

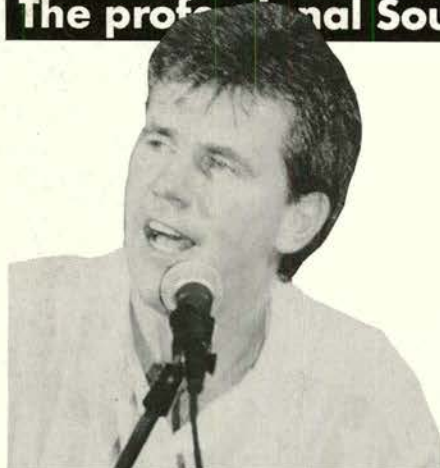
# Channels

**CONNECTOR  
BIBLE:  
PART 2 inside**

Free

The professional Sound and Lighting magazine

No. 7 15th Sept 1991



## Braithwaite: tour sells out

When Daryl Braithwaite sold out three nights at Sydney's State Theatre during May, his crew were relieved. After all, three nights in one venue breaks the touring routine, right? But from the start of the Horses tour, Sydney loomed as a difficult assignment.

The show before Sydney was in Newcastle, and given the State is located smack dab in the middle of Sydney's CBD, with a torturously long load in down narrow winding stairs, this all added up to one of those tour horror stories. Driving to Newcastle at 6am, the crew of seven then found themselves and a dozen loaders outside the State at 6am the following day - and worked right through soundcheck and the first nights show.

"Without powder", according to production co-ordinator and FOH Engineer, Brian McMahon. "We psyched ourselves up from the start of the tour, knew it was on, and thankfully had catering supplied". After the

*Continued on Page 10*

## LATE NEWS

In a remarkable transaction, Mick Previtera's Australian Concert Productions of Brisbane have sold their 56 Turbo TMS 3's to Sydney's P.A. People, then purchased A1 Audio's 48 TMS 3's, and taken a profit on the way around.

P.A. People now have 56 fairly new TMS 3's, A.C.P. still have a Turbo rig, and A1 are Turboless, retaining Martin RS1200's.

It is understood P.A. People have also bought new amplification, as well as a quantity of outboard gear. They recently added extra PM 3000 and 1800 consoles in a bullish expression of confidence.

Soundcraft get aggressive



## Spirit STUDIO

**56 inputs - 8 subgroups - 6 aux - 4 band EQ,  
\$9995 - and that's RETAIL!**

A wave of product designed to suit specific end users is pouring out of Soundcraft in the U.K. - most recently the Spirit STUDIO console. The STUDIO console is quite different to Soundcraft's Spirit LIVE console, launched earlier this year. Spirit Studio comes in 16 or 24 channels, and eight subgroups, but is an inline console, with two discrete inputs per channel - one for multitrack return, and one for line or mic input. 6 aux busses as well.

*Industry view*

## CHUGGIE



Frontier Touring boss Michael Chugg was one of the first people in Australia to recognise the Rock Industry as a business - back in the late 1960's - so when he says times are tough, you listen. "This is the hardest winter ever, a lot of people in the industry are out of work", he told Channels.

Frontier has had a very successful run with Billy Joel last quarter. Some tours make money - others: "Across 10 years we've never had a loss over a year."

This November is shaping up tough, with Gloria Estefan, Paul Simon, Dire Straights

*Continued Page 14.*



With four stereo effects returns, this gives the 24 channel console 56 inputs, and we have already visited a home studio that has all 56 inputs connected! Today's small studio is usually one person with a lot of equipment and samplers - with anything from an 8 to a 24 track recorder. STUDIO handles the lot.

People are actually getting excited when they see this console - it caters to the fastest growing section of the music trade, and it does so in a user friendly manner that is immediately evident when you lay your hands on it. Your writer has a live sound background, and thus was perturbed at first glance. After all, why were the H/F and L/F EQ controls together ABOVE the two Mid Sweeps? And what's this EQ to Monitor switch between the EQ stages?

*Continued Page 12.*

## BUILDING A STUDIO:

*The first of our studio profiles - inside Meaningful Eye Contact's post production studio.*

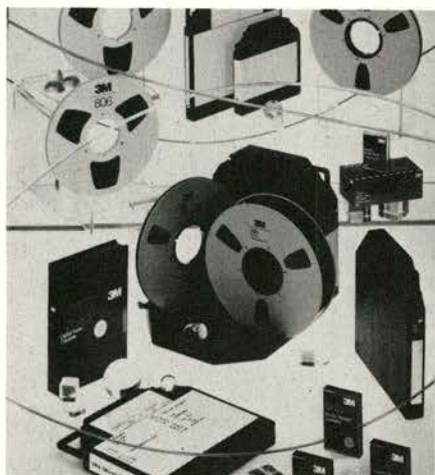
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## NEW TAPE

3M has released what it claims is the first analogue audio mastering tape to come close to digital sound. The brand 996 tape has a signal to noise ratio of 79.5, higher than any other analogue tape, and is available in all industry standard lengths and widths. For more info, call 3M's Magnetic Media Division on 008 022293.



## ETC EXPRESSION FOR ABC

The ABC's Hobart studios have just ordered an ETC Expression Lighting Console, with a Response Backup System and a remote focus unit, from K.W. McCulloch.

## BIG COMPUTER STORE RIG

A Canberra Computer store, "Computer One" has recently had a very large music system installed by Topstage Productions. Comprising 4 x JBL AD 18 subwoofers, with JBL 2450J drivers, 2366A biradial horns, and 2402 ultra h/f drivers, all crossed over via a Rane AC 23 crossover. The system is driven by 3,200 watts of A.M. amplification plus a Perreux 3000C.

The manager, Mr. John Riley, is reported to be quite happy with the quality of the system, but apparently the Avis office across the road is also aware of the installation, especially late in the afternoon when John returns from lunch.

## CONTRACT WATCH

Jands Contracting Division are in the middle of several contracts, the Sydney Town Hall has ordered a PA upgrade, along with computer controllers for the motorised battens. Tweed Heads Bowls Club has an audio install underway featuring JBL Soundpower 4755 x 2, 4726 x 4 and 4716 x 2. Plenty of Jands 107 amplifiers, a Soundcraft Spirit, Soundcraft 8000 console, 8 x JBL 4728's, and a Philips paging system completes the picture. Meanwhile, the company is installing a video-conferencing system for a leading communi-

cations group. This video conferencing system uses a pair of Crestron touch control systems, Sony 2730 monitors, Sony DXC107 cameras, JBL Pro IIIs, and plenty of well finished custom equipment housings.

## ROCKY MOVE & THEFT

Rockhampton's Stage & Audio have moved to the corner of East and Arthur streets, phone (079) 22 2646.

They also have been ripped off, and offer a \$500 reward for any recovery of: 1 x Yamaha P2201 amp (modded to 2 x XLR outputs), a Yamaha Q2031 EQ (which was in a 6ru sleeve with the amp), 2 x 50m 28 way multicores (with a 10m monitor split) a Mini BigSmoke fogger (in full T & G roadcase), an LSC Precept 24 in ABS T & G r/case, and a bunch of leads with yellow painted ends. If you have any info on any of this gear, or on ripoff merchants operating in the area during early July, call Tim Buchholz on (079) 22 2646.

## PRIDDLE PHONE NUMBERS

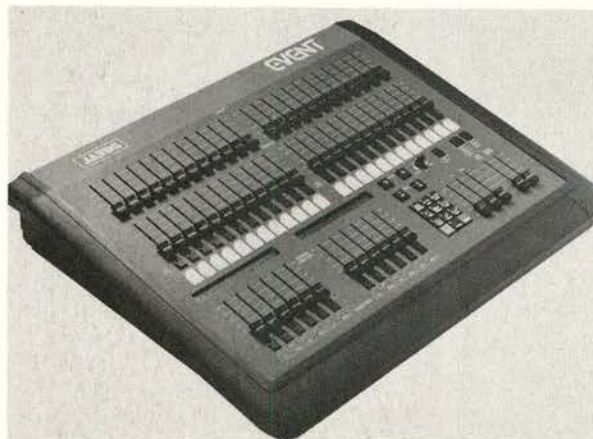
Acoustic Consultant Richard Priddle's Bathurst phone number is (063) 314 085. His mobile phone (as reported last issue) doesn't work within his house there, and he tells us he can still be contacted on his Sydney number most of the week - (02) 482-1286.

At last there's a console you can take anywhere

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**JANDS**

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## S.A.E. EXPANDING

The School of Audio Engineering, which started in Sydney, has opened new colleges in Singapore, Glasgow and Amsterdam recently, totalling 15 around the World. Paris & Brussels open next year, according to Tom Misner.

3 Sony APR 24 multitrack recorders have been ordered to enhance Australian operations, and "the largest purchase of Neve consoles ever made", in the order of 5 mega bucks, was signed in Austria for 10 Neve VR total recall consoles.

The S.A.E. can be phoned on Sydney (02) 211-3711, and operates in Mel, Bris, Ade, Perth and Auckland (9) 734-712.

## TAX OFFICE PROBE

The Tax Office has commenced a review of the sales tax rate applicable to mixing consoles, namely those mixers considered by the Tax Office to be auxiliaries to tape recording equipment.

The industry has been charging 20% sales tax on mixers generally, the ATO thinks perhaps 30% would be more applicable to some types of mixers, lumping them into the domestic or leisure market along with stereo

equipment. That mixing consoles are of an industrial or professional application nature matters not to the ATO, and the industry, via the Australian Music Association has acted in preparing a submission to the ATO arguing the industry viewpoint.

