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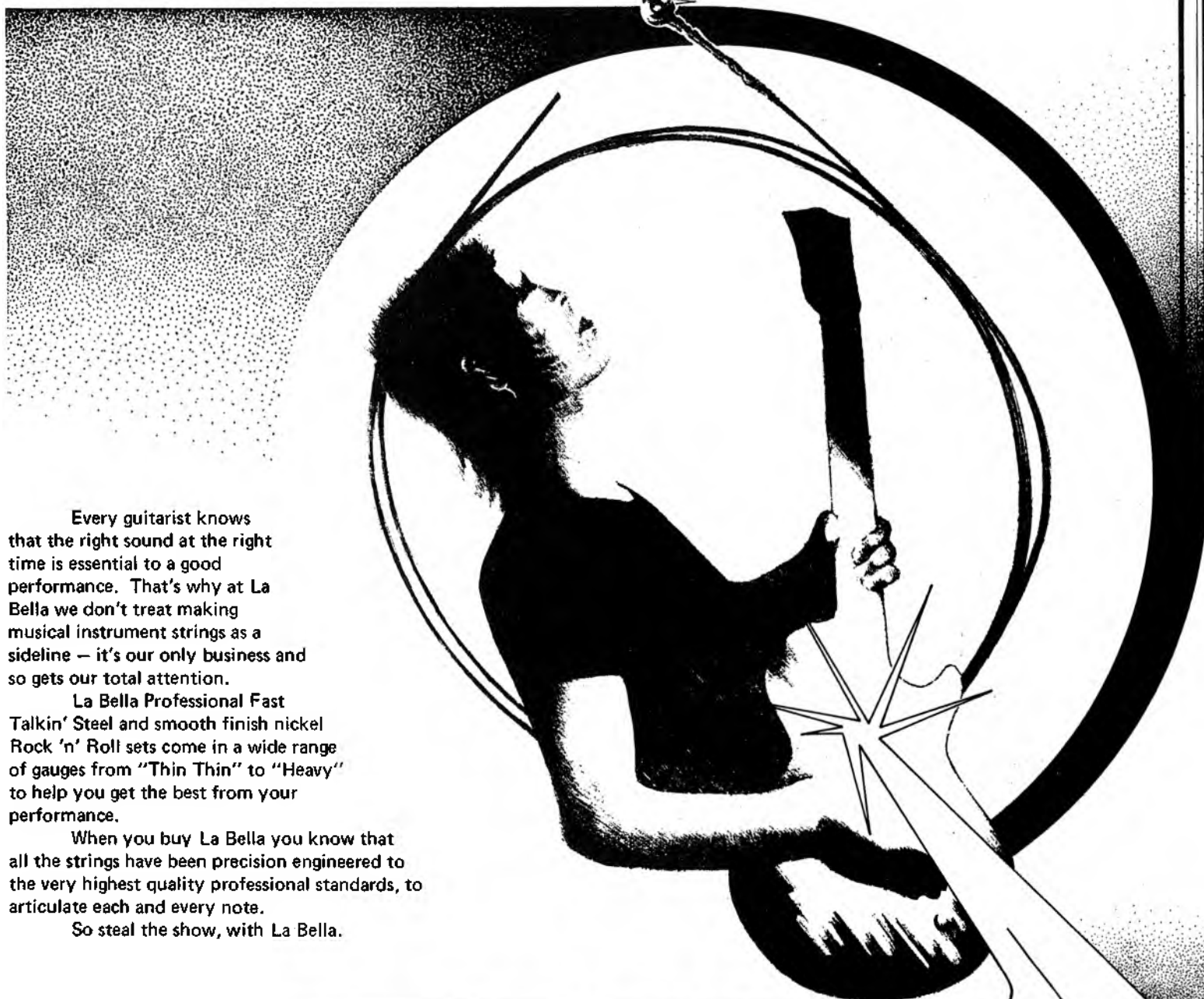
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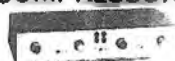


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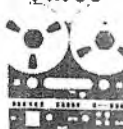
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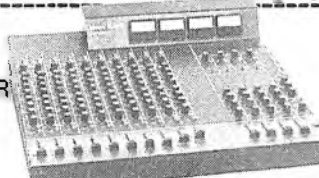


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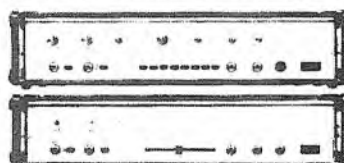


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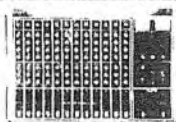
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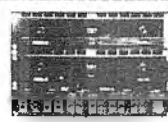


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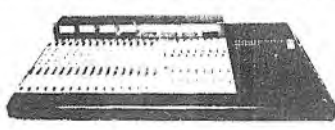
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LONDON

International Musician and Recording World is published monthly by Cover Publications Ltd., Grosvenor House, 141-143 Drury Lane, London WC2B 5TE. TELEX No. 24676. TELEPHONE 01 379 6342, 01 379 6917. Distributed in Great Britain by Independent Magazines Ltd., Bridge House, 181 Queen Victoria Street, London EC4V 4DD. Tel: 01 248 3482 (10 lines). Printed by Carlisle Web Offset, Carlisle, Cumbria, England. International Musician & Recording World is a trade mark of Cover Publications Ltd. All rights reserved. © Cover Publications Ltd., 1979. While every care is taken in the publication of the magazine, the publishers cannot be held responsible for any results arising from the contents thereof. Subscriptions, 12 months only UK £10.50. Worldwide (surface mail) £12.00. US includes 12 issues, shipping charges to New York, NY and mailing costs from NY) \$20. Second class postage paid at New York, NY and all additional mailing offices. Air mail rates Europe £17.00. S.America and S.Africa £25.00. Australia and Japan £31.00.

NEW YORK

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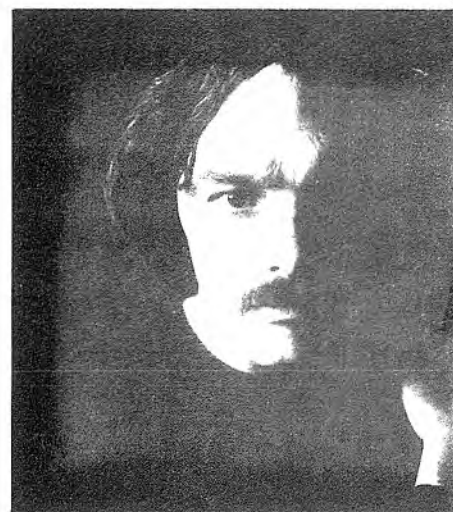
Sole International Distribution Agents.
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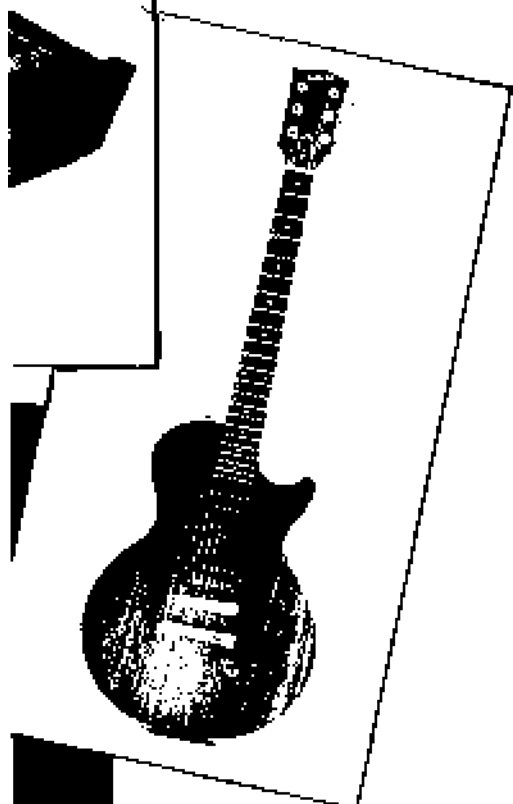
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EDITORIAL

You're simply not going to believe how generous we're being this month. To show how highly we value our readers, we're making you not one, not two, but three astonishing offers in this issue.

The first takes the form of a competition. It's amazingly simple to enter, it's free — and it features the biggest-ever first prize in any IM competition. Where else could you earn yourself a complete PA system worth £2,000 for the cost of a postage stamp? You can read all about it on page 30.

Right, that takes care of your band's live sound. Now, we know that more and more of our readers are making their first excursions into the studio, so we thought it was about time we provided something special for them. On page 165, in our rapidly expanding Recording World section, you'll find details of another staggering IM offer. A whole studio workshop course, in the form of cassettes and books, can be yours at half the normal price. It's an investment that could save you hours of expensive studio time.

Finally, another first-time offer. Take out a subscription to IM this month and we'll send you, absolutely free, a magnificent hard-backed binder, custom-built to take a year's copies of the magazine. You'll find the order form on page 15.

Actually, although we're giving away all that stuff in this issue, we still reckon that the biggest give-away, this month and every month, is International Musician itself. We can't let you have it for nothing, unfortunately — but just look at how much magazine you get for 50p! It's got to be the biggest bargain in the world of music.



VOL. 5 NO. 3
APRIL 1979 (UK)
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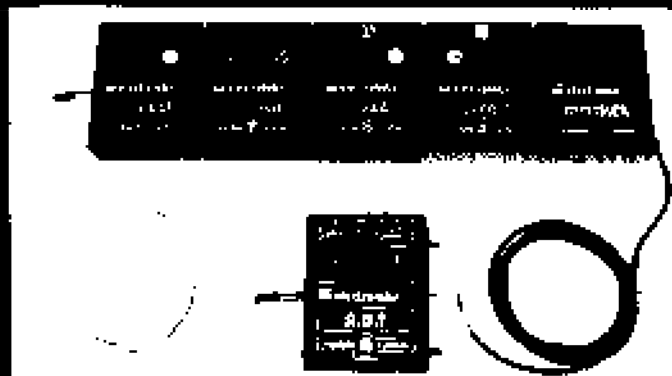
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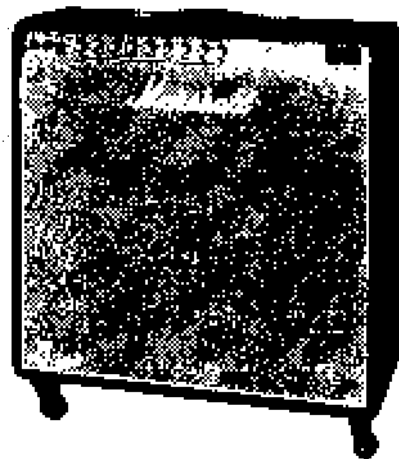
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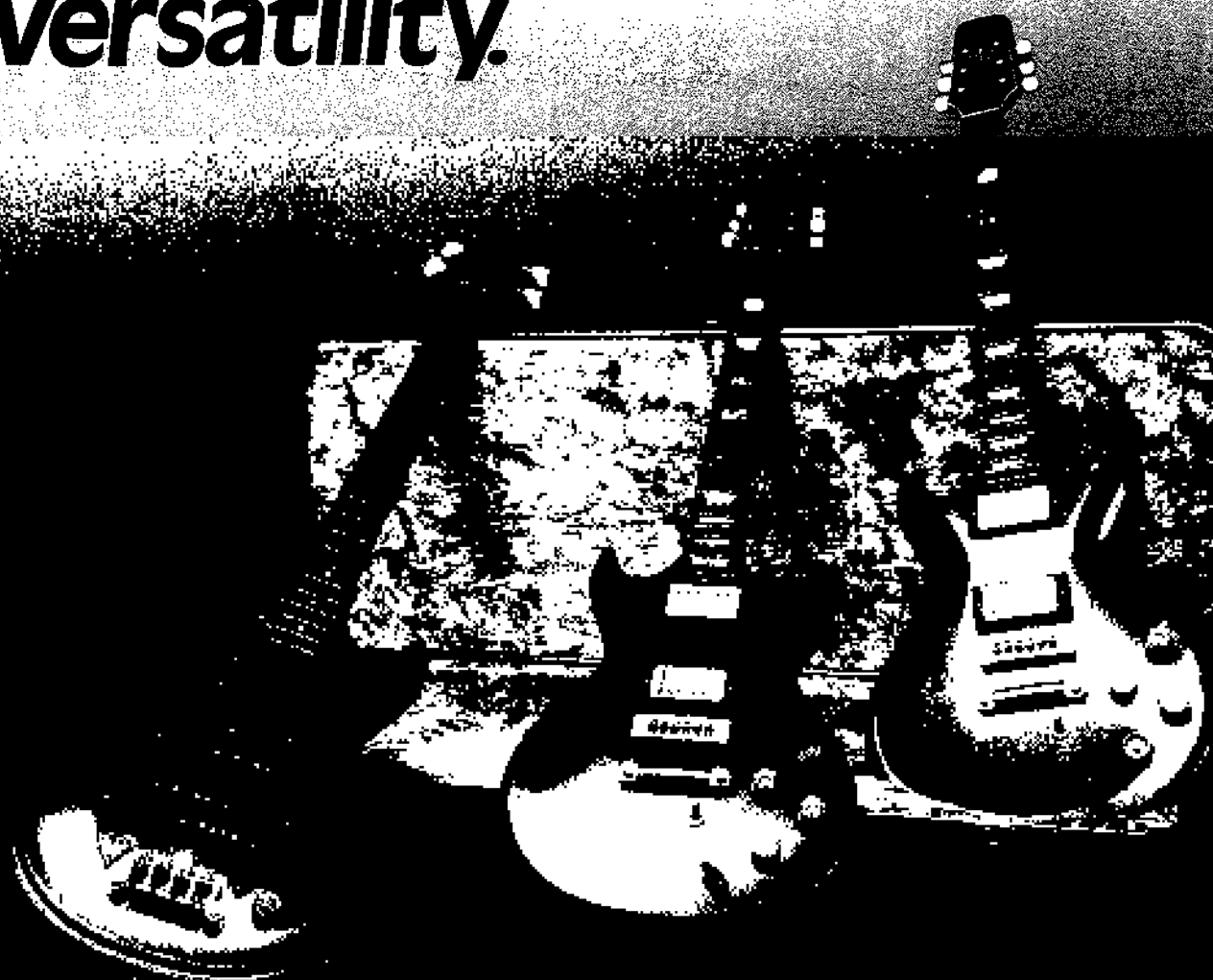
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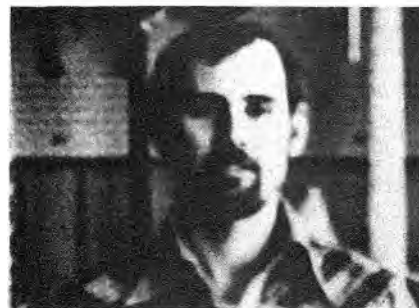
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John Hulke:
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Letters

Dynamite

Dear Sir: First of all, thanks for a great magazine, but what's this? A load of drivel appeared in last month's IM! I refer, of course, to Gregory Farmer's letter which basically compared the guitar styles of two greats - Gary Moore and Jeff Beck.

