figuration of the SMX-6 are achieved with downloadable software. These downloadable instructions, called Algo™ Packs, allow the contractor to program specific capabilities into the processor of the "intelligent" SMX-6. Automatic mic mixing, video-follow-audio switching and impedance and equipment checking are just a few of the many possibilities. It may also be combined with the MPX-6 for in-

system so versatile, it can fit the smallest church budget.



IQ System software is available for both MS/PC-DOS-compatible and Apple Macintosh systems. Designed to be user-friendly and intuitive, the



system eliminates the need for the extensive training required by other systems. The basic IQ software is available without charge with any IQ component.

increased mixing and routing capabilities at a reasonable cost.

PA-422 compatible.

Both IQ System multiplexers provide an option for being driven directly by any computer with RS422 or RS232 communication. An additional multiplexer option provides compatibility with the PA-422 standard and allows multiple PA-422 devices to be independently driven from each multiplexer. This permits control of compatible digital delay units, parametrics, third-octave equalizers and more.

No-Fee IQ System software.

Unlike other systems, the basic IQ System software is provided without charge with any IQ component. Software is available for both MS/PC-DOS-compatible and Apple Macintosh computers. Because of the many possible applications for these components, command codes and protocols are included so specific routines may be programmed by the contractor or system user.

IQ COM-Q. Complex system control made simple.

The IQ COM-Q component makes system configuration as simple as playing a cassette tape. Designed to digitally record the commands from an IQ host computer onto almost any tape medium (cassette, open reel, DAT), the COM-Q permits the system to be configured by simply playing back the appropriately recorded tape for a desired system change. This not only



The IQ COM-Q makes sound system configuration as simple as playing back a cassette tape.

allows for quick and simple changes, it permits those without extensive training to control the system. Contractors can pre-program configurations in-house for an installation which then requires only an IQ COM-Q and interface-capable component to run the system. With multitrack recording, the COM-Q can initiate complex audio and system commands

useful in applications such as theater productions and crowd movement at theme parks.

Installation ideas.

The design flexibility and sophistication of the IQ System may make you rethink how you design installations. Here are just a few of the many possible applications.

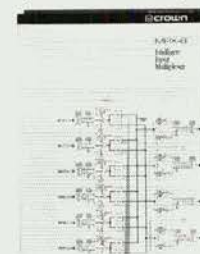
Small Conference Center

The IQ System multiplexers can decentralize audio system installations, reducing wire and associated costs, without decentralizing control. For example, one multiplexer and one Com-Tech® can be used to control the signal routing for two banquet rooms.

Surveillance/Security

The IQ System can be used to create a surveillance system in high-security areas. With strategically placed microphones and Crown multiplexers, audio or video-follow-audio monitoring is easily achieved.

For more information on the IQ System and system components,



free literature including datasheets and an application guide, call David Gable on ;

(02) 684 1022

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Australian's doing biz at the AES in San Fran....



▶ **Bob Doyle** from Midas (left) is no Aussie, but **Howard Page** is. 'Legend' Page is grilling Doyle about the automated mute system on the new XL-4 console. Legend is the senior VP-for-most-things-audio at Showco, the Dallas based giant touring audio conglomerate who supply the Rolling Stones and can do 20 tours at one time!



▶ AR Audio's **Tony Russo** demonstrates benefits of steroid abuse, QSC salesman looks on nervously...

▶ Australian Monitor's **Hymie Meyerson** - his 8th AES in a row.



▶ **Margaret Stevenson** and **Colin F. Stevenson** from Production Audio Services, at AES planning new ways to promote Crest Consoles and Amps.

▶ **Shane Morris** is a Tassie lad living 'over there' and helping R & D new Paragon console options at ATI.



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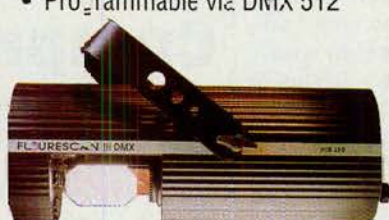
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AES Bits

•**SHURE** say their new VP Wireless System is great for Video Camera's. The receiver is small, a 9v battery runs it for 7 hours, and it sits atop the camera. Your presenter can use a handheld, or lavalier microphone.

•**SENNHEISER** do headset microphones - the MKE-48 ST cardioid, and MKE-2 ST omnidirectional headsets are form fitting and come in either buff or black.

•**SENNHEISER** say 'mid cost' wireless for guitar or lavalier is now available from them. With HyDyn Plus noise reduction, the systems have dual, switchable frequencies. BF-1052 is for guitar, and BF-1053 a lavalier system with an MKE-2 lavalier mic.

•**SENNHEISER** intro the ME-67 long shotgun capsule for the K6 modular condenser mic system. The frequency response is optimised for emphasis on high frequency articulation.

•**SAMPLE RATE SYSTEMS OY** is a Finnish firm offering a stand-alone audio DSP module with digital and analog audio i/o. The M4-1214-B is your tool if developing algorithms or developing audio gear.

•**MEYER SOUND** have two new loudspeakers, the MSL-5 is a long throw Hi-Q (very directional) cabinet designed to handle vocals alone, or mate with a sub for PA use. It is loaded with 2 x 12" and 3 x 2" throat compression drivers. At the other end of the scale, the HD-2 is a high definition mid-field monitor for your studio. Self powered with a dual mosfet amp, these contain a 10" woofer and a 1" titanium dome horn driver.

New AUDION New AUDION New AUDION New

LEXICON

The new PCM-80 has 200 presets and can deliver a whopping 42 seconds delay with optional chips. A true stereo processor, it has 18 bit A-D conversion, a digital interface, and an internal 24 bit digital bus. Importantly, Lexicon say the sounds are updated and very nice. •*Studio Connections 03 723-4300*

EV's new SX100 replaces S100

Brand new to the Electro-Voice stable is the SX100 speaker system, this is the little brother to the new SX200/System 200.

It consists of a moulded Polypropylene structural foam vented cabinet with integral handle, stand mount and mounting points, an EVG-12 12" low frequency driver and a brand new

design DH2005 1" titanium compression driver mounted behind an integrally moulded 65 x 65 degree constant directivity horn flare and Neutrik locking jack connect.

Specifications- **200 watts RMS** (precious model the 100S was 100 watts) **99.5 dB 1 W/1 m** (100S was 96 dB) and retail \$999.00.

•*Mark IV Audio (02) 648-3455*

BSS OMNIDRIVE remembers all

BSS's new OMNIDRIVE system does digital signal processing for loudspeaker management with two channels of 4-way crossover, parametric EQ, phase correction, delay lines and limiters in a 2U chassis. There it is, below.

It has no less than 60 user-programmable memories for storage of system/venue set-ups, which may be password protected- OEM Loudspeaker manufacturers can inhibit system data from change, giving users and rental companies confidence that they are running the system at optimum perform-

ance settings. A unique facility is provided for automatic adjustment of delay times as ambient temperature changes and correction of HF response with humidity variation. Rental companies can also easily pre-load the unit with the necessary files for a given system, from a library of system configurations - one controller for all the speaker boxes in their inventory.

The front-end is simple, combining a real-time graphical display (as used on BSS's highly successful VARICURVE™ Equaliser/Analyser system) with an ana-

logue-like output control section to give engineers comfort and full indication of system performance.

Operating with a balanced analogue input/output of full 20 bit resolution and giving a dynamic range of better than 105dB, the system can accept analogue or digital signals through a choice of input and output cards, the Digital I/O option being standard 24 bit with selectable sample rates and external clock input.

•*Further details from: ATT Audio Controls P/L (03) 379 1511.*



Compressor for Digital 8 track

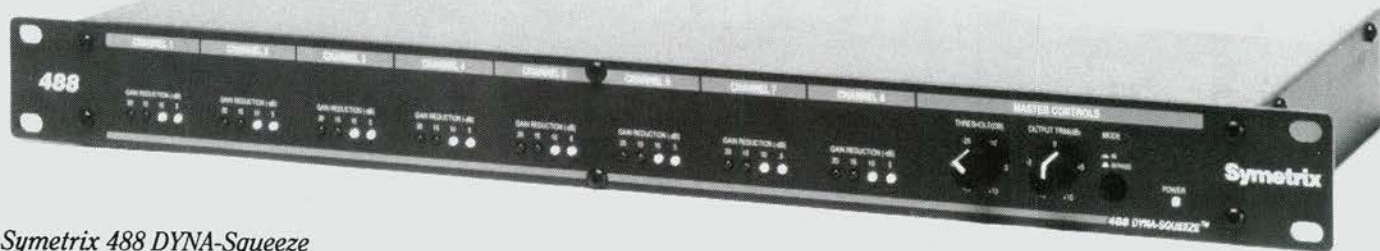
Lynnwood, WA — Symetrix has announced the introduction of the 488 DYNA-Squeeze™, an eight channel compressor/interface for use with today's new generation of digital recorders. Thought of as the "missing link" between analog consoles and digital recorders, the 488 DYNA-Squeeze™ allows the user to optimize record-

ing levels and "push" more information into the recorder's dynamic acceptance window while providing eight channels of level matching interface (+4 dBu to -10dBu).

The Symetrix 488 DYNA-Squeeze™ helps prevent the A/D converters from clipping by controlling levels that are too high, allowing for more signal to be

"pushed" toward the recorder for optimum recording volume. Levels that are too low fall into the digital noise range and can be recorded with resolutions as low as 4 bit. This combination of compression and level matching allows the console to be run at higher-than-average levels, therefore, providing the digital recorder with a higher quality signal.

•*Audio Telex 647-1411*



Symetrix 488 DYNA-Squeeze

Sony Mic's

A new range of dynamic microphones have been released by Sony. The F-700 series microphones feature the same technology pioneered by Sony for the C-800 vacuum tube microphone.

Five new microphones are in the range, which Sony say are characterised by low handling noise and good reliability.

The F-700 series share an ultra rigid capsule and body construction that provides an effective 'mechanical ground' for unimpeded diaphragm movement - resulting in reduced mechanical vibration. All five designs sport a black metalised finish for a glare-free appearance on camera.

The F-780 adopts an "edgewise wound" high density voice coil construction employing ultra-lightweight Copper Clad Aluminium Wire for enhanced mid and high frequency performance. The F-780 is suited for vocal applications, F-740 shares the same high flux-density AlNiCo magnet found in the F-780 and is suited to both vocals and instrumental applications.

The F-700 range is completed with the affordable F-710, F-720/2 and F-730/2 general purpose mic's suitable for both voice and

instrument pick-up- they employ neodymium magnets and are fitted with "Mic On-Off" switches. •Details, SONY (02) 887-6666.

DYNACORD DDL'S

The DDL 102 & DDL 204 signal delays complement the performance of the EV speaker range. Both units feature pass-code protection to eliminate programme alteration by prying fingers and electronically balanced inputs and outputs.

Other features of both units are a 2 x 16 character alpha-numeric backlit LCD display. Delays may be set in metres, centimetres, feet, inches or milliseconds. They have a five year warranty.

Specifications:

DDL102: 1 in / 2 out; 1086 millisecond maximum delay time; 90dB S/N ratio; High & Low frequency EQ on each output; 16 bit linear and 24 bit processing.

DDL 204: 1 in / 4 out or 2 in / 2 + 2 out; 100dB S/N ratio; 2750 milliseconds maximum delay; 30 different configurations; 30 user memories; Polarity of each output channel reversible; Automatic power loss bypass relays; High frequency roll-off on each output (up to 15 dB shelving at 15kHz), 18 bit linear and 24 bit processing.

•Mark IV Audio (02) 648-3455

Soundcraft release a DJ Mixer!

Mixing desk specialist Soundcraft has launched the first of a range of disco mixers, the D-mix 1000 (below). Standard are two mono input modules and six dual stereo channels. A DJ booth output is supplied for speaker monitoring and cueing. There is a switchable ducking system to automatically reduce the volume of any stereo

input during voice-overs.

Each stereo module permits the connection of two switched stereo sources such as CD players, DAT machines or VCR's. There is a 3 band EQ on each module.

Designed and specified for the h-u-g-e & big German disco market, the D-Mix costs \$6995 retail.

•Jands Electronics 02 516-3622.



Audio Education

SYDNEY UNI DEGREE

The University of Sydney is currently planning a program for Diploma and Masters degrees in the field of audio engineering, known as 'Diploma of Design Science (Audio)' and 'Master of Design Science (Audio)' respectively.

Scheduled to begin in 1996, the program will initially be available on a part-time basis, two nights per week. Some courses will be available in 1995, with successful passes being credited towards enrolments in 1996. The Diploma level requires two years study, the Masters degree requires three years study.

Intake will be limited, and open to people who meet certain entry criteria. Best to call for this.

• For further information contact Fergus Fricke on (02) 351 2686.

NEW SAE IN HOBART

The School of Audio Engineering, the world's largest audio and multi-media training facility is to open a new college in Hobart, Tasmania. The new college, the 19th SAE college, will offer a fully accredited certificate level course which for the first time gives the students in Tasmania the opportunity to further their audio careers leading to a full university degree issued in conjunction with SAE and Southern Cross University, Lismore.

Students from Tasmania can transfer to any SAE college in Australia or overseas and receive full credit for their studies.

The local college will be administered by Nick Armstrong and Dean Preston. • Contact SAE in Hobart on 002 315 446.

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Mackie Line Mixer

Mackie Designs say the LM-3204 Line/keyboard mixer is packed with features, is easy to use, built like a tank (*typical comment*) and is embarrassingly late into production.

Complimenting the Mackie Entech Award winning 8 Bus Console series, the LM-3204 is for keyboardists, sequencing fanatics and other Line Level Input Challenged types. Mackie say they boldly set out to create a line mixer that could handle more hot stereo inputs than nature ever intended. Complete with dedicated control room outputs and tape monitoring features.

But Mackie also wanted to sat-

isfy the Official Musician's Minimum Daily Requirements for microphone inputs, so it has two mic preamps. Each can be patched to any of the LM-3204's 16 stereo channels.

- Features:**
- 16 stereo channels (40 balanced line inputs, 32 in individual inputs & 8 AUX inputs)
 - Expandability - multiple LM-3204's can be daisy-chained for almost unlimited inputs
 - 4 AUX sends per channel
 - Stereo- n-Place Solo, plus solo level control
 - Suggested retail price \$2595
- Call Australian Audio Supplies on 02-879 6124.



Spirit Power Mixer

Scundcraft took a bold gamble when introducing the Spirit brand three years ago, now there are well over a dozen distinct ranges, one won an Entech Award recently.

The POWER STATION is the latest, and it is the first venture into powered mixers - where the amplifiers are inbuilt - for the firm. Power Station has 2 x 400w amps

onboard, with dual graphic equalisers, and a Lexicon reverb processor inbuilt. Lexicon, like Scundcraft, is owned by Harman.

The sweep mid-range EQ facility on most Spirit consoles is here too, and a neat removable lid arrangement is supplied. It has 8 mono and 2 stereo channels.

- Details- Janas (02) 516-3622.

Mark IV Audio News

FIVE YEAR WARRANTY ANNOUNCED

Mark IV Audio have announced that, effective immediately, they now offer an across the board **FIVE YEAR LIMITED WARRANTY** on all product. There is only one exception to this warranty. The N/DYM Series Microphones, these carry a **LIFETIME WARRANTY**.

Mark IV Audio is proud to release our new giant killer - the **Electro-Voice SX100 Speaker System**, 200 watts RMS, 99.5 dB 1w/1m, 15.5 KgS. and an RRP of **\$999.00 - MAGIC!!!**

Also from EV are the **Limited Edition TL Bass Cabinets**. It's 15 years since the first TL was manufactured and in honour of Australia's favourite bass cabinet we are offering a limited production TL Bass System. Only 40 serial numbered pairs will be produced, they consist of a 400 watt single 15" cabinet with a new 300 watt 2 x 10" cabinet. Featuring traditional grey carpet, chrome badge, corners and connectors, a full steel grille and a slip on protective cover, at **\$2199.00 RRP** per pair.

Finally from Electro-Voice comes the **T53 Speaker System**, a 3-way composite cabinet, 15" low frequency driver, 10" mid-range 1" titanium compression driver on a cast aluminium 90 x 40 degree horn flare **\$2299 RRP**.

Dynacord, another Mark IV Audio company, hasn't been resting on their laurels either. New for '95 is the **DRP10** a 24 bit True Stereo Multi Effect Processor retailing for **\$1999.00**.

Dynacord has also released the **DLS223 Digital Rotary Speaker Cabinet Simulator**. Throw away your Leslie cabinet. **\$1649.00 RRP**.

For further information and the name of your nearest Mark IV Audio Dealer, please contact:
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- ◆ Rotational Direction
- ◆ Active or Passive EQ
- ◆ **Five Year Warranty**

◆ **\$1649.99**

DYNACORD

DRP 10 HIGH QUALITY 24 BIT DIGITAL EFFECT PROCESSOR



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- ◆ 259 User Memories
- ◆ 20Hz to 20kHz Frequency Response
- ◆ Up to Six Effects Simultaneously

- ◆ Full, Real-Time MIDI Implementation
- ◆ **Five Year Warranty**

◆ **\$1999.99**

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PM3500 new for Yamaha at AES

New console sits between M2000 and PM 4000, offered in Monitor and Main versions with MIDI mutes

AES San Francisco was the first US tradeshow date for the new and very radical Yamaha ProMix 01, so the expected arrival of ProMix 02 would have to be the forthcoming NAIM show in January. But nobody is saying a word.

YAMAHA has released the PM 3500, a console offering some changes over the 4000, with size slightly reduced and price knocked down by 25%. Whereas a PM-4000 offers 12 auxiliary busses, two of which are stereo, the 3500 makes do with eight mono auxiliary sends. To make up, the 3500 has some stereo matrix outputs instead.

Mitigating this, the MIDI-mute system first seen on the M-2000

console at Entech carries on to the PM-3500, so you have eight rearlit mute buttons for the first of 128 mute groups. This is something Yamaha USA should realise is not anything to do with automation in the sense that we have come to know it. The advertisements for the M-2000, and indeed the brochure for the PM-3500, contain an obscure scenario. "Dring the sound check you created a mix you were happy with. Now you want to recreate it. With the PM 3500's digitally controlled scene memories it's as easy as pushing a button". Yes, but all you are doing is turning channels, and auxiliary sends on and off.

Available in 32, 40 or 48 inputs,

with an additional 4 stereo input modules, the PM3500 has PM4000 style EQ, and a new 12 x 4 stereo; x 4 mono matrix. It has VCA mastering, and new bus metering LEDS on the groups. The depth is reduced with less auxiliaries, and 60mm faders on the groups and auxiliary masters, vs. 100mm faders on the '4000. The VCA groups retain 100mm faders, however.

The monitor version, PM 3500M, allows up to 52 inputs, and gives twelve outputs that can be switched to six stereo pairs, plus four mono and a stereo output. This totals a possible 18 sends from any input module, plus matrix mixing possibilities too.

• Yamaha Aust. (03) 699-2388.

AUX 2 Gossip

Walking down the centre of Mission Street San Francisco at midnight during AES was AR Audio's Tony Russo. "I like the seedy part of a city" he explained. However whatever it is that lurks in the darkened doorways in that part of SF didn't take too kindly to Tony, driving him to retreat down the middle of the street.

Julian Clary's tour diary published in a Sydney newspaper is a great read. A Hotel mistook him for a major star and gave him a suite. "They keep sending up fruit platters - I pretend I'm Princess Diana and, once I decide which bathroom to use, I'll nip in and regurgitate some honey melon!"

Neil Smith of Rock and Roll Music and/or Sydney Concert Light & Sound and wife Tanya are happy to announce the birth of a 12 lb baby girl Jorja Mary Alice Travers-Smith, born at Manly Hospital on November 7, 1994. A good baby that actually sleeps - so far. Congratulations Neil and Tanya.

Topstage Productions in Canberra is doing well under the management of Steve Nano and Norman Court, say sources. Founder and ACT legend Steve Devine is currently taking a more passive role after recent reports of interesting and different behaviour. Devine is a great survivor.

AES Bits

• GENELEC announce two active subwoofers to mate with their active studio monitors. The 1092A has a three way crossover inbuilt, passing to your main monitors in stereo, and taking a mono sub 85hz split for the amp and dual 8" drivers inside. The 1094A has a single 15" driver and a 400w amp inside. • Details from Studio Connections, (03) 723-4300

• PIONEER have a 96kHz (sampling rate) DAT recorder with a frequency response of 2Hz to 44kHz. Pro DAT D-9601 will overcome the current band limitation of the CD format to reproduce sound components over 22kHz, with current 48kHz sampling rates, they say. •(03) 580-9911.

The Stelladat Time Code DAT recorder (below) is 100% a professional unit, built in an aluminium die-cast frame - and it resists water too. Audio Services Corporation say it's the coolest unit avail-

able, because it runs cool! It has four heads, four motors, selectable frequency rates, 48v or T12 mic power, full timecode and more! •Call Audio Services Corp for rent or purchase, (02) 901-4455.





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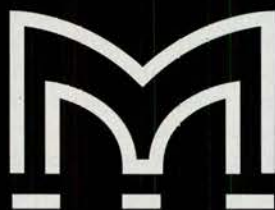
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Write in Reader Service number: 129

FRANCESCO CALVI

Cat Forcer meets the Demis Roussos of lighting

His business card reads *'Francesco Calvi - Illuminated Erections of Biblical Proportions, All Budgets Spent, No Job Too Silly, Creativity Optional'* and so one has to deduce that this man is professionally competent enough to be able to make fun of himself.

I met Francesco during rehearsals for The People's Choice Awards at the State Theatre, Sydney. Francesco was Vari*lite designer whilst Bob Fletcher of Channel 7 was the lighting director.

Francesco Calvi used to be known as plain 'Frank' but two years ago he went to a numerologist who told him to use his full name as that was linked with creativity.

"My Grandad died last month and he was named Francesco so it's also nice to carry on the family name," he said. "It takes a bit of getting used to and I still keep introducing myself as Frank."

After a spell as a caterer, Frank became a door to door salesman for tinware but was unsuccessful because he would spend his days chatting and having tea with all the 'lovely old ladies'. Frank began helping out with a mates band and so a new career blossomed in lighting. At the time, lights and sound were hired from Graftons and Francesco became friendly with Julius Grafton who also put work his way.

"I had met Julius years ago when he did the lights for our school disco," said Francesco. "He probably remembers me as the fat little kid who bugged the hell out of him wanting to know how the lights worked."

After a while Francesco became Grafton's Hire Manager where he stayed for four years.

"It was good because I met a lot of people and worked with lots of different gear when I was only used to par cans," he said. "Eventually I got fed up and went freelance. One of the jobs I did was on Soundcloud in the harbour for the bicentenary which was great fun and probably the most memorable gig I've ever done. That was for Jands who then employed me to work on Aida and then full time work. I stayed there four years and got the opportunity to work on some really big rigs."

Another memorable gig for Francesco was the first time he used a Vari*lite desk on a David Jones fashion show.

"I'd known the girls for a while as I'd been doing analogue shows for them for years," explained Francesco. "They came out in all this knitwear and I bought the first few lights up, then the Artisan locked up leaving the whole catwalk black. The room was full of VIPs and the girls kept on with their job whilst looking at me in despair. We finally got the lights back but at the end of the show people kept telling



me what a great section it had been! They thought the black fitted in with the whole beatnik feel of the collection. I made out I'd planned it all along and it took me hours to program it.

"Another memorable gig is an Icehouse arena size show for Jands. They wanted someone to climb the ladder up into the rig, skip across one truss to another, slide down a chain to the pods and focus. I said I can't climb which is one of the best things I ever did because after that I got known as the big guy who couldn't climb. Consequently I was put on all the corporate and fashion stuff which was to my advantage in the long run."

After his stint at Jands, Francesco was somehow motivated to change career and become a flower grower. Francesco's belief that he would make a fortune in agriculture didn't happen and he returned to work for Graftons. Six months later he was freelancing and working on the same shows as ten years previous.

"It seemed like I was back on the merry-go-round again," lamented Francesco. "I'm returning to Jands full-time next week as I'm most comfortable with them. They are the big boys with the big toys plus I really like Vari*lites. They also give me a bit more chance to design and operate which is what I really like doing. I just did Jose Carreras which was my little baby not just putting up gear for some overseas guy. They were really pleased although I got a bit paranoid at first when they asked 'if this was how the lights were going to look?'. I said 'no, I'm just mucking around(!)'"

Francesco's first job for Jands will be the

Senior Citizens Concert which apparently is supposed to be great fun, whether it's intended to be or not.

Francesco's biggest gripe about the industry in Australia is that crew are not treated as professionals and paid as such.

"People don't realise how much gear costs and what it costs to put on a show," he said. "There are still cowboy companies getting lots of work, going under and then leaving clients used to their cheap prices. I think that the companies that stuck to their guns during the recession, keeping the quality up and the prices where they should be, people are going back to as they realise they get what they pay for."

I recently did a show for David Jones where I had VL5's, VL2c's, Molemags, and Emulators and the lady in charge still wanted to know what I'd have next time and what was the latest thing! We were in the middle of the shoe department and I thought what more could she possibly want? Sometimes I'll use a piece of old disco gear, like scanner bars, which because people haven't seen them for so long, they think they're high tech equipment!"



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Write in Reader Service number: 130

Connections. Dec/Jan 1995

Events

Entech in line with NSCA 1996 dates

Just 16 months until Entech '96, which starts selling one year out, to be launched in April 1995. The NSCA is the National Systems Contractors Association in the USA, who have just announced their trade show dates for 1996. The NSCA will hold their show starting April 30, ending May 2nd.

The need for a gap between tradeshows is important, Entech '96 runs April 24 - 26 inclusive, allowing international firms time to get themselves to NSCA, which starts 5 days later.

Connections Publishing contact details:

PO Box 439 Epping NSW 2121 Australia.
Phone: (02) 876-3530
Fax: (02) 876-5715
Compuserve 100242,3662
Modem (on request): Ztermf or ARA.

Night Club & Bar Convention, Trade Show,
Las Vegas, January 16-18

NAMM, Los Angeles, Jan 20 - 23
Music industry on display.

Middle East Broadcast exhibition
Bahrain, January 22-25

Lighting Fair, Stockholm, Feb. 8-12

Seil, Paris, February 12-15

98th AES, Paris Feb 28 - March 3
Pro audio technology

Musik Messe, Frankfurt Mar 8 - 12
HUGE Euro music show

China Lighting Fair, Guangzhou, Mar 16-19

SIB, Rimini, March 26 - 29
The Worlds Greatest Disco Show

AES 5th Australian, Sydney Apr 26 - 28
Local Audio Industry on show

NSCA, Indianapolis USA, April 29 - May 1
Contracting audio and systems

SMPTE 1995, Sydney July 3 - 6
TV and Broadcast technology

Pro Audio & Light Asia, Singapore
July 12-14 Asia's Regional show

Pro Audio, Light & Music China 95,
Beijing May 9-12 Fledgling Chinese show

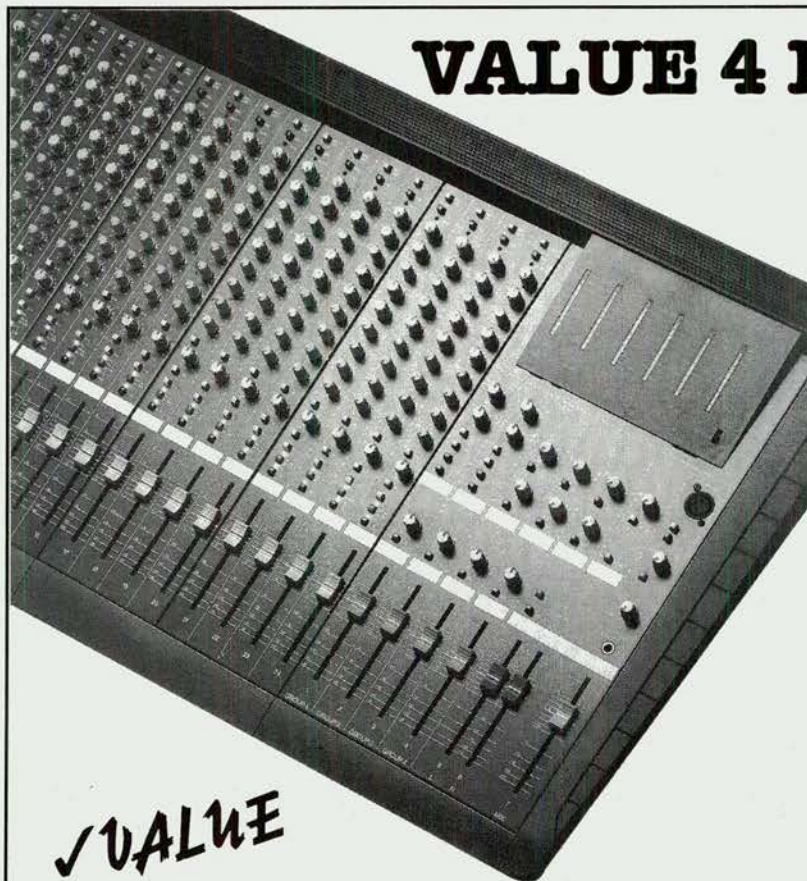
PLASA, London, Sept 10 - 13
UK/Euro Lighting & Pro Audio

AIMS '95, Sydney September 30 - Oct 3
Aussie music industry main show

LDI Miami USA Nov 18 - 20 1995
World's biggest lighting show

ENTECH 1996: April 24-26, 1996.
Aussie Entertainment Technology show

NSCA Indianapolis,
April 30, - May 2, 1996.



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Write in Reader Service number: 149

I WROTE THAT!!!

While I was making my way through the November magazine, it was with interest that I read Peter Kemp's article, "Smoking can be Bad for Your Health!" (Page 77).

The article was correct and delivered a good message for all smoke machine users.

However, I experienced a feeling of *deja vu* as I took in the last paragraph.

I couldn't help the wry smile that crept across my face as I realised why it sounded so familiar. Not only had I heard what Peter had written before... *I had written it.* Word for word, in some instances.

