

INTERNATIONAL **Musician** AND RECORDING WORLD

JANUARY 1980 60p

New
Drum
Section

HIRE POWER



Steve Hackett • Chet Atkins

Ginger Baker • Robert Palmer

The Ramones • Drum Forum

In The Studio: Hunter/Ronson

TESTS ON: SUNN ALPHA 112PR COMBO • PARK 1210 AMP •
HAMMOND B 3000 ORGAN • SHERGOLD MODULATOR BASS •
ARIA TS850 ELECTRIC GUITAR • STACCATO SIX DRUM KIT
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BY *Pearl*

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The SIP-300 performs well with any quality power amp. Of course, if you don't want to settle for just any power amp, try Roland's SPA 120 or SPA 240 Stereo Power Amps. And for bass guitar, there's the SIP 301 Bass Pre-Amplifier. The Roland Rack System also includes a Stereo Flanger, Vocoder,

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Special Features

32

PA Hire

IM looks at four gigs and analyses the sound organisation behind each one. Plus a comprehensive hire company directory.

58

Robert Palmer

The man who brings style and sex appeal to rock and roll. David Lawrenson achieves his lifelong ambition and shakes Mr Palmer by the hand.

140

The Ramones

A breath of fresh air. Four top US musicians discuss the intricacy and subtlety of modern music with Lester Bangs.

156

Steve Hackett

Steve Brennan extracts the meaning behind one of the top special effects guitarists in Britain.

196

Chet Atkins

Tim Fleming talks to the master of the electric guitar.

Drum Section

66

Drum Forum

The state of drums as we know it discussed by VIPs

71

Playing Drums/Letters

A playing column for beginners plus feedback from the drumchairs.

73

Ginger Baker

Steve Brennan gets breathed on by fire eating Ginger.

76

Drumcheck

The latest in drum technology. A Staccato six drum outfit.

79

Cymbals

A look at the latest Zildjians.

Test Section

82

Soundcheck

The Park 1210 amp analysed.

86

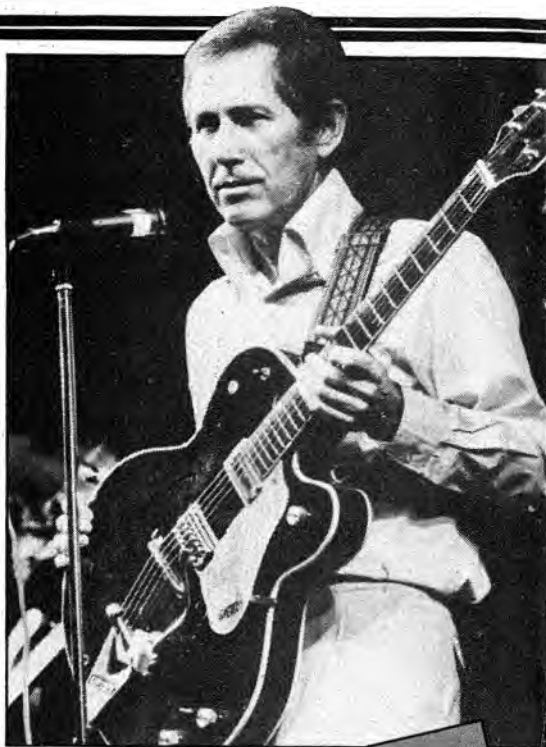
Basscheck

More from the Rodford Files. Jim, our hero, takes a close look at the Shergold Modulator bass.

88

Synthcheck

Robin Lumley rolls a critical eye over the Roland RS09 organ/string synth.





- 93 Keyboardcheck**
The Hammond B3000
reviewed by Tony Hymas.
- 96 Soundcheck**
Dave Mann takes apart the
Sunn Alpha 112PR combo.
- 99 Guitarcheck**
Stephen Delft scrutinises the
Aria TS850 electric.
- 102 Speakercheck**
A review of a selection of 15"
drivers by Ken Dibble.

Recording World

- 107 Studio Diary**
- 109 Mobile Studios Part 1**
Janet Angus takes a look at
what mobiles are available,
how they're run and what
they're made of.
- 114 The Producers**
This month — The Dynamic
Duo. Ian Hunter and Mick
Ronson.
- 113 Test Bed Studio**
Sound engineer Keith Spencer-
Allen lays the foundations.
- 134 Recording Synths**
Tony Horsman continues his
explanations of the intricacies
of synthesizer recording.

Regular Features

- 17 Letters**
- 18 Buzz**
- 28 Albums**
- 48 Dibbles PA Column**
Ken points his meter at Wings
- 136 Microphones**
- 139 New Products**
- 149 Dealer of the Month**
Guitar player of Rochdale.
- 150 Queries**
- 162 Spotlight**
Leicester falls under our
critical gaze.
- 166 Trade News**
- 202 Guitar Workshop**
Stephen Delft takes a
practical look at pick-ups.

Editorial

Drummers are a strange breed. Shunned by all but the worst groupies, often ignored by the rest of the band, cursed by roadies and soundmen and universally hated by neighbours. Yet their profession fulfills one of the basic human needs — to thrash around and make a lot of noise.

But we at IM don't mind 'em (after all our Managing Director's one) and to prove it we have started a special drum section. In it you will find all manner and means of wonderful goodies apart from the regular drumcheck. Hear what the manufacturers have to say in our drum forum, and what the Clash's Topper Headon has to say about them. There is also a cymbal feature, a letters page, a playing feature and an interview with Ginger Baker.

So you can see we're doing our bit for the sticksmen of the nation. Let us know what you think, and what you would like to see in our drum section and we'll try and oblige (although the better class of groupies might be a problem).



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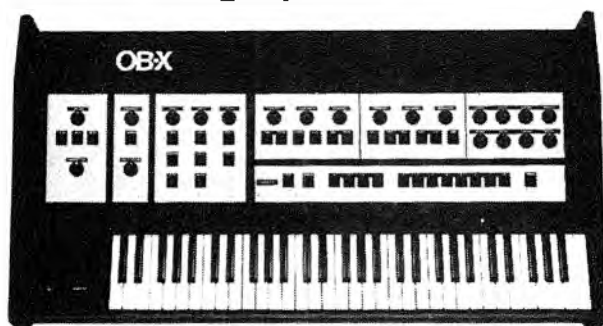
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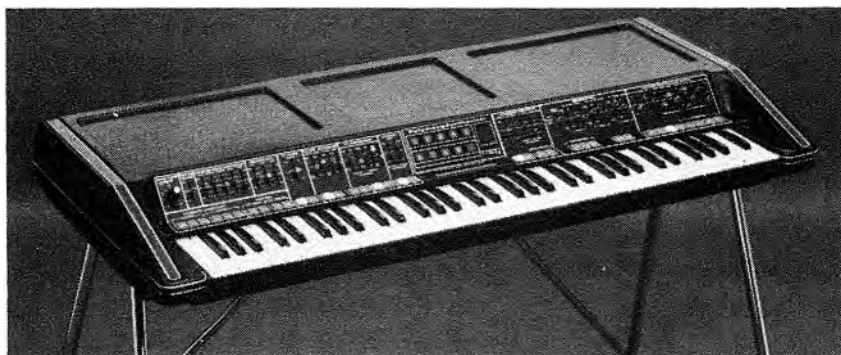
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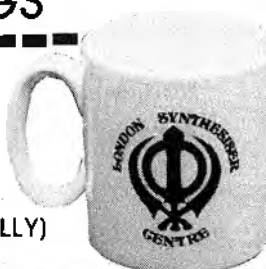


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Roland System 100 102
Expander
Roland System 100 109
Speaker
Roland 100 M 5 Module
System
Roland M112
Roland M121
Roland M130
Roland M140
Roland M150
Roland M191J
Roland M181
Roland 100M 3 Module
System
Roland M110
Roland M140
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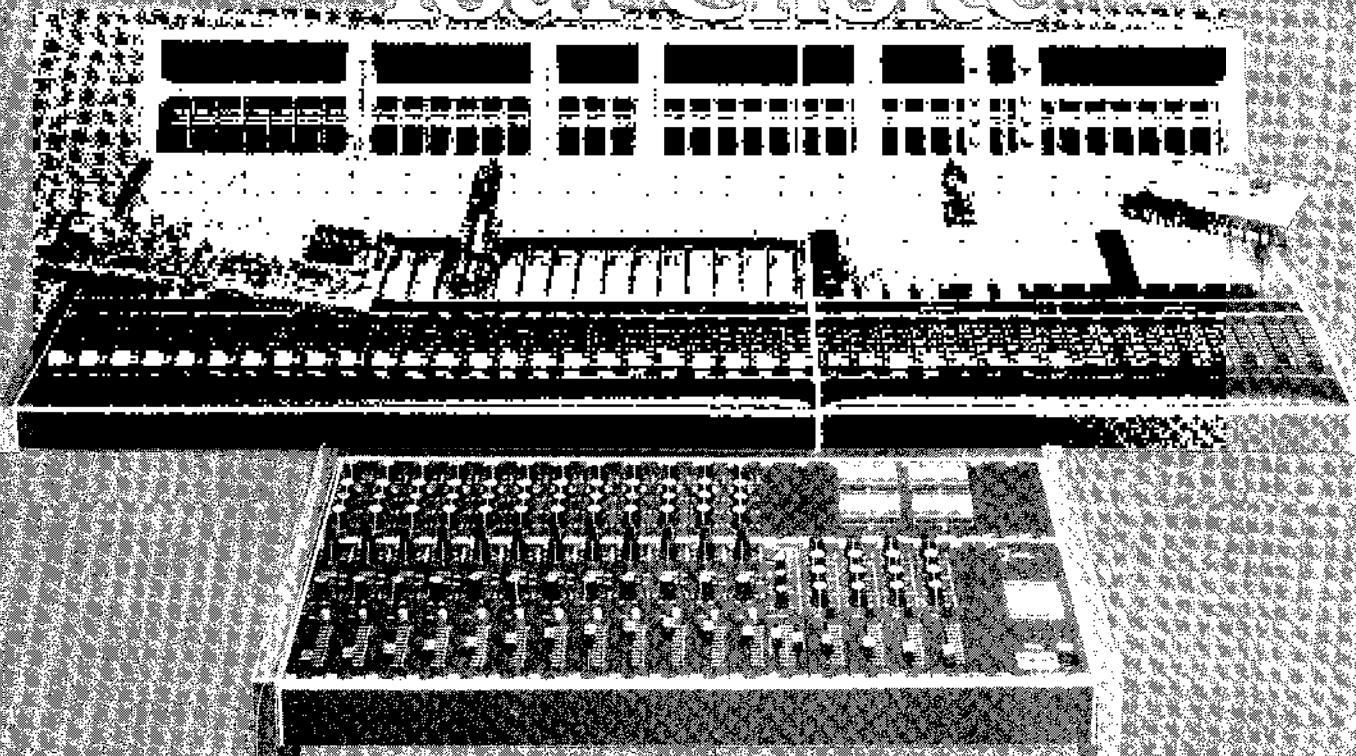
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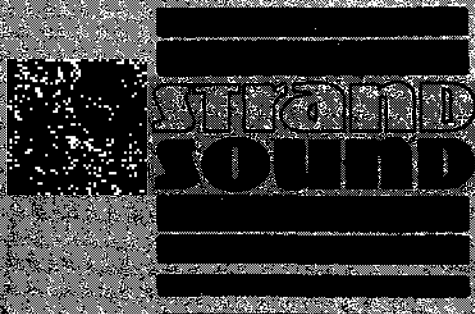
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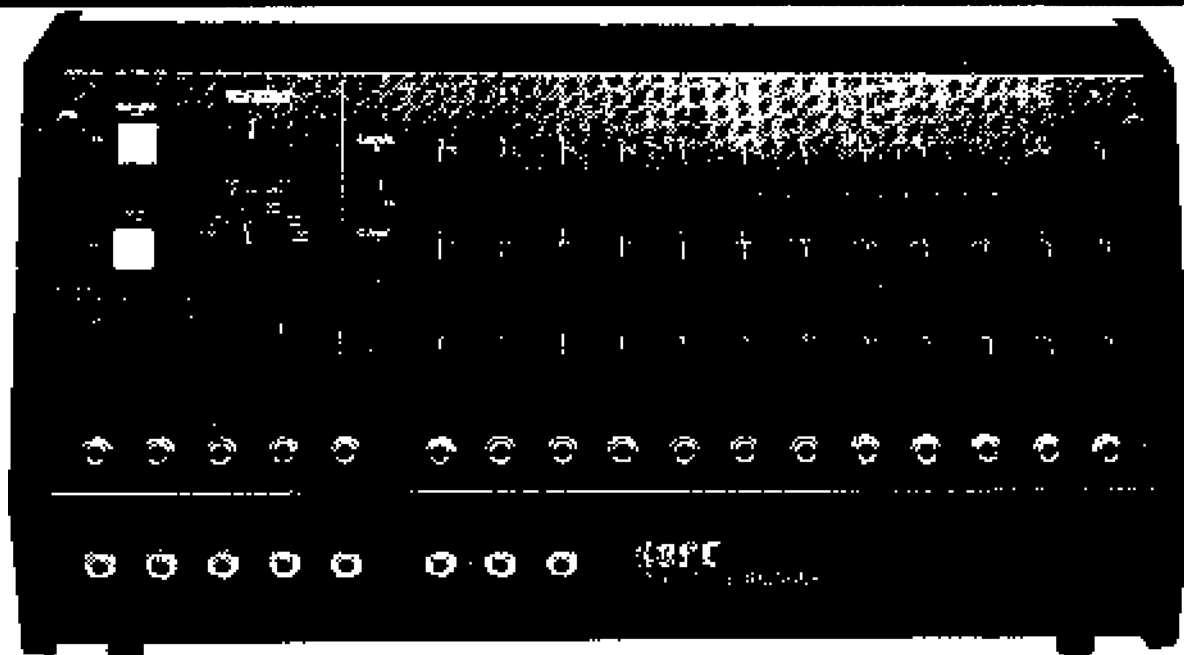
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I.M. 1-80 EK

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IM 1-80 KSQ

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The twin-channel combo with the clean fresh sound...

The Marshall 4140 Club and Country

Two years of extensive research and development by the Marshall engineers, has produced the ultimate club and country musician's combo. The powerful, new 100W valve amplifier, driving two specially designed 12" (30.48 cm) 80W speakers, utilises two channels for a rich, smooth sound. Channel one features reverb and boost (also controllable with footswitch provided), whilst channel two has a flatter response for microphone, or second instrument use. Finished in brown oak leathercloth, with straw coloured speaker fret.



And the country combo that gives you more!



The Marshall 4145 Combo

For the musician who wants the facilities and easy operation of the versatile 4140, with that something extra, the new Marshall 4145 is the combo. Utilising the same amp section as the 4140, this combo has four 50W 10" (25.40 cm) Celestion speakers for a rich, but biting sound which will please the most discerning of musicians.

Get right down to the basics!



The Marshall 4150 Bass Combo

Designed to complement the new country and club combos, the 4150 is an entirely new bass combo, which features an all valve 100W amplifier driving into 4 x 10" (25.40 cm) 50W Celestion speakers for a tight, punchy bass sound. Never before has the bass player had such control over his sound with treble, bass, mid-range boost, and sweepable mid-range controls, compression, and mid-high presence circuit for a really superb sound. As with all the club and country range, the 4150 is finished in brown oak leathercloth with straw coloured speaker fret.

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IM 1-80 LC

Circle 707 on Reader Service Card

Chip-bashing

Dear Sir: Today has put a magic moment into my many years of guitar playing!

I have played lead guitar one way or another now for some twelve years and for all that time having been in search of sizzle and sustain. I have had a fair selection of guitars, starting with a large Hofner, three pickup, semi acoustic, through several copies, a Tele and for the last two years a Fender Strat. My amps have been mainly AC30s which gave little trouble but no guts unless wound up to volumes which were too loud for even large halls. (We tend to play a lot of small clubs and service messes). About two years ago I decided that the answer to sustain must not be fuzz boxes, overloaders, etc. but a Marshall amp! I don't find a wild selection of gear in Germany (of the British type) so I ordered, without having first heard, a transistor top and 2x12 cabinet. On receiving the gear I fooled myself into thinking that at last I was happy, and continued with my eight year old Marshall fuzz — getting gritty overload that seemed to break-up just when it should have sounded right!

I decided a couple of days ago that perhaps Marshall haven't found the answer to valves with this transistor amp, so off I went to my local music shop to find a valve amp.

Among the large stock in the shop they had one valve amp! A sign of the times — or is it just in Germany? On initial impact (visual) I seriously doubted that this amp would do for even the smallest of venues. How wrong I was! What was it? — a tiny Peavey Artist with one Black Widow speaker. I played a couple of notes from my Strat through that amp and horses (or a mental discharge from the army) couldn't have pulled me away! The clear warm tones and sustain were incredible and the amp still amazes me having bought it and played it for hours in practice. I haven't had the volume anywhere near a fraction from its full whack, with the exception of a quick check in the shop.

This letter is not intended for advertising purposes (in all fairness to Peavey, most valve amps with a Master Volume and channel combining facility (Automix) may have a similar sound!) but as a tip to many players struggling to get that fat sustain so loved by Santana, Blackmore, Hendrix, Trower and many, many more of their ilk — Don't buy transistor amps.

Thank you for an excellent magazine.
W02 Bob Bentley,
5 Innis D.G.,
BFPO 36.



Keep right

Dear Sir: I am rather surprised to read the comments by Tony Hartley, of Leeds, concerning left handed guitars.

I am left handed, and have never experienced problems with electric guitars, whether left handed, or right handed with the strings turned round.

I bought a right handed Gibson 330 in 1971, a r-h Gibson SG Special in 1972, and left handed Gibson 335 and Les Paul in 1973. I have also owned a left handed Telecaster, and have been very pleased with all of them. I have now been playing the Les Paul for 6 years without any major adjustments being necessary. If Tony wishes to find a suitable guitar, I would suggest a trip to London, where he will find an instrument without any difficulty (and, more than likely, at a lower price).

Instead of buying a new copy (which are very expensive nowadays), he should have invested in the real thing, even if second hand. He should be able to pick up a right handed Gibson SG Junior (£170 upwards) or SG Special (£200 upwards) and turn the strings round, or fork out the extra for a left handed example. A new nut would cost about £4-£5, and the guitar could be set up to his requirements. It would also sound considerably better than any of the copies (with the possible exception of Yamaha SG series).

Whilst writing, I wonder whether any readers might be able to tell me what happened to John Morshead, a great guitarist who played with Johnny Kidd's Pirates, Peter B's Looners and the Aynsley Dunbar Retaliation.

J. Holmes,
Highcliffe,
Dorset.

Channels open

Dear Sir: Some time ago (March '78, to be

exact) you published a letter from a reader suggesting a system of correspondence to be set up with musicians from other countries. At the time I thought that this was an excellent idea, and in fact still do! So, what has happened? Have we all become shy or illiterate as not a word has been heard about it since. The chance to communicate with other musicians like this, surely, can only be beneficial for all parties concerned. Your reader suggested that anyone interested should state his interests so that easy matching of correspondents would be possible.

So — I'm a pro bass player whose main interests lie in Yes, Genesis, Heart, etc. and would be glad to hear from any rock musician in the USA. I'd like to think I'll hear from maybe one person?

F. Raczyński,
37 Gay's Place,
Upper Stratton,
Swindon,
Wilts.

Bass comments

Dear Sir: Congratulations on maintaining an excellent magazine which manages to keep up a good standard of reviews. There are one or two ideas, however, which I wonder if you could include at some time in the future. Stephen Delft's guitar building epic was great, but perhaps he could do something for bass players, there's quite a few of us about, you know!

Also, with the price of FX now perhaps Mark Sawicki could do some constructional projects to allow us to build our own (or burn our fingers!). An article explaining the principles of pickups and their construction would also be useful.

Hope that these ideas have induced a few sparks. Keep up the good work!

Alasdair Blake,
Wigginton,
Herts.



Buzz

What's happening in the music biz

Guitar Workshop

A new guitar construction system has been developed by the Guitar Workshop in sunny Bromsgrove, in Worcestershire. Called the Cobra, it's a modular type idea, with the neck, head, pick-up platform, bridge-mount and string anchor in one integral unit that can be attached to virtually any body by the use of two screws. It's possible to change a body in minutes. The Cobra unit is constructed of a magnesium alloy which doesn't have the disadvantages of metals that have been used in the past for constructing guitar necks. For a start, the mag alloy doesn't twist or bend like aluminium, and is considerably lighter than steel.

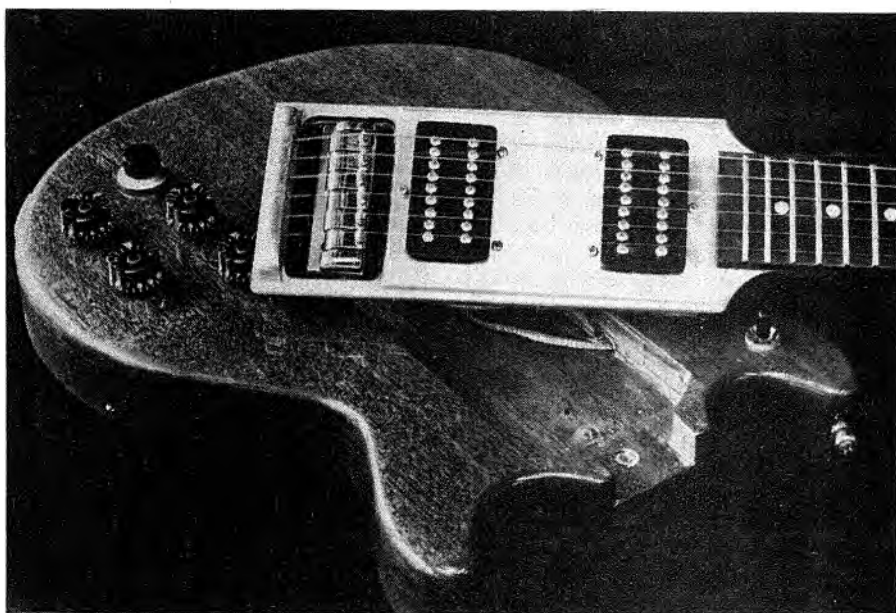
The fingerboard is constructed of ebony, but maple or rosewood can be ordered. A net innovation is the option for LED's on the neck for edge markers so that the player knows where he or she is at all times, even under dim lighting.

Pick-ups are Cobra twin-coil or Mamba, with either stainless steel or brass covers, and are guaranteed for ever. However, if a customer wants his own pickups incorporated in the Cobra design, it can be done.

The Cobra bridge can be adjusted without tools. The brass saddles are slotted to slide fore and aft on a concealed bar across the width of the bridge, and the stainless steel string guides are screwed up and down by hand.

Another good idea, under development by Guitar Workshop at present, is a built-in visual tuning aid to provide accurate pitch in noisy surroundings.

John Birch and Barry Kirby run Guitar Workshop, and can be contacted at 77 Worcester Road, Bromsgrove, Worcestershire. Telephone (0527) 78665.



Barry Kirby and John Birch displaying an example of the Cobra unit. Pic courtesy of Bromsgrove Messenger.

LION - a British roar

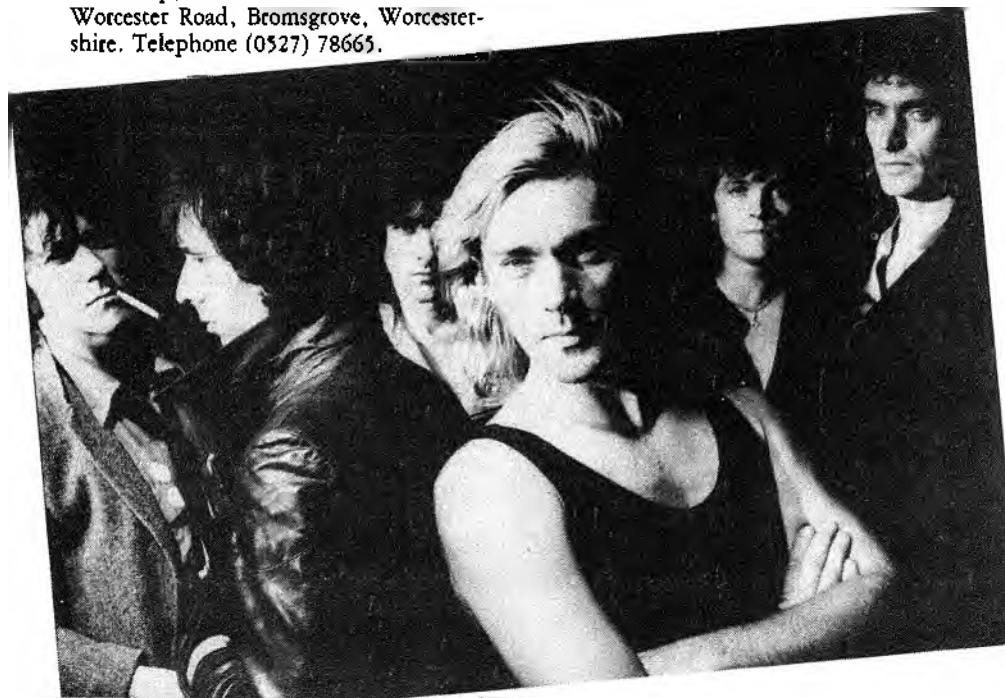
Lion are a British band based in the US, containing some well known names from the UK music scene. Their first album, *Running All Night*, has just been released on A&M and we offer a sneak preview before it hits these shores.

The music of Lion, is based on lead singer Gary Farr's lyrics and music by guitarist Steve Webb and keyboardist John Sinclair, from the opening figure of the first track "Summer Ghosts", the rhythm section of Eric Dillon on drums and Steve Humphreys on bass, combine like the pulse of a race horse while Robin le Mesurier and Steve Webb's guitars leap off the vinyl and go for the throat.

Let there be no mistake, this is a very physical album, and not just in tempo. Gary Farr's voice, while drawing many comparisons, is a strong distinctive instrument that weaves itself through the tightly knit structures laid down by the group. This guy can sing, not only that, he can sing his ass off. If there was only a way to reproduce the last refrain from "Diana" in print — Ah! But let that be a treat for your own ears.

There is a lot of depth to this album. Besides being impeccable musicians, their background harmonies and chord structures are brilliant. The group is far from dull. It's refreshing to hear a new group that is capable of being both melodic without being wimpy or pretentious and yet at the same time be crunchy and forceful without being boring or redundant.

If you can keep your feet from tapping, your hands from clapping and your mouth from smiling after hearing "Running All Night", check your pulse, you're either dead or a Finnan Haddie. In most cases I would say you'll be running all night yourself.



Clean, Clean

Soaking up the sounds at the Marquee in London recently were devotees of Bruce Woolley and the Camera Club. Bruce and the band played a clean, tight set and delighted the masses packed into that small stomping ground with all their fave toons such as "Clean, Clean", "Video Killed...", and "Flying Man."

This band, signed to Epic, should, if promoted well, reap gold dust for CBS at a time when Record Label finances are slumping and future forecasts look gloomy for the vogue in vinyl.

1979 has seen the evolving circle of development for punk rock *per se* with the absorbing of most New Wave into the general mainstream idiom of Rock. Accomplished "small" bands like Blondie and Bruce Woolley may become the sustaining factors in a race to avoid massive overheads and remain solvent, and the Camera Club (with Bruce!) of necessity become the "Sound of the Eighties".

Studio Synthavoice

Set up by Mylemans Guido, Studio Synthavoice is a "very sophisticated electronic recording studio based on a big 12 voice synthesizer, ARP 2500 studio and Roland 700 SYS, together with computer control, and 8, 4 and 2-track recording systems!" Mylemans specializes in both classical and modern music being a fully trained classical musician.

Having built up this very impressive studio he is now looking for a suitable outlet for his work, in particular, any producer or manager who would be interested in this field. The studio's address is Hemelstraat 1, B2000 Antwerpen.

Vitavox for hire

Vitavox's first venture into the hire business is being run by Frank Manzaneto. He was chosen for the job because of his wide musical background and electro-acoustic skills which are an ideal mix to provide the expert advice needed to help groups enhance their own particular sound. In the past Frank has been a professional musician and has worked for such companies as WEA Records and EMI in Hayes.

The full scale hire PA rig includes the well-known Thunderbolt speaker system, which is ideal for PA reinforcement at large venues and at outdoor gigs. Advice and hire details can be obtained from Frank on 01-204 4234 or by writing to him at Vitavox, Westmorland Road, London NW9 9RJ.



Phil Daniels

Phil Daniels is about to become a rock 'n' roll star. At least that's what he's hoping for with the release of his first album this month entitled *Phil Daniels and the Cross*. The young star of 'Quadrophenia', 'Scum' and the forthcoming movie 'Breaking Glass', Daniels wants to make his mark on record.

With his band the Cross, he's been playing on and off for the last six years. Joined by Peter Daly on keyboards and guitar, bassist Barry Neil, and drummer John McWilliams, Daniels sings and plays rhythm guitar. The songs are simple but catchy and with Daniels' engaging personality they could soon be a hit. His voice sounds like a bizarre mixture of the mod hero Jimmy from 'Quadrophenia', Roger Daltrey, Leo Sayer, Ian Dury, BR Robertson and Anthony Newley. Confusing? It isn't!

The Whips

Hailing from East Lothian, Scotland, the Whips are a punk band consisting of five members — Bobby Walker on vocals, Dennis Rouke on drums, Ian Anderson (no relation!) on lead guitar, "Combie" on bass and Andrew Miller on rhythm guitar. At present they gig around the Lothians but are looking for any business further afield. They have recorded a demo and are hoping to find a deal. The set is made up mainly of their own songs, however they do re-vamped versions of such songs as "Greensleeves", "I'm a Believer" and "Do Wah Diddy Diddy" (the mind boggles!). Interested? The band can be contacted on North Berwick (0620) 3161.

The Subterraneans

Formed originally as the Reds in early 1977, the band built up a following in

London, working the pub/club circuit. However, in the summer of '79 the notorious Ross brothers left to branch out on their own, leaving Mick Watson and Steve Payne with the name and most of the original set.

With the advent of a US band, also going by the name of the Reds, and with the changes in the line-up, a new name was needed and was taken from the closing number of their set: Dylan's "Subterranean Homesick Blues."

And now... the line-up! Mick Watson: (lead vocals, guitar): Founder, frontman and songwriter, Mick often bewilders his audience by altering song titles and lyrics to suit his mood. After all, he wrote them. Steve Payne: (bass): having learnt his trade on the jazz circuit, Steve joined Mick after the original bass player in the Reds decided that further education was a safer bet than potential stardom. His playing betrays his esoteric knowledge of obscure reggae and thunders away, relentlessly, throughout the set. Glenn Evans: (drums, backing vocals): growing tired of playing to sheep in his native New Zealand, he travelled across the world in search of fame and fortune. Instead he joined the Subterraneans. A lot of energy in a starveling frame. Julian Griffin: (guitar): the latest addition to the band. He was selected at auditions as being the only guitarist who didn't play pub-rock riffs. In fact he plays fresh, original and simple licks, but remains so self-effacing that he doesn't come out in the publicity shots. To contact the band get Nick Clark, 59 Hereford Road, London W2. Telephone 01-229 5675.

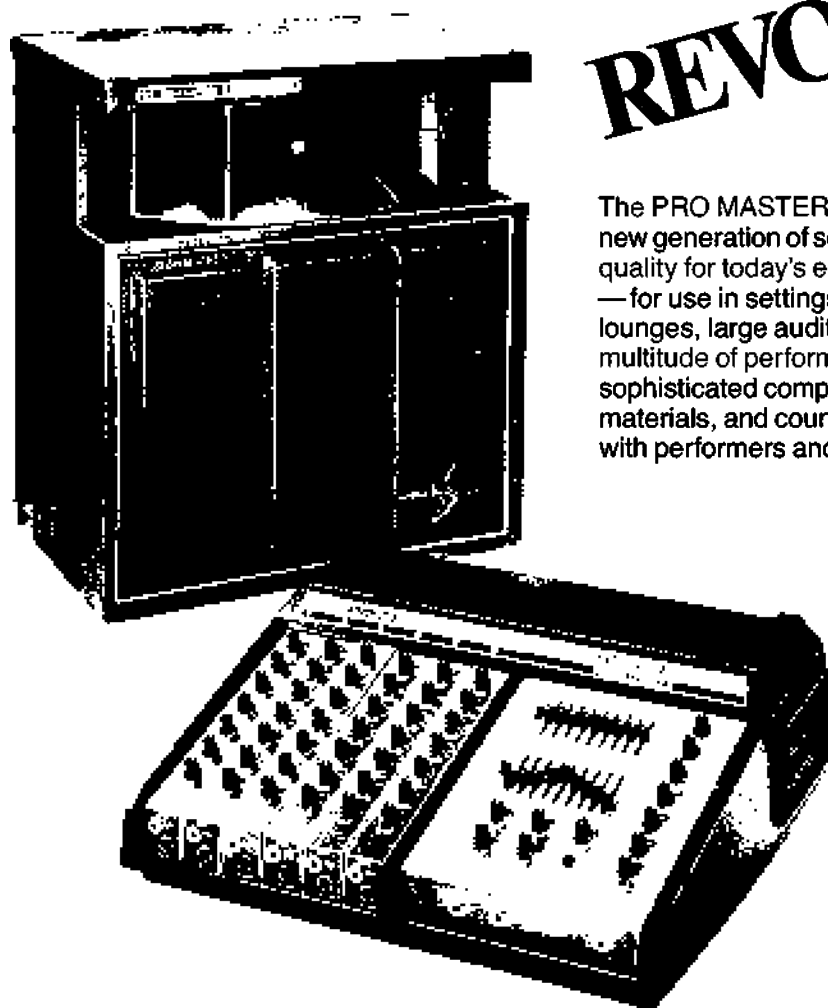
Guitar seminars

The IGA are pleased to announce the dates of three one-day seminars to be held in Brighton. The first is to be given by jazz guitarist Dave Cliff on Sunday February 3rd. Dave has played with saxophonist Lee Konitz, in Italy with Charlie Ventura and has done two tours with Kenny Davern among numerous other things. The second seminar will be given by classical guitarist Paul Gregory who last year won first prize in the André Segovia competition in Palma. The seminar will be held on March 2nd. The third one in the series will be given by the society's president, Ike Isaacs, on Sunday April 6th.

These seminars promise to be very worthwhile, and the association is quick to point out that Brighton is easily accessible from London, taking only about an hour by train. So, if you require more information contact André Emond, 146 Ditchling Road, Brighton, Sussex. Telephone Brighton 551804.

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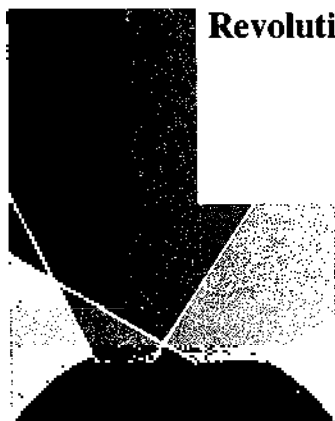


The PRO MASTER modular sound system ushers in a new generation of sound system versatility, reliability, and quality for today's entertainers, musicians, and speakers — for use in settings as diverse as intimate clubs, lounges, large auditoriums, churches, and schools. Its multitude of performance-proven features is the result of sophisticated computer design techniques, advanced materials, and countless hours of personal consultation with performers and sound technicians.

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Finally! The best of *both* worlds. A console so easy to use that it won't overwhelm the beginning group, yet with the advanced features and capabilities required by experienced professional performers — such as pre-fader monitor mixing, effects and/or built-in reverb, with their own tone controls, LED clipping indicators with attenuators on each input, and full patching facilities for every system component. Super power: *twin 200-watt solid-state power amplifiers!* Doubles as a stereo recording console for groups that want to "lay down a few tracks" without paying for studio time, or can be used as an ultra-sophisticated keyboard mixer with power. Unitized ARMO-DUR™ structural foam combination case and chassis makes it more durable than steel. Ultra-light: only 47 pounds.

Revolutionary: Variable Dispersion Sound System



Advanced new variable dispersion high-frequency horn system projects your sound — everywhere in the house, giving you a choice of 60° long-throw, or 120° wide-angle dispersion with the twist of a knob. Tailors the sound to the room — even L-shaped rooms.

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Every extra ounce — every unnecessary cubic inch — has been computer designed OUT of the PRO MASTER loudspeaker. Modern materials and moulding techniques accommodate a high-performance 15-inch woofer and a high-frequency horn and compression driver in a startlingly small, efficient enclosure. Less than 28 inches high, 23 inches wide, 16 inches deep. Weighs an easy-to-handle 58 pounds. Yet, the power handling capacity is a remarkable 150 watts, and the frequency response is 50 to 15 kHz.

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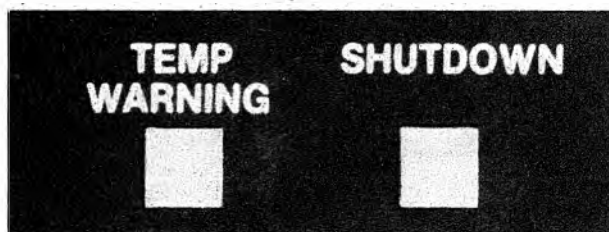


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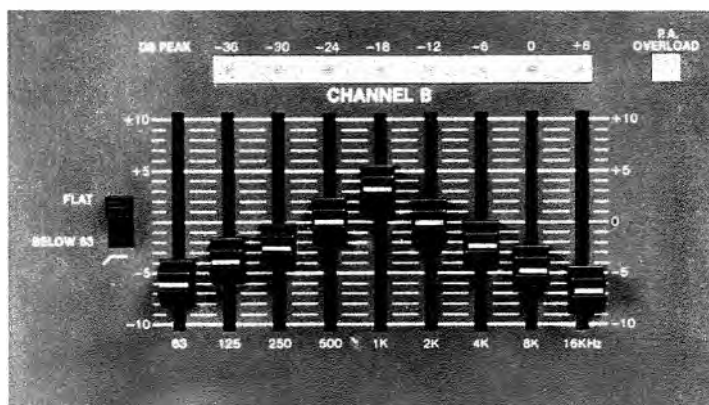
The impressive array at left includes a mixing console, two graphic equalizers, a pair of 200-watt power amps, a monitor mixer and an octave analyzer. The PRO MASTER gives you all these capabilities — plus features that you can't find in any other console, at any price: Unique FEEDBACK FINDER™ circuit, exclusive PATCH BLOCK™ patch panel, wide-range LED peak output and input clipping indicators. Plus pre-fader monitor send controls, LED power amp overload, temperature warning and shutdown indicators, 0 to 30 dB input attenuators, full stereo features, simultaneous effects and reverb on each channel. What's more, you have Hi-Z and Lo-Z balanced transformer-coupled mic inputs on all six mic channels, (can handle 12 mics simultaneously), plus two additional auxiliary input channels for adding synthesizers, tape players, tuners, sub mixers or any other high level output components. And each Lo-Z input features built-in simplex powering for condenser microphones.

Revolutionary: LED Status Indicators

Alerts you to developing trouble *before* it gets serious! You have time to correct the problem before it interrupts the performance. Temperature warning LED warns you if amplifier is overheating. Shutdown LED indicates power amplifier and speaker protection system activation. Only the power amplifiers are shut down until the internal cooling fan lowers the temperature.



LED peak indicators virtually make VU meters obsolete. They respond to short transients that wouldn't budge a needle, and cover 42 dB without range switching. PA overload LEDs light at full power and also warn you of distortion-causing problems such as bad speaker cables or too many speakers.

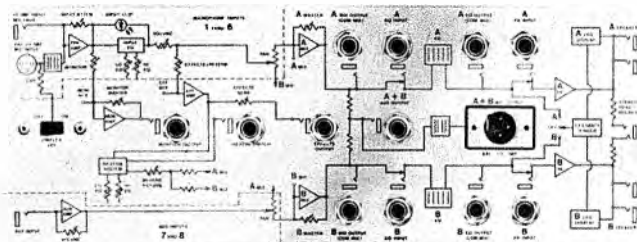


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The back panel is a unique combination block diagram and patch panel with 12 patching jacks located at appropriate points on the block diagram. For the beginner who is taking his act on the road for the first time, the PRO MASTER works "as is," with no special connections. But with the PATCH BLOCK, the professional can create a wide variety of setups and add auxiliary equipment without makeshift connections. And you can change setups at a moment's notice without confusion. Simplicity and versatility, the PRO MASTER has them both!

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AT 607. Stylus Cleaner. A special fluid complete with brush to remove harmful deposits from the stylus tip. **RSP £1.38**

AT 609. Silver litz set. Set of 4 sterling silver connectors for use between cartridge and headshell. Double insulated. Extremely low transmission loss plus gold plated tips at both ends. **RSP £2.86**

MG 9. Low Mass Headshell. Engineered from solid magnesium alloy and weighing only 9.3gms, its construction eliminates harmful resonance. Comes fitted with silver litz wires AT 609. **RSP £11.84**

Less expensive **MG 10** headshell available without silver litz wires. **RSP £7.59**

AT 610a. Low Capacitance Phono Cables. Set of 2 x 1.5 metre cables plus ground terminal for use between deck or pre-amp and main amplifier. Low capacitance and resistance improve signal quality. Phono plugs and ground terminals are gold plated to prevent corrosion and ensure high conductivity. **RSP £3.52**

AT 615. Level. Precision made from a block of solid aluminium. Ensures that record deck is exactly horizontal. **RSP £7.10**

AT 618. Disc Stabiliser. Developed to damp any vibration in both the disc and turntable platter. Machined from solid brass block and covered in protective rubber. **RSP £13.03**

AT 620. Super Conductive Phono Cables. The ultimate high transmission cable set for use between main amplifier and other components. Inner conductors are individually insulated with heatbonded epoxy. Liberal use of copper results in ultra low resistance of 50 milli-ohms per metre. Durable phono plugs are completely gold plated. **RSP £19.18**

AT 6002. Automatic Disc Cleaner. Cleans records as they play. The velvet pad slowly releases cleaning solution which loosens dirt particles to be then swept clear by the fibre brush, which in turn conducts away inherent static electricity. **RSP £5.27**

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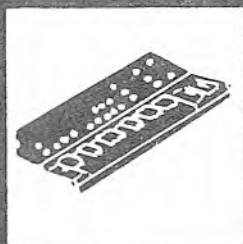
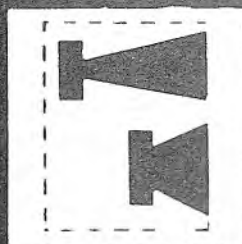
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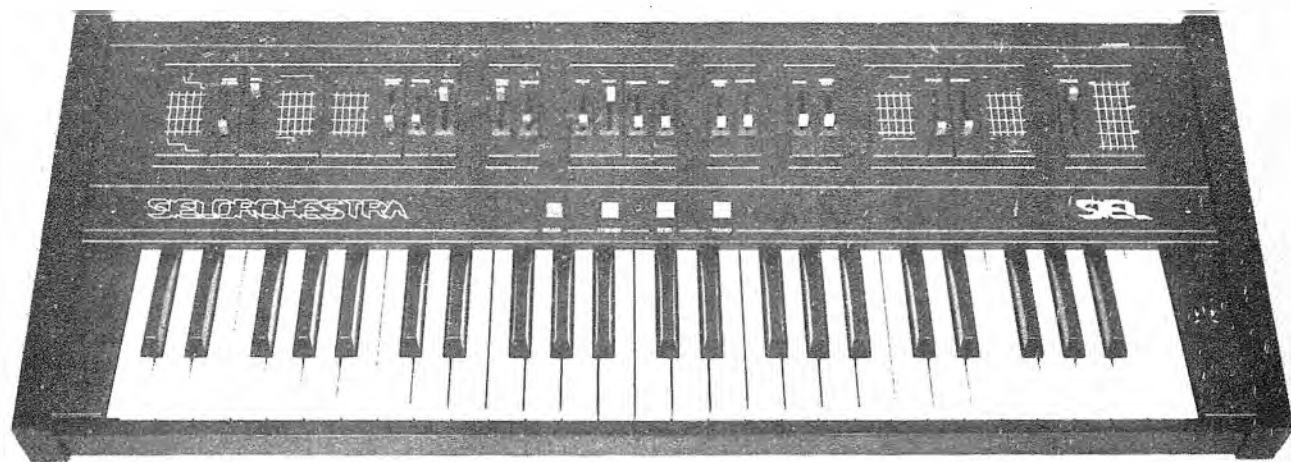
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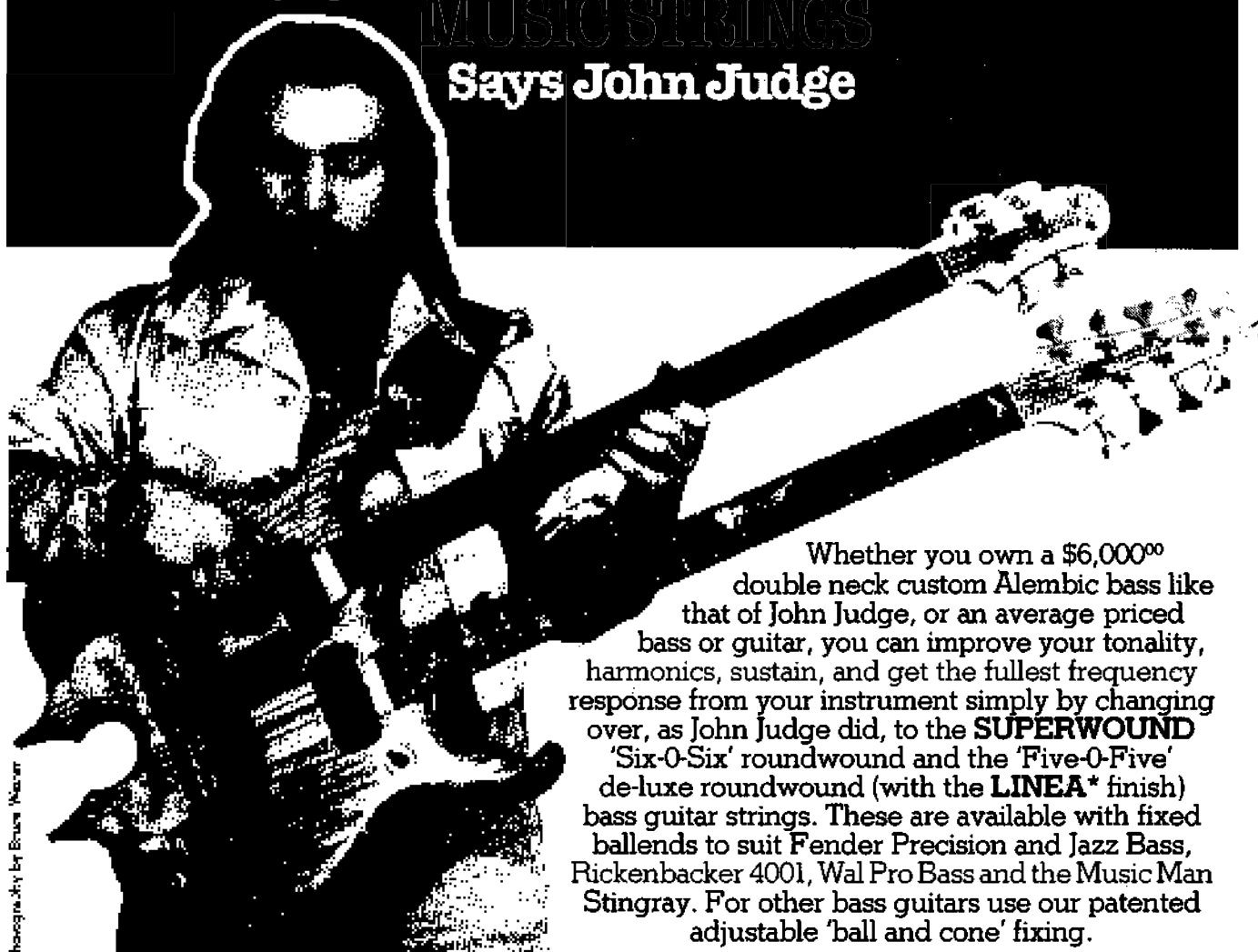
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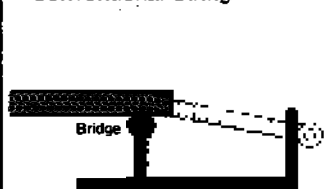
Says John Judge



Photography by Bruce Weaver

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Albums

Tony Banks

Livewire

Santana

Bruce Woolley

Tony Banks

A Curious Feeling (Charisma)

The first "solo" album to appear from the Genesis stable, Tony Banks has avoided pretentious overkill and self-indulgent exercises that most keyboard players sadly resort to. Banks has artistically excelled himself by subtly proving his diverse talent for writing melodies which have contributed to Genesis' hugely popular success.

Recorded with able assistance from drummer Chester Thompson and singer Kim Beacon formerly with String Driven Thing, Banks maintains his anonymous public image concentrating instead on playing a variety of keyboards all with superb taste. He incorporates tricky tempo changes with a delicate sense of passionate playing.

A song like "The Lie" gives more than ample proof that Banks is the musical mainstay behind Genesis. Void of egotistical flamboyance which haunts most solo albums, Banks masterfully impresses with lovely acoustic piano work and a synthesis of a wide range of keyboards. Neither a Genesis imitation nor a virtuoso platform, *A Curious Feeling* is a completely satisfying album which works on its own.

The album is an eclectic collection of songs and instrumentals which almost beg for a cinematic conception. Painting fascinating musical movies the sparse production adds an eeriness which is quite effective. The instrumentals are not background music but provocative showcases.

Tony Banks flaunts his many talents without prostituting his art. An exception among popular musicians Banks realizes his abilities without exceeding his limitations. *A Curious Feeling* is ample proof that Tony Banks could easily score an entire film. One suspects that day is rapidly approaching.

Barbara Charone

Produced by David Hentschel and Tony Banks.

Recorded at Polar Music Studios, Stockholm.

Livewire

Pick It Up (A&M)

Glyn Johns, engineer and producer of this debut album from Livewire, gets his name in bigger type on the back of the cover than the musicians themselves. It seems that musicians are reaching the same status in the recording studio as the tape machine or the mixing console.

To be fair, Johns has given this band a remarkable sound, especially the bass. This latter has all the resilience and snappiness of an extra chewy piece of underdone steak: it's inspiring good.

What's wrong with this band is their more than passing resemblance to Dire Straits, not that I'm accusing them of plagiarism. Maybe they both had the same sound way back when, but the Straits beat Livewire to the punch. Certainly on my playing of *Pick It Up* I never detected any numbers as commercial as "Sultans of Swing" or "Water of Love". There are, however, no overly weak songs, and an uncommonly high proportion of definitely strong numbers, though no hit singles.

The music is that strange hybrid of British rock and J.J. Cale, with anonymous but competent lead vocals and some quality slidework. That punchy, dexterous bass, coupled with unflashy but ultra-workmanlike drums and easy, percussive guitar chopping, drives the show along in a compulsive way. Not exactly Muscle Shoals but comparable.

Pick It Up is a fine, listenable, professional and inspired album. It's a shame that a lot of people will merely label it as Dire Straits on uppers.

Steve Brennan

Recorded at Air Studios, London. Production by

Glyn Johns.

Santana

Marathon (CBS)

Sri Chinmoy is still Carlos Santana's guru, Santana himself is still exploring his perennial spirituality, and the man's trademark is still those soaring, pure, aching sustains on the top register of his guitar. What's more, the funky salsa rhythms that were evident as far back as Woodstock are again present. Carlos Santana has failed to produce a new direction for the ageing band's format, but some qualities of the music remain fresh.

What's new is the band's use of more catchy songs, shorter than is normal with Santana and with definite hook lines, doused in Latin percussion. It seems that the trend for shorter numbers blazed in the heady days of British new wave a couple of years ago has filtered through to the spiritual heights of San Francisco, even.

The sound may be the same as always, but it's good to hear a new confidence in Carlos' playing that has been absent at some times in the past due to his and the band's searching for a new expression that is arguably not an option for them. What they've done with this album is to take what they do well and polish and strengthen it to a new level. One track, "Aquamarine", is the high point of the LP, and is a restatement of the energies apparent as far back as *Caravanserai*, a naughty bit of nostalgia, but nice when "relaxing" at home, as we say in the office.

Recorded at The Automatt in San Francisco, the production is as clear and precise as one would expect from a band as experienced as Santana. But it'd be nice to hear again the young, punk Chicano guitarist with a headful of acid and hungry for action.

Steve Brennan

Production by Keith Olsen in association with Santana and David De Vore. Recorded at The Automatt, San Francisco.

Bruce Woolley

Bruce Woolley and The Camera Club (Epic)

The Music Press have certainly "snapped" at this small guy with the large spectacles. He has been rated as "safe and unoriginal" (*Popstar*), "Still looking..." (*Record Mirror*), "Jack of all styles and master of none" (*Superpop*), "Sparks with a squeaking synthesizer" (*Popstar*) etc. etc. It's very evident that when hacks have their knives out for someone trying to make a name for themselves there's every good reason to start depositing supplies of AB negative at their local blood bank. Not that Bruce should start to unduly worry at the *Huddersfield Daily Examiner's* (say no more!) comment that "Tony Blackburn would love it." True, he does have that Costello-meets-Bowie-meets-Talking Heads flavour and a slightly camp London-School-of-Art image but this does not belie the fact that he is a very talented songwriter and performer. Since these earlier slatings Bruce's talents have been realised commercially in his well-known co-written song for Buggles: "Video Killed the Radio Star", but this is only a taster for this album, which



Tony Banks



Bruce Woolley

contains 12 tracks of solid rockin', melodic hooks and compulsive listening for all new wave pop fans.

I was on a touting holiday in France in early October and I had in error omitted to bring the usual automobile audio accoutrements. The only tape I had for two weeks was this album's pre-release tape and I found the desperate falsetto vocals and compulsive bass and rhythm sections grew on me. The guitar is good, the songs are good, and Mike Hurst deserves a mention for his impeccable production job. Buy it!

Mike Feasey

A Mike Hurst production. Recorded at Eden Studios. Engineered by Richard Goldblatt.

The Kinks

Low Budget (Arista)

Despite Margaret Thatcher's dire predictions for the upcoming economic state of this country, Ray Davies has solved the problem. His mandate and subsequent solutions to aid our present economic crisis are far more entertaining than the current Tory programme. Suffice to say that *Low Budget* is anything but that. It is, in fact, the highest quality album the Kinks have turned out this decade.

Ray Davies and his erstwhile cronies have a new musical lease of life. For a start this album was recorded in a mere three weeks which is something of a revolution for the Kinks. Secondly it's the first album they've recorded in America and the visit has given them a shot of revitalised energy. Thirdly Davies has stopped living in the past and is now firmly cemented in the Eighties. Yes that's right — the Eighties.

All these new changes are impressively evident from the start of "Attitude", where Davies drops his Sixties rock star persona in favour of a latent punk. "You can't live in a time zone" he sings authoritatively, "you gotta move on." The Kinks have moved on. "Attitude" is only one of the many new songs where Dave Davies is allowed to flex lead guitar muscles while Ray Davies comes up with integral rhythm guitar playing that once made the Kinks infamous. Additionally, Mick Avory supplies that quintessential British hollow drum sound which Charlie Watts has mastered so well.

Variety abounds although none of it is self indulgent. Davies actually seems happy. "A Gallon of Gas", backed by a bluesy guitar refrain, is all about the perils of owning a Cadillac yet not being able to get the petrol despite the millions.

Authentic punk rock sounds are not imitation but genuine while the Kinks have never recorded a better album. They do a wonderful disco satire with "(Wish I Could Fly Like) Superman" and "Moving Pictures" while "Little Bit of Emotion" is vintage emotional Kinks.

Speaking of satire they take off the Who, the Stones and the Beach Boys all in the first three tracks on the album. "Attitude" is a wonderful send-up of the disappointing "Who Are You" complete with answer back chorus.

Throughout their lengthy career many people have given up the Kinks as something of a lost cause. This album puts them right back in the premier frontline and American sales substantiate this. Hopefully, the collective British public will not be far behind.

Low Budget is anything but a cheap album, full of quality and style as only Ray Davies can produce. Humour abounds especially in the title track where Davies admits "even my trousers are giving me pain/they were reduced in a sale so I shouldn't

complain/they squeeze me so tight so I can't take no more/they're size 28 but I take 34."

Despite the tacky album cover, there is nothing cut-rate about this record. Closet Kinks freaks can rejoice. Davies had done it again. And with real panache.

Barbara Charone

Produced by Ray Davies. Engineered by John Rollo and recorded at the Power Station, New York and Blue Rock Studios, New York.

Steve Forbert

Jackrabbit Slim (Nemperor)

Steve Forbert sings like a man who's smoked one too many cigarettes the previous evening. Nevertheless this raspy inflection is an integral part of his engagingly unique voice. Despite his gruff vocal chords, Forbert sings with a sensitivity all too often missing from emotionless records.

Yet Forbert knows much about emotion: a man who paints an honest, vulnerable self-portrait of himself on his second album *Jackrabbit Slim*. One of last year's most promising new singer-songwriters, this latest collection is even more impressive. Unlike many contemporaries, Forbert has a vast knowledge of clever song constructions, offbeat tempo changes and a refreshing lack of self pity.

On "Romeo's Tune" he confesses "I don't ask for all that much I just want someone to care." Utilizing piano as the dominant instrument throughout the album, the uncluttered production squeezes maximum potential out of the excellent lyrics and memorable melodies. Wisely Forbert steers clear of leaning on famous session men for sterile support, filling the album instead with an all too realistic conviction.

Jackrabbit Slim shows a tremendous growth in Forbert's career where he exposes some of the cards in what most certainly must be a stacked deck. Aces on hand here are "Say Goodbye To Little Jo, Make It All So Real" and "Sadly Sorta Like A Soap Opera"; a tale of a failing relationship.

Steve Forbert is a master of understatement easily comparable to writers like Randy Newman and Ray Davies. He always gives you a few clues but allows the individual to guess the finale much like a fine vintage film. His lyrical eye is not unlike Raymond Chandler's journalistic style used in detective novels.

Since the release of his first album *Alive On Arrival*, Forbert has established himself as a leading songwriter. His melodies and musical silences often speak as articulately as his words. That inimitable haunting piano sets the scenario for every tune often lingering long after the song has ended.

Neither coy nor pretentious, Steve Forbert cleverly balances serious lyrical visions with uplifting piano accompaniment creating the perfect musical dichotomy. That said, his talent for writing what sound like hit singles is immense.

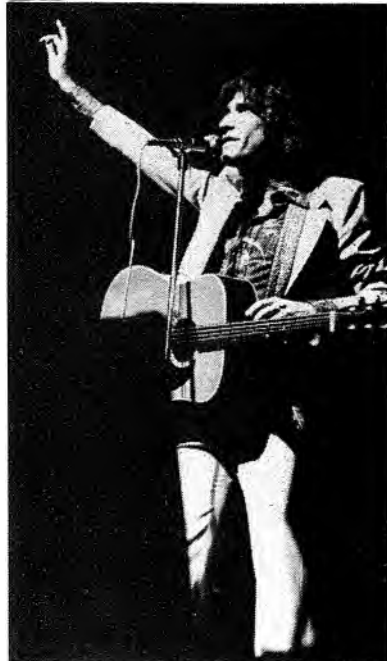
Steve Forbert has erroneously been compared to Bob Dylan. A man this talented needs no peer. Like all artists, Steve Forbert is his own man. He sounds like no one else. That in itself is a rare trait.

Barbara Charone

Produced by John Simon. Recorded at Quadrophonic Sound, Nashville.

The Kinks Steve Forbert

Kinks





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Albums

Freddie Hubbard

The Love Connection (CBS)

The mixture is familiar, the end result isn't. What usually happens is — jazz great gets skint, decides to make some dough, imports best crossover musicians into studio, cuts diamond hard virtuoso funk album, sits back and listens to cash register tinkling in triple time.

But Freddie Hubbard's attempt has steered clear of the usual pitfalls that can beset a jazzman on this inglorious path to solvency. To be sure, all the usual exponents of the West Coast session mafia are there on the credits — Stanley Corea, Chick Clarke, Chester Jarreau, Al Scott and Tom Thompson, and more. In addition, Claus Ogerman arranges and directs the orchestral string section. But Hubbard isn't fazed one bit at this glut of silicon chip musical talent, and forces beautiful expressive performances from musicians who usually play with the creative drive of a jack hammer on overtime.

The trumpeter maintains strict control over every situation, there is a distinct feeling of Hubbard-ness on every track of this album. Harmonic and melodic understatement, coupled with a restrained rhythmic sense, make for musical minimalism that's a delight on the ear. It's a lush but not sickly production, tasteful and disarmingly fresh and relaxed. The theme of the album is love between husband and wife, and sometimes the music lapses into a kind of upmarket Barry White super slush, but every time you think that maybe Freddie's blown it he comes back with something that changes your opinion completely.

Particularly good is the tenor sax/trumpet duet on Side Two, it's sheer pleasure to listen to. And, of course, Hubbard's trumpet is in evidence everywhere, absolutely flawless in tone and loaded with style and character, a thread of platinum in a vein of gold.

I imagine that *The Love Connection* may be a little too restrained and mature for hard core fans of fusion, but despite the occasional proness to gushing sentimentality a serious listen is well rewarded.

Steve Brennan

Production by Claus Ogerman and Freddie Hubbard.

Madness

One Step Beyond (Stiff)

A really enjoyable and impressive debut album from one of the current exponents of Ska and Bluebeat. It's really Prince Buster meets Ian Dury, simple yet catchy rock steady.

Much of the lead work is taken on by the various raucous saxes of Lee "Kix" Thompson to great effect, with ample back up from Mike Batson's honky tonk piano. However, it is the simple clean production which gives the album much of its power and impact. Definitely one for a boozy Christmas knees up.

David Lawrenson

A Clanger/Alan Winstanley production. Recorded at Eden & T.W. Studios and mixed at Rushent's mansion.

Dusty Springfield

Greatest Hits (Phonogram)

If anyone has doubts about the claim Dusty has to being the best British female pop vocalist, this compilation album will dispel them. A marvellous collection, most of which don't seem dated at all and will stand as all time classics. "You Don't Have to Say You Love Me", "Wishin' and Hopin'", "I Only Want to be With You", the list is really endless.

Although Dusty can sing all kinds of material, it's the slow dramatic ballads which really show off her immensely soulful voice and dynamic interpretation. A number like "Some of Your Lovin'" is as good as anything to come from the stables of Tamla, Stax and Atlantic.

David Lawrenson

All recordings produced by John Franz with the exception of "Son of a Preacher Man" (Jerry Wexler; Tom Dowd; Arif Martin) and "Don't Forget About Me" (Gene Dozier and Roland Chambers).

Various Artists

Stax Gold The 20 Greatest Hits (Stax)

It seems to be the season for compilation albums and this one from one of the homes of soul music will take the pressure off many a treasured original 45. Old favourites Isaac Hayes' "Shaft", "Private Number", by William Bell and Judy Clay, and Booker T's "Time Is Tight" rub shoulders with the Dramatics, Frederick Knight and a host of others. A must for anyone who thinks dance music was invented during Saturday Night Fever.

David Lawrenson

The Motels

The Motels (Capitol)

American New Wave bands are a whole lot different to British New Wave bands. For a start, they tend to be older, and usually they have long hair. And the music is different too. It verges more towards melody than the British up tempo dissonance that's become a trademark of the average punk outfit.

The Motels follow the short American New Wave tradition, producing the kind of sub-Cars pop rock that seems to be the fashion for the newer State-side bands. The musicians — keyboards, guitar, lead vocal, bass and drums — all sound very finished, with a thorough grasp of rock dynamics though originality is thin on the ground. Jangly guitar lines, a bass note throbbing but discreet, lots of keyboard fills and a chick singer that sounds like Bonnie Tyler after gargling for a few days with equal parts of fine sand, bourbon and cocaine, make up a sound that fits exactly with their environment — Southern California.

These folks are the latest in a line of American bands that go back just about as far as Pavlov's Dogs and extend lately to the B-52s. They present an album that is studied in it's raggedness and predictable in its modulations and form. Not exactly one for the bargain bins, but you'll stop listening to it quicker than you stopped listening to the Cars.

Steve Brennan

A Carter production recorded at Sunset Sound Studios, Los Angeles.

Freddie Hubbard

Madness

Dusty Springfield

Various Artists

The Motels



HIRE POWER

On the road with P.A. Companies

Scene 1: so your band has just put out its first album and the record company has decided to spend some money on you. You've got a college tour to do — nothing fancy, about 500 audience at each gig. Still, you need a 3½Kw PA system with a 1K monitoring rig, plus about 15K of lights. So you pick up the price list for a good PA rig, look at the dwindling advance, and ponder . . . it's then that you start ringing around the PA hire companies for the best quote.

Scene 2: two albums in the charts both at home, and in the States, plus one hit single and another with a bullet in Music Week. Of course, you could probably afford your own PA and lights, but paying a full-time road crew would be financially unwise to say the least. In addition, transport costs across the Atlantic are just not feasible, and who wants a PA languishing in Britain while you're doing a 50 date tour of the USA? So you hire. It may cost £700 a week, but it's still the most sensible thing to do.

Scene 3: you've just been presented with a plutonium disc for record sales of over 50 trillion dollars. You've just sold out five weeks at the Wembley Arena, plus a string of 50,000 seaters across America, Japan, China, Russia, Africa and Europe. You need at least 20K of sound plus 150K of lights. Of course, you could

buy any goddam PA system you want seeing as how your income is larger than that of Saudi Arabia, but what the hell — who needs all those bass bins cluttering up the mansion? So you hire . . . nice and tidy and neat. When you're finished the hire people take care of all the mess and the fuss. No headaches, and you get more time to play with your calculator.

The PA hire business is one of the few expanding industries in this besieged island of ours. Hiring a PA is now the norm rather than the rule. And a band can find almost any permutation of equipment at the right price if they search — from £35 worth of WEM columns with two mikes, a 100w amp and five channel mixer up to the sort of rig that kills rock journalists up to a range of six and a half miles. Look at our guide, however, and a few trends become apparent.

The most striking feature of the business is that prices have barely risen for most companies since IM conducted its round-up this time last year. More companies are specialising — in cabaret, or halls, or pubs. It also seems that it's not only the big bands that are renting big rigs, comparatively small outfits are

demanding systems up to about 12K for their concerts, and some companies no longer supply transport.

Most companies have a sideline, like the aforementioned repair work, or perhaps a studio where bands can rehearse or cut a demo tape, or they may hire stage equipment, too.

The big advantage of hiring equipment is that a relatively small band trying to convince the punters that really they are *huge* can just walk into a hire company with sufficient readies and walk out with enough lights and sound to restage the battle of Pearl Harbour. The beauty of it is that all the band has to do is turn up for the sound check and the gig — road crew and transport (usually) are handled by the company.

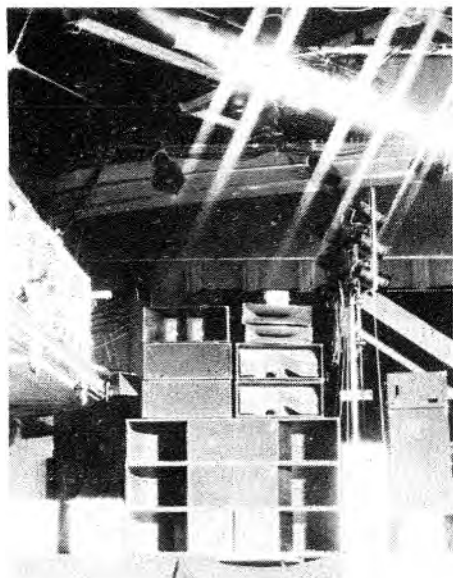
To outline the techniques and the organisation behind the average PA hire company, IM selected four gigs at random and investigated the procedures that resulted in the finished product: Sore Throat at the Digby Stuart College in Roehampton, South-West London, Showaddywaddy at The New Theatre, Coventry, Joe Jackson at The Empire Ballroom, Leicester Square and Wings at The Rainbow in London.



Company RMS Equipment Hire

Venue Empire Ballroom, Leicester Square, London

Band Joe Jackson



Frankie Blackwell, who runs RMS, flew in to Heathrow four years ago after 17 weeks of roadieing in the States with Kokomo — who were supporting AWB — with 150 dollars gross after expenses. He decided then and there that he had had enough. It was time to throw the towel in. But what else did he know but being on the road? It wasn't that, that he was specifically fed up with, but being in and out of work all the time.

So he stashed two WEM columns, a five channel mixer and a 100 watt amp into the back of his old black van and set up in the hire business. For a while it was tough and go, then business began to take off.

Now he controls £120,000 worth of PA and stage equipment. "At the moment," Frankie says, "we can cope up to The Empire Ballroom, Leicester Square, Glasgow Apollo, Manchester Apollo, that sort of venue. Joe Jackson is currently hiring a rig and crew from us for £700 per week."

The big tour before Joe Jackson was the Cobham/McLaughlin/Bruce/Goldberg tour. Another artist recently handled was Paco de Lucia, the acoustic guitar virtuoso. In addition, Frankie's company hires out instruments to studios for session work, to a jingle company and to Beggar's Banquet music. RMS pride themselves on being able to supply everything a musician might conceivably need to perform. The Police are going to use RMS stage equipment, and Roy Hill is using RMS gear in Rock City studios at Shepperton.

