

Channels

World's 1st
FULL NAMM
Report

Free

The professional Sound and Lighting magazine

Number 11

1st February - 15th March 1992

Production
Spotlight

Pub Run

NAMM



LOS ANGELES: 750 exhibitors and over 70 Pro Audio manufacturers used the show to debut new products aplenty. Our exclusive 3 page report starts on Page 18.

LDI 91 latest in LX

RENO, U.S.A.: LDI 91, at Reno late last year will be remembered as the great moving light show, the year every possible moving light was unveiled, even the ubiquitous Taiwanese Vari-Lite copy! Our full report starts on page 22.

Andrew Horman Dies



The industry was saddened by the untimely death of Rebel International director, Andrew Horman on the 14th of December last year, from an Asthma attack at home with his family.

Andrew Keith Horman established Rebel in partnership with Ian Woodhouse back in 1987, which is an importer and distributor of professional audio equipment in the M. I. and contractor market. At the time of Andrew's death, he was in the midst of establishing Rebel International, which will distribute Atlas Sondalair products throughout Asia.

At just 33 years of age, Andrew was truly a fixture of the industry, leaving Swinburne College in 1979 to work in Klarion, which was one of Australia's
continued on P16

DCC vs MD vs DAT

Just when you thought LPs were dead, DAT was in, and CDs were safe ... Philips and Sony square up, while the record label bosses tremble! Our full report of this tussle is on Page 4.

EVENT PLUS

The new Memory Lighting Console from Jands, with 48 or 60 channels, 24 Assign Masters, more memory, and extra features. Just released- read about it on Page 5.

AUNTIE FRANK

What do you do when the sheep don't co-operate? And read how a simple lighting maintenance task can convert you Frank discovers God!
Page 27



Bob King

Divinyls

Page 10

Tommy Emmanuel

Page 8

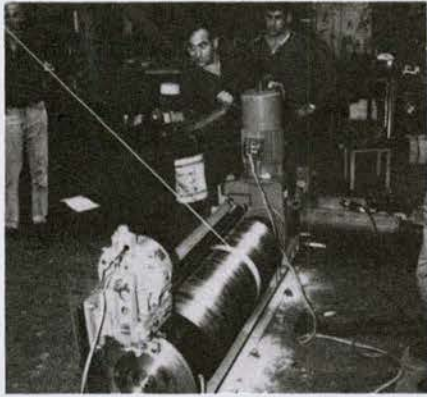
Maybe Dolls

Page 9



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- and lot's MORE!



Hoists undergoing testing in Sydney

Burswood installs power flying system

PERTH- Burswood Show Room, the 1300 seat lyric theatre within the Casino complex, have updated their stage machinery with 12 power flying hoists. The 3/4 tonne capacity hoists have Skjonberg Controls Inc 'Smarts' which allow accurate positioning of each fly-bar to within 5mm. Flying speed is 30m per minute.

Jands Contracting won the contract to fabricate and install the system, the consultant was Denis Irving. This makes Burswood 1 of only 3 major venues with major power flying systems, Victorian Arts Centre & the Sydney Opera House are the others. The system will allow the venue to attract major production shows, Buddy will be the first show to use the new system.

Corrections & Apologies!

The last issue of Channels was created amongst the wreckage of the Editor's very traumatic move from the farm to the big smoke, thus a few whoopsies drifted through the net....

Of course there is no such Theatre Consultant as Denis Irvine. (Issue 10, Page 3.) The real person is **Denis Irving**, to whom we apologise for mucking up his name.

Then there is the poor burgher in Epping NSW whose phone number was listed as our Fax number in the Publishers box in the last issue. He tells us his phone rings late at night with just eerie fax warbling when he answers, shaken from deep slumber. The correct fax number is, of course, **(02) 876-5715**.

Jands Auction 'goer'

SYDNEY- Hailed as a test of the strength of the Sound & Lighting market during what is sometimes referred to as a deep recession, the December event boasted a clearance rate of 90%. Well over 200 industry types crowded the one day event, which saw industry auctioneers Grey Eisdell Timms in action, moving a diverse range of superceded, soiled, seconds and unwanted factory merchandise. Strongest performing line was Jands own manufactured product.

Channels

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Contributions are welcomed!

Send your item by mail or fax, if you'd prefer to discuss your idea first, give the editor a call.

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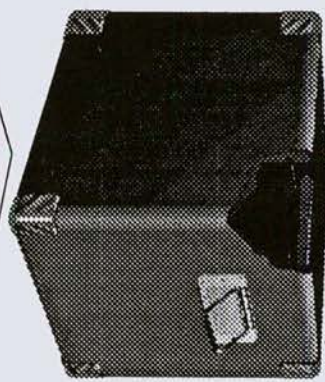
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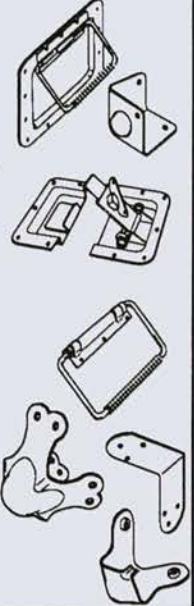
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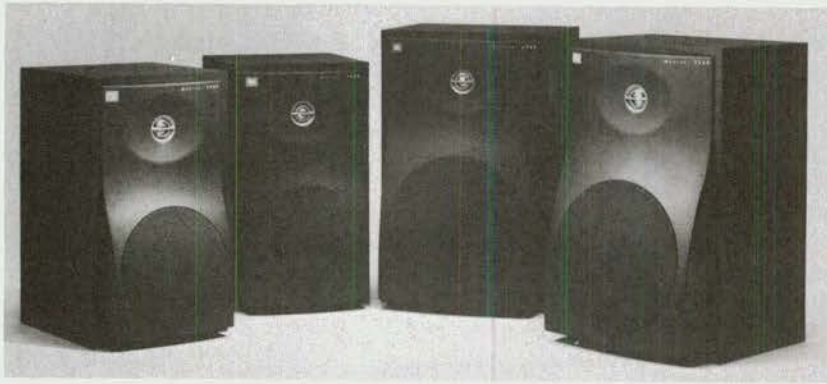
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JBL 4200 CONSOLE TOP MONITORS



NEW YORK- A new duo of console top studio monitors from JBL come with magnetic shielding and some snazzy audio concepts, according to Mark Terry, the E.V.P. of S. & M. at JBL International. Our American cousins sure like titles! These new monitors, the 4200 series, incorporate two models, the 4206 (based on a 6" woofer) and the 4208 (8" woofer).

What makes the 4200 series a big go is the nearfield alignment of the acoustic centres of the high and low elements, so optimised as to make for serious listening within 1.5 - 3 metres, which of course is just about right for plonking

the monitors on the mixing console meter bridge.

A new 25mm pure titanium high frequency driver, with JBL's patented Diamond Pattern Sound is enhanced by a lens which acts as a kind of mechanical filter to balance energy output to within +/-2dB to 20kHz. Along with long linear excursion design of the woofer - which makes for less distortion and power compression - the 4200 has a complex crossover network which tightly controls frequency response.

JBL expect to ship the 4200 series before our (Southern) Winter.

New MD422 Mic



SYDNEY- Sennheiser has released an improved version of that venerable classic microphone, the MD421, now tagged the MD-422. It has a five step low frequency attenuator, and a sleeker sort of design. The 421 was many peoples favorite kick drum, tom-tom, sax and guitar amp microphone, with a presence peak at around 5k - otherwise it was a pretty flat sort of mic response-wise. The 422 carries on the tradition, and has better off axis high frequency rejection than the 421, according to a recent tester. The low frequency capability is still there, and the new styling looks like it will be better surviving that the 421, which was prone to the odd knock and ding when assailed by pissed drummers and clumsy saxophonists' - that's all of them, isn't it? (Just jokes!) Retail price: \$669. (As opposed to the still available MD-421 at \$539.

For more information call the importers, Syntec, on (02) 417-4700.

2 Gates



SYDNEY- More Noise Gates, DBX offer the 363X which is a dual unit with a suggested sell price of \$595 inc. tax. This is in DBX's half rack width forma. Previously DBX had a single channel gate, in the same box, the 463x - which was a little skint on features. 363x has Threshold, Hold and Release controls, stereo linking, and Key Monitor/Key Engage buttons. Indication of gate functions is three LEDs. At the other end of the market is the Drawmer DS 404 Quad gate, joining the DS 201 Dual gate, and the DS 301 Midi/Expander/Gate.

A pair of variable high pass and low pass filters allow you to select frequency sensitive gating by setting as narrow a bandwidth as you like. Internal/external key source is switchable, as is Hard or Soft gating. Threshold, Release, Range and a Key Listen/Bypass switch are provided, likewise three LEDs for indication of signal approaching then gating. A slave link switch on the first three gates adds the final touch.

Both these products are distributed by Amber Technologies, phone (02) 975-1211.

AUX 1

FRED & WILMA had a Barney? This cryptic refers to Sydney's most pugnacious lighting production company owner, who was recently on the receiving end for a change. The blow was delivered by a very loyal but possibly long suffering employee, who was 'on holidays' when we called to get the nitty gritty. With a desire to keep your columnist's nose in a straightened condition, we now leave this item alone.

Roger Grierson goes legit ... the one time musician, band manager and promotor has won himself a real job, as our photo proves.

Roger was your (former production company owner) columnist's meal ticket once, hiring PAs for the Allnites & The Johnnies. Later he joined with Stuart Coupe and formed



Green Records, truly carving a living from the more fringe elements of our trade. It's Mr. Grierson to you, Polygram Music Australia's new Managing Director.

Sound Engineer George Gorga is now freelance, his phone number at home is (02) 387-6139, or mobile 018 202747. George has worked for many notable act's and production companys, and has just been named 'Best Live Sound Engineer' in the survey conducted by the Australasian Music Industry Directory. George is pictured on Page 9, on a rare night off, hanging with his flatmate, Tony Szabo who won an award for "Reddest Hair" (just jokes, it's died that way!) and is also a freelance Sound Engineer. Two for the price of

Gary Barr from the Musicians Pro Shop in Brisbane denies knowledge of the apparel depicted on the back cover of last issue. We fully support Gary in this, the apparel was obviously too small to have been of interest to him. We know who 'Sneaky' is, but we're not telling.

John (pall of smoke) Goldsmith of Kosmic Sound & Lighting in Perth has aquired a Tiger Moth vintage aircraft. Without doubt his life insurer has jacked up his premiums!

Roy Adams from Kosmic has moved to Sydney to take up a position with Roland Australia. Back in Perth, Kosmic Sales Manager Greg Garbellini is now the proud father of a baby girl- Indiana Louise Garbellini!

Mick Previtara, Brisbane Legend, has obtained Liberal Party pre-selection to compete for the federal seat of Griffith, which encompasses part of Brisbane. An 8% swing would see Mick playing bass in the bar at Parliament House Canberra, with Rob 'Fat Cat' Eastic no doubt becoming ministerial assistant in charge of national affairs and honorary house console operator at the big gig in the house on the hill. The New Order? 'Z' Cars for ACP's tour crew?



Your editors old sparing partner Harro Heinz of Renkus Heinz has closed his U.K. sales office, at a time when the company's profile has never been higher in the UK. The UK Manager, Graham Harrison, had got a local hire company R.G. Jones up to steam with the C-1A system, which has been seen at a lot of classical concerts through Europe. Nevertheless, "Sales have not been up to expectations" was the line.

Kicking the horse while it's down? Soundtracs lawyers have given Studiomaster (in receiver-ship) a flogging for using the name "Tracmix", which is a Soundtracs trademark. Damages and costs have been decided in favour of Soundtracs.

Soundcraft's EUROPA concert board is on tour with Brian Adams, provided by Canada's Jason Sound Industries.

Yamaha's PM 4000 made it's UK debut in December at the Nomis Studios in London.

NAMM will mount a (North-World) summer show after all. The event is planned for June 20-21, in Atlantic City New Jersey.

George Bush had a practice run before visiting Australia- he toured Peavey Electronics on December 3rd, and said lots of nice things about how the firm had been going for 27 years, and how great everything was in Mississippi. Peavey's home state is evidently running against the recessionary trend in the U.S. of A. Hartley & Melia Peavey then handed the Prez the obligatory souvenier, a guitar, with U.S. flag paintjob. Rousing stuff.

Alesis proved it works when the ADAT 8 track Digital Recorder was demonstrated at the AES Show late last year. Two machines were locked together, with the unit's seamless crossfade capabilities given a run. The display silenced the critics that wondered if the thing really does function. Our (World First!) report on ADAT back in November solicited great interest, the importer is Electric Factory, call (03) 480 5988.