The Australian Music Association has done every semi and professional user a good turn.

## GIANT STUDIOS OPEN

Peter Dawkins has launched Giant Studios, at 600 Darling Street Balmain, and already the bookings are very healthy. Peter is very well regarded in the industry, while occupied as an A & R man, Producer and even record company G.M. he has still found time to help and advise industry hopeful's.

The Giant facility has a pair of Akai A DAM 1200 recorders, liked by a DL 1200 locator, which has the capacity to link 3 recorders. Mastering is into a Sony DAT, main monitoring through a pair of JBL 4412's, and the console is a Peavey AMR 2400. Editing is handled in the digital domain utilising Soundtools software running on an Apple Mac. All mod cons are in place.

Penny Dawkins has decorated the premises very nicely, and a pool table is supplied.

# Caption Contest

## LAST ISSUES WINNER

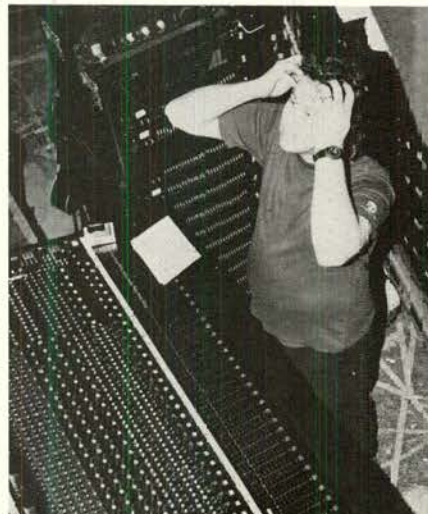
Helmut Schiretz, of Canberra: Ozzie is saying: "I told you guys to set up at the MCG NOT the SCC!" and Peter Wait is thinking: "I told



them to buy a map, but would they listen to me? NO!". The guy with the cans is wondering if the band can be phoned up & patched into the PA. Helmut gets the T Shirt.

## ▼ Caption this photo!

The best caption award is a genuine JBL System T-Shirt, available in any colour you like as long as long as it's black! Send your caption, and your T Shirt size to: **Caption Contest**, P.O. Box 171 St. Peters N.S.W. 2044 Australia. Fax: (063) 375-367. The pic is of Daryl Braithwaite's monitor man, Mark Brown.



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**Contributions are welcomed!**

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**New Zealand enquiries:** (09) 366-7021

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An era has ended with the Angels and long time Manager, John Woodruff parting ways. At press time it was thought that Angels drummer and Johnny Diesel manager, Brent Eccles was to manage the Angels. We couldn't get hold of Eccles for a comment.

Jimmy Barnes' latest performance contract is said to include a clause regarding a maximum sound level of 130dB, which is probably well in excess of actual level generated. It's one way of avoiding hassles.

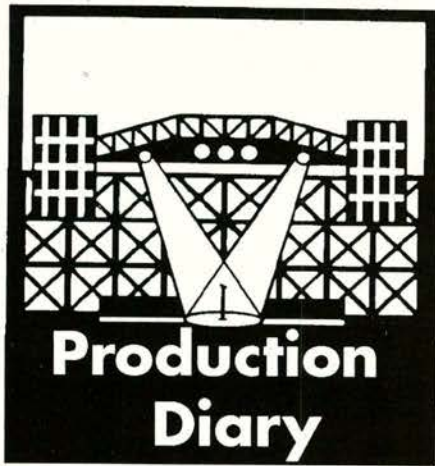
**Much muttering during the INXS X Factor tour as to how few Aussies were on the crew. Like, 2, to be precise. Granted the band wanted specific people for the main tasks, but ..... the dogs were barking. A specific comment... "I carried W Bins up three flights of stairs for those guys, now they turn their back on me."**

The final curtain was drawn on I.M.I., who were best known as the importers of ROSS brand equipment, with the Auction of stock by the receiver recently. Company principal, Pat Bonham survived a major Supreme Court tussle with the Australian Tax Office relating to Sales Tax a few years ago, the resultant ruling now a firmly established precedent known as "The Bonham Precedent". This matter dealt with the personal liability or otherwise of a company director in relation to the companies sales tax debt. C.M.I., of Melbourne have picked up Ross.

**Paul Kelly's tour manager, 'J.P.' John Pope had close shave with the law after an altercation during a show in July. The problem was with a 'unit' that invited itself into the dressing room, then made the mistake of debating with Pope, who left the venue soon after - only to get a call on his cellular regarding the presence of a car load of Police seeking an audience with the Pope. At press time his fingers are crossed.**

Screaming Jets take this month's ear damage award, on stage Marshall's wound up to 10, the PA works hard to overcome the onslaught. Seasoned hard rock gig goers report actual ear distress post gig. A whole generation of garage bands will now follow suit.

**...and which international lamp importer recently ran the junket to end them all? The one whose parent company has just announced a multi billion dollar loss. You know it's a junket when the itinerary reads like this: Friday: fly to New Zealand. Friday night: dinner and cocktails. Sat: meeting until lunchtime. Sightseeing all afternoon, dinner and cocktails, night. Sunday: as Sat. Monday: Jet boats, Sight seeing, dinner, cocktails ... get the picture? All for invited delegates and associate delegates (spouses .. secretaries?) What raised eyebrows was the immediate resignation of the Manager who organised the whole event as soon as his feet touched home soil. He left to join the employ of one of the delegates.**



**DEBBIE BYRNE** appeared in concert at the Melbourne Concert Hall with the Melbourne Symphony Orchestra in July. J.P.S. engineer Wyn Milsom used a PM 3000/40 and a PM 2000/24, through 24 x TMS 3's with 12 sub-low boxes. The foldback system included 10 x SLP wedges, 4 x TMS 3 and 3 x R3 boxes, from a PM 2800/40 console. All amplification was Jands. Aside from the usual assortment of band and vocal mic's, 2 x C'Ducer, 12 x Isomax "h" and 11 x Isomax "O" were put to good use on the Orchestra. Orchestra and performer were said to sound "magic".

**NOISEWORKS** launched their album at Sydney's Hordern Pavilion, a function of the type not often seen - free beverages, decorations, fake casino, food and all the bells and whistles. It was said to have cost Sony \$60,000 to do it, the assorted industry hacks were impressed enough to vibe the album up to Numero Uno on its first week of release.

Jands Production Services (J.P.S.) provided 32 x Turbosound TMS 3's, with 16 Sub-Low boxes. J.P.S. have just retrofitted these sub-low boxes with JBL's 'Air cooled' 18" 600 watt model 2241, for more grunt. Consoles: Yamaha PM 2000/32 & M916/16. Foldback: 4 x DLP, 10 x SLP and 4 x R3. F/B consoles: 2 x Yamaha 2408. **NOISEWORKS** Lighting: Console is a Celco 90 way, 238 Par 64, 8 x Leko, 6 Pallas 4, 6 x 2k TV lights, 14 x Colour Wiz, Oil Crackers, and 120' of snake light. 12 Vari\*Lite VL2B's also were used at the Hordern.

Then for the tour, the main air was changed to 16 JBL Modular Stacks, powered by Jands J920 amplifiers. A third system was sent to Melbourne for Noiseworks free concert there. Now the band will tour, tour and tour some more.

The **JANDS MOBILE STUDIO** attended the Noiseworks Album Launch in July, recording the gig for the band. Is this the first time an Album Launch itself has been recorded? The recording was engineered by Chris Pyne, who is back home after spending the better part of four years working o/s - most recently with Jason Donovan.

The Mobile comes standard with an Otari MTR 90 (MK II) 24 track recorder, which "hasn't missed a beat", according to Pyne. "I

worked for the Manor Mobile last year in England, they've got two of them, the workhorse of the operation." The Otari is fed by a PM 3000/40 with track assignment facility, J.P.S. recently acquired a Harrison 32 channel console from earth Media which once overhauled will probably be available for use within the mobile. Built into a shipping container, the mobile is fully air conditioned, and has Dean Jensen triple wound transformer splitters with one direct feed and two transformer isolated splits, with a 57 pair multicore. A remote Sony colour camera with pan, tilt and zoom is used within the venue, allowing the engineer to see what's actually happening on stage.

For the Noiseworks Launch, an extra 16 channel (916) console was added, along with 3 x Drawmer DS 201 gates, 8 x DBX 903 limiters, 2 BSS DPR 402's, and a couple of audience mic's. The same week, the Mobile recorded a couple of performances of the new stage show, "Return to the Forbidden Planet", which opened last month at Sydney's Theatre Royal.

**HOODOO GURUS** tour onwards through big houses everywhere, with the J.P.S. 12 x TMS 3, 12 x Sub-low configuration (Retrofitted with JBL 2241 18"). FOH is a PM 2000/32, Foldback an MC 2408M driving 4 x SLP, 4 x DLP and 6 x R3. 62 Par 64, 30 Par 36, 4 Solar 250 and 12 colour changers makeup the rig, driven by a Celco 60, into two x 36 dimmer racks.

**SCREAMING JETS** scream into fame, working 16 x TMS 3's and 8 Sub-Low boxes (see above) very hard. Yamaha PM 3000/40 console FOH, and PM 2800 monitors, which are 10 x SLP, 4 x TMS 3, and 3 x R3. 104 Par 64, 8 x Par 36, and 18 Leko's are driven by a Celco 60, with 2 x HTI 400 followspots, 2 x White Lightning strobes, and with 2 Martin Magnum foggers making up the lightrig.