Frankie is aware of the smaller band, too, and has low rate rigs he can let out. The first is a 100w WEM system which he can supply for £35 for a pub band, the second is an Electro-Voice set-up styled to suit venues such as the Nashville and Dingwalls for £15. Frankie prides himself



on coping with the entire spectrum of venues.

"The system I'm planning at the moment is going to be 12½Kw's worth of rig built out of flight cases," explains Frankie.

At the Empire Ballroom Joe Jackson gig RMS were using an RSD 20 into 8 desk on stage, and a Soundcraft 18 into 2 out front. All the bottom end was JBL, the midrange ATC and all the horns, too, were JBLs, with radiators and bullets complementing each stack. Five kilowatts of power from RSD 800C amps fed the audience and 2½Kw of monitoring fed the band. Electro-Voice, Beyer, Shure and AKG mikes were used.

Mark, the engineer, arrived at the Empire Ballroom at 9am on the morning of the gig to discover that someone had double booked the hall. Instead of having the whole day to set-up the gear, he had a morning and the late afternoon. The rest of the time he had to endure the National Roller Disco Championships. Luckily the bewheeled folk vacated the ballroom in plenty of time.

But another problem had to be overcome. Because the Empire Ballroom is stuck between two cinemas the authorities have seen fit to install a decibel limiter, which cuts power to the amps when the noise exceeds 96dB. It's difficult to understand why Joe Jackson wanted to play a venue with one of these devices installed. Some engineers maintain that they wouldn't even bother to plug in where a limiter is fitted, because an enthusiastic audience can set one off. The limiter was situated on the balcony above the mixing board, and took the form of a pole divided into a spectrum with a white section on top. Lights of different colours climb the pole as the noise increases, and when the white light stays on for 30

seconds, the power is cut. This can be destructive, because if the engineer is a mite slow in shutting off the volume the power can kick back in with enough surge to damage power amps and blow out speakers. The PA was angled downwards to avoid the sensor.

Jackson wanted to play the Empire particularly because there are no seats there, and he likes to feed off audience bopping — a good idea. He overcame the problem of the limiter by going on stage after 11 o'clock, after the cinemas next door had closed. It's a difficult decision to make, because by going out that late you force that section of your audience without their own transport to make a choice between seeing the band and walking home or missing them altogether.

The gig went well — the sound was clear and the band played their customary polished performance. The crew like the Joe Jackson band, they treat them as the professionals they are. It's too often the case that a group treats the roadies and the road manager as little more than rejects from a building site, and it's then that friction occurs and work suffers.

"If the crew digs the band as people and musically, then there's no problem," declares Frankie. "But it can be hellish if they don't get on."

RMS use an attic for the Joe Jackson set up at the moment, and Frankie is resisting an escalation into another truck. The bulk of the PA system is something he's working on. The new 12½K rig he's planning, the one to be built into flight cases, is going to use Cerwin Vega 18 inch speakers, with the load clipped to enable the size of the system to be cut in half: "What we want," says Frankie, "is 12½Kws in the space usually occupied by five." The new system will use RSD amps and an RSD mixer.

Repairs are conducted on the premises, usually by the RMS apprentice who's 19 years at present and should be ready to command a road crew by the time he's 22. The workbench is situated in the storeroom, which itself is just one part of a growing complex. The RMS outfit is based in an old warehouse which is gradually being converted into an audio visual hire building, housing various different companies. There are three occupying the building now — RMS, Chameleon Lights and another outfit that buys and sells recording equipment and audio components, which is where Frankie buys all his spares. He has an arrangement with Chameleon Lights also, so that they put work each other's way. Bands can store their gear there, too.

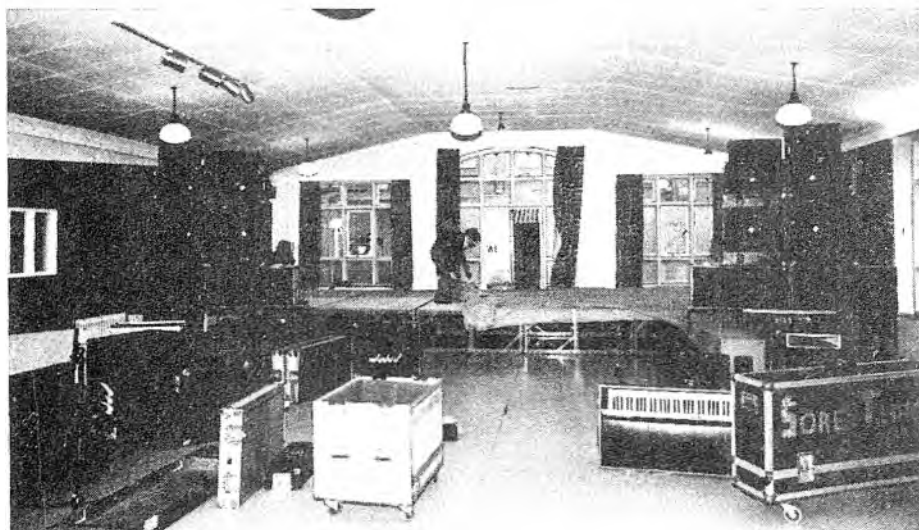
"I have arrangements with firms all over London and England, if you want something I haven't got I can get it in double quick time," Frankie says. "Once I spent hours searching for a five string violin for McLaughlin's Shakti, and took it personally to a rendezvous in Paris. I pride RMS on service. When you hire an outfit from RMS, it's yours for the duration."

HIRE POWER

Company *BAN Management*

Venue *Digby Stuart College, Roehampton, London*

Band *Sore Throat*



At one college gig, which entailed humping gear up two flights of stairs into the concert hall, Dave Flocton — BAN road manager — caught one student helper bringing up a spare wheel. It was in the back of the van, so the student thought it must be part of the stage equipment.

"We're not doing bloody Judas Priest tonight!" exclaimed Dave.

This is the kind of helpfulness that road crews get from students. Dave Flocton does a lot of colleges. He has some hilarious tales concerning student humpers, to repeat them here would be to inflict needless derision on the heads of the student population. Some college gigs are professional, however.

At Digby Stuart College, Dave encountered another kind of cock-up. He had been contracted to arrive at the college at 2pm on the afternoon of the concert to set up the rig. He was worried because traffic had put him half an hour behind schedule. He needn't have been too concerned — the stage hadn't even been set-up by the time he arrived. It's this kind of incident that's all too common.

For the Sore Throat gig, Dave decided to use a 2Kw set-up comprising four Martin bass bins, with JBL 4560 drivers, four JBL mid-range bins, two radials and two bins of JBL drivers and horns for the top end plus eight bullets. Five wedge speakers were used for foldback. A Yamaha 32 channel desk powered by Yamaha amps, and a Kelsey five-way crossover, completed the set-up. Effects used were a Yamaha E1010 analogue delay, a Roland Chorus Echo and a Yamaha TC1000 cassette. Sore Throat used their own backline, but BAN trucked it to the gig seeing as how both band and BAN are situated in the same area.

Despite the stage lateness, BAN were ready for the Sore Throat soundcheck. But

there was more to come. The first support band decided that they were supporting Wilko Johnson's Solid Senders at a nearby college and took half their stage equipment with them, equipment that the second support band were supposed to be using. Consequently the second band were faced with a drumless stage and had to make time consuming alternative plans.

Yet Sore Throat still made the stage at the allotted midnight hour. The sound was perfect as far as my ear was concerned — loud, strong and clear. Even the saxophone, which is an instrument mixed back into inaudibility at most gigs, was refreshingly loud.

After the gig Dave started on the long task of packing everything back into the Edwin Shirley three ton truck: "we use three tonners most of the time," says Dave, "and we always use Edwin Shirley."

Company *RSD*

Venue *Coventry Theatre, Coventry*

Band *Showaddywaddy*

Showaddywaddy's PA system is supplied by RSD Hire of Luton, Bedfordshire. We caught their act at the Coventry Theatre in Fairfax Street, Coventry. The concert was a sell-out. This theatre has a large stage with first class access for loading and unloading into the street. It's a traditional theatre, with an orchestra pit situated just before the stage, with the stalls directly in front — plus a circle and an upper circle.

Showaddywaddy have a gruelling gig itinerary, ranging from the big, such as Coventry Theatre, to the small cabaret date. The RSD rig is used by them all the time, managed by Dave South, although Showaddywaddy have their own sound and lighting team. Ian Day looks after the

The cost to the band for the night's job was £130, which included road crew. BAN had another crew out that night at Reading, for a similar sized gig.

"This is just ticking over us, really," said Dave. "December, July and August are always the slackest months."

To compensate for this BAN have a studio in their Smithfield, London, premises for rehearsals. Bands also store their gear there for convenience. The BAN complex is in a basement and consists of two large rooms of about 700 sq. ft., and three smaller rooms of about 350 sq. ft. Heavy doors were already fitted to the jambs when they took over the place three years ago as it used to be for meat storage. During World War II it was used to store dead bodies. The large rooms are used as a store room and the studio respectively. One of the small rooms is a demonstration area for Yamaha professional equipment, because BAN have the concession in Britain for Yamaha.

Repairs are conducted on the premises, usually by Dave, though other people turn a hand to maintenance sometimes. Five people draw full-time salaries. Additional people are hired as the need arises.

"Basically we started as a company formed to manage the Enid," explains Dave. "We began life with a thousand watt system and everything has been built out of that. Everytime you do a tour you buy something new, and we're constantly selling off old equipment that we don't need anymore. Up to now there hasn't been any need to bring in outside finance. That can be the ruin of a company. We hold about 8Kw of equipment in stock now that we can put straight out on the road. That usually breaks down into two systems with a bit left over."

BAN don't offer lights as a service, but they do have a link with Meteor and Bulldog lighting, and usually join forces to supply the works to a customer. It's a case of mutual backscratching, really.

sound side of the band and does the mix at many of the gigs. Ian also involves himself with the backline and the lights.

The band use 12Kw for the front end with 4Kw for the monitoring system. At the Coventry gig, the PA was situated in the conventional way — either side of the stage. Four bass bins, each with four Gauss 5331 15" speakers, were used for the bottom end at each side, too. With every bin holding a pair of Electro-Voice EVML 15" drivers, capable of taking 200 watts each, JBL long throw horns, four on either side, handled the high frequency, with four JBL 075 tweeter banks. The whole shooting match was powered by RSD 800B power amps.

The mixing desk was placed at the

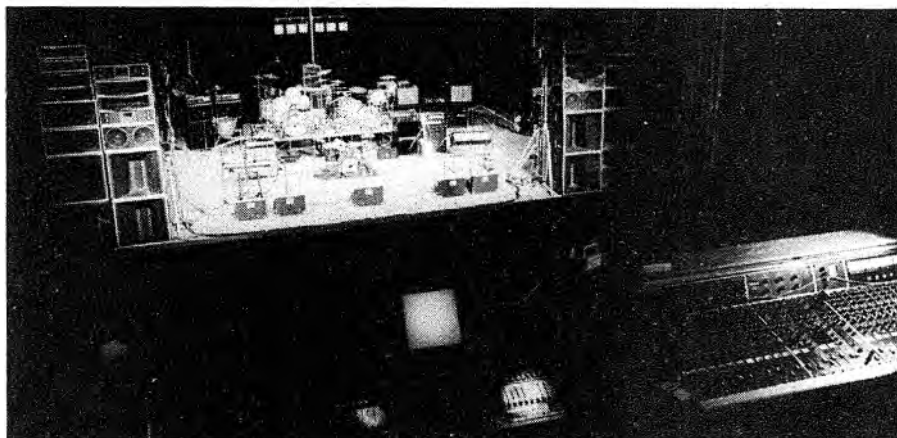
front of the first circle, with the multicore run around the front of the circle to a box, and then dropped to the ground floor and then up to the stage. The desk used is an RSD 24/4/2. Up in the circle, too, was the lighting mixer and some effects and equipment — a TEAC 3340 4 track tape machine, an Eventide Harmoniser, a graphic equaliser, a Space Echo and a cassette deck.

On stage, monitoring was controlled by an RSD 20/8 mixer sited at the side of the stage. Five wedge monitors occupied the front of the stage, and three stood among the backline gear. The monitors were all the same — one EVML 15" driver with JBL perforated lens and 2420 driver. Either side of the stage a JBL 4560 bin with 2350 horn and 2482 compression driver was used for sidefills. Four RSD 800B amps powered the monitoring.

Showaddywaddy use their own lighting rig, rated at 132Kw.

From the moment the 40ft attic rolls up outside a gig, it takes four hours for the crew to erect the rig, and two hours to tear it down afterwards.

RSD Hire operate from 5000 sq. ft. of premises in Luton, a minute away from junction 11 on the M1. Paul Dobson, MD, started the firm about four years ago and then branched into manufacturing, so



there are now two sides to the RSD operation. Dave South runs the hire side.

Access to the RSD base is excellent, with enough loading bay space to accommodate a 40ft attic, with the shutters down, to boot. Four people run the operation, with additional personnel being drafted in as needed. Twenty kilowatts of sound equipment is just about as high as RSD go, and mostly the speakers used at JBL, Gauss and Electro-Voice. The mixers and amps are all RSD. All the cabinets were built to the company's own design.

They don't do lighting themselves,

but have working arrangements with both Meteor Lights and Gaslight. A four ton truck is part of the RSD inventory, but for big hauls Star Trans is used. Based in Bristol, they can supply any size truck you like, and handle every aspect of travel, even down to ferry bookings. It's this company that moves Showaddywaddy.

RSD do all their own repairs, and are in a position to offer their facilities to other people for the repair and overhaul of any PA component. Prices for this service are negotiable, as are prices for hire. The smallest rig that RSD can offer is a 4K outfit.

Company *TFA-Electrosound, London*

Venue *London Rainbow Theatre*

Band *Paul McCartney and Wings*



TFA-Electrosound are based both in Great Britain and the USA. Fifty people are employed here and 100 in the States. With a total capital investment of over £2 million and an owned resource of 200Kw it's apparent that they are way up there in the big league, and are probably the biggest in the world. Therefore it's not surprising that a band of Wings' calibre uses them. In addition to Macca's lot, Electrosound have dealt with Abba, Boston, Commodores and Earth, Wind and Fire in 1979.

The rig for Wings fills three 40ft attics, but for the Rainbow the load was reduced. Wings don't employ any sound or light men, so they're completely reliant on Electrosound personnel — four operate the lighting and three look after the sound.

For the Rainbow gig 14K of PA was used. In common with most other PA companies, Electrosound make heavy use of JBL components. All the bottom end, midrange and highs are reproduced with JBL speakers. Electrosound are unique in building their own cabinets. Two basic types guarantee uniformity and neatness at a gig. Eighteen bass cabs and 18 top cabs were used facing in various directions to cover every section of the audience at the Rainbow. Suspended overhead were four stacks to guarantee a good sound for the circle.

A Soundcraft 32 channel mixer was used out front with various effects. The monitoring system was almost as elaborate as the PA proper, with 10 floor monitors plus three just for the drummer. The

whole lot was powered by Amcrion amps. For a detailed account of the gear and the gig, read Ken Dibble's PA Column.

Electrosound UK is based in London SE1, an area not famous for wide roads. Consequently, access to Electrosound's premises in Marshalsea Road is not good, but nevertheless it's acceptable. The company own no trucks but uses the Edwin/Shirley Trucking Company. Repairs are conducted on the premises. Electrosound occupy 20,000 sq. ft. of floor space.

Rates vary depending on what size rig you want. Obviously it's got to be worth their while before they'll hire out a system — unless you try them in the traditional July/August slack period.

The biggest thing to bear in mind when ordering a PA system is to make sure that the company knows exactly what you want. If a company turns up with too much gear for your gig it's a waste of their time and your money. Too little gear can be just as frustrating. Trust the company if they've done a venue before to advise you, especially if you haven't had too much experience. If you've been gigging for a while you'll probably see eye to eye anyway. What you have to look out for is the different ways of rating a system's power — company A may rate their equipment differently to company B. It has been known for a band to do the Marquee with what they think is 3Kw of power when another hire company would rate it at half that. The resulting confusion can be expensive, in terms of cash and credibility.

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P.A. Hire Company Directory



Who Are They?	What Power?	Equipment Comprises:	Crew/Transport	Clients	Costs/Contact	Who Are They?	What Power?	Equipment Comprises:	Crew/Transport	Clients	Costs/Contact
ACME PA HIRE AudioMade Sound Systems 1 Thimble Gardens, Barnet SE (0223) 72481	10kW & 40kW lights	Martin, JBL, Eschall floors and drivers, Sall, Soundcraft & ProAudio mixers (Soundcraft crossover), A&R sweep EQ, JVC tape, ProAudio 27-band graphic, American power amps.	Yes	Pease Clark (he said it was the best sound she had ever had), Richard and Linda Thompson, Joe Newman, Boomer Wiles, Billy Connolly	Negotiable Contact: John Connolly	Ground Control 3 Wood Close London E2 (011) 735 1448	Three SAW rigs	JBL, Gauss, American and Turner amps, Turner mics	Yes (package)	Swanglers, Peter Tosh, Dennis Brown	Package (5kW rig - £7000 per week). Contact: Robin Mayhew (says "the Swanglers have used us for 3 years - this speaks for itself")
Bar Management 89/97 St John St, EC1 (01) 253 9410	200W ("take away") upwards 1.2kW and 8kW for larger concerts and festivals	JBL, Gauss, Yamaha speakers, Yamaha amps, Yamaha, Midas and Soundcraft desks, Shure, AKG, EV mikes (Repair service available.)	Yes	After the Fire (they were "over the moon" with their system), Ellen Foley, Charlie Dore, Straight 8, Little Bo Beach, Adam and the Ants, The Flys.	200W (£10/night (take away), prices vary - contact: Angus Boucher (Finance), or Mark Davis for technical advice.	H W. Audio 174 St Georges Rd Barnet, Herts (0224) 385159	1kW 36kW lights (backline & instrument).	Altec, Tyas, HH, Allen & Heath JBL & RCF.	Yes	Various local	Package £80 approx Contact: Chris.
Biggles Music 35 West St Old Market, Bristol (0272) 552147	Up to 15kW	Martin bins, Vitavox, HH, RSD and Turner amps, Soundcraft, RSD and Midas desks, AKG, Shure and Sennheiser mikes.	Yes	Police, Gang of Four, Skis	Contact: John Botting, prices negotiable	HJACK Production Services 17a Kensington Park Rd London W11 (01) 229 8427 and (01) 229 9534	PA & backline, package (+ extras)	Tour production comprising: PA, lights, trucking, casing, travel permits, accommodation, crew, set design, effects, backing, staging and Edgiphoir (simultaneous giant video imaging).	Yes	National Health, Paul Rambo, Soft Heap, J.J. Cole, Low Reed, Camel, Kate Bush (Knebworth support)	Contact: Tim Davies, Moxy Dawes or Nick Lower.
Britannia Row 26 Britannia Row, London N1 (01) 358 5275	1kW-60kW studio electronics 300kW lighting	Martin bins, JBL cabs, JBL and Altec, Gauss and Coral HF, Phase Linear and BGW amps, Midas mixers.		Pink Floyd, Roxy Music, Ricky Lee Jones, John Denver, Frank Sinatra, Randy Newman	Negotiable. Contact: Robbie Williams.	Livewire 25/29 Bouver St London W12 (01) 743 9527	Up to 30kW 12kW rig also available. (The Turbo system can be "broken down" into as small as 8kW)	Turbo system MkIV, JBL, Crown, BGW, Quid, Rehearsal studio, Tiled, Gelf & RSE monitor desks, Gauss monitors, Shure, Beyer, Electro-Voice & AKG mikes.	Yes (on application)	Sinceros, John Martyn, Gonzalez, Soft Little Fingers (Turbo clients: Steve Millage, Peter Gabriel, Sky, The Pop Group)	On application. Contact: Nicky McKay (for tech. info.).
Cascade Music & Hire 42-44 Upper Tooting Rd London SW17 (01) 672 3597	Up to 300W ("take away")	Custom Sound & HH, Shure & AKG mikes	No	UK Subs, 999, The Cool Notes	As 200W & 2 mikes (£1 night £75, incl. VAT & insurance. Contact: Steve Bramhall)	Mendham PA Kingsdon Rd New Malden, Surrey (01) 942 0235	5kW (standard) 8kW (Malcolm Hill available into 8 bins)	Malcolm Hill, ATC, JBL, 16/8 monitors & 24/6/2 (master) Hifi.	Yes (complete tour service available)	Generation X, The Members, The Cure (European tour)	Negotiable. Contact: Paul Adman
Colec 39-51 Highgate Rd Kenish Town, London NW6 (01) 267 9239	4-30kW and Game lights (see lighting section)	Martin bass and mids, JBL horns, Midas mids, Shure/ AKG mikes (Speakers in flying PA)	Yes	Die Straits, Van Halen, Johnny Cash, Tony Bennett, Dr Hook	Negotiable. Contact: Keith Davies	The PA Hire Company 7/9 Market Rd London N7 (01) 807 0087/8	5kW club installations & lights	All Yamaha gear (the only company in Europe to use all Yamaha PA), various mikes (Saves available: tape recorders, HFI, effects, instrument hire to order).	Yes ("Tour service available")	Sony Rollins, Sore Throat, John Martyn, Harry Chapin, Dean Friedman (mainly specialist in MOR clients)	Rehearsal plus monitors £15 up, £100 for 1kW up. Contact: Ralph Harrison, Doug Bewidge
Cutack's Music 33 Brunswick Gate Leicester (0533) 548517	Up to 2kW	Altec flared bins, Martins & JBL drivers, and HF radiators, American amps (JBL amps for US), Soundcraft mixers.	Yes	Split Decision, The Rhinestones, Toward Road	Negotiable Contact: Steve Cutack	Panther Sound Hire 5/8 Avonmore Trading Estate W. Kensington (01) 603 4438	1.2kW to 10kW (No lighting available)	Zoot Horn, Martin, ATC bins, Gauss HF horns, Electro-Voice tops, BGW amps, Zoot Horn & Soundcraft desks, Sennheiser, AKG & Shure mikes.	No	Squeezie, John Cooper Clark, The Photos	Negotiable Contact: Paul Lile
Decosound 11 Marshfield Rd London SE1 (01) 407 6781	Usually 10-30kW but unlimited, (50kW light)	Own design "tuba-cabs", JBL driver horns and HF radiators, American amps (JBL amps for US), Soundcraft mixers.	Yes	Wings, Abba, Earth, Wind and Fire, Rod Stewart	Negotiable. Contact: Bill Kestey	PASE Armsby Ridge Rd Leeds 12 (0532) 632402	10kW	Martin bins, JBL horns, and tweeters, American and HH amps, Midas 48 way desk, Midas 24 into 8 monitor mix.	Yes	Crusaders, Pokco, The Painter Sales, Renaissance	10kW-£200/day, plus mechanics. Contact: Derek Smith. (Tours negotiable)
Entec Shepperton Studios Studio Rd Shepperton (0928) 66777	45kW to unlimited lighting 400kW up.	Martin, Midas, Crown amps, Midas desks	Yes	Loa Reed, John McLaughlin, Leonard Cohen, Frankie Miller, Reading Festival	Negotiable. Contact: John Denby.	Peak Sound and Lighting 12 Buxton Rd Hazel Grove Stockport, Manchester (061) 456 8100	400W-75W plus 24kW lights.	Own bins, Gauss, ATC, drivers, Altec horns, RCF, speakers, RSD, Custom Sound, amps, own mixers (plus breakdown repair service)	Yes	Police, Joy Division, Sult, Little Fingers, Slayers, Gang of Four, Delta Two, The Pop Group	Negotiable. 1.8kW crew - £80 (12kW lighting £75 in NW England). Contact: Harry DeMack.
Eve Hire 2 Moorpark Rd Maidstone, Kent (0822) 673355	40kW No lights.	JBL, Soundcraft 24/8 desks	Yes (plus all insurance in order - incl. abroad)	Jeff Beck, Weather Report, John Williams	Negotiable Contact: Eric Snowball						

Who Are They?	What Power?	Equipment Comprises:	Crew/Transport	Clients	Costs/Contact	Who Are They?	What Power?	Equipment Comprises:	Crew/Transport	Clients	Costs/Contact
Plasdriver Equipment 11 Harrison Goss Edinburgh 11 (031) 337 1071	4kW plus 10kW light	JBL bins and horns, Gauss horns, ATC mds, Coak tops, Bose speakers and power amps, RSD power amps, MM mixers, Shure, AKG, Beyer mics, HH, Marshall 5 Custom Sound combos	Yes*	Scotch TV, Chick, The Revillos, Wingle Singers, Local bands (they are currently looking for some Scottish acts)	Contact: Dave, Dougie or Pete. Prices negotiable. (*Insurance can be arranged - and Dave thinks they "probably have the best rig in Scotland")	Feldon Audio 126 Gr Portland St London W1 (01) 560 4314		See "Instrument Hire"			
Rent A Rig Tel: 01-485 0693	5kW & backline	JBL bins, Crown, RSD and Phase Linear amps, Soundcraft desks, Shure, AKG mics, Fender, Marshall, HH & Hiward. New additions include Quad amps & Yamaha amps. & desks (repair service - no "outside" repairs done).	Yes	Whitewind, Specials, The Bats, Red Beers & Rice, Paul Jones Blues Band, Rico, Genger, Bakers Energy	Negotiable	HMB PA Hire & Sales 100 Crescent Works Necoll Rd London NW10 9AX (01) 961 3285 Tele: 923393 (LaserG)	3.2kW	ProAudio, ATC monitors, JBL, Amicon, Amek M1000 mixer, ProAudio mixer, crossover & graphics, RME 1230A Spectrum analyser, DBX compressor limiter, various effects, Sanses & Mahamichi tape decks (man suppliers & agents for JBL & Amicon). Various mics	Yes (four package)	UK, Genesis, Brand X, Peter Gabriel, Rasmus, Miki Most (Maver using new designed rig for Genesis), Roger Chapman (Also the PA for Harlow civic gigs Live Tension, Real Thing, Darts)	lan Jones' Prices negotiable. "lan aims to provide the best equipment for top gigs - so hence he says 'we're not the cheapest'"
Rig Hire 20a Russell Parade Golders Green NW11 (01) 458 5807	3kW-20kW plus lights and mics	Dyn bins, ATC drivers, CTS, JBL, HF components, HH mics, Shure, AKG and Sennheiser mics.	Yes	Shy, Wilko Johnson & The Solid Senders, Gary Nelson	Negotiable Contact:	Keyboard Hire Ltd 176 Barnesbury Rd London N1 (01) 607 8797		See under "Instrument Hire"			
RSD, Home Farm Marshall, Eton Bury, Dunstable, Beds (0525) 221331	4-20kW	RSD bins, Gauss drivers, Electro-Voice and cabs, JBL horns and Tweeters, RSD amps and mixers, Shure, AKG and Sennheiser mics.	Yes*	Pretenders, Secret Affair, Showaddywaddy.	Negotiable. Contact: Dave South/Tony. (Example: 4kW and crew = £150 plus expenses.)	Sigma Sound Faraday Rd Lenton, Notts (0602) 783305	1-40kW	JBL, ATC, Amek M1000 desk, Shure, AKG, Beyer mics, also a Turbo System (which can be "broken") for smaller venues!	Yes	Peter Gabriel, Steve Nigage, Glenworthy, Kenwood, Understones, Duns	Negotiable Contact: John Penn (HMBH were at a recent Steve Nigage gig) and the Sigma Sound PA was outstanding!
RMS Equipment Hire The Powerhouse 300-320 Acton Lane London W4 (01) 995 4345	100W up to 12.5kW	100W WEM system, Electro-Voice system, RSD & Soundcraft mixers, JBL, ATC, RSD amps, E.V. Beyer, Shure, AKG mics. Canon-Vega speakers on the new RMS system (instrument hire available).	Yes	Joe Jackson, Cobham, McLaughlin, Pato de Luca, Police.	Contact: Frank Miller £35 for the 100W system. Main rig(s) negotiable.	Eel Pie Sound Ltd Shepperton Studio Hro PO Box 10 Squires Bridge Road Shepperton TW17 (09328) 63357	From 600W-3kW (plus backline & lights)	Concert System comprises: Mann bins (Gibson), RCF Gauss horns, JBL, Beyer, Amicon, BGW, Madsen four-way crossovers/mixers, various mics, *Recording Studio facilities & video facilities available	Yes (four package available)	Who, Kniks, Roger Chapman, Bread, Selector, Specials, Mary O'Hara, Strawbs	Prices Negotiable Contact: Ray Bond
Sage Shows Marshall House 116-126 North End Rd London W14 (01) 381 3547	Up to 10kW + 150kW lights	Soundcraft or Medas desks, Gauss and JBL drivers, Amicon amps.	Yes (US*)	Dr Feelgood, E.W. Brooks, Barbara Dickson, Rory Gallagher.	Package for 1 week + extras (crew, bus, lights), £3600 + expenses (allow £300/week extra for European Tourist). Contact: Keith Ferguson.	Kelsey Acoustics 26 Powis Terrace London W11 (01) 727 1045	3kW* (*for long term lease 6mths 1 year)	3kW - full range bins (E.V. & JBL), E.V. AKG & Shure mics, custom built amps, Kelsey desks, MXR graphics, Roland Echo.	No	Starline Ltd, Union, Kwest, Johnson, The Mekons, Rilo.	Contact: Richard Vickers. Prices on application
TASCO 113/115 Lambeth Rd London SE1 (01) 582 3020	10kW-150kW (Martin and JBL low and mid (+ lights))	10kW-150kW Martin and JBL low and mid (+ lights), bins, Altec bins, Gauss drivers, BGW and Peavey amps, Medas, Mads & Yamaha mixers, Shure, Neumann, AKG & Electro-Voice mics.	Yes	Thin Lizzy, UFO, Rainbow, Blue Oyster Cult, Joan Armatrading, Manhattan Transfer.	Contact: Adrian Setty. Prices negotiable.	Messing Communications 31 Nelson St Yorks Scarborough (0723) 63298	Up to 1kW	Allen & Heath & Canary - own build mixers, Bose power mics, own Bose amps, Bose, Gauss, Bose Fane, Collection drive units, Delta, Adam Hall bins, & some own build, Shure, AKG, Beyer mics, two shops facilities, outside work - PA repair ("understand")	Trans & Contact: Martin Engineers, Tolley Phil Dobson	Client: Sheffield City Hall (concert), Bridlington Spa Complex, (Missing would like to go more into the rock concert PA hire & disco service included). Prices negotiable	
Telecomms 189 London Road North End Purtonmouth, Hants (0706) 60005	1-5kW (backline available)	1kW HH package, Bose speakers, HH amps, Soundcraft mixers, Also Altec bins, Shure & AKG mics (+ repair service - talk to Mark Smith).	Yes	Shy, Bruce Forsyth, Des O'Connor, Joe Jackson.	Negotiable Contact: Mike Devereux.						
Theatre Projects 10/16 Mercer St London WC2 (01) 240 5411	1-5kW	ATC, Gauss, Altec, Bose speakers, Amicon, BGW & HH amps, Soundcraft, own mics, Shure, AKG, Beyer mics (+ usual repair service).	Yes	Camden Jazz Festival, Bracknell Jazz Festival, Gary Burton.	Prices negotiable. Contact: Lee, Mark or Paul.						
Whole Audio Visual 20 Belmont Rd Maidenhead, Berks (0628) 21696	4x 10kW 6-32kW lighting	Martin bins & red bins, Gauss HF & tweeters, HH power amps, Allen & Heath mics.	Yes	Elvis Costello, XTC, Adams, Edd & The Hot-Rods, Yacht, Core, X-Ray Specs, Joe Jackson ("US tour), Madness, Secret Affair, The Members	4kW + 2x (stage) + 32kW lighting = £150/night. Contact: Mick Finch.	Julian SR Ltd 2 Churchill Rd London NW2 (01) 459 7294		All instruments: Yamaha, Gibson, Roland, Fender, Marshall, Moog. Transport. Mostly studio service.		Wings, Supernova, Thin Lizzy, Genesis, Brian Ferry.	Price: On application
Wigwag Acoustics St Anne's House Heywood, Greater Manchester (0706) 68768	Up to 5kW	3kW jbl, ATC, HH & Gauss components, Crown, RSD, HH amps, RSD & AD desks.	Yes	The Planets, The Nolans (superspecialists in "top-market cabaret")	Negotiable. Contact: Mike Spratt			Every sort of percussion instrument. Specialists in tuned percussion and drums.	Transport	Thin Lizzy, Charles Auguour, The Three Degrees, The Supremes	Average £16 for 5 Drum kit per day. Contact: Ched or Duncan
Malcolm Hill Hollingbourne House Hollingbourne, Kent (052780) 5667	150kW	All equipment designed and built by Malcolm Hill & Associates. ATC bins & red bins, JBL, HH, mds & taps, Shure, AKG & Beyer mics.	Yes (four package)	AC/DC, Judy Tzuke, XTC, Gary Newman, Sad Cafe, Robert Palmer, Rod Argent	Negotiable. Contact: Ron Blackmer (HMA, now operate direct in the USA).	Mounce Plazent Hie 69 Judo Rd Shepherds Bush W12 (01) 749 3232		All instruments: Brass & woodwind specialists. Pianos, emp, synths, drums, guitars. Service unit available	Transport	Hawking, Chris Square Studios	Price: On application Contact: Mike or Phil
Mixex Electronics 951 Oakham Rd Newton Heath Manchester M16 (051) 205 6093 (061) 205 6093	2.5kW Package or split (incl. lights)	Leech desk (16:4), Mixex mixer, RCF horns and horns, Leech, RSD amps, Celestron, SM, AKG, Shure, Lindyne, effects rack (own build). Also discostore hire for use at gigs	Yes	Pecadilly Radio, Black Earth, Spook, Light of the World	Contact: Dave at Mixex, or Geoffrey Goddard, Roland Lumby, or David Hey.	Henric Drum Store 112 and 114 Weymouth St London W1 (01) 734 7121		Every sort of percussion, drum kits and cymbals	To Order only	Kate Bush, Judy Tzuke, After the Fee	Approx £15 + VAT for a 5 Drum kit per day. Contact: Doogy.
Mixon Hire Westmoreland Rd London NW9 (01) 204 4234	300W	AKG, Shure & Catec mics, custom built 24-channel mixer, Tuners amps, Thunderbolt speakers	Yes	Cambridge Folk Festival, The End, "Elvis" (Westend show touring now throughout the UK)	£150 for 1 night + expenses! Contact: Frank Manzantoro	Keyboard Hire Ltd 176 Barnesbury Rd London N1 (01) 607 8797		Specialists in early instruments (Hardy Gurdies etc), rare guitars (Martin, Gibson, Fender, Rickenbacker) - mostly collectors items for studio & live work. Effects, backline: Marshall, Ampex, Music Man, ARP, Moog, Yamaha. Also tuning & repair services. KHL have experts in four main areas who can offer advice: Early, Classical, Synth, Guitars/amps	Delivery service	Low Reed, Bloomtown, Rars, Carrel, Van Morrison, Peter Gabriel, Dana.	As per order Contact: reception.
Tractor Music Hire Kenton St (Off Drake St) Reckdale, Lancs (0706) 56287	15kW (Hestral)	Generators, Security Fence, Stage scaffolding, Medas desk, RSD power amps, MXR 31 band graphic, Roland Space Echo, HH bins, JBL & Gauss. Backline available: Marshall, Vox, Fender, Redmine. Also, a small PA is available for club work, disco etc. Modules of 100W can be coupled. This includes Leech amps and custom built cabs.	Yes	Steve Nigage, Buzzcocks, Steel Pulse, Supercharge, Joy Division, Northern RAR Festival (venue facilities for Deeply Vale Folk Festival, Leigh Festival)	Negotiable. Contact: Chris.	Feldon Audio Ltd 126 Gr Portland St London W1 (01) 560 4314		Evening harmoniser, Evening keyboard, Omnipressors, flanges, Monsternat, vocal stressor, A/D, Dobbys, Scamos, Marshall, EMS Vocoder, graphic EQs, A/D spectrum analyser, Uta graphics & timers, Crown, Quad mixer, JBL, EMT Goldfor echo unit	Delivery available.	Used to various bands & studios either direct or via their PA companies	Variable as per order. Contact: Bernadette.
Music Labs 72/74 Everholt St London NW1 (01) 369 5392		Revox, Quad, Bose, Teac, Yamaha, Allen & Heath mixers, Bose, JBL, Neumann, AKG, Beyer. Various effects & EQs.	No	Rolling Stones, The Who, The Kinks, OMI Richard, Paul McCartney (Music Lens specialist in gear hire for gigs and recording)	Contact: P. Lerner. Prices negotiable (5 day or hire) + "Price List on application"						
Complex Sounds 33 Devon Rd St. Dunstons Dartford, Kent (0332) 663693	Up to 1.2kW (6 backline, lights by on.)	Gauss, JBL, Electro-Voice, Altec. Own desks, Amicon amps, AKG, Shure & E.V. mics	Yes (four package)	Chiff Richard & Shadows (all tours), All Tena Tenser, Gladys Knight & Pips, Four Tops.	Negotiable 4kW £500-£800/week (depending on extras required). Contact: Brian Hatt or Colin Northfield.	Cotec PA 34/51 Highgate Rd London NW5 (01) 485 5805	200kW	Multiples on Gene rigs (Modular)	Yes	Sublim, Alan Price, John McLaughlin	Price: On application Contact: Keith Davies.
Court Acoustics 35/39 Britania Row London N1 (01) 359 0956	50-50kW	Spectrum Analyser, Graphic analyser, Power amps, crossovers, Bass bins & mid bins ("take-away bases for all Court equipment)	No	Hot Chocolate, Rocky Music (gear hired from Court via main PA companies like Britania Row & Europal)	Negotiable. Contact: Mick Jones or Stephen Court.	Britania Row 35 Britania Row London N1 (01) 359 8444	200kW	Gene & Turners, rigs, strong spots, Gladders, Superroopers, set design	Yes	Pink Floyd, Graham Parker, Andy Williams, Lindisfarne.	Price: On application Contact: Graham Fleming
Announcement PA Hire 14 Swan St Torquay, Devon (080428) 278	4kW	JBL 4530/20, JBL mds, Vexbox horns, Phase linear/OX amps, Kelsey 204/2 mixer, ATC/EV lightback to 1.5kW, AKG, Shure mics	Yes	Bruce Woolley, Police The Tams, Midnight Express, UK Subs, Love Star, Sparrows, Shear Elegance, Black State, Prishas	Prices negotiable From: £50 + fuel.	Eel Pie Sound Laser Lights* ("in conjunction with Holco Ltd) PO Box 10 Shepperton Studio Cu Squires Bridge Rd Shepperton TW17 Tel: (09328) 63357		Laser projector	Yes	Who, various advertising clients, Arts Festivals (recently the Barnum's Festival), High Tension, Mary O'Hara, Dave Cousins.	Price: On application. Contact: Ray Bond

Instrument Hire

Julian SR Ltd 2 Churchill Rd London NW2 (01) 459 7294	All instruments: Yamaha, Gibson, Roland, Fender, Marshall, Moog. Transport. Mostly studio service.	Wings, Supernova, Thin Lizzy, Genesis, Brian Ferry.	Price: On application
Mounce Plazent Hie 69 Judo Rd Shepherds Bush W12 (01) 749 3232	Every sort of percussion instrument. Specialists in tuned percussion and drums.	Thin Lizzy, Charles Auguour, The Three Degrees, The Supremes	Average £16 for 5 Drum kit per day. Contact: Ched or Duncan
Henric Drum Store 112 and 114 Weymouth St London W1 (01) 734 7121	Every sort of percussion, drum kits and cymbals	Kate Bush, Judy Tzuke, After the Fee	Approx £15 + VAT for a 5 Drum kit per day. Contact: Doogy.
Keyboard Hire Ltd 176 Barnesbury Rd London N1 (01) 607 8797	Specialists in early instruments (Hardy Gurdies etc), rare guitars (Martin, Gibson, Fender, Rickenbacker) - mostly collectors items for studio & live work. Effects, backline: Marshall, Ampex, Music Man, ARP, Moog, Yamaha. Also tuning & repair services. KHL have experts in four main areas who can offer advice: Early, Classical, Synth, Guitars/amps	Low Reed, Bloomtown, Rars, Carrel, Van Morrison, Peter Gabriel, Dana.	As per order Contact: reception.
Feldon Audio Ltd 126 Gr Portland St London W1 (01) 560 4314	Evening harmoniser, Evening keyboard, Omnipressors, flanges, Monsternat, vocal stressor, A/D, Dobbys, Scamos, Marshall, EMS Vocoder, graphic EQs, A/D spectrum analyser, Uta graphics & timers, Crown, Quad mixer, JBL, EMT Goldfor echo unit	Used to various bands & studios either direct or via their PA companies	Variable as per order. Contact: Bernadette.

Lighting Hire

Cotec PA 34/51 Highgate Rd London NW5 (01) 485 5805	200kW	Multiples on Gene rigs (Modular)	Yes	Sublim, Alan Price, John McLaughlin	Price: On application Contact: Keith Davies.
Britania Row 35 Britania Row London N1 (01) 359 8444	200kW	Gene & Turners, rigs, strong spots, Gladders, Superroopers, set design	Yes	Pink Floyd, Graham Parker, Andy Williams, Lindisfarne.	Price: On application Contact: Graham Fleming
Eel Pie Sound Laser Lights* ("in conjunction with Holco Ltd) PO Box 10 Shepperton Studio Cu Squires Bridge Rd Shepperton TW17 Tel: (09328) 63357		Laser projector	Yes	Who, various advertising clients, Arts Festivals (recently the Barnum's Festival), High Tension, Mary O'Hara, Dave Cousins.	Price: On application. Contact: Ray Bond

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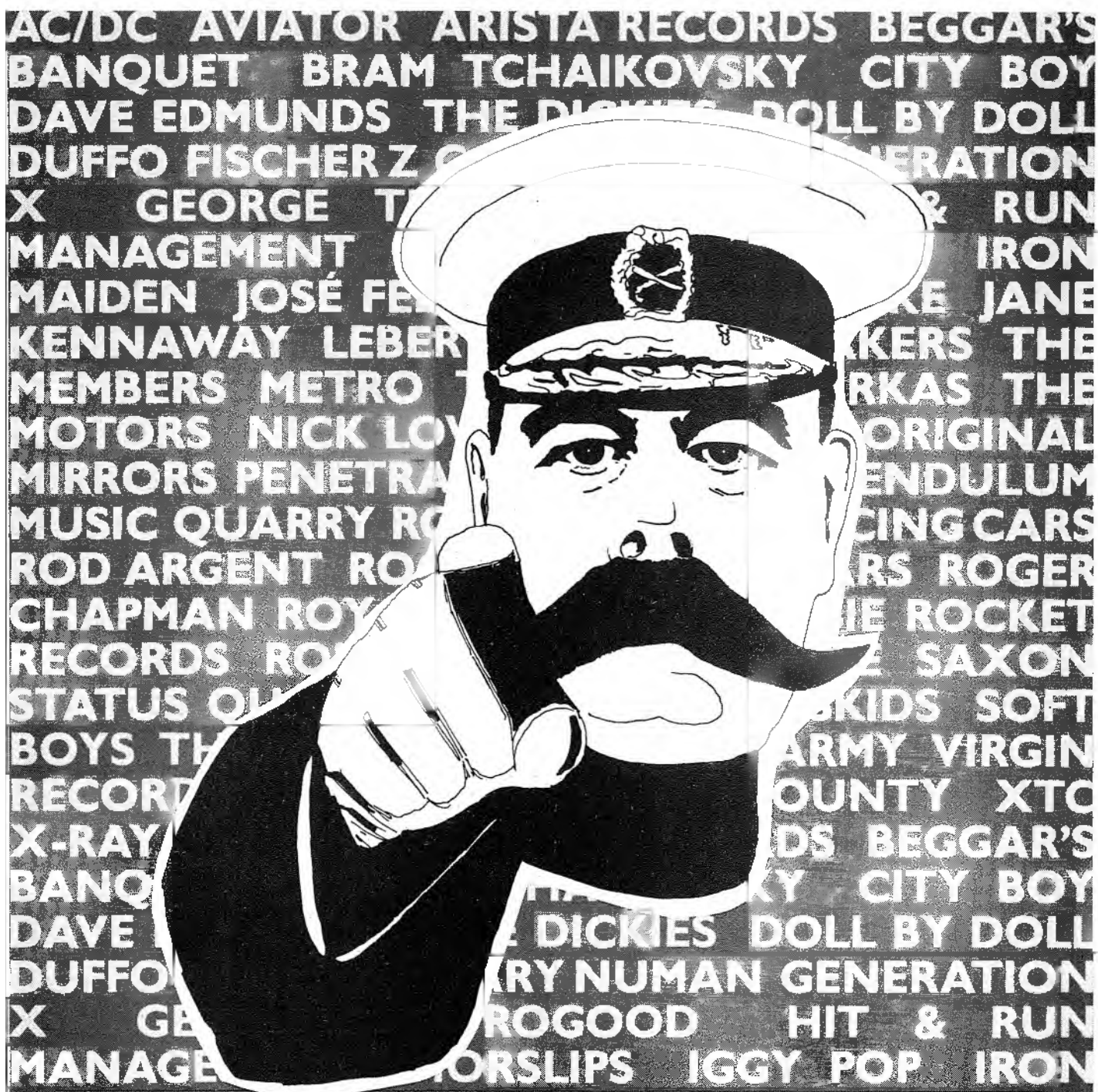
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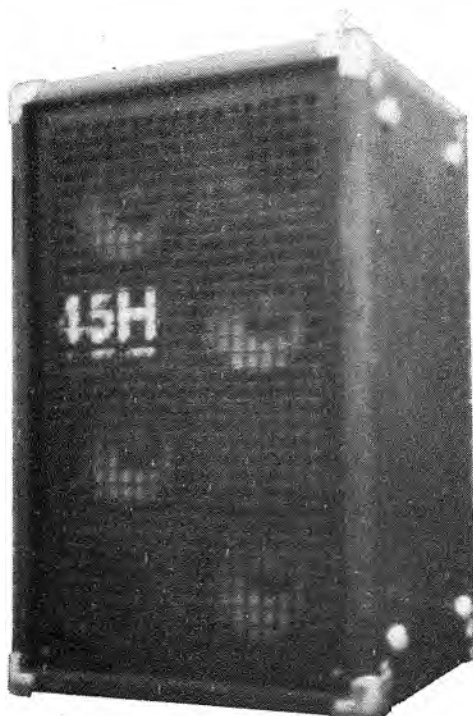
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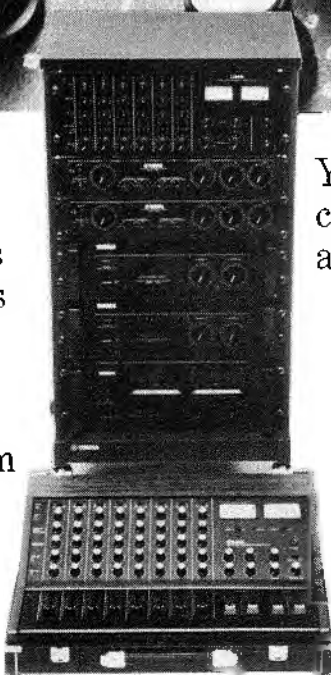
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PAUL McCARTNEY & WINGS

Venue: *London Rainbow Theatre*
P.A. Company: *TFA-Electrosound, London*

This concert was a prime example of the fact that excessive sound levels are not an essential part of a rock concert performance. OK, so Wings are not a particularly loud band, but the decibel reading topped 100dB(A) for the duration of the concert and there was certainly nothing lacking in excitement or effect as a result. The sound quality was very good indeed, with every note of every instrument and every syllable of every word clearly discernable from the back of the stalls or from the back of the circle. From the amount of equipment on stage, I deduced that the reason for this comparatively low SPL could not possibly be lack of power from the sound system, and upon making enquiries, I learned that Paul McCartney himself had issued instructions that excessive volume levels were not to be used. Personally, I like loud music, and maybe another decibel or two here and there would not have gone amiss, but the whole Wings concert was far more comfortable to listen to than is all too often the case, when the PA is driven to the limits of its capability to produce levels in excess of 118dB(A) of heavily compressed, distorted sound.

Instead of the usual stack of bins and horns of all shapes and sizes, the Electrosound PA rig is made up from just two different loudspeaker cabinets that are of identical size and shape. The bass cabinet is a 2 x 18 folded horn bin built

into a symmetrical cabinet approximately 106cm wide by 53cm high by 110cm deep. These are used up to 250Hz. The other type of cabinet handles everything from 250Hz up and consists of two 12" tube loaded drivers for lower lid (250Hz - 1.2kHz) a compression driver and radical horn for the upper mids and highs (1.2kHz - 5kHz) and a pair of bullets for the very top end of the spectrum. It is a most ingenious and compact design and is exactly the same size as the bass cabinet. The bass drivers are JBL K151's, the cone midrange drivers are JBL K120's, the horn is a JBL 2355 driven by a 2440 compression unit, and the bullets — not surprisingly, are JBL 2402's. Crossover is four way active and is a specially designed unit which introduced phase shift to compensate for the lateral displacement of the various drive units in the loudspeaker stack. As set up for Wings at the Rainbow, there was a single stack i.e. one bass cab and one top cab, positioned at each side of the proscenium to cover the front rows, while outside these were two double stacks per side to cover the stalls. Flown overhead were four more single stacks per side to ensure adequate coverage of the circle seats. Altogether there were 18 bass cabinets and 18 top cabinets — or 'turbodrivers' as they seem to be called in the trade, feeding the auditorium. These were powered by no less than 18 Amcron DC300A's for the bass and lower mids, while the horns and bullets were fed from nine specially modified Quad 405 hi fi amplifiers, giving a total amplifier power in the order of 13/14Kw. The general

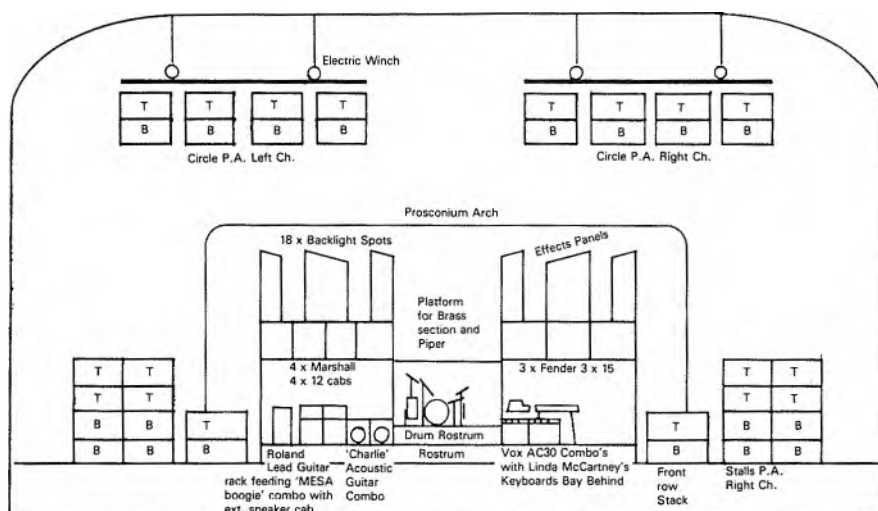
arrangement of the PA is shown in the sketch, and as you will no doubt have already deduced, the boxes marked 'B' are the bass cabinets, while those marked 'T' are the top or turbo cabinets.

The main PA desk was a large Soundcraft Series 3, 32-channel, eight-group stereo desk with all the usual facilities and eight effects sends. To these were connected a Roland Space Echo 201, an Eventide H910 Harmonizer, a Bell Flanger, an Eventide 1745DDL, an Eventide Instant Phaser and a Revox B77 tape machine used for short duration echoes and ADT. The output from most of these effects units were fed back into the auxilliary groups on the desk via DBX 160 noise reduction units used mainly as limiters. In addition to these, a Rebis RA200 series rack system, accommodating 12 parametric equalizers and four noise gates were used as inserts into various mixer channels as extensions to the EQ facilities already provided on the desk. The four noise gates were used to clarify the mikes on the drum kit, and some of the parametrics were also used on the percussion. Finally, a DBX 162 unit was used as a full-range limiter prior to feeding the stereo output signal to the crossover unit for onward transmission down the multiway to the power amp racks located behind the main speaker stacks on stage. Lots of nice goodies here. Room equalization was provided by a Klark-Teknik DM17 graphic and Court Acoustics real time spectrum analyser.

The foldback system was almost as sophisticated as the main PA and some idea of its complexity can be had from the photograph showing the foldback control position on stage left. In fact, there were two separate systems, one specifically for Linda McCartney's keyboards and a much larger system for the rest of the band. To consider the keyboards system first, the output from all the keyboard instruments — including a concert grand piano fitted with the usual Helpinstill piano pickup, were split three ways, to feed the main PA desk, the main monitor desk and the separate Yamaha 12/2 keyboards mixer, from which a pair of Yamaha 1 x 15 plus horn loudspeakers fed the keyboards bay via an Crown DC300A power amp. The main monitor mix comprised of two Soundcraft desks linked together to provide a total capability of 32-channels into eight groups, which fed an extensive system of monitor loudspeakers via a bank of Klark Teknik DN27 graphics and DBX 160 limiters and yet more Crown DC300A's. The side fill monitors were built up using the same bass and top cabinets as used for the auditorium system with one bass and two top sections being used as flown stacks at each side of the stage immediately behind the proscenium arch, fed by a Soundcraft EX45 crossover and Crowns. A total of 10 floor monitors were used, each comprising two JBL K120

12" units, a JBL 2440 compression drive unit feeding a cut-down version of the Vitavox four-cell horn, and a pair of JBL 2402 bullets, all fed by an internal passive crossover. A further loudspeaker system was used to provide monitoring for the drummer, and this consisted of four more cabinets, each fitted with 2 x JBL K140 15" bass units, 2 x JBL K120 12" units for low-mid, and JBL 2440 compression driver with JBL 2350 horn for upper mids and the obligatory pair of JBL 2402 bullets for the highs, fed from a three-way active crossover, with passive filtering to the bullets. Add to all this three Roland RE-201 Space Echo machines so that selected monitor channels can be fed with echo as well and you will begin to appreciate the size and complexity of the monitoring system.

An assortment of microphones were used, but these generally fall into identifiable groups rather than haphazard selection. All the vocal mikes were Shure SM57's with the exception of Linda McCartney's, who seems to prefer the sound of a Beyer M88. Although all the backline amplifiers were DI'd, these were also miked using more SM57's. Electro-Voice RE20 dynamic mikes were used for bass drum and tom toms, with an SM57 on the snare, an AKG C451/CK5 capacitor mike on the hi-hat and a pair of Electro-Voice DS35's underneath the cymbals. The brass section on the upper platform were miked using Sennheiser 421's on sax and trombone, a Beyer M69 on flute and a Shure 548 Unidyne 4 on trumpet. It rather looks to me as if Electro-Voice were running out of mikes when it came to the brass section, as in my opinion, there is nothing offered by any of this assortment of mikes that would not be available from Shure SM57's. The drums are a different situation as all the mikes used here have obviously been carefully selected. For example, the EV RE20 is a superb, and very expensive, studio dynamic with a particularly good low frequency response and total freedom from coloration and proximity effects. As already mentioned, the grand piano was fitted with a Helpinstill piano pickup and this, along with all the other keyboard instruments, was directly injected into the mixers. Every microphone and every direct injection was fed separately to the various desks and no sub-mixing was used on stage. There was one particular area, which in consideration of the sophistication of the rest of the rig, struck me as being a little odd. This was that there was no active or passive signal splitting to route all these microphone and direct injection circuits to their respective mixer channels. Instead, mixer inputs were simply paralleled up whenever a mike or direct injection source was feeding more than one desk! Although in theory, such a crude arrangement should result in a considerable deterioration in signal-to-



"Wings" equipment set-up at the Rainbow Theatre, London.

noise ratio due to the higher gains necessary on all the desks to compensate for the loading such an arrangement must introduce, in practice, there did not seem to be an excessive noise level from the system during the gig. I suppose that as long as no one tries to unplug any of the feeds during the show, and the desks are not too prone to earth loop problems, OK, but it is not a practice I would recommend, and it is interesting to compare this with the sophisticated three-way line level active stage box/splitter as used by Righire for the Sky tour as described in last month's "Gig Review".

Equally interesting was the back line amplification. Lawrence Juber's lead guitar system comprised a Roland rack system with a Mesa Boogie combo and a Mesa Boogie extension loudspeaker cabinet. Inside the rack was a guitar pre-amp unit, a synthesizer unit, a vocoder, a Dimension 'D' special flanger unit and a 120 watt power amplifier — all Roland and very nice too. It seemed as if the guitar lead was split between the Mesa Boogie combo and the Roland rack system, and that the Roland power amplifier section was feeding the Mesa Boogie extension speaker cabinet. The second Mesa Boogie combo and loudspeaker was a more simple affair, and consisted simply of one small combo amplifier of a type that I have not seen before. This was a "Charlie" acoustic guitar amplifier, made in France. It was of fairly conventional combo design, but fitted with what looked like a 15" speaker and two piezos. The cabinets are of polished wood, and besides being very nicely made, it produced an amazingly clean sound. Again, the second "Charlie" shown is a spare. In fact, between them, and using a range of guitars which included a Gibson SG, an SG 12 string/6-string double neck, an early Les Paul and a most elaborate Ovation electric acoustic, some very nice sounds indeed were to be heard coming off the stage. It looked as though Paul McCartney's left-handed Yamaha special bass was being fed

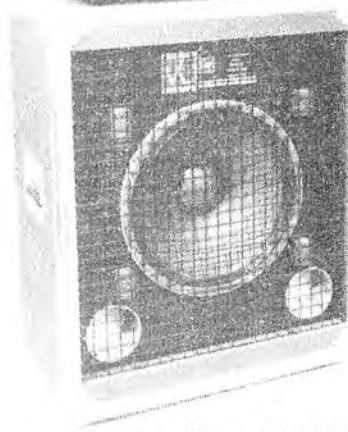
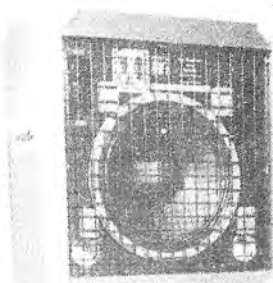
through the Vox AC30s. Unlikely though this may seem, there was no other bass amplifier in sight. The four Marshall 4 x 12, and three Fender 2 x 14 cabinets shown mounted up overhead on the scaffolding were not in use at the Rainbow, but were incorporated into the set design to provide reinforcement for the two guitars and bass at larger venues — they were in use at the Wembley concerts for example.

As for the concert itself, there were no hassles at all. Paul McCartney immediately established rapport with the packed audience and the production went as smooth as clockwork, with lighting and sound totally co-ordinated and the musicians really together on stage. The sound quality was very good indeed, and sound pressure levels varied from about 82dB(A) during "Yesterday" to a fraction over 100dB(A) for such numbers as "Band on the Run". The mids and trebles had a really crisp hi fi characteristic and the lows were really full and clean, with no audible distortion at all, and despite the amazingly complex monitoring system in use on stage, only once did I detect any trace of feedback, but I doubt if most of the audience even heard that, as it was killed long before it developed into a howl.

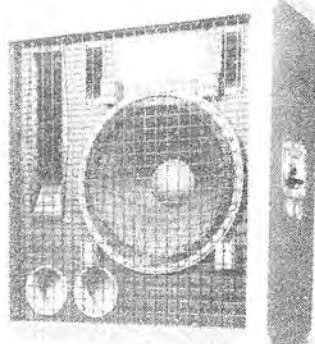
Apart from the hardware, both sound engineers — Steve Cox on main PA and Jim Douglas on monitors are Electro-Voice staff, as in Anne Pocock who not only designed the lighting system, but operated the desk as well. While bestowing the accolades, I must just thank Bill Kelsey — also of Electro-Voice, and who seemed to be in general command during the rigging, for his time and co-operation in showing me every last detail of the system and also to lead guitarist Lawrence Juber for a 'guided tour' of the guitars and backline amplification. Due to the complexity of the Wings set-up, we have only been able to cover this one gig this month, but I think you will agree that it is particularly interesting and worth covering in detail.

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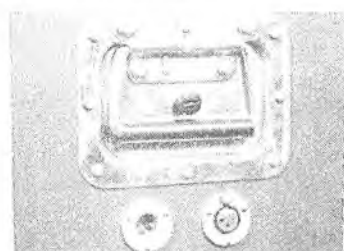
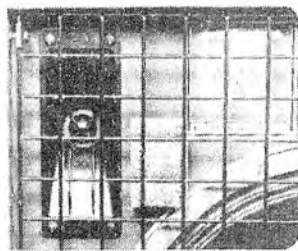
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ii. The systems would also have to effortlessly deliver high power levels with minimum distortion.

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iii. To protect the speaker drive units mechanically by fitting an impregnable black epoxy-coated steel grill in front of the baffle board.
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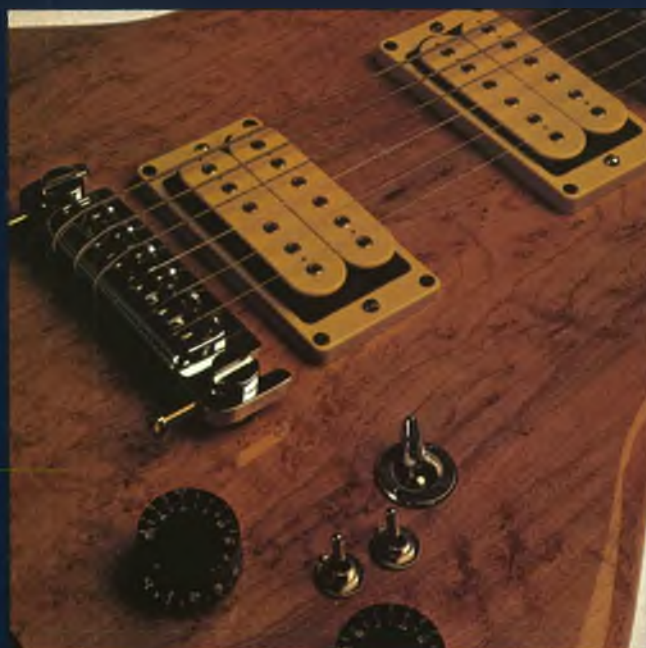
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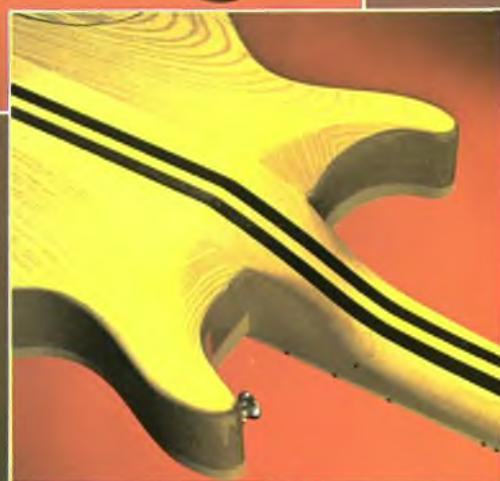
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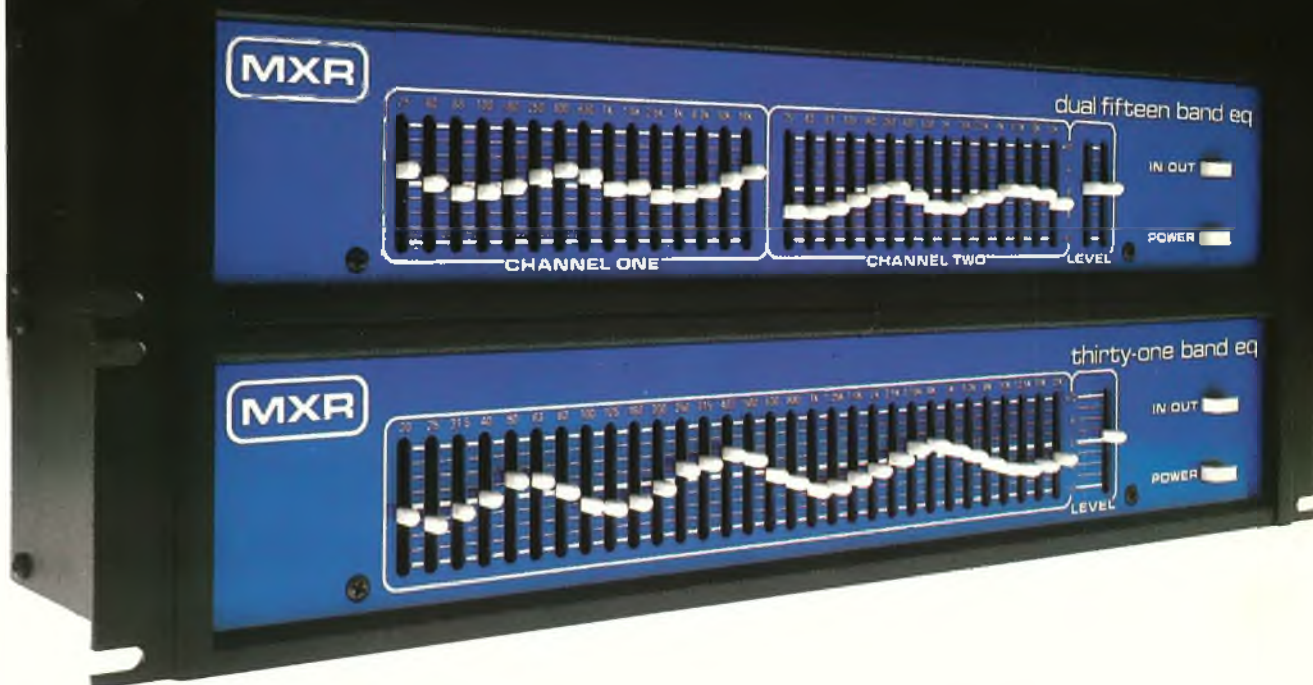
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Robert Palmer

The Man Behind the Face



*David Lawrenson talks to
Britain's Blue-eyed Soul Star*

Girl: "I think he's ever so nice."

Boy: "A bit too good looking for my liking."

Not the kind of banter you would expect from a rock audience, more like the comments for the Sacha Distel or Jack Jones set. But then Robert Palmer has the kind of looks and style to appeal to a large section of ladies — he also possesses one of the best voices in rock music.

Rockin' Robert is very much a cult figure. A Briton who served his apprenticeship in such stalwart bands as the Alan Bown Set, Dada and Vinegar Joe, he now resides in the Bahamas and produces solo albums which have earned him considerable success in the US and on the Continent.

The albums have always been interesting, mixing just about every form of black music from soul and R&B to reggae, and utilizing a wide range of top musicians including the Meters, Little Feat and a whole host of New York session men. But cutting through everything is that voice — a bluesy raunchy sound reminiscent of Paul Rogers at his best. He can croon love songs or belt out rockers with the same easy style.

Fans of the Palmer style had to wait until the middle of 1978 for the singer's first solo appearance in this country, and his performance really emphasised just what a superb voice he has, and just how few singers of real calibre there are in rock music. Sure there are a whole host of screamers and shouters and flamboyant front men — but how many can actually sing?

Robert's last visit to these shores wasn't an overwhelming success for although the two London gigs were sold out, he failed to achieve the necessary audience response. This he puts down to his lack of UK appearances and minimal chart success. Being a cult figure does have its problems.

"Yeah, people have more idea of the rumour than actually seeing it for themselves and being used to it. I'm sure that's it. I should play here more often, but I don't like to be where I'm not wanted. I like to play in places where there's a real demand for what I'm doing. I mean I'll do a show in Germany because I'm top five there, and the same in Holland whereas England it is a different thing — you come and play because you feel you ought to. I'll just have to be more patient until there's a bigger audience demand for me. But it's funny that the place I'm from is the place where I'm least popular."

He concedes that the answer is to do more British gigs, but then again that is rather dependant on how popular he is — and hence a vicious circle. He is loathe to virtually start at the bottom again and work for mass acceptance, having already done so in America. There they know his songs and his style and this makes working with the audience easier, but not so in England.

"It's a different thing when you're used to creating a certain sort of audience reaction and you can't achieve it. You know that they come expecting a certain thing and it's easy for me to fulfill that for the audience. But I come expecting a certain thing from them and when I can't achieve it, it's so frustrating."

Another facet of his music which works against large scale commercial success is the diversity of his material. Every one of his albums has contained songs taken from a wide cross section of modern music. Does this diversity work against his getting over to a wider audience?

"Yes, but on the other hand all I have to do is exercise patience and it will become a boon for me. If I had to go around and do one thing all the time, then I may as well drive a bus. The reason I enjoy music so much is that there are no rulings, you can use your own invention."

"Whenever it looks like I'm being manoeuvred either by myself or anybody into any sort of formula I want to escape it. It does hold me up, but in the meantime the tunes that I'm most famous for are so different now that I can put on a show where there will be lots of variety. I'll see people who maybe know one of the tunes and I'll see others in the audience saying, 'Oh, it's him who does that.' And so it's coming together for me. Basically, I'll be able to get away with doing a lot of different songs."

It would be very easy for Robert Palmer to rely purely on his image and good looks, after all, it's proved very successful with countless singers who don't possess half his talent. And people like producers would obviously like to push him in this direction, but he has resisted strongly insisting that the music must come first.