May I suggest he gives some of Gary's greatest work, for example with Colosseum II, a spin? This is the so-called "serious stuff" he should listen to. He would then realise what a dynamite style and approach this guy has - the energy and feeling he puts into his playing. Don't get me wrong, Jeff is a really great player, but to compare the two guys is just ludicrous. "Playing hard rock with Lizzy" is not just what he does best. Listen to him on Lloyd-Webber's *Variations*; this only goes to demonstrate the guy's ability and versatility. Any style of playing he seems to tackle, with some of the best results I've heard. Keep up the great work, Gary!

Steve Munns,
Orpington,
Kent.

P.S. It's all Eamonn Percival's fault. He should never have compared them in the first place - troublemaker!

Why spoil it?

Dear Sir: I'm replying to a letter written by a Mr. G. Farmer last month. I've never read such a load of wormshit in all my life! Who the hell does he think he is? He says: "Leave the serious stuff to musicians who know what they are doing." I am sure, Mr. Farmer, that he's a bloody sight better than you are and unless you think that you're Harrogate's answer to Eric Clapton, you should shut up until you know what you're talking about!

They both happen to play very fine music in all respects. And there's only room for one Gary Moore, one Jeff Beck or whatever. Anyway, he's making a living, he's enjoying himself,

We welcome your comments and criticisms. Write to: Letters, International Musician, Grosvenor House, 141-143 Drury Lane, London WC2B 5TE.

so why spoil it for him and the rest of us?

Lastly, about Punk/New Wave versus G. Henley. Music is Music, lads, whatever type, and if people enjoy it, why worry? It might give you a headache, Mr. Henley, but you're seeing some lads having a good time and building a foundation on which to build. So please, shake hands and make up.

Keep music live for ever.

Iain Finlay,
Bromley,
Kent.

A fan

Dear Sir: It seems to be that the majority of the letters printed in your magazine are complementary. I'm afraid this is not so as I have one or two complaints about the structure of *International Musician*.

Firstly, interviews with stars. Your interviewers tend to treat their subjects as God-like figures incapable of doing or saying anything wrong. This is a style which the weekly music press ditched in the mid-Sixties. I think it's about time you followed suit. I'm not suggesting you adopt the hip-cynical approach of, say, the NME, just that your interviews could be a little more penetrating.

This brings me to my second point. The same attitude prevails in your *Dealer of the Month* and studio review features. Seldom have I seen serious critical assessments in either of these features. Normally we are treated to such cliches as "pleasant atmosphere" and "helpful staff" which gloss over any bad points. In short these articles

have ceased to be of any use to the readers but are merely bland advertisements for the studio or shop concerned.

Lastly, I feel that previews of such events as the Frankfurt Fair are of little use to the majority of your readers, since most of us are unlikely to be able to attend, and it certainly does not warrant the 20 pages that were taken up in the February issue. (Your boast of "biggest ever issue" becomes meaningless if you fill it with trivia like this.) These articles may be of use to "in the bizz" people, but I'm sure they could gather whatever information they need from the exhibiting companies themselves. And what the hell is the point of printing the preview in five languages (Japanese!?) to the average British working musician? No doubt next month we'll be treated to 20 pages of review of the fair. (Could we have it in Swahili please, it's the only language my drummer understands.)

To end on a brighter note, your instrument/equipment reviews are excellent, being honest and truly critical (the result of being written by musicians rather than journalists?) and set the style which the rest of IM should follow.

Tony Ecclestone,
Eltham,
London SE9.

Cure for creeps

Dear Sir: As a drummer, I have suffered from the drummer's nightmare, bass drum creep. But, I have come up with a simple and cheap alternative to chains, bricks and nails through the stage.

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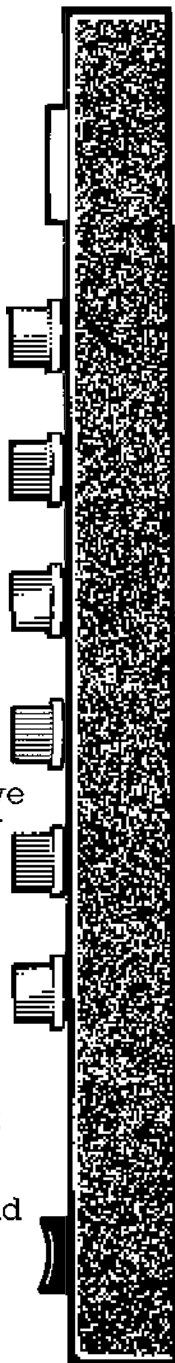
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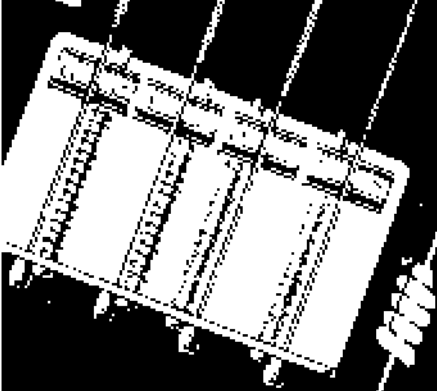
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Letters

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Richard Gosnell
London NW7

A useful tip there, perhaps other I.M. readers have some interesting hints they could tell us about.

Fascinated organist

Dear Sir: Former Prime Minister Edward Heath visited the recent Frankfurt trade show at my invitation and he seemed very impressed by the export efforts of our trade. Following his visit he wrote to me: "I found the exhibition most fascinating."

We should be grateful that our small industry attracts such attention.

James How,
Managing Director,
James How Industries.

Bring back Burns (cont.)

Dear Sir: Having read the very interesting letters in IM about Burns guitars, I am very pleased to hear that finally these great instruments are appreciated by so many musicians.

I fully agree that all the Burns guitars were way ahead of any other make of guitar in quality and sound. It was very unfortunate for the British guitar makers that the era of the electric guitar was exploded by the other side of the Atlantic and of course the grass is always much greener on the other side. The British guitars were not appreciated as much. Yet only six and seven years past I saw an old polyester cracked Burns Virginian in Manny's in New York, and it was priced nearly twice as much as a new Stratocaster. So the British grass was greener from the other side. I also saw a Vox lute-shaped six-string sold for more than a new American guitar, yet on Denmark Street I bought a lute-shaped Vox direct from the factory for £30 and a solid case thrown in, total cost £35. The same went for the great Burns guitars.

My son and I visited the Burns factory at Romford before they were bought out and have played and owned seven different types of Burns guitars and still own and play several different types. No, we are not professional musicians but we have played many of the famous make instruments. And I must say my son is fantastic on the Burns Marvin,

especially Shadows numbers, and he will play Chet Atkins numbers better on the Marvin than I can play on the Chet Atkins Gretsch Country Gentleman.

I am all for bringing back the Black Bison and of course the Marvin. But if not, then all is not lost. I happen to know that the two wonderful craftsmen that were involved in actually making the great Burns guitars are now Shergold. If you see and play a Shergold guitar you will immediately realise that the craftsmanship of Burns is now in Shergold. The best British guitar in production today. Value for money and the greatest craftsmanship on every Shergold made. So if any Burns fan is unable to get a Burns guitar then get a Shergold and I know you won't be disappointed — and it's British.

I am not out to slam the instrument makers across the Atlantic; they have designed and made great guitars. I am a Canadian who grew up on the Prairies on the borders of Manitoba and North Dakota. My father used to spend the long winter months making wooden five-string and four-string banjos (four-string banjo-shaped tenor guitars). All his wood and parts were sent to him by Gibson and Kalamazoo. I think some of this must have rubbed off on me.

In conclusion, I happen to have some Burns spares and if anyone is interested they can get in touch with me on Ashford (Middlesex) 50819.

Peter J. Friesen,
Ashford, Middx.

Another fan

Dear Sir: Being involved locally, here in Carlisle, in the continuing battle to keep music live, I would like to congratulate you excellent magazine in your efforts in this direction, and also your publication as a whole for its continuing high standards of technical advice to us semi-impooverished local musicians.

However, there is one section, the album reviews, in which I believe the content, rather than the standards, could be improved. 1978 saw the release of many excellent rock albums including Bob Weir's *Heaven Help the Fool*, Rodney Crowell's *Ain't Living Long Like This* and Al Stewart's *Time Passages*, etc. As far as I can remember, none of these albums have been reviewed in your magazine which is disappointing since I feel sure they would have been well received and this exposure would have seen them reaching a wider audience than they in fact did.

No doubt the shortage of space would be the reason why many albums are not reviewed, however I must question whether the vast majority of



your readers are really interested in albums by The Clash, Jam, Sham 69, etc., and even if they were I'm sure most people by now would know exactly what those albums would contain without even hearing them.

My advice to you is to forget the constipated Punk droners and the Stiff label demagogues and concentrate on those unsung artists for whom I believe your magazine was first conceived, pure musicians whose appearance, image and attitudes are secondary to the great music they have consistently produced.

Brian Duncan,
Carlisle.

Sheets, please

Dear Sir: First could I take this opportunity to tell you what a great magazine you publish. For the past 12 months you've kept me from going insane. As I lost my job through illness and needing something to do, I took to playing the guitar and reading *International Musician*. I started buying music sheets but can't get many that I like in Halifax unless I buy song books at £4 and £5 a time which I can't possibly afford. The type of song sheets I'm after are songs like *Living Thing*, ELO; or *You Ain't Seen Nothing Yet*; Bachman Turner Overdrive. In fact any pop or rock song that made the charts in the late Sixties or Seventies. So I wondered if any bands reading this have any unwanted music lying around. If they could send it to me I would refund postage or get in touch with me and I'll buy it from them so long as it doesn't exceed a few pounds. You would make a bored guitarist very happy.

Finally keep up the good work, IM. February's bumper issue was just great! Thank you.

Steven Lindsey,
Halifax,
West Yorks.



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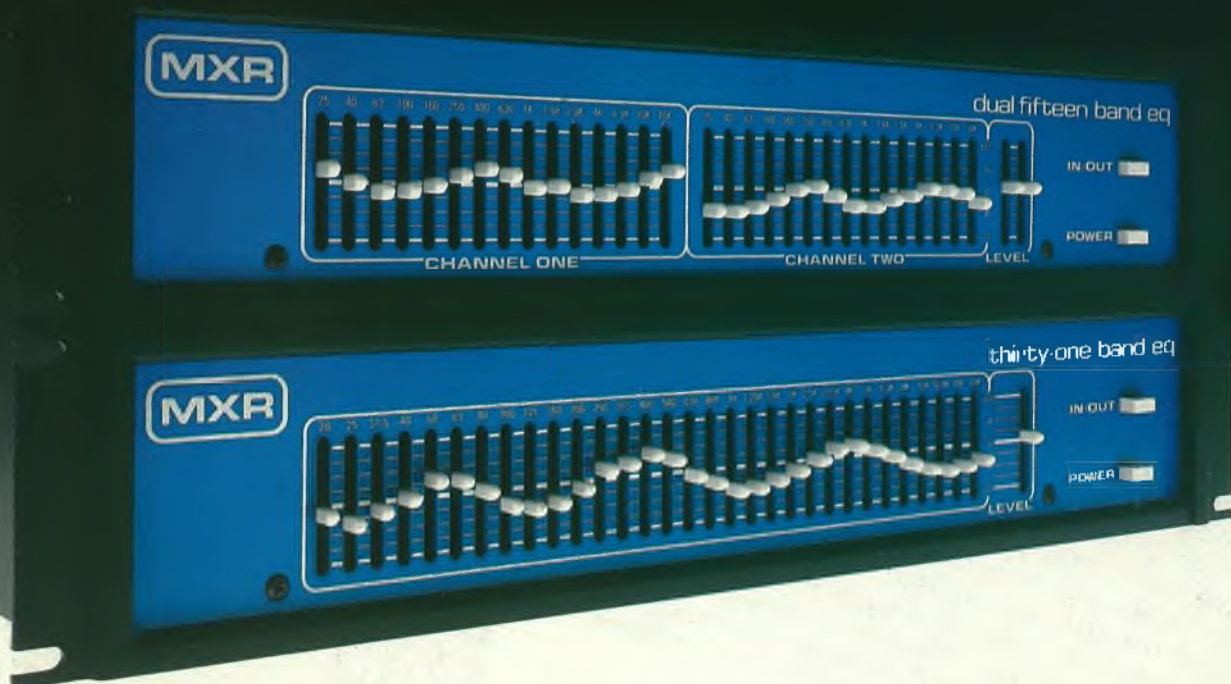
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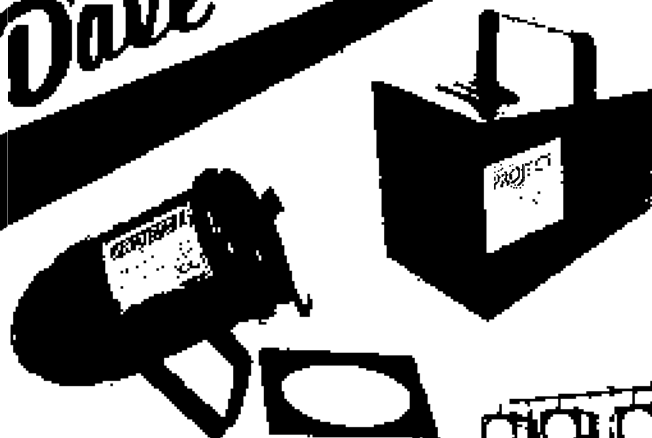
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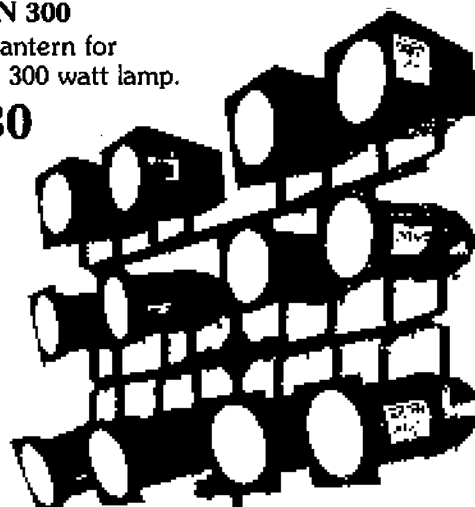
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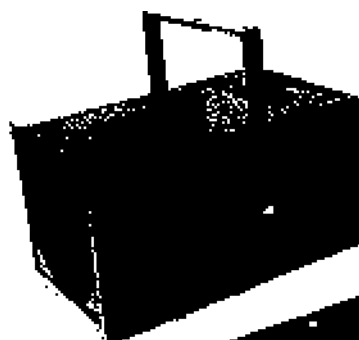