Audio Analysts (one of the Top 5 S.R. firms in the USA) have made a I-o-n-g move from upstate New York to the middle of the continent- in Colorado Springs, CO. The firm decided to integrate all the various parts it had spread across different buildings, and escape the cold winters to be closer to the West Coast market too. It seems many of A.A.'s crew nominated Colorado Springs as a fine place to live, so the brass listened. It seems there are more experienced crew type people living out there than there were up in the deep North.

Wanna used PM3000 40 ch? Call Pierre Guillotte at Audio Concept A.C. Inc, in the USA. He wants US\$30,000, and also has a package of 8 Martin RS1200, with QSC amps and BSS X/O's with cables and cases for US\$28,500. The number is (1) (514) 527 8366. Tell him we sent you.

Philips ready with DCC, Sony with MD

Cassette & CD format war heats up

New York - The debate has hotted up, will the CD prevail or will Philips new Digital Compact Cassette (DCC) become the new consumer item of the mid '90's? According to a report in Pro Sound News, a Philips spokesman said; "after nine years of exceptional success for CDs there are still only 120 million CD players in use. That's considerably less than the 180 million cassette players we sell every year". (I think he meant 180 million cassette players SOLD total every year - Ed)

Dolby Laboratories in San Francisco have struck a triumphant blow for the traditional cassette, with Dolby-S reportedly eliminating any perceptible noise while increasing dynamic range by up to 24dB. Record labels in the USA are slow to buy the Dolby-S encoder, but the company is very bullish. It remains to be seen whether Dolby-S will appear as a standard feature on new cassette decks.

Meanwhile the projections have DCC's retail price somewhere between ordinary cassettes and CD's, with an industry observer noting that cassette prices have been rising in the same manner LP prices rose when record labels tried to move the market onto CD's. The rise in pre recorded cassette retail prices has resulted in stagnated sales, 23% down on the past year.

DCC machines are under development by Philips, JVC, Sharp, Tandy, Sanyo and Yamaha,



DCC Cassette - same dimensions as analogue cassette; 90 or 120 minutes play time.

and are expected to appear at \$800 - \$1000 initially, but of course this will drop fairly quickly if the format is as popular as the manufacturers hope. It is expected at least 500 DCC titles will be available at launch time, and of course much will be made of the DCC machines ability to play ordinary, existing, analogue cassettes. (But not the other way around - a DCC cassette will not play on your old cassette player!)

Then of course there is Sony's Mini-Disc (MD) which is scheduled for release at the same time. Sony & Philips joined forces in licensing each company's format, visualising DCC would become the dominant 'portable' cassette tape replacement, with MD knocking off the CD. Labels supporting DCC are PolyGram, BMG, Time-Warner, MCA, EMI, Virgin and Sony Music, while support for MD has been offered by EMI, BMG, Warner & Sony. MD should appear late in the year, or early next year, and may meet resistance as an MD player can't play a traditional, full sized CD.

Label bosses don't see all these formats surviving, "a multiple format world is not new to us, but the consumer will make the ultimate decision", according to Trish Heimers of BMG who was quoted in Pro Sound News. Consumers may be more hesitant than the marketers think, how many people do you know that bought Betamax VCR's or even before that 8 track cartridge players? Then there is the 8mm Video Format war, and the writing is on the wall that the consumer will sit tight - right?

Philips of course are sponsoring Dire Straits World Tour to debut the DCC in the North World. Notice this debate fails to mention the DAT, which is amongst us now, and will probably remain a professional niche format, where DCC isn't really a suitable digital mastering format and DAT specifications are better. Sources- Philips Press Office, Pro-Sound News, David Frith (SMH) and archives.

Channels Snapshot

Digital Compact Cassette (DCC)
 Format: Digital Record & Playback system
 Number of channels: 2 (stereo)
 Sampling frequencies: 48, 44.1, 32kHz
 Frequency range: 5-22,000Hz (@ fs 48kHz)
 Dynamic range: >105dB
 THD (inc. noise) >95dB
 Wow & flutter: Quartz crystal precision
 Tape style: (Video) Chrome or equivalent
 Tape speed: 4.78 cm/s
 No. of tracks: 8 digital audio, 1 subcode.

More Theatre News

Just after last issue went to press, more Theatre redevelopment projects were mooted. In Sydney, Greater Union have unveiled plans to expand the historic State Theatre, which is conditional on a Casino license being granted. The Casino would presumably cross-subsidise the Theatre project. That becomes a political issue.

More impressive is Mr. Ken Scoble's proposal to buy from council and refurbish Melbourne's Regent Theatre, the 3200 seat (Yes!) Theatre having lain empty for more than 20 years. Projected cost would be around \$40 megabucks.

Strand Hire sold, and Robert Nicholls retires

Australia's largest lighting hire business, Strand Hire, has been sold to a company headed by Bob Prosser and Frank Hawk, who are one time Strand (Melbourne) employees. Control of the Sydney, Melbourne & Brisbane outlets passed to the new owners on Saturday 18th January.

*After 20 years service, Strand Sydney Hire Manager Rob Nicholls announced he would retire on Jan.18th. The popular Rob will attend to the gardens of his Mountains home, and help out Ian Baseby at Rosco Australia. He'll be missed!

GENERAL BOURKE HOTEL, PARRAMATTA (Sydney).

Here's a weird venue for you .. the General Bourke Hotel at Parramatta runs bands four nights a week after a very lavish refurbishment. The internal effect of the place is very tasteful, but far from practical. The stage is OK, at about 20' wide x 12 deep, but the room is small. It is outside that you scratch your head because what was a beer garden is now a restaurant/bistro where at least early on, you gotta sit and eat. The way it's built makes it 'bitsy', and it looks like the architect went to great pains to preserve a tree that is built into the beer garden deck. Very tizzy.

So you've got this smallish pub room with an equal space outside that is 2/3 covered but all split level decks, railings and restaurant for seated people. I'd do away with the glitz and effect, and have built up the outside beer garden area to the same level as the gig room, then made it so you could pack the restaurant tables away for more people space. At least there is a mixing position that ain't bad.

Worst of all is the load out, because the Disco carries on till 5am you gotta load out through this little half door thing behind the stage. Very slow.

-Name withheld, our contributor suspects he/she it will work in this room again!

Call us! ☎ (02) 876-2612, or
Fax (02) 876-5715 or even write -
PO Box 439, Epping NSW 2121 Oz.

AMA - Australian Music Association wins tax fight

Melbourne- The Tax Office have confirmed that sales tax on mixing consoles shall remain at 20%, unless the mixing console incorporates a tape deck. The ruling comes after years of confusion, where mixing consoles intended for multitrack studio use were deemed taxable at 30%. The AMA funded the preparation of a report by KMG Peak Marwick, and then made personal representations to the tax office, who have confirmed the 20% rate. Thanks, AMA!

GLOSSARY Biz talk **A B C**

K **Keg:** Item often used as base for temporary stage.

KHz: Abbreviation for kilohertz, replaces old title of kilocycles

L **LED:** Light Emitting Diode.
LEDE: Live End, Dead End. A listening room design technique used in studio control rooms- absorptive material is placed near the speakers & reflective material behind the listener.

Low Pass: Circuit that stops high, & passes low frequencies.

Event Plus carries forward

48 and 60 channel consoles released at LDI-91

RENO- A Sydney based company releasing it's prestige product half way around the world? The move is testament to the successes Jands have had exporting Lighting Consoles, according to Director Paul Mulholland.

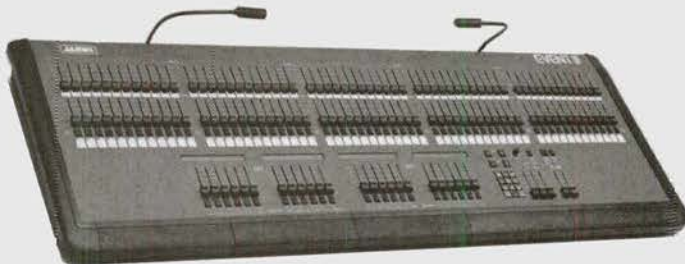
Event PLUS continues the theme established with the Event, which has been available in 24, 36 and 48 channels since it was released nearly 12 months ago. Event has made serious inroads overseas, where it competes against a plethora of types, like Celco & Avolights.

Where Event incorporates a 68000 micro-processor, (large by lighting console standards) the Plus uses the 68030, which allows 24 Assign Masters vs. the standard Event's 12.

500 memories are available, which may be formed into 99 pages of 24 Assign Masters. In addition, the operator may record individual page setups into any of the 99 files available.

The 24 Assign Master Faders can be used for Memories (scenes), Chasers, or Cue Stacks or any combination. In fact, it is possible to run up to 12 simultaneous Cue Stacks (timed playbacks). Strand Galaxy users rejoice!

Wide Mode (single preset operation) can be used to double the number of channels in use- thus the 48 channel board then drives 96, and the 60 channel controls 120. This is a popular



feature in today's lighting environment, where colour scrollers and moving lights (which can eat up 6 channels per address) are addressed by DMX-512, the standard output protocol that Event uses.

An enhancement born from user reaction to the standard Event is the ability to use the 'Hold' master as a submaster controlling all 24 Assign faders. Furthermore, scene recording has been even more simplified, with 'One Touch Recording' available by holding down the Record button, while punching an Assign master fader button to record that memory to an Assign Fader. The Event Plus page consists of 20 memories and 1 Chase. MIDI can be used to drive the desk if desired, via the 'MIDI IN' socket. Event's standard function key-pad is retained, and every Assign Master has an 8 character LCD display.

Call Jands (02) 516-3622 for more information and a spec. sheet.

**First local Event Plus will go to the Bankstown Civic Centre courtesy of The PA People.*

International Tradeshow Diary 1992

- Channels help you abuse your Creditcard.....*
- Sound 92**
Feb. 4-5, London. Call (0628) 667633
 - Siel 92**
Feb 16-19, Paris. Call (1) 47.56.50.63
 - USITT Conference & Stage Expo 92**
March 4-7, Seattle. Call (212) 924 9088
 - Frankfurt Musik Messe**
March 11-15, Germany. Call (071) 323 6570
 - The Music Show**
March 19-22, London. Call (0895) 677-677
 - SIB/MAGIS (Rimini)**
March 22-25, Italy. Call UK (0323) 442 747
 - AES Wiene 92nd Convention**
March 24-27, Vienna. Call (43-1)956517336
 - National Lighting Conference (UK)**
April 5-8, Manchester. Call (081) 675-5211
 - Pub Club & Leisure Show**
April 7-9, London. Call (0895) 677 677
 - Expo Musica 92**
April 22-26, Madrid. Call (91) 470 1014
 - MIDI Music Show**
April 24-26. London. Call (0726) 68020.
 - Australian International Music Show**
April 30-May 3. Call (03) 696 2022
 - Lightfair International**
May 6-8, New York. Call (404) 220-2215
 - Seoul International Audio/Musical Show**
May 13-17, Korea. Call (82) 02 551 1142
 - Pro Light & Sound Expo 92**
May 14-16, Sydney. Call (08) 296-4189
 - Showtec 92**
June 2-4, Berlin. Call (071) 486-1951
 - APRS 92**
June 3-5, London. Call (0724) 75 6218
 - World Lighting Fair Tokyo 92**
June 24-26, Tokyo. Call (03)3706-2001
 - Pro Sound & Light Asia 92**
July 8-10, Singapore. Call (852) 575 6333
 - PLASA Light & Sound Show 92**
Sept. 6-9, London. Call (0323) 64 2639
 - Photokina**
Sept. 16-22, Cologne. Write to:
Postfach 21 07 60, D-6000 Koln 21 (Deutz)
 - AES 93rd Convention**
1-4 Oct, San Fransisco, Call (415) 781-6307

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Virtuosity takes practice. And almost two decades of practice have gone into producing the definitive front-of-house console: Soundcraft's *Europa*. The best circuit designs, like our patented padless mic amp and active pan pot. Balanced sends, returns, inserts; fully-parametric EQ and a noise gate on every module. The list goes on.

But the secret of *Europa* isn't just ours — it's yours. We asked professionals working in every area of live sound what they wanted in an FOH console. And we designed *Europa* with you in mind.

It's designed to withstand the rigors of the road. The frame is immensely strong, built to prevent twisting. Handles run the length of the console to make it easy to lift. Multiway connectors are recessed to reduce strain, mounted to resist damage.

The smallest detail has been scrutinized. The knobs, for example, combining "grippability" with style so ingeniously, we patented them too. No dual concentric controls on the entire console — you won't tweak the wrong thing. All switches are illuminated or associated with LEDs.

Europa combines superb design and audio quality with value for money. Without compromise. A full eight groups plus mono and stereo buses, twelve aux sends, matrix sections with external inputs for additional submixes and eight stereo inputs are standard. Full VCA facilities with non-destructive soloing and multiple assignment. You can even continue a soundcheck while playing a CD to the audience. And fade the entire console on one fader. If you've always wanted something on a live sound console, it's probably on the *Europa*. You asked for it; we put it there.