"I used to have attitudes about the Rod Stewart, Mick Jagger I didn't really think of them as musicians really. Then I figured out, well everyone treads the same path one way or another. They've got to the point where I'm going to assume that they're comfortable with what they have created for themselves. Whether or not they're a victim of it, is irrelevant — at least they're doing it."

"Now, since I moved to Warner Brothers in America, all of a sudden instead of looking at that kind of act from a distance I was saying, 'Well if that

opportunity occurs to me, what am I going to do about it?' I came up with the same thing."

"I want to see if I can get away with it without narrowing it down. I think the thing that gives me satisfaction and the thing that I can only see as being almost like entertainment, is my enthusiasm for making music. So I'm not going to dilute that or narrow it in order to achieve an abstract thing like success."

Although it may tempt record companies and producers to market him as a pretty face singing smaltzy ballads, to the man himself there is no temptation. The current situation in the British singles charts further reinforces this conviction for him, with New Wave rubbing shoulders with Cliff Richard and disco. As long as the record is good then it doesn't really matter about your track record.

One aspect of his last concerts in Britain which may have surprised his audience was Robert's inclusion of some Gary Numan and Pretenders material in the set. After all it must be difficult to keep up to date with the British music scene in the Bahamas?

"Hey, it's my job, I collect records. If I've got any roots it's records because all I do is buy and listen to records. I have a guy in England who sends me new releases every two weeks, no matter where I am."

This diversification of material has always been his trademark and stems from his first involvement in music. "All the other local groups were playing the Top Ten hits. I couldn't see the point in that because it wasn't as if you were doing anything that made your show different to anyone else's. I used to collect records then so we used to do more or less the range of material that I still do."

"Like I do a reggae version of 'We Can Work It Out' and some R&B stuff, all kinds of things. When we were playing the clubs they used to play all kinds of stuff in the interval like Stax, Tamla Motown, Blue Beat and I used to soak it up. I used to go for things that I thought I could use as a vehicle, that maybe people hadn't heard before. Yet it was going to be a feeling because it was based on a rhythmic thing rather than being a catchy melody. Something where the tunes would work whether or not anybody knew them. And it's still the same more or less."

If those early days helped to shape his musical direction, they also helped to shape his distinctive vocal style. He never modelled himself on any particular singer to begin with, although the influences of all the great soul singers are there. However, the one thing which developed

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Robert Palmer

The Man Behind the Face



the power in his voice was the lack of good PAs in those early days. It was just a question of belting out a song, just to be heard over the rest of the group.

His first professional job came with the Alan Bown Set, and this presented new problems. "They had melodies in their songs, and it took me a hell of a long time to actually hold notes because I'd blown my voice out. It took me a couple of years to get over that thing. I couldn't sustain notes at all and I never liked vibrato so I could never get into faking holding a note by prettying it up. Then once I got that together I started being interested in variety.

"For one reason or another I'd be picking all songs in the same key, so I had the same tone all night. I figured that must be boring, so then I would pick a song and sing it a notch too high, so it got more urgent. Then I would get one and put it in a key too low so that it would have more body to it, things like that. I just started trying to experiment with as many styles as I could because I figured if I'm going to stand up on stage for an hour and a half and sound the same all night, it's going to get boring.

"So I try to find as many different ways of setting a mood, you know singing staccato, hard, loud, soft, all those

different things. I'm still finding out different ways of creating a mood by putting the singing to the rhythm. Like doing those Gary Numan tunes and say singing, 'Can We Still Be Friends' where it's almost like a ballad crooning thing, then doing something like, 'Bad Case Of Loving You' where it's like shouting, shouting and sustaining.

"It's good to still keep trying to find new things, like there are some guys who can sing real sweet and quiet — I still haven't got that together. Marvin Gaye is real good at that and that guy Michael McDonald of the Doobie Brothers, they sing real quiet and sweet, but forceful."

Mike technique and dynamics are something which comes as a result of working with bad systems and not having monitors, according to Robert. He maintains that the sound coming off the back wall of a hall is the best way to judge your pitch and sound. Although the mikes are of higher quality these days, and monitors are commonplace, Robert still likes to rely on what he can hear feel in the hall as a guide to tone and dynamics. As a result he has the monitors as quiet as he can get away with.

To an artist like Palmer, a good sound system is crucial, after all, if you can't hear the vocals at one of his concerts, then you may as well forget it. It is only on his last tour that carrying his own PA has become a viable proposition, and he also now carries his own sound man.

As well as being the focal point for the audience on stage, Robert is very definitely the leader of the band. He arranges all the numbers and tells the members of his five-piece band just how he wants the numbers played. The singer also contributes some rhythm guitar on an old Telecaster.

"I mainly use it like a drum, a rhythm guitar, like a baton. I used to be self

conscious about the fact that I'm not a technically good guitarist but it occurred to me that when you've got say six pieces in a unit, half the battle is playing what's essential, rather than advertising your technique. In a lot of the tunes you need someone playing rhythm and I can do that fine."

Reproducing the sound of his records on stage is an important consideration to Robert, so much so that his last album *Secrets* was recorded specifically with a live show in mind. His previous album, *Double Fun* contained a wide variety of musicians and some intricate arrangements utilising Gene Page's string arrangements. The *Secrets* album was much more down-to-earth and direct.

"What happened was that *Double Fun* broke me out of the cult thing and I had a Top Ten hit with it in America, so I got the opportunity to play bigger venues. I found that as the halls got bigger, any decoration I was carrying was redundant and the more defined and direct I could do the songs, the more they went over in the big halls.

"I ended up going out with a five-piece band who would do all the different songs even though we didn't have any strings. It was the most effective thing I'd done up to that point so what I did was more or less take the road band into the studio and arrange songs with that in mind. I tried to have more emphasis on the songs than on production, and tried to keep the same textures without there being layers of formality like strings or horns or voices.

"Also it was the first time I'd taken the responsibility for producing, mixing and everything. It was a real satisfactory deal and also satisfying because it was the most commercially successful thing I'd done."

As you will have gathered, Robert Palmer is the kind of artist who likes to involve himself in every area of his musical career, and producing is something that he has had to work at. He admits that it took him five albums to be able to understand enough of the craft to go it alone. Mixing was the last thing he learned, and for that he acknowledges a debt to Tom Moulton. The perseverance has paid off, because he can now dispense with producers who insist on putting him into a formula.

As far as the next album is concerned, that is likely to be different again from *Secrets*. "I'm thinking of recording it with just drums and synthesizer, I have got something in mind for this one. In the period between finishing the last album and starting the next one, I try and imagine a record I want to go out and buy that isn't in the stores.

"I'll go and buy as many records as I can, and say 'Yeah, well there's a quality about that record that I like.' It might be the tone of the bass drum or something. And when it gets to the time for making mine, it's like making one I want to hear, but haven't been able to buy yet."

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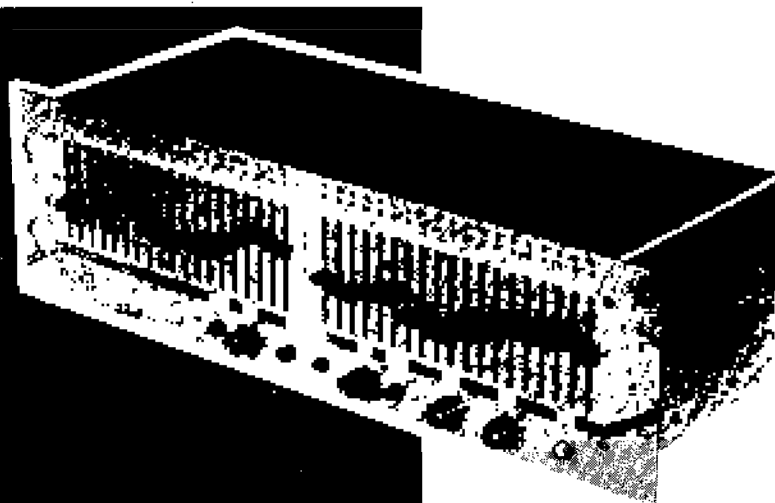
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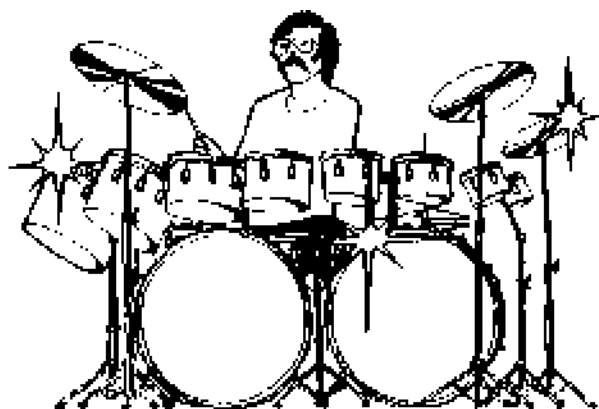


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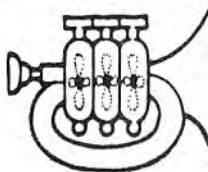
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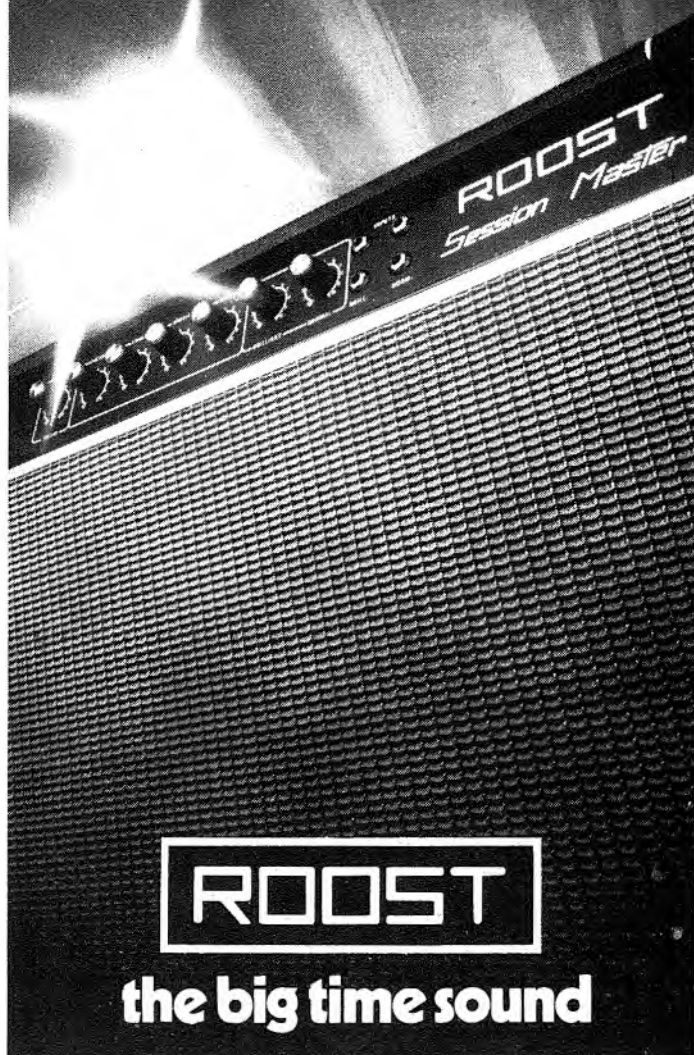
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Drum Forum

It's been 18 months since *International Musician* ran a drum forum. So we figured it was time for another one. The format is as follows: take representatives from five of the major drum companies, two players and a referee, add a little lubrication and some Twiglets and see what happens.

This time around we purloined Ashley Wardell from Slingerland, Glyn Thomas from Pearl, Dave Sibley from Gretsch, Mike Jackson from Premier, and Chris Stevens from Sonor to put the manufacturers' view of the drum market. From the players side we fielded Bob Henrit, a man of many sessions, plus Topper Headon, drummer with the Clash who has 12 major tours notched on his drumsticks.

What problems face drummers? How do the manufacturers deal with these problems? What impact has new technology had on the ancient art of skin pounding? What's happening right now and in the near future?

These are some of the questions discussed and hopefully answered in the following symposium.

IM: In the last two years there's been a real change in music. The changes were there before, but lately it's really come to a head. Now, Topper, does this change in music mean that you're looking for something different in drums?

Topper Headon: No. I think the opposite is true. We're looking back to how drums ought to be. The new music involves a higher energy content, so you have to play harder. So, a kit has to be extra rock steady and solid — I use a Pearl Kit with Premier stands.

Dave Sibley: I think companies, in the last few years, have all improved their hardware to be able to cope with situations where gear is being packed up and chucked around and subjected to hard use.

IM: Nowadays, I've noticed, components seem to be heavier and sturdier. But is it tougher in real terms?

Topper: I don't think so. It just looks rougher and bulkier, and heavier. But that doesn't mean it's any stronger in certain vital areas. Like, the threads are always going. For example, you get these bigger, heavier stands, right? But they've still got the weak little threads at the top and they always go.

Bob Henrit: The cymbal tilter is 3/16" thick. I've spoken to Bob Zildjian about this and the reason for that is because when the guys first started making cymbals the actual drill was that size. Since then they haven't moved on. But Bob Zildjian insists that really it wouldn't make any difference if you had anything up to a half inch hole. What about the guys who've got their cymbals from 10, 20 or 30 years ago. They aren't going to be able to put it onto a half inch boss on the top of their cymbal stand. That's a bit of a problem. Eventually we'll move on,



The forum

but I agree that this is one of the real weak points of a kit.

Topper: I also get a lot of trouble with my tension.

Chris Stevens: We have overcome that. We've devised a method called the Snaplock, a kind of a spring clip.

Topper: That helps a lot, yeah, but it seems silly when you buy a £260 snare drum and you still have to dismantle the whole thing and change all the washers.

Chris: The only disadvantage is that bit can't be tightened with the fingers. The object of the snaplock is to stop the tension rods spinning. Changing heads can become a little time consuming, which isn't helpful in an emergency. It can be overcome, we've got a hand drill with a drum key in it.

Bob: There's always a weak point in a drum kit, there has to be if you're hitting it. In Sonor's case — the tension screw no longer unscrews under impact, so something else perhaps, has, and this is a moot point, to give, and think in this case it's the head.

Glyn Thomas: Tensioning is a problem; it always has been. All of us are players and it's something we've all had ourselves happen. But nowadays, and I think Topper will agree here, there's a lot more rimshot playing which is what's doing it, the accent is being hit, not always now in the centre of the drum, it's always being hit as a rim shot per se, which is subjecting that rim to a hell of a lot more vibration than it ever was before, which is a lot to do with why the tension rods are going.

IM: So that's one example of how modern music has affected drums?

Topper: I bought myself a Black Beauty snare drum and twice we've had to take it in and get the rim straightened because the sound that I like means I have it all tight and I have the nearest one to me

loose so I don't need any artificial dampening and after a tour I have to take it back because the whole of the rim is warped.

IM: Is the trend on stage now to use undamped kits?

Topper: I use damping on all drums, external ones whenever I can. The internal ones, I don't understand why they don't make them so that they stay on the head.

Glyn: It really is a trend now that dampening, especially internal muffling, has gone by the board, for toms anyway.

Topper: The best damping for a kit live is a piece of gaffer tape anyway.

Chris Stevens: Only thing is that it's not so flexible. You put a certain amount of tape on then you've got to take it off again.

Topper: You can set it right at the beginning of the show, and by about the third or fourth number it is pinging because the damper has worked its way down.

IM: Does that happen to everybody's? Is it just the force, the vibration?

Bob: It is not a design concept, because it's been around for probably the last 50 years. It just so happened that modern music dictates that the drum is dampened once the head has been sounded, this is the ideal, where if you hit a cymbal and you stop it, that makes a shorter sound, if you want a shorter sound from the snare drum or tom toms or whatever. So therefore an external damper is a lot better.

Glyn: I think cosmetically it's always been an internal because it just looks so wrong to have an external damper across the top of the drum and that's why they shifted to an internal. But really and truly internally is not the best way to damp a head. It acts completely opposite to what you want.

— I.M discusses the state of the art

IM: Talking about heads. Are heads themselves keeping up with the development of drums and with changes in music?

Chris: Oh yes, you've got the facilities now, you can have pinstripes, CS's, the standard Ambassadors, the range is bigger.

IM: Are they lasting as well?

Chris: I think that's down to the individual drummer really.

Topper: It's hard for me to tell. When I first started I had to stick with just one skin until it broke. Now I change them constantly. I have to change the snare head every gig, and the bass drum. I use a piece of moleskin on the bass.

Bob: In Nicky's case you're talking about £4.50 every time he takes one off and puts another one on. That's just the snare drum.

Topper: You can't risk that going wrong, not when you've 2000 people out front. If it goes two bars into a song what can you do? I just play safe. Occasionally we have left the snare drum skin on, and it hasn't done more than two gigs.

Chris: That's in Topper's league. We're also talking about the majority of guys who buy drums, who just do small gigs. The demands for them aren't so great.

IM: You've got the same responsibility whether it's 20 or 2000 you're playing to.

Chris: What I mean is that the physical demands on Nicky are greater than they are on me playing in a restaurant.

Bob: There's no guarantee on a drum head. You can't say when it's going to break so if you change it every night, you hope it's going to take you through.

IM: Let's move on to another area — the introduction of drum synths. Have they affected the drum market at all?

Mike Jackson: I think drum synths have always got to be an additional purchase to the drum kit. Nobody would contemplate seriously sitting down at a completely synthesized drum kit to do a gig. Synths are an augmentation to the normal kit.

IM: Doesn't the additional cost prevent the drummer from changing his kit? Has it pushed down the sales?

Henrit: No, not really, the synth drums represent extra money to manufacturers and retailers, it's like "go faster" stripes. But, there is one, the Synare, that you could probably use instead of a proper drum kit. The idea was that it could sound like a drum kit if you wanted it too. But it didn't look like a conventional kit. That made it more difficult to sell.

Chris: And no one, other than Bose, has overcome the problem of having to cart around 12-inch speakers to play it through. So there's no advantage transport-wise. The real advantages are different tones and the fact that it allows drummers to play long notes, which has been impossible on standard kits. But they're in a different league.

IM: What about short term plans for

synths and standard drum kits?

Glyn: We at Pearl are developing a semi-acoustic kit. It means you can have direct mikes or direct injection in or out of the studio or PA system and we've got a semi-prototype working already. The reason for the division between acoustic and electric drums so far is that conventional drum manufacturers are really light engineering firms, not electricians so there exists a natural division.

IM: Do you think it makes marketing sense — good sense — in trying to sell them?

Ashley Wardell: Slingerland have never gone into the electronic side. They just don't believe in it, so I can't really comment on this from a manufacturers' point of view.

IM: Is it feasible to offer a drummer the choice between a conventional kit and a semi-acoustic in the shop, or would the customer sneer at the semi-acoustic?

Mike: It's probably got a valid niche in the market. As Chris said, most manufacturers aren't interested in the electronic production side. But I don't really see semi-acoustic kits becoming the norm. It'll always be the ordinary drum kit with electric add-ons. The trends in music are going back to live sounds, as opposed to a studio type of sound, at least with the people we've been working with. Drummers want a lot more tone in their drums — the damping is being removed — to achieve plenty of ring and tone.

Topper: I would never use a semi-acoustic. But I can see its validity and a lot of drummers will probably use it. I would imagine that you can't get the same tone out of a semi-acoustic. The acoustic has something going up inside it and I wouldn't feel at ease. Are they double headed?

Mike: Yes, it would be that principle. They would not have a normal condenser and dynamic microphone, it would be like a pick-up on a guitar, so that it's electrically activated instead rather than physically by the sound of the drum. So it won't be the true sound, it'll be artificial.

Dave Sibley: There've been several manufacturers over the years that have tried different things with drums, like Tama with their Octobans, the Autotune kit, Rototoms, and some of them have been really good ideas. I think one point is worth mentioning here, and it's a very important point. I think in a lot of instances you've got the world's leading drummers, when I say leading drummers I mean more in technical expertise, for instance guys like Cobham using things like Octobans and I think it's got to the stage where you've got 2 levels of drumming. You've got extreme simplicity to extreme technical ability, and I think one thing that the drum manufacturers ought to do is, rather than get involved with doing things like Octobans to sell to the normal guy to go out and do his gig, he hasn't got the time to experiment with them and muck about with them and get

exactly the right sound he wants out of them. I think the thing that really ought to have been done by drum manufacturers is to help really the normal guy, the bread and butter player. The thing that ought to be done is the use of electronics on a tuitional level, because the gap is so wide between guys like Cobham and Gadd and the drummer in the street and it's difficult for these guys to progress in the direction with the aids they have got. What they need in the future is something like a computer to analyse their different playing styles as fast as they play it.

Bob: The only problem with that, Dave, is that Steve Gadd plays the simplest things, better than anyone else with a huge depth of experience and there is no substitute for that. It's like the Japanese Suzuki method for turning out sensational young violin players. These kids are brilliant, but they, dare I say it, lack the soul in relation to their instruments that Steve Gadd has.

IM: But how can drum manufacturers help young drummers to get better?

Dave: Drum makers can go out and help young drummers who've just started, take, for instance, the home organ industry. They try and make organs that are very simple so basically you don't have to be gifted to play their instrument. They offer something to every man in the street so their potential market is more like 100 per cent of the population. What's needed in the drum world is a teaching programme to help everybody and get everybody interested not just to perpetuate the idea of being "hip" if you are a musician.

Chris: The demands on drummers, now, musically and artistically, don't seem to have changed a lot. The essence of playing the drums is the same now as it's always been. It's still necessary to be a time player.

IM: Do the other musicians in the band know how "good" or "bad" their drummer is?

Topper: So long as he keeps the time, the others don't give a shit. But the drummer knows what he's doing, if he's getting the feel right.

IM: Does the working drummer in Britain get much backup from a manufacturer?

Topper: Not outside London. Once you get out of town you're on your own.

IM: Do manufacturers heed input from working drummers?

Chris: Yes. That's the only true commercial attitude to take. We have a drum pedal that was designed by a guy called Danny Kildare. A lot of demands made by players become improvements in our product. The fact that tensioners slacken off when they shouldn't has been noticed and we took steps to rectify it. The fact that kits move around the stage, we try to overcome that. The designers don't sit in a laboratory thinking up ideas, they do come from feedback with the market. That's the essence of turning out a top

Drum Forum

product. It's terribly important to talk to drummers, to the customers. All of us promotions men in this room are drummers, and when we talk to people like Topper, we don't talk to him as promotions men, but as drummers.

Topper: It's when you get a kit on the road that the problems start. The way to improve your kit is not through buying more gear. You use gaffer tape, drum mats, hammer and nails. That's how you do a tour. Because however much the maker improved spurs, they still slip.

Bob: It's fair to say though that Topper's in a better position because he's an endorsee. It's the other guys, the poor sod who's doing his gig on Saturday night who breaks his spurs or whatever, who has a tough time because he might not have £18 to invest in a spare pair of spurs.

Chris: All our Sonor agencies are told to carry a spares box.

IM: But then you have to rely that there's a dealer nearby when you need something.

Ashley: And that they keep it up to stock, which they don't.

Topper: I come from Dover, and I used to shop there. These little stores that sell sheet music, they can't afford to get in a pair of bass drums because they might have them for years. Why can't the companies supply spares to small shops like that on a sale or return basis?

Mike: We at Premier are in a better position to supply spares in small towns. We manufacture in this country, and we deal through over 300 agents. All our dealers should stock spares, so it's a constant source of aggravation when we get people phoning to say they can't get spares — especially when they ring from the middle of London.

IM: Can a manufacturer supply spares on a sale or return basis?

Chris: Economics dictate against the sale or return process.

Mike: No, it isn't feasible. It's beyond the resources of any company to supply all the parts for their kits to every small dealer in the country.

Chris: Let's not put down all the dealers. In most areas of the country there are competent dealers who do keep good stocks of spares to keep drummers out of trouble.

Mike: And you have to bear in mind that in the market place shops don't deal with drums exclusively. They're not stocked. You're talking about little old ladies selling sheet music, and suddenly in walks a guy with a snare drum under his arm asking for some snares and suddenly the little old lady is totally out of her depth. This is what we're all up against — it's a case of educating the dealers. And this is an area where I think more could be done by the makers to help the drummer, indirectly.

IM: Isn't that a reflection of how small the drummer's market in Britain has become? Five years ago there was a trend towards percussion centres, stores dealing with just percussion. It made good sense, but



Glyn Thomas

Mike Jackson

Ashley Wardell

economically it made bad sense.

Bob: There are still a few around, though not very secure financially. A drum store isn't as sound as a general music shop.

Mike: So you've got to educate the ordinary music store proprietor. Premier do. Here's a case in point: a guy has a broken bass pedal. If he walks into a Premier agency with a broken pedal strap and the shop has got a Premier kit on display, then that dealer should take the strap from the display kit, and for that one transaction, service the customer, then pick up the telephone, if that's the only pedal in stock, ring up our spares department and order another one, and then one goes in the post to the dealer.

Bob: He should of course buy two. So, everybody insists that if you are a drum dealer you should have a spares box.

IM: Has the drum market shrunk or grown in terms of units sold over the last five years?

Ashley: I don't think it has grown significantly, no, although there are more drum companies, so the market is "spread" further.

Bob: Although, many companies have fallen by the wayside.

Dave: Although sales figures have gone up each year, I think it gets that much harder year by year to keep increasing sales by units. For the Japanese companies, who produce three kits to cover the whole spectrum of the market, and Premier, who do the same, it's easier to keep increasing turnover than for companies like Gretsch and Slingerland who only do one kit.

IM: So the new music hasn't created a measurable upsurge of drum sales?

Bob: Today isn't like the beat boom days, when most drummers did everything they could to get hold of a decent kit like that really coveted Ludwig kit. These current

new wave bands have battered old, even Autocrat-type, kits — they don't really care that much, or if they do care they're more interested in putting their drumming across as part of the band rather than as individuals.

Chris: There's a certain amount of image to it too. They're inclined to go for old kits because it suits the image.

Topper: Oh nonono...

Bob: HP was the thing in those days.

IM: How many of the kits are bought on HP nowadays? Our own statistics say 60/40.

Mike: It's about 50/50.

Chris: In the upper price bracket a lot of guys buy in part exchange so the difference isn't quite so enormous.

Bob: It's very difficult to get finance on a drum kit. You can easily go out and get finance on a Hammond C3 because it is ostensibly a home organ. With a drum kit it's a lot different.

IM: Do most people who buy a kit for attic use get fed up with it and sell it after three or four years and so stop a new sale?

Bob: I don't think so. Where are all the post-beat boom Premier kits?

Glyn: Well, a drum kit doesn't go to scrap...

IM: How long does an average kit last?

Dave: Most of us would agree. Older players, they just keep hold of their kit. Whenever we do a drum clinic we always get some old boy approach us saying: "I've had this Ajax kit for 50 years."

Bob: Have you ever noticed how they never come up with something like Slingerland Radio Kings? It's always an Autocrat or an Ajax.

Chris: I'd say that a modern drum kit has a lifespan of about 10 years.

Topper: I hope that my kit will last as long as it will stand up, or as long as I can make it. I've had that same kit now for

2½ years. It's done eight tours over here, a couple in Europe, and two in the States. It's my kit, it's like somebody's guitar or something. The only thing that'll go, obviously, on my kit is the skins. I intend to just keep putting new heads on.

Bob: The thing about a kit is that it gets bashed. That's its *raison d'être*, which means it's going to break eventually.

IM: *Is there a flight case industry serving drums properly?*

Chris: Yes.

Bob: The main trouble is that if you commit yourself to an 18" basin or a 20" basin or whatever, you can't really change gear because you've got a few hundred quid invested in flight cases, which means you've got to have that particular size — especially with cymbals and gongs that need a little bit of care. Even the semi-pro is now buying the best possible flight case he can to protect his stuff.

IM: *How important is brand image nowadays at the point of sale, to a potential customer?*

Dave: In a lot of cases brand image is strong. A customer must have a particular kit and damn everything else. But it's still mostly price.

IM: *Is that a minority or a majority of customers?*

Dave: That's very difficult to say.

Topper: I think the customers are becoming more educated. They're not going to buy a kit just because they see someone famous using it. I get lots of kids coming up to me, asking: "What kind of kit should I get?" And I tell them, Pearl, and they say, well, it's not like an *ordinary* Pearl, is it? Like they think Cobham's Tama kit must have two extra layers on the shells. They think it's a special.

Bob: I don't think most manufacturers have time to customise kits for special customers. No maker here would say that they want special customers asking for custom kits.

IM: *Are you saying that brand image no longer sells drums?*

Glyn: I think that every manufacturer spends a lot of money trying to project image of one sort or another, be it personal players or technical detail.

IM: *Do endorsees still sell drums the way they used to?*

Glyn: We don't think so.

Dave: I think there have only been about four endorsees who have sold drums: Ringo Starr, Keith Moon, Buddy Rich, Billy Cobham.

Ashley: Buddy Rich never sold Slingerland drums in this country.

Chris: Endorsing can be good and it can be bad. If A drummer uses B kit, and X drummer uses Y kit, and C drummer uses D kit, then really each kit must be of a certain level of quality for professionals to use them.

Topper: Obviously, if a kid sees his favourite player using Premier or Pearl, then he's going to have that name planted in his head. But: is the name implant important? I had a Premier to trade in and I walked into the shop and and it was the

only one with the chrome finish... I knew what all my favourite drummers used, but I still went for the chrome finish because I thought it'd look terrific under the lights. **Dave:** Bob, do you think that the average guy who walks into a drum shop today, is more clued up than he would've been 10 years ago?

Bob: No, but I think the guys serving are. The guys running the shop know what drums are good and what drums have their drawbacks.

Ashley: I think drummers are more educated. They ask more technical questions nowadays.

Glyn: I agree with that to a certain extent. But at all the clinics we've done, all the demos and the promos, although we're asked a lot of questions which seem very technical, the same guy who asks these technical questions will go into a local shop to buy and still the first thing he considers is the price. He looks for value for his money. Especially today because money is so tight. Premier are in a fortunate position because we can offer a cheap kit, sales of which have risen tremendously over the past couple of years. And this is certainly a reflection on the economy. Kids today simply cannot afford an £800 or £900 kit. But still they want a five drum kit. If they go into a shop and see a cheap five drum kit that looks cosmetically the same, then they'll buy it.

Topper: That's where the education should start for the kids. The whole point when the punk thing started was that anybody could play, you didn't need expensive equipment. But the companies don't push that viewpoint. They don't advertise the small, cheap kits. They just promote the syn drums and the whole big deal. And the kids, they say: "Well, I wouldn't mind being a drummer, but you can't do it with just four drums anymore." I think these kids should be educated that that viewpoint isn't true. Steve Gadd plays most of his sessions with just four drums.

Bob: Though it's more difficult with just four drums.

Topper: They should be educated about that too. If there is a gap growing between good drummers and bad drummers it's because your potential bad drummer buys a kit that's too big for him and trots around on eight toms all the time instead of learning to use three toms creatively.

Dave: Could you explain, Glyn, why, if the trend is towards cheaper kits, there has been such a run on dearer kits? The only explanation I can think of is that everybody who bought cheap kits five years ago is now part exchanging them for a dearer kit.

Glyn: There's some truth in that. There's no doubt that Olympic and Maxim kits have been the starting point for many drummers, and they still are. They're the Ajax of now.

Topper: If that's the case, why do you maker's keep pushing the fact that decent drummers don't play these cheaper kits? I think endorsing should be stopped.

Ashley: You have to bear in mind that these endorsees are drummers, and if we didn't support them they would still need drums. We would still get the exposure. If you've got a guy who plays your drums with no financial inducement, then why not make capital out of it?

Glyn: There's a good example of how ridiculous the endorsement scene is becoming. Chris did a series of clinics last year with an endorsement artist who was signed and contracted to play Pearl. He went to Germany with the clinic and while there picks up a Sonor kit and contract because they offered him more cash, and that blows the credibility of the entire thing out of the window.

IM: *Are we all agreed that it's valueless?*

Everybody: No... Yes... Maybe, less important.

Boib: It has less credibility than it once did. If you take a page ad in a magazine, saying "X drums are best" the customer thinks "oh yeah, sez who?". If an artist endorses the product, the company can say "This famous artists says we're the best". And give it greater credence.

Topper: What I think is valueless is getting some name to endorse drums who is only well known by guys who are already right into drumming and know what they want anyway. Like Steve Gadd, or Richie Hayward the only people who know who they are know *what* they want anyway.

Dave: I think the only valuable endorsee is the artist who just approaches the company and says: "I want to play your drums", and uses your kit because he thinks it's the best and he likes that.

IM: *But you would still have to advertise the fact that he uses them.*

Ashley: It's a highway that all the companies are on, and it's very difficult to turn off it. Unless every maker stops using endorsees at the same time the practice will continue.

Glyn: I still think that these endorsees are the guys who sell the drums for us. One of the most valuable functions of the endorsee is when he's approached by potential customers on the road and asked what kit he uses.

Bob: You must realise that the potential would be drum market is about five million players plus.

Mike: You have to accept that the face-up-front sales approach is the way business operates, not just the music business, but in every sales business. Whether this approach has value or not is open to debate. I saw one concrete example of the endorsee system working when I was working in a shop and a guy came and slapped £1500 on the counter and asked for a Yamaha kit and said: "If it's good enough for Cozy Powell it's good enough for me." He wasn't interested in even trying any other make.

IT'S A MAXWIN DECADE



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Drum Letters

Sticking to sound advice

Dear Sir: I have just completed reading your review of the Olympic B1033 drum set (*IM*, November 1979). I have an Olympic set myself, comprising: 22", 13" x 19", 14" x 10", 16" x 16" with a 14" x 15½" snare. I would like to tell you how valid your comments were, for I have replaced the Everplay heads with Remo CS Weather Kings which give all the toms a much thicker sound with a lot warmer tone. Another tip is to varnish the inside of the shells; this had the effect of increasing the volume and clarifying their tone. I have also packed out the nut-boxes with carpet underfelt which prevents any nasty buzzing.

Your ideas on replacing the stands apply as well; I have now a mixture of Lokfast and Trilok with a 252 bass drum pedal. My set was originally finished in Premier's 'J' colour (a dark red); I stripped this, an easy process as it is glued at one point and then shrunk on. I then stained and varnished the wood a dark oak colour, which is very effective against the chrome work.

Another idea to improve bass drum sound (apart from a Remo head) is to paint the inside of the drum. I initially sanded it then applied 3 coats of primer, 1 undercoat, 2 gloss; it sounds a bit crazy but it really gave the drum a lot more definition (I don't purport to know why, I



Searching for that Bruford live sound?

pinched the idea from Rogers with their Zolotone finish).

As regards the snare, I tune it in the same way as a Rogers Dynasonic — I found that keeping the Everplay batter head gives a reasonable depth, although I prefer a sharper sound (similar to Bill Bruford's live sound). Considering the cost of the drum it is responsive and clear.

To sum up, I bought my kit as a 4-piece second-hand. The original drums are nine years old and with some work (and money!) I now have a perfectly acceptable kit costing me a total of £400 with Trilok, Lokfast, Remo and cymbals (Zildjian, Paiste and Tosco). The chrome-work really is very good and I have obtained a very *personal* sound — it's not everyone's cup of tea, but I like this kit.

Thanks for hearing me out. This letter is just to say that all the recommendations you made I have already done to my kit and they really work!

Keep up the reviews (a review of various cymbals would be nice).

*Jik Graham,
Penryn,
Cornwall.*

Ed's note: Glad to hear the drum advice worked out so well. As for the cymbal review — hey presto! Turn to our Drumcheck section this month and you will find a "Cymbal extra" on Zildjian. Keep your drum letters coming!

Tutor search

Dear Sir: I am a fourteen-year-old boy who is fortunate to own his own (3 drum and high hat) drum kit. I have a problem though. I can't seem to find anyone in the Whitehaven area who will teach me to play. I have been fixed up for lessons twice but they fell through for various reasons. I have also tried R.L. Brooks, a music center in Whitehaven, but their drums tutor has left and as far as I know a replacement hasn't been found. Could anyone put me on to someone in the Whitehaven area who could help me?

*M. Southward,
40 Holly Terrace,
Whitehaven,
Cumbria.*

Drum Playing



Jim Marshall is best known as the manufacturer of Britain's most famous amplifiers. Not many musicians realise, however, that Jim is first and foremost a drummer. Jim has been drumming for nearly 40 years and has had a drum school operating in and around London since the late 1940's. Today it's very much a hobby for him and he runs a drum school in Milton Keynes near his amplification factory.

As well as teaching drums Jim has played with many of Britain's leading bands and in the first of a regular series of columns for novice drummers he discusses the problems facing the potential percussionist.

Although, over a period of many years, I have given advice and tuition to literally hundreds of drummers, it is now over 20 years since I appeared in print on the subject of drumming. When I was invited to offer some advice to beginners in the columns of *International Musician*, my first reaction was to say a polite "no", but my first love was and is the drum kit. And I was hit in a weak spot! Now that I've agreed to fill a few columns, I really do hope that anything that I have to say to aspiring drummers will be of some use to them in the future. Whether they become pros or semi-pros or merely enthusiastic amateurs drumming solely for their own pleasure.

The first point I want to make is, whatever they may learn from my writing it will never be a substitute for personal tuition.

I was extremely fortunate (living in London, as I did) to be able to go to that greater teacher, Max Abrams. Max, at that time, was also giving lessons to Jack Parnell, Eric Delaney and a host of others who have since made their name as top class drummers. Max was ruthless in his criticism, something I have long had reason to be thankful for. The second point I want to make is that most of us

the drummer in the local band or group, think how easy it must be and then go out and buy a kit. This is our first mistake. Come to think of it, we've now made two mistakes because, (a) drumming is, by no means, as easy as it looks, and (b) we shouldn't rush out to buy a kit without some sound advice from an expert. Drummers are, almost without exception, nice people and you will find that, the day you start drumming, you become a member of the great fraternity of drummers, deeply aware of each other's problems and welfare.

We will now assume that you have made up your mind to do the job properly in which case your very first concern must be to get yourself fixed up with tuition from a well-recommended teacher. It should not be difficult to find the right kind of dedicated instructor.

Meanwhile, you should buy a practice pad and a pair of heavy or medium heavy sticks. I have always preferred a round pad of moulded rubber mounted on wood or chip-board and measuring some 10 or 11 inches in diameter.

Incidentally, the sticks you use on your practice-pad should never be used on your snare drum, when you get it, because they are apt to leave a lot of disfiguring black marks on your drum head.

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Ginger Baker's new source of energy

Hey, Ginger, what sort of music does the new band play?

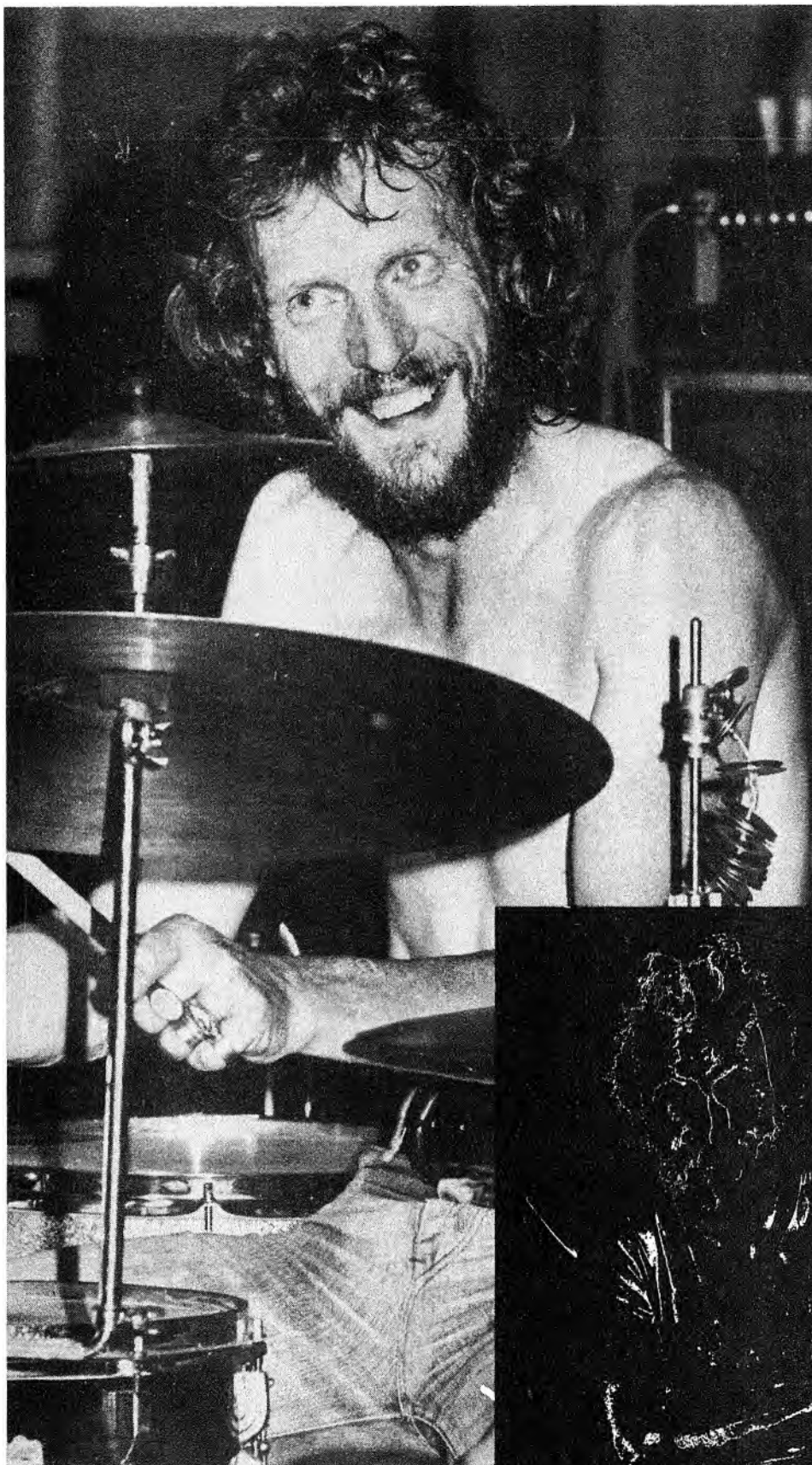
Wrong question — Baker squints besottedly as he considers the answer: "Look: I've been asked that question at every interview I've given so far. What do you want me to say? You might be able to classify it if you heard it. I certainly can't, and I'm the one playing it. If you want to put it in a bag, put in your own bag, don't get me to put it in this bag or that bag. You might hear the music and disagree with me totally."

*Steve Brennan taps
Ginger's reserves*

With his sparse, unkempt ginger hair and straggly beard, Ginger Baker projects The-Rock-Star-Screwed-Up-By-The-Business-persona. Ginger Baker is in a belligerent mood. Too much medicine at lunchtime combined with a conviction that I'm a spy from the Musician's Union has given him the bellyache. I get the impression that he'd much rather be walking his dogs in the local park than talking to a spy from the MU.

The 40-year-old drummer hasn't liked the Union since his ill-starred *Eleven Sides of Baker* record. "I don't mind paying musicians who are good," he explains, "and most of the guys I used on that record just came in to the studio, did the

Ginger Baker



bit they were supposed to do, and then cleared off. But there were some guys who took ages to master their parts, and the longer they took the more I was paying them until it got ridiculous. I was still trying to get them to do it right when suddenly I was paying double rates because it was past midnight or whatever. The current system of payment encourages session men to be bad because the longer they take to do a song right the more they get paid. I'd like to see a grading system, so that you tell at a glance how good a musician is and what they're good at."

That's as much as Ginger Baker has to say about that period of his musical career. The album wasn't a blinding success commercially or artistically, and it's best forgotten.

Baker's forays into musical projects since the Cream days don't fill a book. He's been far less prolific either of his colleagues in those successful days. The unoccupied years have been filled with sojourns in Nigeria, his "illness" (a euphemism for his drug problem) and polo. He considers Airforce to be his most satisfying musical expression, even though it was too big to maintain for any length of time. His subsequent venture with the Baker Gurvitz Army is too painful to talk about. When I mentioned the Gurvitz Brothers he leaped up agitatedly from the desk he was sitting at and, unsheathing a razor sharp machete from its decorative scabbard, began swiping in mid-air, occasionally taking off the tips of a house plant hanging from the ceiling. Actions speak louder than words.

"I don't talk about the Gurvitz Brothers," he said pointedly, re-sheathing the blade.

Now Ginger is back with a new band - Energy. It's a five-piece outfit, comprising Mike Davies (lead singer/rhythm guitar/keyboards), John Mizarolli (lead guitar) and Henry Thomas (bass/violin) and Ginger on drums. A late addition is David Lennox on keyboards. If you have n't heard of the other four, don't worry, not many people have. Other musicians from Ginger's peer group of 10 years ago stick with their own superstar bracket, joining and re-joining each other's bands. Jack Bruce, for example, is back with McLaughlin.



But Ginger maintains that he employs unknown musicians to inject originality and freshness into the music.

"I don't audition," sneers Baker at my suggestion that he might have. "I just keep my ears open and listen for the right people. It's taken me four years to put this band together."

What sort of influence operates on the band? To this Ginger sighs, he's getting more exasperated at suggestions that Energy play anything like any other music that's ever gone before.

"I don't listen to music purposefully. Any music I listen to happens perchance, and if there's any influence, then that has come about perchance. We play for our own enjoyment, mainly, in such a way as to not exclude the audience from enjoying it, too."

The bassist, Henry Thomas, is more open: "The lead guitarist is largely an R&B player. My bass playing is more funk influenced, while the rhythm/vocalist is more straight ahead rock. And, of course, Ginger is Ginger."

Baker claims that the motive for forming the current band was "I got fed up with not doing anything." And if you look at his record since Cream split, then you'd be convinced that he hasn't, in fact, done much at all. But facades are often misleading, and this is the case with Ginger Baker. If you can get him to talk, he'll tell you about Nigeria, the place which introduced him to what he regards as some of the best musicians anywhere, the fine art of building and selling off recording studios at a substantial loss, and polo.

The studio was an unfortunate experience, but at the same time a rewarding one, for Baker. He built it in partnership but was not shrewd enough to commit himself to more than a mere gentleman's agreement. Eventually his share was bought out for a fraction of what it was worth. But nevertheless the drummer is satisfied that he's helped provide the most modern and biggest studio in Nigeria.

"I think that musically West Africa is soon going to be contributing enormously to the music of the world," asserts Ginger. "At the moment, however, there's no incentive for Nigerian musicians to aim for a market outside their home country. They can get more money out of one record selling fairly well at home than they can from the same record selling 10 times as many abroad. The population of Nigeria is 82 million, and they're not all poverty stricken now because of the oil revenue. So it's easy to sell say 100,000 records aimed at a particular dialect. The economics of the situation means that they get a whole one pound back from each LP they sell, and that's minimum. You can put out an album and get £100,000 no

trouble. It may cost £10,000 to pay for studio time and musicians and manufacture, so you've got £90,000 in your pocket. So why bother trying to sell an album abroad where the costs go into the realms of the ridiculous?"

Ginger played for a while with Fela Ransome-Kuti and the Africa 70 while he was in Nigeria, not to mention a few other players for whom he has the deepest respect. I suggest that one day they might come to Britain to play, but Ginger maintains that the HM Government would never let them in to the country, for crimes that he refused to specify. But he stressed that the horn players out there are particularly deserving of credit. For a short while Ginger led a Nigerian outfit called Salt, but gave up to concentrate on his studio. This was in '73. The recording facilities came together in Ajala, and later that year was used by Wings to cut *Band on the Run*. When asked why he built a studio there, he replies: "To be honest, it must have been total insanity."

The latest studio is in Acton, West London, and Baker built it largely with his own hands, and feet. It comprises the studio itself plus the control room and a reception. It isn't finished yet, the lady who runs the café downstairs says the noise is bad sometimes, but that she can tolerate it because Ginger is such a nice man. No recording has been done yet, but Baker is in the process of running some shakedown sessions to evaluate the sound of the place. In the control room a pair of four-track recorders have just been unpacked and are lying on the floor in various positions.

Ginger is tight-lipped about the equipment that's going into the place eventually, though he admits that it'll be 16 track: "that's all *anybody* needs." His Ludwig kit stands permanently erected in the studio — it consists of a 20 x 11 bass drum, 12 x 8, 13 x 9, 14 x 14 and 16 x 14 toms, plus a floor standing 14 x drum. He uses three cymbals — a rivetted 22" Avedis, an 8" splash, and a 16" crash. Plus a pair of 15" hi-hats.

When you ask Baker what mikes he uses he becomes passionate. "I don't know about that," he roars. "I'm totally against microphoning drums up. I come from a land before microphones and electronics put their nasty ways on our music. There isn't a hall made where a drum solo can't be heard with the drums alone. The problem starts with these bloody electronic instruments."

Returning to the subject of the Acton Vale studio: "We haven't put any equipment in yet, but we've got some on order that should be arriving any moment. I can't tell you what equipment we're using! Do you want all my secrets? Spelt out in black and white? My God, man!

We're experimenting at the moment. We're not doing one of these one-off studios where it all appears and comes together in a few weeks. It can be a total disaster if it's done that way, like constructing the entire project around this or that equipment. We're doing this very carefully and correctly. I can tell you that the place sounds bloody great at the moment."

In between planning this studio and putting his new band together over the last four years, Baker has written a book, largely compiled while he was recovering from a broken bone and torn ligaments, sustained while playing polo.

Once recovered, he tried a few of the exercises and discovered that his playing began to improve. He also discovered that for the past 10 years he's been hampering himself by holding his left stick backwards. So he changed it around and now claims that his left hand is stronger than his right.

"Technique is all very well," maintains Baker, "but when the lights go up you have to forget everything and just play. If you try to maintain conscious control of your technique then you're obstructing the force up here," at this point he taps the middle of his forehead, "which is coming through you — the creative energy."

"A lot of drummers around today play fast and don't say anything. I've got more time for someone who hasn't got the technique but has something to say. I went to one of these Shaughnessy drum clinics once and was completely unimpressed. He was instructing people to hold the sticks this way and that way but I found his tuition impossible to comply with. As far as I was concerned he was spouting bullshit. If you want inspiration, you should listen to Phil Seamen (Baker's personal mentor), Max Roach, Art Blakey and Baby Dodds. They don't play fast, but one beat from them is worth three of any of these fast drummer's notes. That's how I play now, gone are the flamboyant days."

One hopes that this means an end to the 30 minute drum solo which was Baker's speciality some time ago. Ginger is sure that his drumming has improved. He maintains that if he didn't fervently believe this then he wouldn't dare get up on stage in front of an audience. He also maintains that if ever he played the same drum solo twice then he'd give up drumming altogether.

You'll be able to judge for yourself how Ginger's playing has matured if you go along and see Energy. Enough songs have been written for two albums, it's claimed, and serious recording should start in Spring. Not so serious recording should be going or now, as soon as Ginger sobers up.

Drumcheck

Staccato 6-drum outfit £795 inc VAT

Staccato drums have been available in England for a couple of years and they are (I'm sure no-one would disagree) copied almost directly from Roger North's horn-loaded Fibreglass instruments. These English shells are not quite as thick as the American ones which I feel is an advantage since it gives them a brighter albeit a slightly thinner sound. The mouths of their horns are not at all the same. The North drums have completely front facing horns like regular trumpet or more accurately Sousaphone ones, whereas the subjects of this month's check have a very interesting yet evidently practical shape which reminds me of *Manta Ray*. When they were originally conceived the story was that the difference between the top "notch" of the horn and the bottom was roughly one octave. However I haven't heard anything of this claim recently and without the proper "real-time analyser" to check it's difficult to ascertain. There is certainly a difference in sound from top to bottom though. There has been quite a bit written about North drums (Billy Cobham was a great aficionado of them before his move to Tama) but for those of you who haven't heard of them and their premise I'll do my best to enlighten you.

The idea as one can see from the photographs is to direct the sound which normally goes straight down (especially in a single headed drum) out *towards* the audience. The way they've accomplished this change of direction is via a smooth curve.

The purpose of the horn i.e. the flared portion at the end, is to make the tube itself more efficient thus to transfer the energy from the diaphragm (the

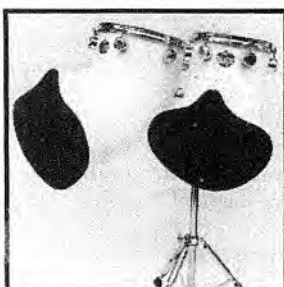
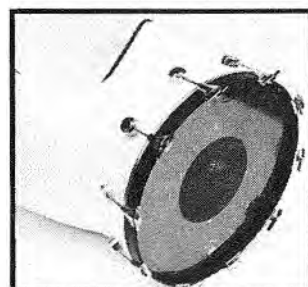
head) to vibrations in the air by matching its impedance to the surrounding air in an efficient way. (The resonances in the shell itself only serve to complicate the process.) A small horn in relation to the diaphragm results in a harder brasher sound and conversely the bigger the horn the lower the audible frequency. Ideally, the mouth of the horn should be of proportional dimensions to the fundamental. In addition these Staccato drums are based allegedly on a premise called the *Kadency Theory* which states that "a volume of air projected through a controlled expanding shape will have a profound effect on the tonal resonance and distribution. In simple terms this means a varied tone-range plus extra volume as and when required". The shape of the Staccato mouth is constant for all the drums (although its size isn't) but the only proportional constant I could easily work out was that the widest part of the "notch" at the top of the horn increased by one inch for every two inch increase in head size. On the smallest mounted drum it was four inches and on the largest seven inches. Obviously as the head size increases so the horn sizes too become proportionately larger but it's difficult to state these in such easy numbers.

The curves from the heads down are of course in ratio too — the curves lengthening by two inches back and front for each size.

The Staccato drum company is owned by Chris Slade, an excellent drummer who once worked for Tom Jones, then for quite some time with Manfred Mann's Earthband and now has his own band called Terra Nova. If my memory serves me right Chris used to play Fibes drums which interestingly enough at source sound like Staccato. When the drums were first introduced only the tom toms were available but after a year or so they unleashed their distinctively shaped "siamese-twin" bass drums on the world. More of them later. Like any Fibreglass drum Staccato are as-near-as-dammit hand-made from polyester, but, unlike North are self-coloured rather like a sports car which means if the paint chips it will be the same colour underneath. (It's suddenly occurred to me that apart from Pearl and of course Milestone from Canada Staccato are the only other Fibreglass drums in production. I don't know the up to date story about North — certainly they were on show at the 1969 winter NAMM Show but I have neither heard nor seen anything of them since).

Tom Toms

The set has four mounted toms with 6, 8, 10 and 12-inch head diameters and a floor tom with a 16-inch head. All the toms have triple-flange hoops and round, cast nut-boxes which have been acquired from the now defunct Hayman company. The two smallest drums have four nut-boxes and screw-driver-slotted tension screws, the next two have six and the floor tom has eight. The set I saw was fitted with Premier's cast tom holder eye ring block to mate with a Trilok double tom stand. But, one could within reason specify any holder fitting although I feel, perhaps unreasonably, that to fit any sort of fitting where the holder arm actually penetrates the shell would not be a very good idea from a strength point of view. The shells on the toms and indeed the bass drum are approximately a quarter of an inch thick and instead of having a normal bearing edge they have the sort of camber normally found on congas which is actually a quarter-circle bevel on the outside edge about quarter inch radius. This matches pretty



closely the collar profile of a normal Remo head.

The floor tom is quite a lot different from the mounted drums. Its head is as-per-usual parallel to the floor but its horn shape (unlike that on the old North floor drum) is offset to the side — that is to say its horn (which is incidentally the same shape as all the others but turned on its side) has its small "notch" at roughly dead centre of the head but below it. The dimensions of this drum are 21 inches from head to bottom curve and 20 inches from rim across the drum to the bottom ellipse which has become in this case the side of the horn. This drum too has a single triple flange hoop with eight screw driver type slotted tensioners and of course the circular cast nut boxes. The company have also acquired some of the old circular tom tom leg holders from Hayman complete with their internal eye rings of which they fit three to the largest drum. (For some reason they don't fit these as sput holders which I would think from an aesthetic and continuity standpoint is something of an omission since they do look good. Anyway it's absolutely essential to fit a metal strengthening plate inside the shells for these fittings — ideally it should be a *really* oversize one). Normal, wide-spreading bent steel legs with rubber feet stabilise the awkward shape very well.

As far as the actual sound is concerned these toms were definitely louder from the audience than any other single headed drum available today, in addition they have a deeper sound than normal for their relative head size. The best way to describe them is that a 12-inch horn loaded drum sounds at least as deep at the same head tension as a normal 13-inch open ended drum. (What this actually means is that in the recording studio a small drum can be made to sound as deep as a larger drum but with a tighter (less flappy) sound because of its smaller head area). I know that Simon Phillips uses 8, 10, and 12-inch Staccatos for recording *without* a floor tom. Not only does he get a great sound but is beloved by engineers because the sound is contained — therefore more controllable.

In a live situation the Staccatos have the usual brash Fibreglass-shell sound yet with more penetration and a more cuttingly audible sound than normal.

This extra depth and volume is not really apparent at its source (the playing position) as with the North and Autotune. Mind you, the Staccatos are far more stimulating from this playing position than the Arbiter Autotunes ever were.

Their "toppy" sound is a direct result of that statement I made earlier: *The smaller the horn relative to the head size the higher the frequencies pushed by it* — and vice versa.

All Staccato drums leave the factory with Remo C.S. heads as standard. This I suppose gives the sound most people would want from these drums. I personally prefer them with ordinary see-through Ambassadors although I have heard them with "Evans Rock" and even Remo "pin stripes" on. The thicker heads make their sounds more "box-like". I have heard very good reports of the Remo C.S. with the spot *underneath* the head — especially on snare drums.

Bass Drum

The 22-inch bass drum is rather unusual in shape being described to me variously as looking like a pair of boxer shorts, or more rudely, as a woman's nether regions with the drumhead as the waist and the twin horns as the legs. It too is horn-loaded and in this

case has two kidney-shaped horns set like the larger tom toms on their edges but with their "notches" facing inward. This was called at its inception a "siamese-twin" horn loading. There have in the past been loudspeakers which used a single diaphragm and a double horn. The sort of thing that was used for public address at sports meetings and such which served to spread the sound from a single source in two or more different directions and so give better dispersion. The drum has a wooden hoop with ten round nut-boxes, cast claws and 'T' handled tension screws, all ex-Hayman. These all work as do the Premier outrigger type bent steel spurs with rubber/spiked ends which lock into the usual cast, "O" ring retaining block. No damper is fitted to the bass drum or indeed any of the drums (if you remember Fibes didn't have a damper either) which tends to make the sound "crack". Even though it is an extremely loud instrument, I would personally change the head for something thicker like an Evans or else fit a felt strip damper *with* the C.S. head.

This bass drum does have a bigger than normal 22" sound because its internal dimensions are much larger than the 14- or 16-inch shells of conventional drums. Back to front the Staccato measures 25 inches and across the front from outside horn to outside horn is 29 inches. Its sound I feel is still in keeping with the overall working frequencies of the rest of the set because its horn sizes have been kept to manageable proportions. Had the company used a single horn in the same proportions relative to the head as the other drums not only would it have been *huge* but its enhanced frequencies would have been so low as to have very little *cutting* power at all.

Staccato do not at the moment produce a snare drum although I wouldn't be surprised if they were working on one. (North used to make a terrible one which was shaped like a right angle pipe joint and put the snare head towards the audience — unfortunately the drum for several reasons was not a resounding success, if you'll pardon the pun, and was discontinued)

Conclusion

The drums are self-coloured and the test set was white on the outside and black sprayed inside (it looked like velvet). There are, the company say, at least 100 different colours available (they use automobile type paints) including metallic and Pearlized finishes. The Staccato raw edges are these days finished off with a thick woven piece of channelling which seems to emanate too from the motor industry — it's the sort of thing they fit around the edges of door and window openings inside the car. Anyway it works well, looks good and is a vast improvement on North's rubber "U"-shaped edging strip.

One obvious drawback for the unfortunate drummer who does not have flight cases is portability. The shapes are very awkward to fit normal fibre cases around although there are indeed some available. However with the raw edges finished off as they are now, there shouldn't be too many problems as long as one is aware of the problem... if you see what I mean? Anyway, I like the sound and looks of the Staccato drums a great deal — I would like them even more if they were cheaper but since they are "hand-made" the price is, I suppose, realistic. They are very new, very interesting and give the player a built-in image even before he lays a stick on them. Not bad!

Henry Roberts

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Cymbals

There are quite a few different products available from Zildjian's Boston factory which you may have seen advertised but not really been able to try for yourselves. This month I'll go through their new products one by one so you can be in possession of the facts as I see them.

I heard news about the Zildjian Earth cymbal quite some time ago but the first opportunity I had to hear it being played was at the last NAMM winter trade show in California. Peter Erskine Weather Report's drummer was playing it with Jaco Pastorius. Now Jaco is nothing if not a brilliant *loud* bass player and yet the unamplified Earth cymbal was still cutting through way over the top of everything, yet still with a loud sound. It doesn't have a ping to it, at least not in what I consider to be the tone sense of the word — it probably could be best described as a *clang*. Don't take this word in the wrong sense either, because it has a very high quality sound. It's just that onomatopoeically that is the adjective that suits best (I suppose one could call it a 'heavy ping' with *balls*).

It appears that the *Earth* was actually developed by the Zildjian company expressly for heavy music although not necessarily just *rock*. It's certainly a completely new departure as far as cymbals are concerned and doesn't go through quite so many processes. It isn't actually polished, it's simply pressed and annealed after it's casting process. This leaves it a very unusual colour for a modern cymbal — it's a smooth tarnished brown.

Since the cymbal isn't panned and so doesn't have any tonal grooves it's quite a lot heavier than a normal cymbal. I have recently used an Earth cymbal on an album and was a little worried that it might have turned out to be too strident — however once the mixes were done I was more than pleased because it was cutting through *exactly* how I've always wanted the bell of my cymbals to but never up till now achieved. The best way to describe it is that all over its surface it has cymbal-bell-type sounds. It simply doesn't have any normal "crash" sound since it doesn't have the pliability to be really vibrant. Mind you it does have an interestingly different sound when hit as if for a crash. I accidentally used it as a crash on a couple of tracks which I subsequently had to overdub with a "pang" since its own sound was simply not long enough to punctuate. The cymbal I have is a 21" but 20 and 22 inch diameters are also available.

Zildjian's *flat-hats* have been designed especially to have a sharp, cutting sound yet still retain lots of balls. How they have achieved this is to give the bottom cymbal a flat profile like their *flat ride* and so decrease the overtones in it for a tighter sound. They've also drilled not one but five holes in this cymbal to dissipate the air which is normally caught between two conventional hi hat type cymbals as they clash together. (One of the reasons for having an adjustable angle bottom cymbal cup is to eliminate this problem.) This air cushion which is formed, does not help the two cymbals to "speak" freely nor to react well with each other soundwise. So, all this air is now forced out of the holes and the result is, I think, a for stronger sound.

I tried a pair of 14 inch flat hats (15's are also available) in the studio but found they spread too much — their overall sound was a little swishy and leaked into all the other microphones which of course simply won't do in the studio. I then played them in a live situation and found they worked much better. I normally use 'Rock 15s' on stage and

found these 14 inch ones to be every bit as penetrating but easier to lift up and down. On reflection it was not a great idea to take a brand new pair of *any* cymbals into the studio because new cymbals are of course notoriously topky at first.

Another new product from Zildjian is the *deep ride* which is available in a 20 or 22 inch diameter. I tried out the larger size which I felt to be brighter than the Earth at source but when heard from a distance it didn't have quite such a strident quality. You could perhaps describe it as a *brilliant* Earth — however there is no such thing. It seems almost as if an Earth cymbal has been *slightly* planished because it's about the same thickness and weight. It has a slightly sharper bell sound with lots of build and no real crash with, overall, some high tones but the predominant ones are in the middle to low register which are produced by its flat taper. I found it to be quite a "jazzy" cymbal although other drummers I've played it to have said it would be fine for *their* sort of rock.

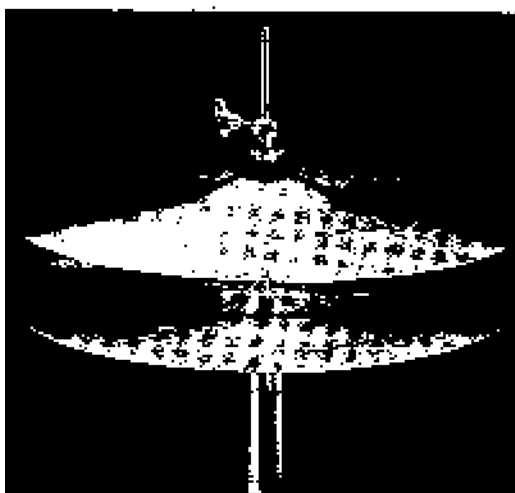
It's now possible to buy both the swish and pang and indeed everything else from A.Z. with a *brilliant* finish. This finish is applied by experts at the Boston factory and is I suppose, basically a polishing process. (I have to say I suppose because the process is patented and a secret.) Anyway the process, for me, makes the cymbals harder and brighter — I have never seen a broken brilliant cymbal.

I tried out an 18 inch rivetted brilliant swish recently and was impressed. By the way, a swish cymbal is the same shape as an ordinary Zildjian: regular cup, regular bow, but with an upturned edge whereas the pang has a completely different shape with a flatter edge and a smaller cup. I played the brilliant alongside an ordinary 18 inch swish and found it had a more definite higher pitched note. Even though it was rivetted I turned it upside down just to see what would happen. The fundamental became more obvious but the sustain became shorter. (The reason for turning a Chinese cymbal the wrong way up is to create more playing surfaces therefore more varied sounds.)

Zildjian have introduced another special-sound cymbal which I have not as yet seen — it's called a Heavy Swish and is meant to be used mainly as a ride cymbal. It's available in a 22 inch diameter with a large bell and is fitted with 20 rivets. The 18 inch "pangs" and "swishes" have only six rivets.

Henry Roberts

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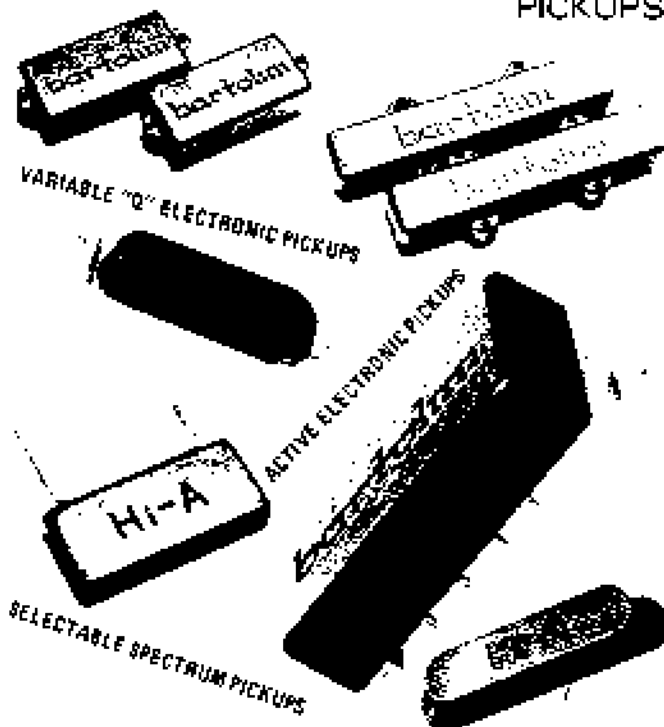
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Soundcheck

Park 1210 Amp £264.52 inc. VAT

The design of the new Park 1210 "head" Amp from Cleartone Musical Instruments (a member of the Marshall Group of Companies) is derived from their 1240 combo launched in the summer of '79. The amp, as the manufacturer informs us, is more or less a "head" part of the combo, therefore, the electronic part of the design remains very similar to its origin. We should also mention that the 1210's outside make-up, including the enclosure size, is still kept in the traditional "Marshall" shape but with certain changes and new details, which the manufacturer has introduced in this design and will be described later on in the review.

Construction

Traditionally, starting with the control panel, there is a difference. The Mains/Standby power switches are on the far left and the ¼ inch jacks on the far right side, the remaining controls are grouped in three boxes, i.e. right to left: Gain input (A) — High; Gain input (B) — LO, followed by an EQ box with Treble, Middle, Bass, edge rotary controls. These are followed by the output level control which, as I thought at first glance, does not work exactly as the traditional Master level control. The output level pot is inserted in the splitter circuitry and adjusts the clip point of the phase splitter stage. The whole control panel background is then finished off in a silver colour as are the operating controls. Power controls are rectangular IEC switches marked zero and one, for On/Off operation.

At the rear, there is a pair of jacks matching amp output to load applied with a manual output impedance selector calibrated 4 ohms/8 ohms/Off/16 ohms. I'm not really sure what Cleartone mean by the "Off" position here and how to use this option. I guess this selector switch is there in loving memory of their 1240 combo where the external load connected

to the "free" output terminals, which made some sense.

The mains selector switch allows for 120/220/240 volts operation and this switch, similar to the impedance selector, must be operated with the use of a screwdriver. It is not a 100 per cent idiot proof, but it still protects the amp somehow from unsuitable settings and damage.