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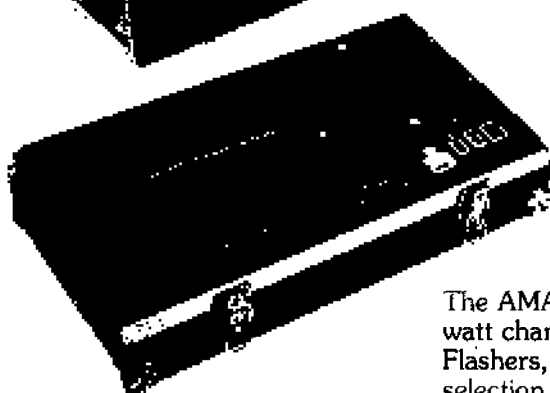
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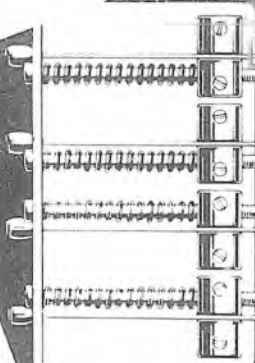
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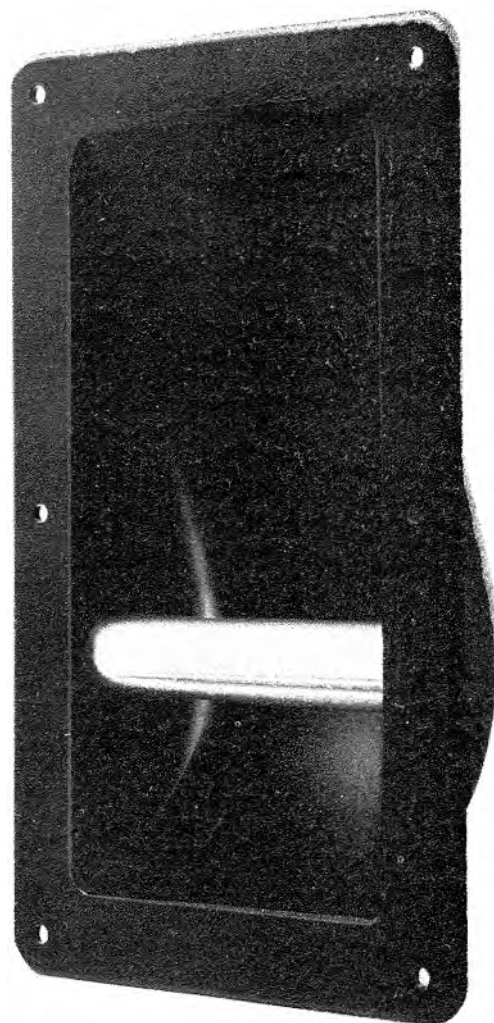
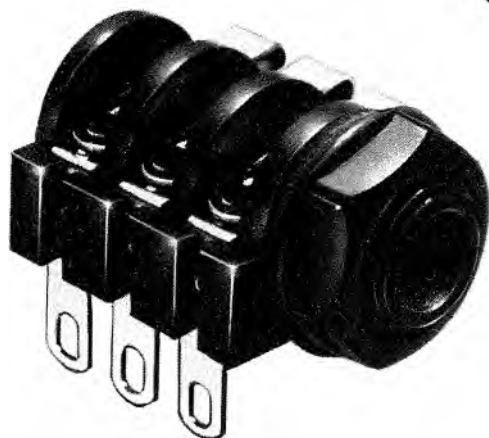
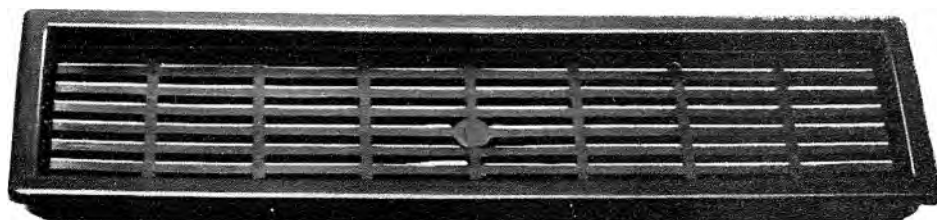
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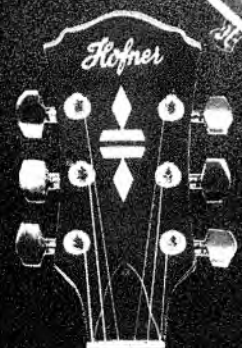
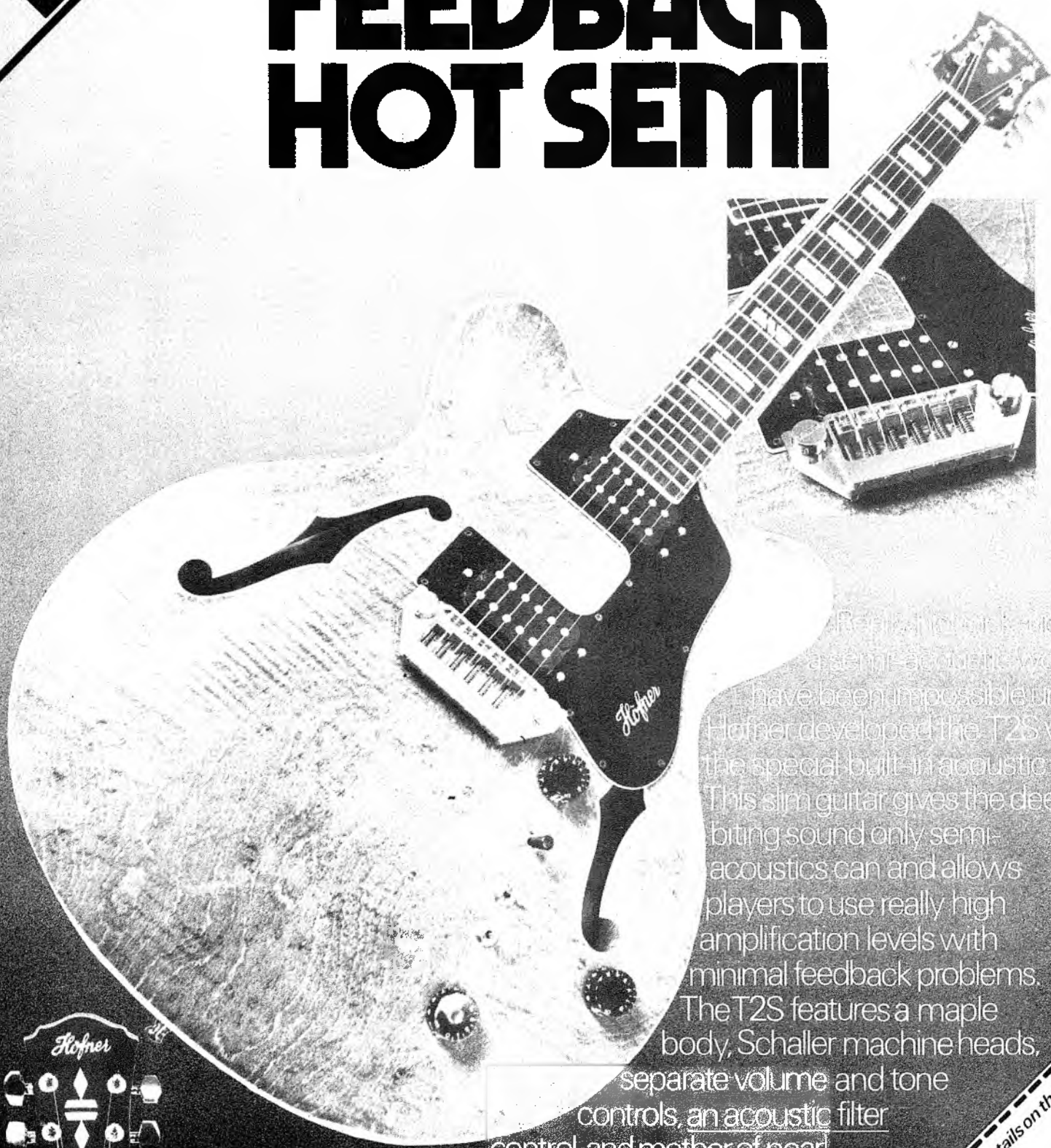
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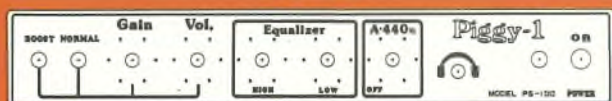


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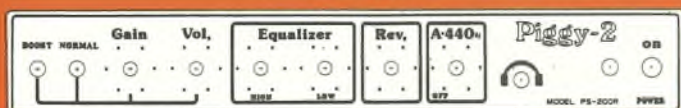
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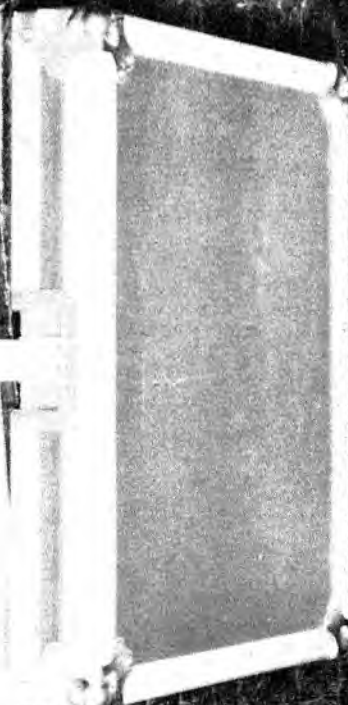
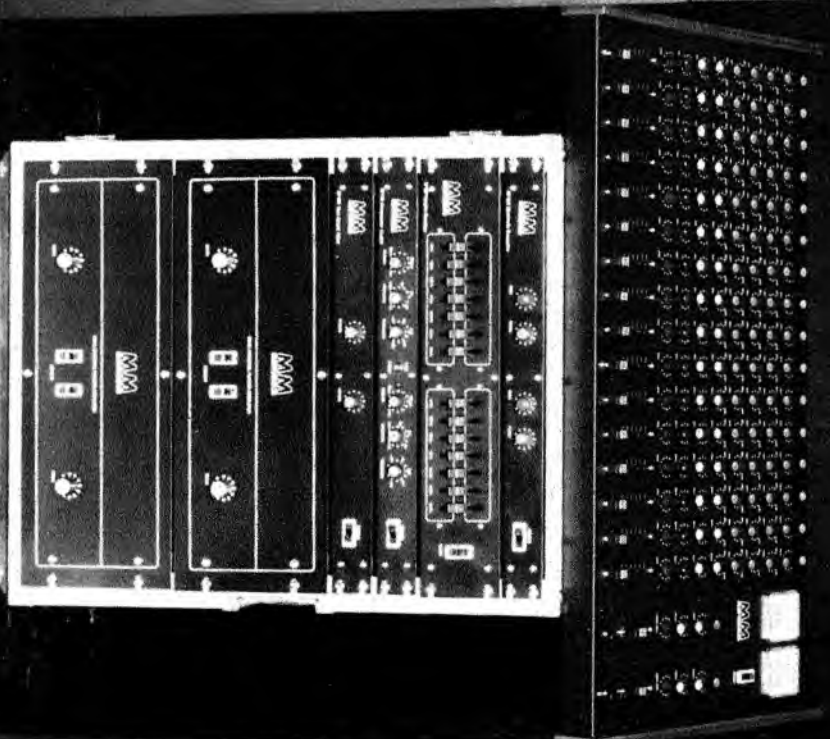
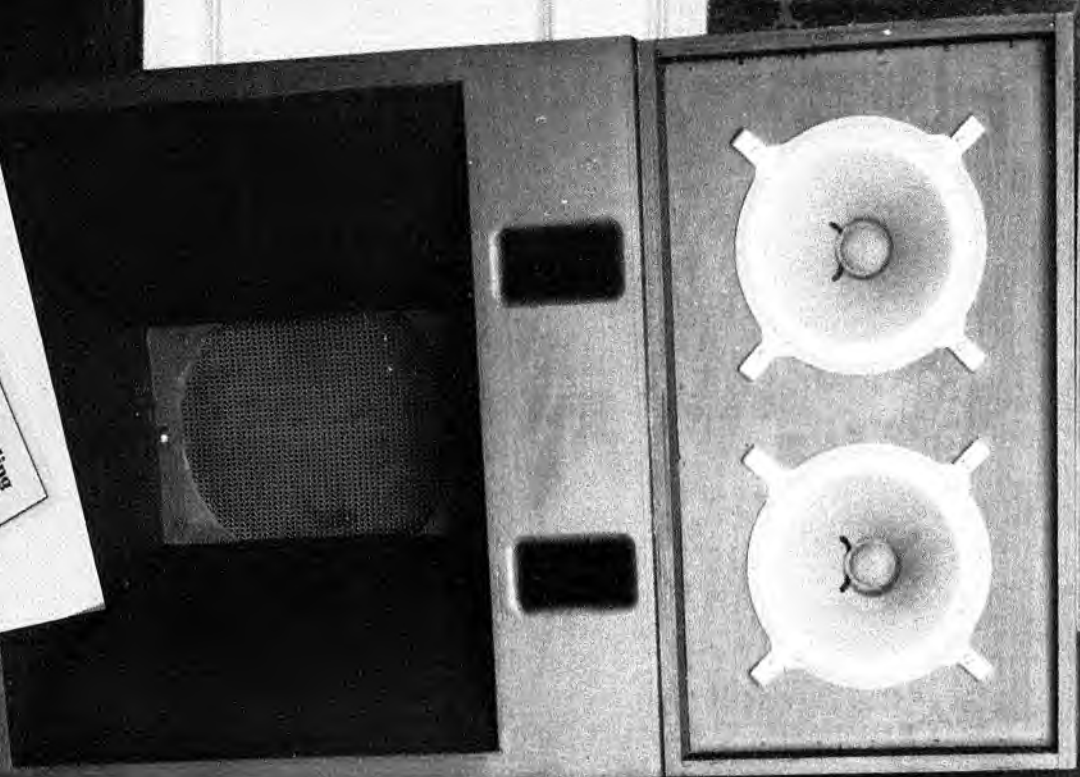
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On page 30 you'll find a list of dealers who stock PA:CE's Intermusic, MM and Redmere equipment. Trot along to the dealer nearest you and help yourself to a copy of the MM/Intermusic catalogue and the leaflet on the remarkable Redmere Soloist amp (illustrated). These will not only provide you with plenty of interesting reading — they'll also supply the answers to our competition questions!