**CLEARLIGHT** in Melbourne supply "Hey Hey It's Saturday" with 12 Vari\*Lite's every Saturday - either Active VL2b's or VL4's. Clearlight are Vari\*Lite Australia's Melbourne connection, and can be contacted on (03) 553 1688. They also own an Intellabeam system - see this issue's Lighting the Daryl story, on Page 11 for more details.



Chris Pyne & the Mobile

The photo below was supplied by Gus Dennis and Evo, who supplied production (and themselves) to these girls, who are part of the Penthouse Pet Review. Gus and Evo own a small PA and Lightrig which was big enough for this job. Maybe they could print that on their next business cards: "Big Enough!"

Normally Gus can setup the PA on his own, but ever helpful Evo and several other crew (mates) made themselves available for this gig at no cost whatsoever. Seriously, this show attracted several hundred people on a weeknight at \$10 each, generating production money, and employing bar staff. Good stuff.



## Production Roundup

Wendy Matthews/Jands Production Services  
Southern Sons/Troy Balance  
Mondo rock/Troy Balance  
Rat Cat- East Coast Tour/Troy Balance  
John Farnham in Darwin/Troy Balance  
Motorhead/Troy Balance  
James Reyne/Troy Balance  
Straightjacket Fits/DB Concert Sound  
Steve Cummings/DB Concert Sound  
Chris Bailly/DB Concert Sound

## PRODUCTION COMPANIES, OWNER OPERATORS:

Fax or phone your completed or current worklist at the end of each month for inclusion here. It costs you nix, and you needn't reveal anything in advance. Either send full details or just note which jobs you have on. If unsure, call me! Fax Julius Grafton: (063) 375-367 or call (063) 375-354.

## JBL DIGITAL CONTROLLER - ES 52000

JBL has developed a Digital Controller for loudspeaker systems, that converts analogue to digital, performs its tasks in the digital domain, then converts back to analogue to feed your amplifiers.

Called the ES 52000, what it does is this - firstly, it's a stereo 2 way, or single channel 3 or 4 way crossover. Then it provides system EQ, time delay, and in single channel mode, transducer protection limiters.

"All crossover and system EQ filters are FIR (Finite Impulse Response) digital designs", explained Steve Romeo from JBL.

"FIR filters have amplitude responses which are independent of their phase responses and which have constant group delay, no ripple, and no phase shift."

Because of the advantage of 24 bit digital signal processing, the ES 52000 has FIR crossover slopes of between 50 and 100dB per octave, depending on system settings. Radical improvements in clarity resulting from

the FIR filters are especially beneficial in large systems where interaction between individual loudspeakers is critical.

With peak programme limiting on each band when used in single channel mode, the ES 52000 does not act in the same manner as



other "processor" type devices, it doesn't modify the crossover slopes, EQ or system EQ, keeping the systems tonal characteristics the same at any level.

Also ES 52000 doesn't need sense cabling from the system amplifiers. JBL will be exhibiting the ES 52000 at the AES show in Melbourne, if you miss it contact Peter Twartz at Jands for more information.

## RANE CROSSOVER MODS

Rane have worked some running changes into their popular AC 22 and AC 23 crossovers. The AC 22 now has a MONO subwoofer switch, which will sum the left and right low outputs if so desired. Internally, provision has been made for adding Constant Directivity Horn equalisation as well.

The AC 23 now has a 2 way / 3 way selector

switch for each of it's two channels, located on the back panel. It can be run with one side 2 way and the other side 3 way if needed. Also a MONO subwoofer summing arrangement can occur if you reset internal jumpers



## AUSSIES O.S.

Famous sound mixers and audio types gathered in L.A. recently, for a chance to wear polyester Hawaiian shirts, funny hats, and go a "guest mixer" stint at the Topanga Days Country Fair. Ex pat. Aussies, Phillip Story (the "S" in JandS) pictured left, and Spy Matthews (now with Delicate Productions and wearing his Spinal Tap TShirt) right, are pictured with Don Pearson of Ultrasound at the fair.

A mysterious company known as FGS Intergalactic Cartel and Holding Company arranges the celebrity mix-off each year at the fair, a charitable event held in semi rural Topanga, where the F, G, and S people live. The G is Mark Gander from JBL.

Aside from the mix off (maybe that's how it sounds!) activities include a Crackerwhistle contest, lemon eating contest, Yo Yo and Tommy Smothers look alike contest (what does this mean?) and of course, the Funny Hat contest.

If your planning a trip to the USA late next May, give us a call for details of next years event. Where else can you rub shoulders with audio gurus, then laugh at the noises they make without having your lights punched out? Worth the air fare! ▼ *The Boys*



## Spring Fashion Guide



These full cotton T Shirts are available in Medium, Large or Extra Large sizes, and complement Jeans, shorts, leather mini-skirts or even board shorts. They are equally fashionable combined with Doc Martens or un-identifiable scungie runners of dubious vintage.

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Telephone orders: (02) 516-3622 - have a current Bankcard, Mastercard or Visa card ready.

### Colin Ford's twisted humour section

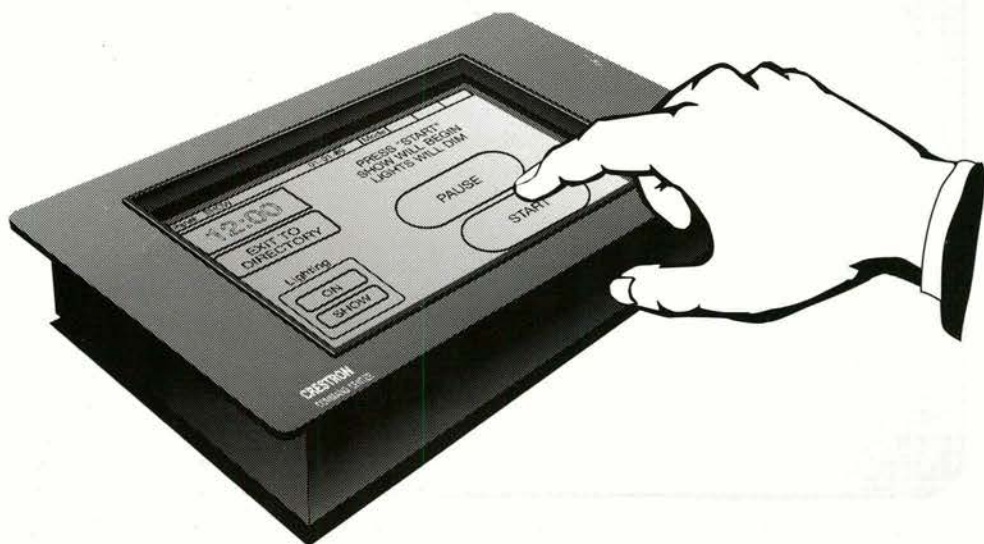
Movie of the Month:  
**In Bed with Mydoona.**  
How many record producers does it take to change a lightbulb?  
**I don't know, what do you think?**

How do you get guitarists to turn down?  
**Put a chart in front of them!**

(Special thanks to Tony Evans at "Deacons Hotel" in Lismore.)

Get Melbourne on the Landline, patch in the video conferencing system, turn up the mic's, draw the curtains, focus the video cameras, dim the lights and have the slide projector ready.....

**Or just touch this screen.**



# CRESTRON

*Tomorrows touch control system is here*

Crestron is the system that operates other systems, a command centre that can be programmed to perform elaborate sequential tasks, or simply remotely open a curtain, dim a light, or fade up a microphone.

The touch sensitive screen can have up to 99 pages of customised commands, programmed to suit your application. (Or just one if you want!)

The Cresnet II modular rack has a module for almost any command protocol, and can be addressed by remote infra-red hand held controllers.

The system is Crestron, the applications are as diverse as the world we live in.

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**JANDS**

## DB CONCERT SOUND

Last issue we reported Db Sound (Sydney) had moved, and that they are not to be confused with Db Audio (Geelong). Well, as can happen, we muddled up. The company in Geelong should be correctly known as Db Concert Sound. To make matters worse there is a firm in Melbourne known as Db Audio. The Geelong Db Concert Sound specialise in concert production and installations. Our apologies to them for the confusion.

## TRADE SHOW TALK

Trade shows, how they stimulate the masses and annoy the exhibitors! Following it's inaugural show in Melbourne this Winter, the Pro Light and Sound Expo will be on again in May '92 at the Sydney Convention Centre.

The dates are May 14 to 16, and the organisers can be reached on (08) 296 4189. Just 2 weeks earlier, the Australian Music Association offers the 1992 Music Show, same place, different theme.

The 1992 Music Show runs from April 30 to May 3 all inclusive. Contact the Victorian Rock Foundation on (03) 696 2022 for more info.

## RANE ADD MORE FLEX

The FDA 18 distribution amplifier is a one input, eight output balanced distribution amplifier capable of providing eight discrete signals from one input. Significantly the outputs provide enough gain to push signal through up to 300m of balanced cable. A Master gain control can be bypassed on each channel via an internal pre/post switch, and the unit accepts either mic or line level at the input. A Phantom power switch (with LED) and ground lift switch complete the picture.

The FLT 22 is a two channel balancing/isolation box, containing a pair of line transformers, with space for another pair which are available as an option. Wherever output balancing or isolation is required, the FLT 22 is the answer.