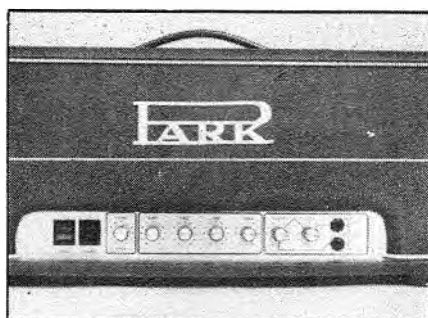
A Euroconnector type of three pin safe mains power socket and fuse holder completes everything at the rear. The fuse ratings are as follows: two At for 220 — 240 volts operation and four At for 120 volts. The nominal power consumption is claimed by the manufacturer to be about 375 watts and a mains frequency of 40 — 60 Hz will be accepted.

Now the performance. The audio performance, other than distortions, is exemplary and I was delighted to find that Cleartone have greatly improved the THD levels which are quite phenomenal for a valve designed amplifier. At this point, however, I must mention the subjective test. When I played my guitar, the decrease in harmonic distortion did not change anything of the "valve" character of the amp. In actual fact, I liked the quality of sound even more, particularly combined with the newly introduced gain differentiating footswitch, which has a greatly improved operational side as the high sensitivity input gain is controlled by a pair of cascaded controls. A check was made on the Input Sensitivity relative to about 100 watts level of the output power — less than nominal 120 watts bearing in mind the historic Marshall equation:

$4 \times EL\ 34 = 100 \text{ watts RMS into } 4/8 \text{ ohms}$

The power difference again was rather academic and both inputs proved to be aligned to the usual guitar requirements.

No problems of a serious kind were experienced when a standard check was made on the stability except for a small overshoot with a capacitance load applied, which should not be noted in musical practice. Changing the subject — in the



heart of the 1210 amp we find a motherboard PCB with mainly gain stage /EQ circuitry nicely planned with colour-coded wires on the sides and a range of professional grade components. The power stage valve sockets, I should underline, are not rivetted to the chassis but fixed with nice brass screws which simplifies replacement if necessary — which happens in valve amps sometimes. The ratings of passive components seems to be adequate for even the hardest life and the overall impression was of the amp's ruggedness and suitability for heavy duty operation. The EL34's penthodes are secured individually by a pair of steel cadmed springs on both sides of each octal socket.

Conclusion

I must conclude this Soundcheck by recommending the Park 1210 guitar amplifier for its professional design, overall performance and classy finish which as French people say "toujours à la mode" (always in fashion) with new styles and requirements, as a valve amp, the Park 1210 uses a lot from contemporary electronic technology, for example, the quality Fibreglass printed circuit boards etc. It would be pure hypocrisy not to refer to Marshall's name in this review, but even so Cleartone Musical Instruments have a winner here as the 1210 amp is very good in almost all respects.

Mark Sawicki

PARAMETER	RESULT	TEST CONDITION	COMMENTS
Specific Power Output (Watts RMS, 1000 Hz)	100 W RMS 100 W RMS	Onset of clipping into 4 ohms Onset of clipping into 8 ohms	Ideal Music claim a power level of 100 W RMS @ 4% THD or 170 W RMS @ 10% THD. Park Model 210 "head" uses four 6550 valves — in the power stage, and three ECC 83 (couple model) in voltage gain/EQ-splitter stages. Both power measurements presented here were taken in "100%" — Channel (B) with tone controls FLAT and output level control on MAX. Transformer details: Output stage: Drake type C2668. Power stage: Drake type 14145. P/S Choke: Drake type T100.
Total Harmonic Distortion (THD) Ref. 1 kHz	0.682% 0.363% 0.273% 0.273% 1.15% 0.68%	@ 120 W RMS @ 100 W RMS @ 40 W RMS @ 10 W RMS @ 10 W RMS @ 5 W RMS	Quite low levels for a "valve" design amplifier. The THD levels rise up significantly with lower power levels. Middle-High power regions harmonic distortion figures remain very similar. Predominance of 2nd harmonic components was observed on these tests with both 4 and 8 ohms loads.
Input sensitivity in mV RMS for 100 mV RMS (20 VU) output Ref. 1 kHz	1.1 mV RMS 0.8 mV RMS	Input (B) "LOW" Ref. 4 ohms Input (A) "HIGH" dummy load	Satisfactory. Both inputs are designed for standard guitar application. Two 100k potentiometer control inputs (A) and (B) separately. "Output Level" adjusts clip point at the output stage which is different from the normal "Master" type of control.
Tone Controls (Bass/Treble)	58.5 dB swing 12.3 dB swing 34.3 dB swing 8.2 dB swing	Treble 10 kHz Ref. "LOW" Mid 600 Hz Bass 50 Hz Edge 8 kHz	Mid: Claims the following: 6 dB Ref. Edge @ 8 kHz 10 dB Ref. Mid @ 600 Hz 32 dB Ref. Treb @ 10 kHz 32 dB Ref. Bass @ 50 Hz. Experimentally evidence confirms that Park's "EDGE" control acts as a sort of Presence type of EQ, defined at approx. 8 kHz for control of "Low Treble" region of amp's frequency range. Treble and Bass controls are a "wide range" with Mid at 600 Hz similar to Marshall's.
Signal/Noise Ratio	Better than 65 dB	Treble/Mid/Bass/Edge set FLAT. Ref. 10 W with output into 4 ohms load	Unweighted true RMS reading on ANMS 800 test meter with reference to nominal power output. All the ECC 83 valves are both magnetically and electronically protected by a specially provided "push-twist" type of screening hardware. Input (A) "HIGH" may be used in conjunction with the footswitch provided. (A/B) change-over. When Channel (A) is used both Gain (A) and Gain (B) potentiometers are engaged and act simultaneously.
Capacitor Leakage	OK	2 uF non-electrolytic capacitors and 4 x 16 ohms dummy load	Satisfactory. However small overshoot observed.
Open Circuit Stability Test	OK	Reactive load removed; tone control set to Max Channel Gain/Output level set MAX.	Reasonably stable during O.C.S. tests.
Short Circuit Test	30 seconds	full drive	No ill effects however all anodes of the four EL34 penthodes turned red hot very quickly. Worked perfectly OK after short was removed.

Dr. Mark A. Sawicki MSc(Eng.), PhD, is a consultant in electronics who also designs and builds all kinds of electronic equipment.

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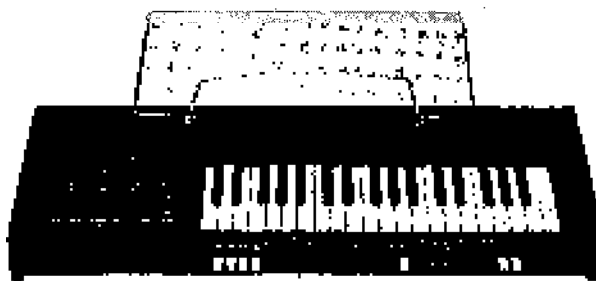
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Guitarcheck

Shergold Modulator £282 inc. VAT

At the sad demise of the excellent value Hayman range of electric solid body guitars some four years ago, I was personally most concerned about the disappearance from the market of the first truly competitive British product, especially in its bass guitar form. Indeed, virtually the same team of designers were responsible for what the majority of my fellow rock 'n' rollers in the early Sixties considered to be the only serious British challenger to the American dominance, the Burns range of guitars. Evidence of this is still apparent, with the continued popularity of the old Burns "Black Bison" bass.

At the British Musical Instrument trade fair in 1976, I was pleasantly surprised by the rapid re-emergence of the same team, with their Shergold range, which features most of the best facets of the earlier Haymans plus more recent developments and modifications.

I personally own two Hayman basses, a long scale and a de-trekked short scale, which is a peach of

a guitar. I still enjoy playing both of them, especially the short scale, so I approached this review in an unavoidably biased frame of mind, and in the hope that this product would be a definite step forward from its predecessor.

General Appearance

The complete neck and head on this Shergold Modulator appears to be exactly the same, both in shape, hardware and the type of wood used, maple, as the Hayman long scale counterpart. The body shape is different, of course, to give it its own identity, and funnily enough, I can see faint traces of the old Black Bison shape, but with the longer, sharper horn cutaways, chopped off, and rounded at the edges.

The bridge and tailpiece assembly seems unchanged in design and materials, as do the control hardware. The pickups are completely different in output, and versatility, and together with the interchangeable control module feature, which I'll discuss shortly, the basic sound level and tonal permutations from this instrument outstrip its ancestor, in both quality and sophistication. Hayman had just begun to introduce this modular feature, at the very end of their production, but, I'm pretty sure, not to the extent offered here.

This bass was delivered to me with three modules, "Module 1", the simplest, most basic unit, "Module 4 — Stereo" and "Module 5 — Recording".

One large chrome headed screw in the middle of each plate is all that has to be negotiated when changing modules. Eight prong contacts at the front and four at the back of each plate are easily located and pushed in, and then merely anchored down by the central screw. To change modules takes literally seconds, so the potential of owning several different instruments in one soon becomes apparent.

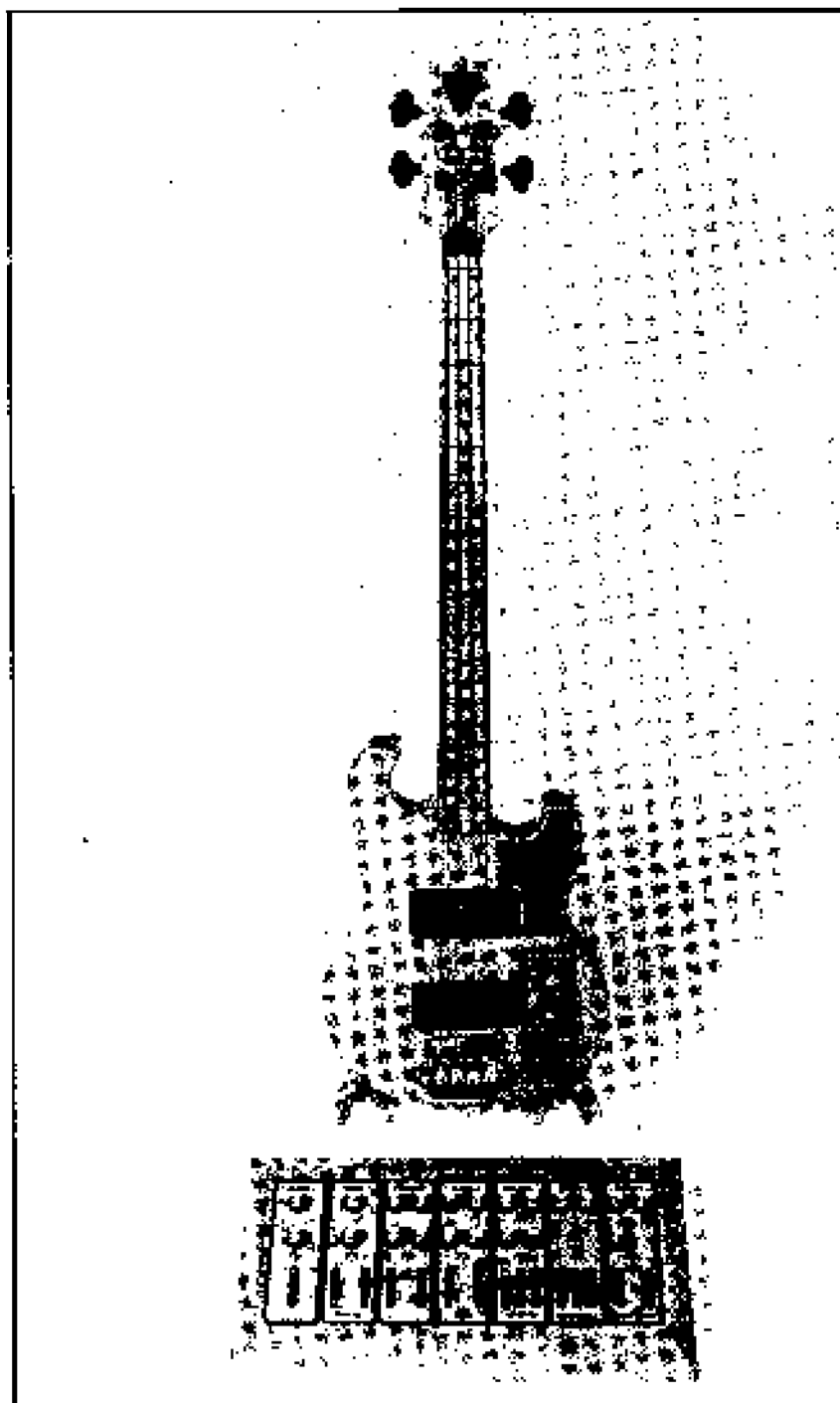
Module 1

This very basic unit is pretty self explanatory, with one volume, and one tone control for both pickups, and a three way selector switch for front pickup only, back pickup only, or both together. Although extremely simple, this unit provides an excellent wide spectrum of sounds. The back pickup emits powerful, chunky sounding mids and highs, and the front pickup rich, deep bass, and lower mids.

Module 4 — Stereo

This is obviously more sophisticated, but still simple to suss and operate. Volume and tone for each pickup here, which is an obvious must for a stereo concept, to achieve an instantly appreciable difference from the two sound sources. The bottom three-way switch selects front mono, back mono or middle position stereo, and the top switch gives a useful boost facility for solo work. It's marked "Rhythm" in the back position, so here you would set all your controls for normal ensemble bass work, and when flicked to the front "Solo" position, it overrides your rotary tone controls, and automatically boosts the mids and highs from either or both pickups as selected, to their maximum.

This gives a similar effect to the "active circuitry" on some of the more expensive competitors on the market, as an appreciable overall volume surge seems to, at least audibly, accompany the tonal boost. This is great for live work, and there's no danger of blowing your speakers, as the tonal and volume boost is just enough to cut through, rather than uncontrollably explode.



Module 5 — Recording

I'm glad Shergold have labelled this one "Recording", because quite frankly, as I've mentioned in other reviews, in my opinion, some of the exacting, fine tone permutations that this type of module offers are only fully audibly discernable, or useable, in a studio. Of its type, this circuitry appears to be as sophisticated and varied as any passive electronic unit on the market, but probably far more simple than most to understand and operate.

Again, volume and tone pots for each pickup, but then three three-way switches. To explain the function of this module properly, it is necessary to talk about the pickups first. There are, in fact, two double pickup units, with eight height adjustable poles for each, located at the bridge, and midway between the bridge pickups and the neck-body joint.

They are all extremely powerful, and each pair are split, to be used individually, out of phase with its partner, or in conjunction with any of the aforementioned selections, applied to the other pair. The bottom three-way switch in its back position selects the rearmost pickup of the bridge pair. In the front position, its partner and the middle position puts these two out of phase. The middle switch selects the same options from the front pair, and the top switch allows the pre-selected signal from either pair through individually, at its front or back positions, and a mixture of the two in its middle position.

I found this system a very neat and easy way of extracting a vast amount of the electronic circuitry's tonal potential quickly and enjoyably. I particularly liked a combination of the rear pickup of the bridge pair on 10, with full top, mixed with the rear of the front pair on seven or eight with about half top. The high, middley, cutting, but ballsy punch of the bridge pickup is mellowed slightly by the other, giving a clear but warm bass sound suitable for the quite heavy forms of jazz-rock, for instance.

A combination of the two front pickups of each pair produces a thick, weighty, but still clear, sound, ideal for heavy metal, but it's simple to flick out the neck pickup, and leave the front pickup of the bridge pair on its own. This sounds just right, with full top, for the more frantic, New Wave bass lines, which need bags of attack, but also definition and "balls". The permutations are endless, especially when the volume and tone controls are brought into it, and the out of phase facility is interesting, and definitely usable in a studio.

The Hayman shaped neck is as nice to play as I remember, with excellent response and sustain, right up to the top twentieth fret. The neck body joint is such that the end of the fingerboard that slots into the front face of the body is proud by about one centimeter, forming quite a high step. This in turn means that there is a considerable gap between the strings and the front face of the bass, the type of action set up which, I think, suits the funky hammer/slap or pull, technique of the right hand, ideally.

The Schaller machines, nickel silver fretwire and polyurethane finish, give the neck an attractive, classy look. The action on this bass is set very low, and coupled with the shallow fret height, a fast and playable fingerboard technique is pleasantly apparent.

The bridge assembly is, as mentioned before, identical to the old Hayman design, incorporating a perspex, see-through tailpiece, and fully adjustable bridge. A sort of oblong metal box houses the four individual screws for saddle string length adjust-

ment. Each saddle has three string grooves to choose from, and is hinged at the front to its own small baseplate. Two downward screws each side of the string adjust height.

My Hayman bridges tended to discolour and corrode quite rapidly on the top surface of the metal box housing, and this new bridge shows signs of this already, around marks left by saddle adjustment for string length.

The yellow mahogany body is finished in black polyester, and feels lighter than the Hayman counterpart. This is probably the main contributory factor, to a neck-heavy, balance discrepancy. The instrument is still quite comfortably playable, but prolonged activity in the lowest fret positions caused me slight left arm ache.

The overall appearance and shape of this guitar is what I would describe as pleasant and functional. It somehow looks like a British product and represents tremendous value in today's inflated times. To my ears the basic sound from the pickups is both powerful and rich, and even with Module 1, more than most semi-pro or pro gigging musicians could ever need in terms of tonal variation.

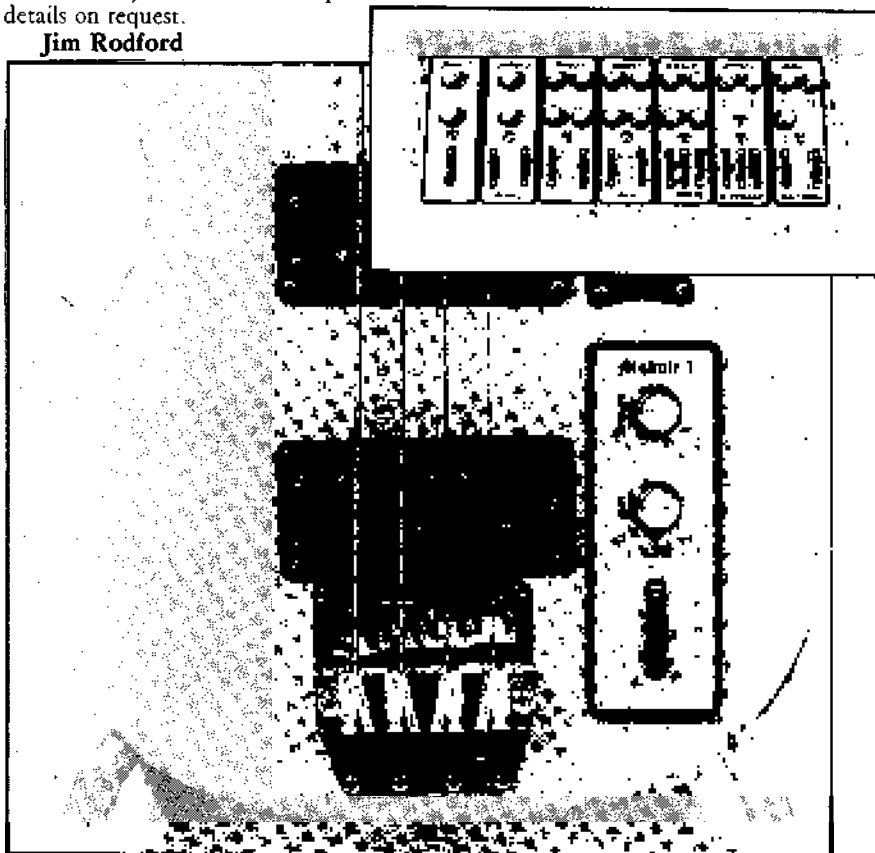
Conclusion

The interchangeable module concept is, I feel, a great idea, and although you pay extra for each additional module apart from Module 1, which comes with the initial purchase, it offers a comparatively cheap, yet still sophisticated, method of customising an instrument to any of the specialised areas of our profession. The fact that such a discerning and respected musician as Mike Rutherford, whose preference isn't exactly hampered by cost, chooses to use a version of this bass, is probably its strongest recommendation.

At the moment there are seven Modules available, at costs ranging from £27 to around £34. At the time of writing, I had no information regarding the other modules not referred to above, but I'm sure your local music shop would have these details on request.

Jim Rodford

Jim Rodford is a versatile and experienced bass man. His professional career started with the Mike Cotton Sound, and progressed through Argent to Phoenix. He has recently joined the Kinks as their regular bassist.



Roland RS09 Organ/String Synth £531.35 inc VAT

This is a brand new string-type machine from Roland, and I'm always glad to review their products because they usually display a very high standard of workmanship, reliability, ease of operation, all at reasonable prices. The sounds produced by a Roland synth are, like any other, down to taste or requirement of the user, but the foregoing pluses can be guaranteed whatever else one may think. And indeed, the RS09 is no exception. I found, however, on giving this one a scan, that despite everything else I was a little puzzled as to why the instrument was produced. This is not a criticism as such, but a little bewilderment.

Let me explain. What Roland has tried to do is produce a machine that will supply the player with a selection of string sounds as well as organ sounds, all in the same little black box. Like other string synths, it's not a true polyphonic, in that it doesn't operate on the channel-assign principle, but you can press down as many keys as you like and expect to hear

something for your effort. It's a 44-key manual, which I found too short for the job it's expected to do. As the proud owner of an RS 202 string synth, I've been used to a little more range than $3\frac{1}{2}$ octaves, but the RS 09 has transposition switches that can increase its effective range over seven octaves. This seems to be fine in theory, but you can't have them all at once. The range possibilities, also, are fine in theory, but unobtainable simultaneously. A case of something looking better on the spec sheet than in use. I suppose I'd better describe the layout to you before I go any further.

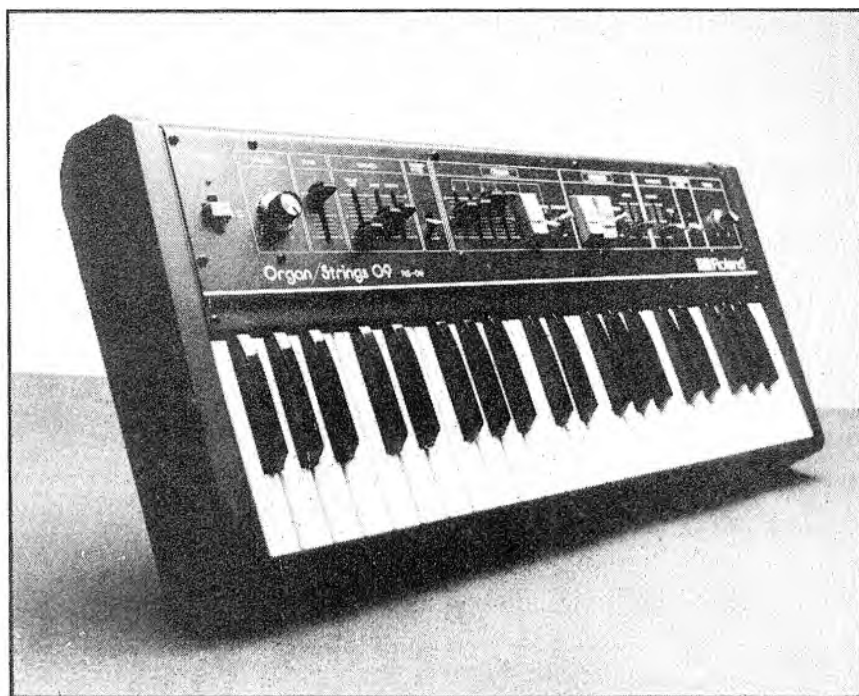
All the knobs, buttons and controls are arranged in the traditional manner on a panel above the keyboard, and, working from left to right, you will see that the *gubbins* covers the entire range of control functions from A to B.

First, on keyboard left, there's a master volume control, which lets you play very loud, and can be turned down to merely deafening if you wish. Next is a slider-type pot for controlling overall tone content, not terribly sophisticated as it's probably only a treble roll-off control, but no matter. Next, there's a bank of three similar sliders that look after the vibrato effects; one for rate, one for depth of effect and a final one that progressively delays the moment the vib starts after you've played a note. All very straightforward, and all standard Roland components. A simple throw switch beside the Vib Dept knocks the entire keyboard up or down by one octave. This looks after the basic overall keyboard control functions, which are sensibly all arranged to the left.

There now follows an organ control department, consisting of four volume sliders; a bit like a mini-mixer, as the various footages produced are independently brought up separate faders to be mixed together at your pleasure, or horror, if you don't like organs. The footages available are 8', 4', 2' and 1', which of course can all be transposed together down to 16', 8', 4', and 2' using the octave switch.

There's a simple tab button to switch in or out the entire organ effect, which over-rides the faders. The organ section has its own basic tone control (which is, of course, finally dependent on the master tone fader); a simple either/or device giving a soft or bright tone to everything. Finally, for the organ things, there is a switch that brings in what Roland calls the ensemble, or what I would call a modulation button, to make things sound swimmy or Leslie-like. By judicious balancing of the footage volumes in varying combinations, several different organ sounds can be obtained, but none of them, to my ear and taste, particularly impressive. There's no way to obtain any Hammond-style percussion, for instance, and so one is limited to a selection of rather tame chordal filler textures. Which may be fine if that's what you are looking for.

Now the strings bit. Although I'm aware that this is the same string unit as in the RS 202, which I like very much, I must confess some disappointment because it didn't sound the same to my ears. Two tabs bring in or out 8' and 4' ranges of string sounds, together or independently. An ensemble switch, as in the organ part, allows the modulation effect essential to a reasonable string impersonation to be used, and I can't see how you could do without it. But what I missed, coming from the 202, was the extra stage in ensemble available; i.e. the



third position (including OFF) which is not featured on this item and sounds so nice on the older RS 202 design. However, there is an attack time fader, which progressively increases the delay in audible note-appearance from the moment a key is pressed.

Final overall controls on panel right include an Envelope section, consisting of a release time fader, which is merely a sustain control; a two position release mode lever, which in one position delays the sound of any new key pressed from appearing until the previous one has died, and in the other spot, simply allows any keys pressed to decay at a rate set by the release fader, regardless of any newly depressed keys, which then themselves decay by the same rules. The very last switch is yet another two-position item that alters the ensemble effects slightly. You'd have to hear this to understand what it does, however.

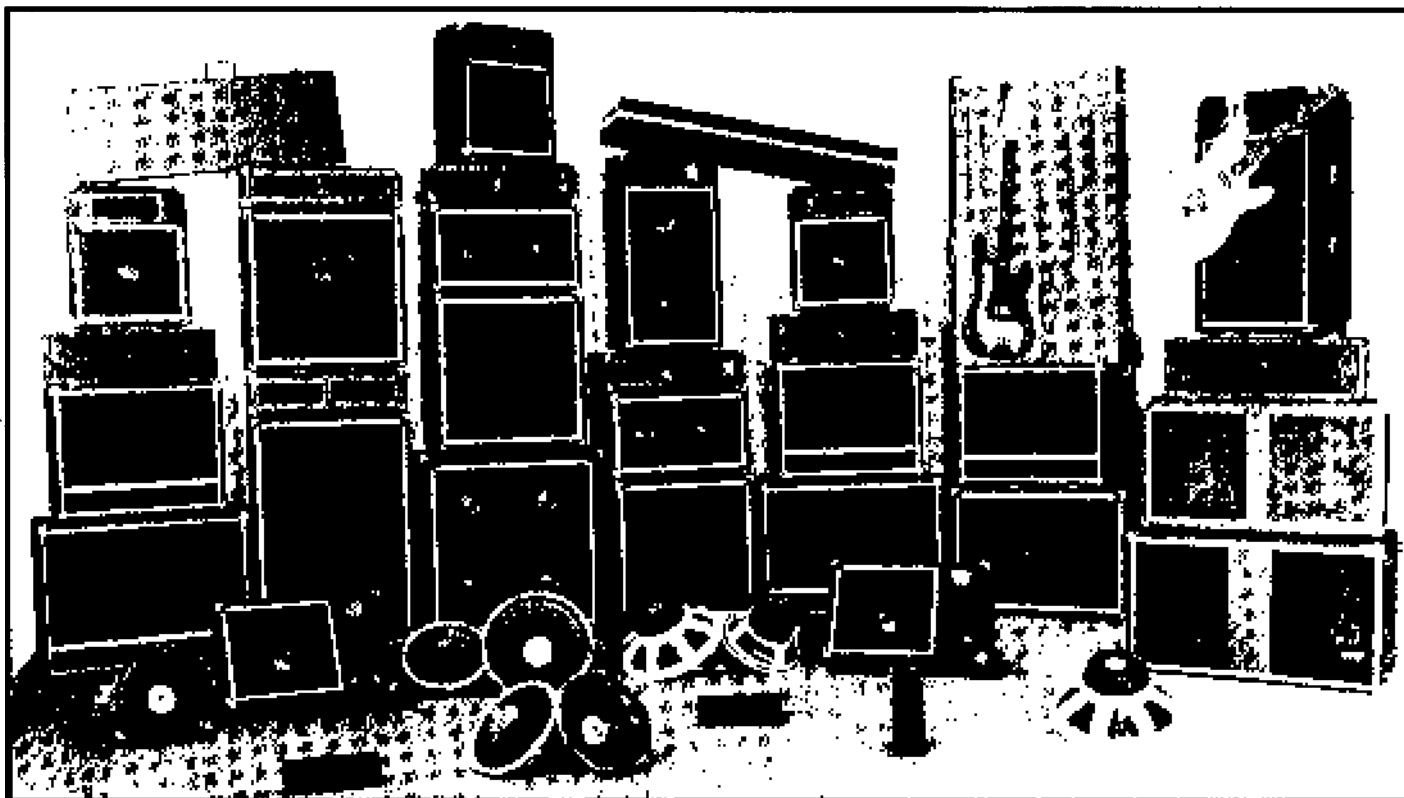
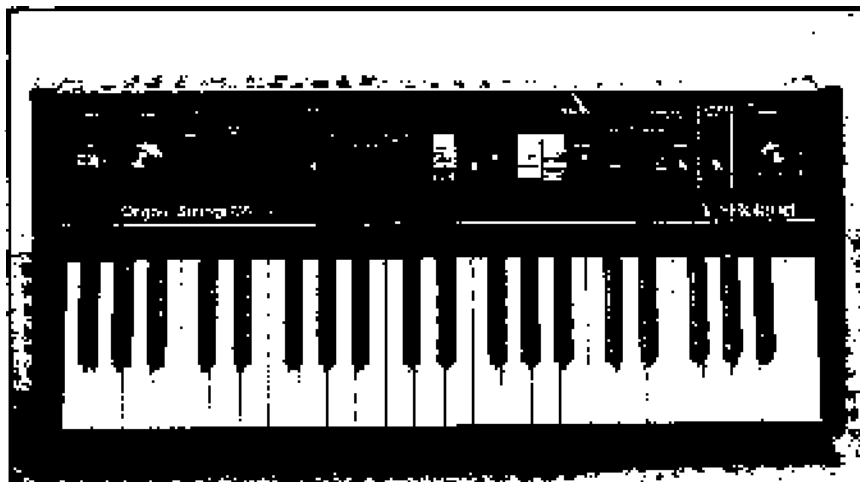
There is a profusion of back panel plumbing on this instrument, and all of it very worthwhile, except that it's a pity that such fittings are on this machine, and not on one with a bit more sound possibly. Without getting bogged down, Roland has supplied the user with a headphone output as well as the usual jack-out to amp, with three different output levels (select to taste). A further output carries the raw organ wave from that is interfaceable with an external input of another synth, to allow you to use the other synth's VCF section to further modify the sound. Here's some good thinking; a Gate Out jack, carrying the gate voltage that flows while a key is depressed allows you to connect to Gate In of

another synth, thus making possible the control of another synth's envelope generator.

Of course, the strings and organ parts may be used together or separately in any combination, and some very nice sounds can be found with a little exploration. But overall, I feel constrained to express not a little disappointment with the sounds produced by this instrument, and by its physical keyboard range, without switching octaves.

Robin Lumley

Robin Lumley is a record producer and keyboard player who has won international recognition through his work with Brand X and a wide variety of credits. He now divides his time between freelance producing and session playing both in Britain and the US.



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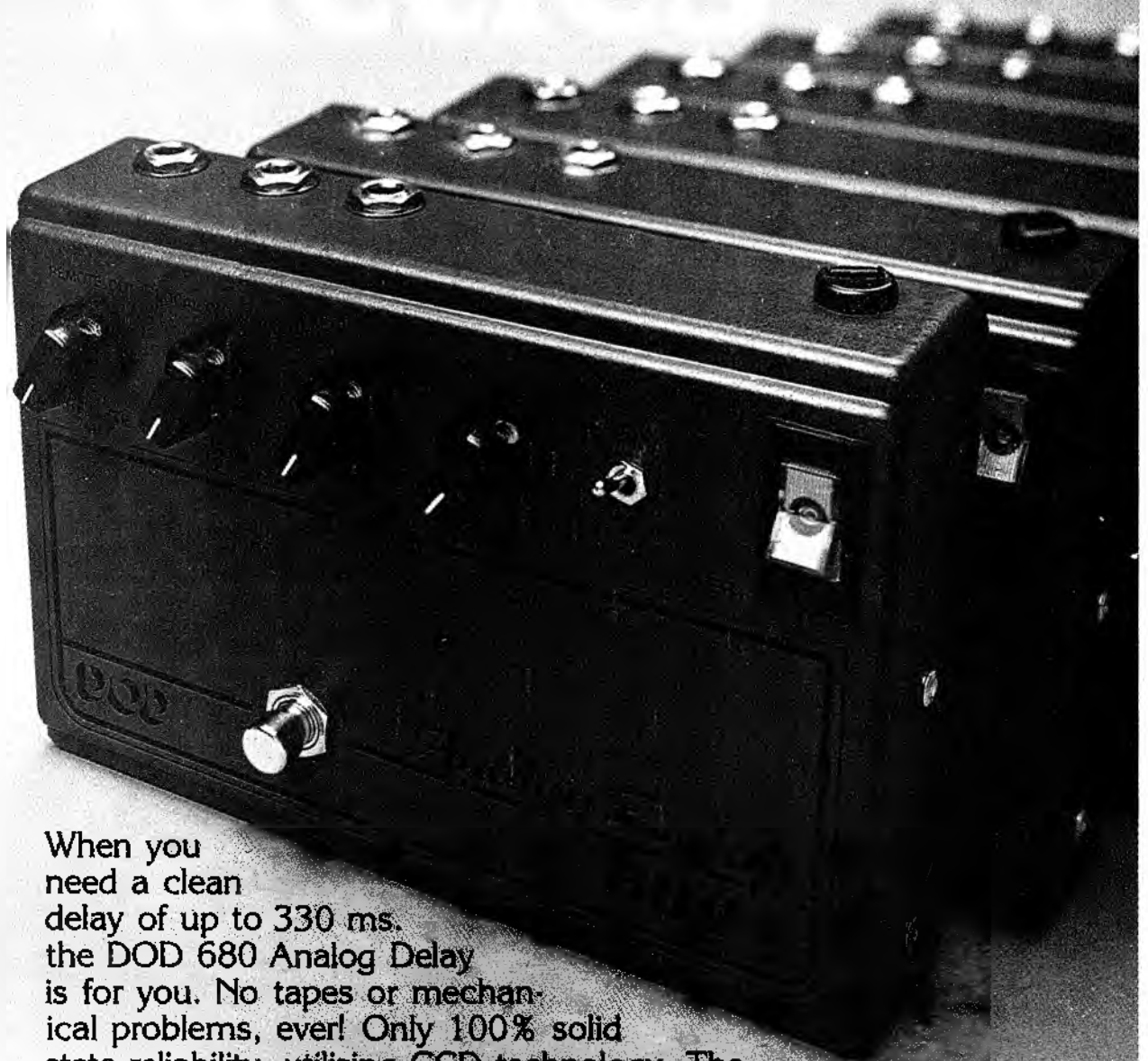
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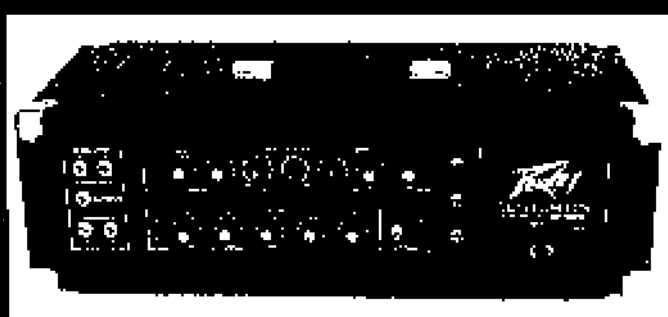
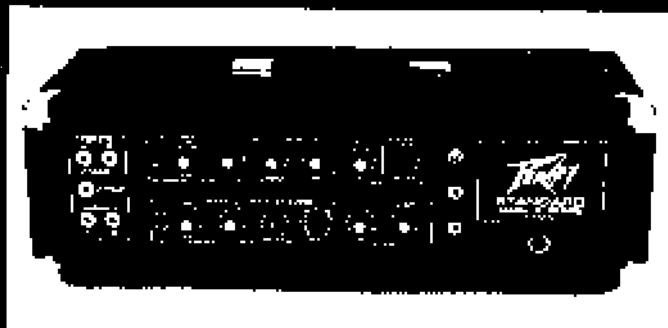
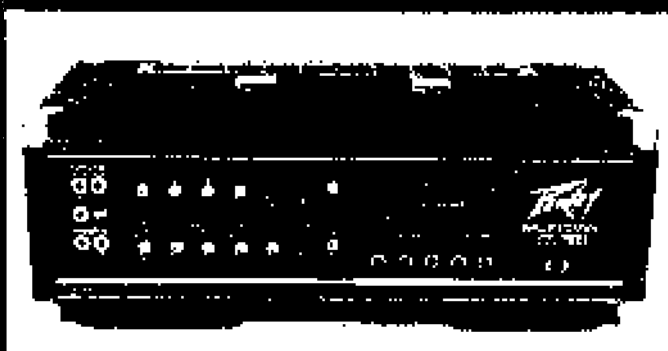
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Keyboardcheck

The Hammond B3/C3 were the "serious" organs of their time. If you were a keyboard player and inclined to the organ sound then the Hammond was the instrument to have. Its disappearance from the shops some years ago was a signal that Hammond was concentrating more on the domestic market where the turnover would be much greater. Therefore, the emergence of the B3000 will be hailed with relief by owners of ailing B3's or prospective organ owners with money to spend. Let me quickly point out that the B3000 is not cheap. The price includes the Leslie speaker cabinet and the bench. You can't buy the organ without them. For the same money you could buy other brand name instruments. What follows is an objective description of the various functions of the instrument with a subjective summation at the end.

The B3000 is almost identical in appearance to its predecessor — indeed it has all of the same facilities plus more. A B3 owner would immediately feel at home with it. The organ is lighter than the B3 though it still requires at least two people to move it around. I was told that the improved electronics have increased its reliability under stress (i.e. constant transportation) though the B3 was equally mobile. The innovations on the B3000 are: variable sustain, built-in variable reverb, the ability to transpose, piano and electric pianos (quite life-like), vibrato delay and a set of tonebars that Hammond has designated "Strings" in the manual.

The B3000 has two manuals each of five octaves, one directly above the other. These feel light, positive and easy to play, accepting the organ concept of touch. To the left of each is a further octave (colours reserved *à la* Harpsichord) of which nine notes give factory preset tonebar combinations and the upper two (A sharp and B) place the organ in manual mode by activating the tonebars.

These are situated behind and above the upper manual. The tonebars for the upper manual are on the left. Two groups each consist of 16', 5 1/3', 8', 4', 2 2/3', 2', 1 1/2', 1 1/3' and 1' harmonics (the 8' being the basic tone played). The next two tonebars, 16' and 8', are for the two octave pedalboard. This is a solid looking contrivance with full church organ sized pedals on which it would be possible to play rapid passages with the traditional heel and toe technique.

Mention of the pedals leads to the bench which is placed above them and is an integral, though physically detached, part of the package. Its wood veneer top, though undoubtedly most authentic looking in the church style, begins to appear a trifle spartan bearing in mind that other less clerical performers may be standing for hours at a time. Hopefully the music will be so exciting they'll want to stand up anyhow. Back to the tonebars: The lower manual has one set which are the same as the upper's (activated by the A sharp). The other set are the string section. This has two bars each for 16', 8', 4' and 2'. The dark-brown ones produce a flutelike tone and the light ones compliment this with a brighter, edgier sound. The flute sounds also have a 1' tonebar.

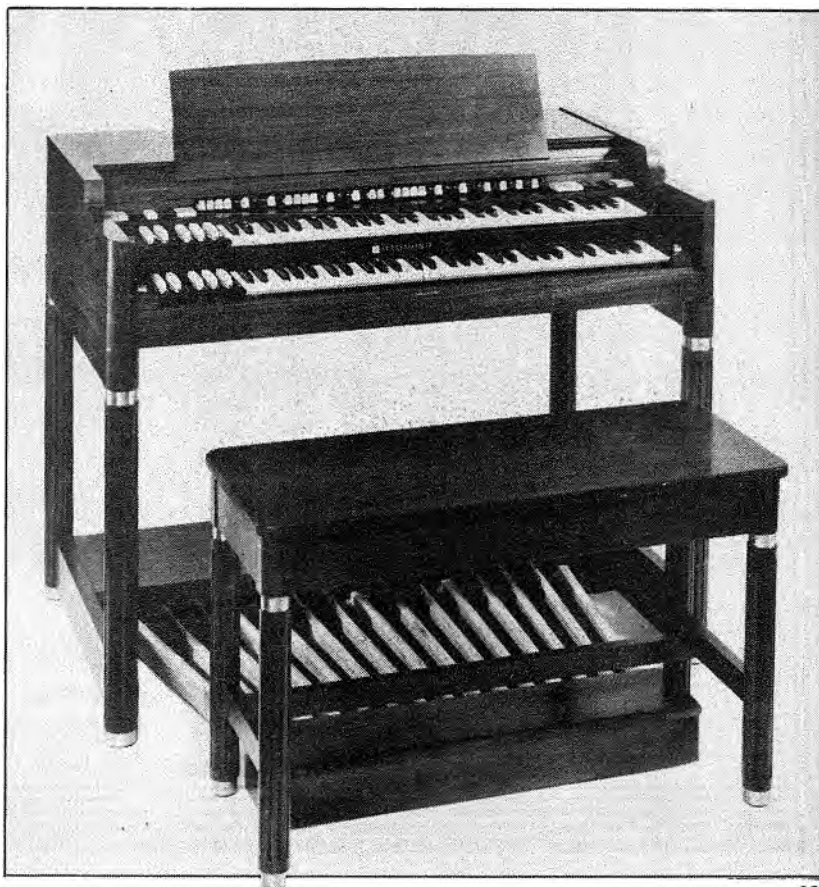
It's possible to create some unusual textures with this section especially in combination with the vibrato and Leslie controls. The "creative" organist will experiment with all these tone bars (not just the strings). Since the number of different combinations possible must run into figures of astronomical proportions, he will be able to keep himself amused for quite sometime. It's likely that

he will be less concerned with the remaining keys which offer the factory presets among which may be found such delights as "Full Tibias," "Novel Solo 8," "Full Theatre Bass," etc. Don't get me wrong — many of these textures are well usable and used Hammond organ sounds. It would be nice if one day they introduced presets that you could programme yourself. By pressing the bottom key (cancel) you may combine two or more presets or a preset and a manual registration.

To the left of the tonebars is the "Animation" section. The first switch, "Vibrato," affects both keyboards, the vibrato being of the kind that raises and lowers the pitch. Next to it the "Vibrato Small" switch serves to minimise that effect (thankfully) and the third switch "Vibrato Delay" needs no explanation save to say that the delay is about a second long. "Chorus On" means that the sound is heard through both the rotary and stationary channels of the Leslie cabinet. The speed of the rotor may be set to either fast or slow by the next switch. Adjacent to this is a red indicator light which, when lit, informs you that rotor is at the fast setting. On the left side of the volume pedal, which is conveniently situated for your right foot, there is a metal plate which, when nudged by the toe, performs the same function as the switch. The change between slow and fast is quite dramatic and it's a good idea to have obviated the need to raise one hand from the keyboard in order to make the change. There are two more switches for adding the rotary effect to upper or lower keyboard (or both).

On the right of the tonebars is the percussion section which is only available on the B section of the upper manual. Switches for second and third harmonics add these overtones in a short percussive attack which can be accentuated by adding the "Percussion Fast" switch for the biting effect of jazz organists in particular. The "Electric Piano" may be

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Keyboardcheck

used in combination with the tonebars but the "Grand Piano," which does sound surprisingly like someone playing a piano in the next room, overrides the electric piano. The "Key Click" switch is for lovers of the "dirty contact" B3 sound and sounds authentic. The "Pedal Mute" switch rolls some top off the pedal sound and the "Pedal Sustain" adds that quality in an attempt to suggest the sound of the plucked bass.

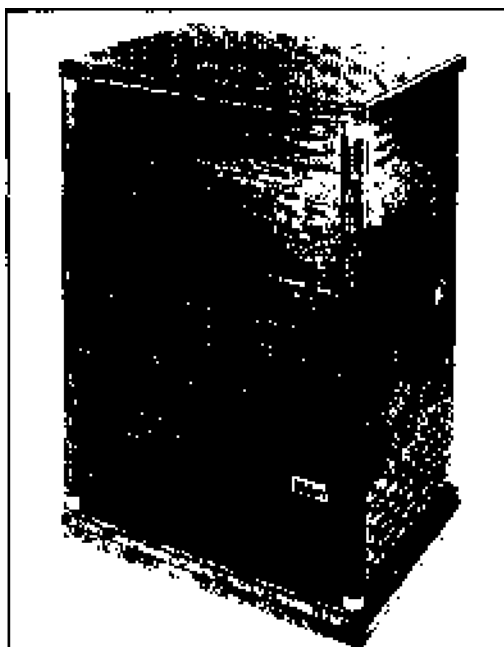
Four or five more controls to describe and we're finished. On the left of the upper manual is a slider marked "Sustain." This adds an adjustable amount of sustain to the upper manual tonebars (A sharp and B and the percussion). I was shown a way (not mentioned in the owner's manual) whereby the sustain could be introduced into all the upper presets. I have to admit that I've forgotten how it was done, but I do just remember that it was essential that all the upper tonebars be pushed right in at 0. On the right of the lower manual is another slider for reverb next to which is a switch to give you rotating reverb; a lovely effect. And there's that transposer. A slider shifts the sound in semitone steps either a tone up or two tones down. Unfortunately, you can't get in between the semitones so this doesn't become the first Hammond organ with pitch-bender, which is a pity. If you do set the slider in between clicks you'll get one of the hairiest organ sounds you'll ever hear. On the makers' claim that the transpose facility is "The Musician's dream come true," I have absolutely no comment.

That's the description. Of my own general impressions I can only say that if I ever did want to

buy an electric organ this is the one I'd go for (finances permitting), tremendous sound and power. You can't really review a thing like this any more than you can a Steinway grand — it just is.

Tony Hymas

In November's Keyboardcheck the price quoted for the WLM Hii Organ was incorrect. The price including pedalboard is £1499 inc. VAT, without pedalboard it is £1390 inc. VAT.



Tony Hymas is a keyboard player and composer with experience in rock, jazz and classical music. he has played with groups ranging from the Jack Bruce Band to the London Symphony Orchestra, and recently toured with the band fronted by Jeff Beck and Stanley Clarke.

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Sunn Alpha 112 PR combo amp. £249 inc.VAT

Sunn produce an extensive range of products which include several different ranges of amplifiers and combination speaker-amplifiers.

The amplifier that every bass player dreams about is the Coliseum bass producing a massive 320 WRMS. In the same range is the concert lead, concert bass and an all-valve amplifier, the model T.

There are two ranges that Sunn call self-contained amplifiers (i.e. combos). These are the Alpha and the popular Beta series. The Beta series are all 100 watt transistorised amplifiers and are available as both combination amplifiers/speakers and amplifier tops while the Alpha series are only available as combos.

The unit on test today is the Alpha 112 PR 50 watt reverb combination amplifier/speaker.

Construction

The overall construction of this unit is slightly different from that of conventional combos and so deserves a more detailed explanation. The combo is in two parts — a loudspeaker box and a chassis. This is not different in itself except that the chassis is shaped like an inverted 'U' and fits over the top of the enclosure so forming the top of the cabinet. The loudspeaker box is completely sealed and has side pieces extending vertically in order to support the chassis on top. The single 12" loudspeaker box is completely sealed and has side pieces extending vertically in order to support the chassis on top. The single 12" loudspeaker is bolted in from the front and is protected by a fine plastic mesh stretched on a frame bolted onto the front panel. To finish off two side pieces complete with protective edging strip are bolted onto the cabinet. These side pieces protrude

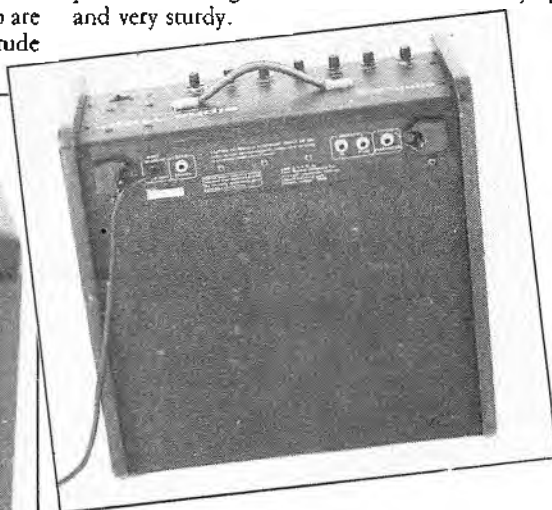
all round and offer protection for the operational controls and also act as feet.

Electronics

The chassis itself comprises of all the electronics save the spring reverb unit which is mounted in foam rubber in the space formed between the top of the cabinet and the chassis. All the components are mounted on a single printed circuit board and in addition, a single mains transformer prewired for 240 volts operation mounted directly onto the chassis. The power amplifier and transistors are also on the one p.c. board and are mounted on an aluminium angle which provides some mechanical support for the board. Additional support is provided by the front panel controls which are also mounted directly onto the board.

These top panel controls are from left to right drive, bass, mid boost, mid centre frequency, treble, level (volume) and reverb. An illuminated red neon rocker switch is provided for mains on/off. The back panel has provision for a reverb on/off switch (foot) jack and a useful extra accessory in/out. No loudspeaker output is provided but instead a headphone jack socket which is next to a captive mains lead.

In general the construction of both the cabinet and the chassis is of a very high standard as one would expect. Although the printed circuit board is well laid out I was a little concerned to see in several places odd capacitors and resistors added in as an after-thought. Certainly with the chassis and side panels bolted together the combo is reasonably light and very sturdy.



Operation

Sunn place particular emphasis on C-MOS technology to obtain what they call the "tube" sound. They claim that this makes it much easier to obtain both clean sounds and overdrive sustain. In fact Sunn have for quite some time claimed to build into their amplifiers the "tube" sound using F.E.T.'s (Field Effect Transistors). Initially on switching on I was a little disappointed with the sound especially when the first thing that I did was to crank up the drive control to see what the overdrive sustain was like. It is very difficult to equate a very quiet sustainy sound with a valve amplifier running flat out. So when turned up this amplifier started to sound a lot nicer. The amount of overdrive available at low volume levels, even with a guitar such as a Strat, is extremely good. It

was just that it didn't sound to me like a valve sound. All of the tone controls act after the distortion stage so the only way to tone correct before the distortion is by selecting the brite (bass cut) or normal inputs or by adjusting the guitar tone controls. It seemed to me that perhaps just a little more bass cut would have improved the sound no end.

A nice touch is that the drive control only provides overload distortion near the top end of its travel and then all of a sudden. It does allow easy selection of a basic clean sound without too much fiddling with the controls. Turning up the level (volume) transforms the clean sound into a very convincing valve distortion. In fact by keeping the drive control turned down and altering the level control this amp behaves more like a 50 watt valve amp than a solid state one.

Pushing up both drive and level controls a quite remarkable input sensitivity of $\frac{1}{2}$ mV provides as much sustain at high power as you would ever want.

Both bass and treble controls have a very useful range (over 30dB) but more important the frequencies at which they operate have been chosen well to suit the electric guitar (in particular the bass control which acts at a higher frequency than on many other guitar amplifiers). Both mid boost and centre frequency controls are provided to allow more control over the guitar sound. In particular it is possible to accentuate the characteristic sound of a guitar simply by fine tuning of the centre frequency adjustment.

When all tone controls are turned down to the minimum position there is no output. Personally, I prefer the more usual type of tone controls that allow you to start with a basic sound and then modify it.

On the negative side I did not like the control knobs. They looked a little cheap and plasticky although they appeared to be quite sturdy. I was also a little worried that the protection afforded by the side panels would not be enough to stop the odd control from being damaged easily, especially when subjected to the normal on the road conditions.

What perhaps was a little more worrying was the ease with which it was most possible to push the plastic mesh (speaker grille) in and touch the loudspeaker cone. It would be all too easy to accidentally damage the loudspeaker with a careless kick.

On this sample there did not seem to be very much reverb level even when turned up full. The reverb sound seemed fine but it was difficult to really judge it properly because of lack of level.

Conclusions

In general, the reaction to this amp by musicians was favourable. Apart from one or two reservations the amp performed extremely well.

When used in the "live gig" situation its high level "tube" sustain was remarkable. In fact in this respect it has few rivals. With 50 watts of output into a single 12" loudspeaker the amp was loud but not overpowering so it probably would be better suited for studio or non-heavy rock situations. However there is always the Beta range.

At a price of £249 including VAT for an American import it must represent good value for money.

Dave Mann

TECHNICAL SPEC

OUTPUT POWER:	51.5 WRMS @1kHz into 8 ohms before clipping. Seemingly no electronic protection but no speaker output provided so not really necessary.
INPUT SENSITIVITY:	0.5mV for full output at 1kHz with drive and level controls full-bass and treble in mid position with mid-boost at min. Very good input sensitivity especially as also accepts input levels up to 10 volts. Allows the amp to be used safely with any guitar.
INPUTS:	BRITE, NORMAL. Brite input could do with a little more bass cut for sustain.
TOPE CONTROLS:	Bass range at 100Hz — 32.5dB. Treble range at 10kHz — 31dB. Mid boost range — 22-24dB. Mid frequency range — 330Hz-3.3kHz. Unfortunately all the tone controls interact so each figure was obtained with the other controls in the mid position. However very good range on all controls.
HUM & NOISE:	No detectable mains hum. S/N Ratio — dB measured with eq. flat and drive and level controls full with input shorted. (Referred to full power). Very good considering high input sensitivity.
OUTPUTS:	Headphone jack output mutes loudspeaker and suitable for either low or high impedance headphones. Aux. in/out. for connection to effects units.
COMMENTS:	Mains cable integral with amp but cable clips provided on back panel for winding cable on. No cover provided.

Dave Mann gained an honours degree in Electronic Engineering at Southampton University in 1972. Since then he has been working in Television and Sound Studios with more recent involvement in the design of guitar amplifiers. He is also a member of a regularly gigging band.



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Guitarcheck

**Aria
R.S 850
£372.50
inc VAT**

The RS 850 is one of a series of two solid guitars and two basses featuring the latest bit of musical technology from Aria — "Revolutionary Sound". I am not sure which bit of the sound is revolutionary. The 850 has some quite fancy internal electronics: essentially, each pickup has an "active" low-pass tone control of which both the turnover frequency and the "Q" factor can be altered to provide a great variety of different sounds. The other guitar, RS 750, and the two basses appear to have similar styling but less complex electronics.

The RS 850 seems to owe some part of its design principles to the pioneering work of the American Alembic company. For a reasonably-priced guitar, this can not be a bad starting point. Alembic were putting complex electronics into guitars when some Japanese companies were still learning how to make a reasonably straight guitar neck! I would not suggest for one minute that this guitar was a copy of an Alembic instrument. The body and head shape are quite different and anyway, the better-known Japanese brand-names have progressed beyond "copies" (at least where their export markets are concerned!!) However, the general influence is fairly clear. If both companies have truly arrived at the same idea independently, I would consider it a quite astonishing coincidence.

Although this guitar appears to have three single-coil pickups in the usual arrangement, the

centre pickup is permanently in circuit and the three-way pickup switch can select, in addition, pickups 1, or 3, or 1 plus 3.

A single-coil pickup is, by its nature, more sensitive than a twin-coil "humbucker" to surrounding hum fields and other electrical interference. However, as well as cancelling out the hum, a twin coil pickup also cancels out some of the harmonics from the vibrating string. It also usually has a more complex magnetic structure than a single-coil pickup, and a greater internal inductance. This all begins to sound rather difficult.

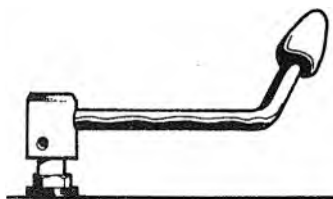
The end result is that generally speaking, humbucking pickups collect less unwanted hum and noise, but they don't have the clarity and sparkle of a good single-coil pickup. Many players prefer the brighter sound of single-coil pickups and usually must accept certain problems with unwanted electrical noises. Alembic's solution was to use a separate pickup coil, which would receive more or less the same interference signals as the guitar's normal pickups. This "interference" signal was then subtracted from the guitar's usual "music plus interference" signal, leaving something fairly close to a clean signal, of music *only*, without the hum, buzz and crackle.

That is a very simplified description, but I think it is enough to explain what a third pickup is doing in the middle of this Aria guitar. With a little careful juggling of coil directions and magnet polarity, it is possible to arrange for the centre pickup to add a little more to the music signal, while still cancelling out the hum. How much the centre pickup contributes to the music signal is a matter of individual taste and may be adjusted by raising or lowering the middle pickup relative to the other two. I believe that on Alembic guitars it is kept well away from the strings: this would suggest that on an Alembic, the centre coil contributes very little to the final music signal. On the Aria, the centre pickup is adjustable and provides something for a discontented guitarist to play with, while searching for the perfect sound. As the tone controls and relative pickup heights provide more than three variables, the variety of possible subtle shades of sound is almost unlimited. As a general guide, I would suggest that you will hear brighter and thinner sounds with the centre pickup well away from the strings, and fatter sounds with the centre pickup at about the same distance from the strings as the other two pickups. Not satisfied with this reversed-phased, electronic version of "Find the Lady," the RS 850 also has separate, variable Q, active filters on each of the two main pickups.

So far in the description, you may have been interested in how the guitar functions under that impressive brass lid at the back, but very little is required from you, the player. So far, it is all done for you. You don't need to know what the middle pickup does. So long as the guitar pleases you and makes the sounds you want, it doesn't matter if it is filled with equal proportions of treacle and old shoe-leather. (I did once see an experimental reverb unit built round a plastic drainpipe filled with industrial hand-cleaning jelly. To everyone's astonishment, it worked). However, the *tone filters* on each pickup have such a wide effect, that they need to be adjusted with some understanding and a fairly light touch. Both filters seem to be the same, or very similar, so it will be sufficient if I describe only the tone controls around the bridge pickup.

The bridge pickup is selected by turning the small knob, on the treble-side cutaway, fully anti-clockwise. If you are lucky, the pointer on the knob





should then point roughly towards the bridge pickup. On our review sample, this knob was a bit loose and would point in a variety of directions — in spite of having *two* fixing screws. Although this kind of miniature rotary switch is likely to give less trouble than the usual American-style three-way selector switch, and is probably more robust than the alternative miniature selector switches, I find the switch on this guitar difficult to use, while holding a pick at the same time. I also find it difficult to see, and remember, which way the knob is pointing. I could probably adapt fairly quickly to the idea of a *rotary* pickup switch rather than a lever-switch, but I think the use of a rotary selector switch makes the choice of a suitable knob for it much more critical. I don't think the present knob is the best choice, but I must admit that I could not easily find a better one, readily available. I offer as a suggestion, this lever-knob, which I have drawn in slightly exaggerated form to make the principle clear.

The tone control for the treble pickup consists of a rotary knob and a three-way Q switch which work in combination. At each of the three switch positions, the rotary knob gives a brighter sound when turned clockwise and a more bassy or more middley sound when turned anti-clockwise. This is roughly the same effect that you would find on any electric guitar. However, you may have noticed that some electric guitars have individual and characteristic "voicings". It is often difficult or impossible to use one instrument to duplicate the sound of another, whatever tone settings and pickup combinations are used. I think the popularity of certain guitar and amplifier combinations depends, in part, on the distinctive character of the sound produced. Unfortunately, instruments and equipment combinations which have a very definite and individual sound colouration tend also to be less versatile because of this. To put it another way, you may love your XYZ-Junior and 1950's White Lightning' amp for playing Southern Baptist hymns, as you watch the sun rise over Clerkenwell, but they are not going to do much for your latest disco single.

One attempt at providing guitars with a distinctive but changeable sound character is the use of variable Q tone filters, and this is where the three-way switches became important. In the left-hand switch position, the tone knob appears to work like an ordinary guitar tone control.

When the switch is in the middle position, the tone knob appears to vary the brightness of the sound, while at the same time giving a bit of emphasis to different parts of the sound between the mid-range and the upper string harmonics.

There is also a right-hand switch position. This provides dramatic sound changes as you turn the tone control knob. The best description I can find, is that it sounds like a tone control and a wah-pedal, linked together and operated by the same knob. The filter is probably covering a narrower range of notes, but emphasising this narrower range more strongly than before. It is this high-Q filter setting which produces the strange synthesizer-like sounds from an Alembic bass.

I would make one fairly serious criticism of this guitar: it applies equally to some recently produced instruments of other makes. These guitars rely absolutely on batteries to power their internal electronics, and have no by-pass arrangements in case the batteries are allowed to run down. If the batteries are dead, then so is the guitar!

Of course one does not expect the piece of equipment to perform as usual

batteries, but I feel that it should be able to function in some more limited way to cope with emergencies. In fairness to Aria and their agents, I will repeat that this difficulty applies to other makes of guitars as well, and that in most cases, an electronic repairman could fit a by-pass switch inside the battery compartment without too much trouble or expense. If just one pickup can be connected directly to the jack socket, it will usually be enough to get you out of trouble. So much for the electronics, but for around £370, one expects rather more than three pickups and a couple of variable filters. Ignoring the electronic features, what is it like as a guitar?

First of all, I am inclined to mention that "all which glistens" is not necessarily gold — or in this case, is not necessarily brass either. The RS850 has a nice looking and very well designed bridge and tailpiece in a lacquered, satin-brass finish. Now these components are well made, and neatly finished, and probably rather better in some important respects than other similar — looking units, on other guitars, however, neither bridge nor tailpiece is actually made from brass. They seem to be made from the same sort of die-casting alloy which is used for the better grades of gold-plated and chrome plated Japanese guitar fittings. Brass is at the moment a popular colour for guitar fittings, and this guitar is dressed in the latest fashion. Brass plating, like gold plating on most guitar fittings, will probably begin to deteriorate when the lacquer film wears through, but if you catch it before the base metal becomes corroded, most die-cast components can be re-plated and re-lacquered, by specialist electroplating firms. I have never met a plater who was actually enthusiastic about replating on zinc alloy, but some companies will accept such work, generally at the owner's risk. All my important electroplating work goes to T. Smith and Co, of Clerkenwell to whom I gratefully dedicate this free advertisement (35 Clerkenwell Close, London E.C.1 01-253 7314).

Although the RS series guitars all have 24 frets on the fingerboard, they do not have the neck-heavy unbalanced feel of many two-octave guitars. The neck runs straight through the centre of the body and there is practically no heel at the back of the neck by the body joint. The neck is blended into the back of the body shape giving really excellent access to all the highest frets. Nothing interferes with the movement of your hand up the fingerboard, until your thumb or fingers hit the sides of the cutaways, by that stage, your third finger is comfortably over the 24th fret. The transition from neck to body is strong, pleasant to look at and convenient for the player, and the deep, double cutaway design, more like a bass than a guitar, makes the instrument surprisingly easy to handle.

No obvious neck and/or body resonances appear until the open string G and the F below, on the D string. I am very surprised that there appear to be no significant resonances above this point. The top strings have a smooth and pleasing kind of sustain/decay envelope over the entire range from G-sharp on the third string to high E on the top string, at the 24th fret. This is an unusually good performance for any electric guitar and I would consider it a good instrument, (if perhaps rather expensive) even without the electronic tricks.

The neck feels a little wider than usual across the fingerboard and therefore also slightly more 'rectangular', (rather than round or pointed,) at the back. It is therefore not the slimmest neck I have reviewed in the last few years. However, the slight

additional width does make life easier for those people who are not blessed with narrow fingertips. We are only concerned here with perhaps one millimetre extra in width and a very subtle change in shape at the back of the neck. In no way does it feel clumsy, or difficult to handle, but it does feel very slightly wider, and the strings seem to be spaced a little further apart. Neck shaping is quite a subtle business, and actual measurements may not in this case tell the whole story. Like many people, I have fairly broad fingertips. I prefer to play instruments, either with very narrow fingerboards, and the strings so close together that I can consistently cover two strings with one fingertip, or alternatively, instruments like this Aria with sufficiently wide string spacing that I can easily fret one string without touching the adjacent strings.

Many otherwise pleasant guitars fall between these two categories. While I am happy to review them on behalf of people with long, slim fingers, I would not wish to own any of them. Fat -- fingered guitarists of the world unite, and go and try a RS850. If you don't need the filters (or the fairly high price) there is a similar guitar in the catalogue, with almost standard electronics, called RS 750. This appears to have the same neck and fingerboard.

The fingerboard is described in the catalogue as ebony. On our sample, it is black and dark brown, with faint gold stripes. There is quite a lot of this sort of ebony about; not all ebony is black. Usually people put black paint or dye on the figured ebony, which I think is a pity, because it looks attractive in its own right. It also looks more appropriate with the colours of this guitar than a uniform dead black surface, all credit to the makers for omitting the black paint job. This is a nice fingerboard, the colour is real and it is not going to come off on your fingers after a few weeks.

The frets are wide, rounded and fairly high. I like them, but if you are heavy-handed, play a lot of chords, and like *very* light strings, you might prefer to have the frets reduced in height by about a quarter and then re-shaped to the same rounded profile. Average players using average light or slinky strings would probably be happy with the frets as they are. Fairly high, polished frets and a hard, polished fingerboard make string bending almost effortless.

The fingerboard inlays are imitation pearl plastic and not very convincing. I do not mind plastic inlays on electric guitars, but I have seen better examples of plastic pearl. It is perfectly adequate for position markers but it does not look as carefully judged as the rest of the guitar. I also notice that except for the addition of four round black dots, this inlay pattern is remarkably similar to the fingerboard of one particular Alembic guitar. (For example, see page 4 of the 78/79 Japan electronic musical instruments catalogue).

The neck and the centre section of the body are made from a five piece maple and walnut laminate. At the body end, there are two more thick walnut layers and then the main outer "wings" of the body. This main part of the body is probably ash wood and is tinted to a middle brown colour to contrast with the blond neck and centre body section. I believe the same guitar is also available in a completely blonde finish and also in "Japan Brown".

The overall finish of wood and lacquer is very good. The masking at the edge of the tinted sections is not quite perfect and one side of the cutaway is slightly lumpy where it joins the neck, but neither of these is particularly important.

The head outline is approximately in the same style as Fender instruments with all the machine heads on the bass side. Because of the close spacing of the machines on Fender guitars, it was found necessary to cut away part of the screw lugs on adjacent machine heads leaving just half a screw hole on each. When butted together, adjacent machine heads would make up one complete screw hole and would share one fixing screw. I find it fascinating that the Japanese machinists on this Aria have reproduced the general styling of the American (Kluson) machines, including the problem that they are really too large for this kind of head. Yes, you have guessed it — The screw lugs on adjacent machines are cut short leaving only half a screw hole on each lug!

I once found a tiny mould-makers' mark on the plastic coil bobbin of an American pickup. About a year later, I found an apparently identical tiny mark on the bobbin of a Japanese pickup. In each case, the tiny mark was only visible *after* the pickup had been taken apart. I have been assured, by several perfectly straight faces, that the Japanese component is actually a copy of the American one. It makes you wonder, doesn't it!

Conclusion

This a pleasing and well balanced guitar (in more than one sense), which has effectively dealt with plagiaristic difficulties by borrowing design influences from several different guitars. The result should have been a disaster, but it is nothing like it. It looks good, feels good, and it would be worth serious consideration even without its active filter tone controls. I find the pickup selector inconvenient: you may not agree. The tone and volume knobs do have small silver position marker dots, (which is an improvement over most of the featureless metal guitar knobs,) but engraved numbers around the edge would be more useful. I do not like guitars which are absolutely dependent on internal batteries. If that is the way the wind is blowing, (and it may well be so) I shall continue to go against it. Incidentally, the very similar RS750 guitar and the 650 and 550 basses do not appear to rely on batteries.

The RS guitars and basses are Aria's latest new instruments. The two guitars and two basses share similar design ideas. Judging by this review guitar, I would expect them to be a popular and successful addition to the Aria range. I am still trying to work out how they can make a 24 fret guitar balance so well: The theory is easy enough, but not many companies have actually managed to do it.

I can understand Aria's wish that their new guitar should be easily recognised, but I would prefer a smaller and more sensitive logo on the head.

Measurements on Aria RS850 Ser. 109071.

Scale length 650 mm

String spacing at bridge 50 mm

Fingerboard width at nut 44 mm

String spacing at nut 36 mm

Depth of neck at fret 1 20 mm

Depth at fret 12 23 mm

Depth at fret 15 24 mm

Action as supplied 0.8 mm treble // 1.7 mm bass.