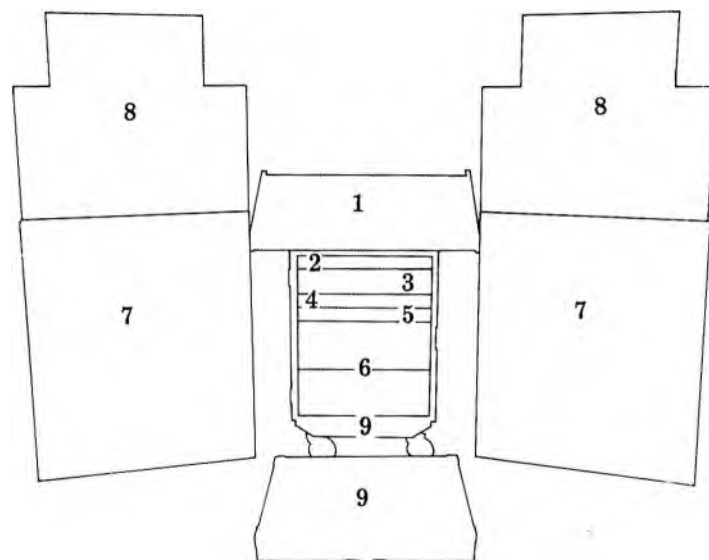
Simply write your four answers on the entry form on page 225 of this magazine and tell us in not more than 25 words why you think your band deserves to have this PA system. Then send it off to us and keep your fingers crossed until July, 'cause that's when we'll be announcing the winner's name.

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McGUINN CLARK & HILLMAN

BY JOHN ADALI-MORTTY

own gear, they played (well) for a mere 35 minutes, left the building and provoked a near-riot among the paying (£4-a-head) customers.

Throughout the visit, McGuinn, Clark and Hillman seemed tired and somewhat prickly towards the press. Al Hersh again: "For this band the press is very strange. We've been averaging eight or nine interviews a day on this tour. A lot of interviewers don't read their bios [background information provided by the record company]. We had questions like 'Why do you call yourselves McGuinn, Clark and Hillman?' or 'Why didn't you call yourselves the Byrds?' You can imagine they get a bit hostile when they hear this sort of stuff. Even a question like 'How did the new band come together?' While this may be a reasonable thing >>

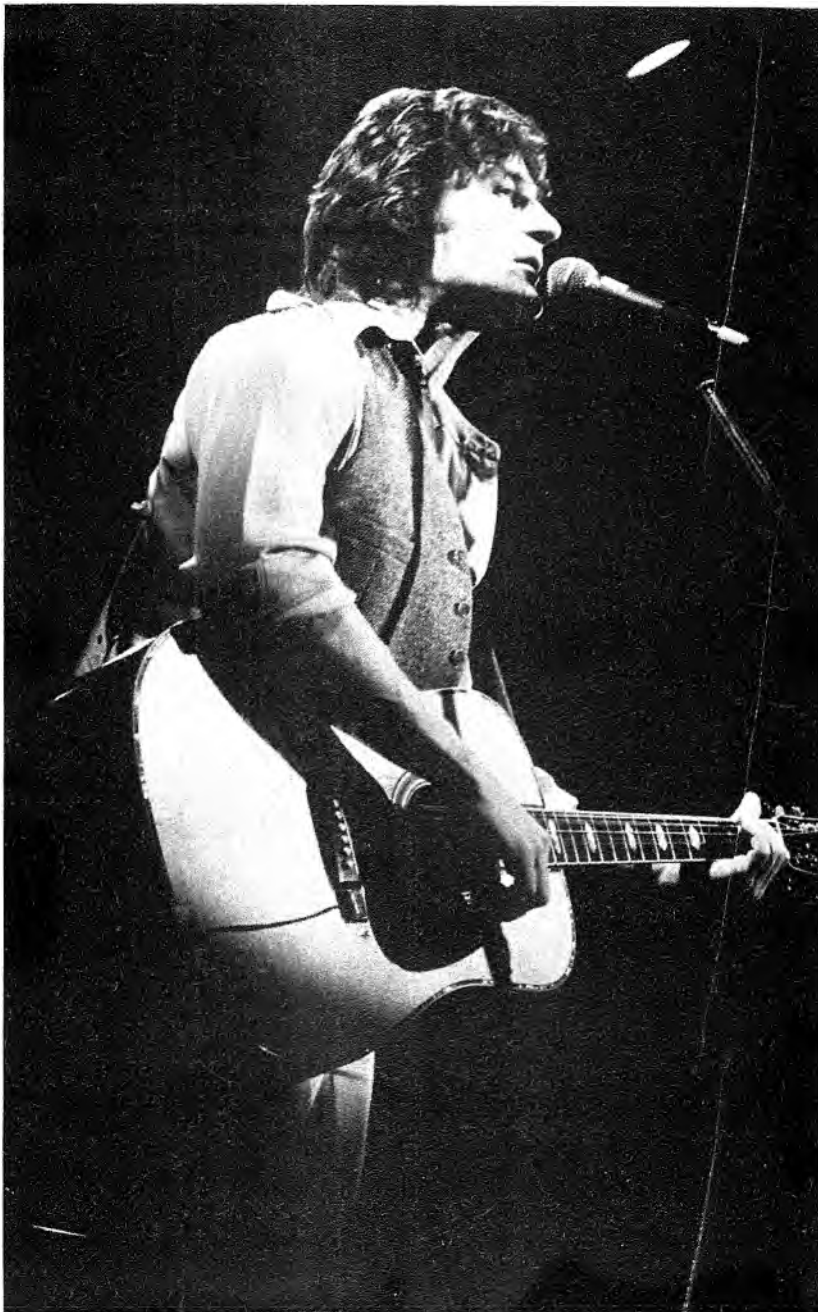
Gene Clark . . .

From the top, where else is left to go but stop? But three founder members of the legendary Byrds are back together again and espousing a brand new direction. From their enviable position as one of the seminal Sixties rock influences, each member in his own fashion has hit the low spot.

The last similar regrouping of the band smartly fell apart. We now know the Byrd is no phoenix, rising from past strengths to do it all over again. Very few artists have successfully managed this feat. The artist grows, the original audience matures. The two either grow together or the artist finds a new audience. For Roger McGuinn, Gene Clark and Chris Hillman the future is still up for grabs.

Al Hersh, for years the band's chief roadie, sound mixer and now manager, looks back — and forwards: "The Byrds as a band were far ahead of their times. In a lot of ways this has hurt them. They've matured in the music business and learned a lot more about it in the process. They've probably had happen to them everything that could possibly happen to a person. The present group don't think of themselves as ex-Byrds. It may be an ex-Byrds project but this is a new sound and a contemporary new group, made up of people who happen to have played together many years ago. In all the different influences each has picked up, we have a reassociation that is all the better for it because they were so natural playing together in the first place."

The threesome, with the rest of the their band, visited London recently to promote their new album and to appear at the Venue on three successive nights. The gigs were not blessed with riotous success. On the first night, a wayward airline diverted all the band's gear to Rotterdam and they played with borrowed instruments and equipment.



to ask, it's all in the bio.

"And then you get the interviewer who's so intimidated by it all he keeps putting his mike up the band's nose each time he asks a question. A lot of people don't have it together enough to do interviews, but are in a position to.

"Roger may give people the wrong idea - he's met so many of them that he may tend to sum each one up in his head and wonder what they may hit him up for next."

But a weary Roger McGuinn was still prepared to talk to IM, about his music, his guitars, his equipment - and also about the first split in the Byrds' line-up, when Gene Clark quit nearly 13 years ago. It was suggested at the time that he had ideas in his head that he found it impossible to

express within the Byrds context. McGuinn denies it: "Gene Clark had nothing to say he did not feel free to express within the Byrds music. It all just got a little too much, the pressure, and he had to take a rest."

Is he over his fear of flying? "Yes, he's cool now - he likes to fly. The pressure just got to him, and he cracked under the load."

So how is the pressure now?

"It's getting heavier. As we're getting in to this thing, touring, the new album, it's getting more intense. People asking you questions, having to go, go, go. As the excitement gets bigger, so does the pressure. As you get higher up the ladder, more people get jealous and want to knock you down."

A key element of the Byrds' sound was the McGuinn vocal on their

many singles, that characteristic three-part harmony and the unique, heavy 12-string up front. The guitar - or rather two guitars - are still much in evidence.

On stage in London, McGuinn's Rickenbacker 360 took turns with a Martin D35/12 on the different numbers. Perched on a flightcase behind him was his amp - a diminutive Polytone Minibrute, 14 inches square with a 10 inch speaker. This proves to be the essence of that much vaunted sound. Off stage and before the stage mix is a phase shifter and Dynacomp compressor. Finally, out of this combination arrives that big, heavy 12-string overdrive. The 360 (the body has lamps in it which once used to light up) is the lead on older Byrds numbers the band use in their show.

The guitar can have its own problems: the floating tailpiece means that if one string breaks the whole guitar will instantly de-tune itself. Over time various modifications have been made: angled frets, bridge and pickups, which in themselves incorporate custom electronics. McGuinn elucidates: "I took the stereo out and put in a switching system that allows you to get the pickups individually. My guitars use Grover and Schaller tuning pegs in combination. The 360 used to have a treble-boost circuit but I took that out. It was too noisy."

McGuinn's Martin D35/12 has a Barcus-Berry pickup mounted on the inside. Gene Clark's Martin D45 has a pickup taped to the surface. A '65 Telecaster of Roger's and Chris Hillman's Stingray Musicman (one of the earlier basses with built-in preamp) complete the stage litter of the trio. A guitar Leslie for Hillman's bass and a digital delay on vocal are the only other major electronic effects used to produce the band's present sound.

In earlier days (listen to *Turn, Turn, Turn*) another characteristic of the Byrds' sound involved Hillman following a bass part laid down by McGuinn's 12-string. Chris - new to the bass, after playing mandolin and after Dave Crosby's failure to master the instrument - needed to take his lines from the 12-string. When the new band play their older numbers, the feel of this device still flavours the playing, though Hillman, of course, is by now very much a technician with his adopted instrument. On the evening when the band had to play without their accustomed gear, Hillman's bass was one of the sorest points of contention in the band's disappointment with their stage sound. But an audience was waiting outside and the band felt they ought to be able to carry the spirit of the thing even if the sound was technically not much to their professional taste.

McGuinn complained: "The equip-

Roger McGuinn and Chris Hillman



ment wasn't very good. The Rickenbacker they found me (solid body, round-wound strings of the wrong gauge, factory tuning pegs which slipped constantly) sounded more like a Fender on the Ventures or something. The Telecaster was OK, though, while the Ovation 12-string was a little high-endier than my Martin. But we tried them and we all thought: 'Well, we'll be troupers.' We went on. The Strato-caster John Sambataro had was nothing like as good as his regular instrument so he could hardly play at all."

The band's lead guitar is newcomer Sambataro. McGuinn and Sambataro on stage switch leads on numbers. Roger's distinctive playing style, developed over the years, is a combination of folk banjo and 12-string technique — out of which some Sixties eastern influences occasionally peep. When it comes to doing a real rock 'n' roll lead break it must be good to have a player with a solid lead guitar technique. This John Sambataro fills in nicely. And as the band appear to be moving more into a heavier Eighties rock style, the new addition comes in naturally. Sambataro explains: "The new album is a conscious effort to break away from parallels that almost invariably have been drawn with earlier solo albums and the Byrds' musical approach. This is particularly true in the case of Roger who in the past has stayed truer to that group format."

Without horns or a string section on stage, only in the arrangements can the band's numbers attempt to reproduce their studio sound. But lead guitarist Sambataro plays a string ensemble, which has the potential for interesting future developments.

The debut release from McGuinn, Clark and Hillman, although McGuinn has maintained some elements of his Byrds sound, is less heavily "12-string" than the familiar balance of legendary days. The production puts the funk very much upfront and the 12-string is now a fabric of lace that rides, thin and clean, atop the mix. The compositions appear less complex, with fewer things going on all at once. This, in fact is one natural irony of technological advance. While the thin drums of yesterday, blurred definition and mono-minded mixing are all features of a past, the new music — both in terms of sound quality and the band's easier musical accessibility — shows a quantum jump. This is easily seen by placing *Surrender To Me* — the bouncy popular single off the current album — against the dense, multi-layered magic of *Rock 'n' Roll Star* and *Eight Miles High*.

McGuinn says: "A few people will be disappointed with the new album because it doesn't sound like *Mr. Spaceman* or *Eight Miles High*. That was the Sixties and you can forget it —

it will never happen like that again. The 1980s is a new generation of music. I think the band are on the right track."

Around October last year, when McGuinn, Clark and Hillman were in the studios recording their album, the Bee Gees were in the same complex (Criteria, Miami) recording their *Spirits Having Flown*. The two groups traded the occasional visit, "and I'm sure both things were influenced. We even used the Bee Gees' string section and their horn players." The two projects

mass audience immediately change the manner of communication?

"To me if you're doing *John Henry* on acoustic and you suddenly switch to electric guitar it is still folk — even if you choose to do *Roll Over Beethoven*. I may appear unduly broad with the description of folk music but that is the way it appears to me."

McGuinn was acquainted with Bob Dylan in the early Sixties — and participated in his Rolling Thunder Revue in 1976. How have styles of playing

Roger McGuinn: 'I'm still basically a folk musician.'

also share the same arranger, Mike Lewis, and other members of the troupe, synth player Blue Weaver (remember him?) and George Terry on guitar. "This was Miami. Had we cut the album in Los Angeles, I think it would have worked out totally different. Our intention — hoping it comes true — is to get George Terry on the road. Then John can do the string parts and double on keyboards, or they could create dual guitar leads."

The sweat of a steamy October Miami certainly shows through on the MC&H album, though the album uses short terse cuts on all tracks. One such track, *Release Me Girl*, was originally 14 minutes long. A one-take phenomenon, the track is faded in and out to clock in at 3.52. "We got into this Latin thing with a gang of three percussionists we called the 'Cuban army', who were playing anything and everything you could name. The piano player (Paul Harris) got into it and it all just evolved to a point where we could lift out a whole song intact."

Taking all this into account, McGuinn still claims his roots are in folk music.

"I'm still basically a folk musician. I haven't changed that all these years, even though I've been playing a lot of rock. But then I consider rock 'n' roll a part of folk music. It is, after all, an outgrowth of the people. You trace its elements from rhythm 'n' blues, gospel, etc., which are all folk musics. Just because it's electric does not change its status. Folk music comes off the streets and that, as I see it anyway, is also rock music."

But folk music basically is an acoustic form, shared between people of a common ethnic background and lifestyle. Doesn't suddenly plugging into a PA to get through to crowds and a

changed during this time? Has the advance of technology affected the way people set up and play?

McGuinn: "People still get up and sing songs, play their instruments. I think people play the same way. Developments have had more of an impact on how things sound. Our amplifiers are not as loud on stage as they used to be because each amplifier is miked to the PA. Before, you used to have to blare off the stage to fill the room. You can also fit a lot more instruments on the stage and have them distinct enough to make up a good sound."

"If you go back a little farther than the Sixties you find another parallel. People would use just two or three microphones for the whole band, including rhythm, horns and string section — they achieved the same end. Except, of course, they didn't have as much control over the sound or any thing like as much flexibility in the way the player chose to play."