Back in July we put together some information on fog fluid for a dealer conference and copies had also been given out at Entech. I have attached one for you to look at. If you read attached handout (especially the Reality of Misconception No. 2) and then read the last paragraph of Peter's piece, you will understand what I mean.

Perhaps the article should have been titled, "Peter Kemp and Emmanuel Ziino say: Smoking can be Bad for Your Health?"

-Emmanuel Ziino, Show Technology, Syd.

LETTERS

are always welcome here! Fax to (02) 876-5715, mail to PO Box 439, Epping NSW 2121

Australia, or Compuserve 100242,3662.

•If you are **frightened** that the editor may refute or add comment after your letter, (why would he do that?) you may request 'NO TAILPIECE'. (This will, of course, be added to the published text of your letter.) You also may write under a penname, but only if you state your name and address, which are marked 'not for publication'.

LETTERS

*#/@/%XX -?!

6000 targeted?

I noticed the latest issue boasts you had 3,150 visitors to Entech '94 - your trade show - and yet looking at the previous issue (pre-Entech) you state: '6,000 industry professional targeted'. So what happened?

-Brian Jackson, Melbourne.

** Targeted. We know of 6,000 particular people who we know make up the trades Entech was pitched at. So we target 6,000, and get 3,150. This is a great number for a trade show, and is also a real number. Some shows must count everyone each time they go outside for a cigarette.*

Not of interest

Hey Connections; It's a pleasure to receive your magazine periodically, unfortunately I have changed address and my past co-habitants are not too keen to pass on my mail. Also you have misspelt my business name:

BUSKEROO.

Busker n. an entertainer who gives impromptu performances in streets, parks, markets etc. **Roo n.** colloq. -> Kangaroo Native Australian.

I play Australiana Bluegrass and general good time Pub Music. I also work with a Bluegrass Band "**Whisky B 4 Breakfast**" in the South Queensland area.

This information may not be of interest to you but I had to tell somebody. Thank you again for a great informative magazine.

-Bruce A Hagedorn, Qld.

NO to tight jeans

Since not renewing my subscription at your urging, I have avoided Connections wherever possible. Following ENTECH I thought I would at least find some references to the strong contingent of women in theatre who attended that tradeshow (a 'tradeshow' complete with token 'babes' in tight jeans grinning inanely at the men, fish with excess cleavage, and teenage nymphettes hired by yourself to decorate uselessly and flirt with the over-fed suits).

Naturally in your post Entech issue reviews and glory basking you totally ignore the growing number of women in the trade who attended and fail to reveal the almost complete boycott of female presenters in your much hyped workshop series. The lip service you pay to female involvement at Connections was laid bare by the very few workshops Catriona Forcer ran, and the total absence of any other Connections female writers.

-Shiela Yates, Glebe, NSW.

**I enjoy criticism like this, because it's so misguided, although perhaps meant with a slight trace of good intent? At Entech, aside from the 'babes', there were 'beef' too. We had a dozen floor staff who were hired to be nice to visitors. Is that OK? RE: female presenters for the Workshops. Fact is, Cat Forcer was unwell, yet soldiered through several, and the rest of the Connections team were somewhat preoccupied elsewhere tending to 3150 visitors and 700 exhibitors on 93 stands. How about some female presenters coming forward next time? What about YOU Shiela? - Editor.*

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TELEPHONE HYBRID

G3200 Superhybrid

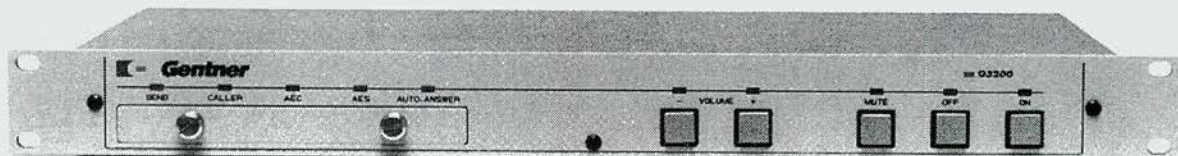
Bringing telephone calls to a live audience can present a technical challenge - how do you make the caller and announcer heard by everyone without generating feedback?

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Write in Reader Service number: 123

WHAT READERS WANT

- Articles on any way, or any gear, to convert acoustic to midi signal. Oh, and Greg Hughes - I want to know about your Cyberlight trip! I mean it. Useful for hypnosis. **Dr. Guy Grant, Devonport, Tasmania.**
- More information for beginners trying to get into the industry. **Peter Cribb, Brisbane, Qld.**
- A Do-It-Yourself PA section. **John, Beat Sensations, Wauchope, NSW.**
- More live sound. **Neville Sutton, SSAL Productions, Morwell, Vic.**
- More tech. write up. Less gossip. **Andrew Dunnet, Soundhaus, Attadale, WA.**
- Have more prices for disco lighting. **Ray Hawking, Wangaratta, VIC.**
- More lighting photos, preferably colour. **Ian Cameron, Arana Hills, QLD.**
- Where's the Buyer's Guide gone? **Simon Job, Old Toongabbie, NSW.**
- What has happened to the regular price and equipment surveys? **Robert Lewis, Rankin Park, NSW.**

**The Buyers Guide came to an end due to lack of resources to get it together. Now we have a little more time post Entech we will look at this issue next year. No promises. -Ed*

AES. I went to AES in San Francisco and saw quantum leaps in technology haven't happened. Instead, I was surprised at the scale of Digidesign, Timeline, Fairlight and AVID's exhibits, and at the number of people on their stands. If it's software based it's hot now, and of course the margins are higher than hardware. For now, AES confirmed tape is living on borrowed time, but who was it that proposed a new studio device, a Re-hisser to put the tape hiss back onto digital recordings? And we are certainly struck with the notion of a 'back to mono' movement!

MAKING MONEY. Imagine trying to make money building mixing consoles, surely the most oversupplied commodity in pro audio, also artificially the most glamorous. But we always focus on the console in the studio or at the concert, it's the front end of the system. But there is usually one mixing console, vs. a lot of microphones, speakers and amplifiers in any workplace.

ADAT. Alesis certainly own the tape based 8 track digital recording market for now, with 30,000 machines out there. Australia is the fourth largest market for them, I'm told, which is proof that we have a disproportionately large entertainment industry vs. our population. This is more than a theory, for example, the Sydney-Melbourne theatre market is the fourth largest after Broadway, West End and Canada. Alesis have socked up alliances with Fostex and now Panasonic, and with third party suppliers they look to keep the high ground for another two years. But the recording market will move totally to hard disk in time, wanting only for better backup media developments.

USA CONCERT BIZ. They have just had the biggest year ever in the concert sound industry, and were out shopping for new consoles. Loudspeaker system design has reverted to horn loaded high 'q' systems (narrow dispersion) and Turbo are the UK leaders, while EAW were looking very strong at AES. This was evidenced by a major touring company boss who builds his own speaker cabinets (like many do there). His choice next time? EAW.

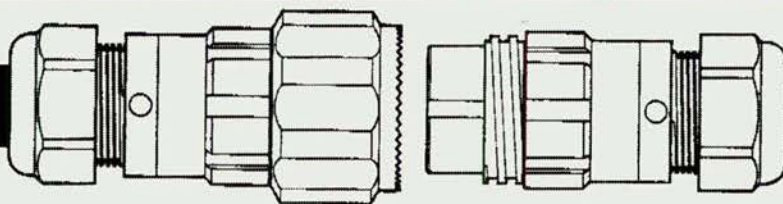
THEATRE LX. Over to Reno, after a four day break which I spent up in Seattle, and LDI '94 was the usual hotbed of lighting industry intensity. This year the flavour was doing deals, evidenced by Martin & Strand getting cosy. High End spent at least half of their presentation pushing theatre applications for moving lights, and theatre lighting console builders spent a lot of time explaining how their new models can drive moving lights too. Then I saw one moving light company boss shopping around for a badge engineered console. The technology leaps have stopped here too, everything is just looking at getting more efficient.

AUSTRALIAN EXPORTERS. Now is the time for our exporters to unify, the fact we have ten firms active in these markets who all stage different exhibits at these trade shows speaks volumes as to the tenacity and brilliance of our technicians and business heads. But to grow exports we need a channel for small technology firms to enter these markets, and to this end I'm talking to Austrade with a view to finding some funding. After all, if PLASA can bring eight UK firms to EN-TECH, surely we can take more of our industries off shore. Ideas? **•Julius Grafton.**

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Write in Reader Service number: 127



PERFORMING ARTS

SYDNEY FESTIVAL ATTRACTIONS

The 1995 Sydney Festival and Carnival program has been announced by festival director Anthony Steel. The program is almost completely performance based with much emphasis on theatre and dance; it's focus is Sydney's inner-city area, and new venues have been introduced to the festival scene as well as incorporating some of Sydney's top institutions in it's official line-up.

Official festival venues include the Sydney Opera House, the Sydney Theatre Company's Wharf Theatre, the Sydney Entertainment Centre, Belvoir Street Theatre (at Surry Hills and Redfern) and the Capitol Theatre.

A new outdoor venue joins the usual group: the festival will officially open on January 7th in Centennial Park with a spectacular Art Kites Fly Out display, where more than sixty kites designed by some of the world's leading artists will be flown by Japanese master kite fliers.

Highlights of the festival include Poland's Wierszalin Theatre Company at the Belvoir Street, a dance spectacle from Spain called *Zarzuella* at the Opera House, Ireland's Druid Theatre at the Seymour Centre, the Philippe Declouffe dance group from France opening the Capitol Theatre, New Zealand's Douglas Wright dance group at the Everest Theatre



The popular Opera in the Park

and at the Sydney Entertainment Centre the Guangdong Acrobats from China.

The Domain concerts, Opera in the Park and Symphony under the Stars, are still on the program.

Production manager of the festival is Geoff Cobham.

Re-designed Venue Opened in Darwin

The Darwin Performing Arts Centre, when constructed some years ago, had provision for a small theatre in addition to the well known Playhouse, which despite its name, was intended for larger productions including ballet and opera.

Originally envisaged as a rather simple space with fixed seating, that small theatre, now called the Studio Theatre, was recently re-designed, completed and equipped by John Holland Constructions for the NT Department of Transport and Works acting under instructions from the Darwin City Council and DPAC board.

Extensive consultation with user groups and potential hirers meant the design brief was extended to require flat floor or raked seating modes, and a comprehensive technical installation for all kinds of shows as well as audio visual equipment for lecture purposes - all without allowing any major change to the existing sell, and to a strict budget, a not unusual Australian requirement.

This interesting 280 seat venue is proving an asset to the Darwin Community, and will be more fully described in a future issue by Denis Irving.

The 1995 season opens with *The Chalk Garden* by Enid Bagnold and will be followed by *The Club* by David Williamson, *The Real Thing* by Tom Stoppard, *Beecham* by Caryl Brahms & Ned Sherrin and Alan Ayckbourn's *How the Other Half Lives*.

MARION ST THEATRE TO RE-OPEN

Sydney's Marion Street Theatre will reopen next February with John Krummel appointed as the director.

The company ceased trading on May 6th because of a disappointing response to its 1994 subscription season. Although it closed its doors debt free, the company did not have the reserves to risk incurring box office losses. The theatre was saved as a result of a public meeting in June, during which an appeal fund was established with the aim of raising \$300,000 to enable the company to underwrite the 1995 season.

The sum was raised mainly from public donations although the NSW Ministry for the Arts and Ku-ring-gai Council also contributed considerable sums.

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Dual-path modules in the 28 or 44 position chassis provide 56 or 88 inputs.

The standard console includes 4 stereo line inputs and 4 stereo FX inputs.

12 busses selected to 24 outputs, Direct outs and 8 Aux sends provide massive routing flexibility.

EQ is similar to the famous and much-loved AMEK ANGELA 4-band device.

AMEK SUPERTRUE automation is a powerful part of BIG's equipment and is one of the world's leading systems with a user base of over 600 installations.



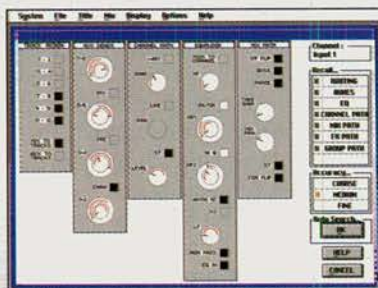
SUPERTRUE gives complete SMPTE-locked control over faders and mutes; up to 10 VCA groups can be configured.

Extensive automated solo modes allow additive and subtractive mixing using mutes and solos in various combinations.

SUPERTRUE has a range of on- and off-line editing systems including the forthcoming Mix Processor which allows Mix Data to be Spliced, Merged, Shifted, Erased or Extracted and Channel Data to be Swapped, Copied or Trimmed.



The Cue List allows a range of Events both inside the console and externally (via MIDI) to be triggered from time code.



Unlike any competing product, BIG has a Recall system which allows you to store the positions of module controls. This means you can reset the console surface at some later time, allowing you to recreate and modify mixes as required using the graphic screen display or the unique Voice Prompt, which talks you through the console.



Finally, AMEK VIRTUAL DYNAMICS is an option. This proprietary software-based envelope shaping system allows you to select a digitally-controlled Dynamics device, such as a Compressor, Gate, Limiter, Expander or Autopanner to each VCA fader from a menu.



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THE PACO CORP SPIRAL LIFT

STAGE MACHINERY and concepts drew many to LDI, where true innovation tends to shine. One very neat product is the Spiralift Column, from Paco Corp of Canada, an orchestra or stage lift that is very, very clever indeed.

This is very hard to describe. What it DOES is spiral lift a considerable weight to about 15' or so. In stage design you could do this with a scissor lift, or hydraulic ram, the problem would be drift, whereby the stage settles over time. The Spiralift is, once stopped, rigid. Set in place.

The device is driven from a motor, and the collapsed height is less than 2'. A cylindrical shaped rotor rotates on bearings. From the outside of the Spiralift comes a coil of flat vertical metal strap, fed into the rotor by a cunning arrangement of support wheels, set at an angle.

When the device rotates, the support wheels LIFT and OPEN the horizontal coil. The horizontal coil is, until now, laid and packed flat.



Paco Corp's Rene Bergeron and Derek Gilbert of Glantre cut the deci at LDI.



The flat vertical metal strap is wound around the outside of the unit - like you would wind cable on to a drum. The opening of the coil results in smooth, silent, and positioning of the vertical strap between the COIL - which FORMS a column. It really does!

This continually forming column, and thus the lifting surface, go as high as retained strap and the coil allows. Reversing the motor simply reverses the climb.

At LDI 94 tradeshow in Reno we saw a lot of interest in the system, consultants David Bird and Gordon Richmond were looking at it when we were. We also caught Derek Gilbert of Glantre Engineering Ltd being signed up as Australian distributor of the Spiralift, he is pictured here (on right, the Spiralift is the thing on the left) with Paco Corp's Rene Bergeron consummating the arrangement.

Details from Glantre, (03) 817-5852.

AN INSPECTOR WILL CALL ON AUSTRALIA

Next year's tour of *An Inspector Calls* by Britain's Royal National Theatre will begin in February at the Perth Festival before touring to Sydney's Her Majesty's Theatre and then Adelaide, Brisbane and Melbourne.

The play is set in 1912 but was written at the end of World War II so director Stephen Daldry decided to juxtapose the London of 1912 with the city of the blitz. The result is a production where social realism meets entertainment wizardry with the most talked about

scene being when an Edwardian mansion disintegrates, then magically pulls itself together again before the audience's eyes. Such pyrotechnics have prompted British and American critics to hail the production as a spectacularly successful fusion of controversial theatre and popular entertainment. It's won four Tonys on Broadway and has become the National's most sought after production since *Amadeus*. 15 years ago. The set will be rented from the Japanese production.

BMW LAUNCH

The official opening of the new showrooms for BMW Sydney and the launch of the new BMW 7-Series car was held recently at Rushcutters Bay. Every facet of the event was incorporated into the overall theming, style and colour scheme.

Leading public relations, promotions and event company Capital Public Relations in conjunction with Bill James of production company Set Pieces created the theme and concept for the event and drew together a production team which brought the theme to life.

The theme was of an "Enchanted Forest" and guests were greeted under a flower laden canopy as they entered a mystical setting complete with dancing fairy munchkins and silver statues who confused many of the guests as to whether they were human or solid metal.

Moving through the showroom guests were treated to the antics of artists performing an equinox dance and the magic of more fairy munchkins, amidst magenta and blue lit surrounds lightly shrouded in fog.

The evening culminated in the unveiling of BMW new 7-Series luxury car. The performance involved dancers removing a rock, piece by piece, to reveal the car with a backdrop of spectacular lighting and an incredible laser show. In all, the unveiling incorporated a complex synergy of lighting, music, dance and laser.

The laser show was the most innovative and exciting display most guests had ever seen and has been one of the talking points since the function.

Mrs Shirley Shiel, wife of BMW Sydney's Dealer Principal, commented, "we were very impressed. In fact, we enjoyed the production as much as the world wide launch at Port Douglas." "It was excellent and we would gladly use the services of the production team in the future", she added.

PRODUCTION TEAM FOR BMW SYDNEY AND 7-SERIES LAUNCH :

Capital Public Relations - Project Director and Co-ordinator; Set Pieces - Technical Director; Technofear® - Suppliers of full colour laser projection technology. Lasernett® - Laser production facilities & project management team; team consisted of: Dean Holland - Laser artist and producer; Steven Ilett - Laser Programmer; Marke Marshall - Project liaison and co-producer; Sussi Cooper - Special projects co-ordinator; Norwest Productions - Audio Production and Sound; Grafton Lighting - Lighting; On Stage - Audio Visual; Alexis Wolloff - Set dressing & costume design; Staging Rentals - Staging; Susan Barling - Movement Co-ordinator; Popset - Dancers & choreography; Robyn Stewart-Dick - Equinox; Bloomin' Newport - Floral design; Edwina Blush - Automotons; Julie Dundon - Fairy Munchkins; Juste Nous - Catering.



CARMINA BURANA

A daring new production in Queensland

A theatrical production of epic proportions opened in Brisbane on November 18th for a limited season. The production drew together the resources of The Queensland Ballet, The Queensland Symphony Orchestra and the Queensland State and Municipal Choir in the staging of this powerful collaborative work. Twenty dancers, 100 musicians and 123 singers stir life into the brooding and ominous Dark Ages latin poetry which form the basis of Carl Orff's music.

The sound system engineering was carried out by Urban Dynamics, a Brisbane based company, well known for its staging of corporate and theatre events as well as the recent national tour of 'Pirates of Penzance'.

JBL 4894 array series enclosures with 4893 sub bass enclosures powered by Jands Red Series SR3000 amplifiers were chosen to provide the sound for the 2000 seat, two balcony Lyric Theatre at the Queensland Performing Arts Centre. Sound designer, David Gurney says he chose the JBL arrays for their clarity, smooth coverage and high definition. He says the enclosures have the ability to clearly reproduce everything from the subtle nuances to the high transients delivered by the Queensland Symphony Orchestra and the massive choir.

David Gurney believes that Gillian Cowie, the sound operator for Carmina Burana, is an example of the benefit of tertiary education to the industry. Gillian has graduated from the Queensland Conservatorium with a Bachelor of Music, Sonology (Music Technology)



The Queensland Ballet Dancers - Scene 1 - 'Luck, Empress of the World'



David Gurney and Gillian Cowie



David Whitworth

and letters in piano and violin. She mixes the show from the complete orchestral score and brings into operation the extraordinary combination of vast musical knowledge and technical expertise.

Like Gillian, Urban Dynamics say their technical staff are all extremely qualified, surely a sign of the times.

"The staff need the "Three E's" to be part of the team," said engineer Kyle Femphey. "Education, Enthusiasm and Experience."

The company works closely with tertiary educational bodies such as the Queensland Conservatorium of Music and Queensland University of Technol

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**Carmina Burana** *continued*

ogy in developing strong ties between education, business and the Performing Arts organisations.

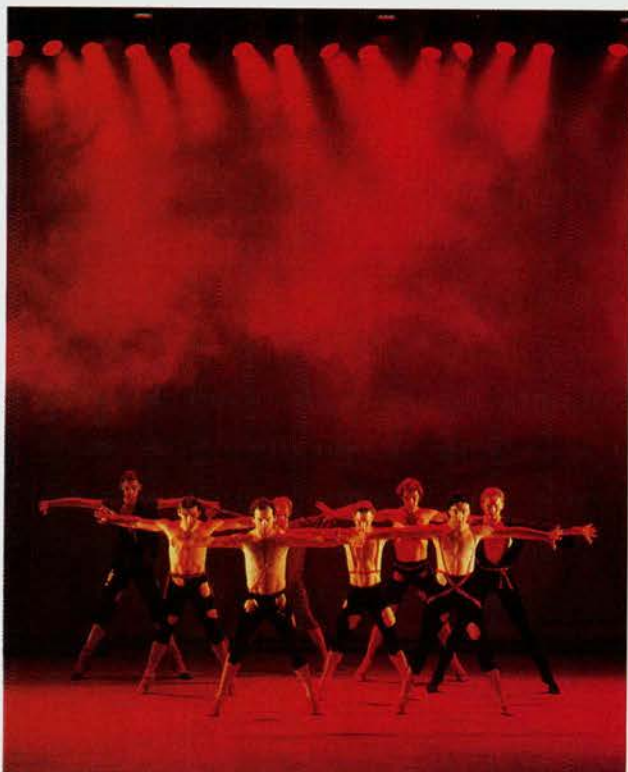
The Queensland Ballet has little experience in staging events of this scale and scheduled a 25 minute sound check to balance the entire orchestra, choir and stage mics as well as establish the numerous foldback mixes!

This production of Carmina Burana has only been done once before in the world and represents a milestone in Australian theatre and dance.



Scene 1 - "Luck, Empress of the World"

Producer:
The Queensland Ballet
Choreographer:
Jaqui Carroll
Composer:
Carl Orff
Set & Costume Design:
Michael Bridges
Lighting Design:
David Whitworth
Conductor:
Richard Mills
Sound Designer:
David Gurney
Sound Operator:
Gillian Cowie
Head of Engineering:
Kyle Remphrey
Sound Supervisor:
David Greasley
Head Technician:
Ric Cane

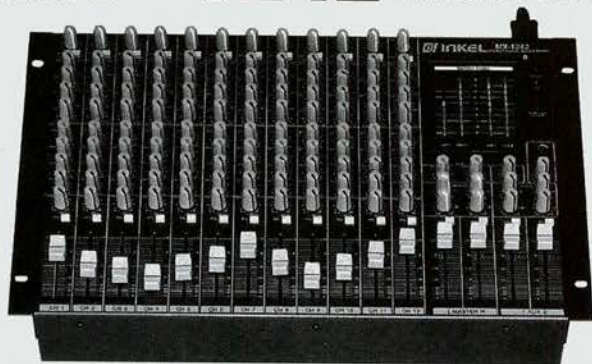


Queensland Ballet Dancers
Scene 3 - 'In The Tavern'

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PERFORMING ARTS

NAISDA

Australia will soon have an official training centre for indigenous performing arts. NAISDA - the National Aboriginal and Islander Skills Development Association - was originally to be moved from Sydney to Brisbane because the government believed it would otherwise give state-of-origin preference to NSW students. Discussions with the Arts Minister Michael Lee resulted in it remaining in Sydney although a venue has not yet been found.

CURRENT PRODUCTIONS & OPENINGS

●Due to popular demand *The Pirates of Penzance*, starring Jon English and Simon Gallaher, return to Sydney playing at the Hills Centre from January 17 - 29. Lighting design is by Roger Barrat and sound is by Urban Dynamics. ●*Circus Oz* play under the big top in Moore Park, Sydney from Jan 4 - 29. ●*Cinderella The Pantomine!* opens at the State Theatre, Sydney on January 3 for a limited season. ●Sydney Theatre Company's *Sweet Phoebe* has extended it's season until December 23 at The Wharf Theatre, Sydney. ●*Crossing The Line* starring Glynn Nicholas opens at the Footbridge Theatre, Sydney, on January 3. ●After a successful run at The Footbridge Theatre, *Bananas In Pajamas Live On Stage* transfers to Sydney's Parramatta Riverside Theatre from January 2. ●Sydney Theatre Company and Melbourne Theatre Company present *The Shaughraun* at the Drama Theatre of the Sydney Opera House from January 5 - February 18. Lighting designer is Jamieson Lewis. ●Baryshnikov Productions present the *White Oak Dance Project* at the Capitol Theatre from February 1 - 5. ●The Ensemble Theatre, Sydney present *Someone Who'll Watch Over Me* until December 24 and then *Emerald City* from January 12 - February 11. ●Melbourne Theatre Company present *Oleanna* from December 17 - January 28 in their new venue The Fairfax at the Victorian Arts Centre. Lighting design is by Mark Shelton. They also present *A Flea In Her Ear* from January 3 - February 4 in the Playhouse. Lighting design by Jamieson Lewis.

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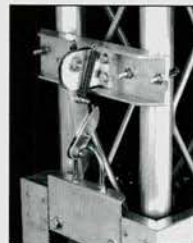
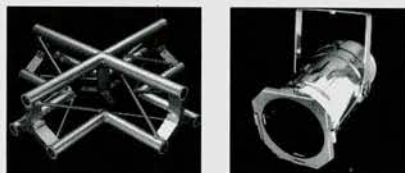
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PROGRAMS ANNOUNCED FOR 1995

Australian Opera

The 1995 choice by the Australian Opera includes new productions of Rossini's *The Barber of Seville* (staged by Elijah Moshinsky), Verdi's *Nabucco* (producer Barrie Kosky) and Bizet's *Carmen* (staged by Lindy Hume). There are restudied productions of *The Marriage of Figaro* and *Aida*, and revivals of *Turandot*, *Patience*, *Tosca*, *The Magic Flute* and *Rigoletto*.

New productions include Janacek's *Katya Kabanova* and a new opera *The Eighth Wonder*, with music by Alan John, will also be staged.

Ensemble Theatre, Sydney

Sandra Bates, Ensemble's governing director, announced that the theatre's current box office figures have jumped 33% since the 1992-93 season. As a result the theatre is spending \$250,000 on renovations and holding ticket prices at last years levels.

The season includes three Australian plays, two of which are world premieres - *The Quartet from Rigoletto* by Nick Enright and *The Shoe-Horn Sonata* by John Misto. The other is a revival of David Williamson's *Emerald City*. There is also the world premiere of the American play *The Ninth Step* by Lee Nestor.

Also premiering are two foreign plays *The Last Yankee* by Arthur Miller and *Time of My Life* by Alan Ayckbourne.

Sydney Theatre Company

January 1995 is the 10th anniversary of the opening of the Company's home and performance venues at The Wharf and the Company have prepared a season to honour the occasion.

Plays include *The Shaughraun* by Dion Boucicault co presented with the Melbourne Theatre Com-



Kathryn McCusker in the Australian Opera's production of *The Magic Flute*.

pany; *Falling from Grace* by Hannie Rayson and co presented with the Queensland Theatre Company; *Dead White Males* by David Williamson; *Dead Funny* by Terry Johnson and by arrangement with Michael Codron and Hampstead Theatre Productions; *Saint Joan* by Bernard Shaw; *Three Tall Women* by Edward Albee; *Les Parents Terribles* by Jean Cocteau; *Blackrock* by Nick Enright; *The Fall of Singapore* by Nigel Triffitt; and, in association with the Seymour Theatre Centre, Theatre de Complicite's production of *The Three Lives of Lucie Cabrol* based on a story by John Berger.

Melbourne Theatre Company

The summer season starts with David Mamet's *Oleanna* followed by *A Flea In Her Ear* by Georges Feydeau; *Assasins* by Stephen Sondheim; *Arcadia* by Tom Stoppard; *Summer of the Seventeenth Doll* by Ray Lawler; *Blabber Mouth* adapted by Mary Morris from Morris Gleitzman's novel and also two programmes of short plays.

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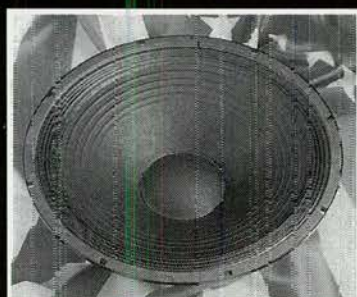


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PET SHOP BOYS

GO DOWN WELL

Cat Forcer discovers how

The Pet Shop Boys *Discovery Tour* started in Singapore before embarking on its Australian dates, starting with three days of rehearsals in Perth. Apparently the conservative audiences were rather shocked by the scantily clad dancers who were ordered to cover themselves up.

Sound engineer Robbie McGrath was approached by English sound company Britannia Row to see if he would like to work for the band.

"I met the tour manager and the two lads and they obviously thought I'd do," said a modest Robbie. "It all happened very fast for a tour of this size, usually you'd know about it months in advance. One day I was doing nothing and then the next day was in rehearsals!"

Rehearsals were held in the Nomis Studios in London. Robbie was pleasantly surprised to find just how focused the band were on what they were doing.

"They can get to where they want to get really fast without a load of messing around," he said. "They know their market and what they are doing. Pete Gleadall, who does the keyboard programming, is excellent and he mixes a lot of the stuff before it gets to me. Chris asked me if they gave me a small snare drum, could I keep it small? Obviously they've had other people make things bigger than they should be. The music really dictates what it should be mixed like. Neil wanted all the live vocals to sound as close to track as possible so we're using a lot of H3000's to blend the live stuff with all the processed music. They leave

you to your own devices although I imagine they'd let you know if you did anything wrong."

The show was interspersed with 'live' music including all the vocals and bongos as well as a section with two guitars and a piano. Also there were two percussion players.

"You can't really get involved with things like guitars as they don't suit the framework," said Robbie. "Although there are guitars on the samples like in 'Streets With No Name'. I would imagine if we were using a guitar player live it would be disastrous!"

The *Discovery Tour* was the first time that Robbie had used the Clair Brothers S4 Mk.II boxes and he was very pleased with them.

For mixing, Robbie was using a Yamaha PM4000 which he favours with The Pet Shop Boys as it has a 'harsh, correct EQ' and is not as 'musical' as a Midas. Robbie also loves the Midas board and is looking forward to using the new Midas XL4 with Simply Red, who start a two year tour next August.