Lowest recommended action under our standard conditions 0.9 mm treble // 2.0 mm bass.

24 frets on fingerboard. Body joins at fret 21 on treble side. No effective heel — back of neck blended into body. This sort of low action would indicate that the frets have been finished with care.

Stephen Delft

Stephen Delft is a maker and repairer of guitars and other instruments, and a member of the Institute of Musical Instrument Technology. He is also a more than capable performer on the guitar.

General Purpose 15" Cone Drivers

Due to the number of 15" loudspeaker units in the professional category which have been submitted for review, we are having to revise our Speakercheck schedule to enable two months' reviews to be devoted to this one category. The revised schedule is as follows:

February 1980 — Professional 15" units part 1.
 March 1980 — Professional 15" units part 2.
 April 1980 — 18" units — all types.
 May 1980 — 8", 9" and 10" units.

In this month's feature, we have five units from the general purpose category and all manufactured in the UK, although one, the Richard Allan Atlas 15 is a marginal as its price tag indicates that it should be in the professional group, while its overall performance is more akin to the type now under consideration, and as we have only

a few general purpose units submitted, we have chosen to include it this month.

To return to this month's results, it will be seen that there is considerable similarity between many of the units tested. All except one came up with the same sensitivity figure of 98dB for one watt at one metre. The exception was the Fane Classic 150 which is significantly more sensitive at 100dB under the same conditions. It is again interesting to find that despite the similarity in sensitivity, the sound pressure level generated at full input power varies considerably with the HH B15L producing 115dB(A) for 100 watts of pink noise, the Formac M110B 116dB(A), and the Celestion 116.5dB(A), while the Fane Classic 150 produced 117.5dB(A) for 150 watts, and the Richard Allan Atlas 15 was for some reason half a dB less at 117dB(A) for 250 watts.

All the units submitted confirmed the makers power ratings and all exhibited a useful frequency response. There are however one or two impedance

peculiarities and these are discussed in the individual reviews. The Richard Allan and HH units came up with the lowest distortion figures at 3 per cent, but due to time limitations in the lab, we could not re-test at a higher power level.

As to which is the best overall loudspeaker I would be hesitant to say. The HH, Formac and Celestion units all have a lot to commend them at around the £40 mark, while the Fane at just under £50 offers another 50 watts of power handling and another 2dB of sensitivity. The Richard Allan is also a good unit, but due to the effects of compression at high power levels, produces little more actual acoustic output at 150 watts than does its competitors at 100/150 watts, and this must undermine the benefit of its incredible 250 watt power rating. Also, it is very expensive by comparison at around £80.

Next month we shall look at more 15" units, this time at the professional end of the market.

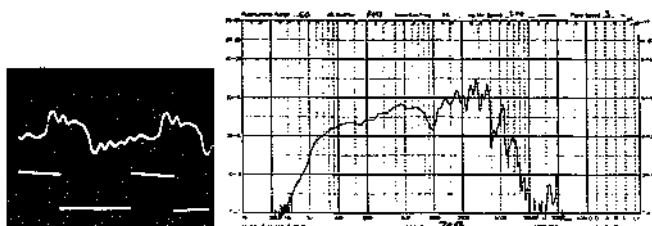
Ken Dibble

HH ACOUSTICS B15L (UK)

Price around £38 incl. VAT

Parameter	Manufacturers Rating	Test Result
Frequency response	30Hz-4.5kHz	Useful to 7.5kHz (-12dB)
Sensitivity	0.8W for 96dB@1m	98dB@1W@1m av. 400Hz-4kHz
SPL	Not stated	115dB(A) @100W@1m pink noise
Power	Use with 100W amplifier	Confirmed at 100W sine wave
THD	Not stated	3% @100W RMS sine wave
Impedance	8 ohms nominal*	10-35 ohms
Resonance	40Hz free air	70Hz in std. 901tr. enclosure

*Also available in 4 and 16 ohm impedance.



The HH magnesium chassis has a rather more substantial look about it than does the Formac M100B also included in this review. It has eight reinforced spokes and would appear to be of a more sturdy, if more conventional design, and is suitable for either front or rear mounting arrangements. The cone assembly is a medium weight ribbed paper carried by a specially treated elastomer damped linen suspension system of medium compliance. The cone is fitted with a silver painted linen dome and is visually very similar to the new Formac unit. The standard of engineering and finish is of a very high order indeed and in fact, the chassis is also used for the HH professional range which we shall be looking at next month.

There do not seem to be any problems from a performance aspect either. The frequency response range as claimed by the manufacturer is exceeded by 3kHz, although it is likely that dispersion will not be very wide at these frequencies from a 15" cone. Sensitivity is about average for this type of transducer and the 100 watt power rating is confirmed at just three per cent total harmonic distortion. The impulse response trace shows good transient response, with only minor amounts of overshoot and fairly rapid settling and can be expected to produce a crisp and punchy bass sound when housed in a suitable cabinet. It would probably benefit from a properly tuned reflex enclosure. The one area of concern is the impedance. Note that the actual value never dropped below 10 ohms as measured, and this means that as the full power test voltage is calculated to dissipate the rated power at the rated impedance, the actual power being fed in was only 80 watts maximum. It would be possible to squeeze another dB or two of sensitivity out of the unit if the impedance values were more in keeping with normal values for an eight ohm nominal rating.

Nevertheless, this is a very nicely made loudspeaker, which fully confirmed the makers specifications at a competitive price.

FORMAC M100B (UK)

Price around £37 incl. VAT

Parameter	Manufacturers Rating	Test Result
Frequency response	Useful to 6kHz	Useful to 5.5kHz (-12dB)
Sensitivity	Not stated	98dB @ 1W @ 1m av. 400Hz-4kHz
SPL	Not stated	116dB(A) @ 100W RMS sine wave
Power	Use with 100W amplifier	Confirmed @ 100W RMS sine wave
THD	Not stated	5% @ 100W RMS sine wave
Impedance	8 ohms nominal	7-25 ohms
Resonance	40Hz free air	70Hz in std. 90ltr. enclosure



This is a brand new loudspeaker from a new UK manufacturer, Formac Loudspeaker Developments Ltd. Formac is the brainchild of the man who was responsible for the design of most of the HH Acoustics loudspeakers units, Ed Form, who, after working at the long defunct EMI loudspeaker factory, started Invader loudspeakers, later moved to HH Acoustics and is now doing his own thing again. Ed's faith in cast magnesium as a loudspeaker chassis material as evidenced by the HH range, has been carried into the Formac project, and huge capital investments have been made in special tooling to produce a rather nice, six spoked chassis that is of an individual design and exclusive to Formac. Of particular interest is the unusually wide front rim, which has been designed so that the bolt holes are on a larger pitch circle diameter to prevent breaking through into the actual chassis cut-out — which is itself of the standard diameter. In fact, the bolt holes will line up with many clamp assembled mounting holes, which of course results in a larger than usual overall diameter — the visual aspect of which is effectively mitigated by the squared shape of the outer flange. Also, the inner gasket, fitted as standard to facilitate front loading, is properly housed in a cast channel instead of comprising simply of a strip of felt attached to the underside of the front rim — which is the usual practice. A lightish ribbed cone is carried by a nicely compliant double roll cambric front suspension and a silver painted linen dust dome is fitted. The loudspeaker does not have a particularly substantial feel to it, nor does it look impressive, but it is very nicely engineered — this being of course one of the attributes a magnesium casting i.e. great strength and rigidity for a smallish cross sectional area of material and light weight. The overall quality of manufacture and finish is of a very high order indeed for a loudspeaker in this price range. From a performance aspect, it can be seen that the unit gave a good overall account of itself, and although its sensitivity is about average for a unit of this type, it can be seen that the frequency response is noticeably more uniform between about 100Hz and the presence peak than any of its competitors included in this review — its nearest rival in this respect being the Celestion G15/100. Also, the low frequency output level is maintained down to about 80Hz before falling off in our enclosure and this is particularly good for a general purpose loudspeaker. The impulse response trace shows a near perfect reproduction of our pulse waveform, with very little overshoot in either direction and very rapid settling between pulses. I would expect this unit to provide unique reproduction of any bass instrument. Properly housed, it should provide a full rich and clean sound quality and if crossed over below 1kHz, should also make an ideal bass driver in a PA bin. Note also that the sound pressure level at 100 watts of 116dB(A) is only 1dB less than the SPL achieved by the Richard Allan Atlas 15 at 250 watts, despite the fact that both have similar sensitivities of 98dB.

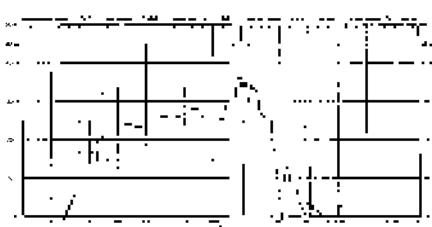
Altogether a rather nice loudspeaker at an exceptionally attractive price, and one which should get Formac off to a good start.

CELESTION G15/100CE (UK)

Price around £40 incl. VAT

Parameter	Manufacturers Rating	Test Result
Frequency response	35Hz-6kHz	Useful to 4.2kHz (-12dB)
Sensitivity	96.5dB@1W@1m av.	98dB@1W @ 1m av. 400Hz-4kHz
SPL	Not stated	116.5dB(A) @ 100W @ 1m pink noise
Power	100W unqualified	Confirmed @ 100W RMS sine wave
THD	Not stated	5% @ 100W RMS sine wave
Impedance	8 ohms nominal*	8.5-33 ohms
Resonance	40Hz free air	65Hz in st. 90ltr enclosure

* Also available in 16 ohms impedance.

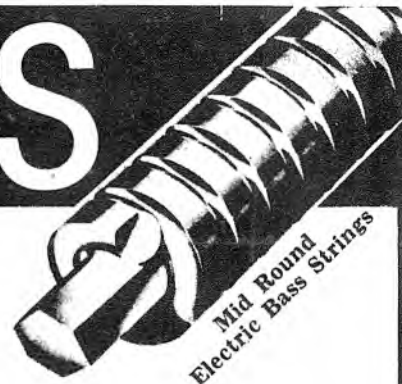


Here is yet another very fine, cast alloy chassis of substantial proportions, suitable for front or rear mounting and with gaskets fitted for both. It is a four spoke open design with adequate ribbing of the spokes to ensure absolute rigidity and should be quite capable of carrying a much larger magnet assembly than the one fitted in this particular instance. The standard of manufacture and finish is of a high order and the plated magnet and blue hammer stove enamel chassis combine to give an attractive functional aspect to the unit. Again, we find a medium weight ribbed cone assembly, fitted with a linen centre dome (which for once has not been painted silver!) and carried by a medium stiffness treated cambric double roll front suspension. In fact, the whole unit has a very nice 'feel' to it.

Although we cannot agree with the maker's upper response limit of 6kHz, the unit nevertheless returned a good set of results, with sensitivity bettering the makers figure by 1.5dB and full confirmation of the rated power handling capability. It is interesting to note that the Formac, HH and Celestion units all have similar sensitivities at 98dB and are all rated at 100 watts, yet the Celestion would seem to be the loudest loudspeaker at full power at 116.5dB, the Formac next at 116dB and the HH at 115dB, OK, so the differences are minimal, but the academic exercise is interesting. The G15/100 would seem to be another unit with a highish impedance range and is therefore not receiving the actual input power calculated. In this case, the difference is only six watts so it is not really worth worrying about. Again we find a good attempt at reproducing the pulse waveform, with good attack, but also some overshoot and should produce some harmonics and overtones in the reproduced sounds, giving perhaps a small amount of sustain.

Another more than acceptable product from this long established and well-respected British manufacturer, at a competitive price.

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FANE Classic 150 (UK)

Price around £49 incl. VAT

Parameter	Manufacturers Rating	Test Result
Frequency response	50Hz-4.5kHz	Useful to 4.2kHz (-12dB)
Sensitivity	Not stated	100dB@1W @1m av. 400Hz-3kHz
SPL	Not stated	117.5dB(A) @150W@1m pink noise
Power	150W RMS	Confirmed @150W RMS sine wave
THD	Not stated	6% @150W RMS sine wave
Impedance	8 ohms nominal*	6.5-21 ohms
Resonance	60Hz free air	90Hz in std. 901tr enclosure

* Also available in 16 ohms impedance.



Although this is the only 15" loudspeaker submitted for review that still has a pressed steel chassis, this should not be considered in any way detrimental, as the pressing is of excellent quality using heavy gauge sheet steel and is more than adequately reinforced with folded ribs to provide bracing of the eight spokes, back plate and front rim. It is nicely finished in black stove enamel and is not unlike the well known Celestion G12 chassis in overall appearance. Gaskets are fitted for front or rear mounting and termination is by solder tags. Although a fairly substantial magnet assembly is fitted, this is nowhere near the size indicated by the huge plastic magnet cover fitted, which besides the actual magnet, also encloses a considerable amount of fresh air! A deep textured cone is carried by a particularly stiff treated paper suspension system and a silver painted linen centre dome is fitted.

It can be seen from the results table that this loudspeaker is appreciably more sensitive than any of the other four units tested, with a full 100dB for one watt. However, due to the effects of compression when driven hard, the actual loudness at full power is only one dB higher at 150 watts than the Celestion at 100 watts. The unit has a useful frequency response curve that to all intents and purposes, confirms the makers stated range. The impulse trace shows more overshoot and the presence of more overtones or colouration than found with the other units tested and this can be expected to produce a 'dirtier' and more 'gutsy' bass sound with easier sustain. Also, due to its higher free air resonance, it can be expected to work well in a relatively small enclosure and is probably at its best in our 901tr. infinite baffle test enclosure.

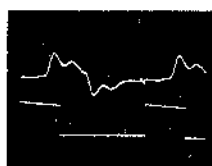
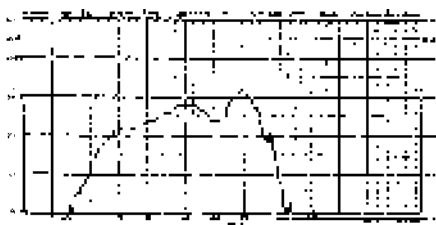
While this is a fairly basic loudspeaker of relatively simple construction, it is nevertheless nicely engineered and presented and capable of a surprisingly high standard of performance. A rather nice general purpose bass instrument loudspeaker at an attractive price.

RICHARD ALLAN Atlas 15 (UK)

Price around £80 incl. VAT

Parameter	Manufacturers Rating	Test Result
Frequency response	Graph given	Useful to 4kHz (-12dB)
Sensitivity	98dB@1W@1m@1kHz	98dB@1W @1m av. 400Hz-3kHz
SPL	126dB@250W@1m pink noise	117dB(A) @250W@1m pink noise
Power	250W RMS	Confirmed @250W RMS sine wave
THD	less than 3% @250W above 300Hz	3% @250W RMS sine wave
Impedance	8 ohms nominal*	9.5-30 ohms
Resonance	35Hz free air 64Hz in 851tr IB encl.	70Hz in std. 901tr enclosure

* Also available in 15 ohms impedance.



The first thing to note concerning this loudspeaker is its specification, in that all the parameters included in our testing schedule are included in the manufacturer's published data, and this is the first time that this has happened in the two years we have been conducting the Speakercheck tests. Even distortion figures and our new sound pressure level measurement are given, although in the latter instance, the measurement is linear and not 'A' weighted as in our own test. It can be seen from the test results obtained that apart from one or two aspects, the maker's figures are corroborated — the main difference being that of SPL, where our 'A' weighted figure is at considerable variance with the figure published. In fact, by calculation based on the 98dB@1W figure, even if the device were perfectly linear, then 121dB would be the best possible SPL at 250 watts, and allowing for the effects of non-linearity at high power levels and for the effects of the 'A' weighting, 117dB(A) is not unreasonable. Also, in common with the HH B15L, the impedance curve is generally on the high side for an eight ohm nominal rating, with its lowest point at 9.5 ohms. The impulse response trace — the only aspect not included in the maker's figures, shows a somewhat sluggish transient response, although there is little overshoot and recovery between pulses is quite good. While this loudspeaker is undeniably loud, it is not in my opinion so loud as to justify the warning notice on the chassis to the effect that "this unit is capable of producing sound levels which can permanently damage your hearing". Such a notice would be more appropriate to the Celestion Powercel 15, which, as we shall see next month, produces 124.5dB(A) for the same input power — and that is loud!

The Atlas 15 is built on a substantial cast alloy, four spoked chassis, which, although obviously intended for conventional mounting from within the cabinet, can be front mounted and a foam gasket is included in the delivery to facilitate this. However, in complete contrast to the Formac design, the front rim is somewhat narrow and the mounting holes are very close indeed to the edge of the basket and could easily break through into the cut-out unless care is exercised. Careful cutting and clamps would be the best solution to front mounting this particular unit. A deep, straight cone is fitted with a composite paper centre dome and a concertina type linen front suspension is employed to give a nicely compliant cone system. Termination is by plastic screw terminals and the black stove enamel finish is contrasted by the usual Richard Allan bright red felt front gasket. A nicely made and presented loudspeaker.

I am not quite sure how to summarise this particular unit. I suppose its main selling feature is the very high power rating — which was fully confirmed at just three per cent distortion, but against this must be weighed the sensitivity and evident compression at high power levels to such an extent that at the end of the day, the unit is only 0.5dB louder than the Celestion G15/100 is for just 100 watts input, and is 0.5dB less loud than the Fane Classic 150 at 150 watts. What I am really saying is that you do not get a proportional increase in loudness at full power for all the 250 watt confirmed power rating, and this somewhat negates the purpose behind increased power handling to my way of thinking. Otherwise, no problems at all — a nice loudspeaker.

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Panel 1: A man in a suit stands next to a Rolls-Royce Phantom. A speech bubble says: "That's Mick coming ... he's really hit the top."

Panel 2: The man in the suit is now driving the Rolls-Royce. A speech bubble says: "I've heard you're going on tour?"

Panel 3: The man in the suit is now driving a Soundlab van. A speech bubble says: "Yes, I've got a really big deal."

Panel 4: The man in the suit is now driving a Soundlab van. A speech bubble says: "Especially these fantastic high quality PA Systems...don't forget the Soundlab light systems...and the whole package deal."

Panel 5: A man in a suit is driving a Soundlab van. A speech bubble says: "How can you afford to drive such an expensive car?"

Panel 6: The man in the suit is driving a Soundlab van. A speech bubble says: "It's easy! I was on a European Tour with the Soundlab people, makes a big difference when you've got the quality behind you!"

Panel 7: A man in a suit is driving a Soundlab van. A speech bubble says: "I've got to get my manager IN on Soundlab."

Panel 8: A man in a suit is driving a Soundlab van. A speech bubble says: "High quality PA Systems. Superb light systems and special effects. Tour and stage management. Trucking and crew transport."

Panel 9: A man in a suit is driving a Soundlab van. A speech bubble says: "D-8000 MUNICH 45/Knorrstrasse 145, telephone: 3513023/3513024, telex: 05-29375"

Panel 10: A man in a suit is driving a Soundlab van. A speech bubble says: "Soundlab"

STUDIO DIARY

Who's been recording what, where...

Ramport Studios have been hosts to Joan Jett who was in working on her album, engineered by Mark Dodson and produced by Kenny Laguma . . . More albums being worked on included Saxon (engineered by Will Read-Dick) . . . and Sean Tyla, self produced and engineered by Mark Dodson . . . Ridge Farm have had Whitesnake in residence all through December working with producer and engineer Martin Birch . . .

DJM's engineer Keith Bessey has been working on a disco single for an American artist called Eric Sigman (who was producing the track himself) . . . Old Wreckless Eric was still there, working with Dick Plant and his producer Barry Farmer . . . The rest of the month's studio time has been taken up by "in house" work, including some overdubs for Kit Rolf and some tracks by the Keys, engineered by Robert Ash . . . Les Reed was in doing some mixes . . . and John Acocck was engineering and producer for Roy Hill . . .

The Roundhouse studios were booked out for the whole month by Uriah Heep and David Essex . . . David's engineer was Ashley Howe, and he was producing himself . . . Uriah Heep's engineer was John Gallen while Ken Hensley (keyboard player from the band) was producing . . .

Down Surrey way, Surrey Sound Studios have been working on a first album for Rob Stensley and Dave Fuller whose music, it seems, defies categorisation. Nigel Grey was co-producer and engineer . . . They were also working with the Planets on their second album. Once again Nigel Gray co-produced and engineered with Martin Moss assisting . . . In house productions included demos for the Nice Boys (oh yes?), with Bruce Jerram producing and Peter Buhkman behind the desk . . .

Well, this last month Basing Street have been showing off. They have done so much work it is unbelievable. Kenny Everett seems to have been popular since the Boomtown Rats were in recording for him, as were Roxy Music. (Rhett Davis was co-producing and engineering on the latter) . . . Rhett Davis also produced and engineered the Quick . . . Robert Fripp was working on some vocal overdubs with David Byrnes (lead singer from Talking Heads) . . . the engineer was Andy Lyden . . . Dollar were recording for BBC's "Jim'll Fix It" (!) engineered by Howard Kilgour . . . Robert Ash was engineering for KYs and the Keys . . . The Slits were in recording for a film — engineered by Andy Lyden who also did the honours for the Vapors . . . Engineer Normal Mighell was working with reggae

band Toots and the Maytals . . . Dave Jordan was engineering tracks for the Specials . . . North East Films set Howard Kilgour to work engineering for a jazz film . . . AC/DC were laying down tracks with Mutt Lange . . . and other sessions included the Starjets . . . Bob Weston . . . a B Side for Madness . . . and a TV track for Buggles . . . That's all!

Over in Soho, Trident's engineer Stephen Short was engineering for artist Billy Ocean . . . and a single for French singer Carrene Cheryl . . . Rod Stewart was working on some backing tracks with Tom Dowd producing and engineers Andy Johns and Stephen Short . . . Buggles were in again . . . laying down backing tracks for Top Of The Pops was Marianne Faithful . . . the great John Miles was in mixing to video . . . De Wolfe Music Library paid a visit . . . and One To One were in recording to video . . . more backing tracks were laid down, this time for Alex Costandinos . . . and at the end of the month Trident played host to Didier Marouani (French) who was producing his own album with Chris Stone engineering . . .

The Manor have had a new Virgin band in residence called Local Operator, who were working on an album with producer Mike Howlett, and Richard Manwaring engineering . . . another new band Interview were laying down some tracks with Mick Glossop . . . New wave band Fischer Z were recording an album for United Artists with Mike Howlett . . . the mobile has been busy as well, working on a variety of recordings, including some of the Jam gigs . . . Hawkwind . . . Magazine . . . John Miles and Dusty Springfield at the Albert Hall . . . and an opera by Baroque composer Haydn . . .

The Marquee club and studios saw their new link up facilities put to use for the first time at the Magnum gig . . . in the studio they have been finishing off Ingerlise's album . . . they have also been working on a number of jingles . . . Producer Patrice Fabiene and engineer Phil Harding were working on some tracks with Edith Nylon(?) . . .

The Jags decided to pay a visit to Kensington's Marcus Studio where they were laying down some new album tracks — engineered and co-produced by Simon Humphries.

Janet Angus

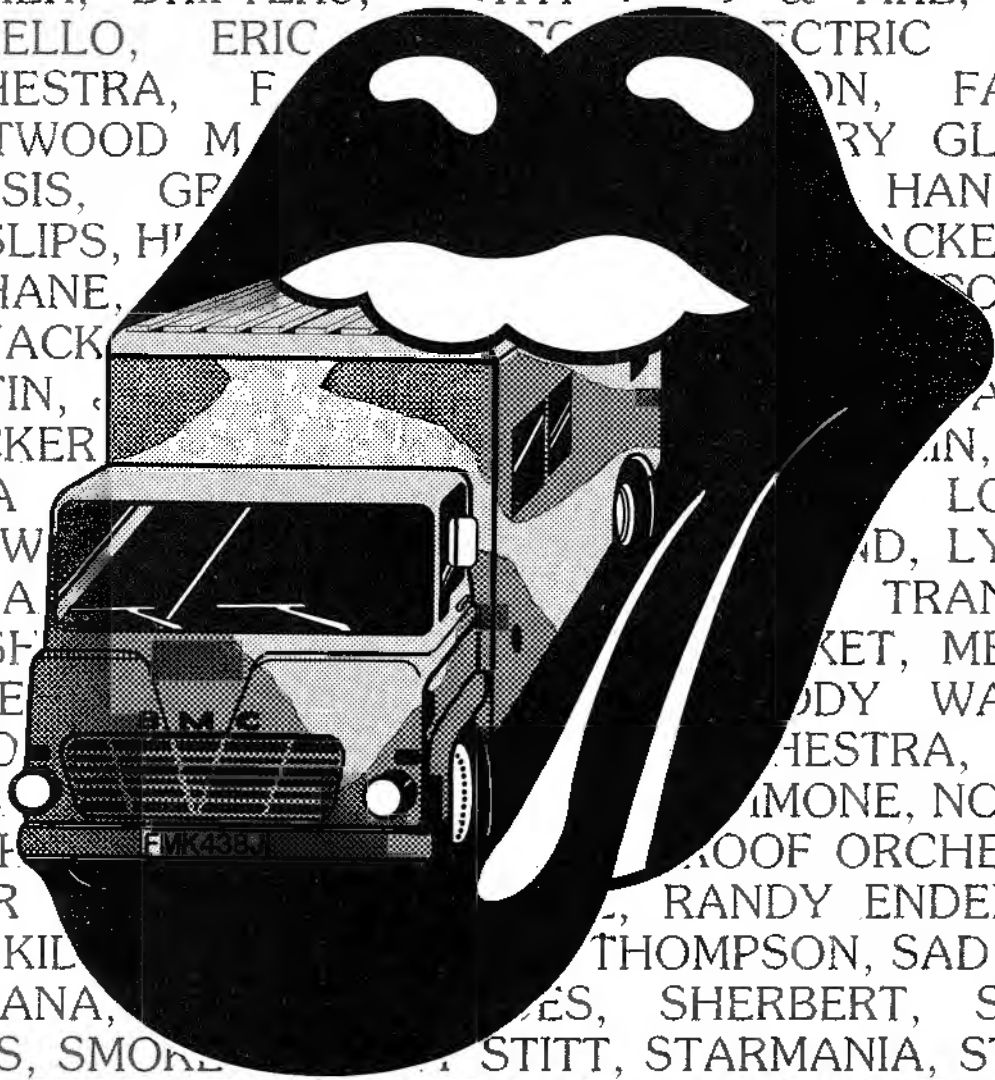


The Jags

ABBA, ALAN PRICE, ALVIN LEE, AC. DC., THE
 ANIMALS, A.T.V., B.B.C., BB KING, BAD COMPANY,
 BAKER GERVITZ ARMY, BALLET RIGA, BE BOP DELUX,
 BETTE MIDLER, BILL NELSON'S RED NOISE, BILLY
 PRESTON, BLACK SABBATH, BOB MARLEY & THE
 WAILEYS, BOB HOPE, BOONIE DOONIE, BROTHER
 BAND, BUCK RAM, CAFE BLYER, CAFE CHICAGO,
 THE CHEIFAINS, CHICK COREA, CHILITES, CHRIS DE
 BERG, CHUCK BERRY, DAVE BRUBECK, DEEP
 PURPLE, DON MOLE, DIZZY GILLESPIE, DONNA
 SUMMER, DRIFTERS, EARTH WIND & FIRE, ELVIS
 COSTELLO, ERIC CLAPTON, ELECTRIC LIGHT
 ORCHESTRA, F. F. F., F. F. F., FAMILY,
 FLEETWOOD MAC, FLYING GLITTER,
 GENESIS, G.F., G.F., HANCOCK,
 HORSLIPS, H. H. H., JACKET, JAY
 MCSHANE, JOE JACKSON, JOCKEY,
 JOE JACKSON, JOE JACKSON, JOE JACKSON,
 MARTIN, KRACKER, LIAR, LIAR,
 LINDA, LOUDEN, LOUDEN,
 WAINWRIGHT, WAINWRIGHT, WAINWRIGHT,
 SKYNA, SKYNA, SKYNA, SKYNA,
 MARSH, MARSH, MARSH, MARSH,
 MICHE, MICHE, MICHE, MICHE,
 NATION, NATION, NATION, NATION,
 BARB, BARB, BARB, BARB,
 NAZER, NAZER, NAZER, NAZER,
 PETER, PETER, PETER, PETER,
 RICH KIL, RICH KIL, RICH KIL, RICH KIL,
 SANTANA, SANTANA, SANTANA, SANTANA,
 MINDS, SMOKER, SMOKER, SMOKER,
 STITT, STITT, STITT, STITT,
 STARMANIA, STATUS,
 STEEL, STEEL, STEEL, STEEL,
 STEPHEN, STEPHEN, STEPHEN, STEPHEN,
 GRAPPELLE, GRAPPELLE, GRAPPELLE, GRAPPELLE,
 STEVE, STEVE, STEVE, STEVE,
 GIBBONS, GIBBONS, GIBBONS, GIBBONS,
 STRANGLERS, STRANGLERS, STRANGLERS, STRANGLERS,
 STRETCH, STRETCH, STRETCH, STRETCH,
 SUPERCHARGE, SUPERCHARGE, SUPERCHARGE, SUPERCHARGE,
 SUPREMES, SWINGEL, SWINGEL, SWINGEL,
 TALKING HEADS, TALKING HEADS, TALKING HEADS, TALKING HEADS,
 TAVARES, TAVARES, TAVARES, TAVARES,
 TED NUGENT, THE BOYS, THE BOYS, THE BOYS,
 THE BARBRA DICKSON, THE BARBRA DICKSON, THE BARBRA DICKSON, THE BARBRA DICKSON,
 BAND, THE CLIMAX BLUES BAND, THE CLIMAX BLUES BAND, THE CLIMAX BLUES BAND,
 THE PIRATES, THE PIRATES, THE PIRATES, THE PIRATES,
 THE WORLD, TOD RUNDGREN, TOD RUNDGREN, TOD RUNDGREN, TOD RUNDGREN,
 TONEROSE, TONEROSE, TONEROSE, TONEROSE,
 TONITE, TRAFFIC, TRAFFIC, TRAFFIC,
 TURNING POINT, URIAH,
 HEEP, VAN MORRISON, VIENNA, VIENNA,
 PHILARMONIC, PHILARMONIC, PHILARMONIC, PHILARMONIC,
 WHITESNAKE, WILLIE BO BO, WILLIE BO BO,
 WREN ORCHESTRA, WREN ORCHESTRA, WREN ORCHESTRA, WREN ORCHESTRA,
 XTC, YELLOW MAGIC ORCHESTRA, YELLOW MAGIC ORCHESTRA, YELLOW MAGIC ORCHESTRA,
 JIMMY CLIFF, THE MUPPETTS, THE MUPPETTS, THE MUPPETTS,
 THE DAMNED, THE DAMNED, THE DAMNED, THE DAMNED.

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GOING MOBILE

This month we thought we'd take a breather from the confines of the studio and go out and about on the mobile trail. Due to the demands of today's musicians, the ability to record anywhere from a superstar's mansion to the grottiest pub has become a necessity. The Mobile Recording World has grown to meet this demand, and we talk to some of the people involved to find out what it's all about and the advantages and disadvantages of recording on the road.

The Mobile Studio

This mobile has been operating for nine years. Belonging to the Rolling Stones, it came about originally when the Stones went into tax exile. They wanted to record in the South of France and since there was no studio there they brought their own. At that time they never intended it to be used for anyone else, but they started getting inquiries — people wanting to hire it — and things took off from there. The outside of the van is camouflaged, the result of one of their earliest assignments — Frank Zappa's *200 Motels*. It was camouflaged for the film and has stayed that way ever since. This has turned out to be an advantage, keeping unwanted attention at bay, and in fact it is often mistaken for an army truck.

In 1973 Mick McKenna, who runs the mobile, became involved. At that time the truck needed a bit of updating — he re-designed the acoustics and since then they have taken it through from single 16-track to dual 24-track, increasing the capacity of the desk (a Helios 32 into 24). In those early days, a man who was a great help and showed a terrific amount of interest was Ian Stewart — the Stones' keyboard-playing "sixth" member.

Their work is varied, as a selection of past jobs will show: they recorded an album for Deep Purple in Switzerland, Bad Company in France, three albums for Be Bop Deluxe, some of the Stones' European gigs, work for radio and TV, a Royal Variety Performance and a ballet by Khatchaturian in Russia. They have done a lot of work for London's Capital Radio.

The interior layout is efficient, compact and therefore spacious. The crew are very content with it. They feel the size is just right — neither too big nor too small. The equipment is put in sensible places so that there is room to move around. At the back, separate from the studio, there are cupboards where cables and spares are kept.

Power to the mobile can be supplied from two different sources, one of which is used to drive the equipment, and the other, air conditioning and lights. Invariably, these supplies will come from 13 amp sockets. The mains switching and stabilization units are mounted in a rack, also stored at the back of the truck. These enable them to overcome a particular problem which they have often come up against when working i.e. a fluctuating power source.

Gear includes Altec monitoring, two 3M M79 24-track machines and a 3M M79 2-track for mastering, two Revoxes, an Advent cassette machine and video facilities. The foldback system is fairly sophisticated. The Helios desk is good, reliable and compact and, for the most part, an average of 24 inputs is all that's required. However, if necessary, it can be added to with ease by bringing in an extra small desk, but this is seldom required and does not justify taking up valuable space unnecessarily with a larger desk. The cables can be set up as 72 lines which spread over 100 metres or alternatively, 24 lines spreading over a distance of 300 metres. All the input boxes have actively isolated splits to give mike level feed to the PA. They also give out line level leads for TV from a panel inside the back of the truck. The talkback is built into the snakes. They carry 100 microphones, the passive and active direct injection boxes which were made within the company. The mobile is also equipped with full Dolby facilities, a Harmoniser, Pultec EQ, Kepex and Mayer Noise Gates, Lexicon digital delay and two Master Room reverb units. They also have a 24-track magnetic link facility for linking up the machines to achieve 46-tracks.



Mobile One

Having been in operation for 12-18 months, built and owned by Radio Clyde, Mobile One is run by Barry Ainsworth — a man eminently qualified for the job since he has now been working in mobile recording for about 14 years. His career started with the Pye Mobile, and after that he worked as a freelance engineer operating other people's mobiles. Mobile One came about when he decided that he wanted to build his own truck. This can be a very costly business and, eventually, in order to avoid cutting any corners (the mobile being worth approximately a quarter of a million pounds) Barry joined forces with Radio Clyde who financed his dream.

The acoustics were designed by Eastlake and the majority of the basic equipment is MCI. They are as fully equipped as any studio should be, carrying for instance a full complement of mikes. Barry emphasises the point that it is a Mobile *studio*, not a Mobile Recording Unit. The truck has its own vocal booth so that it is not even essential to have a room to play in. Thus, the truck can operate totally independently.

They started off with a bang, the first assignment being "Yes Live at Wembley", and they appear to have landed fairly and squarely on their feet in the European market. This is largely due to the fact that they have an agent in Paris (Ferner Studios) who take care of all the European side of things for them.

The mobile's work is varied. For instance they have just got back from Switzerland where they were recording an album for Rick Wakeman in his home. Recent jobs have involved all sorts of bands — Steve Hackett, Third World, UK Subs, Sham 69 and a 24-gig European tour with Supertramp. When we spoke to them they were about to embark on a job with AC/DC in Paris and then on to Yugoslavia where they will be working for a record company who have never before had access to the type of sophisticated

modern recording studio which the mobile can provide. They are equipped with two 24-track machines and therefore are capable of working with anything up to 46 tracks.

The studio goes on the road with three engineers — one balance, one maintenance and one assistant. With such sophisticated equipment, and especially in a mobile, it is essential to carry a maintenance engineer on board. The equipment receives maintenance treatment once a week, and of course any necessary repairs can be carried out on the spot. They also carry a big spares range. They have yet to encounter a problem, touch wood, which caused a disaster area — and that's quite an achievement. This was one of the reasons for choosing to install MCI equipment because, not only is it very reliable, but spares are readily available virtually throughout the world. So, should a problem arise which they had not foreseen, they should be able to do something about it quickly and with ease.

One would imagine that travelling on the Continent might present problems with customs, etc. but apparently this is not really the case. Customs are generally okay as long as you are organised and can present them with a pre-printed equipment list (called "88 Carnet") which you can tick off and get through without any trouble.

A tremendous advantage of a mobile is that it can be taken almost anywhere — the recent work at Rick Wakeman's home was done half way up a mountain. Working with a mobile unit can be expensive, but often people prefer to work in their own environment. Sometimes a band will have been using a rehearsal room and got used to the sound and feel of the room and want to do their recording there. It may also, in some cases, be cheaper to have the mobile come to you, for example in Liverpool, than for you to come up to London.

Mobile One have been involved in a lot of film work and television, although

on the whole, the majority of their time is occupied recording albums and gigs. The vocal booth can be a great advantage for overdubbing on live recordings — for example if the artist decides that he is not happy with the voice they can simply overdub the vocal track in the truck.

Island

The Island Mobile has been in business since 1973. It was built and designed by Marshalls of Cambridge, Dick Swettenham of Helios and all the people working at the Basing Street Studio at the time, utilizing their wealth of experience and knowledge. The man running the mobile now is Howard Kilgour. He has been in charge for 12 months now, and has been engineering on it for three and a half years.

As far as designing the van was concerned, there was not an awful lot of scope. The truck is 8'2½" wide and this does limit the design a bit, and in the end it comes down to how you lay the equipment out inside. The original layout was designed in 1973 and it still proves excellent. Designs in more recent trucks do not make the Island one look dated. It is quite roomy and the equipment is easily accessible to the engineer. The cables are kept completely separate at the very back of the van so that when they arrive at a gig, the crew can get on with setting up the stage without disturbing people in the truck. Another distinct advantage of this mobile is that they have a kitchen — you can make your own tea! It also has its own power source, and this makes it a totally independent mobile unit. Rather than charging a set rate, Island work on the basis of a competitive negotiable fee, depending on the nature of the work, the location and the length.

When they go out they generally carry a crew of four — Howard engineering, an assistant engineer, driver Ray Doyle and resident maintenance guy Steve Wilton. Type of work tends to fall into three categories — television, film and bands. They work a lot for the Granada television

company who tend to use them as a multi track cover for the stereo. A good example of this was the recording of the series "The State of the Nation", in which several personalities took part and the mobile's multi track facilities were used to provide each person with their very own track, so that nothing would be lost (and presumably so that no one could be drowned out, either!) They record music and programmes as well, and the variety of their work means that they are experienced in many fields.

Working with bands (recent gigs include Rod Stewart, Earth Wind and Fire, Herbie Hancock, the Specials and Leonard Cohen) they find that large bands often want to record their end of tour gigs — either for possible live albums or simply for posterity. Gigs are also recorded in conjunction with radio or television. They are planning to introduce video facilities to the truck as this medium is coming very much to the fore.

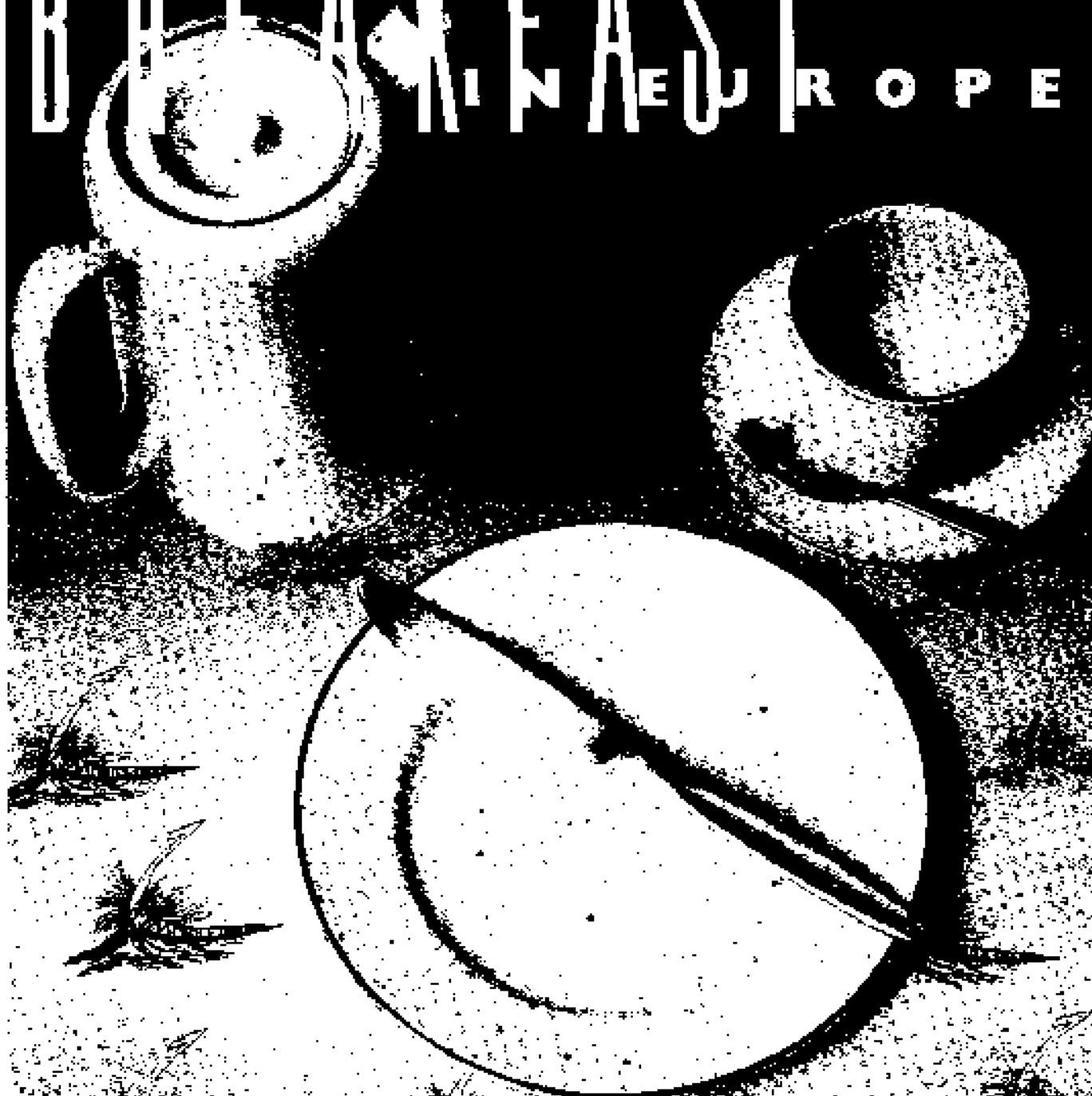
Howard discussed some of the intricacies of a mobile recording. It presents all sorts of problems which just don't exist in the studio. Quite often they are not allowed to set up their own mikes and are forced to link in with the PA. This can cause friction with the PA guys, because if they are already running around trying to organise themselves they may regard the mobile as an unnecessary nuisance. There are so many things going on at the same time, and so much gear to be set up — PA, lighting, etc. that there are bound to be problems. Quite often there is a buzz on the PA which goes unnoticed at the actual gig, whereas the poor old mobile is left holding baby with buzz all over the tape. Because of all the hassles, co-operation is essential between all the various people involved in order to achieve maximum efficiency all round. Setting up is time consuming, and also organised within a tight schedule. The mobile cannot set up until the PA arrives, and if it is late there can be trouble. For example, when they recorded Leonard Cohen the band were due to arrive back from the Continent the same day. As it happened when they arrived in England the customs decided to take their truck apart and they were consequently very late arriving — there was more than a little adrenalin flowing as the men worked to get everything ready in time.

The other regular work they get roped in for is at Ronnie Scott's, and this is their favourite. Not only because of the fantastic atmosphere of the club, but also the very demanding and rewarding nature of the work.

Janet Angus



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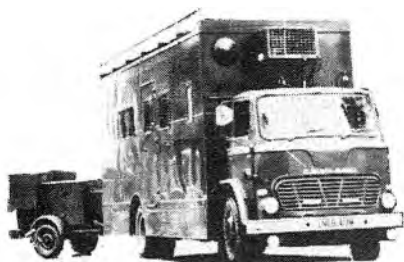
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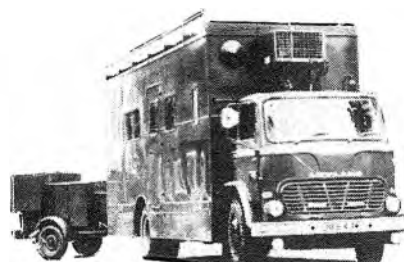
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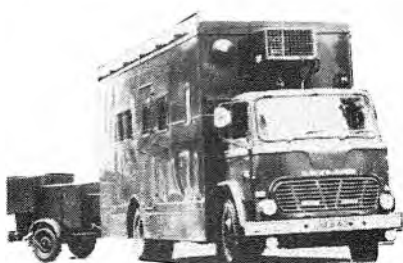
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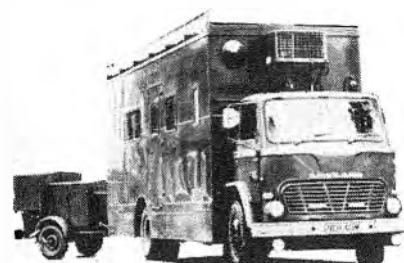
STATUS QUO



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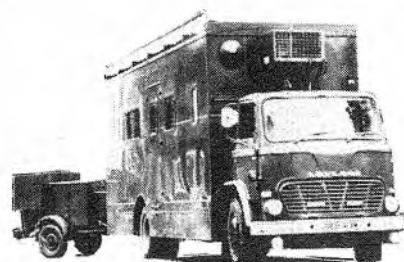
KATE BUSH



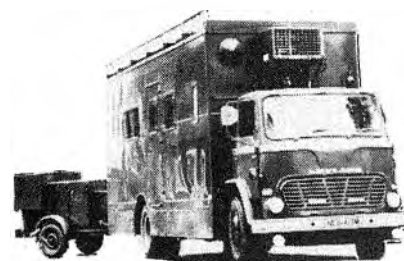
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we keep.**

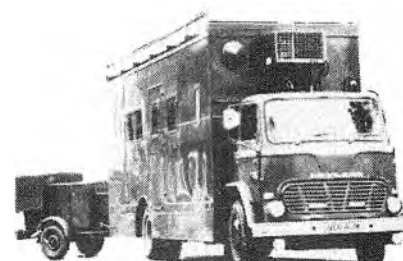
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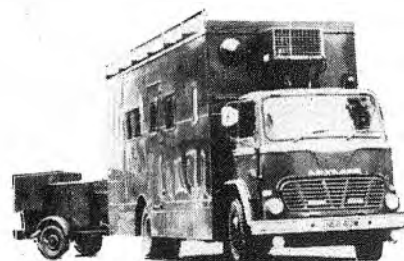
BONEY M



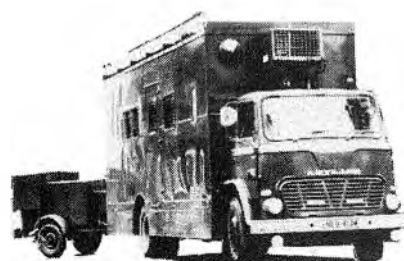
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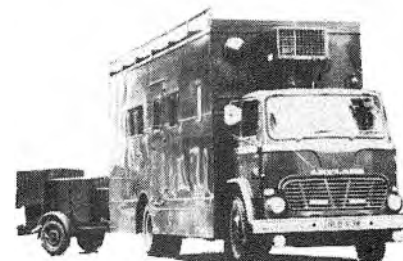
OSCAR PETERSON



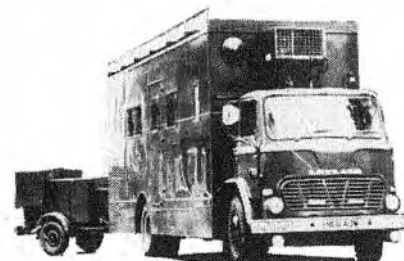
DAVID ESSEX



THE SPECIALS



TINA TURNER



DIRE STRAITS

The Island Mobile

TEST BED STUDIO

Some time ago International Musician and Recording World decided to build a recording studio which would be used to critically test studio equipment. The object of the exercise is to start from scratch and build a fully operational studio, charting its progress in the magazine and outlining any problems we encounter — and hopefully solving them!

Well the first problem wasn't very long in coming, trying to find suitable premises. A recording situation must fulfill certain criteria, i.e. no appreciable traffic noise (road or Underground), easy access and parking. Plus it had to be within each reach of London's Drury Lane (UK headquarters of IM&RW), and so the hunt began.

We encountered the usual problems in searching for premises, including the frustration of spotting the ideal thing only to be thwarted by the all too familiar landlords attitude of, "what! A recording studio — rock musicians hanging around — loud music until all hours — no thanks!" However, after much worn out shoe leather our mission was successful.

We finally came to rest in part of an old warehouse in the borough of Southwark, just by London Bridge. In earlier days the warehouse was used for storing corn, when that part of the Thames was more of a viable commercial centre. Nowadays though, it is a quiet area with little traffic and fortunately no noisy factories — more important there is a valued neighbour in the shape of the Anchor pub!

not unlimited so the acoustic treatments and the problems associated with these will be of interest to anyone involved in the building of a recording base, even if it is only a "domestic" home studio. Specialist advice and contributions will be invited and future issues will cover the problems encountered and their solutions.

The location is presently being wired to accept up to 24-track tape machines and a RCF spectrum analyser is being employed to help assess the acoustic responses of the rooms with a view to deciding exactly what alterations are necessary. The results of how we got on will be reported in full in future issues in more detail, so watch this space!



IM's acoustic consultant Ken Dibble in the studio.

Format

The studio facility will give us the ability to evaluate studio equipment *in situ* and hopefully show features of the equipment in use in greater depth than time allows for current tests. The space that the studio allows will enable us to install the large pieces of gear such as multi-track machines and consoles etc, which need a period of a month or so of studio conditions for a proper evaluation (a period normally considered luxurious for a monthly technical magazine schedule).

Use

The studio will be used primarily for technical tests and will not be used commercially but of course live music will be recorded as part of the test requirements.

As the studio area and the workshop were going to be used as rehearsal rooms before we acquired the premises a simple form of sound treatment had been used, although the "Control Room" is as yet untouched. The construction budget is



The RCF spectrum analyser and associated equipment.

HUNTER/RONSON A Producing Team

By Steve Weitzmann

The Ian Hunter-Mick Ronson partnership, which has flourished for several years now and recently peaked creatively with the release of Ian Hunter's brilliant *You're Never Alone With A Schizophrenic* (which Ronson co-produced, arranged, played guitar and sang on), is a relationship that defies all rock 'n' roll logic. After all, how can two guitar players who work so close even decide how far to crank up their amps let alone produce, record and hit the road for an extensive tour together — without one wanting to tip over a stack of Marshalls on the other at some point?

Simple, says Ian Hunter. "He's a lead guitar player and I play rhythm. That way there's no friction. Also, he's a good bloke."

Ian Hunter has good reason for his affection for Mick Ronson. Ronson, who had previously been with David Bowie's Spiders, rescued Hunter from the dying remains of Mott the Hoople which he had been trying to revive as well. In 1974, when Hunter finally left Mott in the hands of bassist Overend Watts and company, it was a definite low point in his life. Ronson, subsequently, helped pull things together.

"I wasn't feeling too good at the time," Hunter remembers, "and he said, 'You should do something straight away. Get out of the house a little.' What they did was begin work on Hunter's first solo album, simply titled *Ian Hunter*. The transformation was immediate. The album, loaded with good songs and smart arrangements opens with a bouncy, two-chord guitar refrain and a cheery, cockney '...Allo' from Hunter. Ian Hunter is reborn. Other than temporary diversions like Mick Ronson joining Bob Dylan's Rolling Thunder Review for a tour and Hunter producing Generation X's second LP, they've been a team almost ever since.

Both Hunter and Ronson — at different times — received their earliest on-the-job production training from David Bowie. They've since gone on to produce all their own solo albums (Hunter has three, Ronson two) as well as producing various other artists the last couple of years. Hunter encountered Bowie when Bowie produced Mott's *All The Young Dudes* in 1972. Ronson worked with Bowie on Lou Reed's *Transformer* LP after having done some arranging on Bowie's *Hunky Dory* and *Ziggy Stardust* while with the Spiders.

What Hunter got out of working with Bowie, he says, was an appreciation of



THE PRODUCERS

"the chances he would take. There is a standard," he explains, "a certain level I think you have to be on to be successful, and Mott at that time wasn't on that level. We just figured if we were going to get somewhere, we had to up the level of quality."

All The Young Dudes was just that and Mott the Hoople joined the big leagues. After Bowie showed them the way, they produced their own follow up, *Mott* (which included the single "All The Way From Memphis"). As Ian Hunter tells it, it was not entirely by choice.

"There was nobody else around to do it at the time," he says. "We had this kid called 'Madswitcher' Harris (an engineer) and we did about three tracks — we were in agonies of indecision — and Roxy Music was in the same studio. They came down and said, 'It's fine. Do it.' And we did. And it was the biggest album we ever did."

Hunter, who along with Ronson recently produced Ellen Foley's first

record, remembers Mott's first producer. "Guy Stevens had been our producer in name," he states, "but we used to do it more or less ourselves. Guy would leap about the studio providing the energy, which is really important, but he didn't know how to twist knobs or anything. We had to learn how to do that."

He chose not to learn how to work a control board in all its intricacy, however, and has relied on a select few engineers over the years to handle that chore. "I don't really think it's that important," he says. "In fact, I think it's a good idea not to know that much about it. Instead, we spend a lot of time with our ears, saying, 'Do this, do that. This ain't right, etc.'"

Certain Ian Hunter tracks utilize subtle studio effects, like the phased vocal on "3,000 Miles From Here" on his first solo album and the slightly phased cymbal on "When The Daylight Comes" from *Schizophrenic*. Who makes those kinds of decisions, he or the engineer? "What I usually say," Hunter explains, "is, 'Do



something.' With the Ellen Foley album and my last album, we worked with two good engineers and I'd just turn around and say 'Do something,' and they'd seem to understand. And they'd run through a few things and in the end you'd come up with the best one.

"Like on 'Cleveland Rocks' (*Schizophrenic*), Ronson was sitting there and I said, 'It's fucking horrible! We gotta do it different.' And we fucked around and all of a sudden it started sounding good." Regarding that track, Ronson would later say, "We did 'Cleveland Rocks' in kind of a strange way. We decided to put the synthesizer on first and the drums on last. That was one of the new songs we 'put together' in the studio. The album was mostly done live."

When questioned further on the way they make records, Ian Hunter simply says, "It's really trial and error. We don't work like Chinn and Chapman. We don't go in with a pre-conceived idea at all. That's part of the fun of it. See, we're not really producers *per se*. Like with the Foley record, we just walk in and it's a group — we just play. We can't just sit back and tell people to do things. It seems to work better that way."

The one time he walked in with an outline and a recipe was for *All American Alien Boy*, the second Hunter solo album. "I had to," he says with regret, "because I was doing everything and it was just too much. And it sounds like a formula album

to me. That's one of the things that upset me about it."

That album included such heavy session players as Cornell Dupree, David Sanborn, Chris Stainton, Aynsley Dunbar, Jaco Pastorius as well as Queen on background vocals. Ian ordered up quite a band for this one. And that was the problem. "The one thing I never accounted for," he says now, "was actually walking into the studio and having to control that wealth of talent. That got me real weird for a couple of days and I had not thought about it. I just figured I was gonna walk in and do it. All of a sudden, I'm sitting there and there's Jaco and Sanborn and Aynsley and Cornell and they're waiting for me to say 'Go!' It got real strange."

How does he view producing others as opposed to making another Ian Hunter album? "I'd say it's about the same. You get involved in their career. You share the responsibility."

"We've got hundreds of tapes here that we've been listening to," he adds. As for what they're looking for: "We just want to hear something we like."

Hunter enjoys the company of a second producer on projects. "You always dread that one part," he says, "where you're up against the wall and you don't know how you're going to get through it. It takes the heat off. We have a lot more fun when we co-produce. We just bounce it back and forth and it seems to work.

What does he look for in a studio? "The size of the place — it has to be big. The ambience is really important. And an engineer you feel is compatible. In the case of my album, we had Bob Clearmountain. He's very, very conscientious. Another guy we use is Harvey Goldberg at Media."

Regarding equipment preferences, Hunter says, "I tend to prefer Neve boards. They always sound good to me."

Are there certain ways he likes to record his voice for maximum effect?

"Yeah. It's changing now. I used to always slow the tape half a tone to brighten it up. I used to think my voice was pretty dull. And also, I couldn't reach the notes a lot of the time (laughs). I used to write in these stupid keys (more laughter). Now we just fuck with the mikes."

Based on *You're Never Alone With A Schizophrenic*, Ian Hunter's vocals have improved immensely over previous efforts. He's also learned how to set them off against the right instrumentation. "The Outsider" pairs his voice to an echoey piano and a distant synthesizer and the effect is remarkable. And "Ships," a haunting ballad, uses a sparse bass, stark drumming and a floating chorus and is equally dramatic. Bowie and Springsteen come to mind as experts at this tactic. Hunter, in fact, used Springsteen's band (Roy Bittan on keyboards, drummer Max Weinberg and bassist Gary Tallent) on *Schizophrenic*, another reason the record is a powerhouse. It was recorded at the Power Plant, a huge studio where Springsteen is currently recording. Had he ever seen the E Street Band perform?

"I didn't know them," Hunter admits. "I'd never seen that band. My manager suggested them to me and they worked out great. They're such nice people as well. Springsteen must be real special to have a band like that."

He was able to catch a Springsteen show, however, just before Bruce went into the studio. His reaction? "Phew," he says. "They were great. He was fabulous. I was very, very impressed and I'm not easily impressed at all. I'm a bit of an old bitch, in fact, always slaggin' everybody off (laughs)."

Looking back on *Schizophrenic*, he now says, "It came out slightly better than I thought it would — for the first time every in my life. I don't look back with regrets and about now is when you start that."

RECORDING WORLD

Mick Ronson has no regrets either concerning his playing on the record. His riveting guitar solo on "The Outsider" — a perfect example of a solo where every note makes sense — sounds like he wrote the melody out note for note. "It does sound like it was planned," Ronson says with obvious pride, "but it wasn't. To tell you the truth about that one," he adds, "we recorded that song a couple of months before it was on Ian's album and I used the same solo that I had improvised then this time around. It was such a good solo, I didn't see any point in changing it. So it didn't just come out when it was Ian's album, but it did before."

Mick Ronson's preference for spontaneity and working by feel in producing and recording, and his lack of pretension are evident when he is queried about his own particular set-up. Witness:

What kind of guitar effects do you use in the studio?

"I don't really use any effects . . ."

How do you like to record your guitar?

"I dunno. I just plug it in and play."

Do you favour any particular equipment?

"Nah. I plug it into anything, really."

Anything?

"Well, I don't play that loud in the studio. Sometimes it *sounds* loud. I may play through a Fender Twin amp or a Music Man. I don't play it through anything bigger than that, though."

Are you still using the same gold Les Paul?

"Well, the head fell off it. It's being repaired at the moment. On Ian's record I used a Fender Strat all the way through and I didn't use the Gibson at all. There wasn't a Gibson around so I used a Strat. That's another thing — I usually play any guitar that's around, too. A Fender man gave me the Stratocaster so I used it. It sounded great on Ian's record. Onstage, I'd like to be able to get more into the Stratocaster but I don't really know how to set guitars up that well with the action and I find the Les Paul is easier to play onstage."

Was that just a wah wah on the guitar part at the end of "Bastard"?

"Yeah. Just a wah wah. I don't mind using a wah wah pedal. Just because nobody else is using them (laughs) . . ."

What other pedals do you use?

"I just use a distortion booster. I don't use anything else. I can never be bothered to plug 'em all in. I've got other pedals I'd kind of like to get into using, but not just for the sake of using them."



Mick Ronson has been reported to have said that touring with the Rolling Thunder Review completely turned his head around concerning guitar playing. Is that true?

"Yeah," he emphasizes. "Definitely. It taught me you really didn't have to overdo it to get your point across in music. I just depends on how you put it forward. Try and listen to the song and play for the song and treat it that way. I always did kind of listen for the song and think about the way it should be approached but I never realized that's the way I thought until I played with them. Playing with those guys, you don't play *nuthin'*, yet it sounds great. And it feels great when you're playing it. And you don't even have to be good. All you have to do is be aware of what's going on. It taught me to be a good listener more than anything else. Also, at the time I first played with Bob, I really didn't know what to do. I was lost. But they were real good about it. They just let me kind of *be*. That's when I started learning about not telling everybody what to do. Just let 'em be. Let 'em show their own personality. I think what makes a record work is a combination of personalities."

Ronson has used that philosophy in producing Roger McGuinn's *Cardiff Rose*, two English bands — the Rich Kids and Dead Fingers Talk, and most recently, David Johansen. His objective with Johansen was "to make it as simple as possible and have the band play that way allowing more freedom for David's voice. And I think he sings great on it. David never used to be able to sing at all as far as hitting notes was concerned. He had a big problem. But he's finally become a singer and he's going to be a good singer. He's

real convincing." Ronson will be doing Johansen's next album as well.

In the studio, Ronson likes "a good fast engineer. I like to get the music down and let's go," he says. "I also like an engineer who can put it in balance to what you want to hear. I like to hear what everybody's playing all at once because, for example, I can't tell what the bass sounds like until I hear it with the guitars. Or drums with the pianos and guitars." As with Hunter, he also likes a big room. "A big room is obviously better because there's just more room and you can really get cramped sometimes."

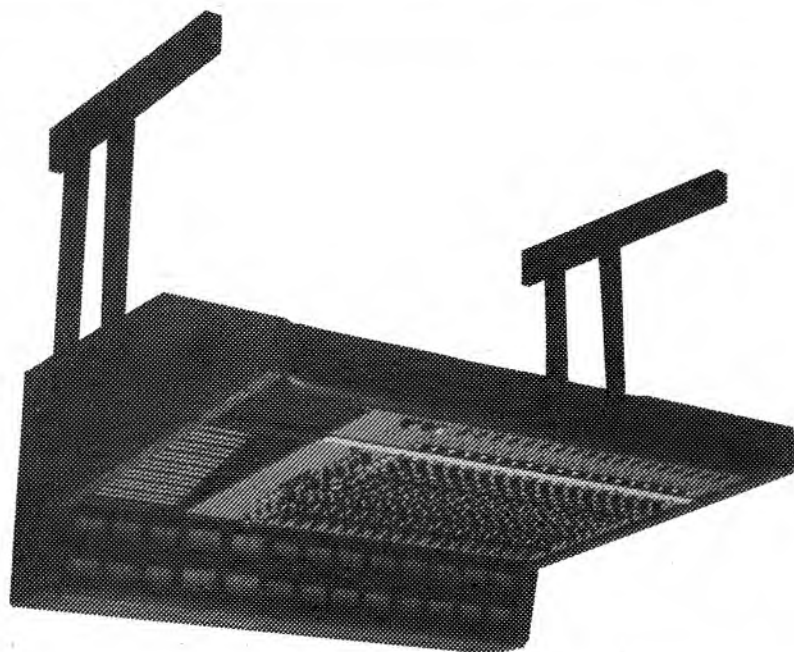
Also, as with Ian Hunter, Ronson has no interest in the board. "That's why you pick a good engineer," he says. "Especially one that's fast so you don't have to worry about all that stuff. And for mixing, basically, all we do is listen to it and say like, 'Oh, that sounds good mate.' And that's that."

Mick Ronson can certainly make a difficult endeavour like recording or producing sound simple. Maybe that's the reason the new Ian Hunter album is a commercial and critical success. Could it be he's found the answer?

"It definitely feels better doing it that way," he offers. "Once you're confident in yourself and know what your capabilities are, you know what you can do in a studio. I feel like I can just walk into a studio and cut a record. I don't even think about it anymore. You just go in and tip it off. 'Cause the other way is real hard work. You sit there sweating over what's right or whether it's good enough. All that does is stop you from putting out what you're supposed to be putting out. And that shouldn't be."

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RECORDING SYNTHESISERS

Part 6 Sequencers and Rhythm units

by A. Horsman, B.A., Ph.D.

Last month I described how a synthesizer can be set up to simulate the sounds of percussion instruments, such as drums and cymbals. These sounds can be multi-tracked, using the techniques described at the start of the series, to produce a synthesized percussion ensemble, the complexity of the rhythm pattern finally generated depending only on the ingenuity of the player. Although every individual sound can be triggered off by rapping a key, the generation of rhythm patterns is a task which can be greatly simplified by using a *sequencer*. The reason is simply that a sequencer can output a succession of gate pulses (equivalent to the percussionist's strikes on the instrument) and control voltages (which can be used to add variety, so that all "strikes" do not produce exactly the same sound). In this article, after setting down a few guidelines on the use of sequencers for the generation of rhythm patterns, I then move on to describe how a synthesizer can be used to improve the sounds produced by electronic rhythm units, which of course are an alternative source of the timing/

percussion track.

Sequencers and rhythm patterns

Figure 1 shows how a sequencer can be used to generate a pattern of drum beats in which the pitch of the drum varies (as for example when a drummer moves from bass drum to tom-tom etc.). First of all the synthesizer is set up to generate the percussive drum sound as I described last month. Then the sequencer's control voltage output is fed to the VCO with the result that the settings of the sequencer's control voltage knobs determine the pitch of the "drum" (the keyboard voltage need not be disconnected from the VCO: the two control voltages add together). The sequencer's gate pulse output (see Fig. 1) is used to trigger the ADSR module instead of the keyboard gate. Having made these two connections, to generate the rhythm pattern the sequencer is set to "repeat cycle" (so that it will automatically restart at the end of its sequence) and started. The durations of the steps are then adjusted by setting the "step time" knobs and the

overall speed is chosen by adjusting the sequencer's clock frequency.

If the drum pitch is to be constant, then the sequencer's control voltage output can instead be used to alter the drum's sound quality (by feeding the control voltage to the VCF) or loudness (by using a second VCA if you have two!). Even more variability can be introduced by using the LFO to modulate the filter and/or VCO.

Let's suppose you have used a sequencer to record a drum part and now want to add a cymbal part. The set up shown in Fig. 1 would only need to be altered slightly, substituting the noise generator for the VCO and probably connecting the sequencer's control voltage to the VCF. If the rhythm pattern of the cymbal strokes is to be different from the drum's rhythm pattern, the step time knobs will have to be readjusted. The problem which then arises is how to keep the sequencer in exact time with the previously recorded track. One simple trick is to adjust the clock frequency as near as possible to the correct value, then to switch the sequencer to "single cycle". When

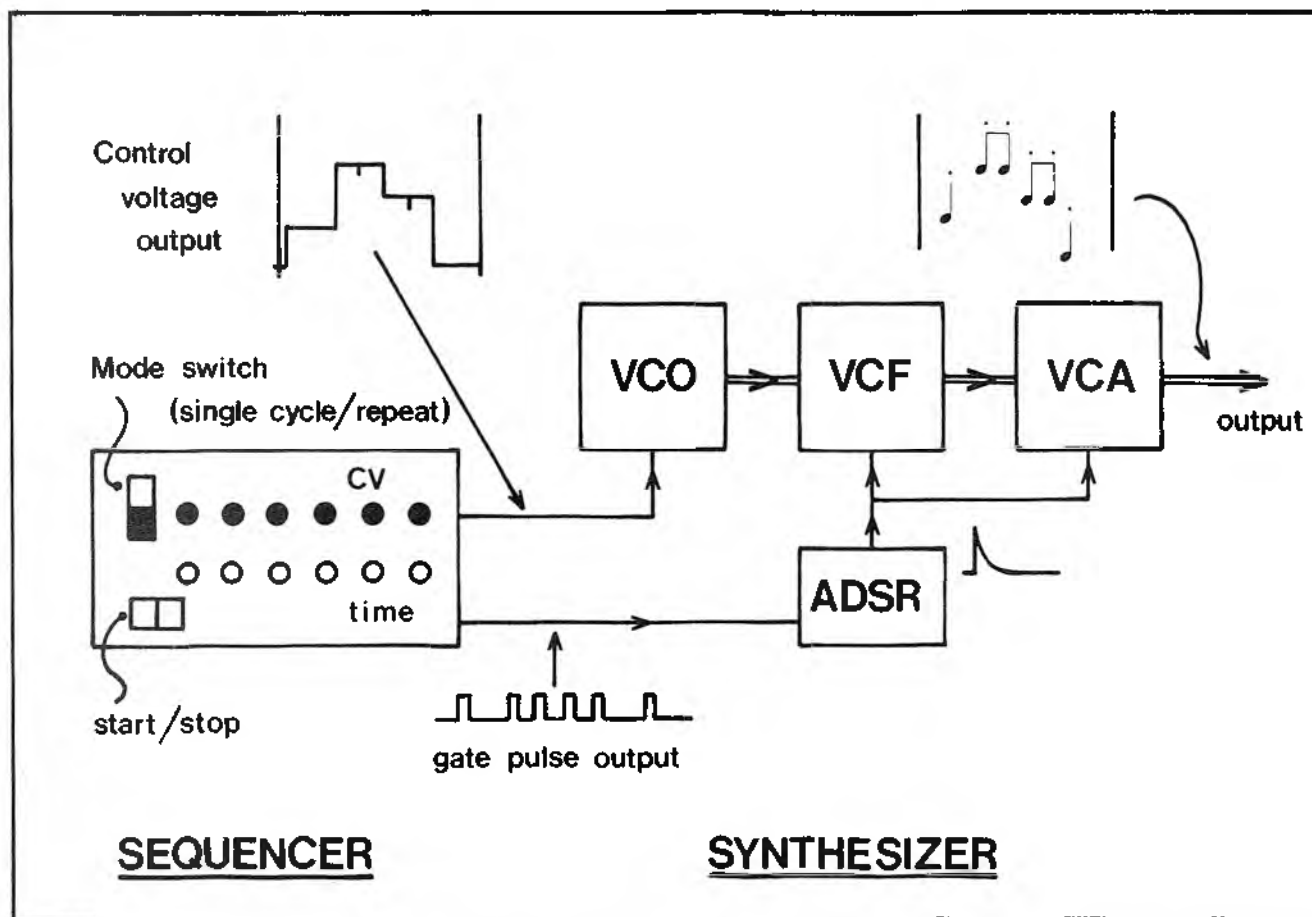


Fig. 1

recording the new track, monitor the drum track and tap the sequencer's start button at the beginning of each bar; the sequencer will then stay in step with the previous recording.