After the Venue gigs, McGuinn, Clark and Hillman flew to New York, then to Los Angeles. An American tour was next on the list, followed by Japan, Hawaii and 35 dates in Europe later in the year. Whether they'll last the pace and keep delivering the goods is anybody's guess. But in Al Hersh they have a friend and guardian who will do all he can to see them through the hassles. He has the last word.

"I don't think it's a good thing for musicians to be involved in the business directly — I don't think the labels like it much either. It's another case of objectivity, just like in the production situation. I keep them fully informed of what's going on but I do try to leave them as free as possible to concentrate on their music. Musicians can rarely be businessmen. Their temperaments will not allow for that."

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Everything written about the SDHP is also true of the Dual Sound—it's the same pickup, with the added option of a second sound, available at the flick of a switch. This allows the guitarist to go instantly from the sound of the Super Distortion to a clean, bright sound similar to that found in Stratocasters and Firebirds. No increase in noise is experienced, and, unlike other companies' 'split coil' pickups, the Dual Sound pickup is humbucking in both modes.



FS-1™ & Pre B-1™

The FS-1 & Pre B-1 are direct replacement pickups for Stratocasters and Telecasters. The Pre B-1 is made for installation in the bridge position of Telecasters, as shown in the insert photo. The FS-1 can be used in all positions on Stratocasters, but is especially recommended for use in the bridge position. Both pickups mount with no modification to the guitar. The FS-1 and Pre B-1 enhance the basic qualities of the guitars they mount in by offering increased output and greater midrange response.



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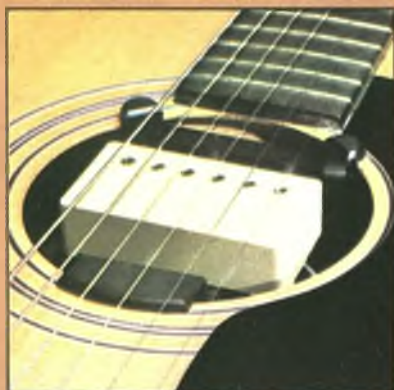
expands the potential of your music.



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The Model I fits directly in EB-0 basses, as well as in the bass position of the EB-1, 2, and 3. It produces the sound the owners of these basses have always wanted—powerful, yet crystal clear. Every note down to the lowest can be heard distinctly. A

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Acoustic Model II™

The Acoustic Model II is a humbucking, magnetic pickup for steel string acoustic guitars. A simple, sliding rail arrangement gives the Model II the unique ability to tune any acoustic guitar for harmonic balance—the player can emphasize overtones, or fundamentals, in any proportion he chooses.



DiMarzio Model P™ Bass Pickup

The DiMarzio Model P offers several major advances not previously available to Precision players. It has adjustable pole pieces for each string. It has a magnet structure which eliminates distortion and double-tones, and yet has noticeably increased out-

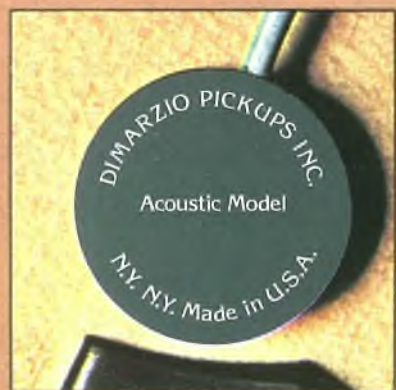
put. The effect of this is to give the bass a brilliant sound, with punch and clarity on every note of the bass.



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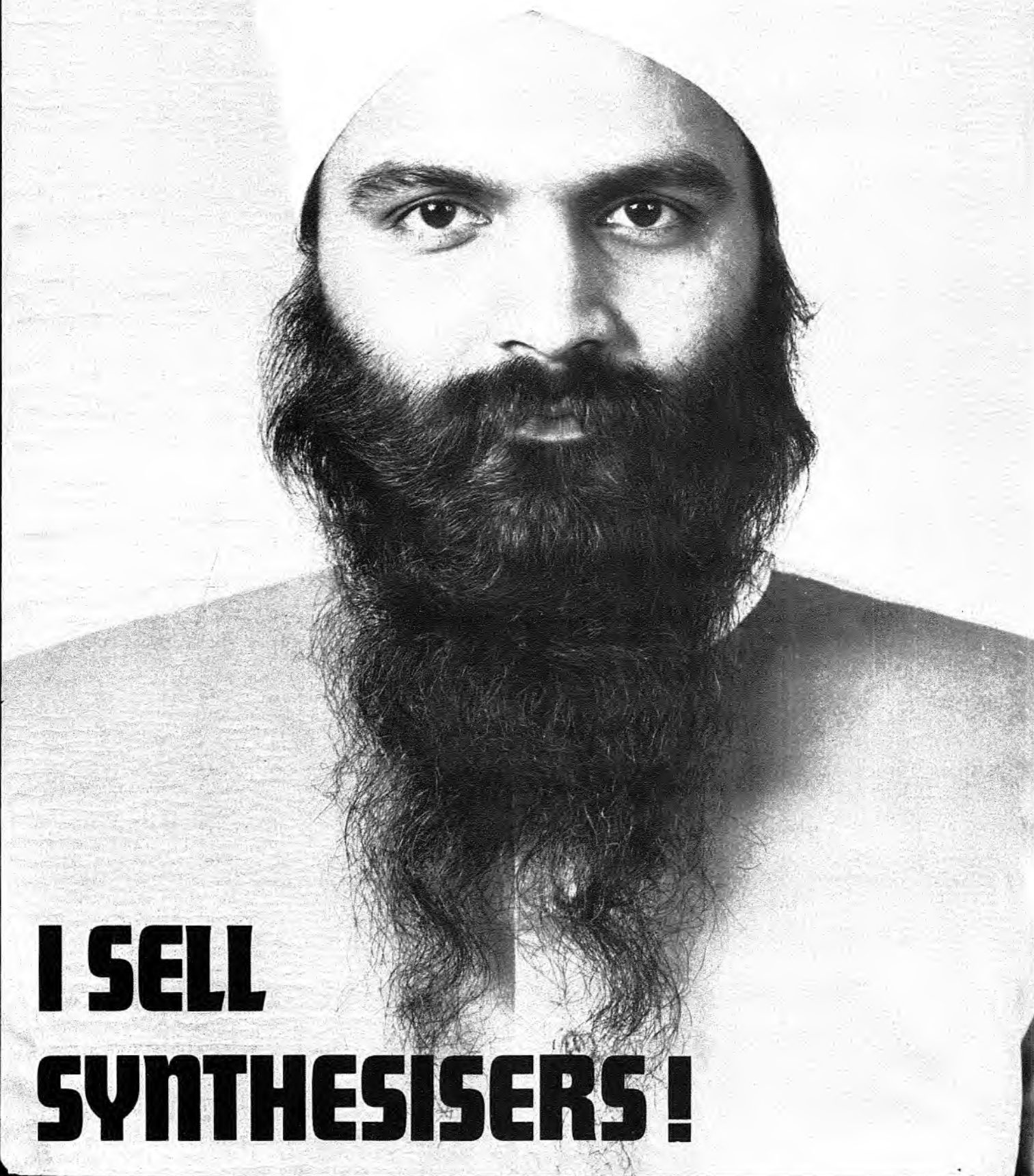
Acoustic Model™

The Acoustic Model is a high-efficiency contact pickup which can be used with round hole guitars, as well as banjos, mandolins, and upright basses. Low noise and high output make this pickup outstanding—no pre-amp is required.



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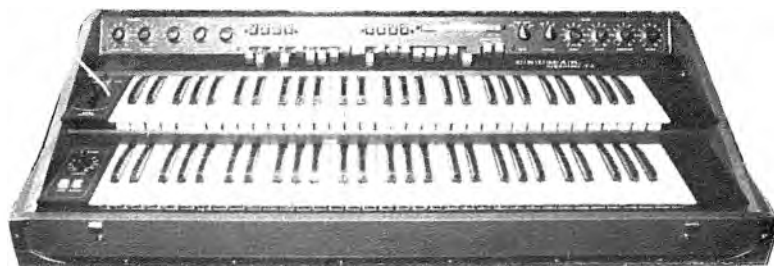


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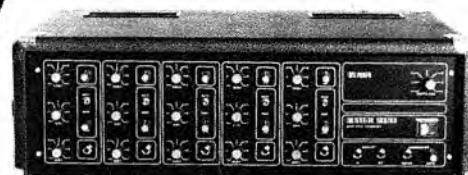
MODEL 706, 150 watt graphic bass amp



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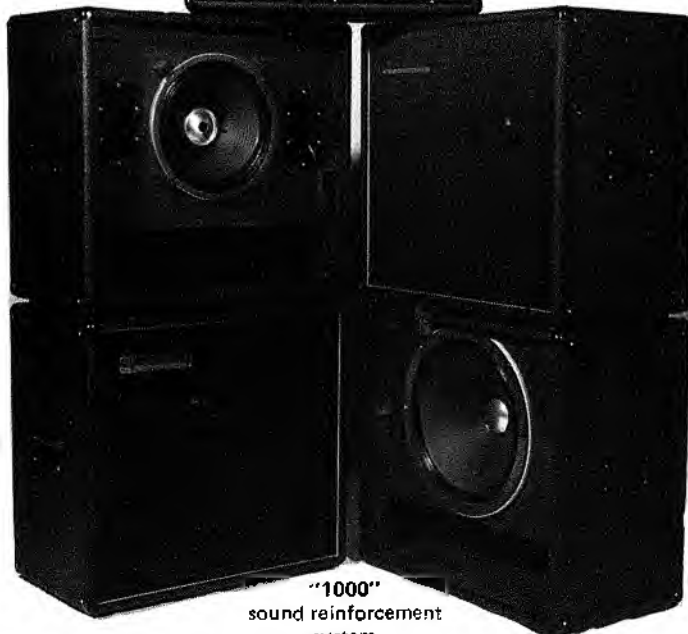
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Remember that DiMarzio is really only three years old and when you look at the list of players relying on DiMarzio for the fundamental production of their sound (how much more fundamental can you get than a pick-up?) you must come to the conclusion that there's something special about the products.

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DiMarzio company into an expansion position of sheer acceleration. The thrill rubbed off on the new products and the latest things to help you "cook" your sound are the result of the adrenelin that has poured in bucketfuls through the designers.

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team are on hand to give expert technical advice; what kind of DiMarzio pick-ups would be most suitable for the artist's various guitars, and how they should be fitted.

DiMarzio in this way operates a two-way interchange between itself and its endorsers. The musicians' playing experience and knowledge of the different but equally demanding conditions of live performance and studio recording give the company invaluable insights into what musicians need and look for in their equipment. In return, the musicians have at their disposal the company's technical expertise. Musicians are not paid to use the company's products. DiMarzio's impressive list of endorsers, then, is not merely an expensive advertising ploy; rather, it is an index of the high regard which musicians all over the world have



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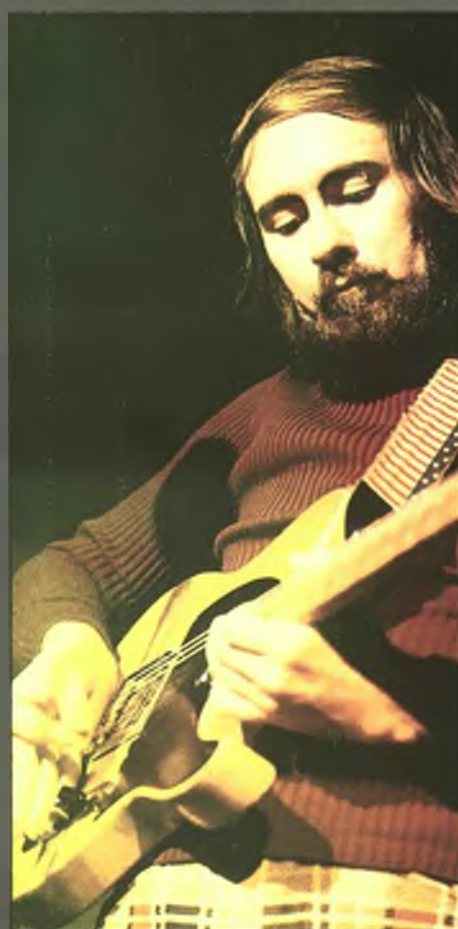
for the company's products, and reflects the company's genuine concern to provide musicians with the finest possible equipment.

The lessons learned from working closely with performing musicians is passed on directly from DiMarzio to the general public. The pick-ups used by the company's well-known endorsers are exactly the same as the pick-ups which can be bought over the counter at any DiMarzio dealer throughout the world. So there's no reason why any guitar player can't fit DiMarzios to his instrument and obtain the same sound as a big-name player using the same equipment;

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- * Philip Catherine
- * Bobby Cochran
- * Lol Creme
- * Rick Derringer
- * Al DiMeola
- * Dirty Angels
- * Foreigner
- * Steve Hackett
- * Allan Holdsworth
- * Prakash John
- * Danny Johnson (Axis)
- * Roger Johnson (Sanford & Townsend)
- * Carol Kaye
- * Jefferson Kewly
- * Steve Kahn
- * Kiss
- * Al Kooper
- * Albert Lee (Emmylou Harris)
- * Eddie Martinez (Nona Hendryx)
- * John Miles
- * Kimio Mizutani
- * Ronnie Montrose
- * Nazareth
- * David Nelson (Nektar)
- * Ted Nugent
- * Elliot Randall
- * Mick Ronson
- * Mike Rutherford (Genesis)
- * David Sansclous
- * Tom Scholz (Boston)
- * Earl Slick
- * Derek St. Holmes
- * Daryl Stuermer (Genesis)
- * Trey Thompson
- * Dom Troiano
- * Dick Wagner
- * John Waite (The Babys)
- * Danny Weiss
- * John Wilkenson
- * Wishbone Ash
- * Jerry Wright (Sanford & Townsend)
- * Steve Hunter



HERBIE HANCOCK

talking synthesizers

The king of the Vocoder explains all to
DAVID LAWRENSON

Just a few months ago, a hushed audience at London's Drury Lane theatre sat reverently through two hours of virtuoso jazz piano. Last month, hundreds of funk fans were jiving in the aisles at the Hammersmith Odeon. At least one man was present on both, very different occasions: Herbie Hancock.

He is one of the most respected figures on the modern jazz scene. He was also one of the innovators of the whole jazz/funk crossover movement, and his 1973 *Headhunters* album is regarded as a milestone in this particular field.

The last couple of years have seen him turning his high critical acclaim into huge commercial success, culminating in his appearance in the UK singles charts with *Thought It Was You* and *You Bet Your Love*. As with most of the jazz musicians who have crossed over into the more commercial end of the market, Herbie is not without his critics among the purists. But a review of his distinguished career and achievements renders such criticism meaningless.