"I'm also using two H3000 which are the harmonisers that do all the double tracking and all that kind of nonsense for me," he said. "I have a PCM70 on the backing vocals and an AMS reverb, which is a favourite of mine, on the main vocal. There's not an awful lot of

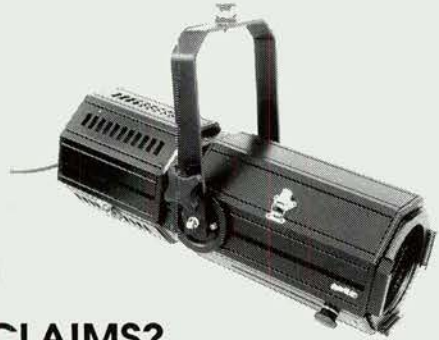
processing going on although there are a few EQ inserts that I like to use. It's actually quite simple and I suppose that's why I'm having fun with it! There are no problems. We're using the whole desk although I never think about how many channels I'm using and things like that. They're just there."

Monitor engineer John Shearman was using Garwood Radio Station in-ear monitors for the vocals and the band loved them. Ambience mics were used for picking up the audience so that the band didn't feel too isolated from the gig.

"The Garwood in-ear monitors are becoming very popular now as they give a good stereo sound through them and, once you've had them moulded to your ear shape, they are very



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Gobo Projection

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650W WIDE ZOOM

Light Output

Similar results to those detailed above were achieved, however, Selecon's drop-off at the beam edges was even more pronounced. Our unit on the other hand showed no more than 5% variation from edge to edge.

Gobo Projection

Differences in performance were not as significant, however, our assessment was that Prolite was the overall better performer, particularly given Selecon's output drop at the extremities of the Gobo.

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Pet Shop Boys (continued)

comfortable," said John. "We're using a Behringer compressor which does exactly what's required without altering the characteristics of the sound. I'm using a 40 channel Midas XL330 monitor desk which has eight VCA groups which is really useful for this music because you can allocate certain plots of sequences to VCAs and you have total control over it through the VCA section."

Shure radio mics were used for the vocals and Shure 57's were used on the percussion. Apart from the in-ear monitors, radio mics and DI's for the electronic inputs on the mics, the equipment was hired from Jands.

"It's quite contained, we just need speakers and boards," said John.

Robbie bought four RTA 4000 analogues with him as he believes they are the best analysers on the market.

"It's great for when you're walking into new, strange systems," he explained. "You can get a good look at what the system is all about. I also bought a Behringer multi-effect which I put across the whole system and it adds a little bit of sparkle like one of those fairy dust machines (*what was he drinking the night before?*). It's like an Aphex but it's a million times better. They never tell you how they do these things but I have a sneaky suspicion it's to do with time delaying the third octaves or running them out of phase. Whatever they do, it's a great machine. I've asked them lots of times to explain it to me but I always get blank looks! Perhaps they think I want to make my own but I have no interest in that at all. In fact I'd like to thank all you people out there that sweat over a hot soldering iron trying to get those little machines for us to use, thank you very much! One of the stipulations when we got this job was 'can you go around the world with very little?' and just do it."

With the tour due to travel on to South America Robbie thought it wise to pack a phrase checking device, as he is sure they will come across systems that are well out of phase, as



Pete Gleadell in his wonderworld

well as a return ticket.

Pete Gleadell, programmer, has worked on all previous Pet Shop Boys tours as well as all their records since the Behaviour album, in fact some people say he is The Pet Shop Boys. On this tour he didn't really have enough time to program the show and was still trying to catch up. The whole show is run from Macintoshes including a Quadra 950 which runs the main show and a Quadra 650 as back up. Both have 16 Meg RAM and Emagic Logic software was used.

"Awesome is the only way to describe the Logic," said Pete. "It's just an amazing program and there's virtually nothing you can't do in real time. Today for example we were running 'Go West' in the sound check and I realised there was a gap at the end that was two bars when it should have been four bars.



Robbie McGrath and John Shearman

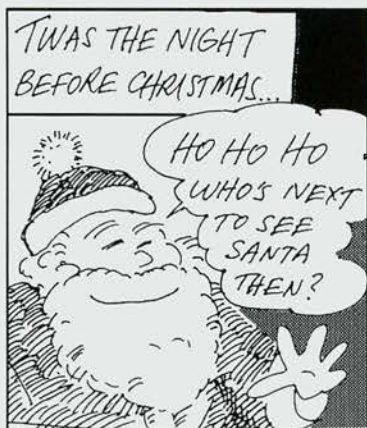
As the gap came along I just extended it by two bars. I often change the timing of the thing as the show is going. There are a couple of songs where I've always felt the bass is lagging a bit so you slide it forward as the song is running in the show - there are no glitches, jumps or anything.

"95% of the show is sequenced and we have an Roland S-1000 sampler dedicated just for the drums using all ten outputs. We have an S-3000 for the bass as the bottom end is better and two S-1000's for effects. There are forty 'effect' samples just in 'So Hard' - weird shit noises like teleprinters

and typewriters. We have an Roland S-770 which does orchestral type stuff, mainly strings and brass. It's been such a rush getting the show together I'm not sure where everything is, I know it works and that's what matters! There's a S-760 as a backup."

Keyboards include two Juno 106's, one as a spare and the Juno does sequencer type noises, the occasional sweep and the big keyboard sound in 'Absolutely Fabulous'. A Roland JD-800 does sequencer noises and sweeps and there was also two Korg M1R's, a Yamaha TD33 for strings, a Proteus 1 for strings and brass, two MKS50's for lead lines and a MKS80 for 'Streets Have No Name'. A Roland P-330 was used for 'housey' piano and quite a few A110's - one in, five out through boxes with a diagram of the keyboard on the front making them very good for fault finding. There was also an Akai DD1000 four track optical disk recorder player which basically does anything which is too big to sample. Anything over ten seconds in a sample fills up the RAM too quickly.

"In the effects 1000's we have 32 Meg which is as much as it'll go," said Pete. "We're using every percentage and I still have to load in the intervals. The Mac's Midi interface is an Opcode Studio 4 and 4 sets of discreet outputs are used giving 4 x 16 Midi channels. We're not using 64 channels at any one time but it allows me more flexibility. Output 1 feeds the



Pet Shop Boys (continued)

analogue output (the MKS80's, Junos, MKS50's, Matrix 1000), output 2 is what we call the digital stuff (M1R's, JD-800's, pianos, Proteus), output 3 feeds the drums, bass and Roland stuff and output 4 feeds the Effects S1000's, DD1000's and the program changes to the Yamaha DMP7s.

"So out front they get ten outputs from the drums, one output from the bass and then 4 submixes from the DMP7s. DMP7 1 we call the sampler, DMP7 2 does the sequence attire type things, 3 does the pads and keyboards parts whilst 4 does pianos, matrix and Chris.

"Last night we decided to change the set order and it took me about five minutes. To change tempo or key is really quick. If you were using tape machines, like with Depeche Mode, you'd be fucked as you'd have to re-edit the tape and you couldn't change key. That's why we use sequencers and this is the kit we use to make the records, we just bring it out live in a slightly beefier form."

On stage Chris was using a Roland 850 which Pete described as a controller keyboard with no actual sounds in it. Pete sets up programs for him so whatever sound he wants to access, he can. He also has a S1000 for different effects, a Morpheus E-Mu keyboard for different pad sounds and a Korg M1R for acoustic guitar patches.

Lighting designer Abigail Rosen Holmes was lured away from her full time employment with Disney where she designs for the theme parks. She still did a few other jobs, including a show for Peter Gabriel this year, but Abby resists tour work as she admits to missing her husband and dog too much. After the Australian leg of the Pet Shop Boys tour, lighting operation will be done solely by the Vari*lite operator, Sean Nugent, as there are so few cues on te conventional desk.

"The band wanted the show to be obviously less theatrical than the last tour," said Abby. "They wanted more of a straightforward musical performance and maybe a little bit more fun. In the past year or two there has been some really strong video work released in association with the newer songs with very strong computer graphics. I knew there was going to be 70mm film involved from the start, includ-

ing some of the older Derrick Jarman footage he made for the band, so as we were going to be carrying rear projection anyway, we decided to show the newer stuff too. It's such a strong element and it really defined a lot of the other choices.

The other important part of the brief was that the only confirmed part of the tour, and it still is, was Australia and South America so freight was important. Everything had to be quite small and not too expensive to ship."

Abby based her lighting design around the large screen which dominated the stage with projection being used for about half the show.

"Most shows I've worked on have had projection," she said. "It's not a limiting thing rather an additional thing that can make a show a lot richer. I designed the stage set with the band who wanted some stairs. I knew we were going to have a different conventional rig everywhere we went but I wanted something that would house the Vari*lites that we knew we were going to use. I wanted a structure that would be interesting to look at and a consistent location for those lights. After seeing their videos and the pointed hats they wore, I came up with the cone shapes."

The rig consisted of 18 VL2c's, 6 VLA's with a simple conventional rig. No front truss was used, just a back and two sides with a small number of par cans and four lekos. Spotlights were in the truss and 6 x 2K film bambino fresnels with colour changers were on the floor. There were some additional stubby par cans with colour changers that light the scenery cones and also the dancers when they are inside the two largest cones. Abby ran the conventional part of the show from an Avo QM50C although she originally programmed the show

on an Avo Diamond which is not available here yet.

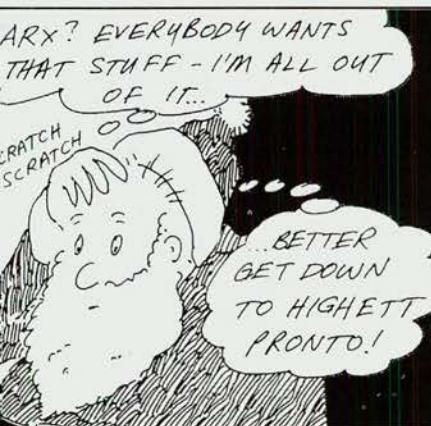
"We wanted a very open stage because in some ways they are not a band, in the conventional sense with a stage full of musical



Abby Roser Holmes in command

equipment and monitors," said Abby. "It's lovely because you fight so often to get a clean looking stage and it's almost a surprise when you actually succeed. There are almost no monitors on that stage and we wanted that front edge completely open so we could sell right round the sides without any interference. I wanted that open shape to echo up above and when you have a front truss you get that line visually blocking the open space. It immediately brings the top down instead of it being an open back shape. A dancer doesn't need conventional front light in the way that you might feel obligated to put one on a band, so between the two leads and one backing vocalist there was no real call to ever put a front wash on stage.

"They've been a really interesting band to work with because they are very educated about complicated production shows and they understand about the process of getting there. They can picture something how it's going to be and, for a music artist, they have very sophisticated ideas about their staging and what it could be like. It's been very enjoyable."



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PRODUCTION & HIRE NEWS

With Caroline Grafton

• **ACTIVE LIGHTING PTY. LTD.** as usual have been busy with various productions including Victorian Rock Eisteddfod - Grand Final at NTC. Equipment was the same as the Sydney event with 240 x Par 64s; 4 x Goldenscan IIs, Drapes, Rigging, Celco 90 and Dyalite Dimmers. LD - G.J. with Crew - Tim Hall & Alan Eno. Weagles Grand Final Breakfast at the MSEC. Spec. included 120 Par 64s, Theatrelight 48/96, 2 Superscan Zooms, 4 Goldenscan IIs controlled by Scancommander, crewed by David Wright, Sam Redstone & Alistair Biggs.

HSV7 Grand Final Eve Gala at the Playhouse Theatre with 90 Par 64s, Tri Truss & Rigging, 8 Goldenscan IIs with CH 7s 6 Goldenscan IIIs. LD - George Vernon.

The Royal Melbourne Show - Main Arena Show was equipment with 4 Selecon 1200 MSR Followspots, 4 Superscan Zooms, & 1 Goldenscan III & Scancommander, Par 64s, Festooning, Trussing & Staging by Phil Burkinshaw.

Mitsubishi at Caulfield Racecourse spec included 60 Par 64s, Theatrelight Console, Selecon Fresnels & Profiles crewed by Peter Milne of PM Productions.

Active were among various companies to

work on the Melbourne International Festival. Opening Night which saw the supply of 4 Selecon Performer 1200 MSR Followspots, 2 Xebex 2Kw, 48 Chrome Par 64, Tri Truss & Bases, 9 Goldenscan IIs; The Festival - 60 Chrome Par 64, 60 Black Par 64, 3 Goldenscan IIs, Theatrelight control; Various other little bits included the Methodist Ladies College, Kew - Speech Night @ Tennis Centre. The rig comprised of : 4 x Superscan Zooms, 4 x Goldenscan IIs & IIIs, complimented by 108 x Par 64s, 6 x 5Kw Fresnels controlled by Scancommander & Instinct 60. Crewed by Kevin Gaynor, Tim Hall, David Wright, Sam Redston, Alistair Biggs, Alan (Midnight) Eno.

Active Lighting would like to welcome our new Production Co-Ordinator, Tim Hall. Tim originally started work at Active in 1990 and then left to broaden his experience overseas. Call Wayne Birch on (03)818 6912.

• **ARCHER SOUND** have added another 4 Community CSX57 dual 15" 3 way cabinets to their hire stock. Call Stefan for Community on (02) 631 4538.

• **AUDEX CONCERT SOUND** are one of the latest Crest conversions with the purchase of 16 X CA-9's.

Call Keith Crammond (09) 328 3188

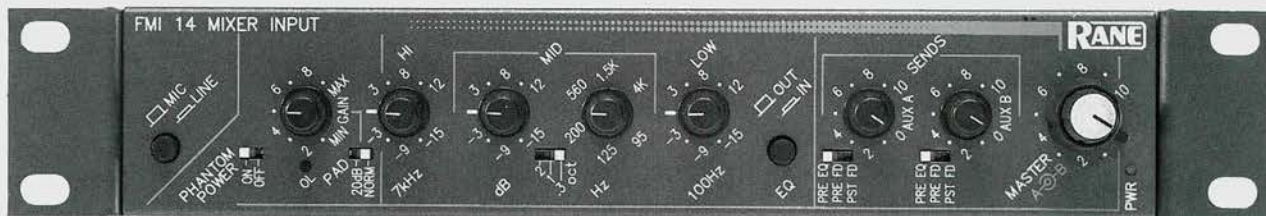
• **AUSTRALIAN CONCERT PRODUCTIONS** has doubled its rig of eight JBL 4892s to 16 cabinets with more than 20 Jands SR3000 amplifiers. Call (07) 854 1512

• **BLACKSHEEP PRODUCTIONS** the flock turned their BAA into a BOO and spooked a lot of people at Halloween. Tranquil Boronia House on Military Rd. was soon transformed into a house of horrors! The old double storied federation building glowed an eerie green, lit by 16 x 1000W floods with Lee 122 filter. The trees turned blood red and 3 x Super strobes, 2 x White Lightning's & 2 X Amperlux strobes caused an all night lightning storm which silhouetted the house. The guests entered past a full graveyard, heads on stakes, a werewolf, and 'floating' ghosts just some of the 32 props lit by a 650w fresnels.

Other equipment included a JEM Heavy fogger, and 2 X Solar 250x with 'Devil' FX wheels. Six smoke machines (ZR20s and Showmists) added 'atmos', but Chameleon's roadie fogger was the star of the night. When the client later said they wanted more smoke, the roadie kicked into action and soon stopped traffic on Military Rd. simply because they couldn't see. The function centre had calls the next day from people expressing their commiserations that the "nice old place" had burnt down. Call (02) 212 7222.

• **BRUCE JOHNSTONE** FOH Guru has purchased 3 X Crest CA-6 and a CA-9 amps. Call 018 549 425

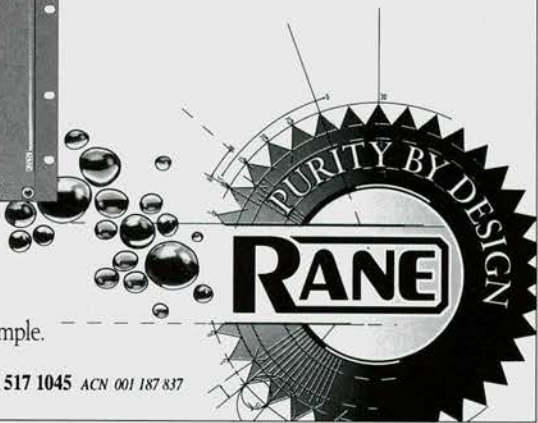
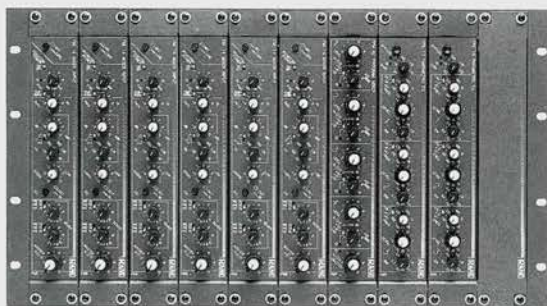
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Write in Reader Service number: 117

• **BSS** have added 12 X Samurai 1200 MSR's to their hire dept. Call Matt: 08 352 8688

• **CONCERT LIGHTING SYSTEMS AUSTRALIA PTY.LTD.** latest productions have included the BMW - 7Series Launch, Port Douglas, Geelong, Doncaster; Leo Sayer's Victorian dates; Ford Laser launch; Amway, New Zealand; ULA & Byecraft Stands at Entech; Melbourne Festival Events; Deseree, Enmore; Hacken Lee, Melbourne & Sydney; A.F.I. Awards - W.C.C. Melbourne; Myer Christmas Windows; Lygon Street Festival; The Occupational Health and Safety Function; Australian Aerobics Championships and the Crown Casino Events. CLS has greatly improved its customer service by appointing some new staff and expanding its range of equipment.

New Production Manager: **Tim Newman**, New Hire Manager: **Barry Owens**, New Hire Assistants: **Paul Saxon** and **Kirsten Ferres**. Recent equipment additions include 8 Trackspots and Controllers; 12 Intellibeam 700's and Controller; 2 Coemar Diffusion Machines; 18 Scatter Spots; 30m Side-leak Fibre Optics; 12 Selecon Acclaim Fresnels, 12 Selecon Acclaim Profiles; 22 Selecon 1200w Fresnels; 2 Avab Expert Controllers. New products from the CLS factory: Popular 300mm Tri Truss in 1 metre sections, curved sections and 6 way cubes. Call (03) 646 8444.

• **dmc LIGHTING & SOUND** is expanding and are pleased to announce the appointment of Jared Hawke, as their new Hire & Operations Manager. Most people know Jared from various past ventures including 6 years with Tower Lighting (in two stints), 1 year with TVW-7 as a Lighting Technician, and finally moved to Sydney to work for Graftons freelance for 18 mths, as Graftons Factory Manager for 2 yrs, finally becoming Graftons Hire Manager for 1 yr before joining the dmc Lighting & Sound team in November '94. Call (02) 319 7177.

• **Electric Sunshine** played their own part in the opera extravaganza Turandot at the Sydney Football Stadium. The guys supplied 30 x Clay Paky Miniscan 300s and a laser. The whole lighting system was run on an IBM computer. Phil Cullen of Sydney's Electric Sunshine has taken delivery of a set of new Selecon Acclaim Zoomspots. Phil reports the 1kw like performance and features, made them the clear choice for hire and anyone wishing to use these new lights can contact Phil on (02) 660 6000.

• **Gottalite's** Phil Doherty of Adelaide seems to have a light for everything! Phil supplied Martin Roboscan PRO218x, Robocolour MSD200s and a 2308 Controller for the South Australian Folk Festival at Victor Harbour. Gottalite are moving to new premises in Davis Terrace, Nailsworth and through their association with Computer Assisted Productions can now offer a full intelligent lighting service including installation, programming, service, sales and hire. Call (08) 269 4524

• **Laser Pty Ltd**, ex Laser Light & Sound, in Brisbane has been running a system of eight JBL-4892s around town as well as in Gladstone for the recent Gladstone Harbour City Festival. Call (07) 236 2333

• **Lots of Watts** not only have 6 x Clay Paky Super Scan Zooms at Channel 9 for the Mid-day Show (as usual) but have just delivered another 6 x Goldenscan IIIs. Hey Hey It's Saturday's Sydney show also called for 6 x Superscan Zooms and 8 X Goldenscan IIIs. The Sydney Entertainment Centre was the location for this year's 'McDonalds Convention' and Lots of Watts supplied 10 x Goldenscan II & IIIs with Scancmdr control. Other claims to fame have included Peter Andre's gig at the Australia's Wonderland, the annual Fisher's Ghost Festival outdoor concert at Campbelltown presented by radio station 2WS; 14 X Goldenscan II & IIIs were used for the Gospel Music Awards at the State Sports Centre at Homebush. Call (02) 638 0302

• **Night-Shift Light & Sound** in Sydney have just added another 8 Clay Paky Miniscans making this a total of 40 Miniscans in hire and 4 X Clay Paky Piper Intelligent colour changers. They have also added to their Martin range with 8 x Martin PRO-812 Roboscans and a Pulsar Masterpiece 108 ch lighting desk. Call Steven Tanou on (02) 744 7777.

• **Noisebox Entertainment Systems** of Sydney have supplied C&K Entertainment new Martin Roboscan PRO518s which are available for hire. Call (02) 890 1709

• **Perth Audio Visual Hire** a major Perth Corporate AV company have recently taken delivery of a complete ARX 922 System in a major revamp of their rental department. Already using the ARX Power Max Series, Managing Director Peter Blewett is reported as being extremely pleased with their purchase and is planning a further increase prior to the busy Australian summer period. The sale was negotiated by Ian Ross, ARX's busy Western Australia representative. For further information contact : ARX Systems, Phone (03) 555 7859 Fax (03) 555 6747

• **RZO** in Tasmania have added 2 X Crest 7001's to the 4 already purchased for use in their monitor rig. Call Tony Miller 002 311 505

• **SCION AUDIO** have picked up 16 Shure L Series radio systems for hire use. Call 049 695563

• **Skypak Lighting** in Brisbane provided the lighting for the Strawberry Fields dance party which was held in a "Strawberry Field" somewhere between Brisbane and the Gold Coast. They used 4 X Clay Paky Super Scans, 4 X Tigerscans, a range of Martin DJ Series Effects and a laser system. Skypak also lit the annual Marist Bros School Dance (the biggest in Brisbane) with Clay Paky Tigerscans and Martin Robocolours. Call (07) 852 2757

• **SOUND ON STAGE** is using half of its 16 JBL 4892s for the West End (UK) leg of Hot Shoe Shuffle. Call (02) 318 0066

• **Total Concept Productions** were kept busy at the Adelaide Grand Prix in November with the lighting at the SA-FM Concert and the Grand Prix Ball at the Adelaide Convention Centre. They used 8 x Golden Scan IIIs run on a Navigator controller as well as a complete laser system. Call (02) 681 5880

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SONY 8 TRACK

The PCM-800 is a digital 8 track recorder that uses Hi-8 tape, and can be grouped for more than 48 tracks. Sound familiar? Does it LOOK familiar?

Sony make Mercedes quality audio, and usually without the price premium we've come to associate with the kraut kar for kool and kosher people. The new entrant level multitrack digital recorder for Sony is the PCM-800, which utilises the DTRS digital multitrack standard. In other words, it uses a HI8 tape. This machine IS a Tascam DA-88, made for Sony with small changes.

From DASH and time code DAT machines, through to Cd mastering, Sony now have a better market spread with the PCM-800. You may record 8 tracks, or you may choose to link more PCM-800's together for more tracks. Sony say you may link 6 or more machines together for - ummm, let's see, $8 \times 6 = 48$ tracks.

The DTRS format records 8 discrete channels of 16-bit PCM audio at 48 or 44.1kHz sampling rates. The recording length on standard 120 minute Hi8 video cassette is 108 minutes. The PCM800 provides a dynamic range of 92dB, and a flat frequency response from 20Hz to 20kHz, with less than 0.007% total harmonic distortion at 1kHz. At this point I'll digress from the spec's to say EVERYTHING these days will scope out OK on paper, you must have a side-by-side audition to re-

ally determine. The interface board for linking PCM-800's is the DABK-801, and it allows SMPTE time code chase synchronisation with a built in time code generator, RS-422 nine-pin control, MIDI machine control and offers external word or video sync inputs and outputs.

Release date in the USA is January, so don't start hassling Sony here until then. • *Call them in your capital city, or (02) 887-666.*

WHAT is it?

Question: when is a duck not a duck? **Answer:** when it's a digital duck. Sony released what looks like a Tascam DA-88, 8 track digital recorder at AES, and avoided mentioning the incredible similarity between their new baby - the PCM 800 (easy to remember) and the Tascam. Yes, they are compatible. And yes, the Sony entrant into the ADAT - RD-8 - DA-88 war is ready to interface with Sony editors and suchlike. And yes, the PCM-800 is made by Tascam for Sony. The only problem is, no-one at AES would admit what is a really obvious reality. Just look for yourself! -Julius G.



SSL GO 95 TRACK TAPELESS

AES debut for Axiom, SSL-9000 & more

SSL drew crowds at AES with a raft of developments at the top end of recording technology. Tape is doomed as a format now, SSL's new DiskTrack recording and editing system will run up to 95 concurrent record/playback tracks, all available at one time. In addition, all 95 tracks may simultaneously be in record or playback, effectively doubling the number of useful tracks.

You need to use one of SSL's new consoles, either AXIOM or the SSL-9000, to utilise DiskTrack. You may use one DiskTrack system between both consoles.

AXIOM is a general purpose digital production system made up of a fully digital, fully automated mixing console with a recording track PER CHANNEL on the DiskTrack resource management system. Console sizes range from 48 to 96 channels. In addition, you may option SSL's VisionTrack digital video system to provide a totally digital audio/video working

environment.

A major benefit of DiskTrack is that 8mm streamer tape backup can occur while the session is in progress. Downloading and concurrent loading ability will speed up turnaround times. Further, by reading and writing to the same disk at the same time you need not subtract tracks for drop ins.

SSL say AXIOM can be specified to fit a facilities working needs, whether that be broadcast production, sound-to-picture post-production, or music recording and mixing. The console can be configured with mono or stereo channels, equalisation and dynamics are available on all channels at all times - they are not resource limited. Additionally there are 24 internal reverberation channels.

SSL have developed automation to a new level too, snapshot memory can reset the system to any previously stored condition, a single keystroke resets the whole

>continued on page 49





EDNet for ISDN

If your studio aspires to work on long distance projects, you'll want to buy a Codec and dial up another studio somewhere else - more than once. Only problem is, unless they have the same brand and model Codec, you can't communicate. Such an unfair world.

Enter EDNet, who offer you a package deal that not just helps simplify the mystery of ISDN lines, but also includes a digital bridge (EDLink) to other Codec standards, which you can use via San Francisco. Otherwise, if you buy CCS Codecs from EDNet, they come with an encrypter online, so you can direct dial any of the more than 100 EDNet member locations.

The EDLink bridge has opened up EDNet to affiliate facilities like yours, where if you run Dolby AC-2, APTx or non-encrypted CCS devices, you can still hookup via San Francisco. Naturally you'll go through a whole set of decompression and recompression to get there, but in most cases this is deemed OK by the people who use.

Mostly, EDNet is used by people in post, but music and advertising production engineers are increasingly switching over. The major musicians who own their own studios are another certainty, Gloria Estefan has such a place in Miami, on ISDN to put together things with others elsewhere.

The ver-ry smooth David Gustafson in stitches to point out that there are six to eight Aussie studios who have purchased CCS CDQ2000 Codec's recently from a CCS distributor here (who are you?) and that all those places can Join The EDNet anytime they like, despite not having the encrypted version of the Codec.

•Call EDNet in S.F. on +1-415-274 8800.

They say it's the worlds smallest DAT, and it is small>>>. JVC Professional make the XD-P1 Pro, seen here. The main unit is only slightly larger than a DAT tape box, and has JVC's servo driven 'Compressed M' loading mechanism. Its modular design allows it to be used with either a snap on A to D converter or the MU-Z1 digital output microphone module. Full ID editing is supported, and Absolute Time is written on all recording. Who handles JVC in Australia? Please advise the editor!

ROLAND SURPRISE

The newest member of Roland's pro Audio family is the DM-800- a full function digital multitrack recorder and editor in an all-in-one package, released at AES San Francisco.

"As far as we know, there's nothing even close to it on the market," said Bob Todrank, general manager of Roland Corporation U.S., Pro Audio division at AES in San Francisco. "The DM-800 offers eight tracks of digital recording with all of the features you need, including a built-in 12 channel mixer. We offer an optional travel case for it, so if you need to do a session anywhere else, you can just pick it up and go. I suppose you could do that with a PC based system if you were really motivated but quite frankly we don't see that happen too often!" True words, we think.

While its portability makes the DM-800 an ideal candidate for the musician on the go, it's equally handy for the radio station broadcaster, who often finds that space is at a premium.

"The DM-800 is totally compatible with our DM-80 system, the 'big brother' if you will, so it's a perfect add on for stations with existing DM-80 systems," continued Todrank. "We feel certain that the DM-800 will be as popular with our valuable broadcast professionals as the DM-80 has proven to be."

For applications like post-production, the DM-800 offers synchronization to SMPTE or MTC- in fact with its built-in SMPTE resolver, it even codes to non-synchronous time code sources. Built in RGB, S-VHS, and VIDEO connectors with switchable PAL and NTSC allow the DM-800 to quickly be connected a large video monitor to facilitate operation.

•Roland Australia, (02) 982-8266.