Electronic rhythm

The rhythm patterns produced by electronic rhythm units (used mainly by organists) are often monotonous, although recent models are much more flexible and can, for example, be "programmed" to introduce drum breaks every few bars. It is possible to use a synthesizer to improve the sounds of rhythm units very considerably and in fact to change the sounds almost beyond recognition.

Figure 2 shows just three of the many possible ways in which an electronic rhythm unit can be connected into a synthesizer. In Fig. 2a, the unit is shown feeding directly into the audio input of a VCF. By manually altering the settings of the VCF's cut off and resonance controls, marked changes can be introduced into the sound pattern. Periodic changes can be produced by the LFO. It is well worth experimenting with a wide range of LFO frequencies and different LFO waveforms; in particular the LFO's sine waveform can be used to introduce a very attractive "swish" into the cymbal component of the sound.

Figure 2b shows how the VCA can be used to add emphasis to selected beats or bars. The rhythm unit is connected to the VCA's audio input and the HOLD (or initial gain) control is advanced to its half-way position. When a key is pressed down, the ADSR's waveform increases the VCA's gain, making the sound temporarily louder for a time determined by the ADSR settings and by the length of time the key is depressed.

Figure 2c shows the rhythm unit connected into an envelope follower. This module produces an output waveform which follows the *amplitude* (loudness) of the input (as illustrated) and this output can then be used as a control voltage for other synthesizer modules, such as the VCF. The envelope follower's output contains much of the rhythmic content of its input (although no *audio* signal is passed through). So, for example, if this output controls a VCF having noise as its input, a complex cymbal-like rhythm pattern will result. If necessary, manually controlled emphasis can be introduced along the lines shown in Fig. 2b.

Once a timing or percussion track has been laid down, any of the other instrumental parts can be recorded. Next month I will be writing about bass parts and the synthesis of electronic bass sounds.

Fig. 1. A sequencer can be used to generate rhythm patterns. The synthesizer's VCO, VCF and VCA are first adjusted to produce, for example, a drum-like sound. Then the sequencer's gate output is used to trigger the ADSR (effectively beating the drum) and its control voltage output is used to alter the VCO's frequency (changing the pitch of the drum on each stroke).

Fig. 2. Three ways in which a

synthesizer can be used to modify the output of an electronic rhythm unit:

(a) the VCF can alter the overall quality of the sound. Changes can be introduced manually (by shifting the VCF's cut-off and resonance sliders) or by means of the LFO; (b) the VCA can alter the loudness of the sound. By pressing any key (thereby triggering the ADSR module) individual beats or bars can be emphasised; (c) the envelope follower can generate a control voltage determined by the amplitude of the signal from the rhythm unit. This control voltage can, for example, be used to modulate a filter having noise as its audio input; the result is a cymbal-like rhythm pattern.

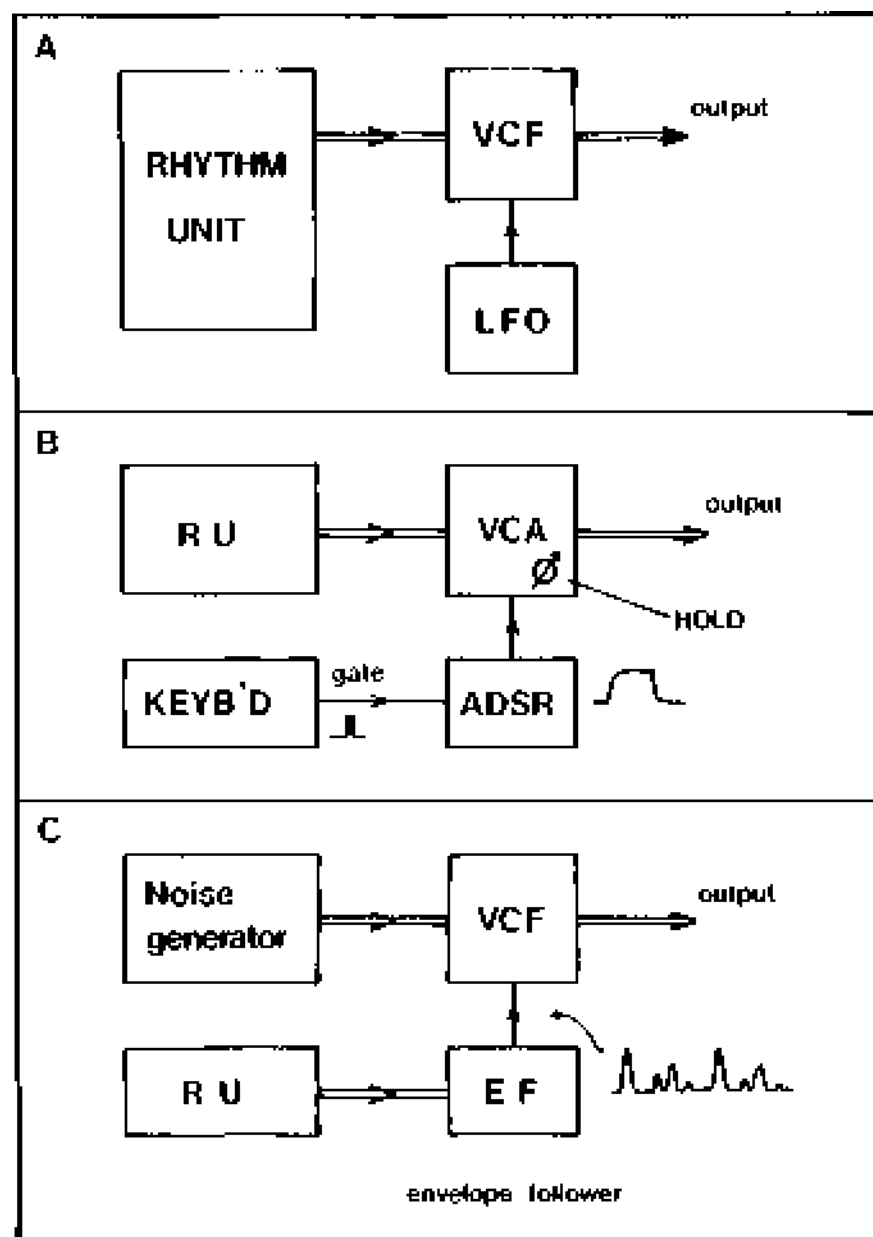


Fig. 2

Microphones

Part 4 Impedance and Compatibility

Electrical Aspects

Once the basic type of microphone i.e. ribbon, capacitor, dynamic, etc and the directional characteristic i.e. omnidirectional, cardioid, bidirectional etc (see November and December issues) have been decided, the next area of concern is in selecting a microphone that will be electrically compatible with the equipment with which it is to be used. There are also other considerations which may require that any equipment, such as tape recorders, mixers, PA amplifiers etc, may themselves need to be modified in order to get the best results in a given situation. It is probably better to decide on the best mode of operation first, and

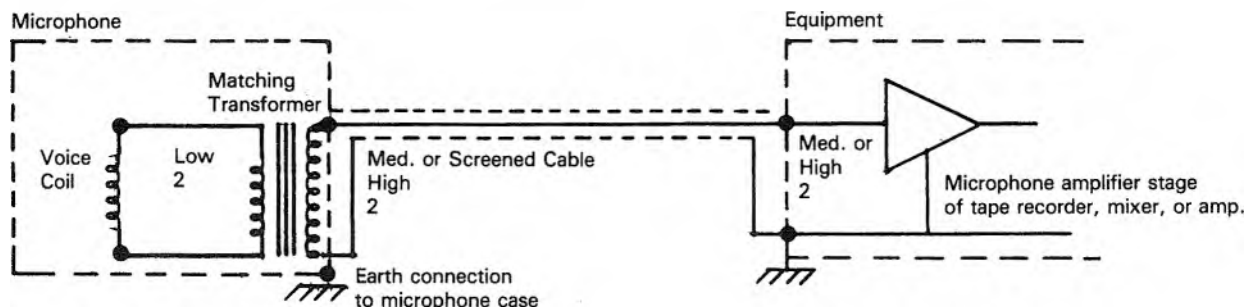
then buy microphones and equipment, or adapt existing equipment, to suit, rather than buying microphones that are not really ideally suited to the application just because of the dictates of readily available equipment. As an example, if you have an integrated PA amplifier that takes only high impedance microphones, but you want to use long microphone cables so that the amp can be operated from off stage or from down in the auditorium, it is much better to buy low impedance mikes and modify the amp to take them, than to try and use long cables on high impedance mikes. The reasons for this and other similar situations will become clear as we take a look at the implications of the

various electrical aspects of microphones.

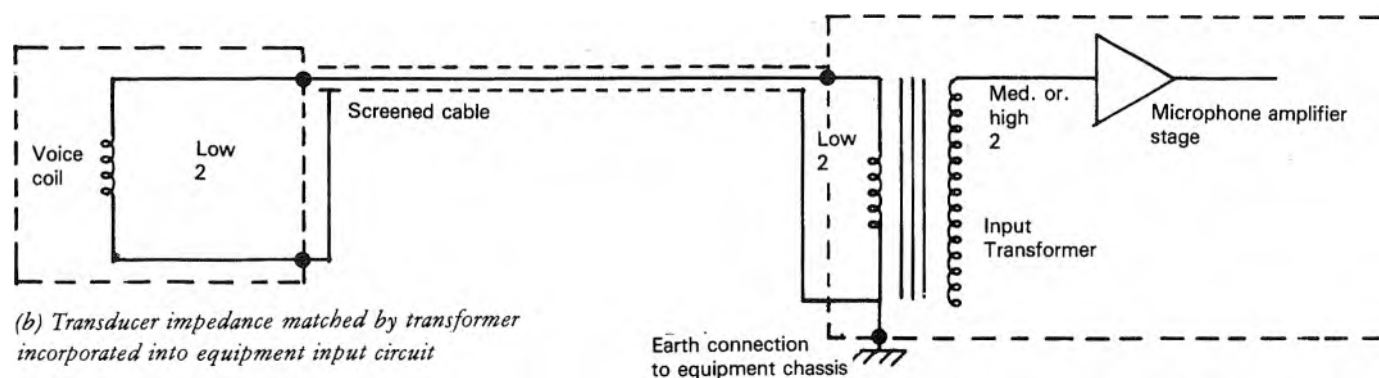
1. Impedance

In their natural state, crystal, ceramic or capacitor type microphones are high impedance devices, while dynamic or moving coil, and ribbon or velocity types are naturally low impedance. These are physical factors due to the basic nature of the various transducer elements employed for each type as discussed in parts 2 and 3 of this series. In the case of the ceramic and crystal types, the high impedance and associated high output voltage is convenient in producing low-cost microphones and tape recorders for domestic use where long cables are not

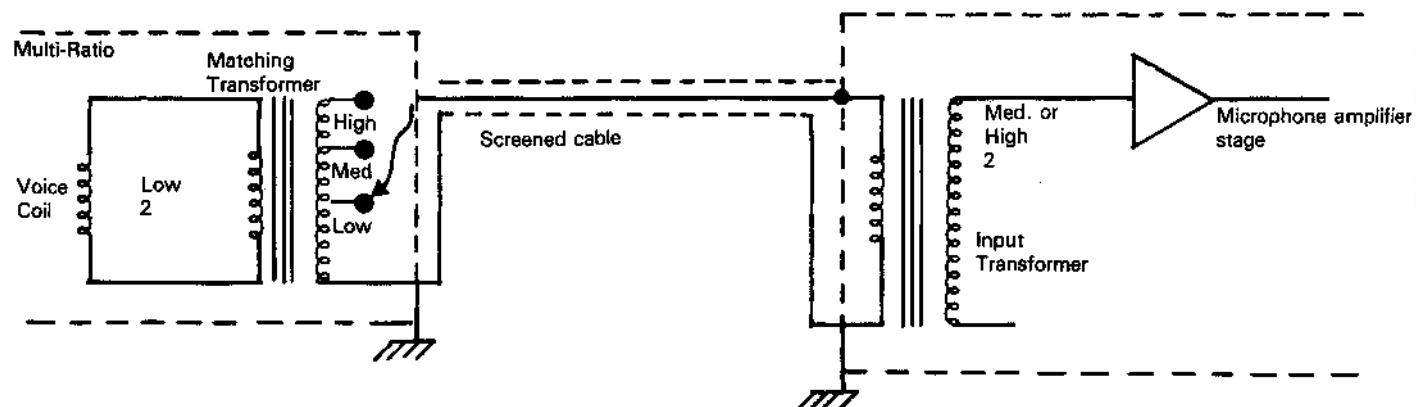
Fig. 12. Matching arrangements for dynamic microphone.



(a) Transducer impedance matched to equipment input impedance by transformer incorporated into body shell of microphone



(b) Transducer impedance matched by transformer incorporated into equipment input circuit



(c) Transducer impedance matched by transformers incorporated into both microphone casing and equipment input circuit

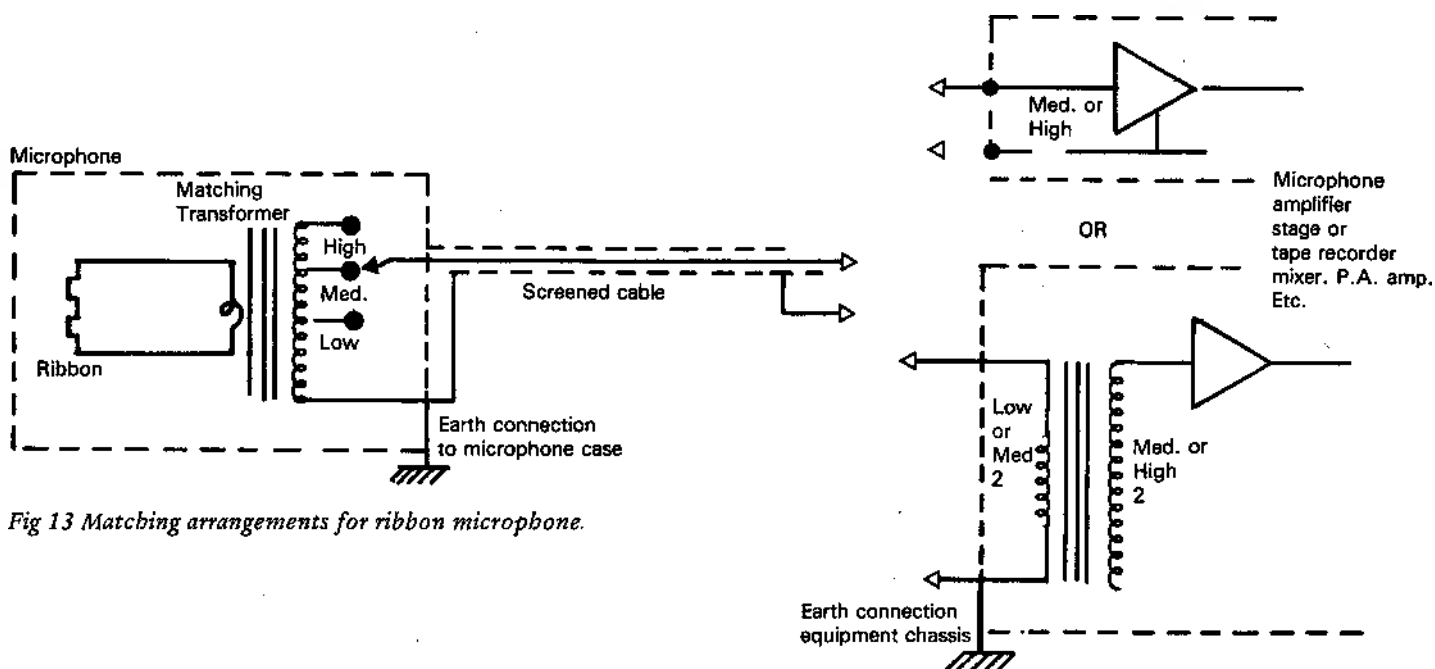


Fig 13 Matching arrangements for ribbon microphone.

likely to be required and where reproduced quality is not critical. However, in the case of the capacitor mike, the natural impedance is far too high and the output voltage far too low for any practical application, while a ribbon type transducer has a natural impedance which is far too low. Some dynamic mikes however can be connected directly to some types of amplifier, but in most instances, as with the ribbon and capacitor types, steps must be taken to convert the microphone output so that it is suitable for feeding into the input of tape recorders and amplifiers. The first aspect to consider is the effect of the cables used to connect the microphone to such equipment.

All cables have a capacitance, the value of which depends upon the way in which the conductors are arranged in the cable, the spacing between conductors, the type of insulating material used, and a host of other factors. Typical values for reasonable quality screened cables of the type likely to be used for microphones would be between about 200 and 400pF per metre. Single screened cables generally have a higher value of capacitance than twin screened types. It follows therefore that the longer the cable, the higher will be the cable capacitance. Now, just as a loudspeaker puts an inductive load on the output of an amplifier, so a length of screened cable puts a capacitive load on the output of a microphone. The higher the output impedance of the transducer, the greater will be the effect of this loading. However, the loading applied is not uniform, in that it affects the very high frequencies first, and the longer the cable (i.e. the more capacitance) the more high frequencies are lost, until only the middle and low frequencies remain. This cable capacitance can also affect the performance of the equipment input stage

to which the microphone is connected by causing instability and susceptibility to radio breakthrough, and also, generate interference within the cable itself. In fact, there are no technical merits whatsoever for the use of high impedance microphone circuits. It is simply a matter of cost, as the addition of an input transformer to each channel of a tape recorder or simple PA amplifier — which until recently was the only practicable means of providing a low input impedance, is a costly business, adding about £10 per channel to the cost of the equipment. The solution then is to reduce the output impedance of the microphone, but if this is reduced too far, say to a value similar to the impedance of a loudspeaker, then we will find that another factor, cable resistance, places further limitations on permissible cable lengths, so a compromise must be found. While actual microphone impedances vary from about 50 to 600 ohms, a value of 200 ohms is fast becoming the norm and at impedances of this order, there is almost no limit to the cable lengths that can be used without serious problems.

1. Dynamic or Moving Coil

Three possible arrangements are available and in general use and these are shown in Fig. 12. Circuit (a) shows the usual arrangement when a high impedance microphone is required to feed a high impedance input on an amplifier etc, although with the advent of solid state amplifiers and mixers having input impedances in the region of 1k to 2k ohms, the same basic arrangements will also be employed to match a low impedance voice coil winding of say 20/30 ohms up to about 600 ohms for feeding directly into such inputs. This latter arrangement will be considerably less prone to the effects of cable capacitance

than the conventional high impedance circuit and is therefore to be preferred. Circuit (b) is likely to be used with amplifiers and mixers which have very low input impedances in the order of 25/50 ohms and which will therefore directly match the impedance of the microphone voice coil winding. Alternatively, some microphones have a higher voice coil impedance and in this instance, the same arrangement may be used to feed input impedances in the order of 200 ohms, although it is more usual to find this type of circuit used in its balanced form as we shall see later on. Circuit (c) shows a dynamic microphone fitted with a multi-ratio transformer so that high, medium or low impedances can be selected. Although the circuit as shown is feeding at low impedance into a transformer coupled input, the same arrangement, set to medium or high impedance is just as likely to found feeding a direct coupled input of the type shown in circuit (a).

2. Ribbon or Velocity

As the signal output from this type of microphone is derived right across the aluminium foil ribbon itself, it follows that the source impedance of the transducer will be very low indeed, and is in fact generally less than one ohm. As this is too low to feed into any type of equipment input, a transformer is always incorporated to provide matching, and for convenience, this is usually of the tapped variety to enable the microphone to be used with low, medium or high impedance inputs. The basic arrangement is shown in Fig. 13 for both transformer coupled and direct inputs.

Next month I will discuss the problems of impedance concerning capacitor type microphones and also balanced lines.

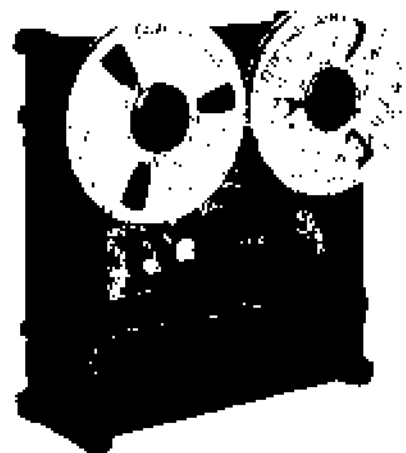
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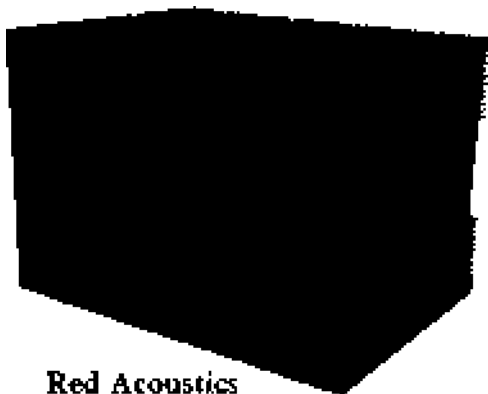
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New Products



Red Acoustics

London-based Red Acoustics Ltd., have introduced the Red Professional Loudspeaker. An integrated speaker/amplifier, this unit is remarkable, not only for its top performance and sound output levels, but also because of its size, or rather lack of it. In fact the Red is small enough to fit into a 19" standard rack whilst being capable of 115dB SPL.

The speaker is recommended for both domestic and professional use, its main advantage in the latter case being its size and indestructibility. It is fitted with Cannon, Jack, phono and DIN connectors and can be used with all types of input including synthesisers, mixing desks and other power amplifiers.

Arbitrary waveform and control sequence generator

This format, from the Aragorn stable of Turner Electronics, utilises the graph transducer in the voltage versus time mode, with three modular units currently available.

The primary unit, S101, contains an exceptionally stable wide range logarithmic VCO, which coupled with coarse and fine time base controls plus a divider for the low range, sequentially steps through the 20 points over a range of several hours to microseconds for a



complete pattern. It is therefore able to create completely arbitrary waveforms (timbres or tones) accurate to the 20th harmonic. Hence, pure sine waves are now easy to create. In the low range the instrument may control servos, or fade lighting. In fact, in any process which may be expressed as voltage versus time, these units may control the servos involved. A length and gate switch is also provided so that other functions may be implemented at a certain time.

D.I. Injection

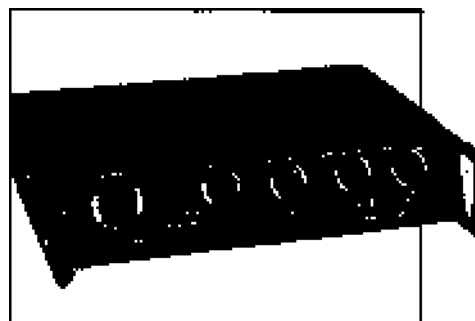
Royston Windings, the Hertfordshire-based company, have added a high-level D.I. transformer to their comprehensive range of stock. It is specifically designed to interface the instrument amplifier with the mixing desk direct. The actual loudspeaker sound can be coupled to the mixer's mike or line input. The output is a centre tapped balanced winding with an inbuilt, high-impedance attenuator on the input, so that three input sensitivities can be selected.

Royston already offer a range of transformers from 6vA to 100vA in selected voltages, 6μH, 12A ferrite-cored chokes and mu-metal screened and plastic cased microphone transformers. If you normally mike up your loudspeaker then you ought to consider this assembly as a major step to saving the price of both microphone and stand. Price: £9.50 including VAT. Anyone interested should contact David Mackney on (0763) 45583 for details.



Court graphic

The GE-60 Graphic Equaliser, comprises stereo equalisation in two rows of 30 1/3-octave bands on standard ISO centre frequencies from 25 to 20,000 Hz. The 25Hz filter acts as a shelving network so it can be used as a rumble filter, a subsonic filter to eliminate room agitation, or unwanted low frequency elements from high power speaker systems. Similarly, the 20kHz fader acts as a low pass filter to minimise supersonic interference and random noise. All 60 faders afford 20db of lift or cut and have centre 'click stops' for accurate alignment. A unique feature of the filter design is that in the maximum of minimum



Eventide Baby Harmoniser

The latest product from the Eventide people is the Clockwork HM-80 'Baby Harmoniser'. This unit is designed for use with instruments and low-level (microphone) sources and offers delay up to approximately 300ms, pitch change to 21, -2 octaves, automatic capture, hold and repeat of signals up to its full delay capability, a 'reverse feature' and a dynamic range of 80dB. Altogether a fairly useful toy to have around.

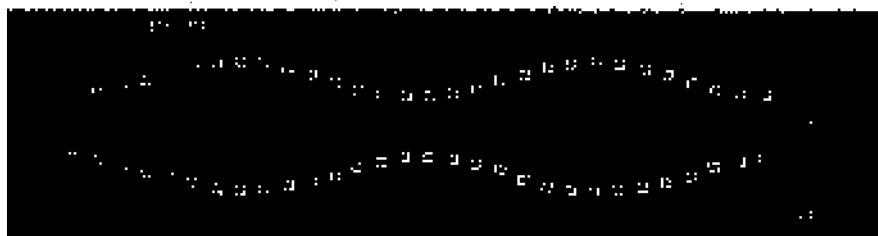
Quality of sound isn't too far removed from its big brothers, and certainly is in a different league to the cheaper, more conventional analogue devices.

One of the best things is its compactness, measuring as it does 10 1/2" x 8 1/4" x 2 1/4", so it can be readily installed into an effects rack or on stage. Feldon Audio are handling distribution in Britain, as they do other Eventide products, and hope that the unit will be available in the New Year. It will be priced somewhere around £400 + VAT, but a definite tag can't be fixed yet. Feldon Audio are at 128 Great Portland Street, London W1. Telephone 01-580 4314.

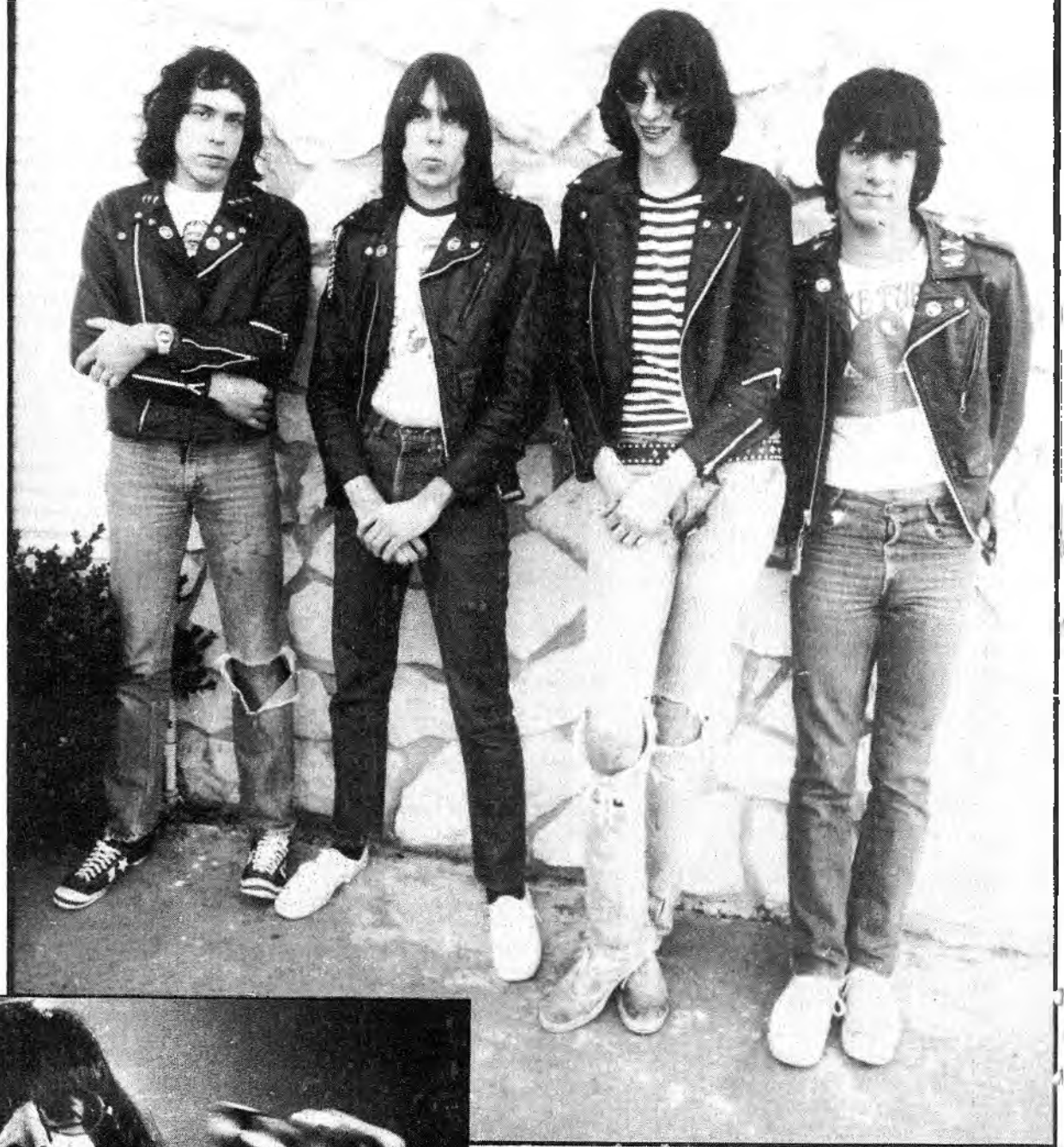
position, they still exhibit a substantially flat response.

The level control provides up to 20dB of gain and the bypass switch enables the filters to be switched out for A-B comparisons. The bypass switch also enables the signal to pass through even though the equipment is switched off. Filters consist of precision chokes and capacitors for minimising noise and distortion found on active IC equalisers. The unique 'Unilop' feedback design further reduces distortion and affords a very linear filter shape.

For more information telephone 01-359 0956.



Ramones Get Technical



By Lester Bangs

I'd like to get a few things straight. When you read what you are about to read, you will undoubtedly laugh, and may find yourself wondering exactly what the attitude of the author toward this band is. Well, I'll tell you, my attitude is that the Ramones are the best rock 'n' roll band in America. My attitude is also that there are a hell of a lot of musicians who have absolutely no idea of what music is about and hide behind something they've learned somewhere; there is an invisible pecking order that's sickening, especially considering that all this stuff comes from the most rudimentary folk music. How you feel about this may reach as deep as your ultimate feeling about America; the way I see it, punk rock is democracy in action. And I would also like to say that as of this very second, there exists in every town on every block in America a band with a kid whom nobody has ever heard of who plays guitar every bit as good as Eric Clapton or Ritchie Blackmore or Ted Nugent or whoever... St. Thomas Aquinas put it well when he said: "It is not by their technical dexterity, but their spirits that ye shall know them."

As for the Ramones, they're only the Beatles of the Seventies. Like the Beatles and damn few groups from this decade, they have instant identifiability; perhaps more important, they're four distinct personalities just like the Beatles were: Johnny is the serious straight-ahead, Dee Dee is dumb (yeah, sure), Joey is a romantic and Marky is the absolute music-biz pro, just like Tommy before him. That isn't to say they were pre-fabbed either — I've known them for years, and they are 100 per cent real, and as you will see from what follows, they were formed by themselves to follow their own vision, a vision based on disgust with old forms, a vision that starts where all the Jimmy Pages stop, when Jeff Beck drops dead (as he did for me long before he did for John), when tomorrow has to be and you know you're chosen.

You may not like them but you're gonna have to contend with them and, personally speaking at this point in time, I love it. I love to see them this happy and you this miserable. Because you really can't play. But you'll learn.

JOEY — Lead Vocals

Tell me about that guitar you write all your songs on.

Well, it's a Yamaha, and sometimes I use two strings and sometimes I use four. And it's compact enough to take with ya

on the road. It's got a short neck and it's got three dots on the neck.

How come?

I dunno. It was one o' those custom made models.

What do you mean, custom made?

I dunno.

Well, how much did it cost?

I stole it from this guy that came over to the house. Originally I was gonna buy it, but then he ripped off Arturo for \$500 and I was so pissed off that I decided that the only way I was gonna give it back to him was over his head.

How long have you had it?

About a year. I'm just very attached to it, ya' know?

So I guess that's how long those strings have been on there, right?

Well, some of 'em, they age, ya know, with time? Sometimes it's hard to get 'em off. Sometimes you have to like yank 'em off with pliers.

Have you put any new ones on?

Not recently. But after you write a lotta songs on it you just don't wanna part with it anyway.

That's not the same guitar you had that you used to write songs on when the group was first starting, is it?

I've had about three already.

In fact didn't you have a broomstick once?

Probably just a mop.

I've played broomstick before.

Yeah, me too. And pool cue.

And invisible guitar.

Right. I used to play like Jimi Hendrix. I love to fool around with that one of yours. It gets the greatest sound, just like Ravi Shankar!

Right, it's the latest, ya' know? It's for the Eighties.

JOHNNY — Guitar

I have a Mosrite guitar which I usually use, and a Hamer and a Mosrite copy which I had made for me, and at home I also have a Rickenbacker. I have another Hamer that's broken and being repaired. And I have Di Marzio "Fat Strat" pickups on all of 'em. I use Marshall amplifiers. The Mosrite guitar I bought when we started the group because it was the cheapest guitar in the store. Now I've gotten used to it and I like it. I also didn't wanna get a guitar that everybody else was using — I wanted to get something that could be identified with me. And now Hamer made me a guitar so I could endorse them. I have two of them. And I guess the Marshall amps are just the best amps for what we do. Picks and strings, we

have the picks made, and the strings, I dunno what they buy because you have the road crew and the guitar roadie always changes the strings. I think I've always bought Darco (gauge .009) when I was buying them. Since I stopped buying them I don't know what they buy. Probably the same thing, I hope.

Tell me when you started playing?

I bought a guitar around 1965, fiddled around for about a year and didn't learn how to play anything. I just more or less gave it up. So then when we started the group in February or March of '74 I went out and bought a guitar, and at the time I didn't know how to play it too well.

So how did you learn to play initially?

Well, we sat down and we were gonna do other people's songs. I knew a couple of chords from when I'd bought these guitar chordbooks in 1965, but I didn't know how to play a song or anything. So we sat down and put on some records, and me and Dee Dee tried to figure out how to play the songs. We couldn't figure out how to play the songs, so the first day we just wrote a song called "I Don't Wanna Walk Around With You." And practically every day we'd write another one. The same day we wrote another song called "I Don't Wanna Get Involved With You." If you were talking to somebody today and giving them advice on how to start out and learn how to play guitar, how would you tell them to do it?

I don't know if I could give somebody advice who wants to know how to play guitar. As far as somebody who wants to know how to start a band, try to be yourself, because when you try to be something you're not it doesn't work. There's one basic guitar that you always use in the set. Which is that?

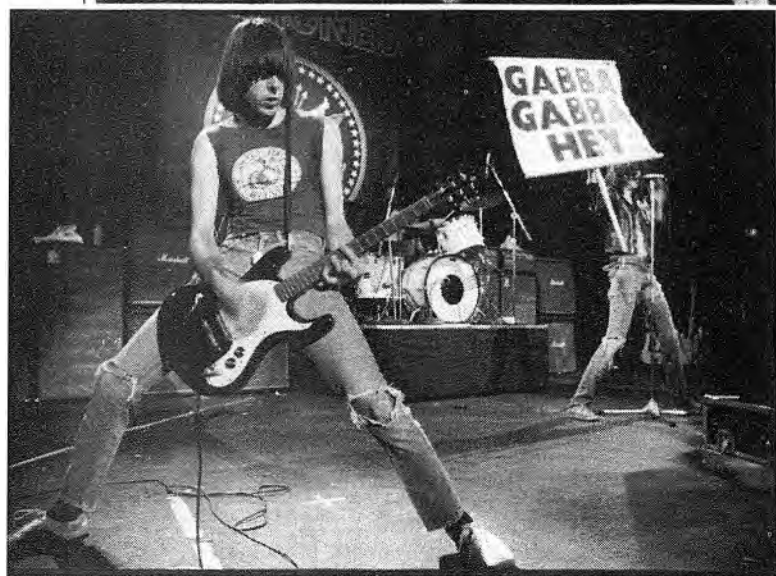
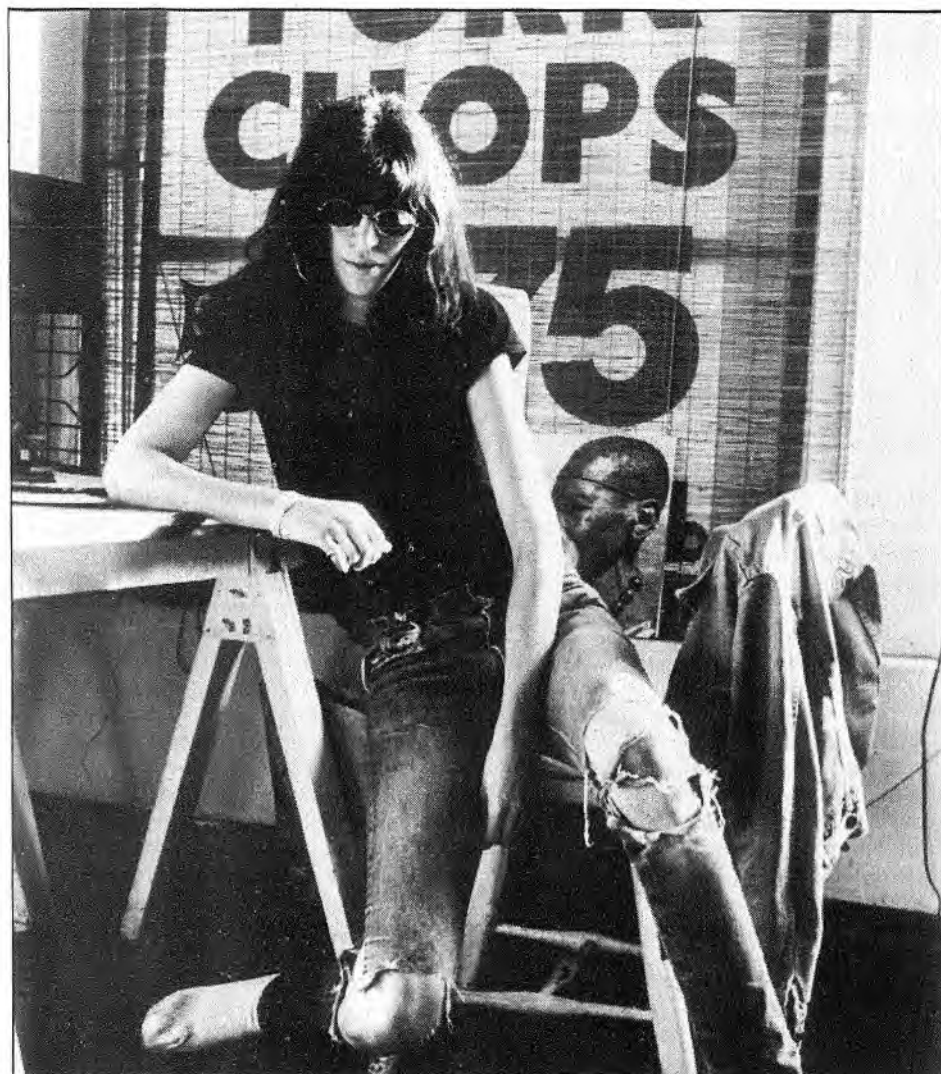
The white Mosrite. I just like the feel of it, though the other guitars might be better guitars.

Is there fuzztone on any of your records?

No, there's studio effects on a couple of songs, no gadgets to step on, like that phasing effect at the end of "Shock Treatment." A lotta people think we use effects, they wonder how we get that sound. Just the volume and the guitar and the amps and the speed at which you're strumming, you get overtones and things like that. There're no overdubs on the first album, except for an organ and one guitar overdub playing the same thing at the end of "Let's Dance."

How do you feel about people that say you guys are unmusical or can't play?

Rock 'n' roll was meant to be something



else. Everybody today is Jeff Beck or Jimmy Page or Eric Clapton or Jimi Hendrix. It was just those four that were great and the rest were mostly imitators. Rock 'n' roll was meant to be exciting and fun; somewhere along the line things got confused in the late Sixties, and all of a sudden it was whether or not you'd been playing for 20 years, and that's not rock

'n' roll. Rock 'n' roll had been going on for 13 years already and nobody ever brought that up. You come up there and you gotta sound good, and when we get up there we do sound good. It's not for virtuosos. Nobody can play our type of music better than us, no matter how long they've been playing or how good they think they are. They should try to strum as

fast as I strum, as long as I strum, and see if they can do that.

MARKY — Drums

I've got a Rogers drum set, a 24" bass drum, a 15" x 12" mounted tom-tom, and 18" x 18" floor tom-tom, and two Slingerland 6½" chrome snare drums. Plus a 22" heavy ride cymbal, a 20" crash cymbal, an 18" crash cymbal, it's a Paiste they're all Paistes, and 15" "sound-edge" Paiste high-hat cymbals, and I use Premier sticks.

How long have you been playing and who did you play with before?

I've been playing the drums since 1964, when I was 11 or 12. The first recording group I was in was Dust, a heavy metal power trio; we put out two albums around '72, then later I did session work, played with Wayne County and the Backstreet Boys, and from mid-1976 till I joined the Ramones in mid-1978 I as with Richard Hell and the Voidoids.

Did you use the same kind of equipment with Richard Hell and Dust that you use with the Ramones?

No, it's different equipment; when I replaced Tommy he gave these drums to me.

So you pretty much followed in his style?

Well, the whole thing of the Ramones sound is to use lots of drums.

Did you find that you had to sort of tone down your playing to adjust to it?

Yeah, what it called for was a simple basic beat, 4/4 all the way, not really any hard-core fills. If you interrupt with a roll it might interfere with the pace of the song.

Do you think that in a way it might be even harder to play this way?

Yeah, it can be, because there are times you wanna do a roll but you know you can't, and it's not a question of being frustrated, but in some ways playing this way is a lot harder than using fills because you gotta keep the 16th notes on the high-hat all the time and it's a fast pace and you always have to be ready for that 1-2-3-4!

So it wears you out because it's not as varied.

Yeah, it's one beat that's the same and you're playing that for say an hour, right? And that can be very . . . it's not a question of technique, it's just a question of endurance. It's totally different than Dust or the Voidoids. It's using your fingers a lot instead of your wrists or your arms, because you're playing it so quick that you can play faster with your fingers than you can with your wrists and arms because they're smaller. With Dust it was physical, more using the arms because there were certain times when I had to play very loud with the fills. And Hell's music was more of a soul-jazz type of fusion with different time signatures like 6/8.

DEE DEE — Bass

Well . . . you want me to give ya'a run-down on what happens up there?

Yeah.

Awright, well, I'm a very heavy bass player and I have a very heavy style, and one of the main problems I have to cope with is wear on what I use, like basses breaking and things like that. So far I've been lucky because I've used the same amps for about a year and a half, and before that I used the same kind I have now for about another two years. I've been using two amps SVT heads and I usually plug in anywhere from three to four bottoms; and I'm up three quarters of the way. I'm really loud. That causes a lotta problems. You gotta really bicker it out with the singer and the guitar player and work all of this down, man, if you wanna play like that, 'cause it's not a simple way to play. But I get a kick out of it because I'm a real greedy guy up there, ya' know?

Ever have trouble with sound men when you tell them you wanna do it like that?

Yeah, and I understand their point of view, 'cause anybody who reads this, if they know what I'm playin' through, they're gonna wonder how a soundman can even do it. I wouldn't advise anybody else to play this way. I'm deaf in my left ear, it's getting worse too. I want more stuff now . . . I've got some really neat basses. I only use Fender Precision basses. The only thing I do to soup 'em up is put red pick guards on 'em. And those I had made for me, 'cause I always use the same coloured bass. I guess I'm the opposite of most players 'cause I don't like the old Fender basses, those collector's items. I just go right into a music store and buy a stock white Fender with the white (maple) neck. That's just 'cause I like the way they look, and then I soup 'em up a little bit. *What do you do to 'em?*

Well, I change the pick guard, and then about every week or so I have to change my pots because I sweat a lot and I totally short out all the electrical components. Or sometimes I'll break the connection between the pickup and all the other stuff in there. That's why I have three basses onstage all the time, 'cause I go through a lot of strings and a lot of basses! This way, if one of 'em doesn't behave very well, I can just throw it off and pick up another one. But it's a problem too, 'cause sometimes when you throw 'em off, they just crack, and they're too heavy for them to catch, so whatever happens, just happens. I don't really care as long as I get my pick guards back. They're the hardest things to get. It's easier gettin' a new bass than a new pick guard.

What kind of picks and strings do you use?

I use Rotosound strings. I think the company should start givin' me free

strings because I use so many of their damn strings! We get our picks made for us at Manny's. Both John and I use the same kind of pick, a big, heavy gauge triangular pick, the heaviest and biggest ones you can get, and all we do is have Ramones stamped on 'em.

When did you start playing?

When I was about 13, I got a guitar. And it was immediately too complicated for me, so I just kept it in my room and when kids'd come over I'd just show it off to 'em, but I never learned how to play it. Somehow, by the time I was 21 and the Ramones started, uh, even a halfwit would know those three chords, y'know that D, E and G? So I knew then. I just always wanted to be a bass player. But I didn't end up playin' the way I thought I'd want to play.

Why did you want to be a bass player?

I liked Paul McCartney a lot, and I always liked the way basses looked. I always hated Paul's bass though. I didn't like that Hofner bass. And I don't like the Rickenbacker bass either. They're like sissy instruments. I liked the way he played so melodically, but somehow I ended up playing very rigidly instead, probably because my idol is the bass player from Black Sabbath, Geezer Butler. If I could play fast and melodically at the same time I wish I could play like him. And he has a nice-lookin' set-up, I think he has some Rainey amps. I also like Captain Sensible's playing a lot.

Did you play bass before joining the Ramones, or just guitar, or what?

I was a nothing. I was just a bum, sorta. And I had a guitar, and fantasised about being in a group, but I didn't really play. Y'know when we started out as a punk rock group here, we didn't know how to play! (Laughs.) So I've had to learn as my career went on; just as soon as I got in the group, I put on a bass.

Christ, do you realize your bass style is the cornerstone of New Wave? You obviously influenced Sid Vicious, Paul Simonon, everybody! When you guys first went over to England all those groups over there just started imitatin' you! The main thing — even more than John — is that they looked at you and thought "Wow, look at that guy, he plays bass like that, I could do that!" and that was like so revolutionary!

I guess it was just a matter of luck, because no trained musician would've played like I played. I didn't give a damn what anybody else was playin'. When I went over to England I was just a kid with a bass that was played in the most selfish, self-indulgent manner you could play, and I guess kids just picked up on that. *What did you think of the way Sid Vicious played bass?*

He couldn't play.

Really? So he just sort of picked up on the attitude?

I think he was just a frustrated guitar player and full of shit. He'd tell me all these weird things, like he'd say "Would you please start a group with me?" and I'd say no, and then he'd try and play tricks on me. He'd say "Well, if you ever left the Ramones what instrument would you wanna play?" and I'd say "Bass!," and then he'd be all smiles saying "Thank god, because I wanna play the guitar," and that really made me upset with him. And Simonon — I dunno, everybody tells me that he moves like me and when I'd talk to him I'd say "Well, what kinda bass have you got now?" and he'd say "Well, one like yours."

How is your playing different now?

I still don't know how to read music. I don't even know the notes on the bass, so I guess I'm a limited player and could probably only play with the Ramones or a group that sounded like us. I only know how to play one way. But I can jump about a foot higher now, and I know *when* to do it so that when I come down I won't hit all the strings all over my bass and make it go BLAAAAAAHHH, like that. (Laughs.) I can hit one note at a time, and that's pretty difficult when you're strummin' so fast and jumpin' all over the place. I got a real good aim. Now I got that aim, I can be anywhere, in any condition, and still hit the right note and play it fast, so I like that, I'm happy, plus I'm real loud. I guess it's all pretty gaudy and self-indulgent, but it makes me happy. And the kids out there seem to like it.

You're really a disciplined professional too. I never saw another band that would have drills in the dressing room and get mad at somebody if they missed a note or a beat or something. Nobody does that, most bands are too cynical.

Well, we hold on to every note! (Laughs.) The whole band thinks they've improved. Having Mark in the group's helped me a lot.

How's that?

He taught me how to discipline my rhythms.

Did you have trouble with Tommy?

Yeah. He was a little laid back and light, and I like everything to be roaring out. I'm real greedy and Mark is real heavy. He's a THUMP-THOOMP-THOOMP-THOOMP-THOOMP-BOMP-BOMP-BOWMP! y'know, and I hear that all the time. Before, when the sound was light, I thought "Oh shit, what would happen if I paused for a second? It'd sound like 'Clink clink clink clink clink.'" So I feel like I have an ally up there with me.

How do you respond when people say you guys are un-musical?

Well I don't feel that way. I feel like I can stand up there with the best of 'em, and if they ever wanna try it, I'm always there, ya' know? I feel like a gunslinger or

something, because if you think you're better, well then *prove* it. I'll battle it out with ya', and so will our drummer and our guitar player. We're not crummy musicians. We can play. Plus we're very athletic. At least three guys in this group are totally drug and alcohol free now, and we really keep in shape. I work out, I got muscles, and I can throw around a bass that must weigh 20 pounds and still get four or five feet up in the air with it. I'd like to see any other guy do it. I'd take into consideration if I had to play with an old man, then maybe I'd sit down with him and show him how I could play the bass faster than he could.

You ever listen to guys like Stanley Clarke? What do you think of that?

I admire anybody who's a good player, ya' know? I'm not narrow-minded. I like a lot of funky guys who can really whip up and down the neck of the bass. That takes talent and I admire it, but I got my talent too, and I admire mine.

What kind of music do you like to listen to at home?

I listen to the Beatles and I listen to our new Phil Spector album. I like Jimi Hendrix's first album, I listen to that 90 times a day. I like anything Roger McGuinn does, he's one of my idols.

Oh yeah? That's interesting, because now that you mention it, I can hear a little bit of that in stuff like "Eight Miles High".

Yeah, that attitude. That freedom of playing like Jimi Hendrix had and McGuinn gets when he used to play with a 12-string and a Twin Fender, I can still get that buzzy sound on my bass.

John said something the other day that really surprised me: I thought that a lot of your stuff was done with a fuzz-tone, when it wasn't.

No, if we use a fuzz-tone, we have to turn down, 'cause the fuzztones would do nothin' but screech. They're good when you pick up a small amp and you wanna play with a clean sound then all of a sudden jump in and make a solo, like those guys that wanted to make a psychedelic part in their songs? So they'd step on that box and they could sneak that in their songs for a few seconds, but then they'd have to step off of there.

Did you used to listen to the Stooges a lot?
Of course! They're probably my prime influence.

Yeah, I was listening to their first album again the other night. Jesus! There's Ron Asheton playing two chords and the entire lyric of the song consists of "Can I come over tonight? We will have a real cool time." People say the Ramones are "minimalist" or whatever, but those guys

Yeah, there was enough drama in the music so that it came across. To me it sounded like they were tellin' me something when I listened to those albums.

Settin' me free.

That's what it's all about. All these assholes say "So and so can't play," or they pull their technical shit on you, when it's really the drama in the music. The Stooges had it, you've got it. It doesn't matter how technically proficient you are or any of that shit. I hate all that crap. I'm so glad this article is in this magazine because when all these "guitar players" read what you and I said today they're gonna shit their pants, go berserk with hatred and think you're not a musician.

Listen, even Jackson Browne invited me over to his house to play guitars. So if there's anybody that wants to say I ain't a musician, they can just kiss my ass. I'm a working musician and I'm in the music business, I make good money doing what I'm doing.

They're jealous, of course. That's why.

I ain't complainin'. I got a whole bunch o' basses.

So many of these bands, these "musicians," they have no talent, no originality, no ideas, no nothin'. They look at somebody like the Ramones and say, "God, those guys play so simple, they must be a scam." They figure it must be a gimmick to rip off money from the kids because that's all any of them could ever be. It never occurs to them that somebody could just be open-heartedly doing this. I bet they think you're sitting up here laughing with bags of money sayin' "Ha ha, thanks a lot you stupid little suckers!"

Well, everybody out there who hates me, I hate 'em right back. And they just better watch out for me too, if they ever say anything in front of my face. But all the other musicians I've met on the road have always had a professional attitude about music which has influenced me and I keep tryin' to be respectable, a professional musician myself. But I'll tell ya' one thing, I don't have to have three martinis to fuckin' get up onstage 'cause I'm so bored having to do it again another night. I go up there and it's like I'm in the Olympics. Like there's still been times I've had to go to Mitch (Lee, Joey's very accomplished guitar playing brother.) and say "Mitch, are you sure I'm playin' this right?" and he would just point to the dots and say "Here, it goes on so many times and so many times."

Lots of times when musicians look at you and put down the Ramones they don't realize how tight it is. That it's totally airtight.

Yeah, we pride ourselves on bein' tight. But I just want you to make it clear in the article that out there in the real world of professionals, most guitar players I've met haven't taken a snotty attitude. As a matter of fact, more people have asked me if I wanna play with them than didn't like me or my playing.

Can you think of anybody who's been

condescending?

The bass player from the Stranglers. That's about it.

I saw that the Sex Pistols, or specifically Johnny Rotten, had some bad words for you.

Oh yeah? Well, I'll tell ya, man, their band was pathetic. They couldn't play and I walked out on them.

I respect the Clash a lot more than them. But you guys started it all anyway, everybody knows that.

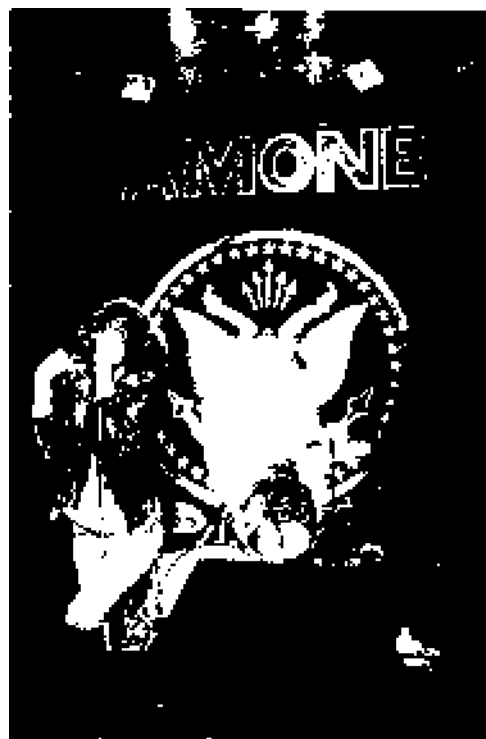
I don't hate the Sex Pistols. I listen to their album a lot, and I think Sid Vicious was a great rock 'n' roller even if I said he was a cruddy bass player. I've gotten away with a lot of things myself.

I guess you were like his hero, right?

Yeah. I don't know why he was so crazy about me.

Don't you know why? He was just a kid sitting over in England! He didn't have nothing to do but work in a goddam restaurant washing dishes or something and he saw you and he said "Wow, I could play bass like that guy!" And he got a bass and he did it, and he joined this group and he became a star, that's why, because you got him out of poverty and misery and nothingness.

Well, I'm sure you know about my background. Since I was 15 I been living on my own. So what fuckin' chance did I have? I didn't even have a place to go back to and say "Hey, can I rest up for a while?" I had to stand on my own two feet, and I've done it somehow... ah, I haven't been on my feet *all* the time, sometimes I fell down, but everything's worked out for the best.



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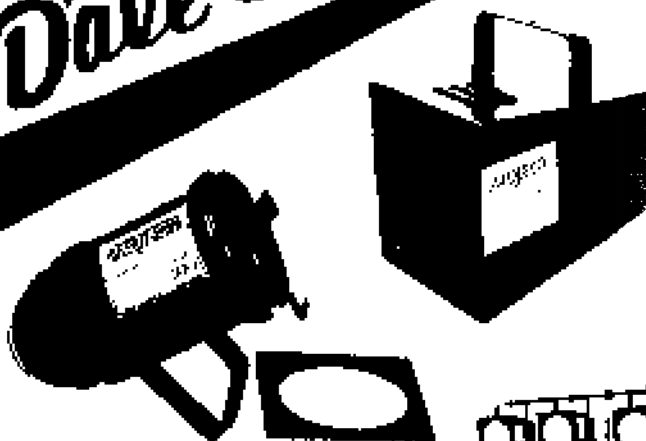
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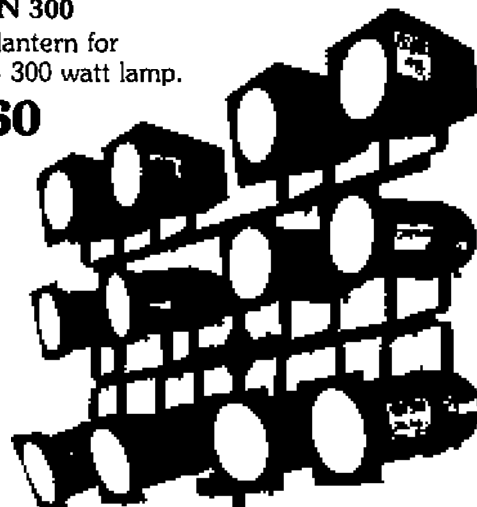
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Dealer of the Month

The Guitar Player is a happy sort of place. It has been open since August '78 in the backwoods of Rochdale town centre and it seems to be thriving. The business is run by Peter Bird (one half of the Bird Brothers), his wife Hazel, shop manager David Beswick and two part-time assistants, David and Tony.

Peter's brother, Arthur Bird, runs the Rock Island shop in Oldham, and the two jointly-owned shops divide up the music business between them. The Guitar Player sells guitars, basses, effects boxes and accessories, and Rock Island sells amps and PA equipment, "because Arthur is into all that." There are one or two high quality amps in the Rochdale shop for customers who wish to try out instruments, but, we were told, strictly for demo only. Many customers like to go over to Oldham for their electronic gear, but if anyone is desperate for a guitar and an amp in a hurry, you can be certain Peter and Arthur will sort it out for them.

We visited the Rochdale shop on a Wednesday afternoon, and although things seemed fairly quiet, everything was going at full power in the back office. The Guitar Player sends out a regular mailing list of new and used guitars, including quite a few rare items. On the day of our visit, one guitar had been shipped to a customer in Barnstaple (1955 Gibson Junior) and another had just been sent by air to a customer in Stockholm (1959 Fender Strat). These sales and many others result from the mailing lists, combined with a particularly enterprising and helpful approach to postal business. Firstly, if anyone shows an interest in a rare guitar on their lists, they will take instant colour photos of the instrument and send them off in the post.

This means that the customer can see the general condition of the instrument and decide whether it is likely to be what he wants. A bit more service like this would save a lot of wasted journeys. If the customer likes what he sees in the photos, he or she can either decide to visit the shop in person, send a friend, or simply post off a cheque for the cost of the instrument. After a minimum of formalities it is shipped off to the customer. Export, insurance and air freight are no problem.

The second bit of enterprise, and good service, consists of a list of instruments which customers are *looking for*. This is kept on file in Rochdale, and the customer will be notified if suitable instruments can be located, either in the UK or from specialised US suppliers.

Busy days in the shop are Friday, Saturday and Monday. Apart from sales of new and used instruments, strings, pickups, spares, brass bits and pieces, various items of clothing, and a mountain

THE GUITAR PLAYER ROCHDALE



of effects units, The Guitar Player also undertakes repair work, guitar modifications and can supply instruments made to order. Peter insisted that life would be next to impossible without their guitar craftsman Ted Lee. Satisfied customers include Phil Manzanera, John Wetton, Eric Stewart, Bill Nelson, Mike Harding, Justin Hayward, Lol Creme, Kevin Godley, Sad Café, Wings, George Harrison and Barclay James Harvest, which is impressive for a shop which has

only been open since August '78.

Peter tries to have regular special offers each month in the shop, for example a dozen box of guitar strings at half price, or at the time of our visit, a Hagsstrom Swede at £100 off list price.

Future plans include a take over of the rooms above the Rochdale shop for an acoustic guitar room and bookshop, and the arrival, fairly soon, of an infant Bird. We wish them lots of luck with both!

Your Queries

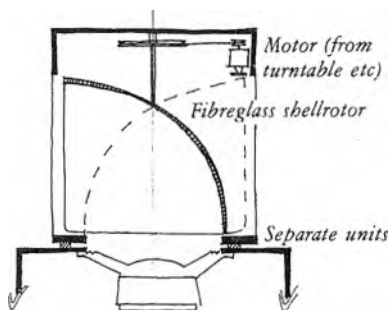
Norwegian query

I'm a Norwegian bass player who wants to build my own Leslie for use with my bass. I am enclosing some drawings that I hope you will make some comments on.

I plan to use my Fender Jazz bass (fretless) which is used with a Peavey 200 watt or Acoustic 220 bass amp and some sort of Peavey cab. When I use both the Leslie (slow-speed) and the huge Peavey (4x15) cab at the same time, there are some power impedance and crossover frequency problems to be solved. What (high-powered) 12" speaker shall I use with this system, and what is the recommended crossover frequency? Will there be any impedance problems?

Torstein Olsen.
Nygaardsvoldsgt 28,
8600 MO, Norway.

P.S. When recommending speakers, please think of the price (I'm not rich!). The main thing is power, but don't forget the overtone harmonics on the bass!

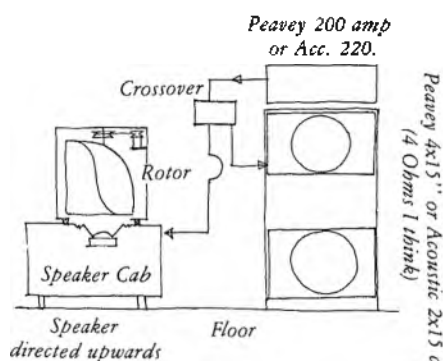


Suitable 12" speaker in suitable cabinet

The questions are:

1. What 12" speaker do you recommend and cab size.
2. Does this self construction look OK to you, if not; please tell me what changes I should make.
3. The rotor (that sounds will be dispersed with) is planned to be made of fibre glass in this shape! Seems OK?

The system is planned to work like this:



Peavey 4x15" or Acoustic 2x15 cab
(4 Ohms I think)

Ken Dibble replies: Firstly, your whole idea is most fascinating, and there is no reason as to why it should not work. However, there are several problems with the scheme as you propose. You must not for example, load your 200 watt amplifier with loudspeakers of less than 4 ohms impedance total, or you will damage your amplifier. Also, I think that you will find difficulty in finding a passive crossover (i.e. one which is connected in the loudspeaker circuit rather than in the signal line) which will handle 200 watts at 4 ohms impedance, and in any event such a crossover will introduce losses such that only about half the amplifier power will reach the loudspeaker units. A much better way is to use an active crossover, and a separate amplifier for each loudspeaker system.

By far the easiest way will be to use the new Peavey Mark III Bass amp, as this has a built-in active crossover and is fitted with a variable crossover frequency control, giving a range of control of between 50Hz. and 500Hz. Using this particular amplifier, you simply jack the 'Bi-amp Low Out' socket on the front panel into the 'Power Amp Input' socket, and use the Peavey to drive the 2x15 cabinet only. You then use the 'Bi-amp High Out' jack to feed a separate slave amplifier of about 100 or 150 watt rating, and feed your proposed home built 'Leslie' cabinet from this. This arrangement will give you independent volume control for each cabinet coupled with control over the crossover frequency so that you will be able to properly balance the two systems, and a graphic equaliser into the bargain.

Your basic 'Leslie' design should work well, but you should not fit feet to the rotator cabinet, and should put a felt gasket on the top face of the 12" loudspeaker enclosure so that you have a seal between the two pieces. As you are already proposing to use a Peavey amp and the Peavey 2x15 cabinet, why not use the Peavey 'Black Widow 1201' 12" drive unit for your 'Leslie'? This is rated at 150 watts and should be suitable for your purpose and would give you a fully compatible set-up — especially if you used the Peavey CS200 slave amp to feed your 'Leslie'. Also of course, Peavey gear is reasonably priced.

I hope that this will be of some help.

Speaking out

A few suggestions for your 'Speakercheck' series in *International Musician*:

1. How about testing 10" cone speakers since many people use them for guitars, mid range for PA etc and there are many interesting units on the market by Celestion, Gauss, JBL. While testing these how about also testing the ATC 9" Standard and Bass as part of the same group?
2. A review of piezo tweeters would be appreciated since they are so cheap and

used in many systems.

3. A review of the HH range of speakers and HH Bullet horn.

4. How about a review of passive crossovers — their specs would be very useful.

I hope you find these suggestions useful. Thank you very much for the series, I have found it invaluable.

M. L. Lacey.
Dorking, Surrey.

Ken Dibble replies: In fact, most of your suggestions have been in the pipeline for some considerable time, but we have not yet got around to them. The problem is that we cannot fill the mag with loudspeaker articles, as musicians have many other areas of interest, all of which must of course be catered for.

To be specific, we are planning to cover 8"-10" units in the April 1980 issue, at the end of the new series of cone driver reviews which start in the 1979 October issue. The ATC 9" is definitely on the list for inclusion, as is the Celestion S10, Richard Allan HD8 and HD10, RCF L10P/09, JBL K110, etc. The Piezo horns just missed our feature on high frequency units in the 1978 September issue, and we have yet to up-date on this type of product. The HH Acoustics component units are included in our new series, and models 1200E, 1500E, B15/L and PL50 are at present being tested. No doubt the CD400 compression unit and HF200 'Bullet' will be made available to us at such time as we get down to high frequency units again — probably about May/June 1980 time. In fact, HH have intentionally held back from previous reviews due to the fact that they were not in a position to supply the new products on a commercial basis due to their own factory consumption with HH Electronics. This must be a better approach than shouting from the rooftops about a product which is not generally available.

Crossovers is an area we have not yet considered, and one which may well be worth investigating.

Do it yourself!

Could you please tell me of any company that can give blueprints of amps? Or even any books on the subject as I really want to build my own.

Keith Mitchell,
East Lothian, Scotland.

Mark Sawicki replies: There are many books explaining the construction of audio amps, both valve and solid state ones.

A very popular one and easily obtainable — *Design Handbooks* published by Tandy Corporation (Tandy Radiostores). One of the Tandy mini-books I've seen was published under the title: *Hi-Fi, PA, Guitar and Discotheque Amplifier Design handbook*; Author B. B. Babani; Price 75p.

Try your local Tandy shop.

Your Queries

Noisy effects?

I play a Fender Rhodes electric piano stage 73 through a Fender Dual Showman amp. I have encountered a problem which must be common when using a number of effects pedals or units in series between the instrument and amp. The signal strength has been reduced drastically with the recent addition of an Electro-Harmonix "Electric Mistress" Flanger and also the noise of the sweep or swooshing is almost as loud as the notes being played. This is the set-up. Piano to flanger to Coloursound Fuzz to E-H Small Stone Phaser then to a volume control pedal into the amp.

Please can you suggest an easy method of overcoming this problem? I know MXR produce a noise gate driver which I assume eliminates noise and boosts the signal. It would be useful to be able to have the full power of the amp available as the Rhodes needs it for the best sound.

Many thanks for a good magazine!

Adrian Schwalb,
Ascot, Berkshire.

Mark Sawicki replies: The problem you have is quite common, when using a spaghetti network with all kinds of effect boxes, thus resulting in increased noise performance and a dramatic reduction of instrument signal strengths. Most of the mentioned effect boxes work satisfactorily when used separately as they are designed for individual work.

In theory it is possible to design an "effects selector switch" which would select from your network the required effect. Unfortunately, I think this is hardly possible for anyone to play instrument and operate effects and its selection of controls simultaneously, if such a three handed or three legged person exists, then there is an obvious necessity to design the switching circuit to be 'click-free' and with gain compensation in different channels allowing the maintenance of a similar output level on all effects. The use of a "Noise Gate" is also possible. In the meantime, the only suggestions, I can see to overcome your problem, are to be more critical when inserting more than one box between the instrument output and the amplifier.