He began his professional life as something of a child prodigy, leading his first band - a 17 piece outfit - while he was still at college. At the age of 20, Herbie was playing with Donald Byrd, and made his first solo album soon after. From 1963 to 1968 he was a vital part of the legendary Miles Davis band which included Wayne Shorter. The late Sixties/early Seventies saw him branching out with his own solo projects, becoming more involved in synthesizers and gaining a wider audience with his funk-orientated material.

Herbie has become a leading exponent in electronic keyboards and during his recent concert tour used a total of seven. He says: "I have a Rhodes piano, a clavinet, a Yamaha CS80 eight voice synth, a Prophet synth, a customised Minimoog that I strap to my neck and a Yamaha electric grand piano.

"I brought an Oberheim over, but about two or three weeks ago we started having problems with it and we couldn't really fix it. What happened was that the programmes kept dying. Every time we unplugged it, somehow the power wasn't holding and I'd have to re-programme every day. That just takes too much time so I had them put it in a case until I can get it fixed. Actually, between me and my other keyboards player Webster [Lewis], we

have 14 keyboards, but the only one we aren't using is the Oberheim eight voice."

Although developments in synthesizer technology continue at an incredible pace, the instruments remain rather fragile and delicate. Not, one would imagine, ideally suited to a life of heavy touring. On his tour of Europe, Herbie encountered several problems with his sophisticated machinery.

"We've had severe problems with voltage changes. With synthesizers, voltage is what determines the degree of function of each of the sections of the synthesizers and what is most apparent is change in pitch. So if we're plugged into 220v, even if we have a transformer which brings it down to 110v, which is what we can use for our equipment, if the voltage suddenly drops then the pitch of the synthesizer changes and everything goes out of tune.

"We had a lot of trouble with that on the Continent, but not so much here in England. It was driving us crazy and the worst thing was the synthesizers that have memories. The memories wouldn't have enough power to make them do what they're supposed to do. They would forget parts of the programmes or all of the programmes and all of a sudden I'd play a chord to get a string sound and it would have three of the things sounding like strings and the rest giving out some weird sound.

"So then we tried to get a transformer





HERBIE HANCOCK



which would compensate for fluctuations in voltage. The only thing was that this particular transformer was built to handle only two devices and we have about 14. It couldn't really handle all that. It helped a little bit but not enough and I think that's what really killed the Oberheim.

"I also had problems with my Prophet, which had 40 programmes on it. One day it had nothing on it — all the programmes had died. Fortunately, I wasn't using all 40 in this particular show, so it just meant I had to programme two. What I decided to do was eliminate one of those, which was a solo synthesizer sound, and instead of playing that solo on the Prophet, I play it on the Rhodes piano. What I left in the Prophet was the sound I need for the Vocoder. So I have all knobs set for that and every day when I go in there I can record the programme. It's just so I know that the programme will be

there that evening and in case someone knocks the knobs or something like that."

For his onstage sound Herbie uses two Custom speakers, three Mackintosh power amplifiers as well as two Synamp tops by Moog. The whole set-up utilises a Yamaha mixer and a DBX noise reduction unit.

Herbie is very much involved with the technology of keyboards and has already made valuable contributions to instruments which have opened up new horizons for keyboard players and become standard features in their battery of equipment.

"I'm always looking for new devices, concepts and designs. I've worked with companies on the development of keyboards, for example the Yamaha electric grand. When they were developing it, I was one of the people they came to for ideas. The one I have is the prototype and it's the same one I've had for a couple of years.

"The Rhodes piano too — a lot of the ideas on the Rhodes piano are suggestions I made to them. I remember on the first Rhodes I had there was no external place for adding accessories like Echoplex, envelope filters or phase shifters. I had to open up the top and the cable that connected the pre-amplifier to the keyboard. There was a jack socket on that so I plugged my devices into that. I told Rhodes that I know a lot of guys who were going to put devices on their piano so I suggested they put jacks on the front, and they did."

Something which currently interests Herbie in the field of keyboard electronics are touch-sensitive digital synthesizers. He sees them opening up a whole new range of possibilities for keyboard players and is keeping his eyes and ears open to new developments. "Touch-sensitive keyboards are very interesting to me because there are so many possibilities for new sounds. I have seen one digital synthesizer from a company by the name of New England and played it a little bit. I also heard about one called the Copeland at a musical instruments show. They just had a brochure of it so I haven't seen it or played it. I heard about a lot of research that's going on in Denmark, too. There's some digital touch-sensitive keyboard synthesizer there which has more notes. Apparently it has three manuals, and you can use the third manual for quarter-tones if you want. But of course they're all triggers, you can have the keys be whatever you want them to be and you change the range. What would normally be an octave from C to C, for example, could be a fifth and so you'd get all the quarter-tones in between. It would be subdivided up so that each note would be one twelfth of a fifth.

"It's touch-sensitive too, so you can get different degrees of loudness of filtering or whatever else, depending on how hard or fast you hit them. There have been touch-sensitive devices before but a lot of them are second-touch, which means that if you press down hard, it triggers something. But this is different, it's more like an acoustic piano."

One aspect of the synthesizer which is often overlooked is the fact that it is a completely new instrument and not just an extension of regular keyboards. Thus the people who are playing them now are very much breaking new ground, with all the advantages and pitfalls that entails. Herbie is very conscious of this fact, and players developing their indivi-

dual sounds. "I'm sure that people who play synthesizers now are pioneers with these new instruments. As regards getting an individual sound, it's probably just as much as you could on electric guitars. It was a problem in the beginning, because we just didn't have the technique to do that, but now there's no mistaking George Duke. There's no mistaking Chick Corea, you can tell Chick's sound on the synthesizer.

"I haven't done a lot of solo work on the synthesizer. There are solos on my albums, but I've used synthesizers mostly for colours and for backgrounds to instrumental figures. So perhaps one wouldn't be able to tell my sound, although it might be a little easier to detect my style of playing. Each person, after some years of playing, develops a style and an approach that's going to be evident no matter which instrument he plays.

"As far as my recent influences go, there is Stevie Wonder, Earth, Wind and Fire and all the guys in Weather

choir, but it didn't really sound human. Of course, it could have been the way they set it up and it was a new device anyway.

"I heard about the Sennheiser Vocoder and tried that one out, and it seemed to sound like it had possibilities for me, using it to make me sound like a singer. It took a lot of work for us to develop it by using a lot of external equipment to get it to sound the way it does on the *Sunlight* album and the new one, *Feets Don't Fail Me Now*. It took a lot of work and months of research and development. I have some Moog parametric equalizers and Urei limiters which I also use with the Vocoder."

For someone with such a reputation on keyboards, and who incorporates quite a variety in his work, it is puzzling to find no room for an organ in the Hancock equipment line-up, although his fellow keyboard player Webster Lewis uses a Hammond B3.

It is even more surprising to learn that Herbie has never been very keen

Still, to most keyboard players the piano remains the ultimate instrument of expression. Last year, aficionados were permitted the rare treat of seeing two of its premier modern jazz exponents at work together. Herbie Hancock joined Chick Corea for a series of concerts which featured just the two of them on grand pianos. It offered both musicians a chance to stretch out, and explore musical areas outside the confines of their own highly successful groups. Herbie enjoyed the concerts immensely, but what of the audiences? Would they be the same people who danced in the aisles at the Hammer-smith Odeon?

"Probably not. There may be some of the same people there, but I think that my audience in England has increased because of *Thought It Was You* and *Bet Your Love* and that increase is because of those who are more interested in that style of music — which is more related to funk or disco. There are probably a lot more of those people than there are jazz public.

"With Chick, we talked about what we had to do for a couple of days and then we had about four days of rehearsals. The whole thing from planning to rehearsals probably took about a week to nine days, but touring with the band, there's a lot more planning. There is a lot more improvisation in the music I did with Chick, and since there were only two instruments involved, the whole thing is easier. The more people you have, the more complications there are.

"When Chick and I first got together and started improvising, the compatibility, unity and harmony we had right off the bat was so perfect that we never had any problem getting in each other's way."

There are probably many fans who dearly wish Herbie would stick to his pure jazz roots, and curse the day that he discovered the dreaded Vocoder. His concerts with the band are divided into two very distinct halves, the first featuring his jazz work and the second his disco orientated stuff.

So, in the space of six months, he has covered all the musical areas which he has ever worked within and encompassed in his audiences the whole spectrum of fans. It's ridiculous to talk about "selling out" just because Herbie happens to have a couple of hit records. The fact is that his new-found popularity and success will probably turn a lot more people on to jazz, and as long as he continues to innovate and experiment, his stature as one of the world's leading musicians cannot be diminished.

"All music influences me on any instrument I play"

Report. On synth there is both George and Chick and Jan Hammer — that's another guy, you can tell Jan Hammer's style. Joe Zawinul with his orchestration has been an influence on me, but it's not synthesizer players who influence me on the synthesizer. All music influences me on any instrument I play. In order for me to develop on the synthesizer I don't just listen to synthesizer players."

The one instrument that Herbie has been most closely linked with recently is the Vocoder. It is this voice synthesizer which has been featured prominently on his last two albums and provided distinctive vocal sound which resulted in hit singles. By his own admission, Herbie is not a singer, but suddenly the Vocoder has opened up a whole new range of sounds and possibilities for him and his music.

He says: "The first person that turned me on to it was Stevie Wonder, he had one made by the EMS company. That was his device and I'd only heard it the way his people had set it up, but it sounded more like a way to modify a singer's voice — and I'm not a singer so it didn't really interest me that much. I was intrigued by the fact that if you have a chordal synthesizer plugged into it you could sound like a

on organs and even now doesn't show the slightest interest in using one. This attitude stretches back to his early playing days when he was solely using the piano.

He explains: "I never liked the organ. I used to hear it on TV soap operas and it never really turned me on. I like the way that Jimmy Smith plays it and the guy that played with Tony Williams, Larry Young. I also like the way Webster Lewis plays the organ. First of all, I've been exposed to the organ for a long time and I'd never liked them because they weren't touch-sensitive. Now most of the synthesizers I play aren't touch-sensitive either, but if I had been exposed to synthesizers at the same time I was exposed to the organ, I might not be playing synthesizers today. I have evolved over the years, so the fact that synthesizers aren't touch-sensitive doesn't bother me as much any more. With the organ it still does because it doesn't have the flexibility of sound that the synthesizer has. To me it's like a primitive synthesizer. The other thing, too, is that the organ is a large heavy instrument whereas for the most part synths are much lighter, much more compact devices — and for my use have greater flexibility."

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— 100dB

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10v/us

3.5us

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Guitarcheck:1

Gibson Paul £299 inc VAT

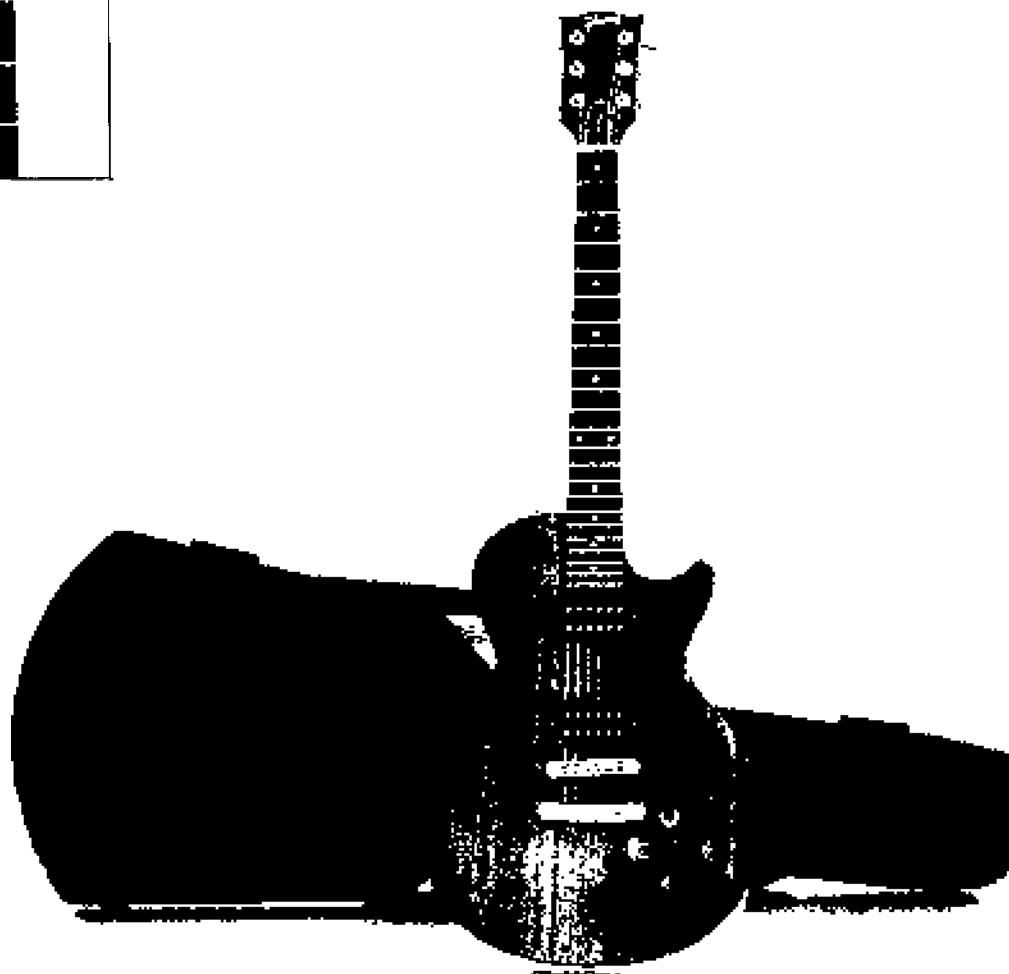
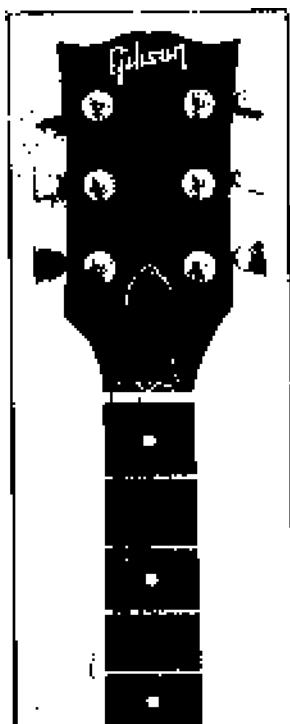
There's a saying among guitar makers that we spend weeks putting shiny lacquer on a guitar so that the new owner can spend weeks scraping it off again. There are certainly guitarists who appreciate a well-done high gloss finish on an instrument, but there are also many who prefer what is usually called an oiled or waxed finish. Unfortunately, guitars used by working bands tend to become dirty and sweaty, and a true oiled finish doesn't keep its good looks for very long: it is likely to become grey, and rather sticky. Some instruments are supplied with a matt lacquer finish which is, I think, supposed to look like "natural" oiled wood, but it generally looks as though the guitar has been covered with dull grey plastic. This look passable on blond woods such as maple, but on darker woods it looks just like what it is: a thick, cloudy plastic film. Such lacquers also tend to become glossy in patches where the guitar rubs against the player's clothes or hands.