Now you need to listen to *Europa*. Try it out. Experience a level of sound quality that you'd usually associate with a digital studio. Hear why *Europa* is in a class of its own — virtuoso class.

Europa. Between us, we've designed the best.

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Sell the staff

RE: The Non Event called Christmas.

As an aspiring capitalist and a firm believer in the re-introduction of slavery, I experience some difficulty in celebrating the above event, especially when I see the amount of wages that goes out in such a short time for no profit. I advised several staff that they would be sold prior to the festive season, however they are experiencing difficulty grasping the concept.

In view of the above I see no alternative than to bend the rules this one instance and wish everyone all the best. This is not to be taken as a precedent.

Incidentally, I find Christmas morning an excellent time to contact customers at their homes and hassle them for money. You might like to try this yourself.

-Steve Devine, Managing Director, Topstage.

RIP Strand

Your mag is becoming fatter by each edition, and more informative with quality reading. Good stuff!

Sorry to hear about Strand Electric, it was the only place you went all those years ago. Rob's friendly advice & equipment you could rely on. Strand set the standard for me in my formative design years. Strand installed the first pin matrix board into a conventional theatre board for me, creating scene masters in a lighting desk, a first for Australia. I wish Rob Nicholls all the best.

-Colin Baldwin, Showcorp, Sydney.

Where's the Gossip?

Congratulations on Channels! My time in the stage lighting business here and in the U.K. brings me to think that all too often in the stage lighting sphere the rumour mill generates spurious and highly unbelievable garbage, interspersed with the odd nugget of reality. Sadly it is our main news source.

Why don't you expand your theatre gossip? How about a monthly report of who is lighting which show, what's coming and which show will tour next?

-James Crogham, East Sydney.

Thanks - all it takes is a fax, then it's in. Over to you, Theatre Gossipers.

D.J. disagrees

That story about Paul Kelly (Ch. 8) is a problem, that is, hassles between visiting roadcrew and resident disk jockies. I worked at a Sydney club for 18 months as a DJ, in which time most road crews were professional and I had no hassles. Just a few times I would turn up after they had loaded in and ask them to move something and get trouble. Worse still some of the really big bands would arrive with a semi load of gear at

9am, and re-arrange everything without asking anyone.

Were you fair in your comments about the DJ at Bathurst? Was it just one guy against 10?

-Joe Lukic, Cabramatta NSW.

Joe, there are people in the business who just barge ahead regardless, and don't ask first. At the end of the day, a little co-operation means next time it's easier for everyone. Sometimes venue managers don't read their contract with an act either, and I've worked on a tour where the overseas artist's tour manager actually blew out shows before soundcheck - because the stage wasn't large enough.

Is my insurance OK?

I discovered your magazine at the PA People in Sydney. Have you ever published a story about workers compensation for casually employed lighting operators? I've got a disability cover (with a major insurer), but in reading the fine print it will only pay me 70% of my previous income in the event I am incapacitated and unable to work.

The problem with my disability cover is that if I have an accident and claim on it, the insurance company will want proof of my income for the past financial year, which assumes my tax return is correct, and up to date.

-Name and address withheld by request.

Oh Lordy. Can anyone help this guy?

Not funny

To take the pressure off ascertaining just who are the 2nd and 3rd largest PA companies in Australia, we decided to undertake our own survey because we're totally fraught with worry over this pecking order business.

.....Is Julius Crafton the 2nd or 3rd funniest audio-magazine editor in Australia?

.....The results of our survey show Perth's Ian Ross to be numero uno hands down. His 'Daily Pass' (not an ablation but a monthly mag????) very rarely makes it to the Eastern States, but if you get the chance it's worth the read, if only to catch up on when his staff plan to take holidays, etc.

.....The mover and shaker here appears to be Alistair Dewar from the PA People in Sydney. Alistair and the aforementioned Mr. Crafton were originally tied for 2nd place but on a countback it was noted that Alistair starts all correspondence with "Good Morning....." regardless of what time of day people get their mail ... this was just good enough to get him home into 2nd place.

-Steve Bray, Troy Balance Corp, Sydney.

* OK, Bray, your name is on my list. Why do people worry about whose is biggest? Anyway Steve is quite right, Ian Ross must be congratulated as the "Daily Pass" could well be the next Channels, if not, certainly it may well be elevated to Cult status. Ian's tasteful and witty vivisection of the minutiae of daily life in his audio dealership is rivetting stuff indeed. Alistair's alarming header has been known to send less organised audio personages rushing to the window to establish if it is, indeed, AM or PM. In the latter case, perhaps Alistair could include an instruction on the wrapper that the contents MUST be read the following morning, with dire and uncertain fate awaiting anyone who interferes with this instruction!

I have attempted several times without success to pen a letter that expresses this company's thanks to all those people who have contacted us over the tragic loss of Andrew Horman. Andrew's contribution to the growth of Rebel will never be forgotten. His relationship to our suppliers (old and new) and our dealers (domestic and international) is measured by the amount of phone calls, faxes and cards received by this office.

To have achieved so much in so few a number of years was a vindication of the man's enthusiasm and genuine love of an industry he grew up in and strongly supported.

All of us at Rebel have fond memories of Andrew's time with us and trust that all those people who have expressed their sympathy will accept a very sincere thank you.

-Ian Woodhouse, Rebel International P/L.

WRITE TO CHANNELS-

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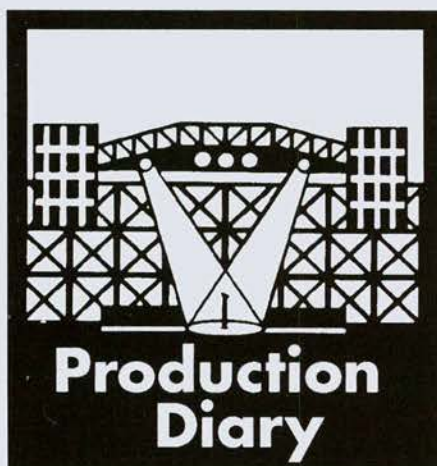
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Slim pickings for our Production Diary this issue, everyone is too busy to send us their info!

NORTHWORLD REPORT

BILL GRAHAM TRIBUTE at the Polo Field in San Francisco's Golden Gate Park drew 300k punters, with Ultra Sound of San Rafael (CA) providing the readies. The system was Meyer, with Gamble and PM 3000 consoles, tributes aplenty for the legendary promoter, including a DC-3 circling the crowd and releasing 70,000 white carnations. Bill Graham died after a Huey Lewis concert when his Helicopter struck a power pylon.

BRIAN ADAMS is touring the world with a system from Jason Sound Industries of North Vancouver, BC. As this is written the tour is wrapping up Canada, with the system electronics to come down under for the Australian leg. New consoles bought for the tour are the Soundcraft Europa 40 channel house board and Ramsa WRS-840 monitor console. Engineer is Jody Perpick, & Glen Collett on Monitors.

DELICATE PRODUCTIONS of Camarillo, CA had systems out with Crowded House and Natalie Cole up to Xmas. Delicate has some ex-pat Aussies on board, and specialise in Martin F2 and conventional systems with Midas XL-3 consoles. Crowded House engineer Angus Davidson took a PM-3000, while Monitor engineer Paul LePage drove a Ramsa 840. Delicate also have Soundcraft Series 4 consoles on hand.

In February **CLAIR BROS** report they have heavy bookings, including the group Europe (13 weeks), Roxette, Yes and Joe Cocker. A festival in Brazil and extra work for the system they have placed in Mexico city makes them the big noise in South America.

Here at home, **Jands Production Services** have a lot on, much of which is out of the mainstream Rock & Roll market. Notably they had a very busy New Years Eve, with Ian Moss outdoors at Newcastle, RAT Party at Sydney Showgrounds (featuring their custom noise level controller!) and parties at White Bay and Alexandria Basketball stadium. *More local news next issue!*

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Pub Production Spotlight

Tommy Emmanuel

Out there, cleaning up, and along the way debuting the resurrection of "The Court System". Guitar rules?

The time was 10.30pm, it was a Tuesday night and the place was jam packed full of punters at \$10 a head. If this isn't success, then what is? Tommy Emanuel & band proceeded with a blistering set that was more a combination display of virtuoso musicianship than straight entertainment - but the punters lapped it up.

Out front veteran sound engineer John McConnell put together a mix tighter than a rodents fundamental orifice, if you follow the drift - it was TIGHT. The four players sizzled through an hour & a quarter instrumental set, with the only vocal contribution being the patter between numbers. "Must make for an easy foldback gig?" we asked Monitor Engineer Brent Mathews, "without any vocal mics open!" This is not the case, Brent has cues a-plenty, with 7 mixes catering to some very discerning musicians.

Crammed against the back wall was Phil "Philby" Lewis, half owner of Lighting operation, Naek - provider of a 40 can system for this leg of the tour. Philby drove a Jands Instinct 48 console, which fed three digital dimmer racks; 2 Jands & 1 LSC touring rack. Naek is based at Dundas in Sydney's geographic centre, and co-owner Greg Keen told us they can field virtually any lighting requirement, and they also provide trucking. This tour transitted in Naek's 8 tonne Hino.

Stage duties were handled by Paul Collings, while the System Engineer came PA Rigger was Tony Szabo.

John McConnell explained the choice of audio: "I'd been out with Tommy for the three months prior to Christmas with a Meyer system. A1 Audio offered this Court System, and so I've resumed the tour with it." John is very favorably disposed towards the Amek M1000 console he is using, which although old, still presents well. The M1000 is a 32 input, 8 subgroup machine, with 4 band full parametric EQ, Penny & Giles faders, 4 auxiliary sends, and a nice big illuminated Mute button on every channel. The only example of it's type down under, the M1000 is still in demand from engineers that have used it from time to time.

Out front the Court cabinets are a two box system, the sub box is loaded with 2 x JBL 2225 15" woofers, while the top box has a pair of JBL E120 12" speakers, with a pair of 2425 JBL 1" high frequency drivers, with custom wooden horn flairs. The high frequency combination is very smooth indeed, while the sub box produces all the punch you'd need. The amplifier type is Perreaux, and the effects rack was quite nicely presented with effects to John's specification.

The Monitor system provided by A1 was



John McConnell - a great sound engineer

based on a TAC 24:8 console, with Klark DN360 EQ's, bi-amped Perreaux 6200 amplifiers, 10 x JBL Tasco Wedges (with 1 x 15" and 1 x 2" JBL h/f driver in each), and a pair of V-2 sidefills. The V-2 is a WRM designed 2 x 15" speaker with 2441 on lens combination, with BSS active crossovers. Big, heavy, and loud. Drumfill was via a pair of wedges.

The story behind A1 acquiring the Court boxes, AMEK and TAC consoles, along with the rest of what used to be the Touring Plant system is long and tortured, but in essence comes down to A1 boss Chris Kennedy reasoning that there were a lot of people who would use the system, as it is quite a nice package. We won't argue with that. -JG

FOOTNOTE- *A few days after this review, the tour came to an unexpected and potentially tragic halt when the aforementioned 8 tonne Hino was written off in a crash after a show at Harbouro Diggers Club. Driven by Philby, the truck collided with 8 tonnes of fruit and vegetables, beneath which was another truck, also in motion. The Pan was ripped open, and considerable damage done to the contents, including some of Tommy Emmanuel's beloved guitars. Philby was taken to hospital with lacerations, and kept for a few days before being released shaken but otherwise OK. Fortunately a day off occurred the morning of the accident, allowing everyone to pickup the pieces and of course, the show goes on.*



Philby at the Instinct, pre accident.

Pub Production Spotlight

Maybe Dolls

Power Pub Pop Performs with Pixie, MW Sound & Lightworks

This was *deja vu*, the band was essentially the same, Pixie Michael was the sound engineer and the P.A. was state of the art 1981. The venue was Banjo's in Sydney, but the year was 1991 - and rather than a revival trip the whole gig was relevant to the times. Very relevant, as it transpires.

The band were Maybe Dolls, a power three piece based on the brother/sister team of Annalisse and Chris Morrow, who last tasted fame as The Numbers a decade ago. Channels isn't a music magazine, thankfully, but you-writer and his consort (shouldn't that be 'goodsort?') could pick the difference, it was probably the very same venue in which we saw The Numbers all those years ago. Maybe Dolls had been in the Top 40 for about 14 days with their debut single when this gig occurred, so it was an interesting reflection of the times that the venue was far from full. In fact the lady at the door was frantic, because it looked like the £3 people on the guest list would outnumber the \$7 per headers!

Then of course there was Pixie. Each when the Numbers were prime, Pixie was part of Mother Goose, the unique New Zealand bard that entertained and confused, dressed in way-out costumes.