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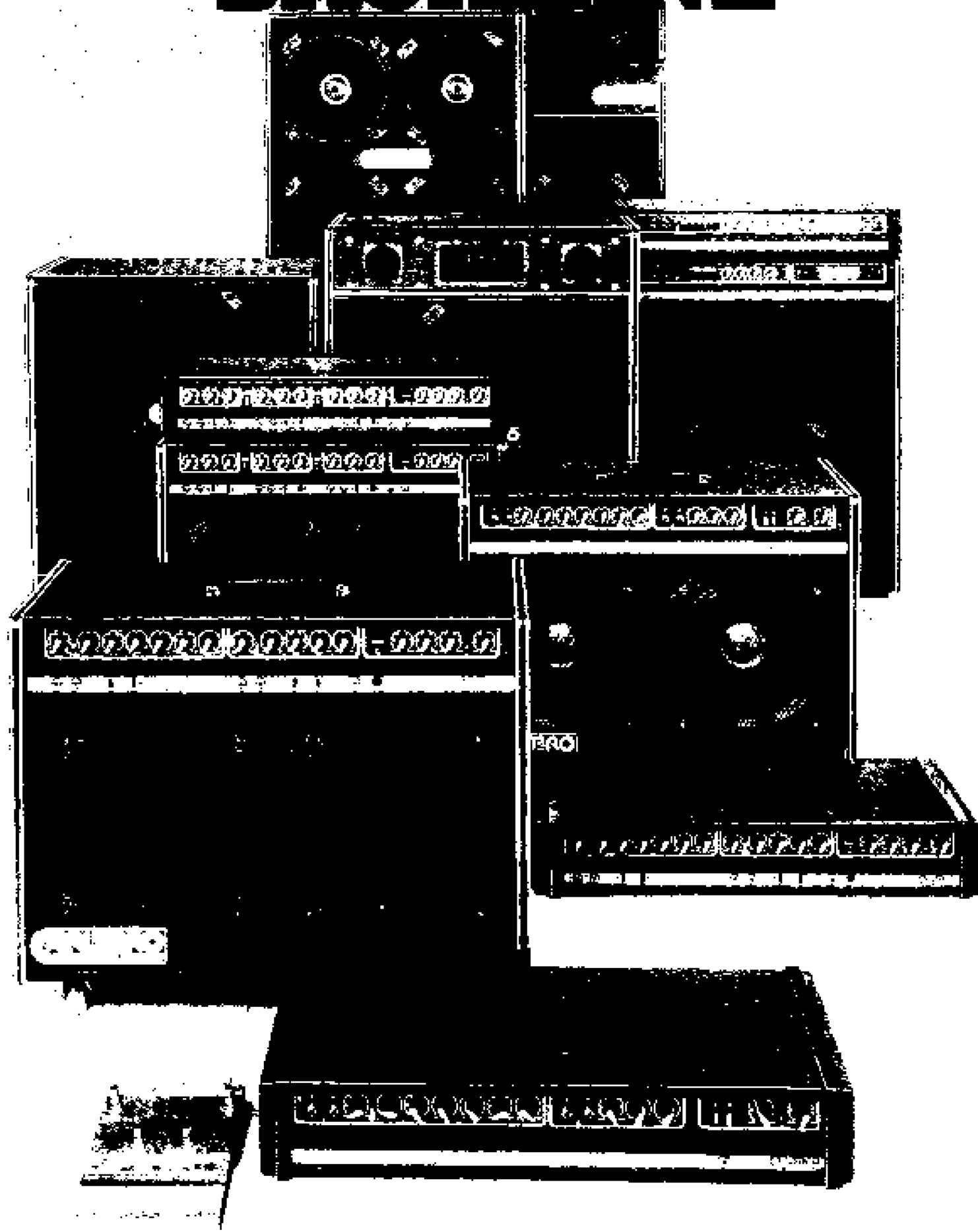
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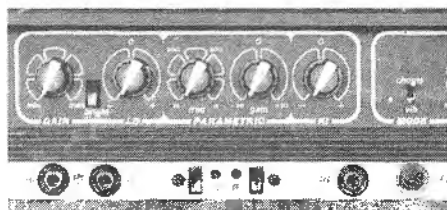
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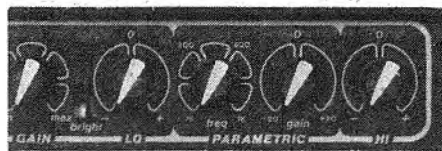
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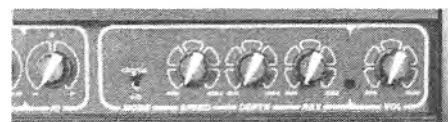
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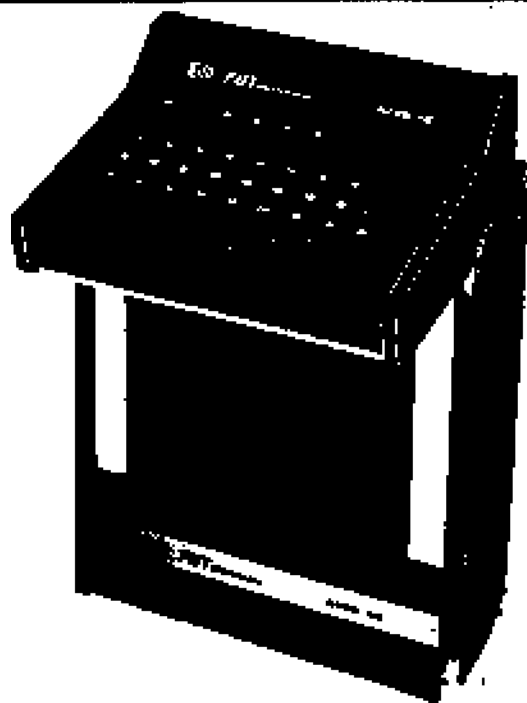
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— Strings —

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"I'm a firm believer in electronics"

dictator inside his band. With his brother on keyboards and flute, Dik Cadbury on bass, John Scheater on his huge double bass drum kit, and Peter Hicks on vocals, Steve Hackett makes the music he wants to make, according to his definition of how it should be played.

"But you have to leave the members the freedom to do what they want, within certain boundaries," he stresses. "I can set boundaries, but I like the guys I'm working with to try a number of different approaches. In that sense it's democratic. But I have the power of veto. It's unfortunate that politics comes into it to a large degree, but I believe that one man must control the show. On the face of it, the democratic approach may seem to be the fairest and the most effective, but really what you wind up with, using that approach, is music composed of a dilution of everybody's ideas. It should be a single concentrated effort, moving in one direction only. Perhaps it boils down to the fact that I'm interested more in individuals than groups."

It's Steve Hackett's songs that dominate the group. Each song, he says, starts as a doodle on his guitar most of the time, though lately he's taken to composing without a guitar to hand. Usually he just strums away until suddenly, perhaps, he hits a chord inversion that he never knew before. From that a melody could spring. One chord might suddenly take on a new aspect when placed next to another, creating an interesting dissonance or melody. Hackett does it all by feel, employing very little theory of music, other than the fact that he's aware of certain pentatonic scales.

"I got an idea recently that I called 'Sentimental Institution', which was a Glen Miller parody," explains Steve. "And I wrote it without any instrument around at all. Some ideas work better that way. I do find that I get ideas at odd times — like when I'm just drifting off to sleep at night, or first thing in the morning. Once I wrote a song at six o'clock in the morning with a terrible hangover. I used to use a cassette to record a song in embryo, but I don't do that anymore. I've come full circle in a fashion, inasmuch as I've gone back to finalising things in the rehearsal room before going into the studio."

With the last album, Steve was concerned that the numbers could be reproduced on stage. He finds that the rehearsal room is the best place to discover if they are viable both ways, with equal style. Added to this, studio fees have risen so dramatically in the past few years that

Steve feels guilty of squandering resources if he goes into the studio not properly rehearsed.

He has an ambivalent attitude to studio work. After he's been touring for a long while, as he has recently, he just wants to get into the studio to get his ideas down dead right. He enjoys working with musicians that he's never had experience of before, like classically trained string sections for instance. His record *Please Don't Touch* was an education in this respect.

As strong as his attraction to the studio is initially, it only takes a few weeks of solid work to convince him that he's suffering from what he calls "studio-itis", which means introspection and tension due to tremendous pressure. Inevitably, he begins to feel wasteful after a while. And it's then that the true validity of the rehearsal room returns with increased significance. Not to mention the value of touring with songs before committing them to tape.

Hackett puts all his five working guitars through two Roland JC150 combos plus an extension cabinet, which in turn go through the Europa PA system, the power and configuration of which changes between gigs. He's been through quite a few sound set ups for his guitar — HH, Hiwatt and Roland, which he's using now. But that could change soon because the Jazz Chorus outfit isn't giving him the control that he likes.

One problem at gigs is tuning. "I usually tune the guitars before a gig, but if it's cold in the concert hall I know that by the time I come to play the tuning will be out because the hall will have gone through a 40 degree temperature change. Sometimes the tuning can go halfway through a number, but that's usually with new strings fitted. I use Fender Rock & Roll strings, and no matter how much you stretch them and try them beforehand, they always take one gig to settle in properly. Once I used Sound City strings, but I'm not too fussy. I find strings much of a muckness. There's not a great deal of difference between them. They never last long enough, they all loose colour on the bass string far too quickly. The search for the ultimate string is a myth as far as I'm concerned."

Steve doesn't have a great deal of time for the established rock music myths. He doesn't consider that any guitarist in the last 10 years has done anything to break new ground with the rock guitar. Still, he will admit that his major influences have been Hank Marvin and Segovia. Another

influence sometimes projected onto his music, and it's a little bit his own fault, is that of drugs. As the introduction to one song he says: "this could be said to be a Vera Lynn drug song." And with an audience of impressionable young hairies that's bound to be taken literally instead of in the flippant fashion he means. "It's only a joke," says Hackett. "I'd hate to be thought of as churning out threadbare psychedelic messages."

Steve finds that touring alienates him from everyday life, somewhat. When he comes off tour it takes a while to adjust to the absence of motorways, greasy food, and constant mobility. It can even put him off his playing. "I can go through periods when I do nothing but play... and I go through periods when I don't even pick up a guitar for as long as a week. Some days I just can't face it. At that point I get frightened that I'm never going to play again. Usually I find that I can better deal with this problem if I'm feeling fit and rested."

For practice Steve just plays, doodles, strums, and such like. Just lately he's begun to use exercises for his right hand: "I'm not very severe with myself. I've always found my own way and I've never had anybody slapping my wrists for not doing something properly. I've never had an academic attitude towards playing the guitar, though I have been criticised for a formal style of playing, which is odd. Learning the guitar was a route to freedom for me — I taught myself, so being tutored early on would have been a contradiction of the reason I begun playing initially. I like the acoustic guitar very much because of that. It's self-sufficient, it doesn't rely on drums, bass, amps and a lot of money. You could go out in the streets with maybe only 25 quid in your pocket and still come up with a stunning box. It happened to me recently in New York. I was trying out all these Martins and things and I felt a bit undecided, but then I picked up this Cimar, and it was a knockout. I was really impressed, and it only cost about £75. And I'd never even heard of the name before."

"Electric guitars are less flukey, especially these Japanese ones. They're a lot more standardised — though I tend not to like them because the necks are too narrow and I like a lot of fingerboard space."

What about the future?

"I just want to keep going. I want to keep on producing music until everybody else is out of the race."

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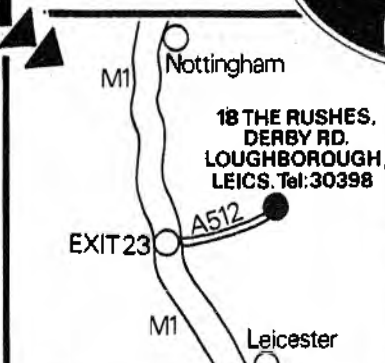
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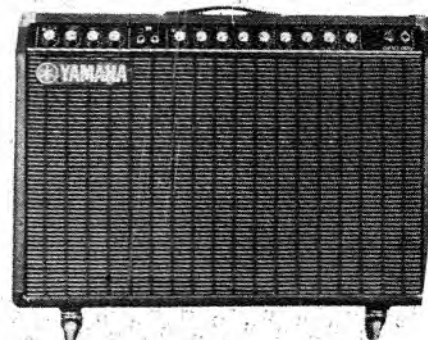
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E 1005

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Complete with Yamaha humbucking pick ups and push button switch for single coil sound. This 24 fret guitar is available in blonde and oil stained.



SA2000

Humbucking pickups semi acoustic made of beech and birch with ebony finger board. Available in brown sunburst and burgundy red.



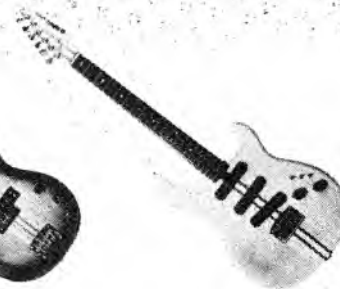
SG2000

One piece body and neck constructed of maple and mahogany. Complete with solid brass sustain plate and ebony finger board. Available in brown sunburst, cherry sunburst, cherry, brown and black.



BB1200

One piece beautifully laminated in rock maple and mahogany. Full 21 frets. Available in brown stain or natural.



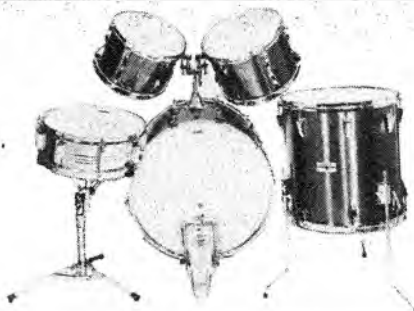
SC1200

One piece body and neck, three single pole bar magnet pick ups and phase reversing switches. Available in brown stain or natural.



YD5222

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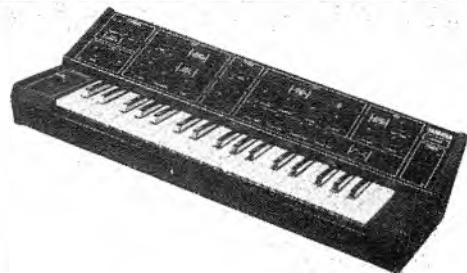
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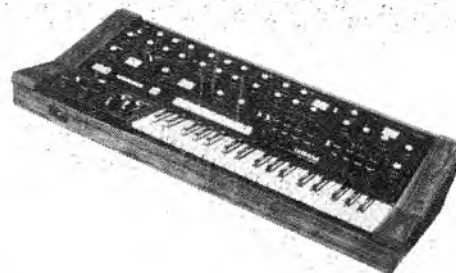
SS55

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CP 30

Velocity sensitive 6 1/2 octave electric piano. Stereo output each with 3 piano sounds and one harpsichord. Each note is derived from two oscillators which can be detuned to give rich colouration of sound. Includes tremolo decay, tone volume and balance controls.



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Spotlight On

Leicester



Situated in the centre of England, Leicester has a growing potential as an important area for musicians. Leicester currently serves a large part of the Midlands but the word will spread across the country that it has plenty to offer to all types of musicians.

First stop on the Leicester trek was to Cusack Music(1) at 33 Braunston Gate. Managed by Steven and John Cusack the shop mainly deals in secondhand equipment that is repaired and set up to customer requirements by John in his own workshop upstairs. John is an electrical engineer, so most types of repair can be carried out.

The shop also runs a hire service on both backline and PA up to 2kW. The larger PAs also come with their September Sound 16-channel desk. A small rehearsal studio is available at the back of the shop for customers to play and experiment with the stock before buying. A small selection of used Fender and Gibson guitars is always available, as well as a wide range of amplifiers, ranging from AC30s to the larger power amps. John and Steven are assisted by Dave Goode.

Central Music(2) in New Bond Street, just off the main shopping area in Leicester boasts the largest selection of drum heads in the Midlands, with a extensive display that almost covers one wall of the shop. Central Music mainly deals in percussion since, as manager Stu Williamson pointed out, guitars and amplification were covered adequately by the other dealers in the city. There are

over 30 kits in stock at any one time, and the shop can offer credit facilities up to £300 on the spot, with no deposit, on production of any of the major credit cards.

Central also deals with percussion accessories. At present they have over 200 drum sticks in stock as well as a large range of Latin percussion and cymbals. Stu, and his assistant Phil Tansley can supply almost any kit on request but the best sellers at the moment are Premier and Sonor.

An innovation that must be welcomed by every musician in the Midlands is the Central Music drummer register, this lists all the drummers in the area, their standard and musical style, as well as where they can be contacted. So, if you need a drummer, you know where to go. Stu and Phil also run a tuition service.

Jon Page, manager of Humbucker Music(3) on Green Lane Road stocks his shop with amplifiers and guitars that he has personally imported into the country. He believes that in these hard times it will increasingly become the only way that retailers of musical merchandise can survive.

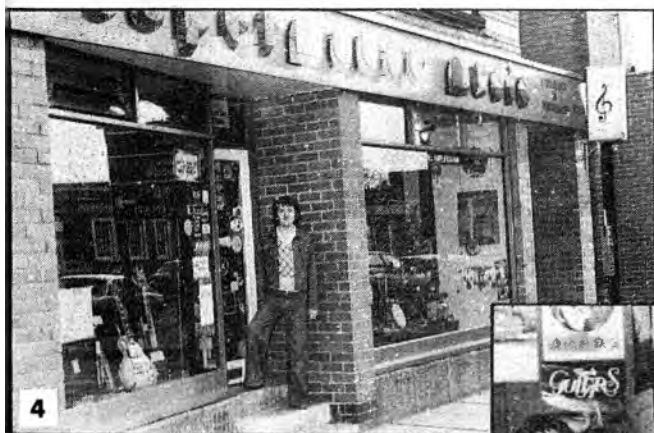
The shop is well laid-out, with all the items accessible from the floor of the shop. Humbucker stocks most of the big names in guitars and amplifiers with the accent on a very wide range of equipment. Jon was full of praise for the Traynor combos and the Malcolm Hill range, which he described as being the best value for money.

Jon also sells his own budget PA systems and he can supply them to almost any size and power. Obviously larger orders may take a little time, but he always has a good display of these items. On the cards for the future is a small studio at the back of the shop, though this will be managed by someone else as Jon already has his time taken up with his current commitments. Instant credit will soon be available up to £300 on his large selection of Marshall, Ampeg, Laney and Peavey amplification as well as the range of quality new and used guitars.

Becoming increasingly lost in the Leicester one-way system, we made our way to Supermouse Music(4). Situated just outside the city centre Supermouse provides the complete service to the musician, from tuition to rehearsal studio (which can also be set up for recording). Brendan and Carol Murphy, who manage the shop are steadily building up the service side of Supermouse since they believe it can only compliment the retail side.

Supermouse has been in operation for some two years now and Brendan and Carol have built up the shop to its present level, the layout of the shop and the services that they offer are a credit to their hard work. The shop has a large floor space that can cater for most of the crowds who gather there on a Saturday to try out new equipment, discuss the local gossip or just to meet friends. "On Saturday it's more of a club than a shop... it's just a bit of a meeting place" was how it was described by Brendan.

The spacious layout of the shop allows



the prospective buyers to try out the equipment with plenty of space to spare. But should they require further peace and quiet, the rehearsal studios built as an annexe to the shop provide the perfect environment. The same studios also act as tuition rooms for guitar and percussion and allows the students to play together if they wish. At the moment the main rehearsal studio is fully booked, with some bands coming in three nights a week to rehearse and record there.

The Supermouse range of name and copy guitars is selective, each guitar is checked over and polished before being placed on display. More unusual items are also available such as half size sets of bagpipes and military drums, though these are by no means the strangest items they have supplied. Over the past few weeks they have managed to find a specialist set of highland pipes, a washboard, and even a set of Morris dancers bells for customers. The personal touch indeed.

Swallowed again by the "Leicester maze" and following a series of ever increasing circles we eventually parked the car and walked around the corner to Sound Pad(5). If only the planners of the one-way system had visited Sound Pad first they would surely have learned all layout. Every item in the shop is both visible and accessible to the prospective buyer. From the ceiling hangs a forest of guitars. Hamer, Gibson, Fender, Martin, the list, like the stock, is endless. Around the walls, and acting as a partition in the centre is the Sound Pad amplifier display. Almost every make is here, and they can all be set up in a matter of moments to allow you to play. The same ease of operation is displayed in the keyboard department (beyond the guitar forest, behind the amplifier mountain), where all the units are switched through a 24-channel mixer to a pair of amp stacks. Beside the keyboard section (flanked by more guitars), is the percussion section. Due to be space this is necessarily small, but there are actually 65 kits in stock.

Downstairs, the basement contains the



disco department, the secondhand section of the store, and the repair shop. The basement is also the place where the Sound Pad PA equipment is put together, an entire catalogue is available upstairs that deals only with these products. Anything from a 2 x 12 cabinet to an entire PA can be supplied from the large range in stock. All the units are competitively priced and all can be supplied with covers at a small extra charge.

But even this size of store is not large enough to cater for the plans that manager Graham Pell has for Sound Pad, soon they are moving to what will become the largest musical superstore in the UK and maybe Europe. The new store will cover four floors, each one a self contained unit with sound proof booth, rest areas, and even toilets.

With these plans in mind Graham Pell will also be expanding the Sound Pad filing system. At present this system is based on the counter of the shop, and allows the staff to find out in a matter of moments if an item, both new and secondhand, is in stock. With the size of the new superstore this system will have its own department on each floor.

Another manager with plans is Paul Tebbutt from Fiddlers Green Music. Dealing exclusively in rare acoustic items Fiddlers Green has a very wide range of quality guitars from Guild, Martin and Fylde. At any one time he has at least six of each item, and a small selection of rare or unusual specimens is always on display. In fact the old, rare or unusual is a major part of Fiddlers Green where strange mandolins with banjo necks, concertinas and bouzoukis are stocked as a matter of



course. Above the shop is the repair and renovation department, essential when dealing in the rare and the old instruments, and the tuition studios. Paul employs two extra members of staff to teach guitar, violin and frailing banjo. Yvonne Carter teaches classical guitar to beginners, Michael Grimm caters for the more advanced guitarist as well as the violin. Paul himself teaches the banjo.

Paul is starting an offshoot of his current business in the near future under the name of Midland Music Auctions. From January he will be starting auctions of all types of musical instruments in a hall just up the road from his premises, (1 Chepstow Road, Leicester) in St Philips Hall in Evington Road. Paul is accepting lots for the first auction on January 26th at the moment, and entry to the auctions will be by catalogue.

All enquiries regarding both the shop and the auctions should be addressed to Paul at the Chepstow Road address and not to the hall.

Standing just outside the City of Leicester is Wigston home of the Premier drum factory. Premier has been here for five years since they moved from Berwick St. London, where, as Della Porta they had resided since before the war.

The factory complex is large by any standards, and within Premier manufacture all parts accessories and hardware for their world famous range of percussion instruments. Premier are proud of their production line, their solely British product and their standards (Premier have won the Queen's Award to Industry). They are happily settled in Leicester and are confident that they can keep up the reputation they have built up over the last 30 years; as complete manufacturers of the complete drum kit.

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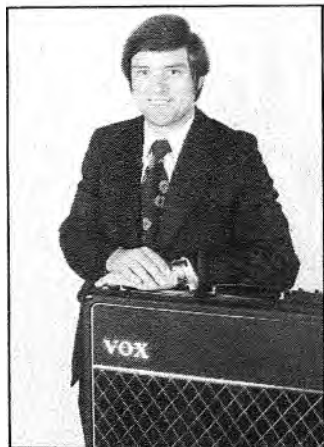
SOUND PAD

64 London Road, Leicester. 0533-20760/21041

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New Sales Manager for Vox

Rose-Morris follow their recent announcement of their acquisition of Vox with the news of the appointment of Gerry Lewis as UK Sales Manager of Vox Limited. Gerry, has been Rose-Morris' North London and East Anglia salesman for a number of years. Gerry's record has been impressive, having been Salesman of the Year, as well as top competition winner. His consistent success in selling the Rose-Morris range of products, and the esteem in which he is held by his customers, have made Gerry a natural choice to head up the UK sales side of this important new venture.



Backing up Gerry in the Vox sales office newly established at 32 Gordon House Road will be Martin Tannant and Phyllis Baxter, both of whom are already well known to the UK music trade for their previous successful work within Rose-Morris. Says Gerry Lewis on his appointment, "there is undoubtedly a tremendous pentup demand for the Vox product, and I am looking forward to making Vox more widely available through an increased number of dealers in the United Kingdom."

Rockstar Synconisation

Rockstar Studios in Charlotte Street, London W1 have just acquired an Allen and Heath Syncon desk as part of their complete refurbishing operation. The 28-in 28-out Syncon features full 24 track monitoring and will be used with an M79 tape machine.

The equipment was installed by studio owner John Springate who many will remember as lead guitarist and songwriter with the Glitter Band. John has considerable experience of Allen and Heath consoles as the studio was previously equipped with a 16-track Modular 2 desk which, we were reliably informed, is now on its way to Jamaica. Rockstars new rates are competitive and John Springate may be contacted on 01-637 0999 for details.

Leech Musical Services

News of British company who are starting the Eighties with a new operation comes from Leech. Managing Director Mr. Joe Olenski has a new company called Leech Musical Services Ltd., which will be manufacturing a new range of amplifiers.

The new products will be marketed under the name of Ohm and will include 15, 30, 70 and 120 watt combos, plus a 70 watt bass combo and a range of 120 watt rack mounting amps. The units are of completely new design, and will be sensibly priced we are informed.

Joe is also heavily into speakers and is already producing products under the name of Fortmac, the company will still be running their Leech amplifiers, however. Enquiries regarding the Leech or Ohm products should be directed to Unit One, Knutsford Industrial Estate, Parkgate Lane, Knutsford Cheshire. Tel: 0565 54641.



Gold award for Kitchens

Mike Cooper, Managing Director of Kitchens of Leeds, was proud to announce the success of his company's training policy in gaining the D.I.T.B. Gold Training Award. For many years Kitchens have trained their

Ashley Pangborn

Ashley Pangborn guitars have asked us to point out that they are in no way associated with the Keyboard harmony shop, based at 85 High Street, Redhill, Surrey.

Kemps Yearbook 1980

This yearbook is a must for everyone in the business. It provides a complete up-to-date coverage of the industry in Britain, with a growing International Section. Its prime function is a purchasing guide for Managers, Agents, Tour Organisers, Recording Studio Managers and Recording Companies, within the industry, but it is also of value to all who buy goods or services relating to the Music Recording Industry.

The book is divided into four main sections: (1) Concert Section — covering all the goods and services needed for concert performances both on stage and on the air. This section is full classified; (2) Recording Section — listing by classification all the goods and services required for making records, tapes and cassettes; (3) General Services Section — including all other goods and services required within the industry by classification; and (4) International Section — listing by country and then classification goods and services available around the world.

Priced at £10.50 the book is being distributed by Bowker

Publishing Co. Ltd., Erasmus House, Epping, Essex.



How to export

The picture was taken on the Hosho Corporation's stand at the Tokyo Music Fair showing: Mr. Charles Higgs, Mr. Martyn How, Mr. Dave Komatsu (Hosho) and Mr. James How. Apart from taking large orders for Rotosound and Superwound music strings, a new advertising programme was set up with Hosho to help consolidate How's market position in Japan. For enquires concerning Rotosound and Superwound telephone 01-304 4711 or Telex 898031

New Director for FCN Music

Mr. Dave Martin has been appointed Executive Director for Fletcher Coppock and Newman Ltd. He has acquired a wealth of experience in his 20 years of working in the business ranging from retail, wholesale to manufacturing. Dave joins FCN from General Music Strings Ltd., with whom he has been employed for over seven years. He will be setting up an Export Division for FCN, and will be involved in the marketing and promotion of the company's products.

Macmillan split

Macmillan Incorporated, parent company of C.G. Conn Limited has stated that it intends to divest itself of its electronic organ division, and to seek a buyer for the business. The Company's Band and Orchestra instrument business, i.e. Conn Brass and Saxophones, Artley Woodwind, and Slingerland Drums will not be affected by this decision.

C.G. Conn (UK) Limited, a direct subsidiary of Macmillan is not affected by the decision. The Company will continue to operate normally.

Rose-Morris Lose Salesman but Gain Customer

Gerald Kennedy, Rose-Morris Salesman for North West England and Ireland has left the company. He has been appointed Retail Sales Director for Barratts of Manchester and in this capacity will control all four Barratts stores together with their Field Sales Staff.

Gerald joined Rose-Morris in 1964, firstly as salesman for Scotland and Ireland. He went on to take over their key accounts in North West England and Ireland and was for many years an associate director of the company. He has made a major contribution to the Company's growth and success and this was acknowledged by Rose-Morris chairman Peter Clarke, and by his colleagues in the Rose-Morris sales team at a recent presentation. On this occasion Gerald presented Peter Clarke with an order from Barratts — as he put it "the first of many".

Rose-Morris are sad to lose a valued member of their team but pleased to gain an important customer.

Rhythm House

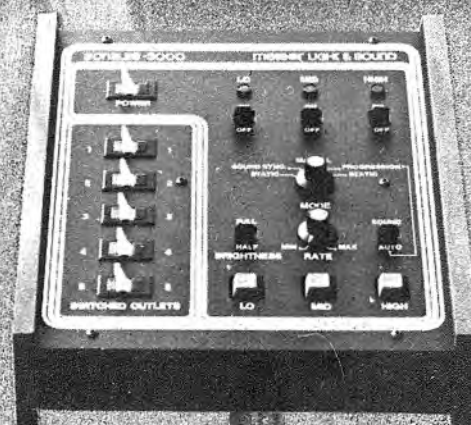
Stockport's popular music shop Rhythm House, just across the road from Strawberry Recording Studios enjoys the custom of many local and national bands such as 10cc, Sad Cafe, Barclay James Harvest and Fivepenny Piece. They tell us they have just completed extensive alterations including a complete new shop floor — the old floor having collapsed under the sheer weight of amplification in stock. The Rhythm House is now open on two floors and they hold all the main agencies including HH, Carlsbro, Marshall, Premier etc. Their motto is "Why buy from us when you can pay more elsewhere?"

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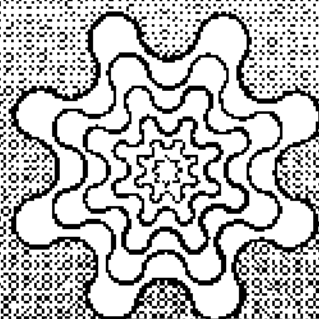
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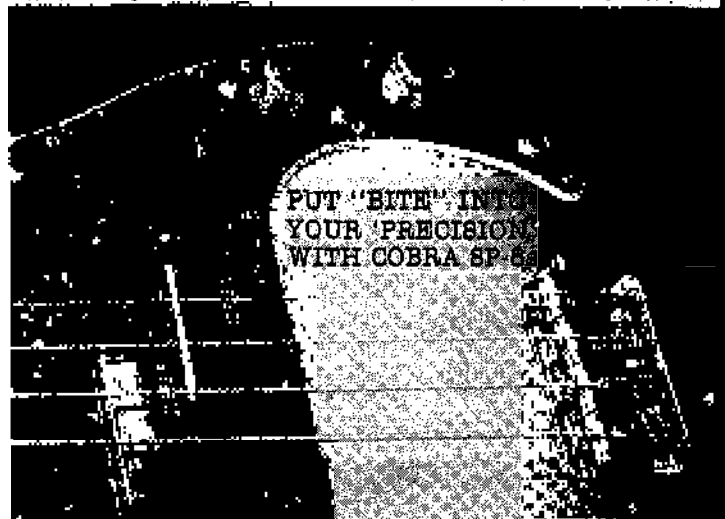
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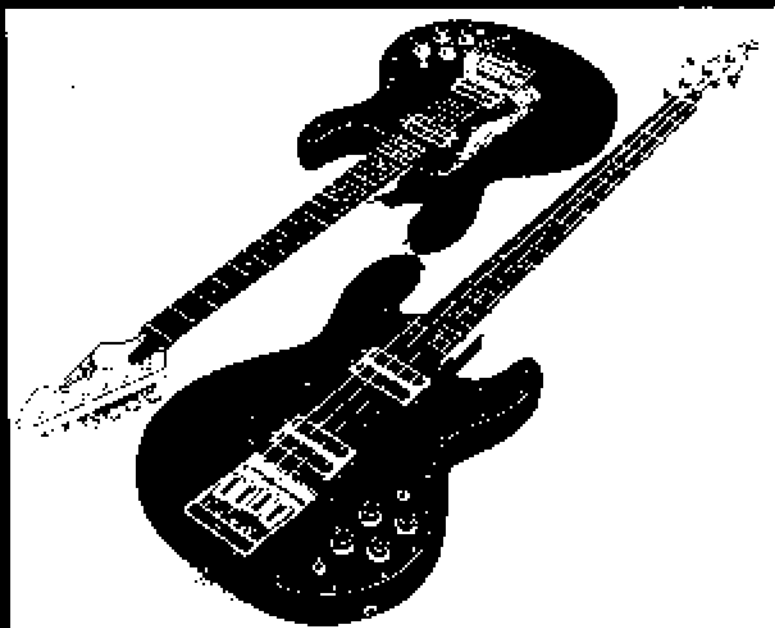
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- The 5-position FEET selector extends the range of the keyboard to 7 octaves.
- The CH.2 DETUNE knob is useful for variable effects.
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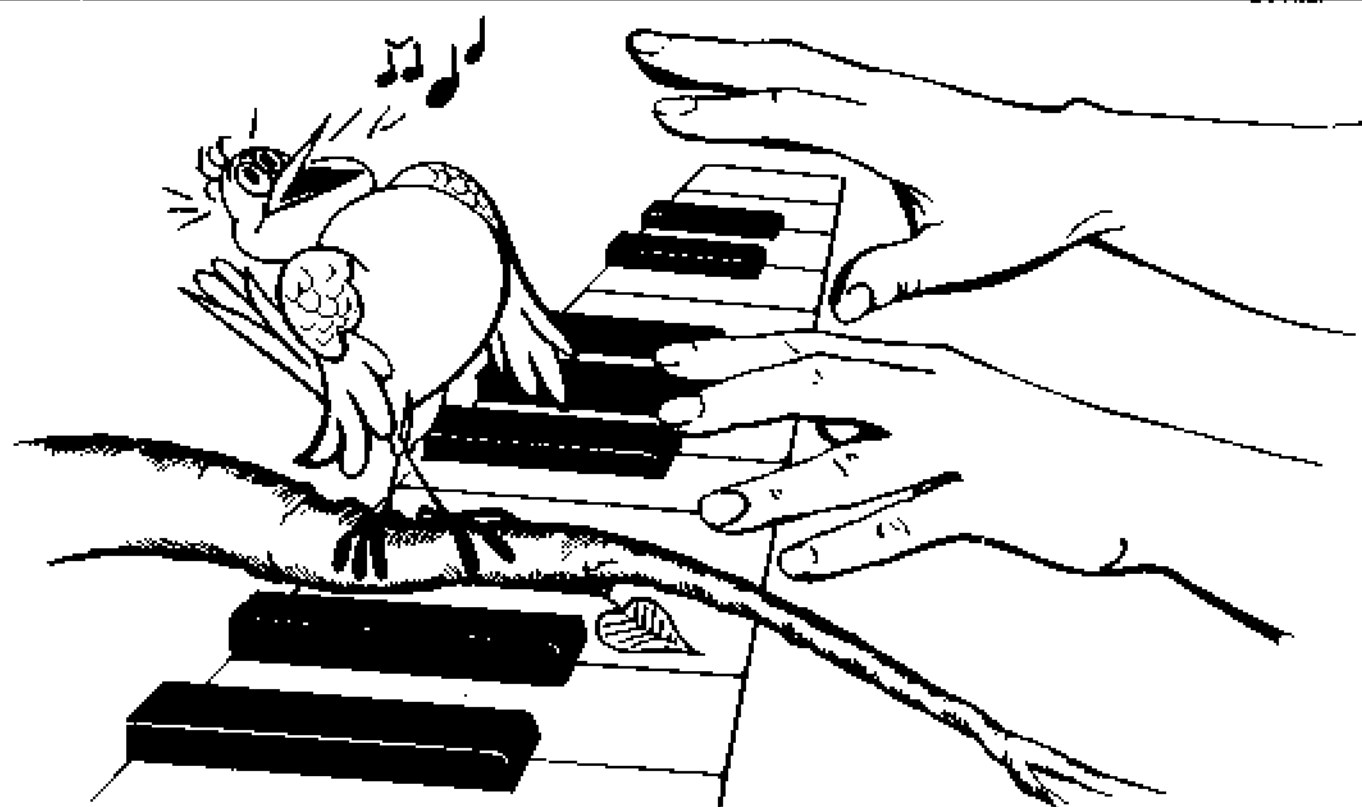


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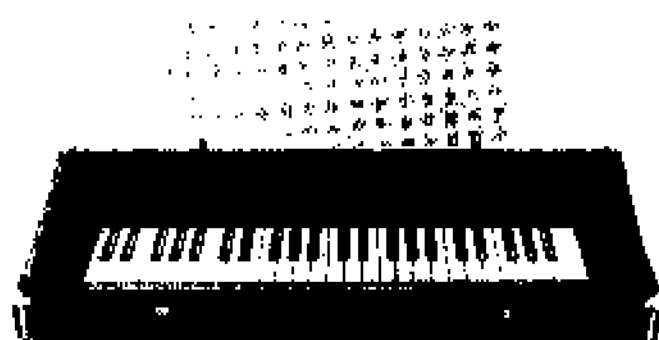
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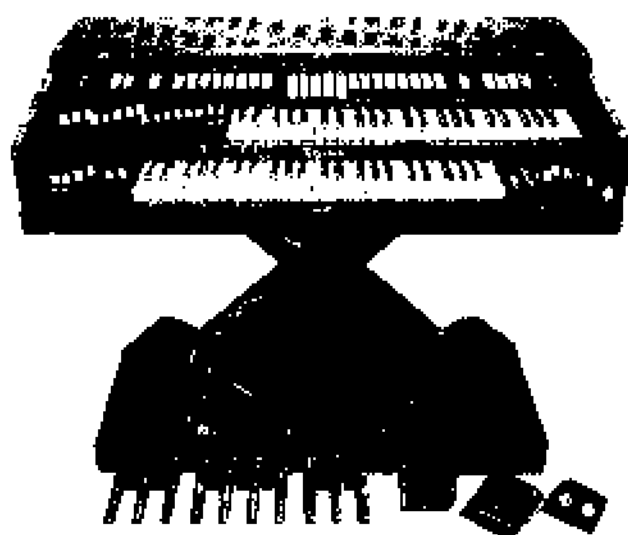


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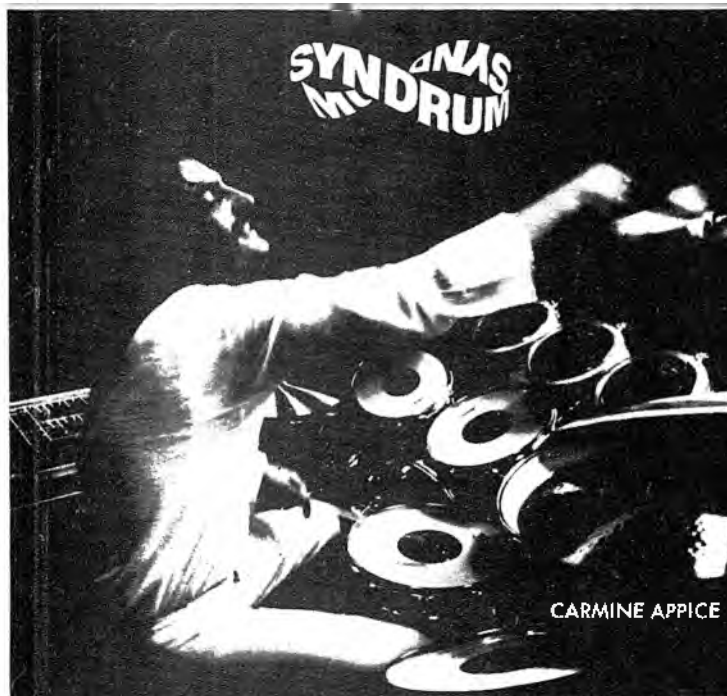
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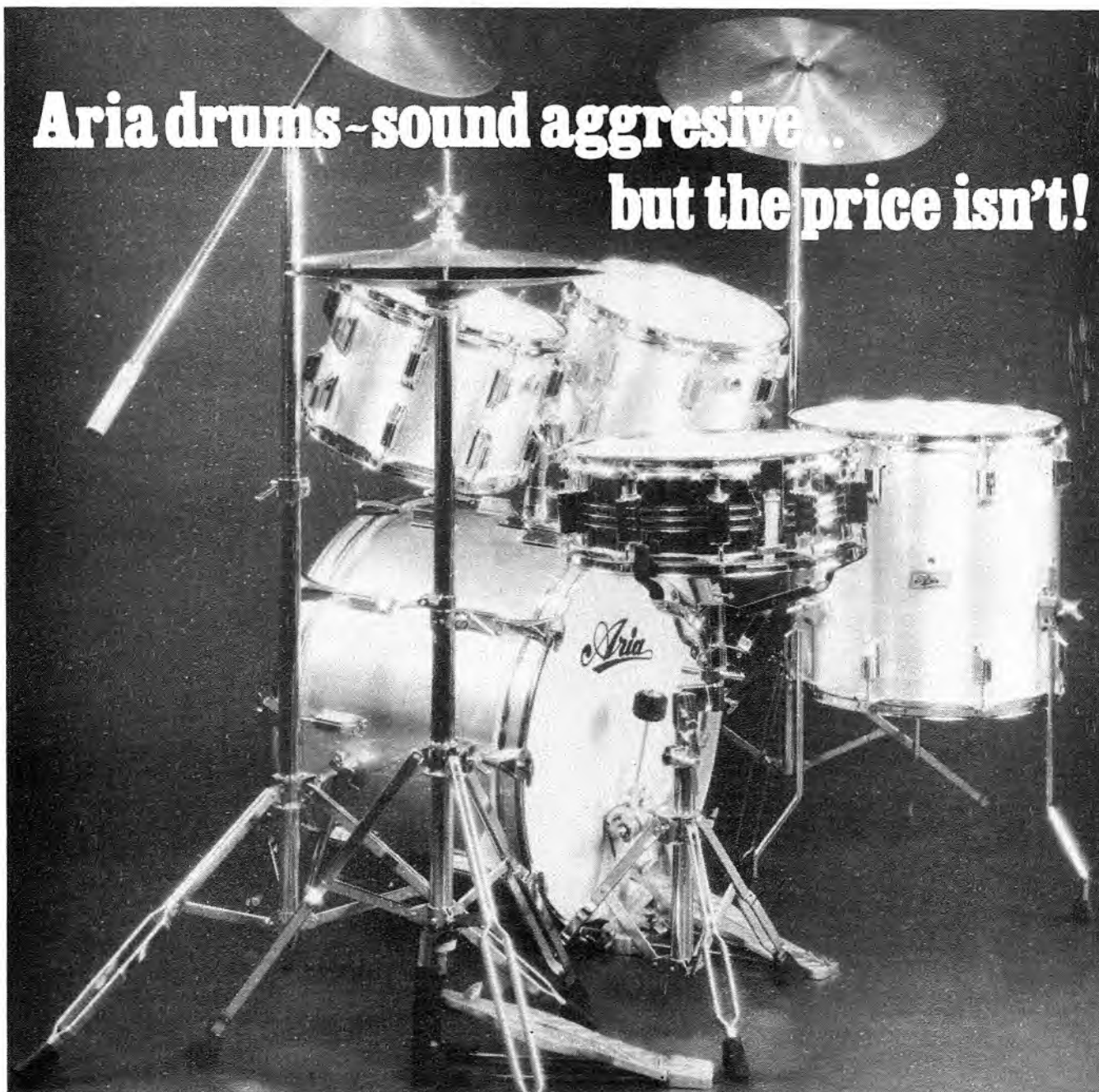
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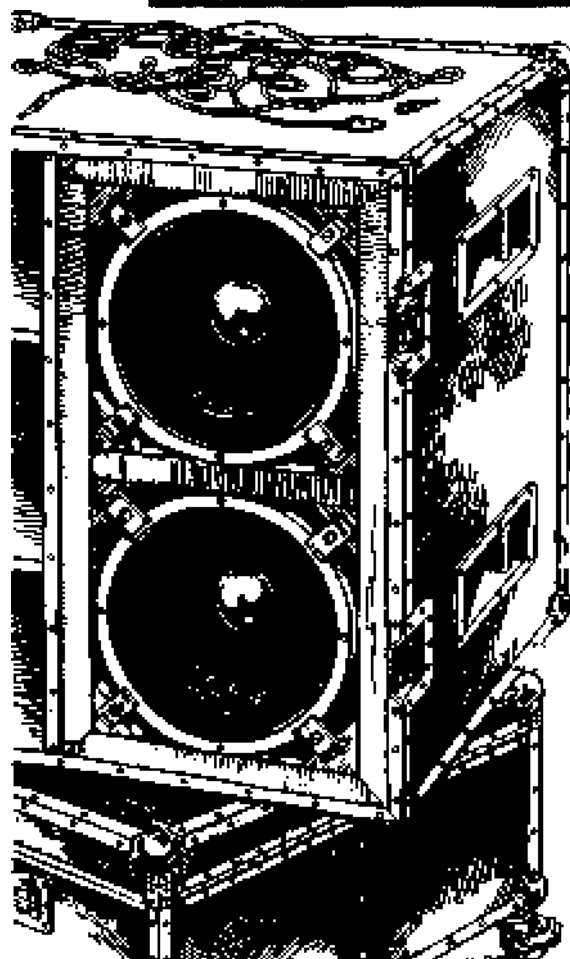
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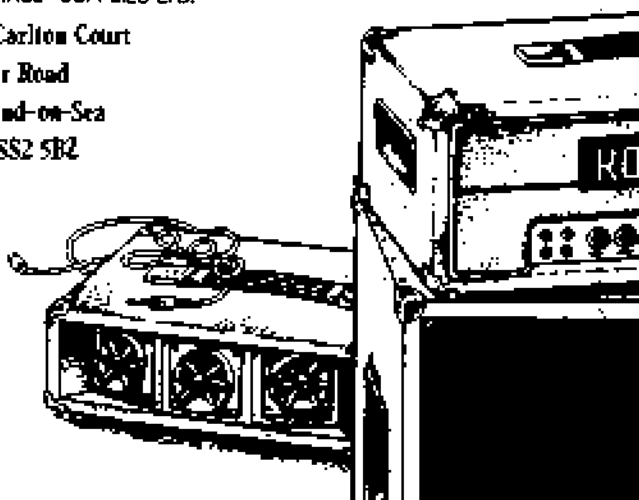
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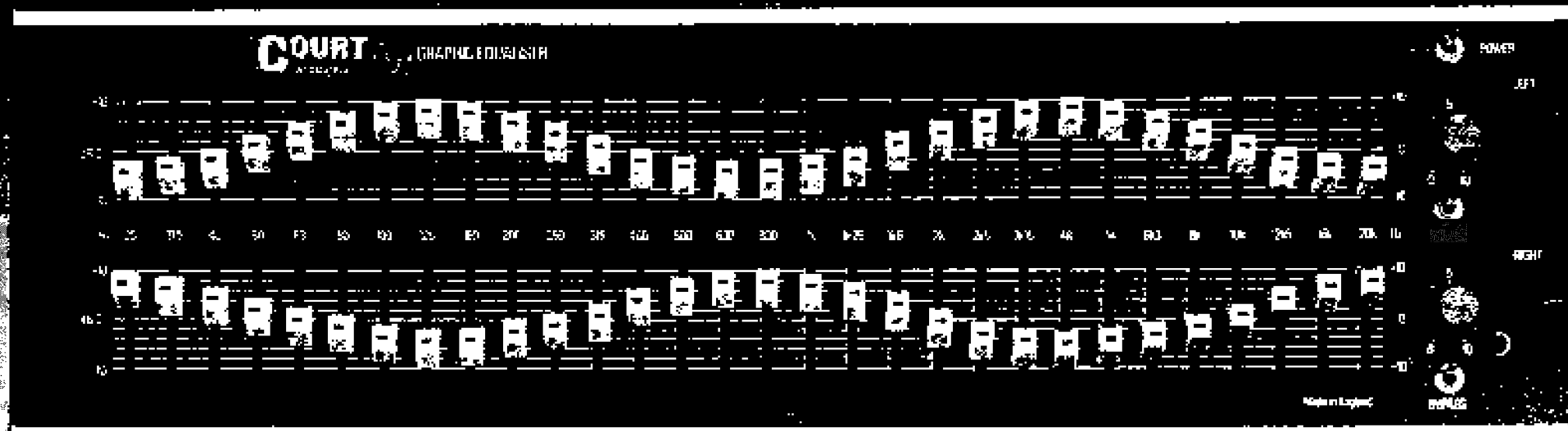
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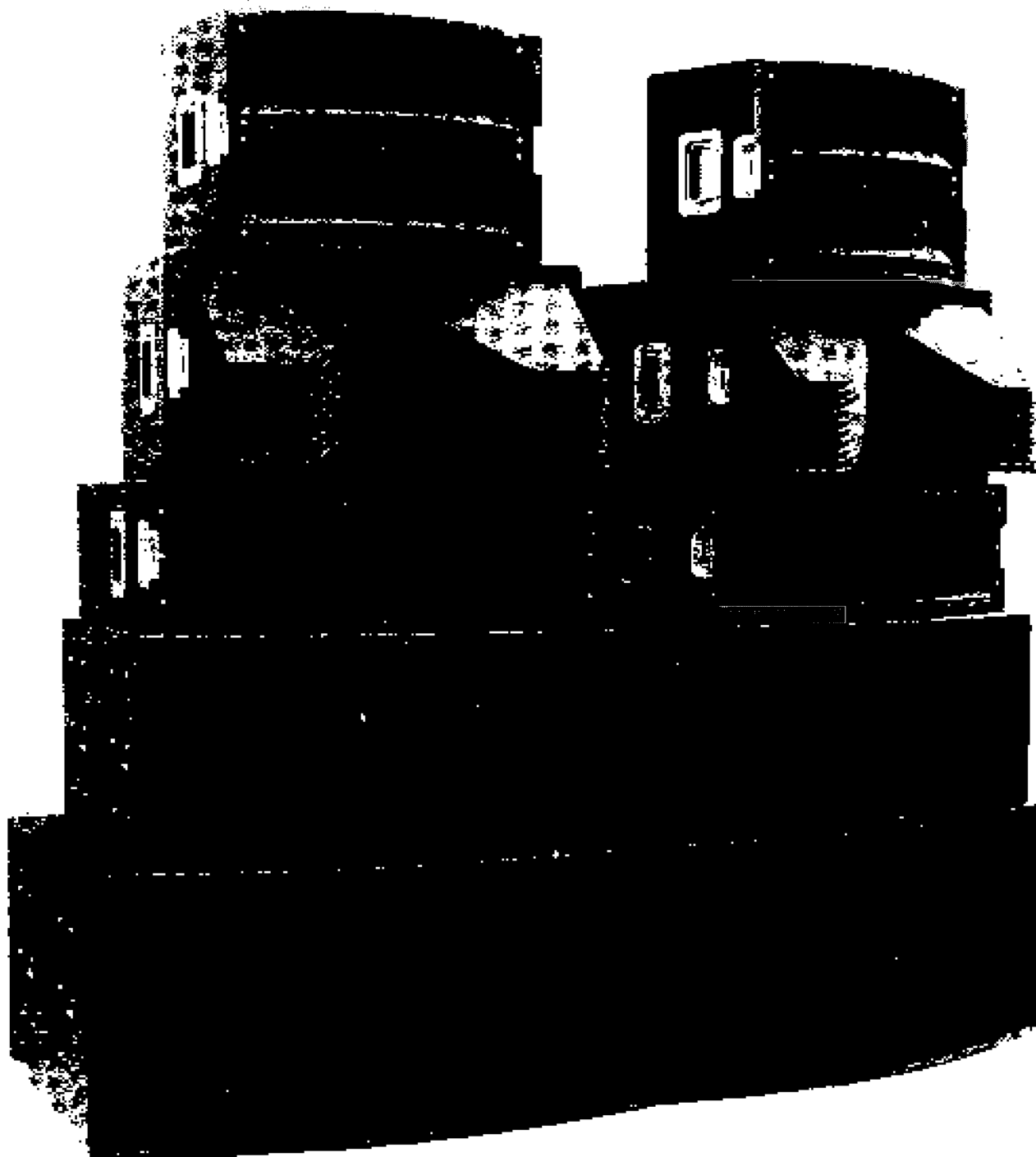
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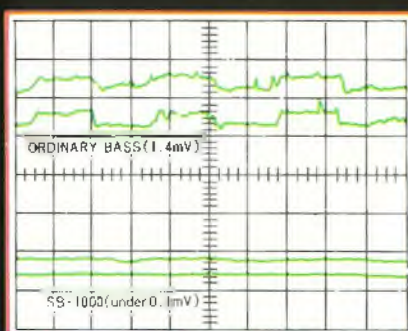
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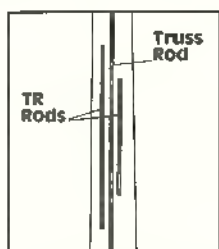
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What can the A-108 Sync do?

Take one look at the controls of our machine and you'll realise it's more a question of what it can't do.

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Features like the finely engineered and highly reliable transport system; the sophisticated Dolby circuitry; and independent bias and equalisation selectors.

Nor have we forgotten the memory re-wind facility built into the tape counter.

Where we did stop.

There is, however, one feature of the A-108 Sync that's conspicuous by its absence; the hefty price tag.

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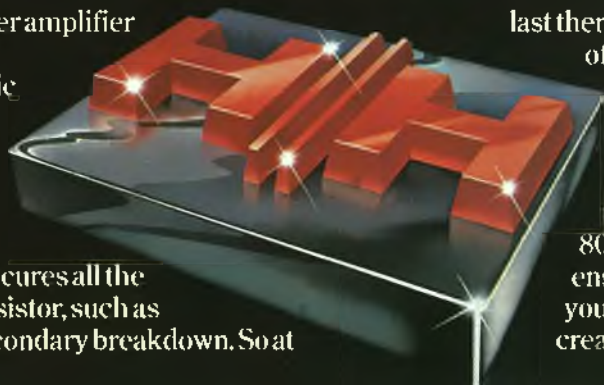


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CHET ATKINS

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As an electronics "genie" he's developed and utilized on his recordings reverb, tremelo, fuzz and wahwah decades before the rock fraternity picked them up.

As a studio man he fixed-up and played rhythm on the first RCA Elvis sessions, and picked lead on many of the Everly Brothers classics.

As a performer he's worked with Symphony orchestra, played the Newport Jazz festival and the White House (J.F.K.), as well as taking his own show literally round the world.

As a musician his own distinctive style has influenced two of the most highly rated (non-classical) guitarists working today: Lenny Breau and Jerry Reed.

As a guitar designer for Gretsch his most recent "baby" (with built-in compressor and phaser) has already been taken up by the Eagles and the Doobie Brothers.

As the mainman at RCA's Nashville operation, — he's quite simply the most influential guy in town: "if Chet likes it — it'll sell..."

But it's as a Guitarist in so many fields and styles that his greatest contribution lies: "Mr Guitar" could be a corny showbiz epithet, but it ain't.... Chester Burton Atkins quite simply is guitar.

Tim Fleming is a professional guitar teacher who specialises in teaching the style of Chet Atkins and Jerry Reed. He is also something of an expert on their careers and recordings, and unashamedly admits to being a true fan.

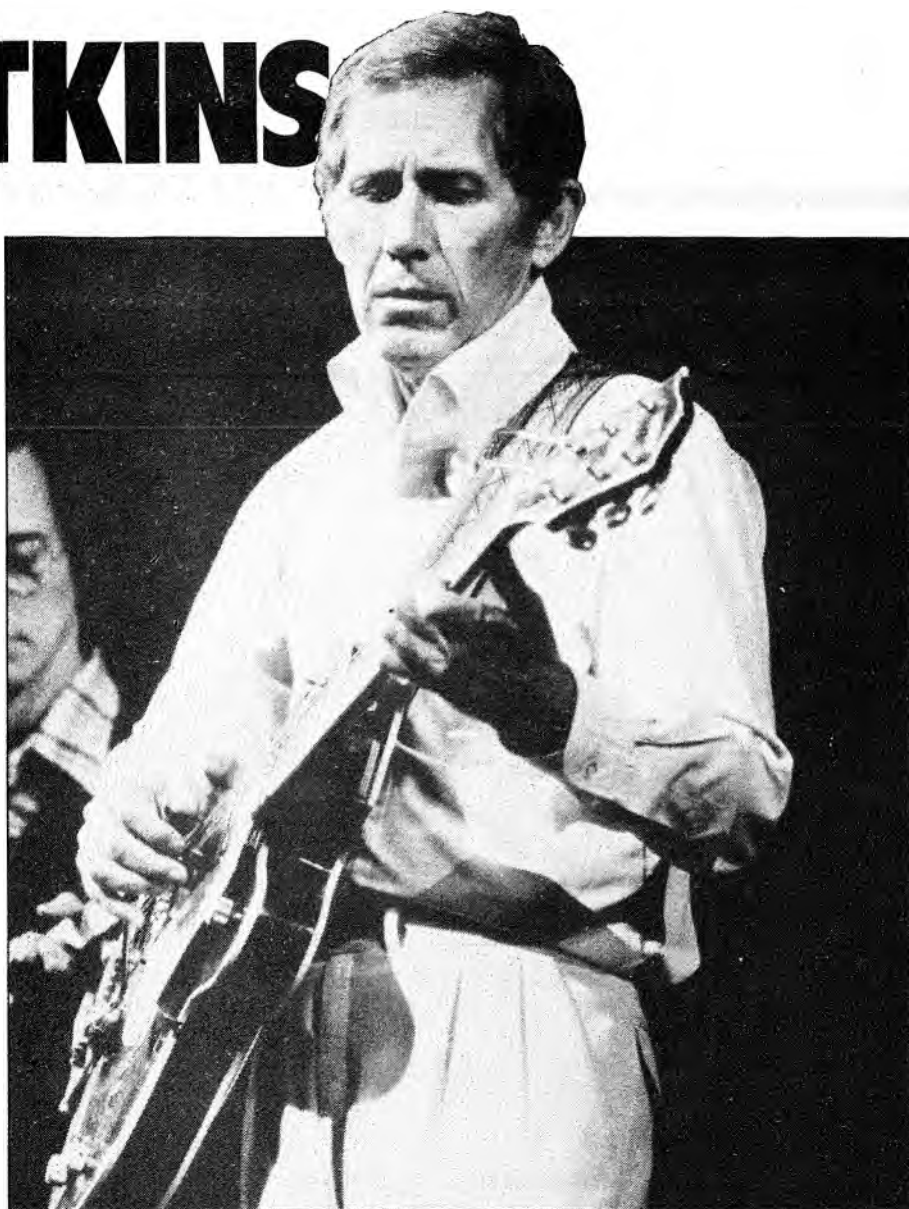
The interview with Chet covered a wide spectrum of the great man's interests including guitars themselves, arranging, technique and fellow musicians. We start with guitars.....

Tim Fleming: If you've two or three boxes with you in the studio, do you know that a certain tune will dictate the use of a certain box...? Or would you try and experiment with different guitars on different takes of the same number, to see which one gave the most appropriate or interesting sound?

Chet Atkins: Well yes, I have recorded on a classic, only to decide, well, this would be better on the electric; I have two main electrics that I use: the Gretsch "Super Axe" which sustains like a rock guitar, and the "Country Gentleman" which doesn't — but has a nice individual sound. I have this one on tour.

TF: What about using more than one guitar on a track?

CA: Well, I've often thought about maybe recording a mine and maybe playing classic guitar, then electric — then



back to the Resonator guitar, — but I haven't done that 'cos maybe a person listening is picturing you playing and they just can't visualise you switching that quick! ... So I've never done it. But it's crossed my mind; I have used effects occasionally, — but not too much; I tend to stay with the pure sound of the guitar, and just use the effects for relief on a bridge or release section in a tune.

TF: On the Chet Atkins Alone album (RCA LSA 3187) are you using a volume pedal on the bridge section of "Blue Finger"?

CA: I don't know what that was — I never listen to my records! — ... I believe I did use that pedal ...

TF: On that album — where it's just you with a selection of guitars — no back-up, what dictated playing that track on the Gretsch rather than a classic?

CA: It depends on the technique involved and the individual tunes: on "Blue Finger" I had to use my (left hand) thumb some, therefore it required a narrow neck to the guitar — so I used the electric.

TF: An arrangement for classical guitar transferred to an electric: how would that sound?

CA: Well, it would come out OK — the melody wouldn't come out so strong; on electrics you're playing across the strings

— the string would be vibrating sideways and the pickup doesn't deal so well with a string when it's vibrating sideways. Whereas with a classic you play much harder — the string vibrating more up and down — and the melody therefore coming out stronger.

TF: Talking about guitar innovations, you've had a long association with Gretsch guitars: does the present top-of-the-line Chet "Super Axe" represent the ideal electric guitar for you?

CA: It's just a nice electric guitar: there are many out there. It's not the best: it's one of the good ones, if you select a good one! It has a compressor and a phaser built in which I like; I don't like a lot of switch boxes on the floor; because I tend to get confused and lose the boxes when I want to find them...!

TF: Now I may be wrong here but on your recording of Jerry Reed's "Strutting" were you using a nylon acoustic/electric Ovation? — it had that sort of sound..

CA: No, I don't use Ovation, they make a nice guitar: they are a fine company and I admire what they have done — but I do use electric classics: incidentally, Ovation got their idea for the acoustic/electric pick-up from Gretsch. They did something with it and Gretsch didn't ... On "Strutting" I seem to remember it was a Ramirez.

HUMORESQUE (Dvořák) and SWANEE RIVER (Foster) arranged to be played simultaneously



TF: The basic playing position for "Strutting" involving the first three fingers down, while stretching the little finger up several frets to bar three inside strings simultaneously; that requires a helluva strong little finger!

But what about playing with plectrum and fingers (plectrum held between thumb and first fingers and middle, ring and little finger picking). Apart from being a lot lower than the other digits, you're utilising that weak, little finger on a regular basis... (aren't there classical arrangers who try and edit out the use of the ring finger because of its comparative weakness?) Having brought thumb and finger picking to such a fine art, do you think there's any place at all for a plectrum with fingers approach?

CA: Yeah. I think it's good: I know Glen Campbell does it — uses a flat pick all the time but he gets some nice effects — rolls (arpeggios) with the fingers; it works for him ... but you'll never be a Jerry Reed that way though.

TF: It's got severe limitations — but it would, say, allow you to finger pick the chorus of "Nola" — then flat pick the next section where it goes up a fourth; so you get a complete change of sound; yet it would be hopeless on something like "Cascades" (very fast arpeggios and Reed-type counterpoint.) ("Me and My Guitar" RCA PL 12405).

CA: As long as it gives you a different effect I'd say "use it". Play it with your nose or whatever, if it makes it sound different...

TF: Is the set-up of your guitars — actions, string-gauge maybe — very important? Or could you pick up a 20 dollar Woolworth guitar and make music on it happily?

CA: Oh the action — the playability is the most important thing about a guitar; I think a lot of young kids are turned off when they first get a guitar because it's hard to play; also the tunability of a guitar, whether it will play in tune or not is very important too: on some cheap guitars for instance the bridge isn't set properly; that's a turn off to some people — it's displeasing to their ear — but they don't know why. String gauge is important according to what style you play: George Benson would require

probably a .014 first — big strings — that's the sound he likes — but Eric Clapton would use a very ... slender .. string. I use a .010 first, 'bout .012 second and a wound third, 'cos I have to keep it in tune — and I can't keep a plain third in tune.

TF: Does the scale length of a guitar dictate the type of string? Say, in terms of greater tension on a longer scale.

CA: Oh yeah.

TF: So therefore the Gretsch differs a lot as against the classics — what about your resonator guitar the Del Vecchio?

CA: Well, that requires a light gauge string because if the tension gets too great the string doesn't vibrate properly: gives a dead sound and decays too quickly, because the Resonator is very sensitive to stress; it really is a cheap little old guitar, but it sounds fine if you can get it in shape. But if you leave the tension up on the strings, the neck will curl: I took mine and had a fellow put a rod in the neck and now I can keep the tension up on the strings and it plays fine for weeks, but I used to have to roll the strings down every time I played it.

TF: You use this guitar mainly for single string work don't you?

CA: More or less, because the frets are not set properly; though I took one and had the frets set correctly — so it plays pretty well in tune — but on any guitar a short scale will never play in tune as well as a longer scale, and the Del Vecchio is a very short scale guitar: it's impossible to play chords all over the neck.

TF: But on that tune you wrote with John Knowles, "My Little Waltz" — a smashing piece, which I love — wasn't the Del Vecchio used to pick on like a regular box?

CA: I played that on the Del Vecchio! It stays in pitch as long as you're on the first few frets... and you can push the strings in tune: you learn how to do that. You play a chord and if one of the strings is a little flat, you push it up to pitch; I heard a record one time of a fellow from South America playing the classics on one of those guitars; — it was wonderful: in tune, everything! I don't know how he did it!

TF: And they're just a cheapish South American guitar?

One of Chet's favourite people-pleasers at concerts is to pick two tunes at the same time; as yet no recording of such arrangements exist.

We present here an (easy!) original arrangement that will enable you to play "Humoresque" at the same time as "Swanee River." Should you want to.

A post-Christmas cracker novelty.

CA: Yep! That one I had cost me 75 dollars ... and I have another that cost me 50 dollars — with the case. That was a few years ago — they'd probably be up to 80 dollars now! But don't write me asking me how to get one (I'm talking to your readers now). I had a fella that went on vacation to Brazil and I said "bring me one back" and the way I got the other one, we had a guy with RCA that travelled to South America a lot, he worked in the valve division of RCA tubes and valves — and he picked up one in San Paolo.

TF: Could you tell me about the long-standing Gretsch connection. In designing guitars for them are you into the physics of the design — the electronics — trying to cut out as many "gremlins" as possible — so that someone going into their local music store will stand more chance of getting an instantly satisfying guitar?

CA: I try to do that — but it's not a hand made guitar and they have people working on the guitars who know nothing about music, and like all factories in America they have trouble with Quality Control and sometimes the guitars aren't right. The action is not right, you get buzzes; I'm not saying this only about Gretsch, but all guitars made in a factory. A person buying a guitar if he doesn't know a helluva lot about it, should get someone who does to pass on the advice!

TF: If you switch from playing a Gretsch to a gut strung, are you consciously adopting a different playing position, say a more "orthodox classical" stance: headstock higher — altered right hand position; or have you evolved a comfortable "all-purpose" playing position for handling any axe?

CA: Well, I don't hold the classic "properly". I sit it on my right knee rather than my left just like I do the electric, and I don't like to switch guitars in the show more than once — so for that reason I do the first part of the show on the nylon string, and the second half on the electric. The difference in the width of the neck is confusing, but I find if I play the electric for a few minutes after playing the classic, I can adjust pretty well. I'd be much better if I'd played guitars with exactly the same width of neck — but I don't have that.

TF: Would there ever be such a guitar...?

CA: Yep — I'm gonna get one built! I'll get Gretsch to make one 'cos I just hate to play a guitar that isn't like the ones from the factory you see...

CHET ATKINS

Arranging

TF: If we could talk a bit about arranging. If you were taking a standard Gershwin, Cole Porter or whatever — would a certain tune suggest a certain key in terms of its melodic range and the changes?

CA: It certainly does for my style of playing, a guitar is a limited instrument to begin with — so I would usually take a key where I've some open bass strings: E, A, D, G or C — once in a while F; once in a great while B or B flat! So I play in the sharps a lot.

TF: Yeah, playing in B does give you some nice choices.

CA: It has open strings that work.

TF: For instance in "You'd Be So Nice To Come Home To" the sheet is in A minor — I pick it in that key.

CA: I play it in Em. ("Me and My Guitar" RCA PL 12405).

TF: Yeah! — I wondered why —; then I thought "hey, there's that nice little Bach-like intro — and there's no way you're going to get that in Am."

CA: I could probably do Am on an electric that was cut away a lot; when you get up so high with the melody — the bass gets so high it doesn't have any bottom — any depth. So I'll consider both issues and choose a key that has some bass and treble too, and a good frequency range.

TF: One gets the impression of an almost 'pianistic' thing listening to you play.

CA: Well, that's the style — it's like Stride piano.

TF: With some tunes, say "Whose Sorry Now", "Whispering", there would be a variety of keys one could take because of the limited compass of the melody, I mean in "Whose Sorry" you could start it off on the A (third string second fret) in key F — or go right up to a starting note on C sharp in the key of A and still get everything in. Yet it would be muddy picked low in C; off the end of the fingerboard picked high in C ...

CA: That's always a consideration!

TF: Conversely would the large melodic range of "Lover Come Back" picked Atkins style work in anything but C? ("Chester and Lester" RCA LSA 3290)

CA: Mm... I'd play it in A — no I don't believe I do: I play "Going Home" (sings) you know the Dvorák, I play that in C — but I was playing that the other day and I was playing it in A and it sounded pretty good. So I play that in both keys. It's one of my favourite melodies, by the way! and I recorded it years and years ago, and I'm gonna start doing it again one of these days.

TF: On "I'll See You In My Dreams" ("The Atkins/Travis Travelling Show" RCA AHLI-0479); key wise C would work or maybe E but it seems to fit B so well; the open E on the Gm6, the chance to take the tune up on bass and treble simultaneously. Now when you were working on that with Travis, did that tune



have a fixed picking key? (like say, for a jazzman the key for "Tea for Two" is F and that's that!)