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BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
New South Wales			
# Sharp Studio Jeff Cripps (02) 534 4440 24 Track 1*			
Karen Hillard	Martin Cilia	J. Cripps	Country CD
Paul Fenton	David Pritchard-Blunt	J. Cripps	Country CD
Ron Mey	J. Cripps	J. Cripps	Acoustic CD
John Strati	J. Cripps	J. Cripps	Demo
Airmotion Studios Kristen Wolek (02) 550 3863 24 Track			
Baby Loves to Cha Cha	Jason Blackwell	Mark Everts	Demos
Amanda Stewart	Shane Fahey	Amander Stewart	Rec/Mix Tracks
Carlo Giacco Productions	Jason Blackwell	Carlo Giacco	Jingles
All Music Manufacturing Geoff Sturro (02) 557 1169 2 Mastering Suites			
Christmas 94	Corduuro	Paul Bryant	Last Indie 7"
You Am I	Warner	Paul Bryant	Last 7" Single
Born Bad Vol.6	Au Go Go	Paul Bryant	Last Vinyl LP
Peril X & Silicon Dreams	Candyline	Paul Bryant	Last 12" Single
Paradise Fall	Pro DJ	Paul Bryant	Last DJ Promo 12"
3 Tenors	Warner	Paul Bryant	Last Double LP
Bush Traks Recording Studio Ruth & Dave (066) 89 1290 24 Track Ruth Miller			
Greg Gardner	G.Gardner/D.Highet	Dave Highet	Album
Col Phillips	Chris Fisher/D.Highet	Dave Highet	Album
Nya Murray	Nya Murray	Dave Highet	Album
Cloud Nine	P.Webster/A.Jackson/D.Highet	Dave Highet	Album
Doug Lambert	Dave Highet	Dave Highet	Demo
Charing Cross Studio David Sykes (02)387 8362 - Neve Analogue			
James Reyne	Keith Cooper	Keith Cooper	E.P. Tracking & Mixing
Mark Williams	Craig Portells	Craig Portells	E.P. Tracking
Abi Tucker	Dorian West	Keith Cooper	E.P. Tracking & Mixing
Dan Mullins	Keith Cooper	Aaron Pratley	Tracking & Mixing
Mental As Anything	Martin White	Aaron Pratley	Tracking & Mixing
Solar	Dorian West	Keith Cooper	Tracking Album
Cloud Studios Parris Macleod (043) 532 429 48 Trk Analogue/Digital Mastering Suite			
Thomas Brothers	Parris Macleod	Parris Macleod	Mix
Amsterjam	Parris Macleod	Parris Macleod/Kim Lemke	Album/Demos
Scott Leece	Parris Macleod	Parris Macleod	Album
Malakye Grind	Parris Macleod	Parris Macleod	E.P.
Kirk L'Orange	Parris/Kirk	Parris Macleod	Single/Writing
The Mix	Parris Macleod	Parris Macleod	Rehearsals/Demos
Crystal Clear Recordings (02) 975 3769 David Tozer 24 Tk Digital ADAT System & BRC IOU			
Quick and the Dead	D.Tozer/OU	David Tozer	Album Tracking
EEZEE	D.Tozer/Band	D. Tozer	Live Concert CD Mix
Apache Reign	D. Tozer	D. Tozer	Album Tracking
Mick Junor	D.Tozer/M. Junor	D. Tozer	E.P. Demos
Damien Gerard Studios Contact Marshall (02) 660-8776 16/32 Track			
Deadly Nightshades	Brendon	Russel Pilling	Album
Died Pretty	Brett Myers	Russel Pilling	Pre-Prod. Demo
Wild Abandon	Tim Powles	Tim/Dave Trump	E.P.
Blathudah	Martin	Jamie Carter	Album
Once Upon a Time	Marshall Cullen	Dave Trump	Tracking
Tinkuna	Victor	Russ Pilling	Album
Eclipse Music Studios (formerly Rich Music Studios) (02) 264 7734 Jodie			
Silverchair		Kevin Shirley	
Blue Tongue		Kevin Shirley	
Lee Cuttelle		Scott Christie	
Hard Heads	Michael Cullen	Michael Woods	
Fargone Beauties		Jim Bonnefond	
Nightlife Music		Guy Gray	
Enrec Studios Ed Matzenik (049) 361 376 32 Track			
Various Speakers	Ed Matzenik	Steve Newton	Spoken Word Album
Sharon Mann	Steve Newton	Steve Newton	Album
Carol Carr	Steve Newton	Steve Newton	Album
Slim Newton	Steve Newton	Steve Newton	Album
Emerald City (02) 905 7144 John Zulaikha 24 Track Analog. Warm, Fat & Funky.			
Human Ear	EKI	John Zulaikha	CD
48V Studio Clare Britton (02)211 6663 48 Track, 24 Digital/24 A'log			
Lode Star	Lode Star	Craig Beck	EP
Hobo Posh	Hobo Posh	Simon Sheridan	Demos
Parkside Killers	David Price	David Price	EP
Screaming Jets	Robbie Adams	Dave Henderson	Album
Me Me Me	Rob Taylor	Rob Taylor	Mini Album
DEF FX	Sean Lowry	Rob Taylor	Tracking Album
Glebe Recording Studios David Jacobsen (02) 552 1299 24/32 Track, 24 Track Pre-Prod. suite			
Wellington Perkins		Chris Grae	Single
Vincent Stone	Electric Hippos	Chris Grae	Demos
'Romeo'	D.Jacobsen/Chong Lim	D.Jacobsen	Album
Julia Daniels	D.Jacobsen	D. Jacobsen	Album Tracks
Harlequin Sound Production B. Waite (02) 457 8304 Mastering/Editing			
Lost Youth	John Sayers	Bruce Waite	Album
Sidewinder	Sidewinder	Bruce Waite	EP
Teamwork	Jane Scall	Bruce Waite	Album
Tim Bradshaw	Bruce Waite	Bruce Waite	EP
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With Howard Jones

A short circuit to better equalisation....

Machines which develop short circuits make for interesting, if sometimes difficult, repairs and solving them often involves a mixture of inspired guessing and mundane hackwork. Such a repair came through the workshop this month, and spice was added to the job by both the fault description ("doesn't seem to work") and the fact that no circuit diagram was available.

The unit concerned was a hybrid valve-solid state equaliser: a current design offering dual 4 band equalisation with some other features. Given that I had no idea what was wrong with this box, I plugged it in to see what would happen and the answer was - not much. None of the front panel LEDs lit up, but on the other hand nothing exploded either. I left the unit turned on and stoked up the CRO to take a general look around the circuit components. After a few minutes, I became aware of a certain kind of deep roasted smell which is hard to describe, but is well known and brings fear and loathing to the heart of any technician.

Touching my hand to the power transformer showed that it was this which had cooked and was giving off the dreaded smell - it was quickly starting to look like the transformer was faulty. Because this transformer had to supply voltage rails to both the solid state circuits (ie chips) and the valves, it had quite a few secondary windings which came from it and were soldered to pins on the main circuit board. I unsoldered all of these, as well as the wires from the primary windings, and removed the transformer. Careful measurement of all the transformer windings showed that there was no short between any of the windings, either on the secondary side or between primary and secondary windings.

So, the transformer seemed OK after all, but to be on the safe side, I ran it on the bench with the primary connected once again to the mains and the secondary taps left open circuit. This time the transformer didn't get hot and as far as I could tell the voltages being produced at the secondary taps seemed normal. Each of these secondaries was colour-coded, and I made a note of the open circuit

voltage each one was producing. Re-installing the transformer meant that I could proceed with further fault-finding, but only for a few minutes at a time, or the transformer would fail through being continually overheated. So, during the first burst, I ran through and measured all the secondary voltages once again now that the secondary taps were connected back into the circuit. This finally gave me my first real clue as to what was wrong. The voltages measured when a transformer is having to deliver current to a load will always sag with respect to voltages measured with the secondary taps open circuit.

However, one of these secondaries was falling below half of its open circuit reading - definitely abnormal. Tracing the circuit connection from this particular winding showed that it went to a pair of 15 volt regulators supplying the positive and negative rails to all the op amps in the circuit. And - what was this! - the output of one regulator was shorted to the other, although neither was shorted to ground. So, after all this preliminary analysis, the fault appeared to be that one of the dozen odd chips on the board had failed and was shorting +15 volts to -15 volts. The circuit design didn't include any fuses or other provision for this kind of occurrence, so the voltage regulators simply tried to pour as much current as they could into a dead short. The transformer followed suit by trying to provide this current - hence the overheating.

From here, it was a matter of going into drone mode - pulling out each chip in turn to see if it was the faulty one. I eventually found the dud chip, replaced it and the unit ran perfectly. There is no secret formula for the order in which you approach this - in this case I was lucky: I got it on the fifth attempt. A Lexicon reverb we had through some months ago had a very similar fault. In that case, it was one of the bypass capacitors on the 15 volt rail which had gone short. I had already removed all the chips connected to this rail without luck, and the faulty cap happened to be the last one I tried!

Howard runs Studio Solutions, call him on (02) 906-4363.

Studio Vocalist

Following in the footsteps of the VHM-5 and Vocalist II, DigiTech is unveiling the Studio Vocalist, a double rack space vocal harmony processor with features and specifications designed for the professional studio.

The device gives you four separate, balanced audio outputs for the harmonies, which are created using technologies that the firm say will eliminate Alvin and the Chipmunks and/or Darth Vader harmonies by retaining natural overtones and resonances while shifting the pitch.

The processor has 99 factory programs covering a broad range of musical harmony styles in addition to 99 user-programmable locations. Editing parameters like detune, vibrato, scoop and timing are available to 'humanise' the four voices. Harmony volume can be adjusted, as can the speed, depth and attack of vibrato. The processor's song memory allows harmonies to be stepped through in real-time via a footswitch. •Details: CMI (03) 315-2244.

AES Bits

• **MONITORING FOR DAW?** Studio Technologies Inc have StudioComm products, new is the Model 60 rack-mounted central controller and Model 61 desktop control console. The units work together to provide control room monitoring, dubbing, and an integrated headphone cue system. • Call them- USA 1-508-435-3666.

• **AUDIO TECHNICA** announced the USA debut of the most advertised microphone launch in history, the AT4050/CM5. The mic has been pictured with Allan Parsons looking serious next to it for quite some time now in the international trade press, and was first released at the Euro AES earlier this year. The large diaphragm mic has three polar patterns - cardioid, omni, and figure eight. • From Yamaha Aust.

Alesis & Panasonic

Panasonic to offer their own ADAT

Alesis Corporation and Panasonic Broadcast & Television Systems Company (PBTSC) jointly announced that Panasonic will support the Alesis ADAT digital tape format and will work with Alesis on the co-development of future ADAT products.

Alesis has agreed to purchase Panasonic's Professional S-VHS recording mechanism from Matsushita Electric Industrial's Video Systems Division that it will employ in future high-end ADAT models. In addition, Alesis and PBTSC have reached a common understanding on basic principles for a Panasonic-branded ADAT product which will be marketed and sold by PBTSC to the U.S. broadcast, post production and professional audio markets.

Alesis manufactures the ADAT Digital Multitrack Recorder which has become the world standard in modular digital multitrack recording. The company pioneered the technology and released the ADAT recorder to the market in late 1992. Since then, ADAT sales have exceeded 40,000 units, and the installed customer base ranges from songwriters to professional recording studios and post facilities.



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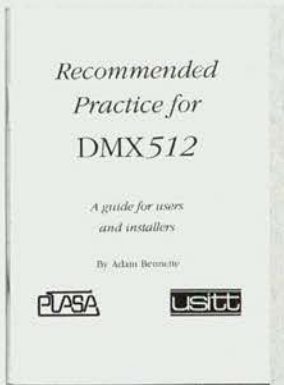
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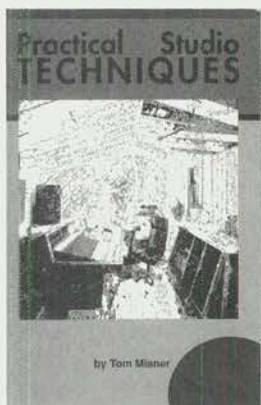


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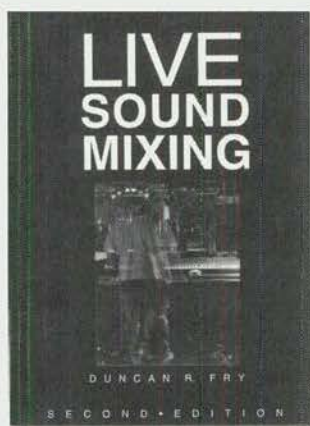
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A Guide for users & installers.
Explains the DMX512 specification and offers advice and professional advice on how to set up a successful DMX512 system. 80 pages, illustrations.
An authoritative study of the standard Lighting Control protocol.

Recommended Practice For DMX 512 **\$19**



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Down to business tips and hints for dummy's and pro's alike. Recommended for anyone interested in, or practicing studio audio. Comes with a CD that is equal to a second book ... with easy to follow actual audio tips and lessons. Highly regarded. The Australian based author owns SAE- the worlds largest chain of audio and multimedia education centres. 102 pages illustrated, with CD.

Practical Studio Techniques **\$40**



By Duncan Fry.
Dunk is perhaps the most popular Connections columnist, a long time live PA audio practitioner, and now successful author. This Australian publication in its second edition and has sold well around the world, and has an easy style. It deals with everything PA in a matter-of-fact manner, and is a good reference work for those of us who forget what we know! 176 pages, illustrated.

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BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
John Lowndes	John Lowndes	Glenn Heaton	Single
Disney Live	Disney/Heaton/McGarvey	Heaton	Asian Shows
Heaton/McGarvey	Heaton/McGarvey	Heaton	TV Theme
Heaton/McGarvey/Langford		H/McG/Langford	Heaton Jingle
Main Street Studio Rob Specogna 042 834 515 16 Track			
Merry Widows	Band	R.Specogna	Demo
Rain Maker	Band/R.Specogna	R.Specogna	CD Track
Full Tab	Band	R.Specogna	CD Remix
Vaughans	Band/Ben Robertson	Jeremy Thomas	Demo
Cheyenne	Band/R.Specogna	R.Specogna	CD Track
Order From Chaos	Band/R.Specogna	R.Specogna	Demo
Megaphon Studios Guy Dickerson (02) 516 3917 24 Track			
Cruel Sea	Paul McKercher	Tony Cohen	Rec. Album
Radio Zero	Brent Clark	Radio Zero	Rec. Album
Jason Waldron	Guy Dickerson	Jason Waldron	Rec/Mix Tracks
Mirage Studios (02) 211 3711 16 Track Digital, 24 Track Analogue			
Winterhouse	Tom Misner	Tom Misner	Album
Pelican Jed	Band	Jason De Wilde	Album
Clover	Jason De Wilde	Jason De Wilde	EP
Silver Chair	Paul McKellar	John Murtagh	Live Recording
Paradise Studios Bill Field (02) 357 1599 48 Track A'log, Custom Mixer.			
Knivel	Wayne Connolly	Wayne Connolly	Album
Peter Head		Mark Robert	EP
Frances Greening	Tom Kazas	Tom Kazas	Tracking
Died Pretty		Wayne Connolly	Tracking
Paradise Studio Contact Doug Henderson (02) 318 1220 24 Ch. Studer/32 Input Neve Console			
Robyn Gorell	L.Berger/D.Henderson	D.Henderson	Album CD
Michael Beaumont	Self/D.Henderson	D.Henderson	Single
Toe to Toe	Band/P.Tagg	Paul Tagg	Album CD
Glare	Craig Beck/Band	Craig Beck	Single
Rock Fish	Band/Craig Beck	Craig Beck	Single
Headache	Band/J.Hresc	J. Hresc	Album/CD
R&R Recordings Contact Robert Zimola (02) 624 4484 16 Track			
CJIM		Robert Zimola	Albums
Moving Mannequins	Band	Robert Zimola	Voice Overs
Stoned Idols		R. Zimola	Demos
Vox Critique	Band	R. Zimola	Demos
Eye Cue Communications	Peter Saunders	R. Zimola	Corp. Training
Legacy of Sound	Mick Cardy	R. Zimola	Re-Mix, Mastering
RockingHorse Studio Allan Devandra/Kim Reid (066)884131 24/48 Track			
Marielle Harcourt	Marielle	Grey Courtney	Demo
Gypsy Moon	Ramesh Sathia	Ramesh Sathia	Album
Turtle Box	Ramesh Sathia	Ramesh Sathia	Demo
Sony Music Studio (02) 332 0320 Ross Ahern. 24 Track Analog /Digital/Mastering			
Slava Gregorian	Austin Pritchard	Ross Ahern	Album
Sexing The Cherry	Robert Rasic	Kathy Naunton	Single
Bulb		Adrian Bolland	Single
Joy Yates	Joy Yates/Dave McCrae	Ross Ahern	Album
Fiona Stewart	Simon Tonx	Simon Tonx	Demos-Album
Big Backyard	Various	Various	Album
Sound Level Pty Ltd. Joe Breen (02) 552 3200 32 Channel - Live to DAY. Multi Track Available			
Loving Helena	Fulvio Colaiacolo	Fulvio Colaiacolo	Demo
Alter Ego	Fulvio Colaiacolo	Fulvio Colaiacolo	Demo
James Blundell	John Soane	John Soane	Demo
Cool Tin Box	Lindy Morrison	Paul Gannell	Demo
Malcom Larri	Malcom Larri	Rory McKenzie/Fulvio Colaiacolo	Demo
Studio Arts Productions (042) 849128 Ed Lee. Independent Recording Studio			
Ken Lock	Ed. Lee	Ed. Lee	Single
Mustard	Mustard	Ed. Lee	Demo
Kindred	Kindred/Ed Lee	Ed. Lee	2 X Compilation CDs
Ed Lee	Ed Lee	Ed Lee	Sound Track/Image Video
Mathew Sylvian	Mathew Sylvian/Ed Lee	Ed Lee	CD
Denise	Denise	Ed Lee	Demo
Studio Shift Contact Nonda/Tom Kazas (02) 398 4268 24 Track 2"			
Frances Greening	Tom Kazas	Tom Kazas/Nonda	Album
Martin Aranovitch	Nonda	Nonda/Tom Kazas	Album
The Boat House Contact Jamie Durrant (057) 633 293 12 Track			
Incurcion	Jamie Durrant	Jamie Durrant	Mix - EP
Spudgun	Jamie Durrant	Jamie Durrant	Album Tracks/Rec & Mix
Jamie Durrant	Jamie Durrant	Jamie Durrant	Album (Solo) Record & Mixing
Stealth	Band/Jamie Durrant	Jamie Durrant	Demos
Nicole Crawford	Jamie Durrant	Jamie Durrant	Writing/Demos
Degenerates	Band	Jamie Durrant	Album Pre-Production
The Vault Contact Terri Barnett (02) 953 0332 2" 24 Track			
The Strange	Greg Henderson	Greg Henderson	Tracks
Audio Murphy	Mark Moffatt	Mark Moffatt	Tracks
Tracking Station Studios Contact Martin Cass (02) 281 8899 24 Track A'log			
Le Club Nerd	Le Club Nerd	Steve Pomfrett	Single
Allan Caswell		Martin Cass	Single
Keith Armitage	Steve Pomfrett	Steve Pomfrett	Single
Shane Hogan	Martin Cass	Martin Cass	Single
Troy Horse Studio Michael Lewis (02) 557 3129 24 Track			
Lawnsmeil	Glen Smith	John Vittorio	EP
Headjawr	Clay Headley	John Vittorio	EP
Helgrind	Felicity Fox	Big Rod Lewis	Album



UK STUDIOS SET TO SQUEEZE 'SUSPECT OPERATORS'

Association declares war on project studios!

By Julius Grafton

There are 57 top flight studios listed as APRS members, and many of these prestigious establishments reek of history, exquisite professional standards, aged timber and tradition.

They are under attack, however, from the same market forces that exist in most civilised recording nations, and like all business people, tend to want to fight to protect their turf. This is where the APRS however, is caught between a rock and a hard place, with absolutely nowhere to go. And they should know better.

To give you an idea of the forces at work within the UK recording industry, I'm going to extract a quote attributed to APRS Chairman Dave Harries, from the APRS daily news (published by the Pro Sound News people during the APRS tradeshow in 1994).

"The vast increase in the number of home studios and the tendency for pre-preparation work to be carried out outside the commercial studio environment, together with the effects of the depression, (surely a typo, things were never THAT bad -ed) has meant that studios are under considerable pressure."

"We have to convince record companies that we are working with them in a common cause, that together we can produce quality records. We have to convince them to optimise their budgets to realise the value of using top class recording facilities".

The report then stated the APRS Board has decided to look at 'unfair competitors' and is seeking reports from members of businesses that don't comply with 'normal requirements', eg, the need to obtain planning permission, observe health and safety regulations. These reports "will be looked in to. We are happy to do this and ask members to pass on leaflets, advertising and especially rate cards - originating from suspect operators, so that checks can be made".

"Imagine the furore and the tab-

loid headlines if a top star was killed in a fire in one of these 'garage studios'. We can't afford to expose our industry to something that might happen to a non member".

With the APRS membership made up of 57 top flight English recording studios, 89 manufacturers and suppliers, a bunch of Pressers and Duplicators, and a handful of Education and Affiliate Members, it's pretty clear to me the organisation has a large dose of schizophrenia.

The 89 manufacturers joined others to make up 150 exhibitors at this latest APRS trade show, and the vast majority of the exhibitors present could tell the APRS a thing or two about the Pro Audio market in 1994 - namely that the 'home recording' market is not something to sneer at and disparage, it is in reality a growing source of commercial recording output. The notion of a 'top star' getting burnt to death in a garage is just so far from reality.

Many top stars, like many who aspire to be, have their own studios at home. They go to some of the 57 APRS member studios to do work too, and must ponder the possibilities of statements like these. Perhaps a stray word from the star to an APRS member studio proprietor about the latest widget installed in the stars home studio may bring a visit from a council inspector? The garage recording police are at work!

The growing army of home recordists are, in fact, the customers of most of the exhibitors who fund the APRS through trade show participation. They hold the financial key to the APRS's future, and if you listen to them talking, the APRS trade show is becoming a regional, even 'local' event. Only major surgery can change this.

•Footnote: Professional Studios in greater Los Angeles have used government zoning laws to close project studios, rightly where the project facility has outgrown a 'home studio' function.

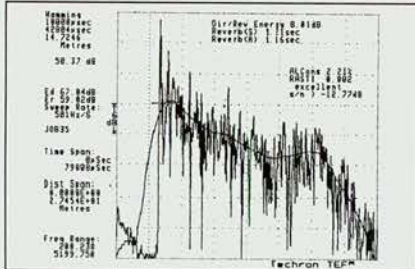
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ARTIST	PRODUCER	ENGINEER	PROJECT
Laughing Zebras	Keith Salvat	Colin Wright	Animation Soundtrack
Man Bites Dog	Band	Big Rod Lewis	EP
Virile Juice	Cruisin' Tubs Vidler	Pubes Plater	Instructional Cassette
Wirra Wirra Studios Contact Will Rout (02)605 1203 24 Track/8 Track Hard Disk			
Liverpool C.L.C. Church	Matt Wakeling	Will Rout/Ian Cooper	Live Album
Players	Kim Reddan	Ian Cooper/Dion Wilton	Film Mix
Lucas Heights Pri. School	Dave Eagan	Will Rout	Video(Musical)
Sharon Neville	Paul Barton	Mark King/Ian Cooper	Demo Remix
Tahlia, Ingrid Racz, Taya Jackson	Bernard Racz	Ian Cooper	Live CD Track
'Casino'	Sack Sayachak	Ian Cooper	Album

Queensland

Outlaw Recording & Records Jerry Reinisch 070 576742 32/64 Ch./16 Trk.

C & B Johnson	C & B Johnson	J. Reinisch	Album
Mantaka	Mantaka/Reinisch	Jerry Reinisch	CD

Sunshine Studios (07) 844 6844 Leon Prescott 36 Channel Neve 24 Trks

Boat House	Cameron McCauley	Matt Strong	Album
Custard	Cameron McCauley	Leon Prescott	Album
C.O.W.	Leon Prescott	Cameron McCauley	Sound Track
Genes	Brendan Morely	Brendan Morely	Album
Sound Achievement	Dave Brown	Dave Brown	Album

Suite 16 Audio Productions Murray (07) 369 8733 24 Track

Buzz & The Blues Band	Buzz	David Richards	Album
Suzu Gamble	Garry Smith	Julian Lynch	Demo Songs
Various Artists	Mike Mathieson	Julian Lynch	Aust. AIDS Council Fund CD

Taramalin Sound Allan Lahey (07) 208 9736

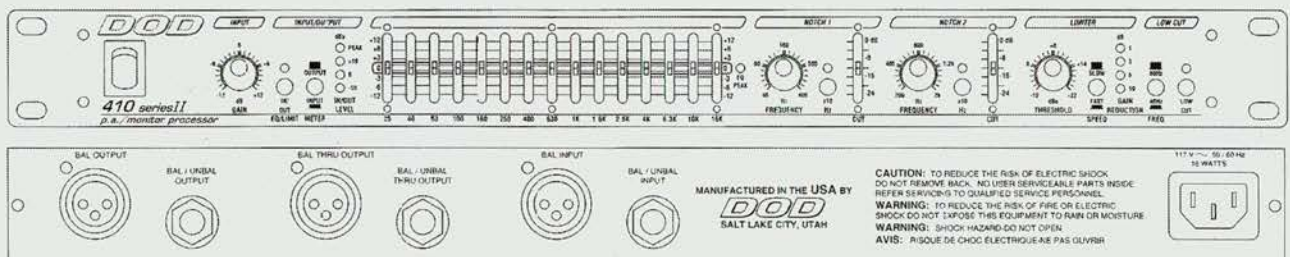
Mirko Ruckels	Mirko	Allan Lahey	Demo
Lyndal Gayl	Lyndal	Allan Lahey	Demo
Alimony	Alimony	Allan Lahey	Pre-Prod.
Deceptive Creation	Band	Allan Lahey	E.P.
Trish Thomas	Rob Fisher	Allan Lahey	Demo
Chris Foenander	Chris	Allan Lahey	E.P.



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'I USED TO LOVE IT, BUT IT'S ALL OVER NOW!' (VINYL : R.I.P.)

By **PAUL BRYANT**

For nearly 100 years, records were the chosen format for marketing recorded music. Cassettes began to undermine this in the early 70's and by the introduction of CD in the early 80's cassettes represented about half the market.

With the introduction of CD, new titles were released on all three formats, which began to cause problems in warehousing, distribution, and retailing. Once CD was established, the decision was made by the wholesale distributors and the large retailers to "kill off" the weakest format - vinyl records.

The major record companies had expected this to happen and consequently there hadn't been any significant investment in vinyl manufacture or mastering since the early 80's. One by one record factories closed; first EMI, then CBS/SONY, and then Festival, leaving one small independent plant to cater to the remaining market.

All Music Manufacturing grew out of a DJ record pool called Pro DJ. Pro DJ manufactured DJ only vinyl releases and initially they were happy to use existing pressing plants.

However they began to experience increasing difficulty in obtaining vinyl product and eventually the only way to guarantee supply was to buy their own factory. A.M.M.'s plant was a collection of record company surplus equipment, and it's a tribute to Geoff Sturre's persistence that it worked at all, let alone as well as it did. The resulting records were comparable to other Australian production, rarely better, but seldom worse.

Vinyl is an extremely unforgiving medium to work with, having problems such as restricted programme length, restricted dynamic range, reduced bandwidth, and at least three types of mechanically induced distortion.

There are very tight parameters for good sounding vinyl masters; move outside these limits and the results

are awful. Analogue recording tends to help tailor sounds for vinyl, but digital recording does not. (This is not an issue with CD.) As well, 15 year old equipment is not going to perform better than it did 15 years ago, so the best you could expect would be late 70's standard records.

Mainstream music had virtually abandoned vinyl, and generally the remaining vinyl users were either "indie grunge" or DJ dance labels, both groups typically working on limited budgets.

A.M.M. had decided to treat all incoming masters as production masters, that is, the master supplied was exactly as required for the finished record. In hindsight, this was probably a mistake as many of the masters needed major reworking, but this would have altered the sound which is not acceptable without client approval. There was enough dissatisfaction on both sides, and the end result was a declining interest in releasing records. When A.M.M.'s lease ran out, they decided to call it quits, ending the vinyl era in Australia.



Syntec open in NZ

The long established proaudio distributors Syntec International have opened a New Zealand office. Headed by Tony King, the office is located at:

Suite 40, 'Karahgahape Plaze',
Cnr. Karangahape Road & Hereford street,
Newtown, Auckland.
Call 9 358-2525.

• And it's SSL number 10 -

Installed in the ABC's Studio 21, a new SSL 4000G Plus is the 10th SSL console to be delivered by Syntec over the years. Other SSL sites include Soundfirm, Planet Sound, Platinum Recorders, GTV 9 and EMI Studios 301.

SSL at AES (cont from 40)

system. Oops! A wide range of external devices and events can be triggered directly from the Axiom system.

• SL 9000 J SERIES CONSOLE

This is a computer controlled analog console that is un-ashamedly elitist. "Studio owners have repeatedly expressed the need for an advanced new system", said SSL's Colin Pringle. "The console will establish the high ground in quality, and thereby command a premium rate."

SL 9000 J comes sized up to 120 channels. The main L,C,R,S bus is accessible from the large and small fader at all times. 4 additional stereo mix busses enable a variety of submixes, mix-menus or mix stems to be output simultaneously. You can easily route to 48 track machines. It has 6 mono and one stereo aux sends per channel, and two styles of EQ in every channel. You may switch between E and G Series EQ characteristics.

The J Series computer automates major console functions, in addition to integrating new versions of Ultimatum and Total Recall. Auto functions include up to 240 faders, 1,320 switches, and left/right and front/back panning.

You can import mix data from SSL's widely used G Plus and G Series Studio Computer Systems. Most importantly, you may optionally use the radical new SSL DiskTrack hard disk recording system, for up to 95 tracks. The DiskTrack unit may be shared with an SSL Axiom console in another studio!

• WORLDNET


SSL also announced SSL WorldNet for their users, an outright purchase system that they say can enable you to send or receive entire ScreenSound, Scenaria or OmniMix projects. In addition, you may achieve low cost live recording between studios. I wasn't able to establish which kind of CODEC SSL use for this, if indeed they build their own. However, developments like this keep the customers in the SSL loop.