Today Pixie fronts a production company offering two touring PA systems, lighttrigs, trucks and crew. The PA's are owned by Marty Welsh, who has been in the biz almost forever, memorable for his relentless touring and persistence through seemingly years of setbacks, brought about by a lot of truck hassles with a lot of trucks. These days the trucks come from Neil Picinin's Lightworks in Perth, a six and an eight tonne Hino respectively.

Lightworks provide the lighttrigs, which are wholly made up of chrome cans and even chrome Leko's, neatly multipinned, and driven with Neil's own digital dimmer racks. The system we saw had a Jands Instinct 60 desk, operated by Paul "Lizard" Torney. The rest of the crew were "Daveros" on Monitors, and "Bazz" doing stage and a lot of guitar tuning. Why the nicknames? These guys must have tax problems interstate or something!

Pixie provided the production, acted as tour manager, and did the mix for the Maybe Dolls. It was LOUD - "What do you expect?" he said! The visiting sound engineer contingent, (Gorgeous George Gorga, Tony Szabo & Aaron Chugg) all looked longingly at the one set of ear plugs they possessed between them! Solidarity prevailed, they were not inserted!

The P.A. was well packaged, despite its age. Pixie is very

positive about Marty's systems, pointing out every part is well cared for. "We use Phase 700 amplifiers, which are serviced by Glen Wheeler. Provided they're babied they are fine". Certainly a working Phase 700 is probably the sweetest sounding PA amp I've ever heard, and this night those amps were working!

Out the front was the standard Marty Welsh three way configuration, bottom end comprising compact Cerwin Vega 'Double D' folded W bin style boxes, which have always been devastatingly effective in my view. Each box has a pair of 18" CV drivers, there were three boxes a side, on which were a pair of traditional 'Roy' bins - the 2 x 12" midrange design favoured by Clair Bros. in the 1970's. Each Roy has a pair of JBL K120 12" speakers, operating between 250Hz and 1k2. A pair of JBL 2445 drivers on Bi-radial flairs made up the system. Marty has enough amps and boxes to handle a 6000 seater, according to Pixie.

Monitors were JBL concert wedges, each with a 15" bass speaker and a 2441 2" driver, with Sound Developments crossovers and 3rd octave equalisers. Drumfill was a pair of Cerwin Vega 18" and horn boxes, the overall monitor system configuration is still very much in vogue today. Where every other element of this production package is still very competitive against today's Revolver style systems, the mixing console department is less so.

The 24 channel Midas Pro 5 FOH console is an acquired taste, being somewhat out of step with today's Soundcraft and Yamaha dominated systems. The Pro 5 is certainly a class machine, and by no means is Marty's example defective, but four auxiliary sends and a very curious EQ section make fresh acquaintances a little dubious, although there are certainly some who have been converted. Likewise the Pro-4 monitor desk is a little dated, despite its ability to provide 10 sends (or mixes). Pixie acknowledges the handicap against other production packages with 32 or 40 channel consoles, but is adamant; "these are the NEVE of live consoles" he said.

The outboard section was very nice, 6 Drawmer Noise Gates, DBX insert compressors, Ashley parametric EQ inserts, PCM 70, Rev 5, Rev 7 and D1500 effects made up the FX rack, with the drive rack housing a pair of DN27 Klark Teknik EQ's,



Paul 'Lizard' Torney, at the Instinct

BSS crossovers and DBX limiters. No expense spared!

So the show came and went, well executed if not too loud, (but of course these ears have been sheltered lately!), and as I write this I think to myself that when Marty built his PAs he didn't compromise one little bit. I know this, because



Pixie Michael drives the Midas Pro 5. "The Neve of Live consoles"?

I was building PAs then too, the difference is that Marty built systems that brooked no compromise then and thus have made the transition into the 90's now. -JULIUS GRAFTON

To communicate with the MW Sound/Lightworks/Pixie production conglomerate, call Pixie on 018 404 665.



Visiting sound engineers Tony Szabo (left) and 'Gorgeous' George Gorga. 'Look, no ear plugs...'

FOOTNOTE- This review was written before the Divinyls review on the next page, where Maybe Dolls appeared as support act. It is necessary to make this distinction, given the turn of events as depicted overleaf.



It might be old, but it KICKS...

Divinyls cream it

...while support band self destruct

It wasn't the wall of feedback during the first song, or in fact anything offered or proffered by the 2000 steaming punters, who had just endured the worst intro tape imaginable - a scratchy, unintelligible rave seemingly taped from a portable T.V. set, which ran for at least 5 boring minutes. It wasn't even the fault of the crew - but still the proceedings came to a crashing halt after just 90 seconds. "My guitar amp is F—ED, and we're going OFF until someone F—ING fixes it!"

This is rock and roll anarchy at it's pinnacle, would the Divinyl's support band Maybe Dolls pickup the pieces and resume, or was it certain death? The crammed media cage rubbed their hands together, tomorrow's copy certainly an epitaph. Some minutes of frantic guitar rig surgery later, and guitarist Chris Morrow returns to the stage, whipping off some crashing chords while his colleagues look on with uncertainty. "I'm not like I used to be", he shouts, alluding to something in the past.

They resume, the feedback continues to bug the mix, and somehow it all comes together. It's way too loud, which keeps the elusive 4k scream happening right through three more numbers. I think it's actually the main vocal mic feeding through the FOH, and my method of tracking it down would be to turn down each channel - or momentarily mute the FOH to eliminate it from blame. It appears neither FOH or Monitor engineer has the solution. The problem diminishes, the set concludes, the Divinyls crew changeover.

Myself, I think the Maybe Dolls planned the whole thing. It's the Gun's & Roses syndrome, where thrash reviewers write in respectful tones about how THAT band are late, break the rules, play too loud, and don't really have it together. They allude to problems they have, and problems are fashionable, right? Gee I'm glad Channels isn't in the business of reviewing the art of performance, rather we stick to the technical stuff behind the show, don't we? But you can't let this pass by without comment.

This cameo in no way detracts from the Divinyls impact, which is both powerful and calculated. A class crew operate with slick efficiency, the first song is right there, with Sound Engineer Bruce Johnston shaping the mix over the top of what is obviously a very loud stage sound. At soundcheck earlier the monitors were clearly discernable at the FOH position, and Monitor Engineer Paul Kennedy had the most blistering centre vocal foldback

I've heard in a long time. It's essential, because Christina Amphlett is a whisperer by style.

To get the results Paul Kennedy had a pair of Tasco Concert Wedges in front, then a pair behind, and a sidefill that comprised 2 Turbosound TMS-4 per side. (The TMS-4 is a composite, 1 x 18" bass, 1 x 10" mid, and 1 x 1" JBL H/F, in this case driven active 3-way & crossed over with 2 x BSS FDS 360's.) The P.A. was provided by A1 Audio, who have the only Soundcraft Series 4 consoles in the country. The monitor example that Paul Kennedy was driving offers 40 inputs to 16 mixes, with full 4 band (true) parametric EQ per channel and on each mix output. Paul had 9 mixes running, each equalised via a Court 3rd octave equaliser, crossed over with SG Engineering DCX-3 2 way crossovers and then run to Perreaux 6200B amplifiers. At drumfill a pair of Tasco wedges (which each contain a 2225 JBL 15" speaker and a 2445 2" JBL h/f driver) were sat atop a TSW-124 subwoofer, which has a single 24" speaker inside for pulverising bass.

Bruce Johnston delivered the goods at



Bruce Johnston- see the Wendal sampler?



The Soundcraft Series 4 40 channel console, & effects racks

F.O.H. on the Series 4, which in FOH format offers 40 in, 8 stereo subgroups (16 in all), 8 mute groups, and 8 auxiliary sends, with full parametric EQ. The Series 4 is in common use throughout major S.R. firms in the Northworld, and was only recently replaced by the Europa as Soundcraft's top-end concert console. Bruce has used a Series 4 before, and likes them.

A1's lighting was operated by Brian O'Connor, who drove a Jands 60 channel Instinct console, with 100 odd chrome cans connected to the Jands dimmer racks. The lantern breakdown was 20 NSP & 40 MFL Par 64, 20 Ray's - all chrome plated, plus 12 Leko's and 2 White Lightning strobes. A working, no frills lightshow, but within constraints it was well run by Brian. There were no darkies, if you know what I mean.

The production company, A1, provided a P.A. System Engineer, Andrew Rodd, and Craig Martin from A1 looked after and rigged the lighting rig. The tour manager was Larry Ponting, with stage duties shared by Dave Edwards and Joe Turtur.

In terms of assessing the quality of a production, the sum of the whole says it all, but there are a few little giveaways which I look for. One is when you first walk into the room before anything's happening, and listen to the P.A. for hum and buzz. This one ran quiet. The other is the general presentation of the gear, are the boxes presentable, is there any unfilled gaps in the effects and amp racks? (A pet hate, where a \$12 blank panel makes about 100% difference!) Generally speaking, A1 achieved a pretty good standard with this production, certainly a whole lot better than last time I looked, which was New Years Eve a year ago.

-Julius Grafton

Bruce Johnston - Divinyls FOH Engineer, P.A. Owner, Truck Mechanic and surfer

Bruce Johnston is a sound engineer with a lot happening at any moment - because he owns a quad JBL modular PA, a lightrig, and a pair of 8 tonne trucks, and yet he still goes touring with acts like Divinyls who use different production. He's also a truck mechanic by trade, which comes in handy.

Last year Bruce, along with David Edwards, Paul Kennedy & Joe Turtur toured the USA doing Theatres and Clubs for the Divinyls, using house P.A.'s - requesting 15kw at each venue. "If they questioned that, I told them we were bringing a 12kw monitor system. When I told them that, it was OK! We travelled the Monitor rig, backline and FOH desk in a 5 tonner, riding in the truck or the tour coach."

Some of the drives were real long, a driver was hired for the tuck, the crew hunkered down on the coach then tried to get a morning's rest in a Motel at the destination. The last gig was a Texas outdoor festival with 5000 people or so, and an absurd 80dB limit at the FOH desk. "The Police hassled me, so I turned the whole PA off except the vocals, and it was still 89dB - then they told me to turn off, it was still 85dB from monitors and stage, so then the police stormed the stage and closed it down! Only in America!"

The system Bruce owns is a quad modular JBL system, the same as used by McLeans Audio in Melbourne, and one of Jands Production Services various system types in Sydney. The amps are Phase Linear (Series II) for FOH, and Jands 920's for monitors. "Ian Rumbold rebuilt the Phases, they never go wrong, in fact I took them all in to get re-earthened a month ago, he changed the caps, I assume they were leaking. They're so warm, with a lot of power. Mine have steel chassis, they're in steel racks, I look after them."

Bruce's two trucks are an Isuzu JCR 22' 8 tonner, which the PA usually goes with, and an Isuzu FVR 26' 8 tonner which he hires out. "What with tyres, motors, clutches - I'm really only a bit ahead with the trucks. If I wasn't a mechanic it wouldn't be worth it, but you've got to have a truck or it isn't viable to own a PA."

"I work with a lot of Mushroom acts, like Weddings, Roxus, Debra Conway, Boom Crash, Big Pig. I like to work with bands that play to full houses, you get your adrenalin rush - once you've had a taste it's hard to go back. I don't get bored, on this tour I brought my surf board!" Sure enough, the aforementioned 'plank' was cluttering up the pack in the semi!

Challenge in mixing the Divinyls? "To get them to sound clear and Hifi (they're loud 112-113dB off the stage at the desk), to get Christina Amphlett over the band really clear makes you feel good! Paul (Kennedy, Monitors) & I work together - if I'm having a problem I go up on stage and say "maybe you can do this, we always have to have the PA forward a metre from the monitor rig. Christina's a whisperer. To get her over the stage volume, I keep the centre vocal well back from the FOH horns."

"The first 2 row's don't get the PA, so the 2 sidefills per side get them. FX wise I use a (Lexicon) 224XL, an SPX, SRV, PCM70, a Delay, 8 Gates, 8 Compressors, a dual insert graphic equaliser, then I always ask for an analyser, CD player, cassette deck & compression over the system. I'm using Wendell Junior drum samplers which are 16 bit, made in the early 80's for kick & snare. I mix them in triggered off the mic's from the insert point. I have a lot of success from them, I can tune the pitch up a little to give the illusion the snare pitch is rising".

"After this I'll start Nick Barker". Busy boy, our Bruce!

-Julius Grafton.