CA: Well, we probably had a capo on for "Dreams" Merle played that with a capo in D and that's the reason I played it in D. "Whose Sorry Now", I don't know what key we did it in, we just fell into a key and I followed.

TF: Some of your arrangements have become classics themselves among guitarists. I'm thinking of "When You Wish Upon A Star" with its artificial harmonics and its very neat counterpoints which was re-issued ("Famous Country Music Makers": Chet Atkins RCA DPS 2063) and which the Marcel Dadi recording brought to a new generation of guitarists. Now do you ever feel like taking that tune from scratch again — and saying "what the hell: tonight we're gonna play it in H sharp minor — we're just gonna" ... Don't get me wrong I know the arrangement and I love it.

CA: (chuckle) No I wouldn't do that! If I played it single string I could play it in any key; if I play it chord style I would stick to the arranged key. Now Lenny Breau could do that. Oh yes — the complete arrangement in any key, he's a great, great musician, and he plays from morning till night.

TF: From what little I've heard, Breau uses

the elements of your style with a quiet sort of cool jazz top line. So he works all those keys with a counterpoint bass line put in with the fingered notes rather than open strings?

CA: Yeah, probably, he could play it in any key. Oh he'd make some mistakes, he'd stumble thorough it! .. I possibly could — but I'm not adventurous ...! Oh I might experiment with it sitting at home entertaining myself, but on stage I think people expect it in the way I recorded it.

TF: Also, over time, you've recorded several versions of favourites: "Danny Boy", "Over the Waves". Now a painter usually assumes that their present work is their best work; would you assume that "Over the Waves" in the Acuff-Rose Tutor (Chet Atkins Guitar Method/Acuff-Rose, Nashville. Published 1954) is it different — or definitely not as good as the recently recorded version on Chet Atkins Alone?

CA: I think the latter would be an improvement because my musicianship has grown (I hope) for the better.

TF: Yet each version does seem very different and they are both nice in their way —

CA: Well, I don't remember the earlier one 'cos I never listen to my records! On the Alone album I was alone, and when you play a tune for three minutes by yourself you've got to try and keep it interesting — select the right key, modulate — keep people's interest; things you wouldn't normally do if you had a rhythm section.

Technique

TF: I've always been intrigued by reports of the picking of "Dixie" and "Swanee River" at the same time.

CA: "Dixie" and "Yankee Doodle".

TF: Sorry! It is hell to work out?

CA: It was difficult, because I did it before I could read music. Now today I just write both melodies down and work it from there — I read about a guy in one of my Dad's piano magazines who could do that, — and that's when I first started doing that wayback in the Forties, so it was difficult then, I had to do it bar by bar. I also worked out Irving Berlin's "You're Just In Love" (hums tune) and it's got a counter melody I play at the same time (hums).

TF: Would "Mountain Greenery" fit with "Blue Moon"?

CA: Possibly, yeah — you know there's an English duo who used to be on television at home a lot, one would be singing one song at the same time as the other singing another song .. I've often thought of getting hold of their albums — and it would be something you could adapt for guitar. (Chet looking at Acuff-Rose book). This arrangement of "Over the Waves" it's in A utilizing the open A and E strings, and the other way I did it (on the

LITTLE ELSE
Driving funk
CIV

Tim Fleming

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(muted bass: bars 1, 2, 3 and 5)

"Alone" album) I just de-tune the A string down to G and the E down to D. That's what I have to do when I was working by myself and trying to get a larger frequency range out of the guitar. But the earlier version — A's a pretty good key: you're right!

TF: As guitar tutors go, the Acuff-Rose Chet Atkins Guitar Method is separated by 20 years from the John Knowles "Chet Atkins Note for Note" book. Very different approaches, yet both are systematic and comprehensive to someone who follows the instructions. But if time allowed, would you like to put more of your stuff down on paper?

CA: Yeah, I think that should be done; we may do that in the future; there are plans to do some of my things and some of Jerry Reed's. I think it would be terrible if his tunes weren't printed someday before they're forgotten, because they're so great — and possibly some of my arrangements should be remembered too — I will do that someday. Probably I will do it with somebody like John Knowles who's very good at putting it on paper.

TF: You were happy with the collaboration with John Knowles on that book?

CA: Pretty well, some of the tunes are his arrangements not mine. I didn't play all the arrangements that way on the record ("Chet Atkins Goes to the Movies" RCA AHL 10845). Like "Charade" I didn't play his arrangement. I played mine, and some of the things I arranged and he just wrote down so it was a collaboration. "The Entertainer" was the way I started and he helped me work it out and "Solace"; we worked those things out together.

TF: So really the only choice a guitarist with a reasonably good ear has now with the material you or Jerry Reed is recording, is to try and transcribe direct from the record.

CA: Yes — that's good way to learn; it's a quick way, 'cos if you wait for it to be printed...! So it helps if you've got a record-player that'll slow down to 16 r.p.m. from 33 to 16. That's the way Lenny Breau learnt to play, by the way. He plays great flamenco, copying Sabicas that way. Paul and I were discussing that it's very hard to copy some people though, Jerry Reed, for instance, some of his tunes are so difficult and it's so hard to determine his tunings and playing positions, it would be tough, but I suppose ...

TF: Did you study with Segovia? — Wasn't there that photo with the caption "Segovia before he discovered I played electric ..."? What things do you feel can be learnt from him in particular or the classical repertoire and technique in the broader sense? Is it the discipline? — a more academic approach? — or what?

CA: Well I never studied with Segovia: I have been around him a couple of times. That photo was just an idea of a newspaper. I was playing golf one day and they called me and said, "Rush up here, we want to get you and Segovia together, country music and classical music" and we did it and he was a little grouchy, like he is sometimes ...

But I think, from what I've heard, he reaches mostly the interpretation it's all his interpretation, sometimes that's great — and sometimes somebody else's interpretation is great too. I'm sure he is good for a lot of people, but I'm not a

The guitarist most mentioned in the text by Chet is undoubtedly Jerry Reed: both Atkins and side-man Paul Yandell mention the difficulty of capturing Jerry Reed's original virtuoso style: in "Little Else" I've tried to put together some of Jerry's characteristic techniques with, hopefully, some of the panache of that particular Boss-Picker.

classic guitarist, don't wanna be, kinda bores me after a while — but I like to utilize their techniques — and play some of the tunes possibly.

TF: The importance of melody and arranging seems linked very much to the economic success of records: a tasteful arrangement of "Maria Elena" played only single string style with a small back-up group might be a million seller — whereas a clever and complete "orchestral" guitar arrangement wouldn't grab the Great British Public or most of the people out there in Radio Land in the same way: people simply wouldn't buy it. Is the melody thing crucial for you? Guitarists so often play for other guitarists (or against other guitarists) that the tune often gets lost...

CA: You mean to keep guitar players interested, there should be more technique in an arrangements — it should be more involved?

TF: Yeah — but it's a pity guitarists just won't take tunes...

CA: Right, they require a more exciting arrangement. The public's taste is always different from musicians — and you always have that problem, but I think for most musicians a compliment from another musician means so much more. I remember compliments that were paid to me 30 years ago from musicians, but I don't remember one from the public from last week. I appreciate the fact that the public sometimes compliments me, but it doesn't mean anything to me — because I know they don't know what they're talking about! But a musician knows ... a good musician that you admire, so you remember those compliments.

TF: In the arrangement it sounds rather novel — there's a semi-tone modulation for the final chorus which keeps up a clever and slightly delayed counterpoint line; it reminded me a bit of the opening chorus you play on "Birth of the Blues" on the Chester and Lester album.

CA: Could be ... I have been known to steal from myself! (and it's mostly forgetfulness ...).

TF: By the way, have you seen this Chet Atkins folio where you're headlined as the "Singing Breakman"?

CA: (much laughter) who did this?!

TF: A certain music company whose name begins with 'S'! Perhaps they're into reincarnation.

CA: Isn't that wild! can I have this?

CHET ATKINS

THE SHEIK OF BASINGSTOKE (for Chet Atkins) Tim Fleming

other musical quotes ending possibly with . . .
maestoso

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TF: Sure.

CA: Hey — Chet Atkins the "Singing Breakman"!

TF: So you worked the railroads too!?

CA: Well, I used to put nails on the track when I was a kid . . .

TF: Are you glad to have people like Marcel Dadi around who seemed to have researched a lot of that earlier material?

CA: And guys like you to remind me of all these things. I wouldn't have thought of "Over the Waves", didn't know I'd even played it in A till you mentioned it. I was on a show here the other day and a guy played a lot of records I'd played on in the Fifties, some of them I'd never even heard! Like tunes with Rusty and Doug (Kershaw) and the Everly Brothers that I never had heard. I made the record — but just didn't hear the thing.

Fellow Musicians

TF: Talking about the guitarists you've

encouraged and worked with Paul Yandell, Jerry, Lenny Breau. Could we talk about Jerry for a while? His playing, like yours seems uncategorisable, yet is always instantly recognisable — whether he's playing leads on Telecaster or clawin' on a gut-strung . . .

I understand Jerry sent you as tape round about 1960 having developed his guitar style from hearing a friend play some Ray Charles on the piano and hearing the funky licks on the top set against a tricky bass line, he thought that would be good to put on guitar.

CA: Do you know what tune it was?

TF: No — he didn't mention it, but a Reed classic like "Blue Finger" seems to have some tie-ups with say, Charles' "Hallelujah I Love her So".

CA: One of the tunes that Jerry wrote that I recorded, "La Madrugada" ("La Guitare a Dadi": Transatlantic TRA 295) now that would be great for anyone.

Finally a full-length arrangement that runs through some of the armoury of Atkins-isms. Mood-wise we lurch from Holiday Camp to Harem with riffs from "The Thief of Bagdad" and a Middle 8 out of the Mighty Wurlitzer School of musical Overkill, also stuffed with ample musical quotes (add your own...). People seem to enjoy it: I hope you will.

including a classical guitarist, he's a terrific composer.

TF: Yes, he continuously acknowledges his debt to you, specifically in how to be professional as a guitarist; now is that about humility with an audience? Or is it about changing strings more than once every decade...?

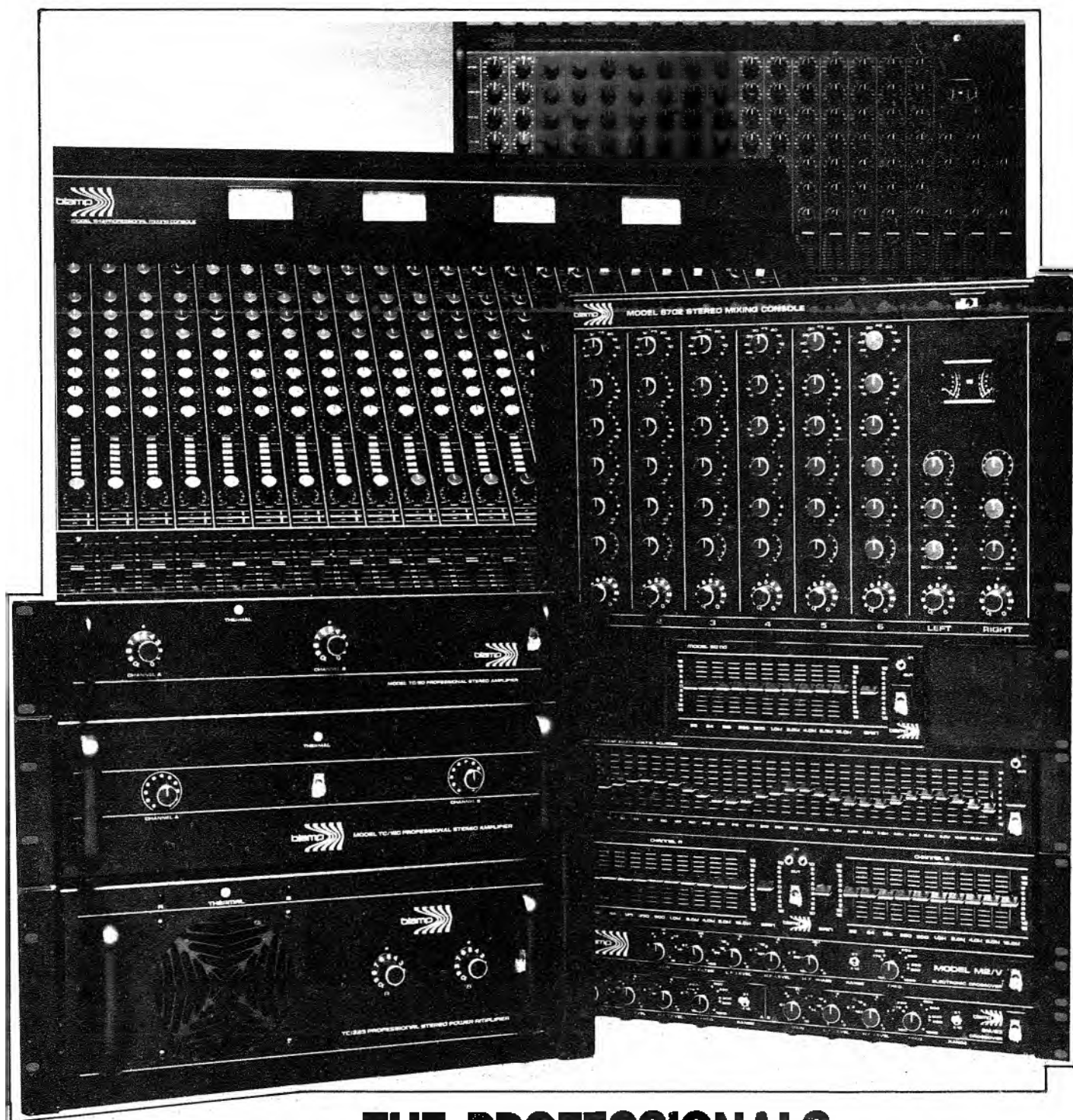
CA: Well, we're getting into areas I don't know a damn thing about . . . I never thought of myself as a professional. Every time I go out I think "well, it's Amateur Night again!" . . . I swear I do! I think it's very hard for some people to get from the amateur ranks to the professional ranks, I think it was tough for me for some people, it doesn't seem nearly as hard.

TF: What about projects for the future? We've mentioned the players and some of the writers: — John Knowles, Mark Casstevens and Jerry. Are there any other up-and-coming people of that standard whose material you look forward to recording?

CA: There are quite a few people in Nashville who've written tunes for me that I haven't recorded yet — but once in a while you do get an outstanding talent. There's a boy named Bob Eggars who writes some very nice things mostly in modal tuning.

TF: Finally, the story that's often quoted about you as a wind-up anecdote for features and interviews is the "Loudermilk and Atkins-on-vacation-in-the Bahamas" one. (After a day's relaxed picking with John D. Loudermilk and admirer comes up to the subject at our interview and says: "Say you sure can play that guitar but I'll tell you something tho': you ain't no Chet Atkins". Have you any other bits of Atkins folklore for "International Musician" readers?

CA: I was once playing with the Portland, Oregon Symphony Orchestra. Now with the symphony I play a couple of items on the electric, then pick up the classic. Well when I picked up the classic, I bent over — and felt a draught . . . and I looked up and a boy was holding a board that said "Mr Atkins your fly is unzipped". So I promptly put the guitar in front of me and zipped up and said "well the thing I feared the most has come upon me . . ." but I had on pretty shorts, nice blue shorts — so no one was offended!



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Pickups

Some time ago, I promised you a series about guitar pickups. Here it is! This series will probably keep going until I run out of patience, or until you run out of questions, or until my esteemed Editor tells me, very quietly, that if he hears the word "Humbucker" once more, he will have me cast into a pit along with a pair of hungry flangers.

If you have queries about choosing, installing, modifying or making pickups, send them in — but please mark the envelopes "pickups" in the bottom left corner, and please don't include any other queries in the same letter. I can't promise to answer all of them but I will try to arrange this series so that it covers as many of your questions as possible. Typed letters, even with many corrections, are much preferred.

If you have read the DiMarzio *Guide to the practical guitarist* which was distributed with the September issue of *IM*, you may have noticed that many of the new models of DiMarzio pickup are supplied with 'four-conductor wiring' and you may have wondered what this is all about. Well, it is about offering you a greater choice of possible pickup wiring arrangements and different guitar sounds. You don't have to buy DiMarzio pickups to get four-conductor wiring. It is true that buying pickups already wired in this way is the easiest course of action, but most existing pickups of the normal, twin-coil humbucking variety can be converted with some careful re-wiring — and I do mean careful! This is not a job for impatient people or for people with shaky hands. The DiMarzio book gives you some of the basic wiring arrangements possible, and

standard wiring features, such as coil-taps and phase-change switches. I don't think I need to repeat that information here. If you do want these basic wiring arrangements explained again simply and carefully, you will have to write in and ask. If I get enough requests, I shall include an article on the basic wiring stuff, later on. Meanwhile, what is four-conductor wiring?

A humbucking pickup has two coils. Each coil has two wire ends. That makes a total of four wires. In addition you will usually need a connection to the metal chassis and/or screening cover of the pickup and wiring, to keep out unwanted hum and noise. In standard guitar pickups, these four wires and the screening connection are combined internally, and the output is taken via a single or perhaps twin core cable inside an outer screening braid which is also linked to the pickup chassis at one end. With the four-conductor wiring system, all four coil ends and the screening connection are taken out independently, via a miniature multicore cable. As with the traditional pickup wiring, it is normal to use the braid which screens the multicore cable also as the connection to the pickup chassis and cover. So in fact you have five connections: 1, 2, 3, 4 and screen. Unlike the traditional wiring arrangement, in the four-conductor system the cable screening braid is *only* for screening and is not used as the return signal wire for the pickup. A few commercial pickups use two-core and screen, or three-core and screen cables. These pickups fall between the two extremes. They have *some* internal coil connections but are more versatile than the standard type of pickup. Please don't

ask me which four-conductor tricks you can do with a three-conductor-wired pickup. I don't know, I could find out, but so could you. Good luck and happy experimenting.

Given access to each end of each coil of a pair of conventional humbucking pickups (which is what four-conductor wiring means in practice), how many different wiring possibilities are there which still retain hum cancelling properties. Two? Three? Five? Wrong! The total is closer to fifteen different ways. Add to this, perhaps five or six 'out-of-phase' connections, four single-coil connections, and a few other arrangements which are only partly hum cancelling, and you have something like thirty different possibilities from just two pickups. Although some of these combinations will produce rather similar sounds and not all of them will be wanted, you are still a long way ahead of the usual 'Three-way selector, plus a phase switch.'

Already I hear murmurings of "Preamps, buffers, variable EQ filters, active mixers," and other bits of advanced technology. Nothing of the kind, dear readers. No batteries or add-on 'active' electronics are required. It is all done by four-conductor pickup wiring and simple switching. Of course, I don't think you are going to want all thirty different pickup selections on one guitar. It would be very complicated to make, and difficult to manage while playing. But you might like to *hear* all 30 possibilities before you decide which three or four you find most interesting.

At this stage I began to realise that I would need some sort of guitar 'test bed' for trying out various pickups and wiring

arrangements. With this in mind, I collected the dismal wreck of a guitar which you will see in photo 1, and decided it was time for a re-build. This heap of bits was once an early prototype Dan Armstrong guitar. The bridge assembly is serviceable, and I remember that it used to play quite well before the neck fell off. As this series continues, I intend to fit the guitar with some of the more interesting pickup arrangements, and you may be interested to see how it progresses. If you ask around, you may find similar instruments in music shops: of good pedigree, thoroughly wrecked, but still having all the essential and difficult to replace bits: a repairable instrument, but not commercially worth the high cost of extensive repairs. If the neck is sound and will take string tension without warping, this sort of wreck is very suitable for a one-off 'custom pickup' job.

I am not going to suggest any particular "non-collectable" old guitars, because that would instantly put up their price, and such old wrecks should only be bought for what they are commercially worth — not much! Keep an eye also on general second-hand shops, particularly those outside the London area. If possible, a suitable instrument should still have all its frets, and a reasonable supply of pickups, knobs and switches. Even broken pickups usually contain magnets, and sometimes also one or two plastic coil bobbins. From these parts, you can make new pickups.

The remainder of the photos this month show the conversion of a Guild or Gibson humbucker to take a four-conductor cable. Photo 2 shows how to remove the metal cover. The same method can be applied to similar Gibson pickups, except for the ones which are filled in underneath with black epoxy. Leave the black-filled ones alone. Some Japanese-made pickups have the lid glued on, with a pale brown adhesive, similar to Evostik. If anyone has a harmless and easy way of opening these up I would be interested to hear of it. I lay bits of tissue soaked in Evostik solvent over the glue lines for

several hours and then prise open the joints with a stout knife intended for opening reluctant oysters. There must be an easier way.

By comparison, the American pickups with soldered-on lids are quite easy to open. You will need a fairly small soldering iron with a high heat capacity, and an artists' stainless steel palette-knife with a round-ended taper-ground blade. Windsor and Newton can probably supply a suitable stainless knife. The edge should be thin at the rounded end of the blade, but not actually sharp. Replaceable scalpel blades and craft knife blades are too stiff for this job.

Put a touch of fresh, cored solder on the hot soldering iron, and hold it against one of the solder spots which retain the pickup cover, until the whole patch is melted. (It may help if you move the tip of the iron about a little, once the solder has just started to melt).

If there is a large lump of solder holding the lid, you can remove most of it, when molten, with a 'Solder-sucker' or with de-solder braid. Re-heat the small remaining patch of solder, and when it is molten slip the end of the palette knife into the gap, straight through the liquid solder. Remove the soldering iron, count to ten and slowly pull out the knife. One side of the cover should now be free. Repeat on the other side of the pickup to cut the other solder patch. If the solder cools before you can push the knife right through it, leave the soldering iron about one minute to regain maximum temperature, put a little fresh cored solder on the tip and try again. If this still does not work, it is possible that you need a larger soldering iron.

In theory, there is a risk that the end of the knife could tear through any small loops of fine coil wire which may be hanging over the sides of the bobbins. There is always a risk involved in opening up any pickup, but I have never yet damaged a pickup when removing the lid in this way.

While on the subject of soldering irons, the model shown is a Solderstat

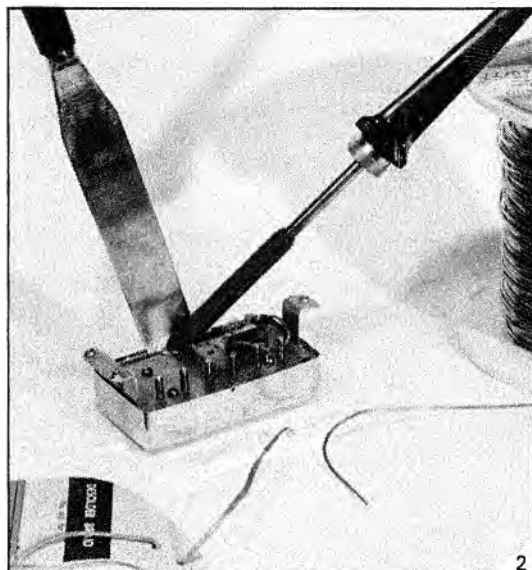
HMS 12V/24 watt model which has served me so well, that I intend to give it a small review in a later article.

Photo 3 shows the inside of the pickup, with the outer tape wrapping around the bobbins carefully unwound. The same kind of tape is generally used for the inner wrappings protecting the fragile coil windings, and it is very easy to pick up the end of one of the inner coil wrapping tapes along with the outer wrap, and leave the coil wires exposed, or even broken. You must watch very carefully as the outer tape comes off: If you see exposed coil windings at any stage, stop at once. Sometimes an odd loop of fine wire will be trapped between the layers of tape. You need to work under a good light to be able to see these in time. In theory, all the wire should be neatly on the bobbin, but this is not always so, and the stray loops may be partly hidden by the wrapping tapes.

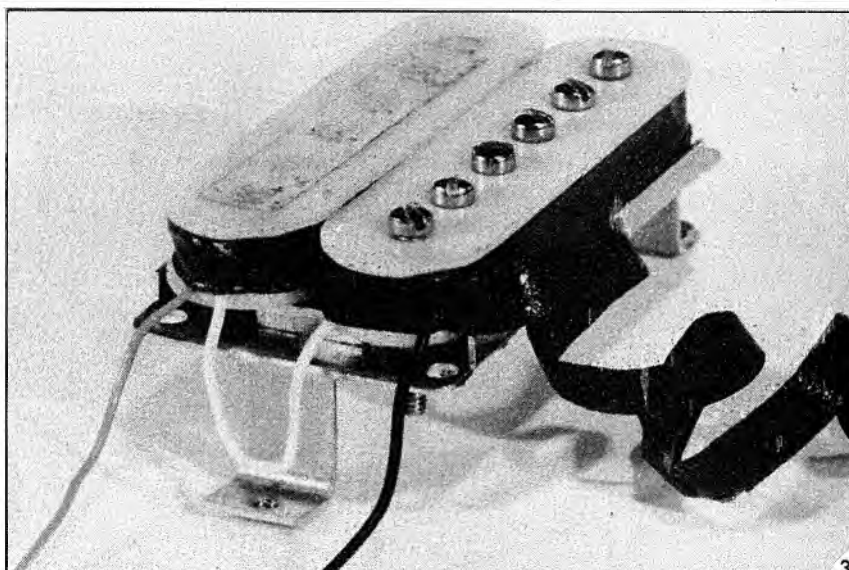
If you can disentangle the layers of tape with fine tweezers and take off the outer wrapping without disturbing the inner wraps and without straining any stray loops of fine wire, then go ahead. If not, it may be better to cut the pickup bobbins apart at each end with fine scissors, and leave all the tape in place.

Guild pickups have black and red coil wires, leading through a hole in the base plate to a connection strip under the pickup. Cut the wires next to the solder tags and gently pull them back through the base-plate hole. You may be able to see a white wire, linking the pickup coils. Most Gibson pickups have an output cable which passes through a hole in the base plate, and may run underneath one of the coil bobbins. At some point the outer screening braid is soldered to the base plate of the pickup and the centre wire is soldered to one of the two black coil wires. The other black coil wire is soldered to the base plate. Cut the coil wires at the joints with the cable and base plate.

In most pickups, the coil bobbins are each fastened in place by two small screws through the base plate. Take out the screws holding one of the bobbins and lift it to one side. Cut the short wire linking



2



3

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the coils, either in its centre, or at the central solder-joint, if there is one. It is usually easier to lift off whichever coil does *not* carry adjustable pole screws in its centre. If the original output lead is soldered to the base plate *under* the coil which carries the adjustable pole screws, you will obviously need to remove *this* coil instead, but you will probably have to take out all the pole screws first.

Fit a miniature four-conductor screened cable, (cut rather longer than you think you will need), either as shown in photo 4, for a Guild pickup, or in the same position which was taken by the original cable. One very suitable miniature cable is R.S. Components type "367-347/four-core/3.1 mm dia." Although the original Gibson cable may be soldered directly to the side of the base plate, it is not wise to do this with modern plastic-insulated cables: you are likely to melt everything inside the cable. If you look carefully at photo 4, you will see that I have separated about 20 mm ($\frac{3}{4}$ ") of the screening braid, twisted it *loosely* together, and soldered the far end to the base plate. This reduces the risk of melting the plastic cable insulation, but you will still need to work fairly quickly. It helps if you melt the solder patch on the base plate first, and then add the cable braid, a little more cored solder, and the tip of the iron, on top. Take care that the solder joint leaves enough room for you to replace the coil bobbin.

The rubber sleeving around the cable is optional, but it stops the cable from fraying against the edges of the hole and makes a stronger and better-looking job. This item is an R.S. Components Cable Sleeve "H.30/20 mm Stock no. 399-603". You may need to enlarge the base plate hole slightly with a tapered reamer or a needle-file. The sleeves shown on the coil wire joints in photo 5 are R.S. "H.20/20 mm No. 399-596". Unfortunately R.S. Components supply only to the Trade, and to schools and official bodies. Also minimum quantities supplied are 25 metres of cable and 100 of each kind of sleeve.

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Photo 5 shows the pickup re-assembled, with the four cable wires connected to the four pickup wires. My cable has black, red, white and yellow wires. The R.S. cable will probably have red, blue, green and yellow, but it really does not matter as long as you make a note of which colour connects to which. I would suggest red to the red coil wire, or left-hand black one if they are both black. Black or blue to the other black coil wire, and yellow or orange to the white wire from the left-hand or 'red' coil. That leaves two ends to connect together. There is no standard colour code for pickups, but this one is at least logical from the point of artistic (and political) colour associations, and should be easy to remember.

As you will see, there is not much room for connections inside the pickup body, and it requires careful trimming of the wire lengths to fit them all in. Cut the coil wires to the lengths you want, and the more flexible cable wires, just a little too long. Remember to allow for the length of the twisted and soldered joint before cutting. Tweezers will help to twist the wires together. Use fresh cored solder applied to the joint at the same time as the clean tip. As you will see from photo 5, one sleeved joint is tucked under the right-hand bobbin, the second is laid under the ends of the bobbins, the third is tucked between the bobbins, and there is just room to lay the fourth sleeved joint between no.2 and no.3. Cut off the sleeves, about 2 mm (or, if possible, 3 mm) beyond the end of the joint inside and put a drop of 'Super Glue' at the end of the plastic insulation before finally pushing the sleeve over the joint.

When you strip the insulation from the ends of the coil wires, it is essential that you do not pull them or twist them round: they are only held on with tape. This is one of the few occasions when I would recommend the negligent habit of stripping wires with the sharp end of a hot soldering iron tip. This will cut neatly around the insulation and you should easily be able to pull off the softened end bit of plastic. Hold the coil wire in the middle with one pair of tweezers and the unwanted bit of insulation with another pair.

This method of stripping wires will eventually produce a stream of acrid smoke and a corroded soldering iron tip, unless the smears of melted plastic are at once wiped off with a thick wad of tissues or old rags. When removed, apply fresh

solder to the tip of the iron, shake off, and apply more fresh solder. If the tip is now bright, the soldering iron is fit for making solder joints again. If not, you will have to file the tip until it is clean and will hold a bright film of solder. This is a lot of trouble, but it is better than possibly breaking one of the pickup windings.

When the connections are complete, replace the outer layer of adhesive tape tightly around both coils and the cable connections, to hold them all firmly together. If there is room inside the pickup cover, add a few more turns of clear plastic tape on top of the original tape.

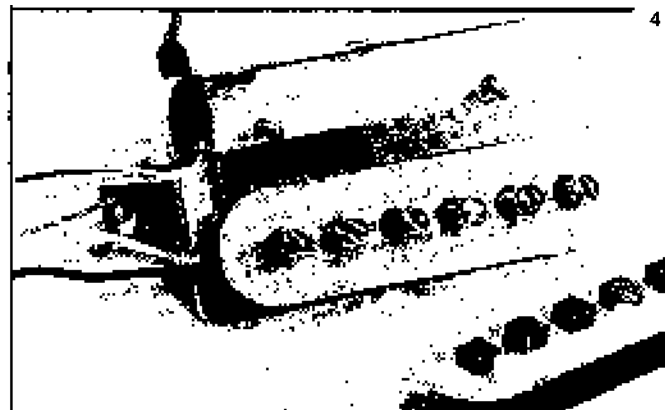
Replace the metal cover, making sure that the heads of all the adjustable pole screws will fit back into the holes in the lid. If necessary, you could open up some of the holes a little with a fine file. Keep the metal dust away from the pickup.

Usually, the sides of the cover spring outwards a little when the pickup is taken apart. If you solder it back like this, it may not fit the surround or the recess in the guitar body. Use two bits of hard wood and a small screw clamp, or vise, to pinch in the sides of the cover until they just touch the pickup base plate each side. Then replace the two patches of solder which hold the cover in place. The conversion job is now finished.

Before you start on the next pickup, check the other end of the four-wire cable with a resistance meter or universal test meter. You should be able to identify two separate coil-pairs with matching resistances of (very approximately) 4000 ohms. There should be no connection between one coil pair and the other and there should be no connection between the cable screen and any of the four wires. There should be connections giving readings of practically zero ohms, between the screening braid and both the base plate and the cover of the pickup, but no connection between any of the four cable wires and the base or cover.

Next month I shall explain briefly how to do the same four-wire conversion on a Mighty-Mite pickup, and I shall give you some of the possible wiring arrangements for four-wire pickups, including a few which you won't find in any "production" guitar, or in the instruction sheets which come with new pickups. Please do not try to convert old Gibson "PAF" pickups. Don't even take them apart: I will explain why, next month.

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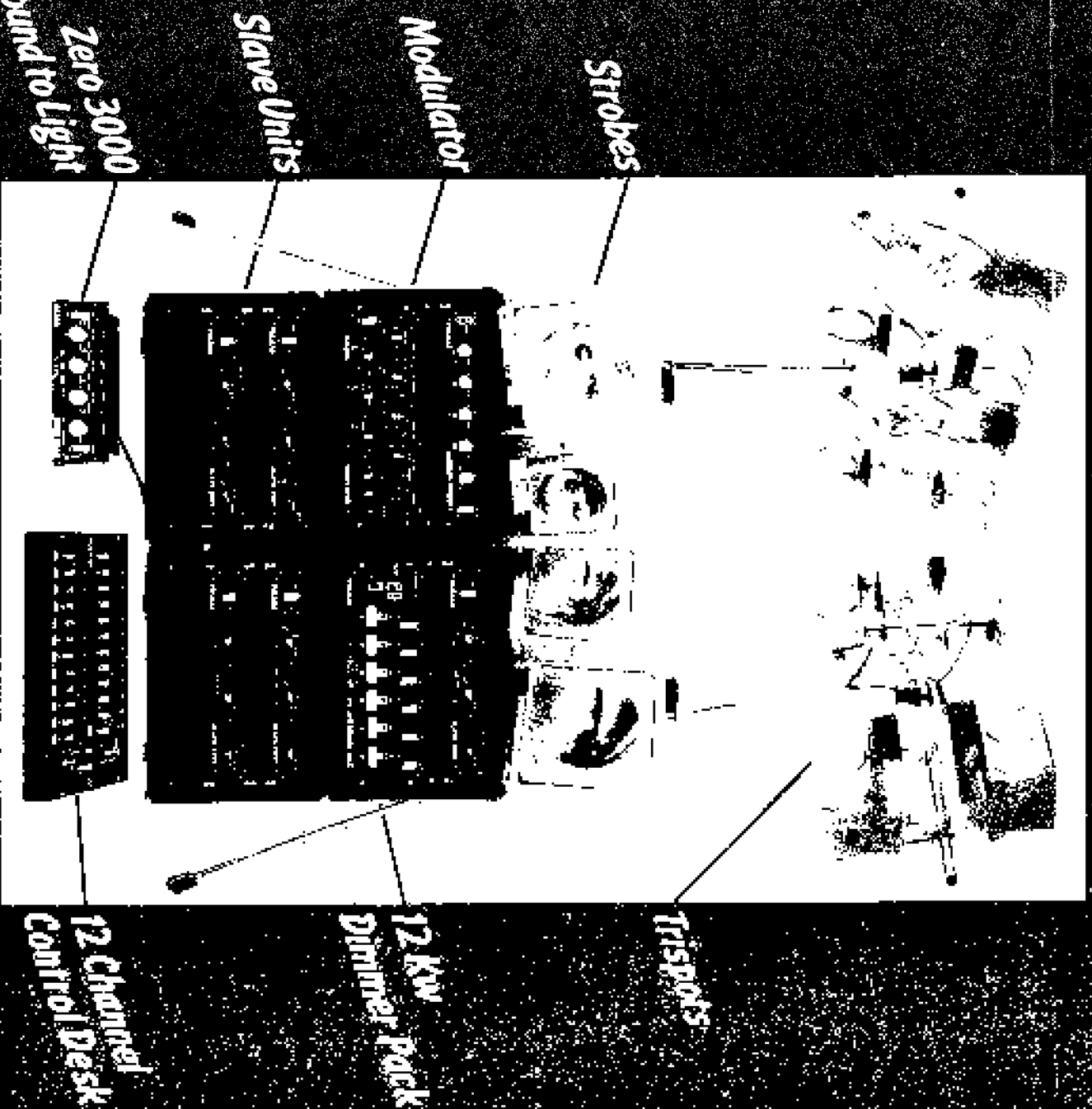
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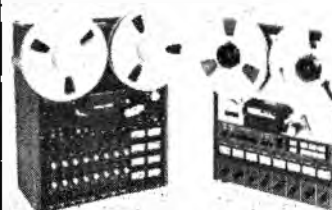
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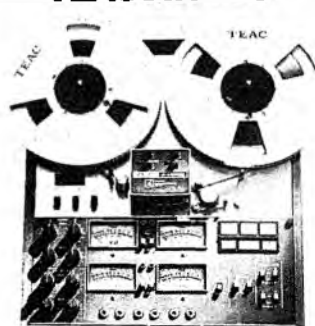
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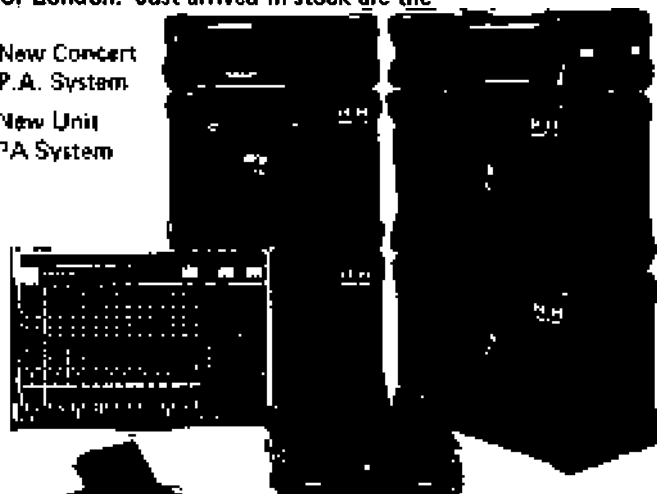
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Registration for the Convention will include admission to the Exhibitions, alternatively it will be possible to visit the Exhibition only by purchasing a programme, price £2.00

Enquiries regarding the Convention and Exhibition should be sent to the **Sam Black Organisation Ltd.**, 50 Pine Grove, London N20 8LA.

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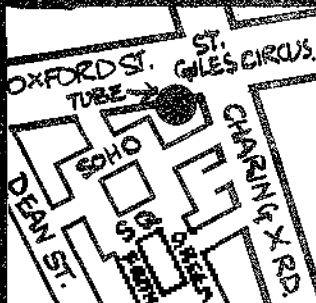
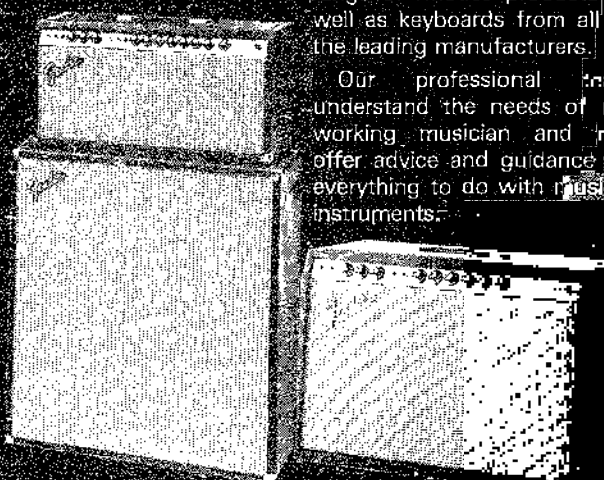
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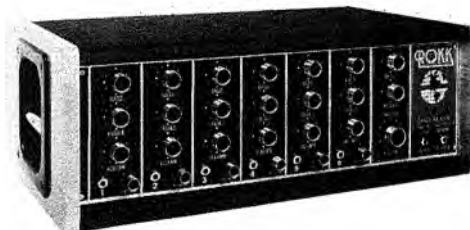
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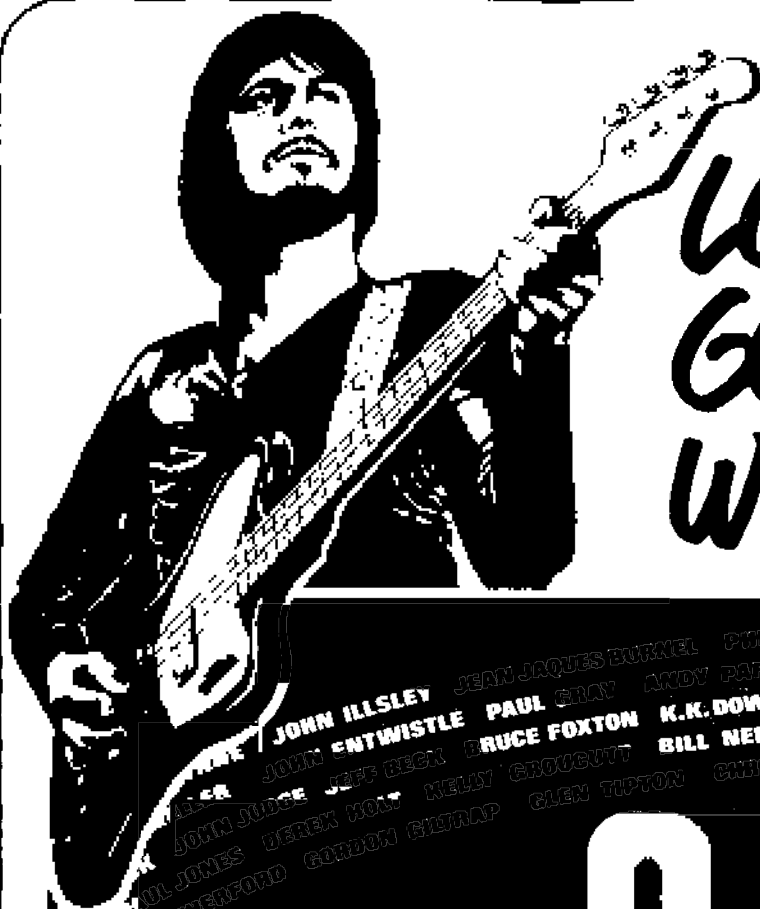
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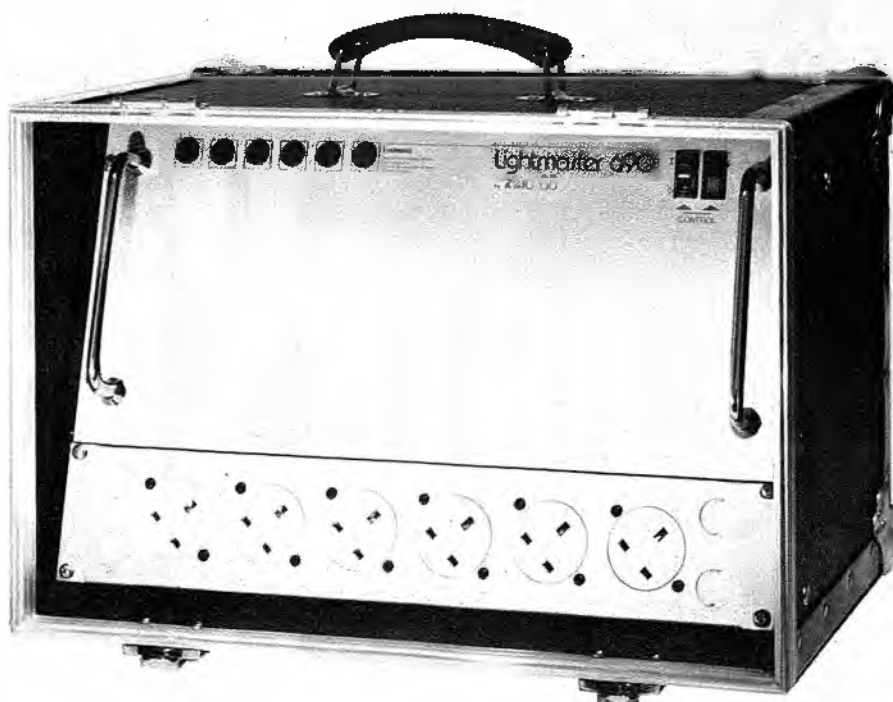
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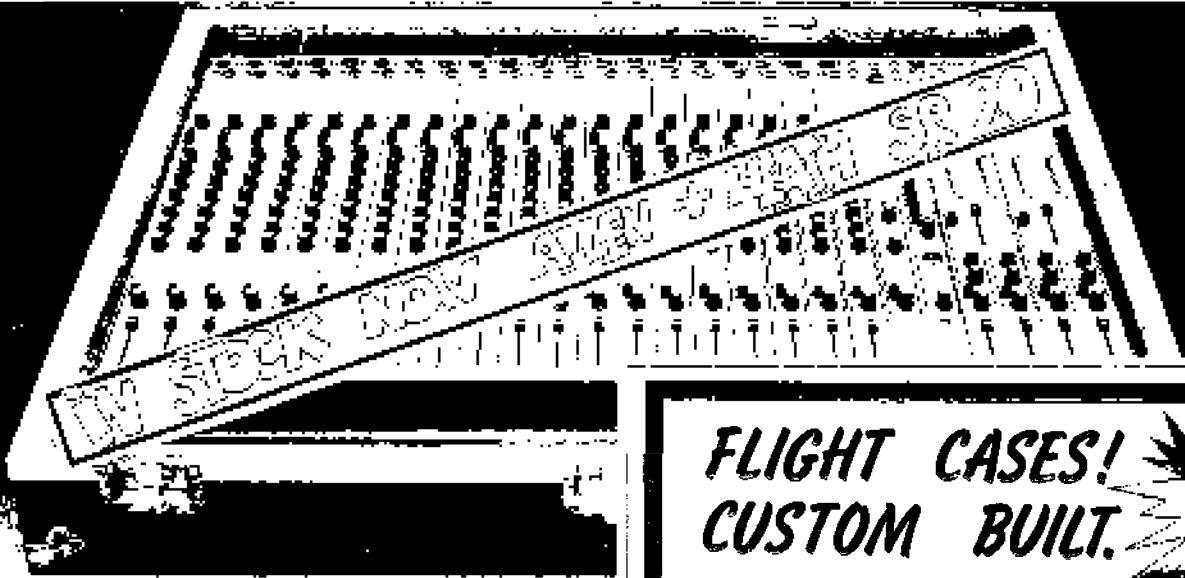
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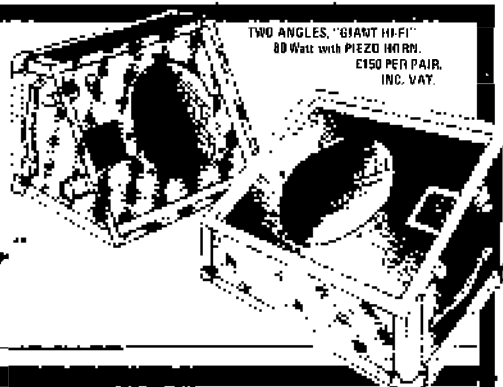


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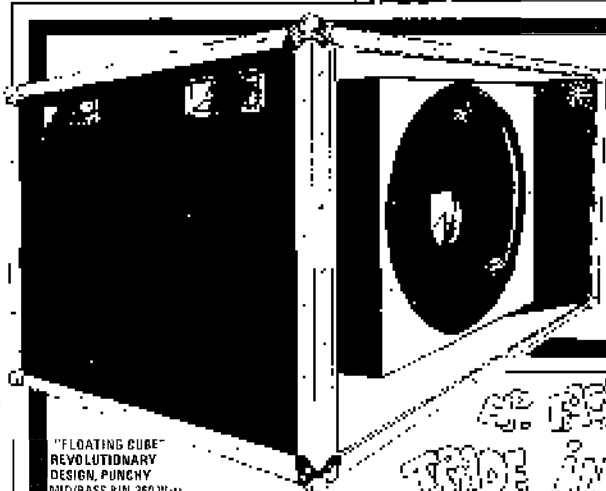
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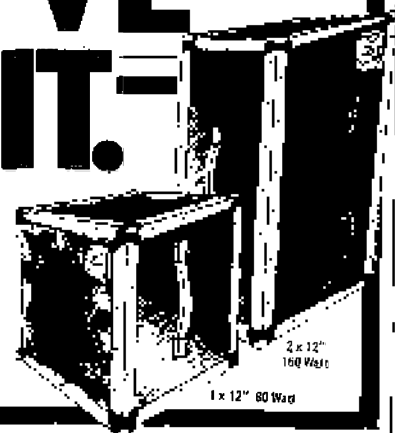
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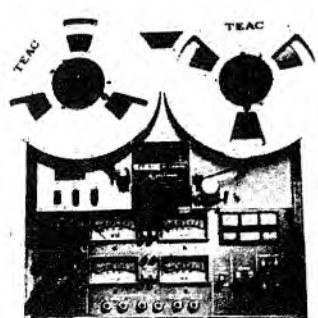


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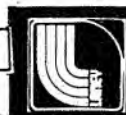
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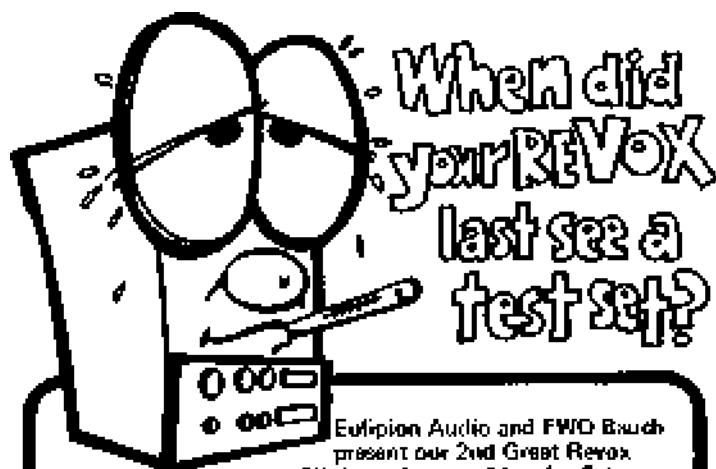
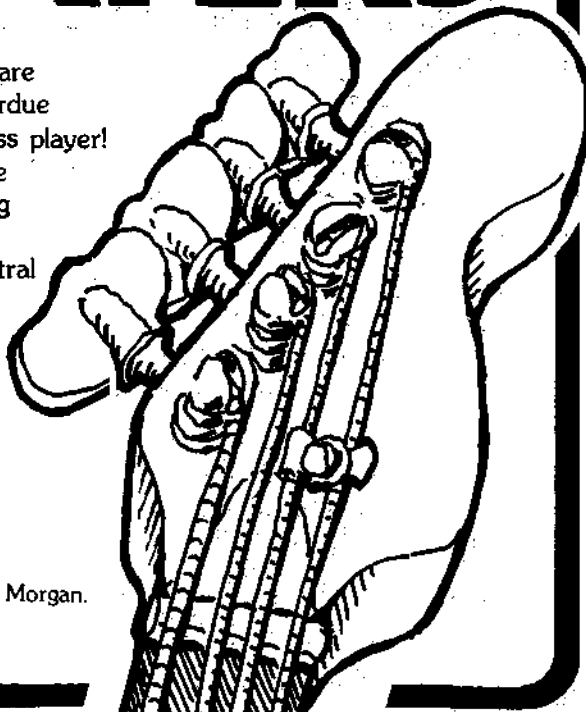
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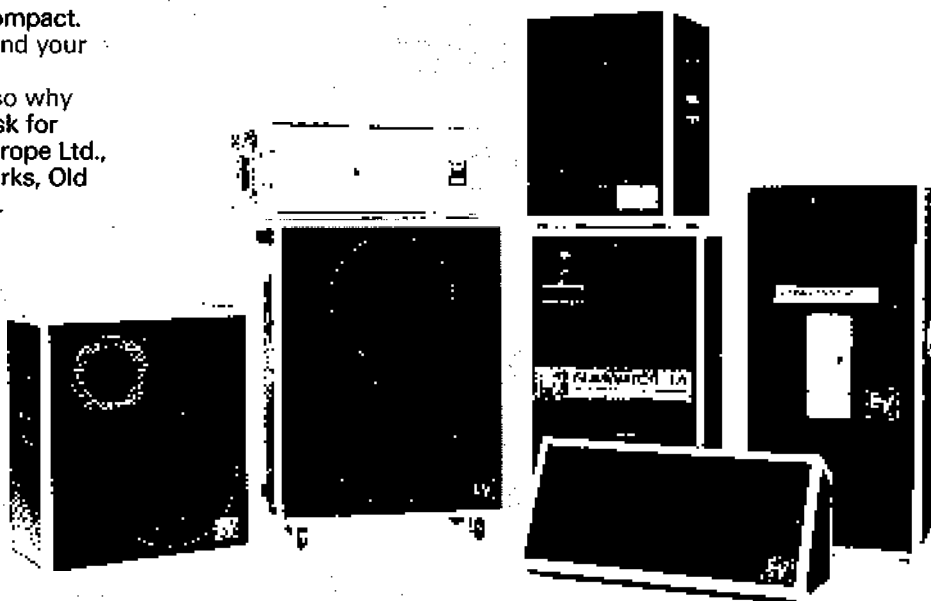
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DUFFY'S RECORDING STUDIO.
131A Anerley Road, Crystal Palace, London
SE20.
01-778 0450 01-701 2064
8T Cap 8 £8 p/h, R-R, RC, Mix, R-Cr, Drums,
synths, piano, amp, DDT varispeed, 16T into
8 mixer, 1/2" Box.

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181A Long Lane, London SE1
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8T £6 + £5 1" Tape hire, £30 per 6 hours,
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dt, (Brenell 8 track - Revox ZT), R-R, Cp, Ka,
(Piano, Organ), R-C, M. S. SM, ba.

FAST BUCK STUDIOS.
Lamb House, Church Street, London W4.
01-994 3321
8T Cap 10 £8 p/h, £60 p/d, D, T-F, R-R, 1St,
CP, KA, RC, Mix, R-Cr, DC, d-t, M. S. VS, BA,
SM, Desk-Sound Technics, Brenell Mast
track, Revox, - AKG, Bayer mikes, tannoy
speakers, graphics, drum machine tape and
elect. Etkes string machine, synths, guitars,
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01-836 7608
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GOOSEBERRY STUDIOS
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01-437 6255, 01-734 2257
16T £16 p/h (discounts available on sliding
scale), 8T £13 p/h Cap 8 D, tf, R-R, CP, Ka
Hammond L100, Roland SH2000, Fender
Rhodes) R-C, d-t, OTC, M.S. SM ba

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Beulah Road, Wimbledon SW19
01 540 9881 Telex 8814917
24T £40 p/h 16T £35 p/h Cap 40 R-R-C-D
OTC, Studio 2 - Stereo only £7 p/h.

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weekends £5 O. T. p/h, Kneve Necan
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RC, Mix, Comp, Mix, Q. M. S. ba.

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DBX, CP, OTC £7p/h

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d-t, M. S.

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Enquiries Pat 01 493 7403
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hour car park.

PATHWAY STUDIOS
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01 483 5961
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R-Cr, d-t, CP, Ka, (Steinway grand, ARP
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16T £40 p/h 24T £45 p/h Bank holidays
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Hammond B3 Q.M.S. tf, R-R, R-C, R-Cr, R-Cr,
d-t, SM, ba

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KEY FOR STUDIO GUIDE

T	Track
Cap	Capacity
p/h	per hour
p/d	per day
D	Dolby
ff	Transfer facilities
R-R	Reel to Reel
St	Number of Studios
CP	Copied
ba	to be advised
Ke	Keyboards available
R C	Reel to Cassette
Mix	Mixing Facilities
R-Cr	Reel to Cartridge
DC	Disc Cutting
Comp. Mix	Computer Mixing Facility
d-t	Disc to tape
Q	Quad
OTC	Overtime charge
M	Mono
S	Stereo
fd	Fully coated film
VS	Video Studio
AC	Accommodation
ba	by arrangement
SM	Session Musicians

★ HIRE GUIDE ★

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AD INDEX

Jan UK/Feb USA

Acoustic Sound Systems.....	186
AI.....	226
AKG Acoustics.....	47, 242
Allen & Heath.....	218
Allen R.....	213
Aral & Co.....	187
AES.....	217
Audio Technics.....	22
Axe.....	181

BAN.....	80
Barris.....	195
Barohni.....	81
Bell.....	231
BRI's Drum.....	65
Brodr Jorgensen.....	IPC, 55, 191
Butler.....	84
Buzz.....	148

Carlson Sales Equipment.....	152, 153
Carlson Sound Centres.....	206, 207
Celestium International.....	215
Cetus.....	36
Chappell.....	Acoustic Insects
Chase Musicians.....	5-10
Clavitone.....	231
Collins and Endles.....	190
Coveham.....	204
Counterpoint.....	84
Court Acoustics.....	182
Cusak.....	184
Custom.....	185

DeArmond.....	241
DiMarzio.....	52, 53
DJM.....	60
D'Merle.....	230
DOD.....	90
Don Larking.....	42
Dynadon.....	183

Electronic Sound Systems.....	24
Electro-Voice.....	154, 229
Entec.....	168
Eulipion.....	228

Fane Acoustics.....	216
FBT.....	155

Formula Sound.....	62
Freedmans.....	106
Fyde.....	229

Galli Curde Musicalli.....	104
GEC.....	231
General Music Strings.....	227
Gigsville.....	179
Goodmans.....	230
Groups.....	160
Guitar Player.....	169
Guitar Workshop.....	170

Adam Hall.....	180
Hammond Industries.....	167
Harman (UK) Ltd.....	54, 193
HH Electronic.....	194
Hill.....	41
Honky Tonk.....	81
Hodges and Johnson.....	104
Hudline.....	190
James How Rotosound.....	223
James How Superwound.....	27

Island Mobile.....	112
ITA.....	138

J&C Sound Systems.....	50
------------------------	----

KAC.....	60
Keio Electronics.....	26, 151
Kiethen.....	98, 201

Lake Audio.....	227
Laney.....	189
Langdons.....	184
Leach Manufacturing.....	44
Leach Musical Services.....	42

Magrite.....	231
Dean Markley.....	158

Marshall.....	OBC
Marys Music.....	84
Mayfair Studios.....	222
MCI.....	133
Midland Loudspeakers.....	89
Mixers.....	25
ML Executives.....	23, 51
Mobile One.....	111
Mobile Studio.....	108
Moos.....	147
Morling.....	84
MXR.....	57
Mushroom Studios.....	60
Musman.....	IBC
Music Service.....	222
Music Shop.....	176
Mustang.....	30

Norlin.....	145
Normans.....	62

PA Company.....	44
PA-CE.....	11
Parkhouse.....	30
Panther.....	30
Peavey.....	91
Pearl.....	70, 173
Peavey Electronics.....	171
Pete's Gig Shop.....	155
Phoenix Recording.....	60
Pollard International.....	178
Project Electronics.....	146
Promoter.....	178
Pulsar.....	211

Randall.....	94
R&T Music.....	64
REW.....	212, 213
Rhythm House.....	184
Rig Hire.....	178
RMS.....	39
Rock City.....	95
ROKA.....	65

Rook.....	220
Ross.....	65
Rose-Morris.....	11-16, 72
Rosetti.....	188
Round Sound.....	60
RSD.....	13, 208, 209

Schaller.....	228
Scheier.....	4
September Sound.....	231
Shure.....	20, 21
Sigma.....	46
Sescom.....	180
Sine.....	177
Soho Sounds.....	221
Sounds Communication.....	214
Sound Lab.....	106
Soundpad Music Centre.....	164, 165
Sound Plus.....	84
Soundwave.....	219, 228
Staccato Drums.....	78
Stage One.....	170
Leo Sikes.....	65
STIX.....	81
Strand Sound.....	12
Strings Musical Instruments.....	92
Summerfield.....	56, 192
Supetmouse.....	95

TFA.....	172
Theatre Projects.....	40, 64
Traynor Yorkville.....	242
Vinavox.....	40

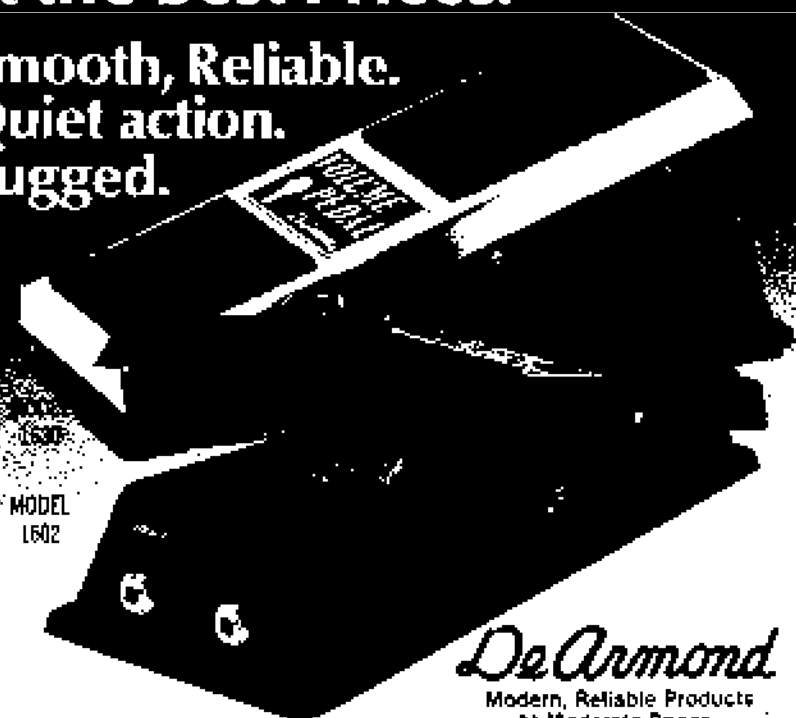
Wave.....	225
Windows.....	170
Woodroffe.....	174, 175
Woods.....	210

Yamaha.....	45, 161
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Zero 88.....	224
Zildjian Export.....	63, 80

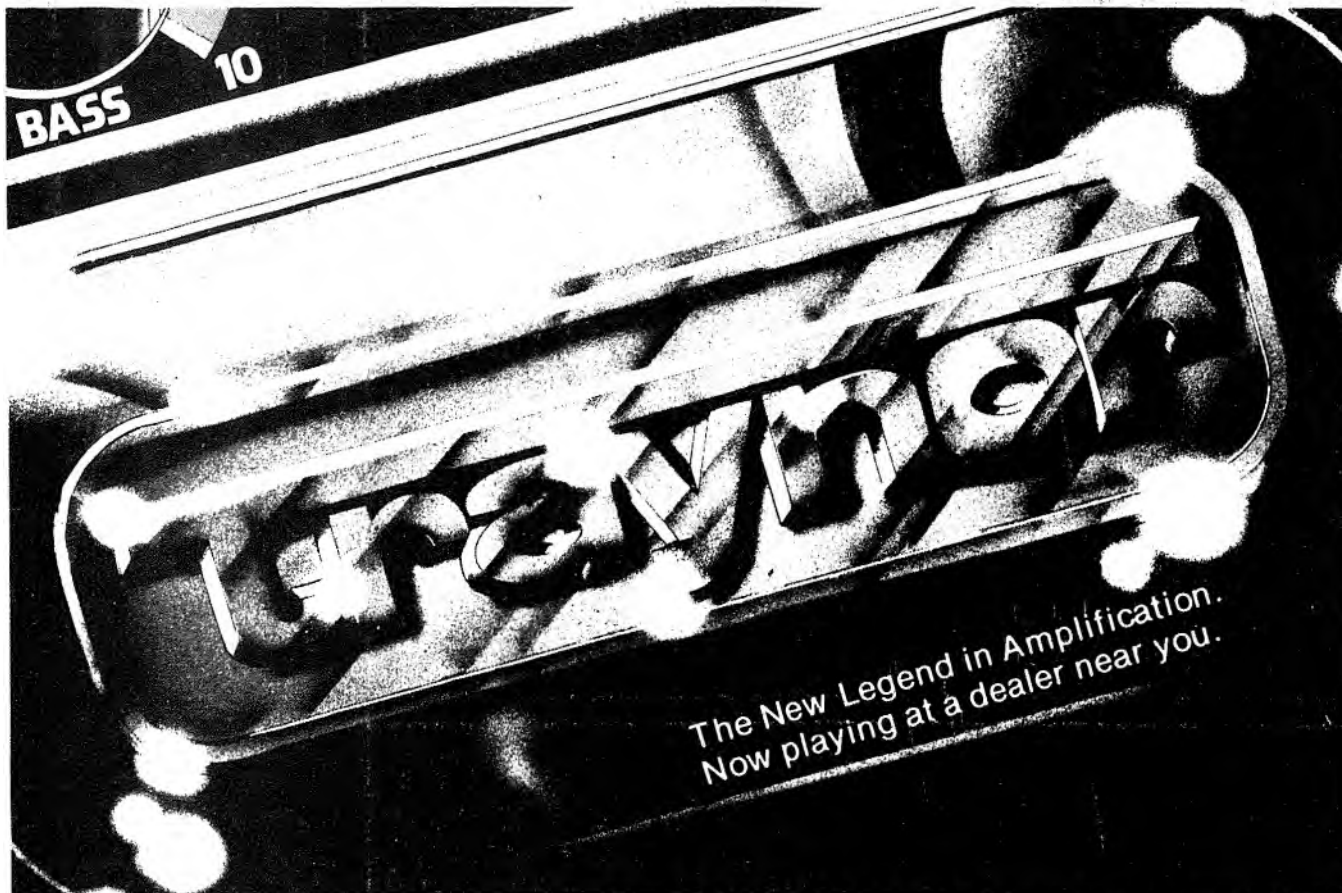
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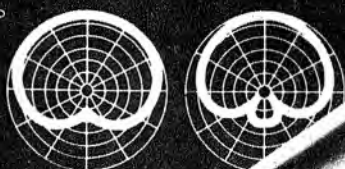
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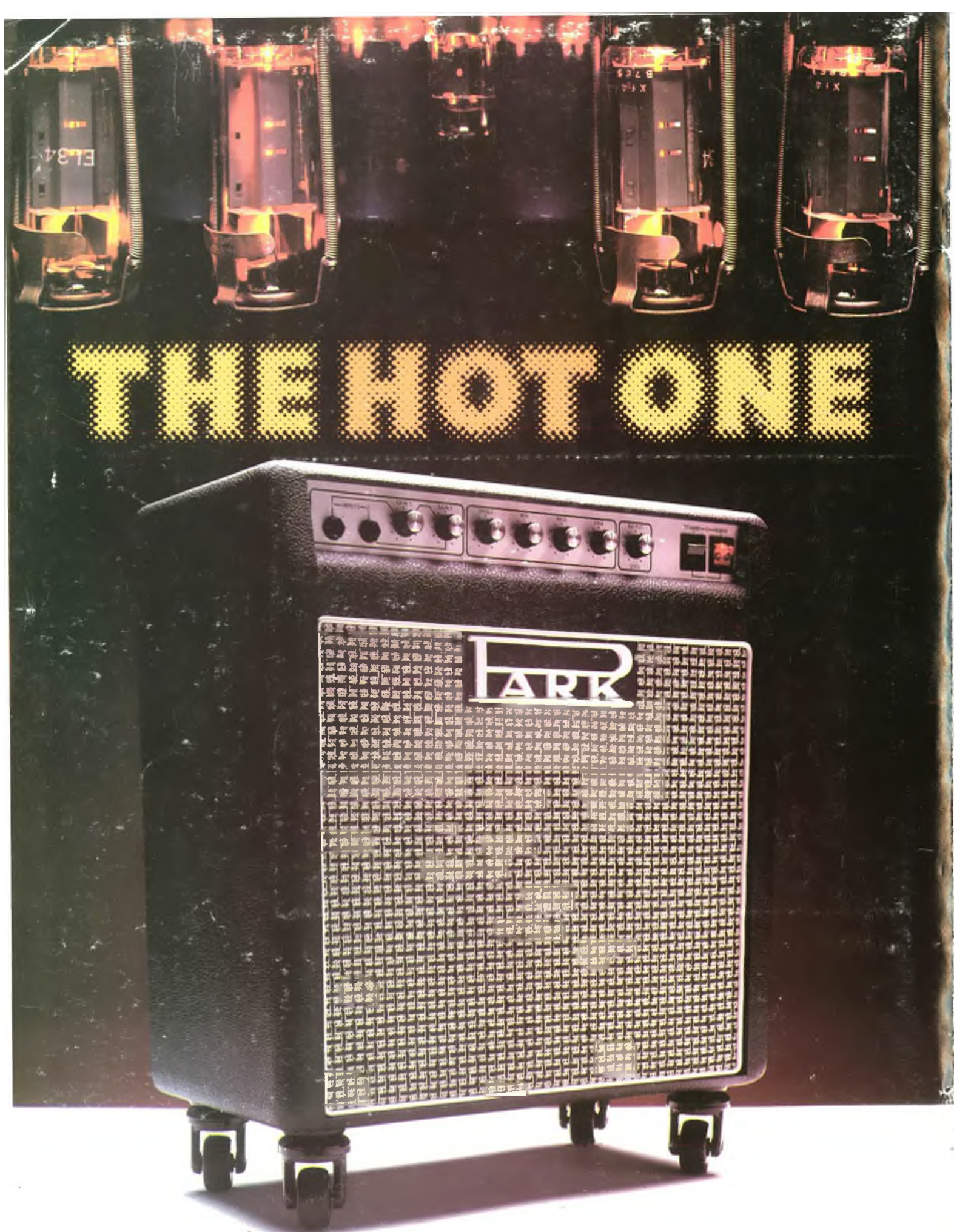
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