BASF NATIONAL TRACKING GUIDE			
ARTIST	PRODUCER	ENGINEER	PROJECT
Vandersound Studios Eric Vandersande (075) 468100 8 Track A'log/16Track Hard Disk/MIDI Suite/DAT			
Darcy Moore	Eric Vandersance	Eric Vandersande	CD Album
Jake Gilroy	Eric Vandersance	Eric Vandersande	CD Album
Solyloquay	Eric Vandersance	Eric Vandersande	CD Album
Stormy McBride	Eric Vandersance	Eric Vandersande	CD Album
So What?	Eric Vandersance	Eric Vandersande	CD Album
Fishbox	Vaughan Piffero & EV	Vaughan Piffero	2 Trks for Comp. CD
South Australia			
Disk-Edits Neville Clark(08) 340 1377 Digital Editing/Mastering Suite			
Adel. Chamber Singers	Carl Crassin	N. Clark	Demo Master
Claire Oremland	C. Oremland	N. Clark	Demo CD
B. Gilbertson	B. Gilbertson	N. Clark	Promo Video Sound Tk.
Whiplash	J. Sweeney	N. Clark	CD Master
Dick & Mort	Barlich/Edwards	N. Clark	Bed Tks. Album
'AND'	Shana Dimitrov	N. Clark	Demo Tape Master
Mixmaster Productions Mick Wordley (018) 822 986 24 Track 2" Dolby			
Ronnie Taheny	Taheny/Wordley	Mick Wordley	Album
J.B.E.	C.Davies/Wordley	M.Wordley/S.Fieldhouse	Album
Slack Taxi	J.Martin/M.Wordley	M.Wordley	E.P.
Howard Sumner	H.Sumner/Wordley	M.Wordley	E.P.
The Soundworks Recording Studio Cran Wilton (08) 369 1187 Auto. 24 Track			
Dave Cobb	Dave Cobb/Cran Wilton	Cran Wilton	Demo CD
Tocatta	Cran Wilton	Cran Wilton	Demos
Dave Wheeler	Dave Wheeler	Cran Wilton	CD Single
Pap Papalia	Pap Papalia/John O'Leary	John O'Leary/Cran Wilton	Demos
Elektra/Ricky J	Cran Wilton/Ricky J	Cran Wilton	CD
Eye II Eye	Cran Wilton	Cran Wilton	CD
Victoria			
Apollo Studios Craig Wishart (03) 354 9058			
Fried Not Steamed	Brian Sleeman	Brian Sleeman	CD



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BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
Bel Air Sound Danny Olesh (03) 563 7887 24 Track 32 Ch Desk/ Digital Editing			
Elysium	S. Segal	S. Segal	Demos
Brad Walker	B. Walker	D. Olesh	Album
Rob Blackwell	Rob Blackwell	Simon Segal	Demos
Blood On Kisses	Danny Olesh	Danny Olesh	Demos
Amnesia	Amnesia	Danny Olesh	Album
Gotham Audio Tom Kehoe (03) 879 9400 48 Track Dig.			
Daddy Cool	Fraser/Wilson/Brady	Brady/ Humphries	Album Tracks & Mixing
Skyhooks	Mark Moffat	Greg Henderson/Aaron Humphries	Album Mix
The Lovers	Jeremy Allsop	Doug Brady/Aaron Humphries	Album Mix
Meg Herbert	Mark Forrester	Mark Forrester/Aaron Humphries	Mixing
Hot House Audio Contact Cruss (03) 525 3703 24 Track			
Masque	Craig Harnath	Craig Harnath	Single
Josy Jason & The Argonauts	Cameron McKenzie	Spag	Single
David Loader	Paul 'Woody' Annison	Paul 'Woody' Annison	Demos
Razor Records	D.J. Casey	Tony Espie	Single
NAM	Craig Harnath	Cruss	Single Mix
The Jaymes	Band/Chris Dickie	Chris Dickie	Demo
Metropolis Audio Contact Ern Rose (03) 696 2111 24/48 Tr Analogue/Digital SSL + Harrison			
Billy Thorpe	Billy Thorpe	Ern Rose/Mat Thomas	Album Tracks
Kim Salmon & The Surrealists	Tony Cohen	Tony Cohen	Album Mix
Spirit of Christmas	Lindsay Field	Ern Rose/Cam Craig/Ross Cockle	Album
Supermann	Cam McKenzie	Mat Thomas	Demos
Dara	Ean Sugarman	Doug Brady	Singles
Serigon	Stewart Day	Stewart Day	E.P.
Newmarket Studio Contact David Bates (03) 329 2877 24 Track 2 Studios			
Chris Lewis	Chris Lewis/Tim Cole	Tim Cole	Album Mixing
The Preachers	Band/Robert B. Dillon	Robert B. Dillon	Album Recording
Alex Burns/Mick Charles	Jochen Schubert	John Ruberto	Album Mixing
Jochen Schubert	Jochen Schubert	John Ruberto	Album Recording
Barry Veith	Barry Veith Big Band	Chris Corr	Album Recording
Colin McFarlane	Colin McFarlane	Tim Cole	Album Recording
001 Recording Studios Contact George Siew Dool (03) 348 1300 24 Track/Midi Suite			
CDB	Andrew De Silva	B. Marsh	8 Sides
M. Bainbridge	George Oof/Ross Fraser	O. Bolwell	Album Tracking
M. Fowler	M. Fowler	B. Taylor	Demos
Pink Noise Studios Rodney Beuthan (03) 349 1043 Digital Editing			
National Ballet	Joanne Adderley	Mick Hewes	Ballet Programme
Gary Phillipson	Bruce Jaques	Mick Kennedy	Album
Chris Young Ensemble	Dave Hannan	Rodney Beuthan	Album
Bent TV	Rodney Beuthan	Rodney Beuthan	TV Post Prodn.
Platinum Aust. P/L Contact Jim Mountford/Susan Minchin (03) 827 7483 48 Trk. SSL/24 Trk.			
Deborah Conway	D. Conway/Willie	Chris Dickie/Kalju Tonuma	Remixes
Rick Price	Ben Wisch	Ben Wisch/Adam Rhodes	Album
The Plums	The Plums	Tim Cleaver/Kalju Tonuma	Demo
Barry Palmer	Barry Palmer	Kalju Tonuma/Matthew Mynott	Album
Baby Bath Massacre	Baby Bath Massacre	Kalju Tonuma	Film Score
Christ Bait	Christ Bait	Paul Morris/Des Amos	E.P.
St. Andrews Recording Studio Mark McCormack (03) 583 2341 or Paul 018 102519 24 Track			
Freak Show	Band	Mark McCormack	EP
Tye Fitzpatrick	Tye	Yak Sherritt	Demos
James St.	Band	Yak Sherritt	Demos
Planet Max	Band	Yak Sherritt	Demos
Flesh Hounds	Band	Mark McCormack	Demos
Sing Sing Studio Phil (03) 428 4622 - 24 Trk Digital & 24 Trk Analogue			
Mantissa	Mike Letho	Mike Letho	Album & EP
Helena	Phil Butson	Phil Butson	Album Mix
Chaos in a Box	Tony Espie	Tony Espie	EP
Martin Hope	Martin Hope	Trevor Reading	Demos
The Jetty	The Jetty		Album
Studio 52 Paul Higgins (03) 417 7707, 32 Tracks & Studio 2 ADAT 8 Track			
Dead Ringers	The Band	Trevor Carter	Mixes CD

EX-TRACK

A# SHARP A# SHARP RECORDING STUDIO has moved and upgraded. 24 Tracks (Automated at that) in 4 air-conditioned rooms on 1' Dolby "S". Most studios have special rates to promote their GALA OPENING. Ring Jeff Cripps on (02) 534 4440 to find out why he's not.

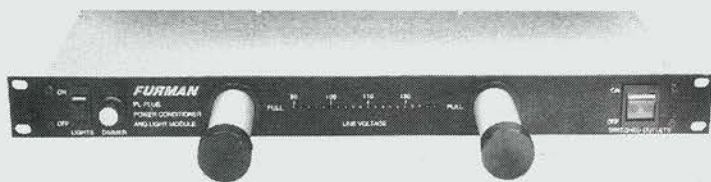
Acoustical Design Pty Ltd have designed a prefabricated, demountable studio, in any size and for various purposes, (they claim) with acoustic integrity and superb performance. The design enables the option of relocation should the business become too big or the premises too small. Existing clientele include, Michael Schildberger's Business Essentials in Hawthorn (Vic.), the Bionic Ear Institute in East Melbourne (Vic) and the Australian Hearing Service in Sydney, as well as various overseas ventures. Call John Upton at Acoustical Design P/L on (030) 720 8666.

ENTERTAINMENT SERVICES PTY LTD. The last few months have seen Doug Brady mixing for 'The Lovers', recording and mixing 'Dara' for Ladigue Records, post-production sessions for the 'John Farnham' "Talk Of The Town" video release, producing and recording projects for 'Karen Grace' and 'Body Motors' & working on the 'Daddy Cool' recordings. Doug Roberts has been in pre-production sessions for his next two projects. David Price, the winner of the 1995 Entech Engineer of the Year Award, has returned from Taipei, where he co-produced and engineered the 'Assassin' album. Upon his return he has produced and recorded the 'Front End Loader' album and recorded 'The ParkSide Killers' project. For further information contact Tom Kehoe Ph: (03) 879 9400 Fax: (03) 876 4253.

DAMIEN GERARD Sydney NSW, - Russ Pilling started more new "Died Pretty" material as well as working on Deadly Nightshades acoustic album adding REAL strings (violin and cello) and Pultec Tube EQs and a Drawmer Tube compressor. Tim Powles' doing sessions with Wild Abandon (with Jacki Ozarcys playing bass), Cicada Lous, and his current pet project The Moonjumpers. Studio B received a facelift last month with the installation of new equipment racks, multicoring and patch bays. Jamie Carter's done overdubs and mixes "Blathuda", Colin Wright continued the "Fridge Door Gallery" EP. Dave Trump demo'd "Flameboa" and "Tbang". Mike Woods mixed "Dreamchild" and Marshall Cullen recorded new ideas for "OUAT". Also DG's played host to Once Upon A Time's (OUAT featuring DG's Elia Bell) album launch and recorded the show live to DAT as well. OUAT also did a photo shoot with Wendy McDougall which was rumoured to involve Body Painting for the Whole Band. Call (02) 692 9915.

48V - Rob Taylor recently returned from touring the studio scene in London. Some of the studios he visited include Townhouse, Sarm East, Roundhouse and Swanyard, where he did a few re-mixes. Rob has come home armed with CDs from the UK dance/techno/hard-core scenes, just perfect for a bit of sampling, if any "tekn0 heads" are interested! Welcome home to Rob, but bye-bye to Simon Sheridan, who has left for the UK to work at Real World and The Church. Dave Henderson is back on the road with The Screaming Jets for "The Barbed Wire Ball" tour operating FOH. The Jets were recently

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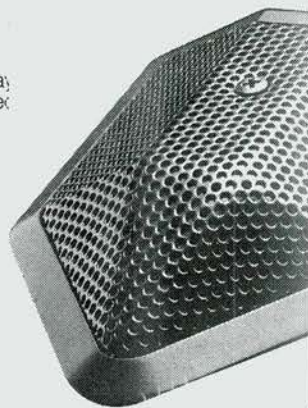
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in the studio with Robbie Adams (who engineered/mixed the Zooropa album for U2), laying down a couple of tracks for their forthcoming album. Call (02) 211 6663.

KATO MANAGEMENT, a partnership between Jodie Sharp and Elise Huntley, is a new management company catering for studio engineers and producers. Kato already boasts two of Australia's top engineers/producers - Al Wright and David Nicholas. Multi-award winning engineer Al Wright has worked with many top recording artists including INXS, Noiseworks, Cold Chisel, Jimmy Barnes, Jenny Morris, Hoodoo Gurus, The Models and soundtracks including 'Dogs In Space' and 'Australian Made'. Numerous gold and platinum records, two ARIA Engineering awards, are his testimony. Al is keen to work with younger bands, helping to develop and refine their sound. David Nicholas has recently co-produced a number one hit on the Billboard charts with the track 'All for Love', featuring Sting, Bryan Adams and Rod Stewart. Other credits include Elton John, Marcella Detroit, The Pretenders and INXS. Returning from overseas, David has recently worked on albums for Marcia Hines, Max Sharam, Marc Hunter and Wendy Matthews. His engineering skills have earned him two ARIA awards and world-wide recognition. For further information, interviews or bookings, please contact Jodie or Elise at Kato Management on the following numbers; Jodie Sharp: 018 466 846, Elise Huntley: 015 498 569.

MIRAGE RECORDING Sydney NSW, are having the official opening of their new studio on December 16, 1994. Equipment includes a Neve VR Console, 24 track Lexicon 480, Pro Tools Adats and 24 track analog and Dolby SR. Call (02) 211 3915.

OUTLAW RECORDING's Jerry tells us they now have a new 32 ch. Tascam

M-2600 Console, along with a Midi Composers Studio (Mini) for song writers with Korg X-3 R-5 and Yamaha 4 Tr. recorder through an 8 ch. Fostex desk. Call (070) 576 742.

SUITE 16 Milton QLD, has just purchased a new DA-88 which has effectively created a 32 track studio. The DA-88 came in very handy during their recent production of fundraising song titled "Work Together" for the Australian AIDS Council. The long list of lead vocalists included John English, Julie Anthony, Sharon O'Neil, Mark Williams, Kim Hart, Cheryl Webb (Song Writer) and Mike Mathieson (Producer) made good use of every available track. Call Murray Lyons 07-369 8733.

UNDER NEW MANAGEMENT Producers and Engineers have been busy winding out the year. Jeremy Alalom has been Re-mixing for 'Boots'. Brent Clark started late November on the 'Ghostwriters' album. Greg Henderson has been working on material for The 'Strange' at The Vault. Mark Moffatt has been working on Audio Murphy Inc at The Vault. Brendan Morley sweating it out in QLD with indie band 'The Genes' at Sunshine Studios. Richard Pleasance has produced a track for the amazing 'Miss Ceberano'. Garth Porter is again working with 'Lee Kernaghan' on his latest album. And Kevin "Caveman" Shirley finished a track for 'Silverchair' which is their next single release. Call (02) 953 0332.

WOMBAT Rd. STUDIO, Sale VIC, is currently upgrading their 16 track studio and mixing facilities with the addition of an ALESIS - Adat machine and BRC to extend their available tracks to 24 (16 analogue + 8 digital). They also offer full Midi sequencing facilities. The studio has specialised for 10 years in album, demo tape and disc production. Call (051) 454 204.

By Caroline Grafton

BASF NATIONAL TRACKING GUIDE

ARTIST	PRODUCER	ENGINEER	PROJECT
Little Seeds	The Band	Trevor Carter	Nu-Music Tck
Edwin Maher (ABC) & Captain Jellybeard & The Scurvy Dogs	The Band	Trevor Carter	EP Features Rap by the ABC
Weather Man Ron Martini, John McCormack & The Missiles of Love	The Band	Trevor Carter	Album Tracks
The Barking Ikons	Sarah Shaw	Andrew Wright	Demo
Project New Haven College	Lee Cloak	Lee Cloak	School Project
Supersonic Recordings Dave Hannan 015 352 348 24 Track Digital			
Snorkel	Dave Hannan	Dave Hannan	Album
Chris Young	Dave Hannan	Dave Hannan	Album
Burnside Ensemble	Dave Hannan/Marcel Borrack	Dave Hannan	Album
Adam Simmonds	Dave Hannan/Adam Simmonds	Dave Hannan	Album
Neil Simpson & Dave Hannan	Dave Hannan	Dave Hannan	HIV/AIDS Awareness Docc
Whirled Records (03) 427 1436			
Barry Michael	Paul Hester	Craig McArthur	Album
Wombat Road Studio (051) 454204 Barry Clissold 8 & 16 Track + Full Midi			
Brian Baker	Brian Baker	Baker/Clissold	Solo CD Mixing
Two Sunns	Geoff Brown	Barry Clissold	Demo Tape
Sale High School	Sallyann Barclay	Barry Clissold	Stage & Concert Bands Tape
Crossroads	V.Garth/C.Twite	Barry Clissold	Mixing AlbumTracks
Artists of Gippsland	Barry Clissold	Barry Clissold	Comp. C.D.
Jane Beaton	Jane Beaton	B. Clissold	Album
Western Australia			
Bonsai Recording Studio Tom Thorpe (09) 349 5029 24 Track			
Matt Williams/Rick Lovett	Tom Thorpe	Tom Thorpe	Album
Andrew Breen	Tom Thorpe	Tom Thorpe	Demo
Keith McDonald	Tom Thorpe	Tom Thorpe	Album
Criminal Force	Tom Thorpe	Tom Thorpe	Demo
Botticelli's Angel	Tom Thorpe	Tom Thorpe	Album
PMFM Morning Crew	Tom Thorpe	Tom Thorpe	Jingles
Planet Sound Studios Contact John Villani & Denise Preston (09) 382 2211 48 & 32 Trk Dig./24 Trk Anal.			
Kelly Newton Wordsworth	K.N.W.	Les Williams	Album Mix
Novak Langer	J.Villani/N.Langer	John Villani	Album Tracking
Grant Hart	Grant H.J.Villani	John Villani	Album Tracking
Volatile	D-M. & Band	John Villani/Damian Warn	Mix EP
Wency D'Souza	Wency D'Souza/J.V.	John Villani	Single
Dystonia		J.V. & D.M.	EP
Poons Head (09) 339 4791 Rob. 32 Track			
Mark Chalkson	Mark/Rob Grant	Rob Grant	EP
Ditch Witch	Band/Rob Grant	Rob Grant	Album
Cinema Prague	Rob Grant/Band	Rob Grant	Album
Mobius	Mobius	Rob Grant	Mastering
Whore	Rob Grant/Band	Rob Grant	EP
Gary Parentich	Rob Grant/Band	Rob Grant	Jingles
Tropo Sound (091) 922394 Mick Connolly 24 Track Dolby S Dat Master			
The Waifs	Band	James Edwards	Demo Cassette
K.A.H.P.U.	S. Pgram	J. Edwards	Radio ADS (Mega)
Wizend Recording Studio (09) 331 1818 Alan Cawson 16 Track			
Shaun McVicar	Alan Dawson	Alan Dawson	Album
Uncle Jump	D.Stinson/A.Dawson	Alan Dawson	Album
Bayou Brothers	Alan Dawson	Alan Dawson	Album

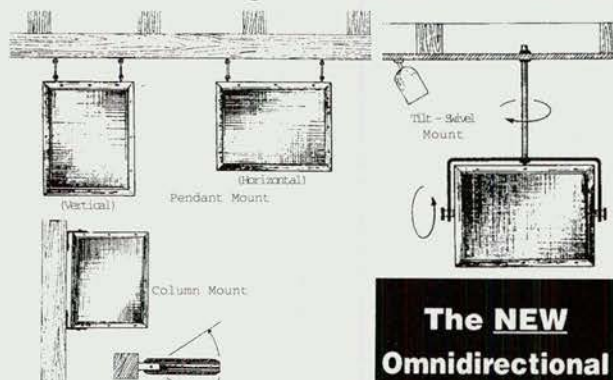


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SOUND ADVANCE SYSTEMS

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A Console concept that may work....

John Zulaikha is enthusiastic about a console design that doesn't exist. So your editor is deeply cynical at first, but after reading between the lines it all looks quite promising.... Reason? Here is a digital console concept where you need NOT look at a computer screen, indeed it all makes perfect sense once you examine it. Here is the VSC, an Australian *CONCEPT* console.

Enter the Very Small Console V.S.C. designed and patented by Michael Stavrou of Flux Research Pty Ltd Sydney Australia. Michael claims some extraordinary 5, 10 and a staggering 20 fold operational improvements that just might be the answer to the seemingly impossible task of controlling the future of audio.

It may also be a contender for setting a standard, providing a familiar working interface that engineers recognise and feel comfortable with, rather than alienating, constantly being pressured to re-learn the wheel. But before we get into it any deeper I must make it clear. The VSC is the biggest load of *FantasyWare* this side of the lost planet. To its credit it has been granted a patent due to its unique new and original concept - U.S. patent 07/659377.

To this end I am using it as an example to make a point that conceptually, it is possible to design a mixer of the future that deals with

Linear *Control* of the Nonlinear - comfortably. Mixers and controllers have been having a hard time, going around in circles trying to come up with a solution of direct control. Assignable and multifunction software driven devices have increased the users power of manipulation, but at an extraordinary cost to the human factor - creativity. It's been well over 10 years of unfriendly software jokingly labelled *UserFriendly*.

Regarding the fact that this box isn't actually available and therefore it isn't *HardWare*... there are some benefits to re-viewing a piece of *FantasyWare*. Part of the responsibility of journalists and news worthy magazines like CONNECTIONS is to elevate what is actually possible and then things start to happen. Secondly, by informing you, the user *now*, before it is released on the market, you get to have your say and input your ideas and objections prior to, rather than it being a heavily guarded secret to be unveiled at the next AES or EN-

TECH - to discover the hype that preceded the product didn't do what it *promised* or led you to *imagine* it could do.

THE VSC EXPLAINED
INTERACTIVE TOUCH SELECTOR STRIP
Picture a (conventional) long console. Quite simply, to get to the other end you just slide your chair down there and fiddle with the knob you want, slide back and listen to the difference in relationship to the whole sound.

The *touch selector strip* on the VSC represents a 60 channel console. If you want to be down the other end of the console, you just touch the strip at that spot and the *mixer* snaps into place. All the faders move into place and all lights and indicators follow, so you know exactly where you are because it's as though you have just moved your chair in front of that section of the mixer. You can even be at both ends of the console at the same time with the touch, slide and tap of a finger. The key advantage of the strip is that you haven't moved out of the stereo image. You're still in the center. You don't need to reorient yourself back in the picture because you haven't moved. Very nice. That's the first concept to absorb.

THE INVISIBLE COMPUTER - The second is that there is no monitor to be found. There is no need of a screen to tell you what's happening, no scrolling, no mouse to slide and overshoot, because you can tell at a touch and a glance (and most importantly *continue listening* to the sound) everything that a long console tells you - it's an instinctive listen, look, touch, fiddle - and just keep on listening.

The familiar layout is extremely *visually* self-explanatory. The light indicators rise and fall and go from green to red, the faders snap in your lap and are available to detail the sound at a moments notice. You can see at a glance all the EQ settings, the echo send levels, mutes, solos etc, complete with roaming masking tape, well not really masking tape, it has a scribble script. So what's interesting in a scribble script you might wonder?

When it comes to remembering which instrument is coming in on what channel, I rely on the humble chinograph pen on strip above the faders, or masking tape that peels off to come back another day. It soon becomes paramount that your labelling be clearly visible and instantly available.

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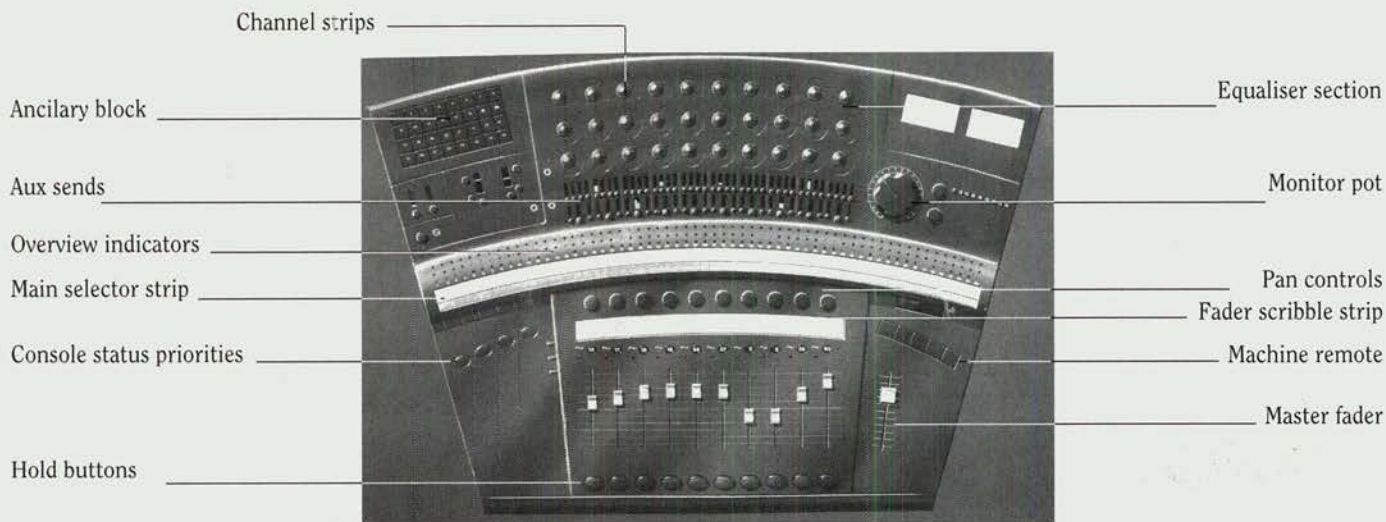


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FAX 356 2762			

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So, how do you remember at a convenient glance as apposed to a tedious scroll? Wouldn't it be nice to be able to write with a pen kik snr hat etc. and it still be there next week for a quick remix rather than a soft multi-function wheel and button that scrolls endlessly time wasting left brain time consuming programming labour intensive bore, as you spell out the name about as fast as you did in kindergarten - but consider how a scribble is so easy.

FADER SCRIBBLE SCRIPT - Above the channel faders one would normally write the instrument. As you assign channels, the label now magically appears along the top half of the Strip... on the *Mini Scribble Script* - of the 60 channel Selector Strip. And as you navigate with Interactive Touch along the Strip the *Mini Scribble Script* is there to guide the way as it stays all day - permanent - unless you change the label of course. And as Faders follow your every touch, so the name on the Fader Script follows your every move.

These 3 key understandings reveal the navigational heart of the VSC let alone the spin offs in speed of the inherent riendly nature as the touchy feeling tactilian beast arises, as you spread your wings and *feel* the *POWER* that you are now in control, that makes you feel good *to be alive*, knowing you're always a step away from bliss, and as the producer suggests his every whim, and changes his mind like the wind, I am not afraid to ride or duck it, punch it, whip it or sweep 'cause it's just one step away and within my reach. I am a great engineer as I put in my thumb and pull out a plum of a sound so sweet it's hard to beat - Boy what a good mixer am I! (*Settle down John. -Ed*)

AND THE BEST IS YET TO COME

Ok. so you've got an Interactive Touch strip that you just run your fingers along. The console face *is* the screen - of course - All the knobs and pots have a light bar indicator showing you how much level or what frequency EQ is boost or cut, at a glance. Alongside the EQ dual concentric pots there's an arc shaped window. In the window a red line appears for more or green for minus. The light grows out from the center - the more it grows, the more cut or boost it represents, and the angle indicates frequency, down low is low and pointing up is high, so a long red arrow pointing up is probably 10db boost at 10k. Get it. The 8 Aux. send pots below the EQ (inc. 1 stereo) have a light bar that grows higher with level.

And so, by holding the Interrogating Button there are 3 placed strategically near the EQ, Dynamics and Aux. sends - your finger (solos the light - not the audio) is directing you to point at the light indicator, and instead of moving your eye, you slide your finger along the strip. You see at a glance all your Aux. sends EQ or Dynamics levels flash by like a light show... of course the audio isn't flashing around and neither are you, so the stereo image remains... *sweet*. Thus Interegation is accomplished with 100 fewer eye movements than we are currently used to.

Below that, you have the Strip which shows 3 leds - *overload*, *fader* and/or *automation* activity and *signal* present indicator. Then the duplicate Mini Script, so you can see in your own writing, a miniature version of all the names and/or symbols you've originally written on the main strip located just above the main ten faders below. Then the actual Selec-

tor Strip with Interactive Touch, which has a slightly raised touch sensitive hump that you can run your finger along smoothly. Below that are visual Positional Assignment indicators, if you look real close you'll see little lines which are indicating they are the selected tracks that are the ten channels appearing directly in front of you.

Below that, there's the main block of faders, 10 PAN and/or MIKE TRIMS - one of the only pots on the block that are multifunction and then 10 SOLOS, 10 INJECT, 10 MUTE, 10 LONG FADERS and 10 HOLD - 5 second latched buttons at the bottom to prevent accidental re-assignment of the *HOT fader as you HOLD it safe* - while quickly grabbing others. Master fader to your right. Master Pot on top (can't miss it) Tape monitor selects, DIM switch, Stereo VU's and you might wonder where all the other VU's are but that's *still* a secret. Top left is an Ancillary block containing a Routing Matrix, Dynamic module, Phase Reverse - 1 set only which is self-assigning (selected by the very last fader you touched - always the last) 'cause who needs ten.

The four buttons called Console Staus Priorites have powerful PRIORITY WIPE, STORE, RECALL and GROUP functions

In short, the console of the future might resemble the console of yester-year. It'll have a channel strip with all the facilities on it you would ever dream of, multiplied by as many channels as you could afford... 16 'cause I'd want to conveniently control Midi as well ...with a strip and lots of lights.

There's always more but I have to go now. Any enquiry is welcomed - fax me at Emerald City Studios on 02 939 1943.

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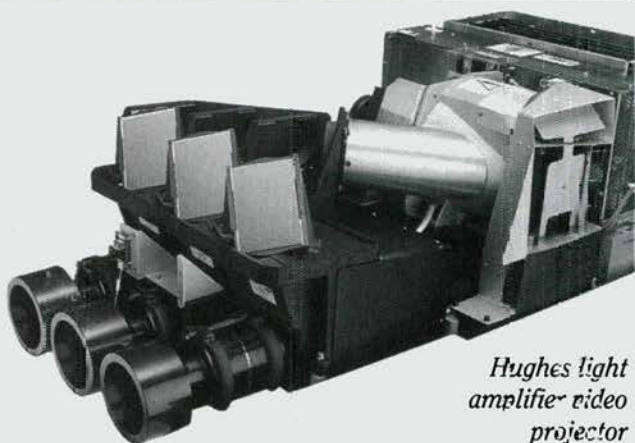
VIDEO & AV WORLD

* VISION, VIDEO, COMPUTERS & THE BIZ. (Is that enough?) A

Bi-Monthly Feature

Video Projector Primer

David Walker, head of AV at Bond Uni, details your options. (A transcript of Entech Workshop W44)



Hughes light amplifier video projector

If you are in the market for a video projector it is necessary to know exactly what you are going to be using the projector for before you approach suppliers. You need to know things like a) what the maximum screen size is, b) the number of people that room will be holding c) the ambient light conditions that projector will be required to operate under and e) the number of sources, whether they be video or computer sources, that you'll be inputting into that projector.