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LEM 6ch mixer like new each:	600
LEM 310SDE 10 channel stereo powered mixer with delay in roadcase complete:	1700
Biamp 6 ch desk (ex INXS)	550

EFFECTS

Yamaha SPX 1000	1955
Yamaha SPX 900 (2)	1145ea
Yamaha REV 5	1725
Yamaha D1500 (3)	863 ea
Roland SDE 555	403
Alesis Quadverb	725
Jands 8 gate (2)	748 ea
Yamaha GQ 1031B (3)	536 ea
Yamaha Q2031 (7)	863 ea
Yamaha GC 2020B	403
Yamaha C20 (2)	1495 ea
Yamaha DDL3	1495
S/MASTER ACO-1	978
ADA Digitiser 4	800
Alesis Midiverb II	400
Boss DE20 Digital Delay	250
Yamaha KX-230	230
Yamaha KX 530	518
TEAC CD player	115
Yamaha TT400 turntable	322
Sony Discman	230

AMPS

Australian Monitor AM 1600 (4)	2530 ea
Aust Mon AM 1200 (2)	2875 ea
Aust Mon AM1K2 (2)	2185 ea
Yamaha P2201 (3)	1150 ea
Yamaha PC 2002	1725
Yamaha P120	863
PTM 1250	1400
PTM 950	1200
PTM 700	900
Jands 920 perfect cond	1200 ea
Jands M600	850
EHT 2000	2000

MULTICORES

Belden 28 way 150' (2)	1840 ea
Canare 32 way 180'	1380
Jands 20 way 100' (2)	920

MICROPHONES & DI's

Shure SM 58 (9)	173 ea
Shure SM 57 (12)	173ea
Shure SM 78	161
Shure PE 66L (2)	150ea
Beyer M88	253
Beyer M201	265
Beyer M69	207
Audiotec ATM 41 (2)	115ea
Audiotec PRO 9D (9)	127ea
Audiotec ATM-63	138
Yamaha MZ205	184
Senn MD441U	460
Senn ME86 (4)	288ea
Eleco Lapel radio mic	748
Eleco Q303 (2)	748ea
Boss DI (8)	184ea
Jands DI (2)	138

SPEAKERS

Australian Monitor F300 ea	1150
Aust Mon B400CD	1725
Aust Mon F500 d/fill	1035
JBL 4770 qty 10, price ea:	3450
ACCTEC Mids (4) @	345
Stage & Audio drumwill (2) @	920
Stage & Audio low/prof (7) @	805
Wedges	700 pair
EV TL 3way bins pair:	1500
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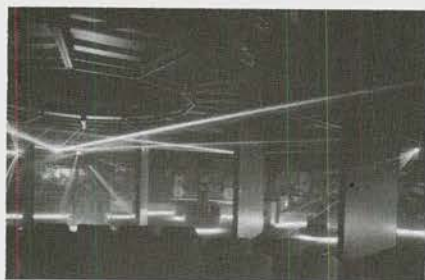
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Here's a handy circuit, provided by the irrefragable Dennis Bohn, of Rane Corporation.

WHY NOT WYE?

(Or- successful Monoing of your Low End)

Wye-connectors should never have been created. Anything that can be hooked up wrong, will be. You-know-who said that, and she was right. A wye-connector used to split a signal into two lines is being used properly; a wye connector used to mix two signals into one is being abused and can even damage the equipment involved.

Here is the rule: Outputs are low impedance and must only be connected to high impedance inputs - never, never can two outputs be tied directly together. Never. What happens is that each output tries to drive the very low impedance of the other (from milliohms to 50 ohms at most), forcing both outputs into current limit and possible damage. (Don't get confused about the common practice of daisy-chaining amplifiers together from one source. This is just fine, it's the combining of two separate sources we are taking about here).

One of the most common examples of tying two outputs together is in "monoing" the low end of multiway active crossover systems. This combined signal is then used to drive a subwoofer system.

Since low frequencies below about 100Hz have such long wavelengths (several feet), it is very difficult to tell where they are coming from. They are just there. Everywhere. Due to this phenomenon, a single subwoofer system is a popular, cost effect way to add low frequency energy to small systems. So the question arises as to how best to mono?

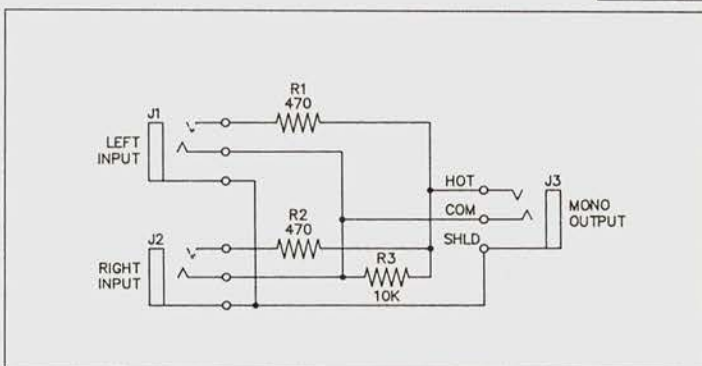
It is done very easily by tying the two low frequency outputs of your crossovers together through the resistive network described below.

You DO NOT do it through a wye cord.

Fig. 1 (below) shows the required network. Two resistors tie each input together at the junction of a third resistor to signal common. This is routed to the single output jack. The resistor values can vary about those shown over a wide range and not change things much.

As designed, the input impedance is about 1k ohms and the line driving output impedance is around 250 ohms. The output impedance is small enough that long lines may still be driven, even though this is a passive box. The input impedance is really quite low and requires about 600 ohm line driving capability from the crossover, but that should not be a problem for most modern crossover designs.

The rings are tied to each other, as are the sleeves. "Floating" the output in this manner provides for use in either balanced or unbalanced systems after the signal is monoed. (See Rane Note 102, "Analog I/O standards for details regarding floating outputs. Send a stamped, self addressed envelope to Rane #102, Channels, PO Box 171, St. Peters NSW 2044.) It also makes the box ambidextrous, in that it is compatible with either mono or stereo 1/4 inch jacks.



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RANE Note 110

(Write Rane Note 110 on back of envelope.)

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- .Preventing ground llops
- .Proper pin connections and wiring
- .Wiring cable for standard connectors.

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R3: 10kΩ, qtr watt, 5%.

J1, J2, J3: standard qtr inch jack.

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CADP2: JBL's new Complex Array Design program

Want the ability to 'model' an acoustic environment before the builders even start? CADP2 is what you need!

Venue designers can now use JBL's new CADP2 software to choose and view the effectiveness of different loudspeakers and systems. Being able to pump a room design into a computer and view acoustic results three dimensionally on a screen saves a lot of calculations and trial and error - as anyone who works in audio knows!

Peter Twartz at Jands, the JBL distributors, has CADP2 available for use by anyone contemplating an installation utilising JBL products. Simply enough, a representation of the venue can be drawn or dimensioned into the programme, whereupon different system types are 'placed' anywhere inside. Then the program can show SPL at any given location, reverberant fields, and a host of parameters.

Once your room is drawn into the program, you select the speaker type that appeals, position it, then start testing by looking at how 2kHz works in the room. You start at 2k because that's the speech centre frequency. Then you work out from 2k, in octave centres. The software will of course show you 1/3 octave results too.

CADP2 comes with speaker systems and horn types already measured in an Anecoic chamber, where the device is rotated in 1° increments vertically and 2.5° increments horizontally - a lot of readings are taken, in a process that takes 18 hours. The program works in Windows on an IBM machine, 386 or greater.

Windows is a very useful environment in which to use CADP2, because you can save files in the

Windows clipboard, and for designs using multiple arrays you surely will want a lot of 'looks' at what works best where. Deft use of CADP2 saves hours and hours of onsite measurement and testing, and walking about with an analyzer and SPL meter.

The original JBL CAD program was CADP, which was the first software of its type, and was released in 1983. CADP2 is all new, and was first released to 50 BETA testers around the world, including Peter Twartz, in February last year. Four significant revisions were BETA tested, before the real thing was rolled out at AES.

Peter Twartz can be contacted on (02) 516-3622, and can arrange room analysis from your plans, or even sell you the software.

Hire Point - the Sound & Lighting Hire company reservation system that runs your business for you!

HirePoint is a software package devised for Australian Lighting & Sound Hire operators, who need to track hundreds or even thousands of pieces of equipment across countless customers, 365 days a year. Since first appearing in 1985, (as T.P.S. Hire) HirePoint has been updated regularly with feedback from industry users everywhere.

One reason the package has been so successful is that it is specialised to the industry, which is like no other. For example, Hire Operators need to give callers quick availability on just one item - or a system, which the program can 'pull together' from inventory. Best of all, Hire Point can book a system with some of the inventory to be sub-hired in. It even organises your sub-hire ordering!

Many existing Hire point users have had no prior computer experience, and report the program is very simple to use. Users include Arena Technical Services, Showcorp, Brisbane Concert Systems and more than 20 sites currently use Hire Point, according to the firm.

Instant customer recognition helps your staff's phone techniques, with the program showing the customers full details, existing discount, and any particular information once that customer's code is entered.

Consistent pricing is a major benefit of using HirePoint, customers quickly grow suspicious of 'thumb suck' quotes and inaccurate calculations that do occur when rushing a telephone quote for 197 lanterns, a dimmer system, and 4 Intellabeams. Having a P.C. with HirePoint onboard eliminates the temptation to say 'I'll call you back with a quote', which is the kiss of death. Because the

software is modular, Hire Operators can choose how far they want to go - often a new user will just use the reservation system ability of Hire Point, gradually expanding the way they use the system. It can print a hire contract, picking slip, return slip, and be customised to suit operators.

An IBM compatible 286 or greater is required, along with a printer.

Below the line benefits include the software sorting out your equipment utilisation and return on investment. Trend reports can be generated showing equipment or customer trends.

Hire point can be purchased or the software may be hired on a monthly basis, which is how most users are obtaining it today. The Hire option provides for on-line help and updates from time to time. Contact HirePoint on Sydney (02) 876-2745

Vested Interest? OK, so in 1985 I commissioned TPS Hire to fill a need- my Hire businesses were expanding, and the staff were using bits of paper to keep track of the gear. Small wonder we kept finding bits of ours in other peoples' hire stock! In fact, the 'scoreage' rate in '85 was running alarmingly against us, although we did tend to 'acquire' other hire companies goodies from time to time. Then you'd sit on them to see if they noticed! The joy, the pain!

So yes, TPS Hire was created by my brother Tim Grafton, but beyond that point it's been his own beast. The original installation site was Graftons Lighting, followed by Graftons Sound, and they still use the system today. It works!

-Julius Grafton.

Andrew Horman

-from page 1

more notable audio companies until it was taken over by Rank in 1985. Andrew grew up in the industry, his father Brian Horman established Klarion with Woolf Grey in the early '60's. Brian is today integral with the A.E.S. society in Melbourne.

Andrew leaves behind wife Meredith, and two little girls, 5 year old Toyah, and 2 year old Stephanie. Little girls who will miss their Daddy, and never understand why he left them. His funeral was attended by a large cross section of the industry, including representatives from some of Rebel's overseas suppliers.

Known as a bit of a lad in his early Klarion days, Andrew moved to Sydney when Rank bought the company, and was truly keen to integrate himself into the new business. It is commonly held that a measure of big business mentality within Rank produced tensions amongst the Klarion personnel, Andrew left Rank and once free of a contractual restraint, established Rebel with Ian Woodhouse.

Rebel settled Andrew down, and the company progressed well against the usual prophecies of doom that are levelled at all new ventures in Australia by competitors and arch-rivals alike.

Ian Woodhouse has picked up the pieces and is pushing ahead with Rebel International, which will service the Asian market from a Bond store in Sydney. At press time, three 40 foot containers full of Atlas Sondalair products was due, no short measure of confidence in what could be a very successful venture for Rebel.

Andrew Horman will certainly be remembered by the Audio industry and all those who knew him.

-Julius Grafton

Travel Guide

Travel Addict RAY BOND in Singapore

I have worked in this industry for over 15 years and been lucky enough to travel extensively both around the world and Australia, as well as recently work for almost 2 years in the USA. Thus I have become something of a 'venue watcher', where I try to get out of my Hotel room no matter how jet lagged I am, and see how the Entertainment Industry works in different parts of the world. This is particularly useful when it comes to talking on even terms with overseas clients and understanding their different needs and requirements.

Lately I seem to have spent a lot of my time in Singapore and have become very acquainted with some of their many and varied venues. Here are some interesting points on one, called "Khomeleon", a very new 'upmarket' Nite Club catering for both the better class of local and the well heeled tourist. (That does it, that excludes me -Ed).

This club seats 1500 people on three levels, which include special members only areas. The Live and Disco music are run through a sound system that would make any PA Hire Company owner weep with envy. How about this for starters.....