Finally, the RPS 4 Remote Programme Selector converts switch closures to MIDI programme changes. You can remote control any MIDI programmable device in your system. Select up to four preset programmes by pressing a switch. The unit offers a choice of 16 MIDI channels, and solves the problem of allowing simple recall of programme changes whilst restricting access to the programmable devices. For example, you could devise an installation that is equalised in four different manners, then have a switchplate somewhere that says: "Empty room", "Small meeting", "Cinema", and "Full room", each switch (or one rotary switch) selecting a different MIDI command back at the RPS 4 and thence to your programmable equalisers.

For information call Jands (02) 516-3622.

## SAC 100 CONSOLE: SMALL BROTHER TO SAC 200

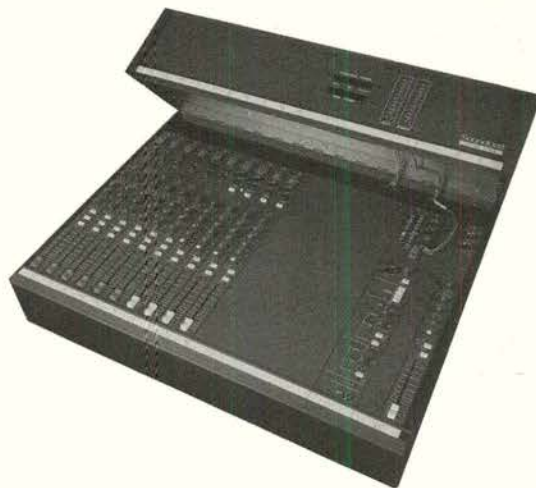
Soundcraft's SAC 100 is an ONAIR console for the broadcast industry, designed to install into a console, and offering module options to suit almost any studio.

The basic Mono module comes with or without EQ, as does the Stereo input module, which can have an RIAA pre-amp fitted if you still play vinyl. Every input module has a remote connector for couch switches and external gear needing hard switching. The ALPS fader has an ON/OFF microswitch built in for fader starting turntables or CD players.

At the other end of the (maximum 12 input channel) console is the Master module, with control room studio level, headphone masters, limiter indication, aux, talkback and outputs. A Telco module can be fitted to the far right of the console, to provide access and revenue to Telecom Australia.

Fully fitted, SAC 100 still has a script tray

in the middle, and the meterbridge is hinged to flip down over all the connections. Almost Jock proof. Options include Vu meters, PPM

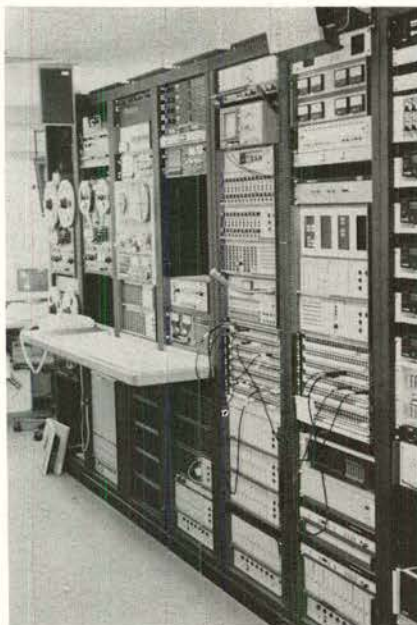


meters, timer, P & G faders and mic input transformers.

For more information contact Jands on (02) 516-3622.

## ENGINEERING SUPPLY CATALOGUE

Jands have released a catalogue detailing the myriad of metalwork products produced by the firm. Aside from racks - of which there are a diverse range, other items in stock include: Equipment shelves, Punched panels, Stage boxes, Wall boxes & plates, Field



Pic shows Jands 48 unit racks installed at Radio 2UE in Sydney after the Station relocated.

plates, Blank & mesh panels and Dip traps.

The catalogue deals with all these, and also the company's custom engraving service.

## DELTA AVE

Delta AVE is at first glance another variation of Soundcraft's very attractive Delta line of mixing consoles, but it is built to act as an Audio for Video Editing console.

What happens is that each input module has an A.V. Fade Depth control just to the right of the normal long throw ALPS fader. Allied with the V.C.A.s inbuilt, this allows the console to follow the video edit if fitted with a serial interface, which Soundcraft also offers.

The console can be tailored to suit the users application, whether it be A-B roll, ENG or the full D2 format. Input modules are either Mono or Stereo, and have all the Delta features, like full EQ, 6 auxiliary sends and active Panpot. The four Group modules may be forsaken if extra inputs are required, with frame sizes available for 8-4-2, 16-4-2 or 24-4-2.

## RADIO MIC CLIPS

Having a hassle finding a mic clip for your radio mic? There are two types available: Beyer have one (call Amber Technology 02 975-1211) or Vito Compagnon from Audio Installations has one (call 02 879-6808).

## CHANNELS IS MAILED FREE

to qualified industry people. See back cover for details.

# Meaningful Eye Contact

*Creativity plus, in video post production. We talk to Peter Miller - composer, producer - and studio designer*

Remember the video clip for Crowded House's - "Don't dream it's over"? It was one of hundreds of creative clips made by Meaningful Eye Contact, the Sydney based film company setup by Alex Proyas and Peter Miller, eight years ago after leaving film school.

Alex handled Art Direction, while Peter, who majored in Film Sound and Post Production, handled details and crew - after all, there's not much audio involved in a video clip, right? These days it's all different, music videos have become a budget sensitive commodity, most young film makers on their way up cut their teeth in this market.

Today the company makes short films, and some of the most eye catching commercials appearing on your box. Have you seen the Castrol GTX advert where two futuristic cars scream through and around a set? The soundtrack for this advert draws your attention, even when you've gone to boil the kettle during the ad break! Heard in Peter's studio, through his JBL Control 10 monitors it's something else again.

What about the MTV promo, where the guy loses his glass eye, and chases it everywhere? "MTV gave us a minute and a half, and said 'come up with something'. It was done for fun" said Peter.

The transition from music videos to short films means the company's Chippendale premises acquired a post production suite, which Peter has built up over time. Today it is entirely a professional workplace, in which Peter not only samples and creates sounds, but also composes scores.

We asked Peter how he designed his studio. "I've got very peculiar ideas in studio design - as you will notice, here we have a window! (Looking outside to the world) I left it in, so I don't feel like I'm in a cage. It's very fatiguing working in a dead flat environment, the window probably makes for an extra two hours productivity per day. I worked out my available space, my needs, and optimum acoustic shape within the space, using a Bolt diagram."

"The ceiling's been floated, it's suspended on acoustic couplers, which are actually suspension mounts for air-conditioning ducts. They're a hook with rubber inside, and an-

other hook with rubber sitting in it. The actual ceiling is plasterboard, with an air gap between it and the floor upstairs".

The walls are quite thick, first a layer of plasterboard, an air gap, then a compressed fibre material, another air gap then plasterboard. "The walls aren't acoustically isolated



Peter Miller in the MEC studio

from the rest of the building anyway. I don't think a studio should be absolutely flat, that's not a good environment to work in".

In this studio, the objective is to keep outside sound out, but because most of the work comes from software, the problem of open microphones is minimised. Also, live pounding instrumentation isn't common and drumkits non-existent. Peter has a smallish booth, which has a floating floor built on its own pylons and mounted on rubber supports. The booth is separated from his control room by three layers of heavy glass, which are old bank doors, very thick.

Peter uses an Akai S1000 sampler with 8 megabytes of memory, and masters his recordings on a Sony Betamax VCR. A Sony PCM 501ES Pulse-Code Modulator allows stereo digital information to be recorded onto standard Beta video tape. Equally you can record straight onto the Hi-fi tracks on the VCR.

Between source and master is his new Soundcraft Spirit Studio console, and a Fostex 8 track recorder. "When I was last in LA I

heard about the Spirit console, it wasn't released but there was speculation. It sounded like such a good idea, then a friend over at EMI had a brochure he sent me. I bought the console from the P.A. People in Sydney. It's very simply laid out, I have my 8 track on the last eight channels (Peter has a 16-8 console) and most of my gear in use on the first 8 channels. I submix my Akai sampler down to 4 channels, then the Wave station on channels 5 & 6, 7 & 8 are the Roland D50 synth, 9 & 10 are outputs from the Mac, 11 & 12 are my DAT (also used for mastering sometimes).

"It's a really clever desk, because what it's got is a thing called "Channel monitor/ input reverse" - a switch on each channel, so normally your monitoring from your tape machine would come up on the tape buss, which allows you to hear what's coming off your tape machine, while you can have your line inputs running to the channel faders. When you come to a mix down, you push the button in, and you end up with your tape machine on your faders, and your line inputs on the tape buss. If I had a 16 track recorder, I could have my full 16 tracks and 16 inputs connected. Cleverly they allow you to split your EQ - the h/f and l/f across your monitoring, and the two mid sweeps across your line inputs, by pressing the EQ to monitor button.



JBL Control 10 monitor

"The other clever thing is I can split my effects sends as well, four effects sends and two foldback sends can send from the normal channel input, (to make a total of six sends) or by pressing a switch, the last pair send from the monitoring (tape returns). It's effectively got 32 channels into 8. I worked it all out when I was installing it, it's a very simple desk, simpler even than my little Fostex mixer because it makes more

sense."

What a creative operation .... the other strong impression one gets visiting Meaningful Eye Contact is the professional sense of order in the place. Peter's studio is neat, organised and logical. From that he produces a plethora of sounds and compositions, possibly I suspect with ruthless precision

► Julius Grafton

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## THIS MONTHS SPECIALS

### Lighting

	\$
Jands 4 Pak	650
ESP 24 ch desk as new in r/case	3000

### Sound

JBL M110	100
JBL E145	195
Clair Bros. Phase Linear's (8 only)	900 ea
AKG CK 451 with CK 1 cap	250
Beyer M500	200
Sennhiesser 441	300
Yamaha DMP 7	
Digital mixers	2250
Yamaha REV 7	900
Yamaha PM 2000	
24 channel desk	12,000
Yamaha DEQ 7	700



## Braithwaite *(from page 1)*

third show, the crew packed and loaded out, then went straight to the airport for a flight to Melbourne at 8am.