For instance if you are setting up an electronic theatre and all you were going to show were videos and your ambient light conditions were going to be black, in other words 'lights out', you probably need to purchase a video projector that handles video signals only, not computer inputs - which of course will determine the cost of that projector.

On the other hand you may decide that the picture theatre is going to run current video technology but in the future you may want to go to HDTV (wide screen video which is one of the options that is currently being investigated. A video projector that will handle HD TV, is a lot more complicated than a standard projector that will handle PAL signals. The other thing you need to determine is that if you are using it with multiple or multi-standard sources, then the projector obviously has to handle the Australian PAL system as well as maybe NTSC, c-cam and all the derivatives of those three formats. Most projectors on the market these days are multi-format.

To determine the size of the room, there are some rules of thumb with regard to screen size and the room size. The closest row of seats to the projected image should be no closer than twice the height of the screen and the furthest row of seats should be no farther than 8 times the height of the screen.

There are various types of projectors available on the market today, the most well known one is the standard three tube that is manufactured by various people - Sony, Electra home, NEC etc. These projectors have one tube each for green, red and blue and all of

these projectors have a fixed distance from the screen. Most have a lens ratio of somewhere from 1:1 to 1: 1.5. Typically if you wanted a picture that was 6m wide and the lens ratio was 1.5, then the projector would have to be 9m back to give you a 6m wide picture.

With regard to LCD projectors there are two types, the cheap ones like Sharp and Sanyo will handle only video rate, they will not handle computer graphics without scan conversion. The advantages are: they are light, compact, no set-up is required and zoom lenses are trouble free unless you blow a lamp on them which aren't cheap.

The other option, currently is the Hughes-JVC projector which uses an image light amplifier. It's a standard three tube projector, one for red, green and blue, and the actual projection tube produces the light output that projects the image on the screen. LCD projectors use an LCD panel through which the light, which is split into red, green and blue, is transmitted and it modulates the light source. Again the disadvantage is their limited resolution, they can't handle higher scan rates and also they can be sensitive with the panels tending to burn out of pixels. JVC and Hughes produce an image light amplifier which uses a light source to produce the light output on the screen. They have a 1500 watt and a 2.5 kw version of light output and still use a CRT to produce the image.

The CRT that they use is run at fairly low illumination levels so that you can get high resolution out of it. If you lower the output out of the CRT then you increase resolution. They have 3 CRTs (red, green, blue) focussed onto the back of this light block (image light amplifier), there's a photo sensitive layer which produces an electro static charge between the photo sensitive layer and the front of the light valve which is a liquid crystal (although not a pixilated liquid crystal, it's solid, and has no

line structure). From that a white light is introduced from a 1500 watt or 2500 watt lamp and split through dichroic mirrors into a prism block and then reflected into the front of the ILA onto the liquid crystal. There is a light blocking layer between the photo conductive layer and the liquid crystal light so that light doesn't impinge on the CRTs.

Depending on the amount of light that is on the photo conductive layer, the liquid crystal layer in front changes phase and when it changes phase, this light is polarised. If it changes 90° it is considered white and all of the light is reflected out through the prism and through the lens system onto the screen.

If it's a black, no light comes out at all, the phase is zeroed and the light reflects back up into the light source and not out through the lens. Obviously anything between black and white causes a varying phase between 0 and 90° which then produces a signal on the screen. The technology is exactly the same up to this point for a 3 tube projector other than the fact that these do not produce the direct light output on the screen.

This ILA is new technology and it has a very high light output and also an upper scan rate of 90 kh. It will handle any known computer from 15 kh up to 90 kh scan rate and it is HD TV compatible, so you can run them in 16 x 9 format.

The future for video projection?

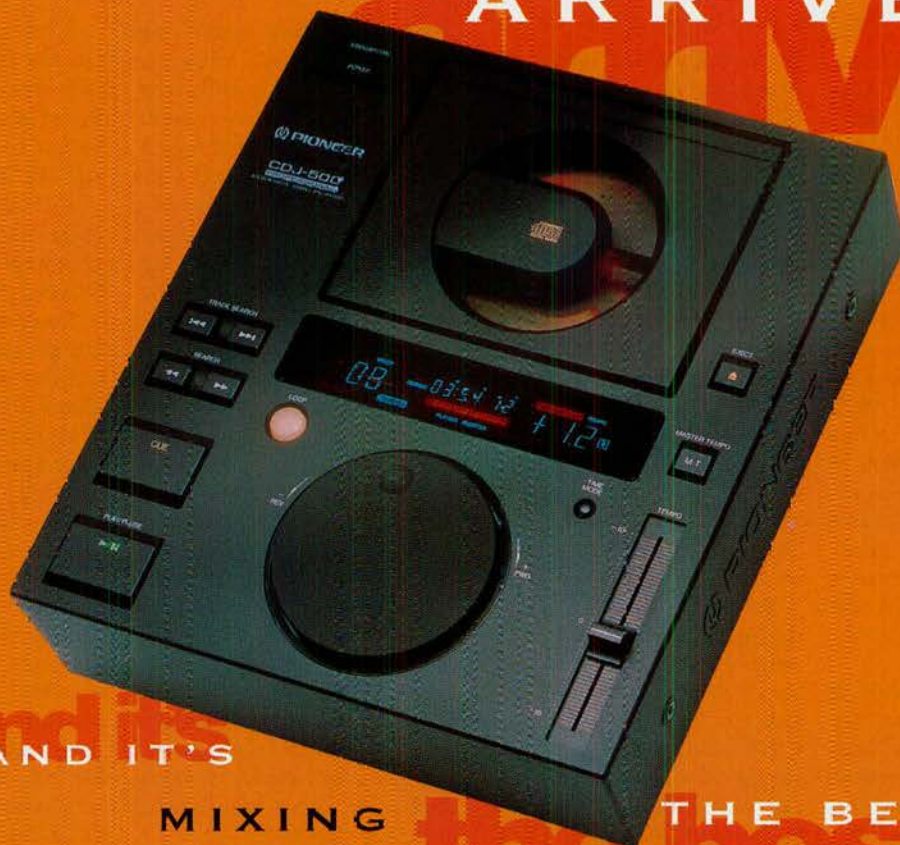
JVC have produced a machine that will allow the recording of 16 x 9 high definition television on what looks like a VHS cassette. It uses a metal chrome tape, you can record 3 hours of wide screen in component format and output it in component format into a video projector. • *Hagemeyer for Hughes, 02 756-3777.*

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seamlessly loop it as many times as you wish.

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- Toughness - the CDJ-500 is rugged and built to last even on the road.

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Write in Reader Service number: 134

CRAWFORDS AUSTRALIA CUT DIALOGUE WITH DSP



Crawfords Bruce Climas, editing with dSP

Yamaha Music Australia announce the delivery of a dSP Digital Audio Workstation with Integrated Digital Nonlinear Video (NLV) to Crawfords Australia. The system was delivered together with a Yamaha DMP-7D for installation in Crawford's Dialogue Editing Suite.

Developed and produced in Australia, dSP is an application-specific workstation designed for post production applications that offers seamlessly integrated digital recording, mixing and nonlinear video capability. Featuring an advanced graphic user interface and a dedicated, ergonomic control console, dSP is said to offer true no-wait, random access audio and video with powerful object-oriented editing.

Crawford's dSP system is configured with 8 channels of I/O, and is equipped with dual 1.0 and 1.8 Gigabyte Track-Pack removable hard disc drives for audio storage, and a third 1.8 Gigabyte

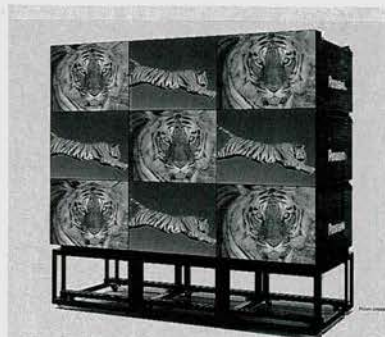
Track-Pack for NLV storage. Archiving and back-up is performed to SCSI DAT, an integral feature of the dSP system. The Yamaha DMP-7D mixer is employed largely for monitoring, as the dSP's output is transferred to multitrack for final mixing.

After footage is shot, off-line edit lists are entered into the dSP system. Video footage and field recorded dialogue on R-DAT is loaded into the system and auto-conformed. Also, any additional dialogue is recorded directly onto the dSP system and the lot is then edited and premixed direct to 24-track for the final mix with music and sound effects.

The dSP system is currently employed for the editing of dialogue on a new series of tele-movies for the Nine Network, "The Feds".

• dSP is represented exclusively by the Pro-Digital Group of Yamaha Music Australia. Call the Hotline: (008) 80-3049.

Multi-Screen Video Projection System



The Panasonic Multi-Screen Video Projection System known as Panacubes are usually sold in configurations of four, nine or twelve or more depending on the application. Each 'Panacube' is a 109 cm (43 inch) Video Projection Screen with a 5 mm frame ensuring a virtually continuous image when the units are stacked together.

The Panacubes Video Projection System was developed to ensure that a clear, detailed picture could be obtained, they say. By putting a large screen together using several small screens greater clarity can be gained and multiple images can also be projected when connected to an optional Multi-Vision Processor which has four inputs (e.g. a combination of VCR, Laser Disc, Computer and a camera). The Multi-Vision Processor allows displays of enlarged images from each source, multi-pattern displays, automatically changing displays and other displays using one to four inputs.

A multi-function remote control has a newly developed digital system that allows adjustment using an identification number. The remote control is similar to the size of a TV remote control.

Each Panacube is equipped with large-diameter hybrid lenses, high-brightness electromagnetic focusing projection tubes.

The screen of each Panacube is 109 cm (43 inch) and employs a transparent super-black screen to absorb the glare caused by reflected light which ensures that images can be viewed in situations with high light and also from a variety of angles.

The cabinet of each Panacube can withstand the weight of 10 units stacked above it.

For easy connection to a wide range of components, Panacubes have RGB input/output, video input/output and Y/C (S-VHS, etc) input/output. The system can handle PAL, SECAM, NTSC, and M-NTSC video signals.

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Write in Reader Service number: 162

ELECTROHOME SHOWSTAR

LARGE SCREEN PROJECTION SYSTEM

Amber Technology announce the new **Electrohome ShowStar LCD Large Screen Projection System**, an economical video projection system said to deliver high brightness images with reliability for large venues.

Electrohome's new ShowStar is said to offer a combination of performance and value that is unsurpassed by any other product in its category, and rivals the brightness levels of light-valve technology systems costing many thousands of dollars more.

ShowStar employs LCD projection technology and incorporates Electrohome's light diffusion system to eliminate hot spots and provide brilliant, clear text and images with uniform brightness across the screen. ShowStar retains sharpness of image throughout a range of projection distances comparable to a conventional CRT projector, while optional lenses are available to facilitate long distances and placement flexibility.

ShowStar features a striped configuration of its LCD pixels to produce the sharpest images possible. Each pixel is in exact alignment with its adjoining partner to each side, as well as top and bottom. The results are said to be remarkably better, particularly on fine text and vertical lines, than the staggered pixel configuration employed by competitive systems.

Simplicity of use was a key criterion in the development of ShowStar, with easy setup and operation which can be truly described as 'plug and play'. The image is accurately converged so that

adjustment of red, green and blue tube convergence is not necessary. Preset 'keystone' facilitates quick setup in virtually any mounting configuration.

All functions of ShowStar are controlled by a convenient, backlit remote keypad. Easy-to-follow menus and 'slide-bar' graphics allow adjustment of image functions including brightness, tint, contrast and colour saturation.

ShowStar will display images from 5 to 25 feet (diagonal) in size, at a resolution of 640 x 480 or 550 TV lines. Maximum useable brightness is 5000 peak (1000 ANSI) lumens, provided by a 575 Watt Metal Halide arc lamp with 1000 hours average life expectancy. A change can be accomplished in under five minutes.

Separate inputs are provided for composite video and S-Video sources, and RGBHV computer sources. ShowStar is compatible with video clock rates from 13 to 33MHz, horizontal scan frequencies from 14 to 37kHz and vertical scan frequencies from 49 to 72Hz, interlaced and non-interlaced. With the appropriate cables, ShowStar will accept computer video from IBM VGA (modes 1, 2 and 3), Macintosh II 640 x 480, Apple IIGS, Macintosh LC, IBM 9-pin digital RGB (text mode), InFocus LiteShow II, and Hercules 9-pin digital (text mode). With an external adaptor ShowStar will also accept signals from Macintosh Plus, SE and Classic computers.

• Call Amber Technology. Tel. (02) 975-1211.



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Write in Reader Service number: 113

POWER

Laurie Nethercote delivered a packed Entech Workshop, the topic: Power & Generators. Covering the topic broadly, it delivered good info for sound and lighting technicians alike.

Three phase power supplies; how they're used in sound and lighting systems.

Three phase power supply is three 240 volt lines, which run 120 degrees out of phase with each other, the reason being to keep the temperature down in the cables. By running the phases out of phase with each other, you are actually cooling the cable at the same time as supplying a large amount of current.

Standard 3 phase has three active wires each out of phase with each other, one neutral and one earth wire. This is the 'MENS' system which means 'Multiple Earth Neutral Sys-

tem', as the neutral and earth are connected together at the distribution board. In this country you have a neutral and earth and all the neutral is really doing is acting as an extra safety. In other countries (and here for machinery power feeds) you don't have the neutral and earth, you just have earth. The earth goes to the chassis of the equipment and the neutral gets rid of excess current and rubbish from the electronics.

Australian voltage and current works at 240 volts but can vary between 230 and 250 volts depending on where you are located. All systems must then be designed in order to work
(over)

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within those parameters, some dimmer systems won't.

Under voltage tends to make equipment more unstable, over voltage tends to blow stuff up. therefore you need good circuit breakers, and good earth protection breakers .

Most importantly make sure that your system is designed to handle a load. Work out how large your circuit breakers, and thus your power system current load, actually needs to be.

THE POWER ALLOCATION- P.A.

Lets look at power amplifiers in general. When you are talking of 500 watts per channel- let's say you have a standard amp rack with 4 amps inside. Allow that amp rack a 15 amp load in your calculations.

So, if you've just designed a sound system- how much power do you need ? If I've got 2 amp racks, and there's 4 amplifiers in each rack, I have to have 30 amps just to run them at peak. (Note: if the amp is greater than 500w/ch into 4Ω, allow more power. An 800w/ch amp could peak at 8 or 9 amps. -Ed)

Power provision for other audio gear.

It's easy to work out the current rating of most pieces of equipment, because they usually have a fuse, check out the fuse and usually 2/3rds of the value of the fuse is the maximum current draw, usually never beyond that as the fuse is designed only to blow under fault conditions. Fuses are rated roughly a 3rd above the true maximum draw current of the device.

Therefore to work out the load of your system, an average effects rack with a dozen processes in it, would have an average current requirement of 2 amps. To allow headroom double it.

You always must allow for headroom in your power system, once all calculations are added together and all the individual pieces of equipment and their power consumption at maximum are figured, then allow at least another 20% head room.

You've got to allow for peaks once again. My old firm, Jands Concert Productions, work on 30% headroom. 30% is nice headroom which also allows for improved sound quality - because the better the main supply to the sound system, the more current you can give it as fast as possible - which means the bigger the cables, the better the sound of the system at the end of the day.

You should have your stage Monitors, your monitor system, stage equipment and all the front of house mixing gear all on one phase, usually phase one.

Then the left side of the PA, that is - the amplifiers, on phase 2, and right tower on phase 3. Always make sure that your stage gear, your monitor gear and front of house gear are all on the same phase. Reason? You don't have the potential for a high voltage shock. Basically with everything on the same phase the worst shock condition you can get is 240 volts live to chassis. When dealing with three phase its a slightly different story- 415 volts. If you keep all your control system on one phase, you are reducing the severity of any shocks that come along.

GENERATORS & CURRENT

Suppose you use a 75 KVA generator - you need to know how much current you're getting out of it. Multiply the KVA by 4, and divide it by 3 (phases) and that tells you how much current per leg the thing is capable of. Thus 75kVa = 100 amps per leg.

"Regardless if the generator itself has its own earth stake or not, you need grounding"

Regardless if the generator itself has its own earth stake or not, you need grounding. Drive an earth stake straight into the ground directly beside it and that gives you a good earth reference- an earth stake is exactly what it says- a stake hammered into the ground. An average sized stake would be a brass rod, 2.5m long, hammered into the ground. You don't want loose soil- you must have good conductivity. Pour fluid around it to make sure you have good conduction.

Some generators may not have the stake with the rig itself, what you should have designed within your power distribution system - whether hiring or building one yourself- you should have your own earth stake running off your main distribution rack. The supply from the generator should go to your main distribution rack first, which is earthed.

The main thing that makes a generator fall over, and the one thing that is always forgotten, is that they run on fuel. Make sure whoever is looking after the generator knows what they are doing. Generators need more headroom than ordinary sources. Personally I go for 30% head room at least. If running lighting and sound off the generator, work your load figures out accurately. Lighting can usually be cut a bit finer- 20 % headroom is OK.

Transformers are used to step up and step down voltage. Basically, transformers are very simple units. In the most basic transformers you have a primary winding and a secondary winding and the ratio of step-up or step-down is completely proportional to the number of turns relative between primary and secondary. Example: stepping down from 240 to 120 volts - let's say you put 240 turns on the primary, 120 turns on the secondary you've stepped down to 120 volts. Once you've stepped down in voltage though, what you've done is that you've doubled the current.

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CURRENT DOUBLES WHEN VOLTAGE IS HALVED.

You've gone down from 240 volts, operating a device that draws, say, 8 amps. At 120 volts, that device would draw 16 amps, power is always a relative thing.

On a tour a lot of American equipment will come over, and you've got a transformer to step down from 240v to 110v, and often it's red hot!

Ohms law.

Divide the watts by volts, and this = amps. EXAMPLE: 2400 watts at 240 volts draws 10 amps. 1200 watts at 120v also draws 10 amps. Ohms law does most of the calculations you'll need in the normal world.

Laying power cables.

High current cables or mains cables, should never be coiled. If a cable is coiled, it acts as

an inductor and the heat can't release itself. The cable ends up melting. If a cable is very hot it is definitely being over driven; cables should only ever reach 25-30°C, otherwise you're beginning to get beyond the cables design specification. If anything runs hot you've shortened its life span dramatically. If a cable is getting warm, work out your load and put 2 cables instead of one onto the job. Or, up the size of the cables -share the load and get the temperature down. All this can be worked out just by working out your load factor, your amperage.

"You should have your stage Monitors, your monitor system, stage equipment and all the front of house mixing gear all on one phase."

High power cables or indeed any power cables should always cross low power cables laid on the floor at 90 degrees. This cuts out the chance of hums coming through the audio system.

If you are running things like chain motors off your three phase supply, you should be aware that motors are phase conscious. In other words, if your motor is running in the wrong direction, you have to reverse phases on it.

Whenever using anything like chain motors or anything that has Limit Switches, (for safety) it's critical that you have your phases wired correctly, otherwise your limit switches won't work. Limit switches are supposed to stop the motor at a preset level, if your phases aren't wired correctly, the limit switches won't work correctly. Then you could have the hook pull through the actual center of the motor. It's not a pretty picture, as you can cause a lot of damage.

The main thing is that with motors you must be conscious that if they are running the wrong way, reverse two lengths of your three phase. Professional users who use the equipment daily have phase adapters which plug straight into the line, and phase reversal plugs which enables them to overcome that problem.

.....

• Laurie is a technician and also writes informative books, which we hope to offer you via our Connections Shop soon. Meantime, you can reach him on 075-784-884

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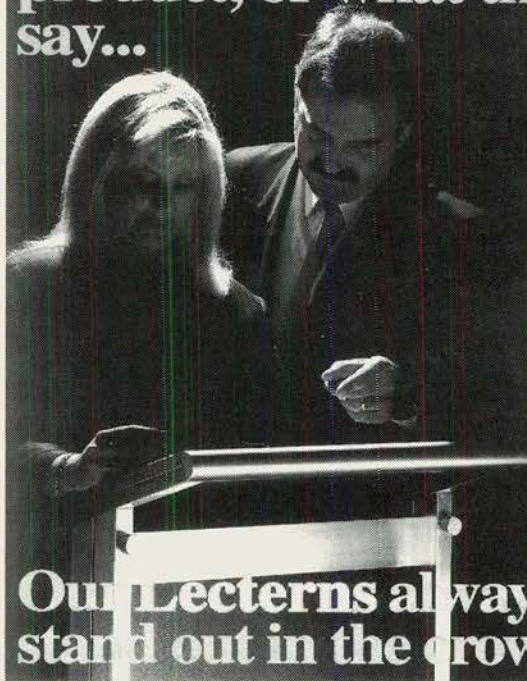
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Random Comment

Duncan Fry

Take another little piezo my heart now baby...

I was busy poring over the Grunberg collection of old compression drivers at the recent Entech exhibition, and musing on the fact that what we used to throw away as a load of old shit is now eagerly sought after by collectors.

Seeing all that old stuff there reminded me of the first horns I ever had in my PA system.

They were Altec multicells, with dual 290 compression drivers on a Y adaptor on each one. It's possible that the old 290 wasn't the world's most inefficient driver, but it sure as hell couldn't have been far off. Still I was in desperate need of them as I had the whole PA system assembled apart from some horns. It was a basic pub system - two bathtub W bins, 4 of the ubiquitous 4560s - all I needed were some horns to sit on top of them.

So I did a deal with their owner and swapped a Mini for them.

They were enormous things, mounted in square steel tubing, looking like a geriatric audio person's walking frame, and covered in a skin of plywood.

They sounded tolerable... nothing much above 8 KHz, but a couple of piezos sitting on top fixed that up. Since replacement diaphragms cost about four times the price I got for a gig, I had a vested financial interest in nursing them along as much as possible.

The bands were all very happy with them, though. It was a time when bigger was definitely better, and you couldn't get much bigger than these buggers! Then I got myself a great deal on four new Emilar drivers, and these were everything that the Altecs weren't - super efficient, much louder and sweeter and they went out to 18 KHz at least.

So I made four fibreglass horns that looked like the big JBL 90 degree alloy flares and stuck the Emilars on the back of them. They sounded great and what's more they didn't give you a hernia putting them on top of the stack. But what was I going to do with the multicells? The market for them was pretty low, but they still worked, and I was reluctant to give

them away or just leave them sitting around not working.

So I stuck them in the rehearsal room.

I still had my original pair of chipboard 4560s I had bought from Gary Nessel years before. They had grown a bit in size since they had been left out in the rain and the chipboard had swollen, but they still were holding together, and the good old Nessel 15s still worked most of the time.

I sat the things up on a couple of old packing crates with a black drape around them, and the whole thing looked like a pretty mega system. Certainly one that more than justified the incredibly low rehearsal price I was charging. The first band to come in was very impressed with these black monoliths standing like sentinels in each corner of the room.

I think the compression drivers lasted about a week in the rehearsal room before the last one of the 4 died!

I was really stuffed now. I had this mega rehearsal system but no horns. New diaphragms were out of the question.

Then I remembered I still had the piezos from the main PA. With the new Emilars I didn't need them any more, so they had been holding the studio door open on hot days.

I ripped them out of their little boxes and got out the hacksaw. I carefully sawed the little plastic flares off the front of the piezos, but left the long skinny phase plug still sticking out the front.

Then I gaffer taped them onto the back of the big multicell flares, sealed the joins up with silicone, and connected them up.

Well, they didn't sound perfect, but they did work! But they were way too small. I figured that no-one would take them seriously being so small, so I got some takeaway Chinese food containers and glued them over the back of the piezos - and painted them black!

I figured if it was good enough for Celestion to do it with the early G12M speakers, then it was good enough for me!

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LIGHTING MONTHLY

December 1994/January 1995

Edited by Catriona Forcer

LDI LDI REPORT LDI

Julius Grafton gets out his thermal underwear to brave the freezing weather of Reno



Snow, more than I've seen before, and unnervingly it's outside the window of the United Express Brasilia, in a holding pattern 6,000' above Reno. I'm keeping an eye on the wing because ice buildup there leads to airplane crashes, and I'm not going to sit and watch myself in one. Where's the door?

The anti-ice device holds up, and now it's just a matter of getting around town on top of six inches of frozen white crap, which alternates with black ice that has traffic and lighting types sliding everywhere. The walk across the road to the LDI venue is a tortuous careful step by step routine, treading in the footprint craters of others and testing every ice sheet.

If the atmosphere outside was polar, inside LDI it's the smell of hot lighting, that unique odour of burnt dust and fresh new paint atop objects radiating 300°C plus temperatures

from their core. The generator sets are everywhere in the carpark outside, melting snow on their diesel's and purping power into the two huge halls crammed full of everything that is lighting, plus a whole lot more.

It's fair to say LDI is perhaps the best run trade show in the world for any of the disciplines that interest us at Connections, because there is a wide variety of attractions beyond the core exhibition - which, incidentally, costs you \$35 to enter. Workshops, seminars and tutorials number over 50, and cover the topic load.

•LDI '94 was held at Reno Sparks Convention Centre for three days between November 18 and 20. Next year (1995) it moves to Miami Beach Convention Centre, again to be held November 18 through 20. Fax them on 0011-1-212-229-2084 for advance information.

Bits

● Sydney company **Black Express Light & Sound** have won the job to refit Kicks Nightclub at Parramatta Leagues Club entirely with Martin gear making it Australia's first ever Martin 'showcase' venue.

● **Noisebox Entertainment Systems** have installed the new Martin Roboscan 812s into the Tea Gardens Hotel at Bondi Junction.

● **Adelaide Centre of Performing Arts** have bought a system of 12 Rainbow 216 colour scrollers with integrated DMX splitter and power supply. Supplied by Paul Beck of GUVT, they are to be used in theatre training courses.

● English distributor **AJS**, have sold Selecon custom 7 inch PC1200s to the **English National Theatre**.

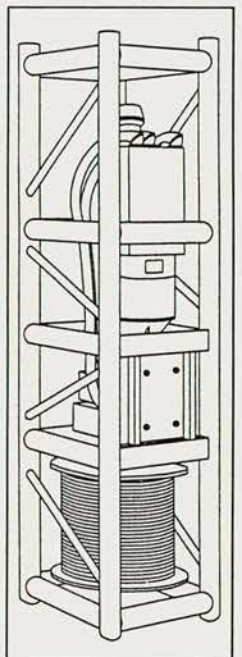
LDI SKJONBERG WONDER WINCH

Knut Skjonberg is something of a hoist and winch guru, who I met on one of his regular stints downunder installing his control gear. Now Skjonberg Controls (Inc) has a new truss mounted drum winch that is very neat indeed.

Dubbed 'the ultimate lifting machine', it will hoist 500 lbs, which is somewhere near a quarter of a tonne - great for a small PA or flown sidefill, and of course flying props and curtains. A small truss could be flown under a standard mother truss using this.

The motor has a 35 ft-lb fail-safe brake, the gearbox a 30:1 gear reduction, such that the load would probably stop on its own anyway if the 4hp AC servo motor failed. The speed range is 0 - 200 ft/minute, it comes with 100' of 1/4" wire rope supplied.

The unit weighs about 190kg without a load, and has four wheels for easy positioning and loading. Call Knut: 1-805-650-0877.



LDI HIGH END RELEASE NEW DATA FLASH

High End Systems released the most blindingly bright Data Flash strobe head yet, the AF1000 emits up to 25,000 joule with a colour temperature of 5600° kelvin. There is also a weather proof version which can be conduit mounted, the ordinary model is yoke mounted.

Control is by either Dataflash protocol, DMX 512, or it will stand alone and go 'flash', 'flash', 'flash' The highest output is a one second timing flash, it will flash down to 70 times per second at reduced power.

From GUVT 07 358-5022.

TURANDOT - A SECRET WEAPON FOR ENDING DROUGHTS? Lighting Report Page 72

RADIATOR

"It's Hot"

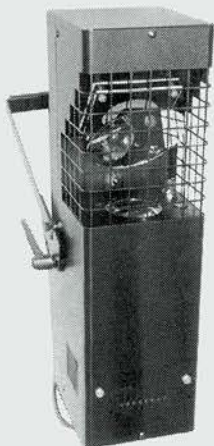


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Hyper II \$690	Wildmoon \$550

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LDI LSD IMPROVE YOUR WASHING

LSD are the Uk based lighting rental and production firm who designed and built the ICON moving light. Now they introduce the WASH variant, which competes with the VL5 Vari*Lite, a moving head that replaces the Par Can.

According to Nick Jackson of LSD (pictured) the WASH will deliver more light than a Par Can, and he thinks more than a VL5 - and it uses a 575w lamp. At 20', the output is 625 foot candles, vs about 500 foot candles from the traditional 1000 w Par 64 fixture.



WASH has some real innovations, notably dead quiet operation without fans, and also a very clever colour scrolling systems that mixes Magenta, Cyan and Yellow - like our printer does, to produce the almost perfect colour pictures you see in Connections!

NO FAN.

The optics rely on a system developed by a firm called Entertec, who also devised a bulb/reflector system for ETC's radical Source 1 lantern. The glass coated reflector passes heat out the rear, and the whole fixture is vented carefully. This is crucial for both lamp life and colour medium survival, the colour system used here is a cunning system indeed.

Entertec do offer this very same optical system to other manufacturers apparently, however they were not exhibiting at LDI so I couldn't explore this.

SCROLLERS?

LSD make their own scroller system which is quite popular on the road. The WASH uses

two scrolls, in a manner that takes a minute to comprehend. Each scroll has two colours, and is 90" long. The maximum colour change time is 1.5 seconds. The colours are, as we said, Magenta, Cyan and Yellow. These are graduated from 0 - 100% on the scroll, so the first 45" of scroll 1 would have a progressive Yellow graduation from nil to full yellow, then the second -and final- 45" of scroll has 0 - 100% of Magenta. The second scroll is set with Cyan and Magenta in the same manner.