FOH - two arrays featuring 5 Apogee 3X3 Concert Speakers per side with 6 AE-12

subwoofers below stage level. Added fill is achieved with no less than 16 AE-5's spread in various parts of the room. A 40 channel Yamaha PM3000 controls the FOH along with just about every effect device you have ever seen. Foldback consisted of at least 12 Apogee AE-6 stage monitors, with a further 2 Apogee 3X3 for fill. A 40-12 TAC Scorpion Monitor Console helped complete the picture.

The Disco system featured two triple turntable consoles that moved from each end of the stage on a set of rails to join in the middle as the show changes from live music to disco. Two extra large rear projection screens (5m x 4m) on each side of the stage were fed from no less than 8 remote controlled video cameras. The Video system was capable of numerous video effects, and very professionally run.

The lighting system had a 150 can rig with over 20 specials plus the obligatory disco light show complete with 8 high power lasers, 16+ Clay Paky Golden Scans, custom made effects plus numerous Italian spinning lighting effects.

What does it all cost, you may well ask? Well, no one was willing to guess/say, but in Australian dollars you would be well into 7 figures. So next time your travels take you to Singapore, make sure you grab a look at Khomeleon.

How to get there:

Khomeleon Nite Club, 5 Marina Grove (Marina Village Complex) #01-03 Singapore. Taxi from CBD: About \$3, 15 minutes. Call 227-4510.

● Ray Bond is the Asia-Pacific agent for German console builders, Mitec Elektronik OHG.

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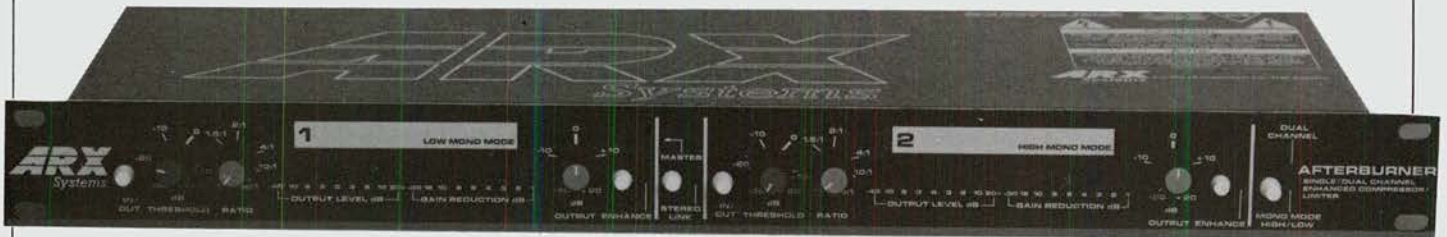
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"I've got to have two of them"

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NAMM REPORT

NAMM is, of course, the National Association of Music Marketers trade show, which was held in late January in Los Angeles. It is THE full on G.M.I. expo, but also fertile trading territory for the Professional Audio Industry. Many a new Pro Audio product has first seen the light of day at a NAMM Show, so we induced Mitec's Asian-Pacific agent, **RAY BOND**, who filed this report just as we go to press (in fact we held the mag a few extra days for it!)



KeeP Honking, I'm re-loading" - the latest bumper sticker, and even more pneumatic bottle blondes than I've ever seen here. Imagine a trade show where Eddie Van Halen is a hired helper, and former Soviet hydrogen bomb engineers release guitar amps!

This is Los Angeles 1992, and I'm back for the umpteenth year running for the trade show of them all - NAMM. Peavey had pre-show drinkies for a few close friends and dealers - 1,500 in all - and the Eddie was on hand to debut a new backline amp, the Peavey/Van Halen 5150. Imagine how many metal heads'll crunch sales for this mother? Because this is backline, the editor tells me to "forget it, Sonics will have news on it in 6 months - stick to Pro Sound, Ray!"

Over 750 exhibitors were there, everything from Amps to Zithers were on show, for three days across a weekend at the end of January. There were two Aussie firms exhibiting, Australian Monitor and **ARX**. I spotted quite a few 'locals', including John Goldsmith (Kosmic, Perth), Pat Bonham (former head of failed I.M.I.), Mark from Penn Australia, and of course Duncan Fry. Ian Woodhouse wasn't there, but that's understandable.

Starting nowhere in particular but with AKG, the

firm took it's Billboard survey win as number one choice of studio microphones firmly in hand and released a new line of performance mics, the Tri Power series. They say these offer high gain before feedback, built with new technology but still tough. At least, that's the summary of the usual flowery prose, the four vocal models look good - hypercardioid, with & without switches. The D3400 is an instrument mic that looks very promising.

Then **ALESIS**, who fought off the masses clamouring for a look at ADAT, which (as previewed in Channels last year) is a hit. After all, 8 tracks of digital recorder that uses a VCR tape and can be linked together for 16, 24, 32 or more tracks is something else. Lots of snipes from the competition, who discovered the thing

was really on display, and really did function. The X-2 recording console was another Alesis debut, planned for late in the year. It's 24 channels, with 8 busses and it's inline - I hope it fares better than the current Allesis mixer offering, which has had mixed reaction here at home.

While we're taking about mixers, **SOUNDTRACS** ran the old 'mystery' promotion, promising two new mixers that "will change your thinking about the word 'affordable'". With a run-up like that, I figured they must have had an answer for Soundcraft's Spirit, but on the stand it was Megas - which we've seen here at our Melbourne AES already. Fairly exciting.

SOUNDCRAFT had the family on hand, now Spirit has fleshed out with the addition of the MONITOR pair, and a full EUROPA was attracting a good set of cokers. Me, I spent a lot of time helping my client **MITEC** get started in the USA, they are Germany's largest mixing console manufacturers, and it was the first NAMM for them. The VARI-DESK had a good run, as did the Studio Server and the Stage Server monitor boards. **YAMAHA** had the all-new PM 4000 on show,

(Continued on Page 20)



Soundcraft's new concert board, Europa - 40 inputs each with a noise gate, 12 aux. sends 8 VCA's, mute groups and lots of tricks



ARX's Duncan Fry (Centre) talking with prospects



EV (or Dynacords) Interfex console. Subject of much discussion

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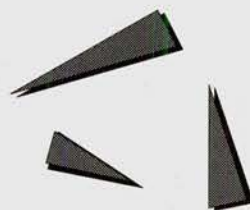
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NAMM REPORT

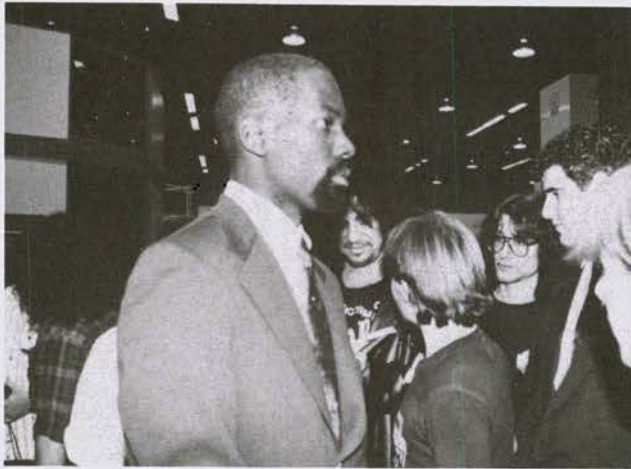
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but they wouldn't let me take a picture of it.

MARK IV had the **INTERFACE** mixing console on display, under no less than three flags. You can have it with **EV** on it, **Dynacord**, or even **DDA**. Take your pic. Evidently they have settled their row with **Soundcraft**, and it surely was common knowledge amongst the Pro Sound Community that there had been a major snafu.

E.V. have a new pair of powered mixers, the **61PMX** and the **81PMX** offer digital reverb and delay, phantom power, and a nine band graphic EQ. **YAMAHA** have a new offering as well, the **EM 2820** is an 8 channel powered mixer with 2 x 7 band equalisers, 3 band EQ and 2 auxiliary sends.

The **AMPLIFIER** market is just the same as always, no one has revolutionised anything, **CROWN** are pushing the new Macro-Tech **VZ Series** which includes the **MA-3600VZ** (2 x 1800w at 2 ohms) and the **MA-5000VZ** (2 x 2500w @ 2 ohms) which both use Crown's patented variable impedance power supply (**VZ**) to allow user or automatic adjustability of Maximum Current or Maximum Voltage or a combination of both. Certainly an interesting theory but they still have ultra slow slew rates and 1962 Cadillac Grille styling. (Editors note: **Ray Bond** is retained as Asian Market Consultant by an Australian Amplifier company, so his bias is noted. But your editor agrees nevertheless!)



Couldn't help himself, the Ray. This pic shows one very caring minder (you gotta have a minder) with his charge. The guy just behind and to the right, smiling as he signs autographs on Ray's stand. Who? Gene Simmonds? Huh?

NADY were the best marketers in the wireless mic arena, having the product releases staggered through the three days; a new dual channel UHF model, the **301**; a new VHF rack mount model, the **RW-1**; and a new dual channel VHF system, the **750**. These are all unbalanced however, the local distributor here at home wisely will only handle **NADY**'s existing and new balanced models. They had a whole Dealer Support campaign they were promoting. That's how it's done.

JBL ran their usual line, debuting the **4200** monitors and of course showing the **ES52000** digital controller with the new **4892** Array Series model, and some new Soundpower cabs. The **MR Series** was there, and a linkup with **Rivera**, the guitar amp manufacturer made for some combo combinations. The **JBL Credit Card** was on offer through **JBL Financial Services** - only in America ...

If you want a raw loudspeaker, there are plenty of starters including **EV** (and other



Renkus Heinz take on EV's Manifold system with something of the same persuasion...

stablemates **Altec** and **Gauss**), **PAS** (who have the **HL-2580C** as their high power, 4" voice coil candidate) but it is **JBL** who control the **R&R** biz with their Vented Gap Cooling range. You really could spend a week looking at loudspeakers alone at **NAMM**. In boxes again it's every shape and size - I liked the **Target Series** from **PAS**. (Yes, but you used to work for them, Ray. -Ed)

RANE celebrated 10 years on, showing the **ME-60** dual 3rd octave EQ and the rest of their line, which is held pretty well 'up-there' by the biz. **ASHLEY** introduced a few new lines, including the **GQX** graphic equaliser.

ROLAND were pushing their 'best kept secret' **R-880** Digital Reverb, which can be linked to the **GC-8** Graphic Controller for user created programs and modifications of parameters. There's more, the company have the **E-660** Parametric Equaliser and the **SN-550** Digital Noise Eliminator.

Multitrackers can chase **FOSTEX** for the new **X-15** replacement, the **X-18**, which seems to do everything you like to do at 3am in a

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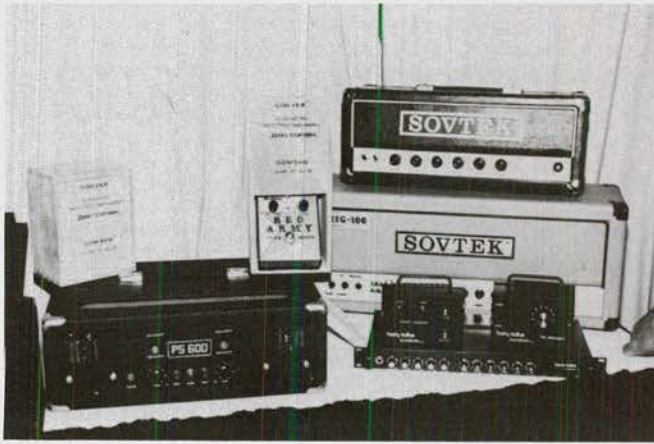
NAMM REPORT

Motel room, which is where these devices come in handy, isn't it? TASCAM had their new baby on hand too, and a new 424 Portastudio. There didn't really seem to be a great deal of 'excitement' in the multi-rack market, (ADA aside), perhaps next year - or even maybe at MusikMesse in Frankfurt which is, after all, the world's biggest music show.

Look- there were over 70 specific Pro Sound exhibitors out of a total of 750 different stands spread over 5 and a half huge auditoriums. The noise level was something else - every stand had some kind of Musical Star bought in on a retainer to impress those who are not impressed. Just across the aisle from our Mitec stand, a percussion wholesaler had Sheila E on board. My mates had some German mega-stars on hand, but of course not living in Germany it's all Dutch to me. -Ray Bond.

If you went to NAMM and would like to share your experiences with us, please drop the Editor a line on Fax (02) 876-5715.

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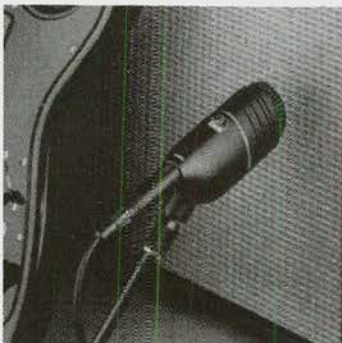
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AKG Tri-Power mics- D3460 (above), D3900 >

\$1 a watt?