Clearly Daryl Braithwaite has a crew that would walk over broken glass for him, and it's clear he appreciates them, for there is a genuine air of professional respect within the Braithwaite organisation.

McMahon chose a Meyer sound system, provided by Melbourne's Troy Balance Corporation, having used Troy previously with Braithwaite.

McMahon's choice of Meyer made sound distribution in the theatre reasonably easy, given the fairly small size of the 10 x MSL-3's, 6 x subwoofers, and 4 x UPA-1's that comprised the rig. At each side of the stage McMahon stacked a pair of MSL's on a riser, with a single MSL atop - this was to service the Mezzanine level. Flown under a single chain motor at each side of the proscenium was a further pair of MSL's, for the dress circle. Three subwoofers sat on the floor at each side of the stage front. A pair of UPA's provided front fill, the first rows in this Theatre NEVER receive much in the way of mid-high's, and a separate fill send is the way to keep the paying customers happy.

Because of this zoning type distribution, McMahon ran three stereo mixes - one for each of the Theatre's three levels, along with a mono subwoofer mix, and a front fill mix. The stereo mixes came from the left/right programme output of the Yamaha PM 2000 console, with the other pair of mixes originating from the matrix outputs. From where he engineered the show, it was guess-work as to how it sounded throughout the theatre, so he made time to listen each to zone during the first soundcheck.

The 32 channel PM 2000 was supplemented

by a 1516 16 channel wing board, giving McMahon 48 inputs, all of which were used, along with a few more. 33 stage lines were joined at the consoles by effects returns. Effects were 4 x SPX 90II's, 1 x SPX 1000, 1 x Rev 7 and a D1500 delay, joined by 6 x DBX160X compressor/limiters, and 3 stereo pairs of noise gates for the kit of drums. The D1500 is used for longer (600 - 800ms) delays on Vocals.

Brian used a BPM (beats per minute) timing chart to set his reverbs and delays.

The two effects sends on each channel were used for - two effects, funny enough, an SPX 90 (for vocal reverb) and a REV 7 for the trumpeteer.

Mr. Brown kept his customers happy, the band after all comprised 2 guitarists, one backup vocalist with some percussive parts, 2 part brass section with percussion, keyboardist with off-stage rack of modules, walk on pianist during part of the show, bass, drums, and Daryl Braithwaite - who also plays acoustic guitar at whim. Plenty going on.

It's worth mentioning in closing that not only did this crew and band work in harmony, but also without a tour manager as such. Given the tour was performing well, that's professionalism all round. **Julius Grafton.**



*Mark Brown & Daryl at the monitor desk*

"It's handy because you can work right down to your pre-delays on your reverbs, and gate times for gated reverbs too. When it's locked in it's quite amazing, especially when you're gating reverbs on drums you can get them opening & closing perfectly with the kick and snare just through your timing charts, that's assuming your drummer's playing in time!"

At the stage, Shure Beta 58's were used for vocals, SM 57's on drums and even Kick. Beyer 201's were used for overheads and hi-hatts and SM 57's on Guitars and Brass.

Monitor engineer Mark Brown was driving 12 sends from his modified PM 2000 32 channel console, consisting of stereo sidefill (EV Deltamax), 2 guitarist's sends, main vocals, stereo keyboards, a wedge under the drum riser for whoever stands in front of the drums, brass, bass player, and stereo drumfill; a pair of Meyer USW subs and 2 x UMI.

The wedges were Troy's Lord Nelson custom made examples, some with 2441 JBL compression drivers and some with Yamaha 1" compression drivers. All had 15" JBL low frequency drivers, and were actively biamped via cards in the Yamaha P2200 & PC2002 amps. The Yamaha Q1027 third octave equalisers were inserted over the PM 2000's outputs, so as to allow AFL monitoring of the fully equalised sends.

The PM 2000 foldback modification entails replacing the eight subgroup assignment switches at the top of each input module, with 8 rotary pots. These become the main 8 sends, with the consoles standard four monitor sends allowing 12 post fader, post EQ discrete sends.

### **PA SYSTEM FOR SALE**

**JBL 5kW stereo 3-way Front of House custom designed by Glenn Leembruggen. Each side consists of 4 x JBL 2225 15" (in two cabinets), 4 x JBL 2202 12" (one cabinet) & 1 x JBL 2445 horn driver in a JBL 2380 flare. The system eq. is driven by DDA cross-overs.**

**Voted FOH System of the Year by it's present owner, it is one of three presently in use in Sydney. It is 18 months old, & is used less than twice per month.**

**Powered by 2 AM1600 & 1 AM900 amps. Also included: 24 channel Soundcraft 200B in roadcase, 3 Yamaha 2031 Eq, 3 dBx 160x, 2 dBx 166x, 2 Yamaha SPX 90, 6 wedges - 4 x 12" 200W & 2 x 15" 200W, 2 Jands J600 amps, mics - 5 x SM58, 7 x SM57, 2 x 421, 4 Jands DI's, 45m 30 way multicore, 18 tank-proof mic cables, 16 mic stands, power & speaker cables, 2 6-way stage multicores. Willing to separate.**

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# LIGHTING THE DARYL

*Alex Saad's Lightweight rig uses Intellabeams, and just 80 lanterns-on a concert tour!*

Programmable moving beam devices don't just spice up a shows visuals, they cut down the size of the light rig too. This was evident on Daryl Braithwaite's The Horses Tour, with a lightrig comprising 80 odd lanterns - and 6 High End Systems Intellabeams, a smaller rig for Theatre sized shows.

L.D. Alex Saad travelled light (no pun intended) with 16 VNSP, 48 Rays, 10 650w profiles, 4 Solar 250 effect projectors, 6 cyc 4's and a bunch of Molephays, driven by a Jands Instinct 60 channel console. "I love the Instinct, I can get 'round it quite well", Alex said.

The Intellabeams take DMX 512 control protocol, a mic cable is daisy chained from unit to unit. Because Clearlight use a five channel Weiland cable system, power for the Intellabeam can be picked up from the adjoining bar of four Rays. With a 400 watt MSR lamp, the Intellabeam is fired up and left on. Inside there is a colour disk of 11 colours plus open white, a gobo disc of 11 patterns plus open, a gate wheel, and an iris. At the front, the moving of the beam is achieved by a mirror that whizzes about.

As detailed on the plot (below), the rig comprised a front and rear truss, with four smaller trusses running downstage at the back. The pair of trusses at the extreme stage sides were actually standing vertically, and a single can lit each of these four sections for effect! These "truss toners" looked good too.

Alex drove the Instinct, called the two domes, (a.k.a. followspots) and sequenced the Intella-

beams via the Intellabeam controller for the two hour plus show, as well as calling a rear drop in and out, giving either white cyc or black backdrop effect to the show.

The two vertical floor standing trusses on each side of the stage were rigged with VNSP Par 64's, and provided a four colour wash coloured with LEE 106 (red), 132 (deep blue), 135 (dark amber) and 126 (purple).

The two groups of 6 Rays at stage rear were rigged on stands, and coloured 181 (congo blue - a very deep, almost ultraviolet type blue) and open white. They just peeped over

32's) were open white, and one pair of Solar 250 projectors were fitted with cloud wheels, while another pair of projectors had a funky 3" kinetic effect like an imploding star! For a little (250 watt, hologen) projector, these creatures manage to deliver the goods. Your writer has always been a Solar 250 fan.

In performance mode the show worked well, the Intellabeams shooting onto various soloists and modulating all over the place. Alex seemed to have enough memories stored to keep it different through the whole two hours, and worked the sometimes cyc, some-

times back black drop varieties well also. The back four Intellabeam trusses were also rigged to raise and lower also, for variety.

Perhaps the arduous nature of this run of shows (discussed elsewhere in this issue) was the cause, but the one problem with the rig at the State Theatre was the use of a front truss on stands, which wasn't high enough for the upper circles sightlines, obscuring the rear risers. Nevertheless, boss Daryl Braithwaite recognised the problem and worked forward in any case. In fact he worked everywhere, even in the audi-

ence. He made humour out of it, a logistic problem many other performers wouldn't notice nor care about. A pair of chain motors would have hoisted the truss the extra 3 metres or so needed, but .... that's life on the road! The punters left smiling, and that's what it's all about - isn't it?