Electric guitars really need a more durable finish than just oil or wax, and achieve this on a dark wood such as walnut or rosewood, while retaining the pleasant feel and appearance of oil or wax polishing, is surprisingly difficult. I believe there is also a certain resistance from certain shopkeepers, who want to put attractive, brightly-coloured guitars in their windows to attract passers-by. In fact there exists a form of inverted standards, which makes an instrument with a worn or dull finish entirely acceptable to many players, if it is really good and fit for

serious use, or very old, or very rare. I hope there will not be any resistance to this Gibson Paul model, because if my sample is anything to go by, it *is* fit for serious use, and although it has a dull finish, it does *not* look as though it has been dipped in plastic. Gibson really have got the finish right on this one. I know it is matt lacquer, but I am a professional worker in fine woods and fine finishes, and I ought to know the difference. Most people would accept it as a "natural" wood finish. To get this right on a factory production basis is a very considerable achievement.

I believe that the tactile properties of a musical instrument are important and this guitar feels right to me. It is more like a piece of wood sculpture than something that came out of a mould. There is no magic to this. I have been putting matt and satin finishes on instruments for years and the process is quite straightforward. However, to my knowledge, none of the major companies has used it on a production electric guitar before. It does require good timber and a very delicate touch in the finishing shop: perhaps this explains why it has not been used much.

I am pleased to be able to compliment Gibson on the finish of this guitar, but I am even more pleased to be able to say that they have got the performance of the guitar right as well. If you read our *Guitar Forum* in December's IM, you may remember Midge Ure's plea for a revival of simple, single-pickup guitars like the old Junior models. This Paul admittedly





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has two pickups, which rather by-passes the point Midge was making, but it does seem to fit the spirit of his argument. It has a reasonable price tag. It is solidly made, from good quality and appropriate timbers. It has a modest and basic specification, *and it meets that specification.*

This guitar appears to have all the basic requirements for a hard-working instrument and none of the frills. (If you want the frills as well, Gibson make other, fancier guitars.) Actually, it has all but one of the basic requirements, in my opinion. The wiring cavity needs screening. It is not essential that it should have one of those screw-down metal shells which Gibson are using on the expensive guitars. A quick splash round with conductive paint will do nicely and it won't cost much. Either you do it yourself, following my *Guitar Workshop* articles in the December and January issues, or you could sit weeping on Norlin's doorstep until they do it for you. I believe Gibson also have some nice little strips of copper foil which fit round the coils of their lidless accessory pickups. If they were fitted round the coils of the Paul's pickups, with insulated overlaps, and links to the "earthy" side of the wiring, it would improve the instrument still further. This might add a pound or two to the price, but it would be money well spent. This guitar is in the price range of Gibson's semi-pro and amateur guitars, but its performance takes it into the class of fully professional instruments and it may expect to be used in studios and under large and complex lighting systems. It needs thorough screening.

In other respects, I find it very hard to make any serious criticisms. The Paul does not sound like a standard Les Paul nor like an old Junior, but it does sound like a proper electric guitar. The neck and body are made from very attractive solid American walnut and the neck shape is quite similar to that found on some "vintage" Les Paul guitars. I am not going to describe the control system because it is absolutely standard for a two-pickup solid guitar. The pickups are one of the standard Gibson humbucking types and are similar to those fitted to the brighter-sounding era of 335 models. If you want something different, you can now buy almost any Gibson pickup and most of the humbucking types are mechanically interchangeable.

The fingerboard on my sample is good, straight-grained ebony and the frets are beautifully finished off and polished. As the instrument was delivered, with no further adjustments at all, the action was reasonably low and it was possible to bend the upper strings up by about a fourth without the note "choking". The nut is finely adjusted, and the bridge saddles set for correct intonation with average left-hand finger pressure. This is a very good standard of adjustment, better than on some more expensive Gibsons which I have reviewed. Gibson seem to have tried very hard to make this a fine instrument, and I think it would be reasonable to expect the same standard of accuracy and adjustment on any Paul which you may be offered.

Which brings me to another point. At the time of writing, this guitar seems to be supplied as part of a "package deal", together with some

other Gibson electric guitars. If your local shop wishes to have one in stock, or if you ask them to order one for you, the shop will probably also have to buy several other Gibson guitars, which they may, or may not, wish to buy at that time. This is a perfectly legitimate trading policy, but if one importing or manufacturing company does it, others may feel obliged to make similar arrangements. If several of the larger companies adopt this sort of policy, it could limit the choice of new instruments available to our many readers who live away from large towns and who, from choice or necessity, rely on and support their local music shops.

The advantage of this selling policy to musicians is that the present selling price of the Paul is made very much lower than it is likely to be in the future. If you want to buy one, it is probably in your interests to do so quickly. If you intend to place an advance order for one with your usual music shop, it is also probably in your interests to fix a firm price in writing at the time when you place the order.

I wish the Paul every success. No guitar can be to *everyone's* tastes, but this one deserves success — certainly at its present price.

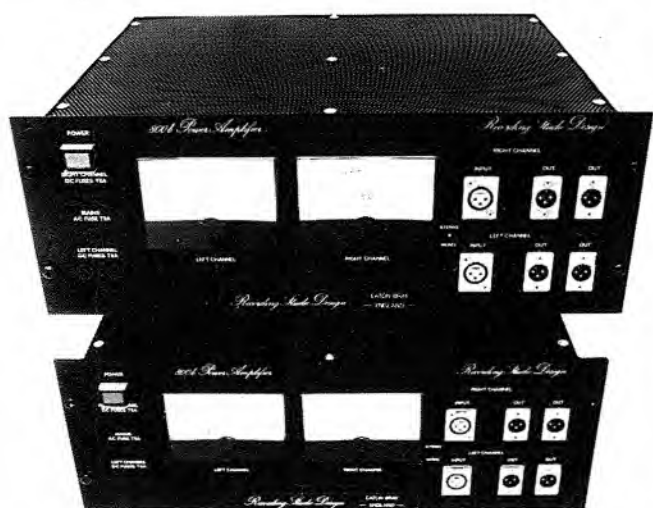
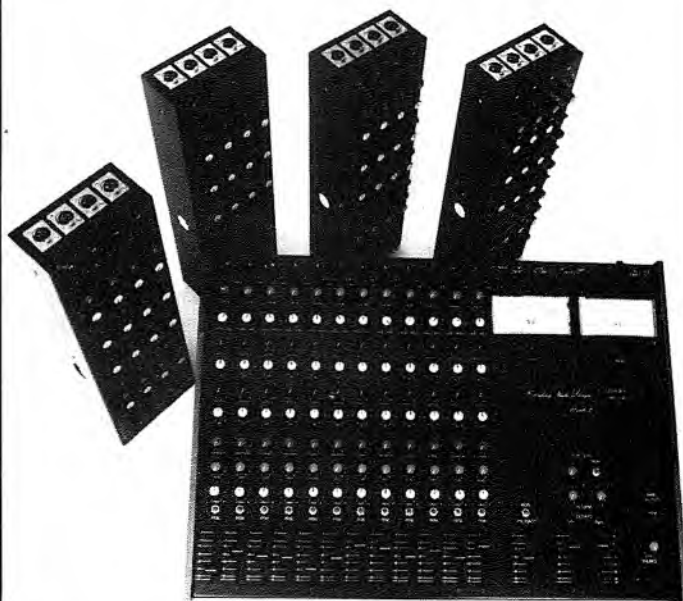
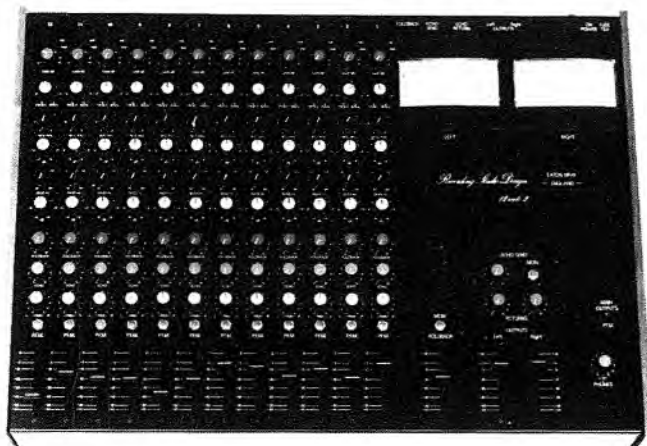
Stephen Delft

Measurements on Gibson The Paul

Scale length 625mm
String spacing at bridge 52.5mm
String spacing at nut 35mm
Fingerboard width at nut 42mm
Action as supplied 21mm bass/1.5mm treble
Lowest "standard conditions" action 2.0mm bass/1.2mm treble
Depth of neck at 1st fret 21mm
Depth of neck at 12th fret 26mm
Depth of neck at 15th fret N/A. Heel starts at fret 12/13.
Frets on fingerboard 22
Body joins at 16th fret.



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 capable performer on the guitar.



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Keyboardcheck

Both the Hohner Clavinet D6 and the Pianet are, of course, established instruments in their own right and certainly the clavinet has become one of the classic keyboards. Here Hohner have cleverly packaged the two together and come up with an instrument that costs almost the same as a clavinet and a pianet, has the advantages of compactness and, as we shall see, is provided with an extraordinary variety of methods in combining the two.

But first a quick look at the layout. Size is reminiscent of the originals – about 4ft. wide but a few inches deeper to accommodate the two actions. The finish is a smart mix of black metal and vinyl and there is padding at either end to protect it from knocks. The keyboard has a range of nearly five octaves from F, two octaves and a fifth below middle C, up to E, two octaves and a third above. I wish that Hohner, whilst they were developing the Duo, could have seen fit to add the missing low E. The fact that it's not there is more noticeable than you might at first think: a lot of music in which the clavinet in particular is most at home tends to be in keys related to the open strings of the guitars.

Ergonomically the design has a couple of minor faults, too. There's a battery compartment on the top panel behind the clavinet rocker switches and the first reaction on seeing this is "much more sensible than having to open up the lid" (as on the D6) – followed quickly by "but supposing there's a synth or something stacked there!" The six clavinet controls might also prove to be an obstruction – surely they could have been moved forward a couple of inches.

In front of these are the controls for combining the two elements: two rocker switches, a four-way selector knob and two sliders for volume (clav on the left). There's also an on-off switch on this side – don't forget to switch off if you don't want to spend a small fortune in 9v batteries. A pity that Hohner haven't included a visual indicator. There is a socket at the rear for an AC adapter. One last control: on the right hand side is a slider which, when pushed away from you, causes a damper to come in contact with the clav strings. The sound becomes very dry – rather like the lute stop on a harpsichord.

Let's look at the pianet section first. The sound is produced by reeds which vibrate when pads situated at the far end of the keys are disengaged from them, these pads having a slightly adhesive quality. The pickups are electro-magnetic coils angled towards the end of the reeds. Strangely enough I found the maker's "claim" that this part of the instrument is *not* touch-sensitive to be belied in actual practice. Certainly it doesn't respond as readily as an acoustic piano or many electrics but you can get a lot of gradation between loud and soft. The most limiting factor is the absence of the ability to sustain. Never mind, the pianet sound is bright and full of character.

The clavinet section is mechanically identical to the much loved D6. Strings, easily tuned with a smallish screwdriver, are struck by hammers which press them down onto what are quaintly described as anvils. The force with which the two make contact is what makes the clavinet touch-sensitive. As I mentioned before,

there are six rocker switches which alter the clavinet sound. From left to right they are: (1) Brilliant, which emphasises the higher partials, (2) Treble, (3) Medium and (4) Soft, which, as you might expect, does the same for the lower ones. The next two rockers are connected to the bass and treble pickups and in any one of the four positions in which they may be combined you can hear different harmonics more clearly. Now if I've counted right, there are 14 ways in which the tone selectors may be combined and that, multiplied by four, gives a possible 56 different timbres.

By the way, it's still quite easy to get the machine to feed back, despite the improved casing. Oh, and you can bend notes with some judicious pressure – though as Hohner make no mention of this facility I should keep quiet about it if I were you.

Now that we've looked at each half of the Duo, how do they combine? Well, for a start there are the sliders with which you can mix the two together. Then there's the selector knob which has four positions: (1) Pianet in the treble and clav in the bass (the keyboard splits at the C/C sharp below middle C), (2) Vice-versa, (3) Pian and clav in the treble and just pianet in the bass, and (4) Preset. This last position introduces the two rocker switches to the left. Take a deep breath... if both are rocked back, so to speak, you may switch between clav and pian by means of a footswitch. If only the left one is forward you have a choice between pian only and clav and pian. If they are both forward – why yes, you can have clav alone or clav and pian at your boot-tip. Just imagine getting that lot together on a gig. Practise, practise.

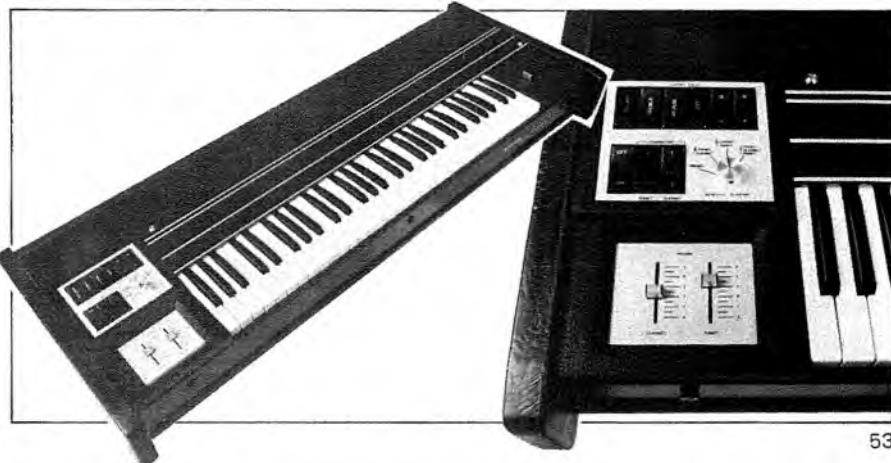
At the back are separate outputs for the two sections as well as one for the two combined. In the couple of hours I had with the Duo, I spent a lot of time trying out different combinations and there's no doubt that the two halves sound really good together. For me the clavinet is still the star of the show, with the pianet filling it out nicely.

The action is very positive: if you are used to playing the clavinet a lot you will find this a bit heavier but it won't worry you at all. One last carp about The Most Difficult Lid In The World To Replace After Use (a couple of borough surveyors with a theodolite will come in handy) and I think that about covers it all. Great new instrument. Don't forget to shop around.

Tony Hymas

Hohner Duo
£675 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.