From March, Amplification will never be the same.

JANDS

The Connector Bible

Part Six in a series

BURNDY MULTIPIN CONNECTORS Line Level

(Continued from last issue)

WIRING CONFIGURATIONS FOR BURNDY 19 PIN CONNECTORS:

6 Pair standard (see Connector Bible # 5)

PAIR	SIGNAL	CONNECT	PIN
1	Earth	Shield	A
1	A Leg	Black	B
1	B Leg	Red	C
2	Earth	Shield	D
2	A Leg	Black	E
2	B Leg	White	F
3	Earth	Shield	G
3	A Leg	Black	H
3	B Leg	Green	J
4	Earth	Shield	K
4	A Leg	Black	L
4	B Leg	Blue	M
5	Earth	Shield	N
5	A Leg	Black	P
5	B Leg	Yellow	R
6	Earth	Shield	S
6	A Leg	Black	T
6	B Leg	Brown	U
		Not used	V

9 Pair standard (see Connector Bible # 5)

1	A Leg	Black	A
1	B Leg	Red	B
2	A Leg	Black	C
2	B Leg	White	D
3	A Leg	Black	E
3	B Leg	Green	F
4	A Leg	Black	G
4	B Leg	Blue	H
5	A Leg	Black	J
5	B Leg	Yellow	K
6	A Leg	Black	L
6	B Leg	Brown	M
7	A Leg	Black	N
7	B Leg	Orange	P
8	A Leg	Red	R
8	B Leg	White	S
9	A Leg	Red	T
9	B Leg	Green	U

All earth shields together connected: V

CORRECT BURNDY 19 PIN TERMINATION PROCEDURE:

The two different wiring formats for the 19 pin connector have different termination

procedures (as follows) :-

9 Pairs:- Should be terminated as per a 48 pin Burndy but with all nine earths joined to the one pin "V".

6 Pairs:- Should be terminated as follows:-

1) Slide Burndy "Back Shell" over the end of the multicore cable.

2) Slide 100 mm piece of "Triple Shrink" heatshrink (of a suitable diameter for the cable in use) over the end of the multicore cable.

3) Remove 100 mm of outer casing from the end of the multicore cable.

4) Strip the foil shield, insulation etc off each line back to 100 mm from the outer casing line.

5) Sleeve the "Drain Wires" with a 85 mm length of green PVC sleeving.

6) Cover the end of the foil shield and the start of the green PVC insulation with a 20 mm length of rubber sleeving or heatshrink. This will prevent the six drain wires coming into contact with each other.

7) Slide triple Shrink 10 to 15 mm beyond outer casing cut line, this should cover all drain wire transitions. Shrink Triple Shrink.

8) Fit pins to all wires. Crimp only.

9) Insert wires to Burndy socket in a tidy fashion, avoid crossed wires where possible.

10) Assemble connector.

11) Test.

Multipin connectors so far:

BURNDY 48 Pin Microphone Level standard- Connector Bible # 4 & 5, Issues 9 & 10,

BURNDY 19 Pin Line Level standard: Connector Bible # 5 & 6, Issues 10 & 11.

MULTI-CIRCUIT LOUDSPEAKER CONNECTORS

THE NEUTRIK "SPEAKON" SERIES CONNECTORS:

The basic NL4FC connector listed in the previous section "Single Circuit Connectors" (Connector Bible #3, Issue 8) is in fact a four pole connector with two designated pairs, and as such it is highly suited to bi-amplification applications. In addition to the four pole version there is an eight pole version, allowing the connection of four way systems.

There are industry standardised wiring configurations for both connectors, these were initially proposed by Neutrik themselves and subsequently agreed to by the major manufacturers such as JBL.

NEUTRIK NL4** WIRING:

Bi-amplified 2 way Loudspeaker:

LOW FREQUENCY SIGNAL

PINS 1+ AND 1-

HIGH FREQUENCY SIGNAL

PINS 2+ AND 2-

Full range signal with separate sub bass signal:

FULL RANGE SIGNAL

PINS 1+ AND 1-

SUB BASS SIGNAL

PINS 2+ AND 2-

NEUTRIK NL8** WIRING:

Four Way Amplified Loudspeaker:

VERY LOW FREQUENCY SIGNAL

PINS 1+ AND 1-

LOW FREQUENCY SIGNAL

PINS 2+ AND 2-

HIGH FREQUENCY SIGNAL

PINS 3+ AND 3-

VERY HIGH FREQUENCY SIGNAL

PINS 4+ AND 4-

- Continued next issue

Compiled by W. Peter Twartz

Audio Products Manager,

Jands Electronics Pty Ltd.

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JANDS

LDI '91 - LX MECCA

LDI-91 is THE big USA Lighting Expo which was held recently in Reno, is always an action packed couple of days, and a good window to what's happening next in the world of LX. This year's show was typified by the profusion of moving lights, including a (pictured) Vari-Lite copy that will doubtless have the Dallas crew boiling.

David Timmins of Jands attended the expo, primarily to handle the plethora of technical queries that were generated from the companies exhibit, which served to debut the new Event Plus, the 48 and 60 channel version of the companies already booming memory console. Between technical dissertations he managed to whip round the show to see what's going to happen NEXT.

COEMAR have the Microscan, their answer to Clay Paki's Miniscan. It runs an EDR 650w lamp and has the goods, which are addressed by DMX-512. Here down under Coemar is distributed by a new company headed by ex Getlit chief, Peter Kemp.

MARTIN made an impression with a lot of product on show, including road cased versions of their various effects, which are designed to just hang as they are- like a criss load of fruit bats! The company announced the 20,000th Roboscan had been delivered, and flopped out a new 1200MSR version of the r Roboscan 1020.

HIGH END SYSTEMS put on a light show that won a show award, based on 20 Intellabeams, 32 Emulators and a host of their products. (See inset on next page) Light & Sound International magazine say the Intellabeam 700's new range of microic colours put it beyond the reach of other units.

PAN COMMAND have a new thing, the Starburst is an automated blinder which has 6 lamps in a sort of moving flower arrangement that can focus in or out, with a 7th lamp in the middle. Confused? The whole shebang then goes pan and tilting away, and colour change is effected using the XL Ranger changer. Pan Com-

Compiled by Julius Grafton, with help from David Timmins (who was there) and L.& S. International.



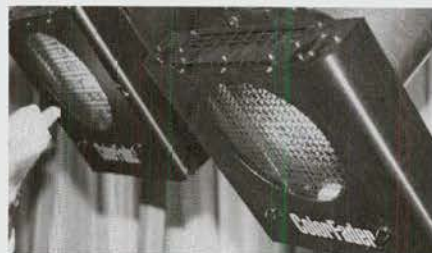
Starburst automated blinder, with XL Ranger scroller, from Pan Command.

mand is the sales arm of one of the world's largest rental firms, Morpheus Lighting. Their local agent, C.L.S. have several of their products in hire, including 26 P.C. spots and 26 XL Rangers- the large scroller on the Starburst (above). The XL Ranger will fit a Nine Lite, or Cyc lite, or even a 5k.

CCT LIGHTING made a comeback, with founder Don Hindle taking a high profile, and of course **STRAND** were there in force too. **ALTMAN** made their first ever appearance at a tradeshow, and won the best exhibit award (maybe to entice them back?) -the firm had a whole new line of spotlights on show. Channels valiant effort (and deep, deep pockets) award goes to Altman for spending the past five years developing the Altstar Vari*Lite competitor, which uses a 575w metal halide lamp that runs at a very white 5600° colour temperature. It has an un-usual mirror configuration to give a theoretical 360° pan and tilt operation, according to

L.S.I., and it will only be available in the rental market with a dedicated controller.

The largest disappointment of all time was that our spy was unable to attend the **GREAT SCROLLER SHOOTOUT**, which with a few notable brands missing, managed to produce a clear-cut loser before a crowd of potential customers. If ONLY we knew whose scroller it was
(continued over)



ColorFader- not new, but good because the colour is mixed up inside 'to order'.-It lets you fade from one to the next, according to D.T. - these are distributed here by Trevor Lloyd's Concert Lighting Systems, in Melbourne. They have a basic Colour Ranger scroller at around \$1500 too. You can call them on (03) 529-5019.



Surma HTI Moving Light- claims to be the brightest available, using a 400 HTI lamp, with beam variable from 3.5 to 21.5°, but the P.C. Spt & the VL2B use the same lamp! Timmin's pix often had ladies in them! How blatant.

New sound.

From March, Amplification will never be the same.

JANDS

LDI 91
(Continued)

we would tell you, but NOBODY will say. David Timmins- by missing this event you have let down your fraternity, son. I hope your Gels melt. Would anyone who knows the outcome of this please get in touch?

Then there was the comment from designer Peter Wilson regarding the Telescan Mark III from CHAMELEON - "the beam is free of chromatic or spherical aberration and the mirror is driven by precision servos feeding back through



Taiwan copy of a VL-1 Vari*Lite. Note the stopper pin on the side, which prevents the creature from doing a loop the loop when the computer goes berko.

10k conductive plastic track pots. The movement is wonderfully liquid and has a sexy quality that cannot be approached by a stepper system however ramping, slewing and microstepping is applied". Couldn't have put it better ourselves!

There were so many exhibitors that it became a blur, according to D.T., who thinks the show ought to be a day or two longer. Aussie LX company, L.S.C. were there too. *



A different kind of fogger- but why?



Jands exhibit- Event Plus 48 & 60 channel debut

The High End Systems Display (or "Lightshow") was a symphony in co-ordination, and a major achievement in synchronisation and programming. The lights were used in all ways possible, on the floor, ceiling, walls, audience- with fog & without. At one stage a screen came down and the lights were used to write a welcome message - just like a laser would! To anyone who has programmed moving lights or scrollers, you understand the difficulty and time required in programming even basic sequences- without trying to synchronise it with sound like H.E.S. did. Hats off to Tim Grivas and Mitch Pebbles- superb effort. -D.T.

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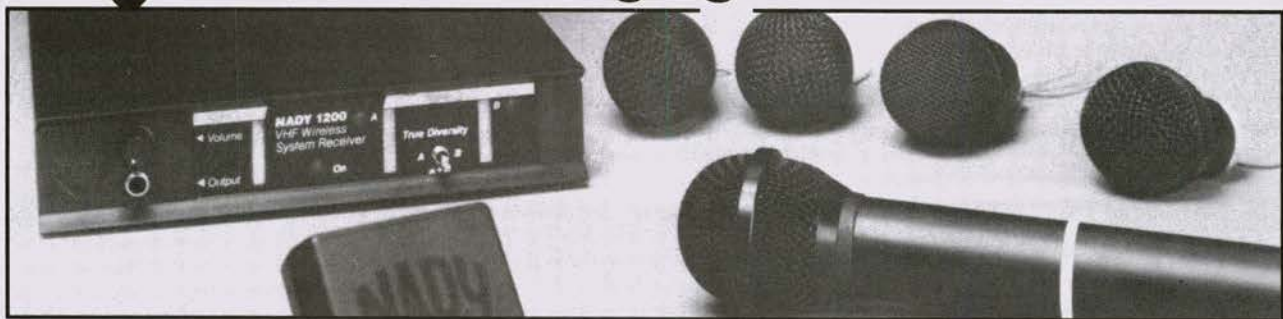
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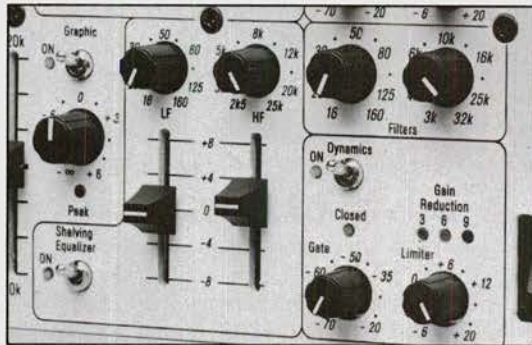
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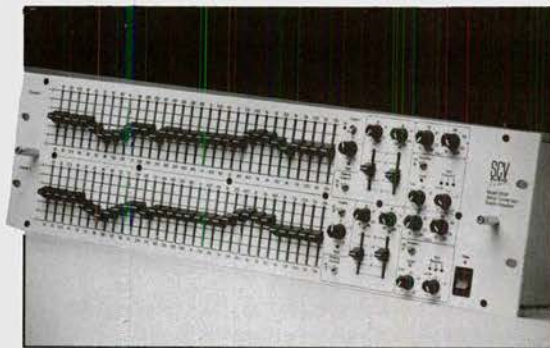


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TANNER

My career as a leg of lamb lighter

Some years ago (funny how these stories always start like this) after becoming disillusioned (that is, non-illusioned) with the family lighting business I was working for, I embarked on a career as a Gaffer - the man, not the tenacious tapel (*Def: Archaic old man, British colloq. Father, Chiefly British, an owner foreman or the like, Films, television chief lighting electrician.*)

Owning no equipment apart from my Patt 23s, which were of little or no use in my new chosen career, or indeed my old one, I was assigned by my booking agent to work for a variety of video production houses specialising in commercials for weekly red-spot specials. My job, if I chose to accept it, was to make the un-refrigerated uncooked amputated leg of lamb - and other animal parts on special that week, look wholesome and appetising - using the medium of lighting.