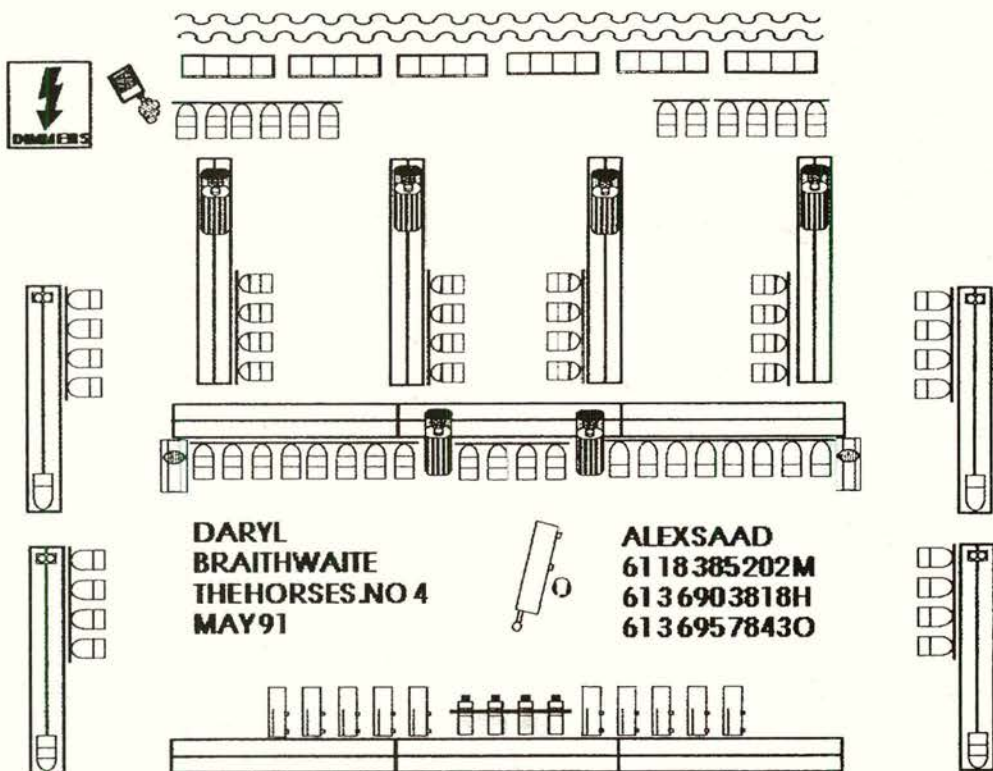
► Julius Grafton.



*Alex Saad at the Instinct*

the tops of the risers. At the Cyc, the four colours were 106, 132, 139 (green), and 181 again. Alex arranged the cyc lights in two groups, so one side of the cyc could be coloured differently to the other - which makes the little wrinkles that always happen in a cyc look really cute. It added depth.

On the front truss the 10 650w profiles (15/



*The Lighting plot, Sydney State Theatre.*

# Soundcraft Spirit STUDIO

(continued from Page 1)

Fire up the console and it all becomes crystal clear. Which, I may add, is what happens when you run up all the inputs. All 56, in the case of the 24 channel console.

Introduced noise is something Spirit will not know of.

I won't apologise for waxing lyrical here about this console, because I know the end users it is designed for will agree with me. Why do I know this? Because I have already seen Spirit Studio in action, and spoken with several owners. What is even more appealing is that the new

pricing policy Soundcraft started with Spirit Live carries on with Spirit Studio. That being Soundcraft are gambling on volume sales,

and thus have reduced their profit margin. This sees the 16 channel console at a list price including sales tax of \$6995. Serious value.

To get the thing built at an affordable price a one piece design was used, although the channels are individually removable. An outboard power supply keeps transformer hum away, and the console is styled in an agreeable manner with a big edge to lean on, and somewhere to put your pen. It has swish moulded sides too.

The eight group outputs, the main two mix outputs, and



## Spirit STUDIO:

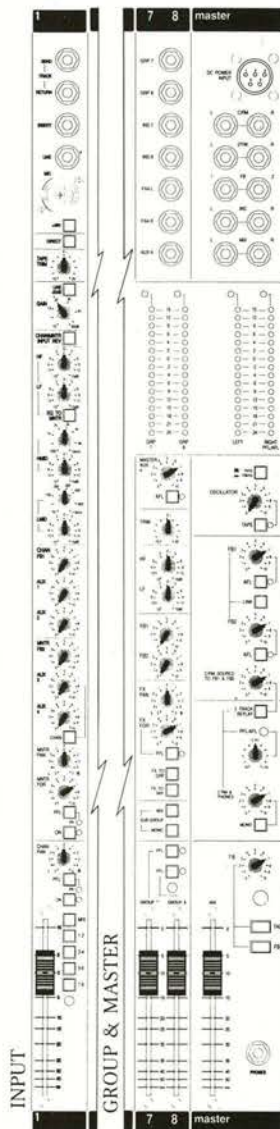
Feature guide, step by step.

### Each Input channel has:

- Send & Return jack, Insert jack, Line in jack & Mic in XLR.
- Phantom power switch, 'Direct' to tape send jack switch.
- Tape trim, Gain trim & Line switch.
- Channel Monitor/Input reverse switch (sends Tape return to the channel fader, & Mic/Line input to the Monitor path).
- H/F & L/F EQ controls, with switch to apply them to Monitor.
- Hi/Mid & Lo/Mid EQ controls & sweeps from 50Hz - 16kHz.
- Channel Foldback aux send (pre-fade), Aux 1 & 2 sends (post).
- Monitor Foldback aux send (pre-fade), Aux 3 & 4 sends (post).
- Aux. to Channel switch, assigns Aux 3 & 4 to channel.
- Monitor Pan, and Monitor Fader.
- Channel Pan control.
- PFL switch with 'On' LED which doubles as 'PEAK' LED.
- On/Off switch with 'On' LED.
- Mix, Groups 1-2, 3-4, 5-6, 7-8 assignment switches.
- 100mm long throw Channel fader.

### Groups and Master section have:

- Group 1 - 8 output jacks, Insert jacks for all 8 groups.
- 4 pairs (stereo) of effects return jacks, Mix L & R inserts.
- 4 Aux send jacks, 2 Foldback send jacks, Mix L & R out jacks, Controlroom L & R, 2 track L & R output jacks.
- LED ramps for 8 groups and L/R masters/PLF.
- Aux 1 - 4 masters with ALF switches and LED's.
- Foldback 1 & 2 masters, AFL switches, LED's & Link switch.
- 4 stereo effects returns with 2 band EQ, sends to F/B 1 & F/B 2, Pan, fader and PFL switch with LED.
- FX to group and FX to mix switch on each FX return.
- Subgroup Mix or Mono switches.
- Subgroup PFL switches & LED's.
- Long throw faders, each subgroup & Master.
- Switchable Oscillator.
- Control room source to FB 1 & FB 2 switch.
- 2 track replay switch, PFL/AFL trim pot, Control room & 'phones fader with Mono switch.
- Talkback gain, internal mic, tape or F/B assign. switches.
- Headphone jack.



every channel has an insert point, and there is every reason to expect PA operators to take to this console like a duck to water. There is nothing in the price range that comes close after all. A 24-8-2 Spirit Studio sells at a suggested \$9995 including tax, can cunningly accept almost any number of effects returns, and has extensive EQ and 6 auxiliaries. Hog Heaven!

Spirit Studio also has a Direct output on each channel, with a switch to send that input directly to your tape machine. The master section has a twin frequency oscillator, internal talkback mic, and a 2 track replay switch. Of course the faders are long throw, the console is built at Soundcraft's UK factory, and the components are quality items.

What a world we live in! **J.G.**

## SPIRIT FAMILY

The SPIRIT range now includes LIVE and STUDIO variants, in these configurations and current list prices: (at July 23rd 1991)

<b>Live 8-3-2</b>	\$2295
<b>Live 16-3-2</b>	\$3995
<b>Live 24-3-2</b>	\$5995
<b>Live 8 ch. extender</b>	\$1995

<b>Studio 16-8-2</b>	\$6995
<b>Studio 24-8-2</b>	\$9995

Note well these are list prices including sales tax! Jands stressed at press time that advance orders were "heavy", but some dealers were holding stock.

It's particularly interesting that some P.A. operators have ordered Studio 24-8-2 consoles, recognising the advantages of all those extra inputs, and full four band EQ with 2 sweeps. Let us hope availability remains OK!

# The Connector Bible

Part Two in a series

## LINE LEVEL CONNECTORS- Jack & RCA

### THE 6.5 MM (1/4") JACK CONNECTOR:

There are two different types of 6.5 mm (1/4") plugs in normal use - "PMG" and "Guitar/Headphone" types. Unlike the XL connector there is no controversy over how the connector is wired. However, there is a controversy over what shape it should be!

### THE "PMG" TYPE 6.5 MM (1/4") CONNECTOR:

The "PMG" connector started life in the telephone industry, (PMG being the "Post Master General's department", which was the predecessor of today's Telecom, you may still remember the old fashioned telephone switchboard with patch cords and a harassed looking operator. This connector was originally called a "Phone Jack" and is generally still known as either a "Phone Plug" or a "Jack Plug".

This original format connector is only used these days in professional applications such as Patchbays, and is only used in the three wire balanced version although a two wire version was previously available.

The correct wiring is:-

TIP	SIGNAL HOT/IN PHASE
RING	SIGNAL COLD/OUT OF PHASE
SLEEVE	GROUND / SHIELD

Jands Contracting normally use "PMG" type 6.5 mm (1/4") patchbays for all line level patching. Typically on a patchbay all the sleeves are tied together and run down to "Tech Earth".

### THE "GUITAR" TYPE 6.5 MM (1/4") CONNECTOR:

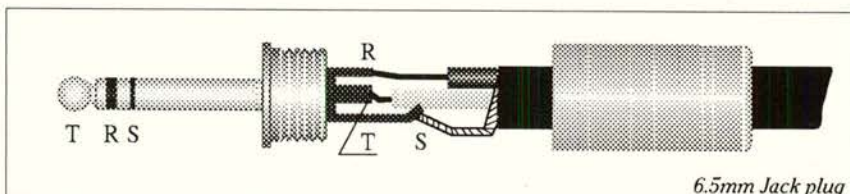
As the name implies this is the connector normally found fitted to guitar and other musical instrument cables and is the connector most commonly referred to as a "Jack Plug". It is a two wire or mono connector and as such is not widely used in the professional industry.