To make colours you mix a percentage of two of these colours. In our Pantone book, we see that Orange is 87% yellow and 51% magenta. Red is 87% yellow and 91% magenta. Blue is 79% magenta and 100% cyan. Green is 91% yellow and 100% cyan. And so on.

LSD say the nearest similar colour mix system is the Pan Command scrollers which have three scrolls, they graduate via scientifically placed holes in each scroll. The downside is the eventual light transmission is reduced, say LSD. Moving light systems with a standard gate much smaller than the WASH use colour wheels, Vari*Lite use a very cunning radial dichroic system on the VL-5 wash luminaire.

WASH?

You choose your beam spread from glass roundels which you fit to the unit. The traditional oval Par beam is synthesised too, and may be rotated from the console.

CONTROL.

Like ICON, you drive the WASH with the ICON Console, which itself can also run Clay Paky and High End Systems moving lights - and output straight DMX-512 for dimmers.

RENT ONLY.

LSD do it like Vari*Lite do it. You can't buy, you can only rent. Down here you contact Bytecraft for the ICON system, they have one that has been here for some months - if not almost a year now. They plan to get some WASH fixtures in soon. Contact Bytecraft on (03) 587-2555.

LDI Strand Lighting and Martin Professional Alliance

As I physically left LDI, news broke of an unusual alliance between theatre lighting giant Strand Lighting and Martin Professional, the moving light experts from Denmark.

Caught on the hop out of Reno, I had but minutes to verify the rumour, which was confirmed as fact, a release from Strand stated that the firm would distribute Martin product to their markets, and that the Roboscan Pro 1220 is suitable for theatre markets due to low noise. This new fixture has a variable speed fan.

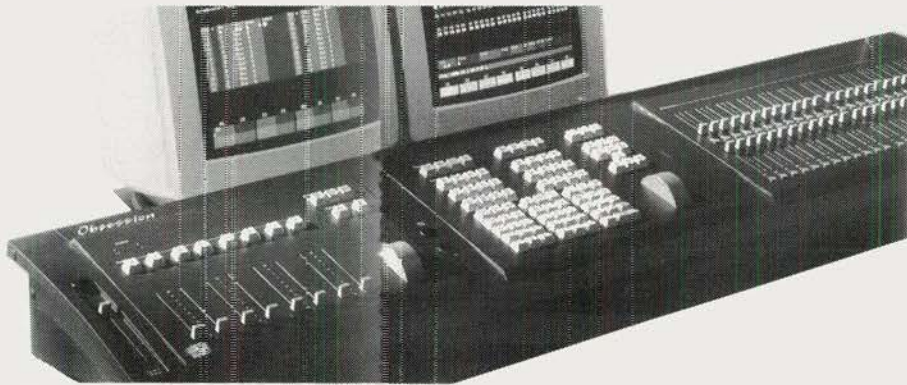
Getting fan noise down to a negligible noise floor or indeed removing cooling fans from

lighting is a pre-requisite for theatre and TV usage. Developments at LDI'94 flag that, with LSD producing the Icon Wash fixture without any fan whatsoever.

The alliance announced at Reno is unlikely to affect our market, where Strand products are distributed by Bytecraft, and Martin is handled by Show Technology. Nevertheless the whole announcement came as a surprise, at presstime local Martin Professional distributors Show Technology were non the wiser, however principal Rod Salmon said: "It's a positive reinforcement of Martin's product, we've sold 22 x 1220 units since Entech."



LDI OBSESSION & EXPRESSION



More Aussie interest at LDI was directed to the ETC stand, where the firm had two new consoles on show, which are pitched across the whole lighting control market. ENTECH Awarded Theatre LD Roger Barratt directed me there.

The Obsession is similar to the Light Palette in concept, it comes in 600, 1500 or (soon) 3000 channel versions. These are built on an industrial strength chassis with pull-apart boards that you access very quickly without tools. True! The ergonomics are very good.

Most very clever is the network feature of this system, based on the computer accepting more than one desk at a time. The computer is a 486 unit in a rack with an identical 486 tracking everything for redundancy. To this 'heart' of the system, you connect one or more consoles on an Ethernet bus.

Typical of the time saving this may produce is a TV station, where the LD is laying out the show, the stagehands focussing with a remote unit, and a tech is writing cues. This is a multi-user system, folks! From the computer rack, itself no bigger than a small amplifier rack, you drive your multiple DMX lines to

your chosen dimmers. Because DMX has a maximum of 512 channels, ETC just put extra DMX outputs on the system.

EXPRESSION 2

Since release in 1987, Expression has won friends. The new version of the board is suitable for moving lights with X and Y dual faderwheels and a link-list function. This lets you link channels and groups, for simultaneous control of pan and tilt. Additionally the FLIP attribute lets you invert lights on the other side of the stage.

EX-2 has 500 control channels for 1536 dimmers, and stores memory on a flash-RAM system. There is no external computer. The grab and store process is fast and easy to understand.

It is a sign of the times that ETC say the EX-2 will drive conventional, moving lights, and scrollers, and that virtually every show has some of each. Just four years ago the notion of controlling all these things from one console was a dream, and still today some touring shows have multiple consoles - a phase that will soon end.

**ETC is distributed by Jands, (02) 516-3622.*

Bits

● As a direct result of Entech, CDA Sales have jumped dramatically this month with 12 Samurai 1200MSR Moving Lights and TAS Mini Ultra Scans to BSS Adelaide; Diffusion Foggers left, right and centre including a large export consignment to Korea; Leisure Lighting sales to Top End Sound (NT), BSS Adelaide, Soundworks (WA) and Theatrecrafts (WA); more TAS Mini Ultra Scans to TCP (taking sales of these units to over 200 to TCP alone). CDA have also been busy programming and commissioning huge projects in Thailand and Korea with 70 Samurai 1200's and 64 NAT TM1200's.

● **Black Express** have just finished installing 8 x Martin PRO218s into Splashes Nightclub, Novotel North Beach in Wollongong.

● **Grafton's** lighting supplied Rainbow colour scrollers for the performance sequences in the film Proscilla Queen of the Desert. Lighting director Paul Booth fitted the 15 inch unit to an Ianiro 5kw fresnel on location. The extreme conditions such as dust, heat and vibration over dirt roads failed to worry the Rainbow and apparently the fan kept the gel string in pristine condition throughout the skoot.

● **Custom Audio** in Newcastle is helping with the major renovations taking place at the Waratah-Mayfield Ex-Servicemen's Club. For the auditorium, Colin Rothapfel has designed a lighting system using 4 x Roboscan PRO 1220s, 8 x Robocolour PRO400s, 16 x Robocolour 2s and a JEM ZR20 smoke machine along with GENI Switchpacks and Touchpanels. Colin will also provide Teatro lights, Robocolour PRO400s, 16 x Robocolour 2s and a 2308 controller for another part of the club.



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AE AUSTRALIA LAUNCH A MULTITUDE OF NEW PRODUCTS

AE Australia have launched the following:

Earthquake

The Earthquake is a laser effect light utilising an extremely bright rear reflecting halogen lamp. A constant colour changer, coupled with fast sound activated mirror movements, simulate a laser beam forming shapes such as circles, lines and ovals. RRP \$849.

Radiator

The Radiator, an advancement on the Rainbow, produces a flat array of 10 sharply focussed multicoloured dichroic beams which align as a blade. The Radiator has an added feature which makes the coloured beams appear to strobe to the beat of the music. The Radiator can be described as a high energy lighting effect which is very compact and robust making it ideally suited to Mobile Disc Jockeys and Driveway Hire Firms. RRP \$750.

Colourscan DMX-512

The Colourscan DMX-512 has real stepper motor control, factory fitted inbuilt pre-programmed sequences, separate gobo and colour wheel control options. It allows direct control, without the need of an interface, from any DMX-512 controller. They are perfectly suited to be controlled by the 32 (CS32) or 64 (CS64) Channel Colourscan DMX Controllers. Other features include: Inbuilt Microphone Controller, 8 Gobos, 7 Colours plus White, Adjustable Fo-

cus, Sharp Optics and High Quality Servo Motors. RRP \$1160.

64 Channel DMX Controller

Suitable for Colourscan DMX and other DMX Controlled Projectors, the 64 Channel Controller features LED display for all functions and is able to be fully programmed to control up to 16 Colourscan DMX projectors. Also available in 32 channels. RRP \$1466.

Hyper II

The Hyper II is similar to the Light Emotion 'Minirave' but more powerful. It is a twin lamp source projector and generates multiples of high powered coloured dichroic beams which dance and change colour to the beat of the music. RRP 690.

Minimoon

A mini sound activated dichroic coloured moonflower effect which can be selected by the operator to be static, rotating or sound activated light animation. When in static mode, the Minimoon can double as a coloured scatterspot. RRP \$290.

Technoscan Pro

The Technoscan Pro has all the features of the Colourscan DMX model but is an economical alternative for stand alone use when programmable control is not required. It makes use of factory installed programs and works independently via the internal microphone, and a

variety of music modes can be selected. The Pro features 5 gobos and 8 colours. RRP \$998.

Sagazap

The Sagazap's brightness is due to the output of the 100W MR16 reflective capsule lamp it uses. A 4 way switch facility allows various combinations for constant or sound to light animation of both the colour changer and the barrel or concave reflector. The two reflectors offer completely different effects and there are 9 dichroic colours plus white. RRP \$699.

Wildmoon

The Wildmoon scans dichroic colourful moonflower from left to right through 180 degrees whilst the beams rotate. The on board switch facility allows the user to choose to have the beams either rotate to the music, rotate continuously or remain static. RRP \$550.

Further info: AE Australia (02) 896 4033

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LDI

HIGH END HIPPY LIGHTSHOW

High End Systems ran the largest display at LDI '94 in Reno, a behemoth exhibit that contained the now obligatory theatre of lighting possibilities catering to 100 people at a time. This demonstration, held each half hour, took my fancy as the best concept at Reno.

Designed by John Adams, it starts with a kind of 2001 theme including a countdown, then a few minutes in a young lady takes stage with some cerebral readings, clearly the theme here is Theatre. Putting the now generation of programmable lighting into theatre is clearly a market penetration target for 1995, what with Martin getting cosy with Strand (see piece elsewhere). High End pursue this blatantly, the next part of the 15 minute presentation is boldly announced as 'Theatre Applications'.

Two costumed creations with large horns acted out a ski-fi scenario, with the mass of Intellabeams, Trackspots, Data Flashes and Cyberlights doing all imaginable. It worked. Along the way the fixtures themselves got the soft sell, we now know for sure that Cyberlight CX has a dimmer on board, for example.

HIGH DAY, LOWER NIGHT

Go *Head*, the hippy generation are reborn as zippies in the USA, and High End Systems who make Intellabeams and Cyberlights have seized on the far past to promote the future.

Imagine a hippy lightshow from the late 1960's. High End staged one, (or several if you get particular), inside a convention hall at the Reno LDI tradeshow. It was a Saturday night feature show with Jefferson Starship the leading act. 5,000 people were there. It was Very Large In Scale.

Arriving to a weird environmental lightshow staged by San Francisco 60's guru Jerry Abrams (Mr. Head Lights to you) with the air full of cracked fog, some guy did a pseudo acid inspired monologue, delivered over a low rumbling soundtrack. This was a fruit juice inspired attempt to do an acid trip without drugs, maybe?

Starship took the stage and proved the best

part of the late 1960's was leaving it. They were on tour, and you would never think so, the members obviously hated each other as they avoided interacting, the latest Grace Slick clone (the rest of the band were semi-original) tried, but was let down by the mix.

Don't get me wrong, High End the company are very much on a roll, with steadily increasing penetration into the USA touring market,

And growing exports to places like Australia. GUVT, High End's distributor, did a much better party on a smaller scale in Sydney after the Entech Awards, where Dave Dwyer ran a tight and funky band as a centrepiece to High End's very clever lighting design.

Reno LDI and the High End Hippy Night had some neat visuals, but it was badly let down by Z grade music.

LDI

new Cyberlight CX

Lightwave Research and High End Systems are the same thing in my mind, they are the Intellabeam people, known as the 'I-Beam' in American, a language looking for an abbreviation for everything.

The new Cyberlight CX is a stripped down Cyberlight, (a C-Lite?) but not that stripped down when taken in isolation. It is bright, and does everything I think I would need if, perish the thought, I ever went back to lighting shows again.

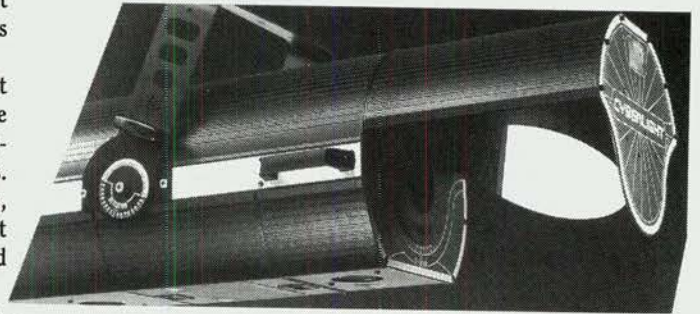
Sharing the Cyberlight chassis, CX has the same 1200w MSR lamp, sucking 8 amps at the mains. The weight is 41kg, length 1066mm, height and width around 300+mm each.

Yes, there is a mechanical dimmer. Two LithoPattern glass gobo's are standard, High End/Lightwave Research are leading the field with their glass gobo technology, but several manufacturer's displayed similar at LDI in November. A glass gobo allows almost half tone images, way superior to punched metal gobo's we are used to.

Total gobo count is 13, there are two gobo systems. One is a wheel with three fixed and

four replaceable gobo's, then there is a wheel of four rotating gobo's too. Colours come via dichroic glass on an 8 way wheel, so there are 7 colours plus open white.

You can manually adjust zoom, from 13° to 22°, there is a strobe shutter, variable iris, remote control focus and remote diffusion. Lamp turn-on and cooling system shutdown can be remote too.



Control is via a rack mount LCD controller, or the Status Cue console, which has just had a DMX facility confirmed working after some glitches - to be expected with any new high tech console. Status Cue is designed to work with a 486 computer interface.

*GUVT are the Aussie and NZ arm of High End, call (07)358-5022.

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TURANDOT - a lighting nightmare

This particular production of Puccini's *Turandot* has been staged twice before - once in Paris and once in Nimes, France. It's producer, Vittorio Rossi, sold the show to the Italian producers Aldo Pier Federici and Christiana who, together with Australian partners Kevin Jacobsen and Pat Condon, staged the show for three nights in Sydney.

The production cost \$7.5 million to stage at the Sydney Football Stadium and apparently the producers were calling for long range weather forecasts every ten minutes for the three months leading up to the shows. As we all know now, the weather was pretty dire for the entire time although the rain miraculously held off during each performance. Many of the crew were convinced that *Turandot* was Italian for 'swimming pool'.

The colossal set, measuring 85 metres by 40 metres, took 250 workers to build and used up 3,500 tins of paint. 650 tonnes of equipment was required to stage the event with 300 technical and backstage crew needed. The cast required 2,000 costumes, made by Milanese couturiers Casa D'arie Fiori, 4,000 pairs of shoes and 300 wigs. 20 wardrobe assistants and six make-up artists transformed the 700-strong cast which included 350 extras, an 110 piece orchestra, 250 people in the chorus, 45 ballet dancers, 45 children and 20 martial artists.

French lighting designer Christian Brea is no newcomer to these types of spectacles having already worked on several. English lighting designer Glyn Peregrine was his assistant/translator/director for the shows in Sydney.

"Christian doesn't speak English so I made the initial contacts with companies like Jands and GUVT," said a rather worn out Glyn. "We basically just wanted to find out what was available and what we could use. Unfortunately there's an equipment problem here because when Christian does these shows in Paris, there's an awful lot of 'big' equipment there. The original spec for this show was 60 Telescans and 200 2K Profiles but that volume of gear simply doesn't exist in Australia. From

a cost point of view, it was totally unrealistic to bring the gear with us. We were told there were 18 - 20 Cyberlights in the country and that Jands had some Intellabeams so we thought we'd use them with some Vari*lites to fill in. None of us really thought the

as a bit of a 'mish mash' of lighting fixtures including 32 Cyberlights (from Clearlight), 24 Intellabeams, 20 Vari*lite 2c, 30 Cadenza 2Kw Profiles, 20 Cadenza 2Kw Fresnels, 20 Castor 2Kw Fresnels, 20 Pollux 5Kw Fresnels, 240 Par 64 ACL, 32 Duet 1300w Flood, 72 MR16

Birdies and 7 Colourarc 2Kw Followspots.

"With hindsight we could have used Vari*lites instead of the Intellabeams," said Glyn. "The Cyberlights are doing the main punch and they work well. The only problem with them is that we haven't been able to use them in anything like a sophisticated way because the console isn't up to it. I'll probably get shot by High End for saying this but their software sucks. There are so many bugs in it you'd need Rento-Kill to come and fix it. When we started plotting it

became impossible to do time cross-fades and it doesn't appear to be a particularly user friendly desk. You have a console and then you have to access a computer as it's all based on a 486. You have to keep typing stuff in the computer and it all takes a long time. So unfortunately we've ended up having to use them in fixed positions and we very rarely move them. That means we've lost a lot of the subtlety that we were trying for. A lot of the moves and colours we could have done with have just gone out of the window."

Glyn did admit that Telescan also had their problems in the early days with the Mark I and Mark II consoles from Compulite being 'awful'. In fairness to High End, it's a very new system and Glyn expects to see it improve. Programming and controlling the Cyberlights was done by Melbourne based Sasha.

"So the Cyberlights were a major disappointment but we also cut them down because of lack of time," added Glyn. "We lost so much time to the weather and in the end we had one night to program the whole show."

Vari*lite operator Peter Lothian had his own problems

"We had a problem with communication because the lights are so far away, we found the



Vari*lites would be bright enough for the sort of distances we had and the only place we have them are on the upstage trusses. Surprisingly they work very well but they are closer to the stage than the side towers.

Then John Adams from High End Systems got in touch at PLASA and asked me how many Cyberlights I wanted. I replied 60 and his jaw

'Many of the crew were convinced that *Turandot* was Italian for swimming pool.'

dropped. I settled for 40 which he arranged for Noel Bourne to bring over for Entech and keep for the show. I actually ended up with 32 because the control console they have for them can only handle 32 lights. Apparently in the future there will be a software upgrade enabling it to handle up 120 fixtures but that doesn't exist yet."

The show ended up with what Glyn describes

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console wouldn't talk to the lights and vica versa," he explained. "We had to make some adjustments there because the data wouldn't travel more than 600ft. I'm just basically doing backlight with about 60 cues. I was concerned about the distance from the lights to the stage but the 2c's hang in there."

The original pre-production schedule had the rig set up on the three days of the 24th-26th, with the scaffolding and stage built the previous week. The 27th and 28th were intended for focusing with the following three days for programming. Unfortunately the lighting crew ran over-time with the focusing due to several reasons, some technical and some none availability of equipment.

"The lighting desk didn't arrive until half an hour before the plotting was due to start," complained Glyn. "That meant the patch hadn't been done and it took too much time. So we lost a lot of time the first night but managed to focus a lot of the gear the second night. We were still focusing on the 29th and then there was a mains problem here. The console was on house power and when one of the working lights blew up, it took out the DMX part of the console and so, just before dawn, we were still focusing off the dimmers because it wasn't a problem we could fix that night.

"On Sunday 30th we should have started programming but we lost



The stage is set but who'll catch the doves?

most of the night because of the rain which came in around midnight. We lost about 15 cues in Act I due to problems. There was nothing we could do about the rain and there was no point in trying to pretend we could work. The Intellabeams are especially a problem in the rain as they just stop although the Cyberlights are a little bit better as they are more protected."

After the first dress rehearsal on the 31st, the lighting team - Glyn, Sasha (Intellabeams and Cyberlights), Frank Calvi (conventional lights) and Peter Lothian (Vari*lites) - had from 11pm to plot the whole show and the last cues were being completed as dawn broke. But Glyn pointed out that the show had to be quiet dramatically simplified in order to achieve that with three nights programming swallowed into one night.

The final dress rehearsal was scheduled for the 1st but was cancelled due to the rain. Consequently the team did the first show on the 2nd having never rehearsed with the lights or seen them with the full company on the stage.

"We tried to adjust as we went along and then spent three hours after the show re-plotting stuff," said Glyn. "It actually wasn't too bad although there was an intercom problem right at the beginning of the show which meant we held the show for half an hour. I didn't have any coms with the front of house spots and the first three cues are spot cues. We couldn't start the show as there was no other way of doing it.

"The second show was better but we lost a number of Intellabeams because they got wet. Of the 24, 10 were down by the end of the show but because we had had problems with them on the first night, we had

continued over



Photo: Clint - 0541961166

GALILEO

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GALILEO II

Galileo II stands out for its advanced technology, reliability and unequalled performances such as high speed of gobo-changer (fixed and rotating ones), colour-change, strobe, opening/closing of the diaphragm, smooth dimming and extremely low noise level. This is due to the transmission that is no longer mechanical, but with special professional belts, which are non-slip and noiseless. The main characteristics of Galileo II are

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• Variable speed rainbow effect

• colour-change with audio sync

in two-tone or single colour setting

• Colourchange with or without

blackout. **IRIS:** • Very high speed,

opening/closing (100ms) extremely low noise

and linear. **SHUTTER/STROBE:** • Variable flash

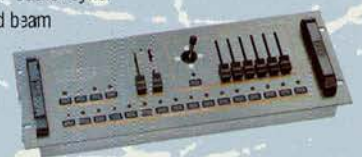
rate (0.5-12 flashes/sec.) • Strobe can be run

in sync, with audio bands resulting in effects

with really great visual impact. **DIMMER:**

• Very high speed, extremely low noise and

linear for 100% - 0% dimming.



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Turandot continued

cut down them down to five aside instead of eight. Mostly they are used for backlight and sidelight colour. We also had problems with followspots. It would be awfully nice to do a clean show."

Glyn described the whole event as 'fairly torturous' for him and he was looking forward to going home.

"Because the whole thing was so late there have been lots of budget problems from day one," he said. "Negotiations about it have gone on for weeks on end and I tried to step out of it. Toni Vebber took over those negotiations for Christian and spent weeks on the phone trying to sort out what we could have and what the budget would allow. It was only really on the Monday that we arrived, that Jands got confirmation of the rig from the producers. They had the information from us but the producers didn't give them the go ahead until then. That meant a lot of things were quite late and a lot of the gear which they were subbing in they had had to release because they couldn't guarantee to their subcontractors that it was definitely on. We ended up with a few compromises on the way for example we were supposed to have 10 colour scrollers a side on 2K Fresnels but they couldn't supply enough of the right type at short notice."

One slight worry for Glyn was the fact that there was only one generator which had already failed them once just before the first performance. Other problems included the doves which were released during the show and proved extremely difficult to recapture the following day.

The production as the first to fly trusses

from the Football stadium and apparently took several days of negotiations to achieve. Certain restrictions like no guys on the trusses when up in the air were imposed. Also if the wind got up to 45 knots an hour then the



Francesco Calvi, Peter Lothian and Glyn Peregrine

trusses had to come in. The original design included two upstage towers where the trusses are but they were cut due to budget limitations.

'Glyn described the whole event as 'fairly torturous' for him and he was looking forward to going home.'

"We've also ended up, for various reasons, with towers that are far too big for the amount of equipment on them," said Glyn who would only divulge these reasons off the record. Don't you hate that!

"Trying to sort out a show like this long distance doesn't really work" added Glyn. "It would have been better for one of us to have come out earlier. Toni did come out a week before us but by then a lot of the system had been made. One on one communication is so much easier than doing it by phone and fax. We could have sorted out the problems of the towers very easily just by sitting round a table and discussing it before they were built.

"Also, I don't know if it's to do with cost or it's just the way Jands normally work, but they had only one team of guys working bloody hard every day and night. Every time I've done one of these in the past I've had two crews, one for the day and one for the night."

Francesco Calvi, who wants to be an ex-roadie when he grows up, was probably the busiest operator as the other two guys were more concerned with overall scene looks and, despite the problems like language barriers, Francesco admitted he had enjoyed the job.

"It's been good, I've liked it and it's different," he said. "That's with hindsight, at the time I didn't think so. I was thinking: 'fucking hell get me out of here!' You can imagine at 5am still pushing buttons flat out after staring at monitors for eight hours continuous."

Glyn might have thought Sydney a bit of a nightmare but his next project is a full scale production of *Aida* in Luxor, Egypt. The show will be held outdoors in front of the pyramids and Glyn hopes to bring in 40 Telescans from Italy for the show. Wouldn't like to be the person who has to clean the lighting gear after that gig.

● Cat Forcer

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Smoke.....Peter Kemp Puffs On

Last month I mentioned about the problem of blockages in smoke machines. The usual remedy for this is to replace the block, which happens to be the most expensive part of most machines and usually results in a repair bill in the vicinity of \$400.00 plus to labour. Recently this has been addressed by The Effect Company of the UK, whereby instead of a solid block with a small capillary tube as an integral part of the block, the block can be disassembled into parts which includes a copper capillary tube that is replaceable. Thus if the machine is blocked, you simply pull apart the block and replace only the copper capillary tube, resulting in a much cheaper repair, \$40.00 for the tube plus labour.

Another thing to check when purchasing a smoke machine, is if the smoke is dry or wet. Wet machines result in residue left over things where the machine is used. A good machine with its thermostat set correctly should have a very dry output.

Another recent advancements in smoke machines is the availability of an attachment to produce a low lying fog type effect, (which is normally achieved by the use of dry ice). Problems associated with dry ice are: the storage problems prior to using it, the dangers in handling it and the fact that it is not easily obtained. The Effects Company (UK) and High End (USA) both have units for this, which use bottled liquid CO2 which is fairly easy to obtain and does not have the storage or usage problems associated with dry ice. The High End machine uses a freezing tunnel process, whereby The Effects Company machines uses a process whereby CO2 is shot into the smoke to cool it. The effect produced by these machines is virtually indistinguishable from conventional Dry Ice. The other advantage of such a system is the fact that it utilizes a standard smoke machine, which when not required for this effect can be used as a standard machine (a bonus for hire companies).

The market place has recently seen a number of other types of smoke machines that produce a haze effect (rather than the usual billowing smoke effect) which is meant to enhance beams of light but is basically invisible to the human eye, making them ideal for television, film etc. This type of machine has been commonly referred to as Oil Crackers (and JEM have recently released a Water version) though you must be careful in generalising under such a name. The DF-50 machine from the USA is often referred to as an Oil Cracker which is incorrect as it actually cracks the vapour and not the oil, thus it is much safer to use and is approved by a number of leading worldwide authorities for use in public spaces and theatrical venues.

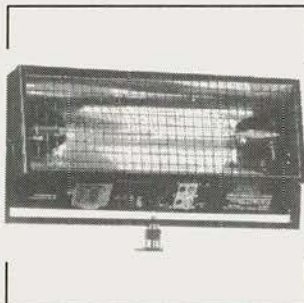
As a last point, ask to see the approval/health certificates etc on the machines and fluids that you are considering, this will sort out if the manufacturer are really serious about their product.

● Next month I write further on other types of smoke machines available today.

LDI LIGHTNING STRIKE

The Lightning Strike unit is an absolute grunter of an effect, used in many main release movies recently, including Jurassic Park. This 70,000w quartz lamp punches out a dazzling lightning effect, which would suit any film shoot or rock show. The output is temporary, so the mains inrush maxes out at 100 amps. They say you should have a 350 amp generator at 120v, or 40kW (52kVA).

You may only rent this fixture if you work in Hollywood, but I figured someone down here might like to cut a deal, they have done this in Tokyo and Europe. Fax Lighting Strikes (the company) on 213 461-3067.



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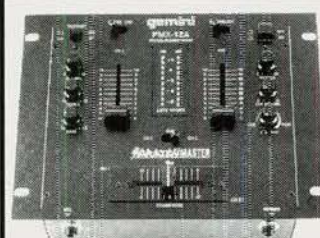
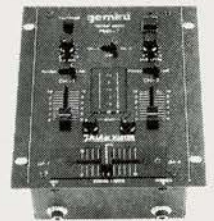
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PMX®-7 \$185

6" rack mixer with 2 phono, 2 line and 1 mic input, gain controls for each channel, removable crossfader control, talkover switch, cueing, LED meters, 6 1/2"(W) x 8"(C) x 3 1/2"(H), 3lbs.

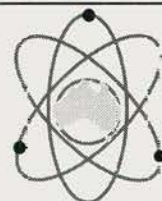
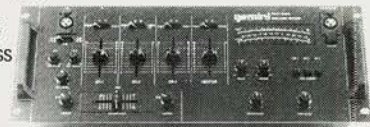


PMX®-12A \$239

10" rack mixer with 2 phono, 2 line and 1 mic input, removable crossfader control, master volume control, talkover switch, bass & treble controls for mic, cueing, LED meters, 10"(W) x 7 1/2"(D) x 3 1/2"(H), 6lbs.

PMX®-1000 \$449

19" rack mixer with 2 phono, 3 line, XLR and 1/4" mic inputs, bass & treble controls for mic, master bass & treble controls, auto mute talkover, assignable and removable crossfader, D. Booth output, peak hold LED meters, XLR goose-neck lamp adapter, cueing, 19"(W) x 7"(D) x 4"(H), 9lbs.



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EAST COAST STEP INTO FASHION

East Coast Lighting were recently responsible for lighting the Channel 7 sponsored RAQ (Retailers Association of Queensland) Fashion Awards held at Brisbane City Hall.