Hah - an easy task you say... imagine the scene - a late summer's afternoon in the (un-airconditioned) presentation studio, the lump of meat surrounded by stunt parsley (it was plastic), a forest of C Stands and Cutters behind which loomed 25kW of tungsten lighting, all at a range of 1m.

It's not so much that the meat started to cook, more so that it went from Red to Green. Only

having one 'Star' leg of lamb, and no makeup dept, our only re-course was to enhance the colour by adding gels. At 3 o'clock we started with a 152 Salmon Pink, and by the time we finished the tracking shot around the leg (some 2 hours later) we were down to a 106 (primary red).

Moving on to the cooked repast our next shot was more demanding - a cooked leg of lamb, served piping hot with steaming vegetables. The 'special effects' food technician was called in, and after the judicious application of a gas torch to the aforementioned star, and a good rub down with olive oil, we were ready to set the scene.

Frozen vegies were thawed out in front of 5K's and Mini-brutes, then arranged decoratively on the platter with the start of the show. The Director of Photography called for 'the Steam' - this was provided via a length of 5m n aquarium air hose and a packet of Marlboro Red. I can tell you, I became a dab hand at exhaling artistically on cue, though it did take at least 10 re-takes to get the shot in the can!

At last, we've reached the dessert course - have you ever wondered how the people in the ads are able to scoop ice cream from a bucket so easily - well, I'm about to let you in on a

guarded industry secret.... It's NOT Ice Cream - it's Mashed Potato! Pity the sweet child models who eat the muck, smiling and looking happy!

What about that fateful day we took the 'star' for a drink after the shoot? Yep, we took the meat (and our meat!) to the pub after work. You guessed the rest - it had to happen - we raffled the meat tray. After that we changed pubs, luckily it was South Melbourne, where there was a pub on every corner.

Then there was the time we had to do the great christmas special, where we had to do the crane shot, with 50' of groceries artfully laid out in a 3' strip down the studio floor, the idea was the camera dolly would run parallel to the strip of groceries with the director and the cameraman sitting at the end of the jib with the camera.

A 'star wars' type shot, weaving down and through the groceries was the desired effect. After several run throughs, the director decided a slower run was needed, the Key Grip had de-bunked, his Best Boy took control and piloted the dolly through the line of goods! What a shot - the first thing the director saw through his viewfinder as they panned off the background was a scene of utter devastation - pies, cakes, meat, fruit, plum puddings etc with Dolly tyre marks through the lot! So much for filmic artistry!

-Mike Tanner

Profile

SOUND POWER STUDIOS

Melbourne rehearsal facility expands to become Victoria's largest with 16 studio's

With thirteen studio's already working, Sound Power Systems have another three in build at the time this issue goes to the printer - making 16 rehearsal rooms in total.

The facility is a modern looking place at 91 Cochranes rd, Moorabbin, which opened in April '91 with one studio. The 'standard' studio measures 4.5 x 5.5m, and each is airconditioned. Fittout for each of these 11 rooms comprises as follows:

- *JBL 2 way speakers with E140 & 2426 drivers and 2370 bi-radial flairs, flown from the roof.

- *Yamaha 1031 EQ, Jands 510 amp, 60 pre-set effects unit.

- *Soundcraft SPIRIT Live 8 channel mixer.

- *Cassette deck wired to record & playback.

- *All Shure SM 58 microphones.

The partners, Graham Rowlands and Stewart Guthrie (pictured on right) report the release of the Spirit couldn't have been

timed better - "many people said using a Soundcraft in a rehearsal studio was overkill", said Stuart. "This is simply not the case, the Spirit fits perfectly with our philosophy of providing the best possible equipment and service for an affordable room rental price".

Aside from the 11 standard rooms, at present there are two larger rooms, each is 8 x 5.5m, and is fitted out with a 16 channel Spirit, larger JBL Boxes with 2 x 15" & a 2445 driver, Rane crossovers, 2 x 31 EQ's, 2 x Jancs 510 amps, cassette deck and a Yamaha SPX 900 for effects.

Currently a Production Rehearsal Room of 1000 square feet is planned.

The partners looked at a lot of different rehearsal rooms and facilities before starting



work on their own. Each wall is 400mm thick, and contains tonnes of sand for deadening.

According to Stuart, the choice of amplifier was due to "the 510 having a flatter response and also price".

The guys have all sorts of deals going for studio time, a nice one is the Solo Session, where for ten bucks you can lock yourself up and freak out on your guitar or drumkit.

Call them on (03) 532-0532.

Auntie Frank



Hi Kids - as you read this I'm off (truly) on a mission, lighting a series of fashion shows around the country, sleeping in 5 star hotels, and associating with very attractive and intelligent lady model types, who hang out in my room and watch movies with me on their day off. I even managed to write this issue's advice column, answering two very peculiar letters. Read on....

Write to Frank
(Auntie) Calvi:
P.O. Box 439,
Epping 2121 NSW
Fax (02) 876-5715

Dear Auntie:

As I write, I am currently working on the Fashion Parades at the Royal National Show in Brisbane. The venue is in the Sheep and Wool pavilion, at the showgrounds. Accordingly, I have some important questions for you

- (a) How LONG does sheep shit take to dry?
- (b) Can you smoke it when it's dry?

(c) Would you like me to knit you a pure wool truss in between shows for your winter range of Calvi Collections?

Hoping for an early reply,

Yours faithfully,

DYKE DUNNING, Brisbane.

A: Well, first of all, you didn't get an early reply, because I've waited 6 months, so there. As to your questions, please allow me to address these in order.

This letter does bring back memories of a show I did at West Wyalong. It was a sort of Wool Pageant, where the punters came wearing spray back packs which they filled with the healing ale at the door so they could suck on their own supply. The winning sheep (Miss Western Plains) then appeared in the Dalgety Times. Wild thing, I think I

(a) In regard to sheet excrement curing times. Following the completion of the abovementioned Wool Pageant/Expo, I packed my lighting system into the EJ and rattled off into town where I booked into the Royal Hotel. After enjoying the company at the public bar, I retired to my suite upstairs, whereupon I removed my ripple soles.

By this time, a solid 9 hours (and many schooners) <But Frank doesn't drink! -Ed> had elapsed since the show. As I untied my shoe laces I became aware that a foreign substance had adhered itself to the bottom of my ripple soles. It was shit. It was dry. OK? If pushed for time, I'm sure sitting the stuff under a Mole Fay for 15 minutes would be sufficient.

(b) You ask if one can smoke it when it's dry? Funny enough, referring straight back to the occurrence above, I sat on my bed, in my room, and pondered the substance squashed into the ripples on my sole. Luckily I had some alfoil in my bag, so I carefully scraped each ripple clean, and arranged the offending matter in nice straight lines on a piece of foil. Then I took it down stairs and sold it. I don't know what the guy that bought

it did with it. As it was, it smelled a little storr:g.

(c) As to your offer of a pure wool truss: before I commission my next round of designer classics called 'Get A Load Of This', I need ultra fine wools with a safe working load of 2 Rams and 2 Ewes - at least. Can YOU help?

Dear Auntie:

Please print some information on the maintenance of gear, as one of my many lights has developed a fault. Unfortunately in all of my 22 years of business I haven't had one single problem of complaint, so I am not completely sure that the unit in question may not have to be replaced so as to keep up the current demand for excellence that we have come to know and love. Please help me solve this Frank.

Yours faithfully,

PHILLIP CULLEN.

A: Well, where do I start? I subscribe to the maintenance policy that they use in less developed countries, namely if it breaks down, pillage the next one?!

A good way to check the device in question is to remove the cover or lid, using un-sheathed pliers. Standing well back, plug the device into the mains and observe. In the event you witness a flash of light, followed by a puff of smoke, then the diagnosis is a short circuit.

If when you plug the light in, nothing happens at all, change the globe. Globes do fail from time to time, usually because they have a limited life.

Failing all this, try God. Give your local outlet a call, and let The Light come to you!

* Having given this some extra thought, I have penned the following 'real life' story for you. It may help you as it has me.

HAVE YOU ever turned on a PAR 64 bulb only to find it doesn't work? You're left in the dark. So you tap the bulb. Nothing. You shake the can a little harder. Still nothing. But when you put the bulb in a different can, it works! So there's nothing wrong with the bulb and there's nothing wrong with the electricity. The can itself must be broken. "Hey, I'm no dummy", you say to yourself. "I can fix this". So you get your tools - Screwdriver, Pliers, Tape. But when you reach for the cord, you discover it was unplugged all the time!

Everything worked, the bulb was good, the can worked fine, and the power was on. But the cord wasn't attached to the source of electricity. No power could flow to the can. There's a lesson to be learned here. You may look good, you may sound fine, BUT unless you're attached to the almighty God by a relationship with Jesus you've absolutely no power for life!

Draw close to God in prayer and bible study.

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Great Mistakes

My last tour



My nickname is 'Big G', I'm a sound guy and we'll leave it at that. I'd like to tell you the story of the tour that changed my life and career. It all began in Queensland, where the concept band to end all concept bands had been formed to make big bucks real quick.

The show was just un-believable, as were the dramas to follow. After a short tour through Queensland we took the show south. The lighting guy, stage guy and myself left Brisbane in an 8 tonne Hino via as many backroads as we could find. The reason for this becomes obvious at our first real break in the trip, which happened to be the River Murray. We had a swim to wake ourselves up, and whilst doing so, the local boy's in blue spotted the truck and decided it was (a) stolen, or (b) abandoned.

Upon interrogating us, the Police formed the view that none of us held the correct license to drive the truck, so they directed us to park the truck and have someone come and collect us. Naturally as soon as they were out of sight, so were we!

First stop Melbourne, where we met up with the new tour manager/monitor guy, and also the new licensed truck driver. The first week of gig's in Melbourne didn't have too many strange occurrences, just a fire breaking out on stage after a fire eating display, and the poor lighting guy falling twelve feet from

the back of the truck during a thunder storm when the support band didn't turn up for the loadin. Oh, and I forgot to mention, he was wearing a 45/80 at the time!

Then there were the gentle mishaps and daily realisations, like the truck being broken into in St. Kilda, the tour manager was a Kiwi (joke not racism), they don't like longhairs in Warnambull, and the stage guy falling asleep while driving the truck. Luckily I awoke after we hit the first guardrail. But apart from all this, the show was killing it! People still loved the band we were covering!

The following week took us to Broken Hill. Interesting place, but don't bother! The next day for some reason I decided to travel with the band in the Ambulance, and it was off to Albury, which is somewhere in the East... isn't it? The radiator blew, so we had it fixed. After about three hours on the road, we stop at the last-chance servo, and purchase The Really Old Map Of N.S.W., whereupon I discover the reality, which is that it is 3.15pm, and we still have 500 kilometers to go, and that mobile phones are useless in the middle of no-where!

We arrive at the Hotel by the Bridge at 8.30pm, and the I discover the tourmanager come monitor guy doesn't know how to rig a Quad 4 way PA, but fortunately for me the venue manager gave me 20 minutes to do it, and I had to EQ the system during the first

song. It's a little tricky when the band meters at 124dB on stage. But again, the crowd loved it! Something strange was going on.

Next stop was Adelaide, where we worked the biggest room I had ever seen, and if it hadn't been for the house tech, we all would have been committed! (Thanks, Stick!) The rest of the tour was hard but fun, we returned to Melbourne for a week, then Sydney, with just a few mishaps. (Penrith Leagues Club-sorry about the window!)

To top it all off, we had to cancel the last gig of the tour because the truck's clutch went in a small town on the north coast of NSW, so the crew had to spend the day in the sun.

I retired from rock & roll, and will now see my years out in a Theatre in the Northern Territory, in the position as Head Audio, so for you guys slogging it out on the road, I wish you all well. (PS- in case you haven't figured it out, the band was a Kiss concept band).

- "Big G", Darwin.

Next issue we venture where no soundman has ever been before - an epic tale of truly immense proportions, spanning great tracts of outback Australia, with tragedy, disaster, epic woe and side splitting humour - from reader Erik the Viking, formerly of Perth. Wait for it!

Send your story to: PO Box 439, Epping
2121 NSW, or FAX (02) 876-5715

The spy at the pre-natal classes is exposed



or... 3 buttons & a fader?

This appalling pic was captioned by Geoff Haines.

Channels

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