The correct wiring is:-

TIP	SIGNAL HOT/IN PHASE
SLEEVE	GROUND / SHIELD

### THE "HEADPHONE" TYPE 6.5 MM (1/4") CONNECTOR:

Originally used for domestic headphones this connector is now used extensively in semi-professional equipment much of which is widely used in professional applications. In fact many items of true professional standard use this form of connector as line level connectors, either as their primary connectors or they offer both XL and "Headphone" type.



6.5mm Jack plug

The "Headphone" Jack is a three wire connector and has the ability to handle balanced circuits or ground compensated (balanced compatible) circuits. It is also frequently found on mixing consoles as an insert connector, however there are two wiring conventions for this application.

### APPLICATION

#### Balanced Line Input:

TIP	RING	SLEEVE
Signal Hot	Signal Cold	Signal Ground

#### Un-Balanced Line Input:

TIP	RING	SLEEVE
Signal Hot	Signal Ground	Chassis Ground

#### Balanced Line Output:

TIP	RING	SLEEVE
Signal Hot	Signal Cold	Signal Ground

#### Ground Compensated Line Output:

TIP	RING	SLEEVE
Signal Hot	Signal Common	Signal Ground

### Insert Point - Early Soundcraft:

TIP	RING	SLEEVE
Insert Send	Insert Return	Signal Ground

### Insert Point - Jands, Rane, Soundcraft Venue and Delta:

TIP	RING	SLEEVE
Insert Return	Insert Send	Signal Ground

### Stereo Headphones:

TIP	RING	SLEEVE
Left Output	Right Output	Common Ground

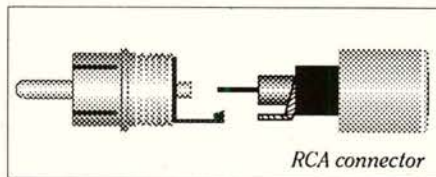
### THE RCA (PHONO or PIN JACK) CONNECTOR:

The RCA connector is widely used in Hi Fi applications and is strictly unbalanced. Typically equipment that uses RCA connectors operates at -10 or -20dBV signal levels. When interfacing to/from professional equipment, correct balancing/unbalancing interface transformers and/or level matching amplifiers should be used wherever possible.

The correct wiring is:

TIP:	SIGNAL HOT/IN PHASE
SLEEVE:	GROUND / SHIELD

One of the disadvantages of the RCA connector for professional applications concerns its construction, the tip/hot pin is the first to make contact when inserting the connector and the last to break when removing the connector. Thus the RCA should only ever be inserted/removed with the audio system muted to avoid nasty buzzes and pops.



RCA connector

Compiled by W. Peter Twartz  
Audio Products Manager,  
Jands Electronics Pty Ltd.  
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# AN INTRODUCTION TO STAGE LIGHTING

## Part 3

By Michael Tanner

Most stage lighting equipment used in Australia is rated in "Watts". Cable, connectors and other distribution equipment is rated in "Amps". Most stage equipment in Australia is designed to operate at 240 "Volts". The following equation describes the relationship between these three (3) kinds of electrical ratings:

$$\text{Amperes} = \frac{\text{Watts}}{\text{Volts}}$$

Because amperes = watts divided by volts, a 1,000 watt lighting fixture must be connected to the source of electrical power by a cable and connector capable of carrying 1,000 watts divided by 240 volts - or 4.16 amperes.

Likewise the total wattage of a group of lighting units divided by 240 will determine the amperes that must be carried by the cable and connectors which feed them. Each component in the system is rated in one or other of these terms. As components are interconnected, their ratings must coincide.

The power source provides electricity and is usually a part of the building structure. Dimmers control the flow of electricity to the lighting fixtures allowing the light level to be

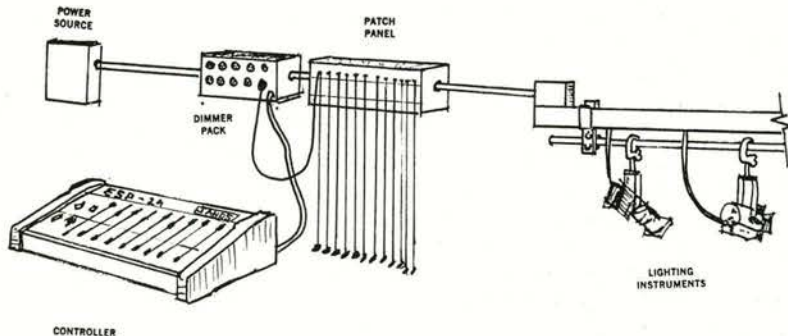
raised or lowered. A Dimmer rack contains several individual dimmers (called channels). Each channel has a wattage rating. For example, a 12 x 2,400 watt dimmer has 12 individual dimmers in a single housing, each of which will control up to 2,400 watts to a combined total of 28,800 watts.

Larger dimmer installations have custom racks with individual dimmers that may vary in wattage from 2,400 to 10,000 watts. A lighting control console with 1 control channel for each dimmer channel is connected to the dimmers with a control cable. The lighting operator adjusts dimmer levels by manipulating the controls on the console.

Lighting fixtures are usually plugged directly into the outlets on the dimmer rack in a portable system. In a permanent system an independent interconnection panel called a patch panel is used. This allows the lighting

designer greater flexibility in connecting lights to dimmers and also assists in balancing the lighting loads across the phases supplying the dimmers.

The patch panel features a number of cables terminated in plug adaptors, or until recently, in piggy back plugs. Cables from the lighting outlets to which the light fixtures are connected terminate within the patch panel and appear as these flexible tails. The lighting designer connects the desired lighting circuits by simply plugging and unplugging cables to the outlets of the dimmer rack, thus permitting any lighting fixture to be easily connected to any dimmer within the limits of wattage ratings. A block schematic diagram showing the relationship between dimmer control, dimmer, patch panel and lighting fixture is shown below to illustrate clearly the relationship between these items.



## Chuggie- still kicking arse!

(continued from page 1)

and AC/DC all coming though. Frontier at this stage hasn't anything big booked. "Someone will get burnt this November, like the November before, and the one before. We won't. We passed up New Kid's On The Block, thought it was past it, but it is selling. Brisbane, Adelaide and Perth will tell the story though. You can do well in Sydney and Melbourne, but might as well slit your wrists when it comes to the other cities. Even for bands with big hits, it's fairly hard. You go to Brisbane for 1000 people, it doesn't even pay costs. For big acts we budget for 6000 in Brisbane, 5000 in Adelaide and 4000 in Perth."

Frontier was established in 1980, when Chuggie and Michael Gudinski bought out UK Squeeze, The Cure and the Police. "Michael (head of Mushroom Records) was signing a lot of Punk Bands to publishing deals. Our most successful tours have been Billy Joel, Sinatra/Minelli/Davis (in partnership with Backstage), Sting, ZZ Top, Niel Young, Bob Dylan and Bon Jovi." Chuggie says Depeche Mode made money with just 2 shows, but lost when one was called off due to sickness.

These days bands are more realistic and professional according to Chuggie. If not he isn't afraid of putting them straight - in fact Chuggie's Crowd Control Technique is the

wonder of many a visiting metal band. "It's effective, and I've had to use it more in the last 3 years than in the 7 before that." It involves Chuggie stalking out to centre stage, grabbing the mic and letting fly with a tirade of well aimed abuse splattered with coarse language and threats. It almost always tames the over exuberant punters.

Frontier are lean, working from an office next to Harbour Agency (in which Chuggie has an interest) and hiring "the best tour and production managers around - Nick Pitt, Wayne "Swampie" Jarvis, & John Pope" as required. Chuggie uses a mix of instinct, street vibe, and confers with directors Gudinski & Philip Jacobsen which tours to pitch for. "It's hard to tell with a hit record here - these days you



can be number one with just 10,000 sold."

Production costs have risen with audience expectations of better shows, these days a five city tour can cost \$350,000 in production and trucking. Chuggie has used Jands ever since the beginning, and although he uses other companies as well, "I couldn't even name instances of disaster using Jands, whereas I can with other companies. The

quality of the staff and crew is there."

At 44 Chuggie has weathered the winding road of the rock business, at times living hard - "Drinking, late nights", today he is remarried with 2 small children and confessedly slower. He doesn't manage bands any more, he is proud of the Church getting where they are in the States. I just didn't want to live in America, which is what a band needs, American management". Then there's the story about Kevin Borich touring Europe

on his Diner's Club Card! "No comment."

As for the future, it's steady as she goes at Frontier, with Snap and Motorhead touring at presstime. The one aspect of the industry Chuggie is unhappy about is Radio, a complaint echoed by most people in the industry dismayed by "Classic Rock" and "Golden

Oldie" formats which deny exposure to new acts. This may change.

Your writer remembers 20 years ago approaching Chuggie at his booking agency Consolidated Rock, wanting to hire the LaDe Da's for a gig. "It's \$600" said Chuggie. "Have you got \$600? If not, F— Off!" The LaDe Da's couldn't have asked for a better manager!

Julius Grafton.

# Auntie Frank



Hi Kids,

I'd like to start this page with something which has always annoyed me about this industry. As a hire manager in the past and even now as a lighting rigger, technician, loser, I have noticed that hundreds of people regard our profession as one that is unlike any other.