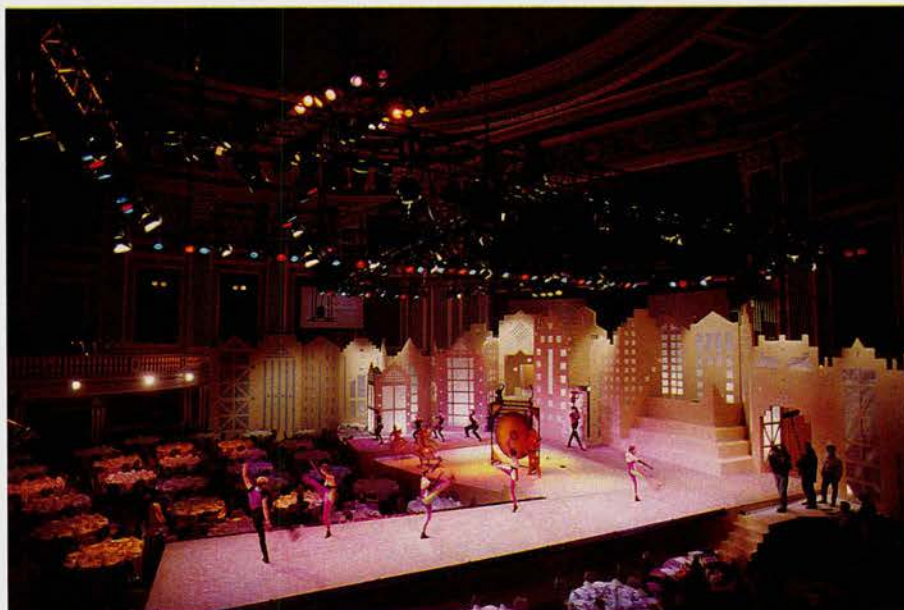
Lighting design was by David Lee of Channel 7, System Engineer was James Kenny of East Coast Lighting, Lighting Console Operator (and some wobblies) was Dyke Dunning with Spencer McPherson of Channel 7 in charge of the main wobblies. Followspot operators were Dave Kay and Luc Cartillier. The installation crew was supplied by East Coast

Fly System

- 12 x 1 tonne motors
- 2 x 2 tonne motors
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DEALER ENQUIRIES WELCOME



Vari*Lite Series 300

Vair*Lite always impress with their high standards, LDI '94 delivered the latest with style. Now there is a second Vari*Lite family in a marketing sense, with the Series 300 family of devices. This is made up of the new VL6, itself a smaller answer to the 2B fixture, the VL 5 wash luminaire, and the new Mini Artisan 2 controller.

This is a family of devices that live together or work in unison with traditional Vari*Lite's, typically the VL-2C and VL-4 and front line Artisan console. In a marketing move, Vari*Lite have appointed Series 300 dealers separate to their mainstream network, but of course in every case you only rent, you cannot buy Vari*Lites.

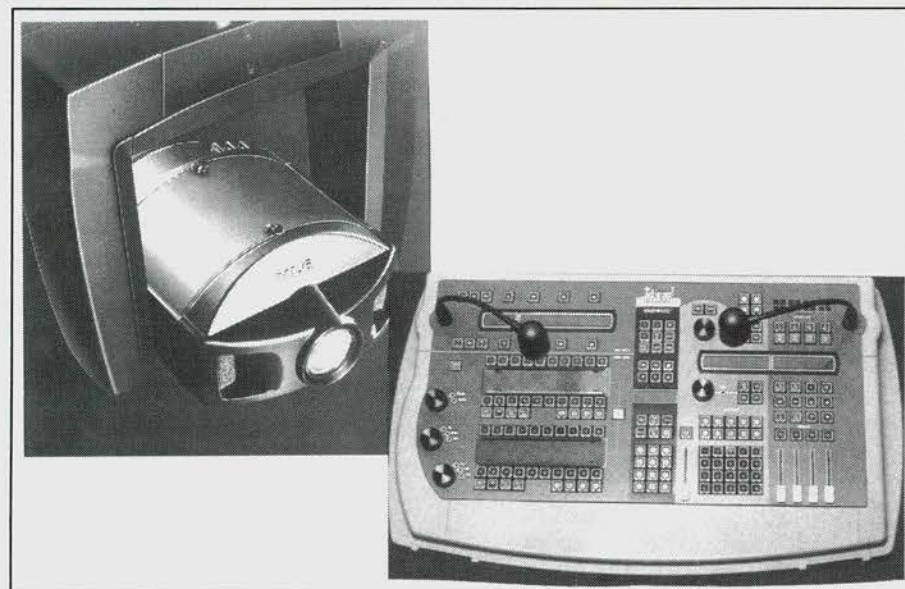
The VL-6 hangs on 400mm centres and

weighs 9kg. The lamp source is a Phillips MSR400 short arc lamp, with optics configured to match typical 700w compeditors. Two 12 way colour/gobo wheels allow for mix and match dichroic colour combinations, and half tone images on glass gobos. Like the VL5, the unit may also be driven direct from a DMX console if required.

MINI ARTISAN 2

This upgraded console is due for release about now, and will handle 1000 cues for 1000 Vari*Lite's or conventional lights. It can interface with a Mac computer and VLQ software for pre-programming and screen tracking.

Vari*Lite Australia can be reached on (02) 317-5200.



Bits

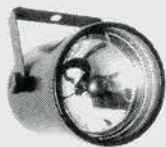
● **High End Systems** have released Version 2 software for the Status Cue now supporting USITT DMX512 protocol allowing a capacity of up to 1024 DMX from one link card; F-100 Performance Fog Generator DMX Remote Control Unit; a number of new 'Lithopatterns'™ (high resolution glass gobos) initially for use in Cyberlight™ and Cyberlight™CX automated luminaires; Universal™ Controller Eprom upgrade allows use of Emulator laser simulator on the same data link as Intellabeam 700MX and /or Trackspot automated luminaires from one cost effective controller.

● **GUVT** are marketing 'Towards 2000' from Burbank, California USA including the new I DMX Interface which converts LWR protocol from either the Intellabeam LCD or LED controller or Universal controller into DMX to allow control of any DMX device. This allows the user of these controllers to utilise both LWR protocol, for high resolution control of Intellabeams or Trackspots, and DMX simultaneously with all devices programmed from the controller.

● Over the next month Selecon Dealer **Herkes** will be putting a number of demo Rainbow scroller systems on the boards. In response to demand for a set of theatre scrollers separate from hire system demands, these systems are available to meet the needs of smaller hire companies and teaching institutions unsure if scrollers are what they want. One system will have 8 x '2/16' 16 colour 8 inch par 64/1200 scrollers with a MaxiPsu power supply and DMX splitter and cables and the other has 4 x 15 inch and an Iris 1 scroller plus MaxiPsu and cables.. Available for free demo loan, tel: (02) 319 3133.

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PAR 64 \$59



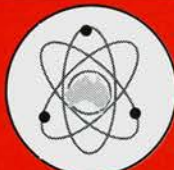
Aluminium including colour frame, silicon cable. Black or Polished.

LyteQuest USA \$330



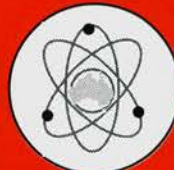
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with Natalie Apostolou

RoofTop for Underground Radio

Theme spreading the indie vision

SYDNEY: Accompanying the emergence of each full moon, Sydney siders lush population of X-girls and slacker boys can be seen doing their best impersonation of disaffected youth. The RoofTop, perched on top of the legendary Kings Cross hotel, has been transformed into the monthly mecca for the blank generation with discerning musical taste of the alternate kind. Underground radio is the next instalment of the long-running success story of those wunderkids at Underground Promotions.

Led by the ingenious Robert Giovannini- alias DJ Knife, Underground Promotions has steadily grown over the past two years from elite indie nights at a plethora of venues around the inner city. After gaining a cultish following, Rob and crew settled amidst the RoofTop as Underground Radio and has evolved

into a staple haunt for the denizens of cool looking for an alternate clubland.

Much of Underground Radio's success comes down to accurately reflecting the attitude of its patrons and delineating the standard, mainstream concepts of what a club should be. Rob and the gang present an evening of multi-media visual and anti-mainstream musical assaults.

One of the strengths of the Underground Promotions team is that they can showcase new alternative talent directly to its market and hence attempt to redress the void of access to new independent music which Sydney radio and press tragically bypass. Through drawing on the inspiration of the rampant young talent on the indie scene, Robert and Tim promote and expose the deeply neglected alternative music scene.

• Call Underground Promotions on (02) 633 4814.

UK DJ Magazine editor compares us with Euro scene

UK CLUB HEADS TOUR HERE

The UK has been the ringleader of the dance phenomenon since its inception and Australia has always looked to the

UK for music and club trends but with our own flourishing scene the tables have reversed and we are the subject of overseas speculation.

DJ magazine (UK) are running a promotional/cultural exchange tour to scrutinise what we and the surrounding areas have to offer Britain and beyond in terms of club culture. Editor Chris Mellor (pictured left) explains; "we're going to collect as much information as possible about clubs, shops, events, artists everything and then we've got to do a big supplement about Australia when we come back."

This is the kind of exposure that Australia's club pockets need to heighten our profile as a world class cultural destination. Events like Mardi Gras and Sleaze have already procured the international public's interest in terms of our gay club scene but our rapidly expand-

ing market including DJ's, recording artists and producers has yet to be fully exposed in an international sense. It is overwhelmingly apparent that the club scene will continue to grow in this country as we follow a similar pattern to Britain's dance explosion, particularly as never before has the youth market been so geared towards the clubbing experience.

The live band scene hasn't died in Britain, Chris explains that the two are "running in tandem really because 2 or 3 years ago we thought people weren't going to go to gigs any more, but they still go- and like guitar bands, some of the dance acts are trying to create and do live shows in one way or another. There's a lot of techno people doing live stuff as well - people like Orbital."

This kind of club frenzy has led to the increase in club openings and extensions. London's staple haunts such as Leisure Lounge, Ministry and Club UK all hold up to two thousand with maximum capacity crowds every weekend. "The thing that's happening now in the UK is that the actual clubs are becoming more well known than the actual DJ's, clubs like Hard Times or Cream in Liverpool are actually more well known than the peo-

>over

NEW SCENES, OLD HAUNTS

Hogies- Brisbane

Out of the ashes of Transformers in Brisbane has risen Hogies, a self-styled 'pool bar' which has been glowingly compared to Melrose Place's infamous Shooters. Offering an alternative to Queensland's larger than life night spots and possibly supplying a timely haven for those avoiding schoolies week, Hogies seems to be the first establishment to fill the void for more casual clubbing up North. The refurbished venue caters to the 18 to 35 market, opening seven nights a week and including a restaurant, nightclub with in-house DJ's and twenty table strong pool room. •120 Charlotte Street Brisbane City. (07) 229-1515.

Q. SYDNEY

Walk past the Central Station records sector of Oxford St on any given late night and there will undoubtedly be a healthy swell of punters casually hangin'. Chances are they are in line/in transit/or in turmoil, rejected by the style troopers policing the Q- Sydney's best kept club scene secret. Q is the casually funky progeny of Simon Modra and his club-wise partners, who have been on the scene in various manifestations over the years ascertaining what the hip public want and delivering it.

From the moment you step out of the street level lift (nice touch) you are struck by an atmosphere surprisingly devoid of the arrogance assassination quotient of some of the glammer establishments. The set-up includes three bar areas spanning over a sparse factory-style floor space, one of which is a massive pool hall. Much of the laid back attitude is directly attributed to the attention paid to the decidedly unpretentious decor which was designed by the architect responsible for the Burdekin among others, Danny Benlet.

Full use is made of the huge window >over



Get Wet, Stuff

FOAM PARTIES DRAW CROWDS

As BPM's rise, attitudes sharpen and the cities urban underground playpits are enveloped in the shimmering heat haze of Summer- the quench for cool on the dancefloor is being satiated by one Paul Dwyer. Paul is the entrepreneurial wizard behind Pacha productions, the initiator and distributor of the foam party concept. Foam parties have been enjoying immense popularity throughout Europe, and particularly Britain which exposes the British punters nouveau penchant for wading through things frothy and white.

Local sceners are rapidly immersing themselves in the trend with DCM's holding foam court in Sydney and Melbourne's Savage, Tasty and Redhead clubs toting foam nights throughout the Summer. Assuredly Mr Dwyer's diary is brimming with foam explosions throughout summer and nationally with more ambitious plans leading him to look into setting up an outdoor event.

• Call Paul at Pacha Productions on (02) 363 2239.

UK DJ TOUR (continued)

ple that play at them. The rise of the cult of the DJ has allowed for a ready made market in terms of crossing over into recording. "A lot of DJ's have crossed over and become pop stars like Sascha or Danny Rampling and have managed to make records that have got into the charts even Nigel Ben, the boxer has become a DJ now!"

"For the size of the UK there's an amazing amount of stuff going on. People have become a lot more interested in sound than they used to be and technical people have become more interested in what club people want as well, which is quite good. Things like Ministry of Sound opening where the actual sound quality was one of the reasons people went to the place. People used to be embarrassed about knowing what sort of mixer they were using but not any more they actually want to know the particular sort."

Included in the travelling DJ entourage are ex-patriot Andy Morris and Italian up and coming DJ Rame who tours extensively throughout the European circuit. The tour begins in Melbourne at the Metro in early December moving to Adelaide, then Sydney at Zoom on the 14th, Canberra on the 16th and back to Sydney for a massive outdoor event called Moonlighting-Visa Versa with a cavalcade of local DJ faves.

NEW SCENES, OLD HAUNTS

(continued)

sills which are blasted sandstone, while industrial antiques punctuate the barren space creating a lived in feel that engenders instant familiarity. Q has been operating in Sydney for just under a year, opening seven days a week and achieving a consistent 1100 max capacity crowd on weekends all purely by word of mouth. The proprietors maintain an aversion to advertising, allowing the right crowd to find them. With no door entry and 17 inhouse DJ's playing an inner-city flavoured funk/hip-hop fusion with low BPM its not surprising that those who discovered this oasis of breezy clubbing, stayed and brought friends.

The Q gang have now opened a smaller scale twin set-up in Adelaide led by renegade DJ Scott Thompson and by all accounts is being lapped up by the elite masses.

METRO UPDATES - MELBOURNE

Melbourne's most established club, the METRO is gearing up for the summer frolic promising to fire on all cylinders, keeping the dance floors sweaty and the queues round the block. New vibey nights include; Thursdays hit with the re-launch of 31 flavours the popular funk concept for groove dilettante's. Luv 2 B the new Saturday night feverfest with DNA'S dubs and anthems being spun by DJ's Mark James, Simon Digby and Miko. And look out for the British invasion by DJ magazine who bring their vibe tribe of Andy Morris, Coco Steel & Lovebomb and DJ Rame.

New lighting installations to derange the senses including Cyberlights, a 5 Watt Argon colour laser and a five foot mirror ball coupled with their thunderous sound system, suggest nights of untold glossy escapism. Boxing day has a VIP guest from London -DJ Edge leading the Christmas recovery with his progressive house sounds and an over the top dance party production While New Years eve holds promises of extravaganza with a secret guest being negotiated.

HEAVEN - ADELAIDE

If your feeling frighteningly funky on a Wednesday night in Adelaide, Heaven (at the New Market Hotel) is the place for you. 'Time Warp' is a 70's theme park for devoted superfreaks of tasteless nostalgia.

As a liquid light show swirls on the wall be prepared for the 70's spot drink prices through the night at any one of the three bars. Inhouse DJ's get the dancefloor pounding with platforms to Stevie Wonder, K.C. and the Sunshine Band and every treasure from the disco era. To get your afro moving. Speaking of hair you might also want to check out Australia's only bar room hair and beauty salon open all hours for that final super-chic touch.

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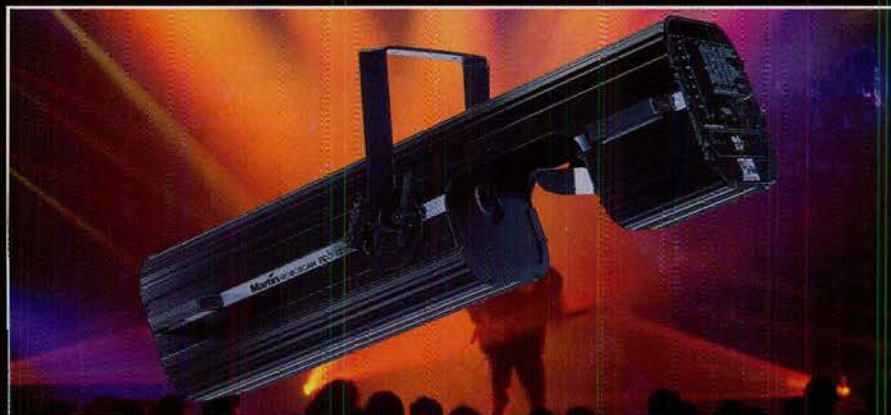
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MUSIC MI NEWS & UPDATE

December/January 1995.

FM Network try a new tack New Music

During November, Minister Michael Lee launched Austereo's latest commitment to promote and develop the burgeoning talent in the Australian music industry. This new music initiative, he commented "will result in more new and innovative music on the airwaves, greater opportunities for emerging bands and the opportunity for Australian musicians to express themselves."

As Australia's leading radio network Austereo is committing their extensive resources and funds to search for 'The Next Big Thing', which comprises of a national search for new talent who will be showcased in the Melbourne Music Festival next February.

Over thirty unsigned bands are being sought after and in conjunction with Sony Music, will be given the opportunity to record a demo and one act will be chosen to record a debut album and be invited to perform at the Music West music festival in Canada, next May.

In addition The Austereo New Music Initiative is setting up an advisory committee, comprising of key figures from the Australian music industry to consult with the network on matters including musical trends, and the part in which radio can play in foregrounding new Australian music.

NETWORKING TIME

The second annual Entertainment Networking Australia evening is taking place in February. Organised by Kathy Howard Management and Marcella McAdam, the night promises to be a veritable feast for meeters and greeters, featuring the guest speakers Roger Grierson, Tasso Papachatgis, and Kevin Simmonds among others. •To network call (02) 555-1466

Live and Sweaty dries up

Television's traditional end of season night of the long knives, has plunged into the ABC's programming department with the demise of the highly rated Live and Sweaty. The national comedy/sports show is being replaced by H.G and Roy, who will present a similar sports based program but without the all important inclusion of live bands.

The ABC seems to be adopting their commercial counterparts lack of vision or scope for the necessity of providing a live slot to showcase artists on a national level.

*Government to call
back when ready with
Summit Dates*

Music Industry awaits Summit

The 'Creative Nation' cultural statement has acknowledged the force of contemporary music culturally and economically on an international sense and promised to address many of the outstanding issues that are currently plaguing the music industry.

As a result the planned Contemporary Music Summit is still in the throes of negotiations. The summit which is due to take place in Canberra is still yet to be given an actual date but the word is that it will be happening soon with primary representatives from Ausmusic, ARIA, APRA, AMCOS, and the AMMF convening with Minister Lee and his state arts minister colleagues.

The Summit also follows commissioning of a report into government funded music associations, which has been completed by Coopers & Lybrand and handed to senator Peter Cook for future action.

APRA'S

Neil Finn blitzed November's APRA awards, winning the coveted Songwriter of the Year award along with Song of the Year for Crowded House's 'Distant Sun' and Most Performed Australian Work O/S, for 'Weather With You'. Luminaries and notables in attendance included Mr Billy Joel who won Most Performed Foreign Work (River of Dreams), Michael Lee, Peter Collins, Stephanie Lewis and Michael Gudinski. The honorary award for Outstanding Services to Australian Music went predictably to Ian Meldrum.

BACKYARD SPAWNS VIDEO, ALBUM

Sydney's Big Backyard concert, featuring Midnight Oil and the Cruel Sea among others, at the Domain was a mammoth success in terms of international exposure. A video of the event and live compilation album is in the works with overseas interest in a syndicated series featuring all Australian artists also under negotiation.

Rash of Festivals

Now in its fourth year The Big Day Out is bigger and more impressive than ever. It is now firmly placed as an international event receiving coverage from the major media networks world wide. Over the years it has rapidly become the premier event to spotlight emerging bands and increase established bands exposure to a disparate audience. The overwhelming popularity of the outdoor festival will reach fever pitch over Summer with the Byron Bay Festival, Teenage Rampage, national Big Backyards and the (at last) arrival of America's Lollapalooza tour in April.

Platinum To Sell

Platinum Studios, the preferred home away from home for some of Australia's premier artists including Paul Kelly, Marcia Hines, Stephen Cummings and Skunkhour, to name but a few, is being placed on the market. Current owner and industry entrepreneur Jim Mountford has decided to focus his energies on his pet project in New Guinea, a gold mining venture, and a Japanese leisure operation. Ads for the ten year running studio will be placed in Asian as well as domestic financial press, to increase the opportunities for continuing the studio complex. • Buy it: (03) 827-7483

Grunge @ Shock

Melbourne's Shock records have struck gold, again, with America's grunge flavour of the month Offspring. Offspring are distributed by Shock and exemplify the diversity of bands now operating on the label who are achieving crossover, commercial success. This is the second gold record for Shock after the thundering success of Sepultura. Offspring will follow their popularity with a tour soon.

Rumour mill

Discretion in this biz seems to be a thing of the past. Loose lips have been mouthing off about a regular patron to one of Sydney's more elite pleasure palaces who is paying highly to live out a few oedipal fantasies. It sounds as though this guy needs a manager with his flair for the dramatic; insisting the audience be comprised with only the lushest nubile nymphs snorting Bolivia's best export and showering him with compliments while entertaining them with his own concept of a drag show.

O/S Music Promotion Failed

Although the current cultural policy interest and changes for the music industry are at the forefront of the Art's minister's agenda it will take a major PR campaign to shift the overseas conception of our governments antiquated methods of promoting and exporting contemporary Australian music.

A recent article in an American based expatriot publication 'Word from Down Under', ridiculed the past years efforts for Australian music's assault on the American market. It says the dismal failures that were the OZ rock tours of the West Coast received little media coverage and even less crowd pull. Michael Thomas, frontman with Weddings, Parties, Anything was quoted in the piece, commenting that the government "really have no idea. They throw money into overseas promotion, but it's all misguided. they don't have any industry savvy and they expect us to get results."

Ted Gardner, from Larrikin Management, echoed these statements in a responding letter to the article. He described the Wizard of Oz tour as no more than a 'badly organised

piiss up.' and offered that only through the determination of bands and their management to make a dent on the market via reputation will any effect be made. The anti bureaucracy quotient is high apparently high among those that have attempted and failed with the previously misguided support of the government.

-Natalie Apostolou

Star in Debt

Media reports and industry grapevines are alleging that an Aussie major rock vocal star is being chiselled out by debt collectors. The artist's personal family trust company is owing in excess of \$3 million, to his record company, the bank and the tax office.

Although he is one of Australia's more prolific and enduring artists, his financial success seems to be outweighed by his penchant for rock n roll styled excess.

The tax departments impending legal action against his company has been temporarily alleviated by his personal manager who has been rumoured to have advanced an undisclosed amount to the singer's creditors at presstime.

Band Talk Remedy Stone



MEMBERS, WHAT THEY PLAY & INSTRUMENT LIST- Derek Tinwell; singer/songwriter. Mark Murphy; drums and backing vocals. Chuck Young; bass. Aaron Bateman; guitars. Cam Kinsey; guitars and backing vocals. Paul Bione; keys and backing vocals.

STYLE OF MATERIAL- Universal rock.

FAVOURITE MUSIC STORE- Manny's and Melbourne PA and Stage.

WHY?- Local to Studio 52. Helpful and musical people. Also because of the Hammonds, Leslies and older gear and Brad's a good guy.

FAVOURITE LIVE ENGINEER- Trevor Cronin.

FAVOURITE REHEARSAL PLACE- Studio 52 (Melbourne).

FAVOURITE RECORDING ENGINEER- Trevor Carter.

FAVOURITE PRODUCER- Trevor Carter (God)

BOOKING AGENT- Need one now.

BEST GIG & WHY- Prince Patrick Hotel- great venue, great inhouse sound system, good stage, good atmosphere and our crowd likes to go there.

WORST GIG & WHY- Swinburne, Hawthorn- lunchtime gig. Were supposed to play outdoor activities office then moved us to the 4th floor, after moving all our gear to the 4th floor, moved us to the 3rd floor.

NEXT EQUIPMENT PURCHASE- Wurlizer electric piano and bass speaker boxes.

LITES(FAV OPERATOR)- Craig Davis.

ROAD CREW- Trevor Cronin- FOH engineer. Fabian McLoy- guitar tech.

Craig Davis-general crew and lights. Andrew Wright- 2nd engineer.

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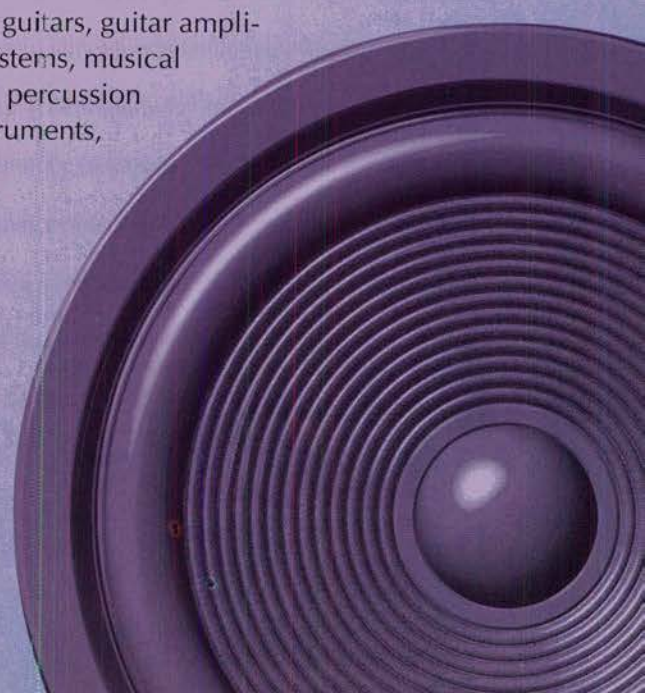
Exhibits of pro sound and lighting include sound systems, studio equipment, recording duplication, compact disc/tape production and packaging equipment, broadcasting, post production, acoustic design, public address, lighting systems, lasers, special effects, control equipment, entertainment facility design, video wall systems, theatrical and discotheque equipment.

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THE PA PAGE

CHECKING PHASE & WHY

An easy testing device detailed by Michael Orland.

It does not come as any great revelation to any of us old hands in the P.A. hire game that JBL transducers are reverse phased to almost every other brand of speaker component. But then, as I've said before, these articles were never intended to become "chewing the fat" sessions with other old hands, but rather, a helpful hints guide to new blood. Think of me as an audio equivalent to Molly Dye. We'll start, as usual, with a few basics.

In your typical dynamic speaker you have this coil of wire within a magnetic field. When a voltage is applied to said coil, it moves to and fro, depending on whether a positive or negative voltage is being applied. The complex voltage patterns within an average music program is interpreted by these vibrating coils attached to bits of cardboard or whatever as sound waves. The term "phase" is used to indicate the direction the transducer moves when either positive or negative voltages are applied.

You may have seen on "Beyond 2000" or "Quantum" how the principles of phasing are being utilised to greatly reduce noise levels within specific work environments. Basically, a microphone picks up the surrounding noise, it's signal phase is reversed, amplified and reproduced by a speaker system at the same level as the original sound, effectively cancelling huge amounts of noise. Such phenomena dramatically illustrate the importance of correct phasing, especially to those of us for whom reducing sound levels is the last thing we are paid to do.

A few issues back, in one of the more technically orientated articles in this magazine, a page was devoted to techniques in placing some bass cabinets reversed phased to others within the same system in order to utilise room acoustics for maximum efficiency. My advice to beginners would be not to screw with this unless you really know what you're doing. Deliberate out of phasing within installations can be interesting to experiment with, and you may indeed fluke a set of parameters where it really does solve problems and aid overall acoustics.

But in your average travelling here-one-day-there-the-next sound system, the golden rule is to keep all your speakers moving the same way.

The reason behind JBL's red or "positive" terminals being equivalent to everyone else's black or "negative" terminal was inherent within the differing design philosophies resulting in the split between the Lansing brothers way back when. But the legacy resulting from this split is still tripping up even the best of us today.

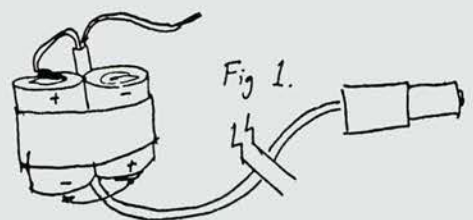
Even being fully aware of the pitfalls, I have often had to install different brands of speakers within adjacent cabinets to fill a spec, only to find that when I turn the additional box up, the overall volume reduces. So many ways to go wrong. Many folk systematically wire the red wire that leads to a

JBL speaker to its black terminal. Many others, if it is a JBL cabinet, will always solder the red wire to the negative terminal of the input connector. And when the reverse wired wire is again reversed at the speaker, it's no longer reversed! Confused?

The answer is simple enough. Assume nothing. ALWAYS check your work. To do this gaffer or cable tie two D cell 1.5V batteries together as per Fig.1. Link one's positive terminal with his mate's negative terminal. Get a good length of speaker cable with whatever standard speaker connector you use (XLR, Speakon, etc.) on one end. At the other end solder one wire to one of the remaining battery terminals. Leave the other wire and terminal unconnected. Plug this affair into one of your speaker cabinets and touch the loose wire with the loose terminal. The speaker will either push in or out. Thus you have established a standard, or if you will, a point of reference. This battery/wire/connector concoction should live in your toolbox and be consulted every time you install a speaker into a cabinet. It also comes in really handy when hiring extra cabinets or supplementing inhouse systems. As long as you can see, or even reach in and feel, which way a speaker is moving, you can greatly reduce paranoia of speaker compatibility.

It also makes a handy instant signal generator. If, for example, your mate is returning a monitor wedge he borrowed overnight, well I guess you can make up some leads for hooking it up to your home stereo for checking, by which time he will have complained about being double parked or late for his next gig and taken off. Or you can simply pull your handy dandy phase checker out of your pants and confirm in seconds whether the pulsing speaker and clicking horn are still operational, or whether you need to think about replacements (components AND mates).

1001 Uses! Instantly confirm at auction inspections whether you really will be bidding on someone's "bankruptcy distress" stock, or in reality helping some slime in a cheap suit dispose of uneconomically repairable lemons. My batteries-on-a-lead have been an indispensable part of my set up/test procedures for years. Trust me. The few minutes it takes to rig up will pay off big time.



Michael runs The Public Address Co in Sydney, call (02) 799-7219.

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