That is true of the nature of the work we do which has its own unique qualities, but as a business it should be treated the same as any other. What I'm getting at is these people who want you to supply them with equipment or labour, and start reeling off this bullshit to you, expecting to get twice as much as they're paying for. You all know the type I mean. The person who rings up and asks you to supply and rig a God-Like lighting spectacular for his band, and then tells you they can only spend \$500.

I was wondering if any other business puts up with the same sorts of games that we do, so I recently visited a FERRARI dealership. I told the salesman that I would really like to buy one. "No problem" he said. "How much did I have to spend". "I've got \$2000". You can probably guess the rest, and I'm still driving the Falcon. (Needs a wash -ed)

● Graham is a sound guy who as just bought 8 x Par 56 cans and wants to know what power they draw, and what size venues this rig is suited to. He also wants to know if he needs a dimmer system and what colour gels he should use.

Par 56's use a 300 watt 240 v lamp that draws about 1.5 amps. You can run 8 par 56s off a 10 amp circuit. You can operate all 8 lamps on a Kambrook power board. If you want to use a dimmer the cheapest way around this would be a Quadpak which is a 4 way dimmer that plugs into a normal power point, and can run up to 10 amps of lighting.

A rig of this size will only really give you a basic coverage, it would be best used in a small club or pub.

Par 56s are a good basic light on a small stage, or where power is a problem. With your colour you might be best sticking with some primary colours which you can blend to give you more than the 4 colours.

Maybe you could try a Red, Blue, Amber, Lavender combination. Good Luck!

That's all for this week. But I would like to hear from anyone, or any companies with something different - drop me a line.

Write to Frank  
(Auntie) Calvi:  
P.O. Box 171,  
St. Peters 2044  
Fax (063) 375-367

## GLOSSARY Biz talk **A B C**

- G** **Gaffer tape:** very useful adhesive tape for fixing anything. Also useful when you run out of hook clips.
- Gaffer (person):** Film lighting technician.
- Gel:** Colour filter.
- Ground (technical):** Earth, zero voltage.
- Ground (common):** Place where the Par cans you gaffed up end up. (Stage floor)
- Grip:** Someone who carries camera's
- Gobo:** Metal stencil placed in gate of profile spot with hole/s or patterns in it.
- Graphic Equaliser:** Device with sliders that control tone in a P.A. system.
- Groundrow:** series of floodlights together.
- Grid:** framework of trusses from which lights are hung.

# Topstage PRODUCTIONS

LIGHTING & SOUND FOR ENTERTAINMENT

<b>Speaker Cabinets- per cabinet</b>	<b>\$</b>	JBL Studio monitors 4311 - 1 pair ex production equipment c/w swivel wall/ceiling suspension brackets	1500	JBL 2202 (1) new	300	<b>Disco Effects Systems</b>	<b>\$</b>
JBL AP 91 15 & horn (2 units)	900			JBL 2118 (2) new	250	ClayPaki Astoraggi (2)	1200
JBL AP 25 composite (4)	1500	<b>Signal Processing</b>	<b>\$</b>			Satel Baby Kum (1)	1000
JBL Control 10 (2)	900	YDD Digital Delay (.)	4000	<b>Lanterns, c/w lamps</b>	<b>\$</b>	Coemar Galaxy 12 (1)	1200
EV 3 way 15 passive (2)	750	Digitech Time Machine (1)	500	Strong Xenon Trouper 700w (1)	4000	Satel Magic 3 (1)	350
JBL AP 51 monitor wedge (4)	700	DSP 128 Plus (1)	500	Minuette fresnel (8)	130	Optikinetics Par 56 S/Scanner, package of 4 units	1000
ACT Concert W (2)	750	Audio Logic MT 44 gate (1)	500	Minuette Barndoors (8)	40	Martin Junior smoke machines (2)	600
				Minuette flood (8)	110	Martin Magnum smoke machines (2)	800
<b>Mixing Consoles</b>	<b>\$</b>	<b>Microphones</b>	<b>\$</b>	Strand prelude 28/40 (6)	250	Mode Arcline (16) the real UK stuff	175
Jands JM 10/8 (1)	1000	Eleco 200MHz diversity c/w lapel & handheld mic in roadcase, only 2 left: !!	900	Strand prelude 16/30 (6)	250	Mode Arcline multizone controller	700
Jands JM 10/16 c/w case (1)	1600	Other microphones (call) from: 100		Starlette 1000 fresnel (8)	300	4 channel strobe chaser (1)	200
EV 5212 c/w case (as new) (1)	1300	<b>Portable PA Equipment</b>	<b>\$</b>	Starlette 1000 PC (4)	300	<b>Video Equipment</b>	<b>\$</b>
Soundcraft 400B 24 monitor (1) c/w case in as new condition	8000	Anchor Ensign Lecturn	2000	Starlette barndoor (8)	60	Hybrid Nine Video switcher (1)	550
		<b>Public Address Equipment- New</b>	<b>\$</b>	Silhouette 1000 30 profile (8)	300	Fairlight Video Entertainer (1)	4000
<b>Powered Mixers</b>	<b>\$</b>	Inkel PC 3300 Auto Cassette deck	200	Silhouette 1000 25 profile (8)	300	Vidikron TGS 200 Projector (1)	7500
Tapco Entertainer (1)	1500	A host of bits and pieces	POA	Model 243 2000 fresnel (4) old	150	Vidikron TGS 100 Projector (1) - new	7000
EV 61 PM powered mixer (1)	1200	<b>Speakers</b>	<b>\$</b>	<b>Lighting Control Equipment</b>	<b>\$</b>	<b>Rigging Equipment</b>	<b>\$</b>
				Strand Model 3 (1)	250	Gas Genii towers (2) c/w cases	60
<b>Amplifiers</b>	<b>\$</b>			Jands fourpak (4)	600		
Jands M600 (4)	900			Jands Stagmaster 12 (4)	500		
				Q Engineering 24 rock board (1)	1000		
<b>Miscellaneous Audio Equipment \$</b>				Jands ESP 36 (1) as new	3300		
Cutec DT300 Turntables(4) new 450				Jands Instinct 48 (1) new	7800		

Topstage  
PRODUCTIONS

151 Gladstone Street,  
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Tel: 06- 280 5710

**Trading Terms:**  
CASH, BANKCARD,  
MASTERCARD

**Freight:** By negotiation.  
Good Deals!

# Great Mistakes

## She lived- I'm not in jail

It is with some reservations that I write to your Great Mistakes column, but as I understand the idea behind this regular article is that it is a place to tell others of your own screwups, in the hope that they would benefit from it and possibly get a laugh or two from it also.

My Great Mistake has no punchline, but I'm pretty sure someone out there will get a laugh out of it.

It was on the way to the last gig of the week - Sunday night at a Northern NSW beach town. So far that week we had done Raiders in Queenbeyan, driven 4 and a half hours to Orange, then a 4 hour drive to Newcastle, a 4 hour drive to Tamworth, and then faced a six hour drive. (Within legal limits that is).

Anyway after being the "stayer" of the crew, I volunteered to be the driver after breakfast. Needless to say, everyone was pretty stuffed after a week like that, and no-one was really in a fit state to drive for any length of time.

So, running late for the loadin, we were trying to cover the distance in the shortest time. The car was a brand new Ford Falcon 1990 model - 35k's on the clock when we initially picked it up, and it worked well. One member of the crew managed to get it to almost 200kph before being screamed at to slow down!

We pass the speed sign into another nowhere town, where you don't even stop for

food or fuel, and I'm thinking to myself "I should stop soon and change drivers."

We come around a sweeping bend that reveals houses and street signs - and a pedestrian who's just started crossing the road. In my drowsy state, I think they'll stop at the middle and look. I get closer, she's wearing a dress, she has grey hair, she hasn't looked - HORN - BRAKES - ..... SHE BROKE THE WINDSCREEN ..... front passenger wakes up and screams; NOOOOOOOO!

After being told by the local law enforcement agent to go to where I was going, I went. Half an hour after getting to the gig (and two hours late), the Police arrive, ask for me, and tell me I have to take the trashed hire car back to "the scene of the crime".

With assistance I empty the wagon of luggage, etc, and proceed back to "the scene of the crime". Meantime the Production Manager has called the Tour Manager with the Band and informed them of the story so far. The Band is just passing the scene of the crime, Police with cameras, tape measures, witches hats etc.

I arrive back at "scene" with cameras, tape measures, questions - all pointed at me. Band is amusing local kids, signing autographs, publicising tonights gig etc.

I go back to Cop Shop. I answer questions for five hours. I get dropped off at gig as load out starts. I feel like shit, crew sends me to

Motel. I have to go back to local court 2 months later. (Band is on next leg of tour in same part of country).

I go back to local court 3 months later. Case is heard. I pay solicitor, I pay barrister. I pay my own travel costs, Melbourne - North coast. I pay solicitor more, I pay barrister more. I lose case, I lose license, I lose work because I lose license.

Morals of this story are:

1. Don't drive when tired.
2. Don't speed through towns.
3. Don't take vehicle back to accidents (you don't have to) especially Hire cars.
4. Do get good solicitors and barristers.
5. Everyone else was asleep and pedestrian stepped out from behind truck travelling opposite way.
6. Don't ever drive!
7. Don't endanger other people's lives - pedestrians or passengers just to get to another venue for another gig your life and income can wait for.
8. Try sacrificing the last few cones and drinks for a bit more sleep.

She lived - I'm not in jail - I will spend the next 2 years paying off debts incurred.

-Ammon.

(Address supplied & withheld)

Keep it coming..... send it to us by mail: P.O. Box 171, St. Peters 2044 NSW or fax; (063) 375-367

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