Soundcheck:1

Turner B302-XLR power amp £329.40 inc. VAT

Since I reviewed a Turner slave amp in September, 1976 I have watched the continuous growth and progress of Turner Products. A year and a half in these days of economic decline has bought many a small audio company to a standstill, but not so with Turner who are turning out more and more models designed for the ultimate sound reproduction in studio monitoring, broadcast and of course sound reinforcement (PA). Model 302 is recommended for studio monitors and hi-fi speakers rated at 50-100 watts/8 ohms, and comes in two versions – the more expensive (£329.40 inc. VAT) with XLR Cannon sockets and the standard (£302.40 inc. VAT) without XLRs.

The version without the Cannons is recommended for studio monitors, hi-fi, etc., while model B302 XLR is provided for applications such as PA systems, PA system drivers for mid-range speakers, compression drivers, tweeter units and most types of stage foldback monitor applications.

Before going into technical details, my first impression after unpacking the original carton was that this was something unusual. Turner provides all its products with an individual Test Report. This shows their confidence as a manufacturer – and also gives the user a feeling of personal attention, something rarely found nowadays.

This test record gives figures related to the amplifier's performance and also parameters concerning the electrical safety of earth/mains isolation of the product. These are often put into second place but are just as important as an amp's performance.

Back to the B302. Its front panel is equipped with two level controls (smart SIFAM knobs), AC power on/off switch with an indicator, hi temp warning light and a pair of carrying handles. The rear panel has two ¼" jacks (inputs) and two pairs of binding posts (outputs: one red, one black for phasing and polarity), IEC mains socket and mains fuse (T2A/250v), 20 x 5mm glass type. The power supply is protected in the event of a channel failure by DC and mains fuses, thus reducing fire hazard and maintaining second channel operation. (DC fuses are wired internally, i.e. 4 x T5A/250v.)

The whole system employs 30 discreet transistors, 16 diodes, two Zener diodes and a bridge rectifier. The input stage comprises low noise differential transistors of dual construction to guarantee a very low DC drift over a wide

range of temperatures, similar to highly reliable military designed systems. Constant current sinks have been applied to all the input stages, so preventing chain destruction throughout the amplifier.

The stage following the input has been designed so as to provide ultra linear drive to a pair of complementary pre-drivers which are in turn coupled to a pair of high-powered complementary drivers, with series-connected Turner power transistors for the final output. An effective heatsink system, having low thermal resistance and thermally connected to the mains chassis (white silicon compound) complements the output transistors with the ability to handle high frequency overloads through to steady state conditions without over-heating of the devices. If over-heating should occur, owing to insufficient ventilation, then thermal cut-outs act to remove power from the amplifier until the temperature falls to a safe level. The hi temp indicator light on the front panel displays this condition.

To match the electronic performance, a special chassis construction has been developed to provide maximum strength and rigidity. The chassis framework is made from heavy gauge, black anodised aluminium sections secured together by high tensile bolts.

The front panel controls and rear panel facilities are clearly identified with contrasting white silk-screened legend. The B302 amp is intended for standard 19" rack mounting.

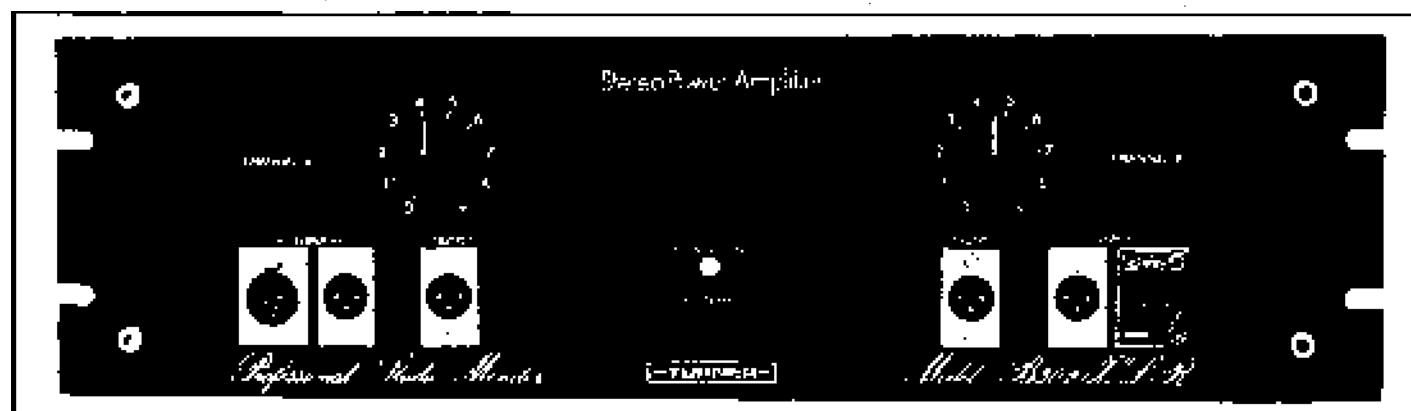
Servicing has been made as easy as possible. The circuitry for each channel is on a plug-in glass fibre-board and the power output transistors are easily accessible, allowing for fast repair. In fact, direct substitution of circuit boards and replacement of output transistors is normally all that would be required for a full repair.

As far as the specification goes, most of the parameters listed by the manufacturer are in agreement with my measurements. A slight difference in THD levels doesn't create any practical consequences and can still be regarded as satisfactory. On the input sensitivity side, personally I would prefer higher sensitivity inputs as Turner figures are American-like, but this is in the end purely arbitrary as long as you are aware of this when purchasing the amp.

The Turner model B302 comes well documented and in my opinion combines plenty of advanced technology, usefulness and seems reliable enough to be recommended for most quality professional systems.

Mark Sawicki

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





PARAMETER	RESULT	TEST CONDITION	COMMENTS
Specific Power Output Ref. 1KHz	186W RMS Chan. B) 110W RMS only 84W RMS 183W RMS Chan. A) 108W RMS only 83W RMS	Onset of clipping into 4 ohms Onset of clipping into 8 ohms Onset of clipping into 16 ohms Onset of clipping into 4 ohms Onset of clipping into 8 ohms Onset of clipping into 16 ohms	Manufacturer claims: 150W RMS Ref. 4 ohms Power o/p 100W RMS Ref. 8 ohms SINGLE CHANNEL 60W RMS Ref. 16 ohms Power o/p: 140W RMS Ref. 4 ohms BOTH CHANNELS 95W RMS Ref. 8 ohms 60W RMS Ref. 16 ohms POWER RESPONSE ± 0.1 dB Ref. 20Hz-20KHz; 80w, 8 ohms. Note slight difference in power levels in both channels. Compare with sensitivity figures, which confirm this fact. In a practical sense this sort of difference in a channel gain can be ignored and would be picked up only by the highly sensitive instruments we use for the Soundcheck measurements. Generally, power levels are substantially higher than specified – an extra plus for Turner.
Total Harmonic Distortions (THD) Ref. 1KHz	0.018% @ 0.025% @ 0.021% @ 0.018% @ 0.016% @ 0.011% @ 0.003% @ 0.002% @	140W RMS into 4 ohms and 1KHz 120W RMS measured in Channel A 100W RMS 80W RMS 40W RMS 20W RMS 10W RMS 1W RMS	Manufacturer claims THD level as: less than 0.01% Ref. 20Hz, 75W RMS 8 ohms less than 0.01% Ref. 1KHz, 75W RMS, 8 ohms less than 0.05% Ref. 10KHz, 75W RMS, 8 ohms less than 0.1% Ref. 20KHz, 75W RMS, 8 ohms Also intermodulation products (IM) should be better than: 0.05% Ref. 10mV – 100w into 8 ohms
Input Sensitivity for 140W RMS (23.66V RMS) output signal, Ref. 1KHz	1.420v RMS 1.451v RMS	Chan. B: 4 ohms dummy load 1KHz Chan. A: 4 ohms dummy load 1KHz	A little on the low side by UK standards. Channel A slightly less sensitive. Manufacturer claims input sensitivity at 1.42v for 100W RMS output into 8 ohms.
Frequency response	± 0.1 dB	Ref. 20Hz-20KHz; 1W; 8 ohms	Better than DIN, hi-fi standard range.
Hum and noise level	Better than -115dB	Below 140W RMS, Ref. 10Hz-20KHz, 4 ohms	Very good, typically -116dB(B), -118dB(A)
Crosstalk	Better than -88.7dB	Ref. 1KHz, 140W RMS into 4 ohms	Acceptable. Almost identical with manufacturer's specification.
Input Impedance	Approx. 10K ohms Approx. 50K ohms	Channel level control on max. Channel level control on min.	Constantly varying swing of input impedance in the range of 10K ohms to 50K ohms.
Damping factor (non-dimensional)	1000 500 250	Ref. 16 ohms load Ref. 8 ohms load Ref. 4 ohms load	Governed by output inductor. Very good.
Rise time	Approx. 3.5 microsecs.		Adequate for all standard purposes.
Slew rate	10v/microsecs.		OK
Phase shift	-12 degrees - 6 degrees	Ref. 20Hz Ref. 20KHz	
Capacitance load test	OK	2 microfarad non-electrolytic capacitors/250v working voltage into 4 ohms dummy load.	Capacitive load did not show any tendency to instability. No detectable overshoot with square wave test.
Open circuit stability test	OK	Level control potentiometer max, dummy load removed.	Very good stability margin.
Short circuit test	60 seconds		Worked normally when short removed. The amp is well protected against input overload, short/open circuits by comprehensive auto-resetting high speed electronic circuitry.

Synthcheck

EMS Universal Sequencer £756 inc VAT

This is the first time we've tested a sequencer in IM. It's a rather unusual creature, so we thought it would make a change to look at it from two points of view — the technician's and the musician's. Both our regular synthesizer reviewers, Dave Simmons and Robin Lumley, have experience in both fields, of course, but here they look at the EMS Universal sequencer from contrasting angles: Dave as an electronic technician and Robin as a gigging keyboards player.

A sequencer is a particularly difficult instrument to write about. It is a device to control other synthesizers and thus produces only control voltages. So all that one can do in reviewing it is to list the functions and tell the world whether they work or not.

As far as functions are concerned, the EMS Universal sequencer offers almost everything you could want. Whether it does it in quite the best way I will discuss as we go along.

The first thing that strikes you is the appearance of the unit. This might not seem relevant at first but as I started to work with the sequencer I became more and more annoyed that this is the only thing that mars an otherwise excellent machine. The problem is that the beautifully made and undoubtedly expensive perspex front panel (yes, you can see the guts inside) reflects light from all directions, making the front panel lettering and LED indicators impossible to see at times. So one is continually moving one's head from side like a demented parrot trying to see which functions are selected, etc. This combined with the touch-sensitive plastic keyboard, fiddly side switches, and "edge on" rotary-controls does not make the EMS the easiest sequencer to work with.

Having got that off my chest, the actual working of the machine cannot be faulted. Great care has been taken to ensure the sequencer can be used with all the common synthesizers, providing they have the necessary CV and trigger inputs — i.e. trigger and CV signals can be inverted, the trigger pulse can be length-

ened or shortened (to enable various envelope generators to work) and the "spread" of the CV can be varied both in real time (as you play) and for the sequence play-back. A socket at the back enables the sequencer to play straight into other EMS synthesizers along a six-way cable common to EMS.

Programming

The sequencer can be programmed in two different ways — timed and stepped. In the timed mode the memory is "clocked" from position 1 through to 256 (the limit of the memory) and any notes played are stored in the memory as played, just as if the sequencer was a tape recorder. An LED position indicator reads out the memory status, but as it is only about the size of a digital watch, and situated underneath the perspex panel, again under certain lighting it is difficult to see.

The speed of the clock is variable both in record and playback. At its fastest the whole memory (256 bits) is clocked in about a second, the longest about two minutes — although the longest usable recording time is about 10 to 12 seconds. Any longer than this and timing starts to go astray as each note cannot be allotted enough memory bits to define the start and stop of the note accurately.

Recording a sequence is quite easy once you get the hang of the plastic keyboard (hitting the keyboard with your nail will not trigger the sequencer). Press the record button (the memory does not advance until the first note of the



sequence is entered), set the sequence length to roughly the length of the passage that is to be entered and play the passage. At the end of the sequence press the "play" button. This stops the clock at whatever position the memory has reached. I found that a little practice was necessary before I could stop the sequence at the exact point so that when the recorded sequence is played back and looped (indefinitely repeated) no timing error was discernable.

The second way of recording a sequence is in the "stepped" mode. This means that every position of the memory is allocated a note of the passage as it is played. In this mode you can take your time over entering the passage as the timing for the sequence comes from the clock inside the sequencer on playback. It is possible to enter "gaps" in the sequence as it is recorded, by pressing the gap pad. This moves the memory onto the next position without recording a new note or trigger pulse. Thus it is possible to record up to 256 "events" (whether they be notes or gaps). Once a sequence is recorded it cannot be amended. If a mistake has been made, the whole sequence has to be re-recorded.

Playback

The speed of the playback can of course be altered, at maximum it will play the whole sequence in about one second. At minimum about two minutes, assuming all 256 bits have been used.

There are four pads which, when touched, transpose the sequence up a fifth, a third, a tone, or a semitone. If more than one pad is touched at a time, the intervals are additive. The pitch of the sequence returns to normal when the pads are released. The sequencer keyboard can also be used to transpose a sequence. Change the CV output to "keyboard transpose", press a note on the keyboard and the sequence will play in that key until another is selected. The keyboard can also be used parallel to the sequence, i.e. while the sequencer is playing one synth, the sequencer keyboard can be used to play another. The "spread" of the sequence can also be altered on playback which can give some interesting quartertone effects.

The recorded sequence can also be stopped manually by the keyboard (instead of the internal clock) or by an external source. This is a very interesting feature of this particular synthesizer, as the external signal does not have to be a synthesizer control pulse (gate or trigger). An audio signal can be used, i.e. a bass drum when fed through it will stop the sequence whenever the drum is struck.

The trigger pulse duration can be varied which overcomes the problems of driving some ADSR generators in various synths, and the sequence can be looped indefinitely or can be made to stop when the sequence has played once.

Conclusion

As I said at the beginning of this article, I have mixed feelings about this sequencer. It does what it is supposed to do very well, but with the addition of a few extra items, such as external inputs or foot pedals to start and stop the sequence, a facility for correcting mistakes in the recorded sequence and a change of front panel along with a proper keyboard, would make this a great, as well as a universal sequencer.

Dave Simmons

The Universal sequencer is packaged in a most unusual manner for a piece of studio/onstage synth equipment, with its works visible under a perspex sheet. At first glance, it resembles a small monophonic synthesizer, coming packed in a nice wooden case, with a keyboard (c-c-f, 30 notes in all) at the front, and a control carrying panel behind. The panel is transparent, enabling you to gaze at the Printed Circuit Board and components within. As there are no moving parts, save control knobs and switches, there is nothing to look at anyway, apart from serried rows of electronic components. I suppose if you subscribe to functionalism in art, you might like this idea, but I don't see why this was done with this instrument, as some disadvantages appear immediately.

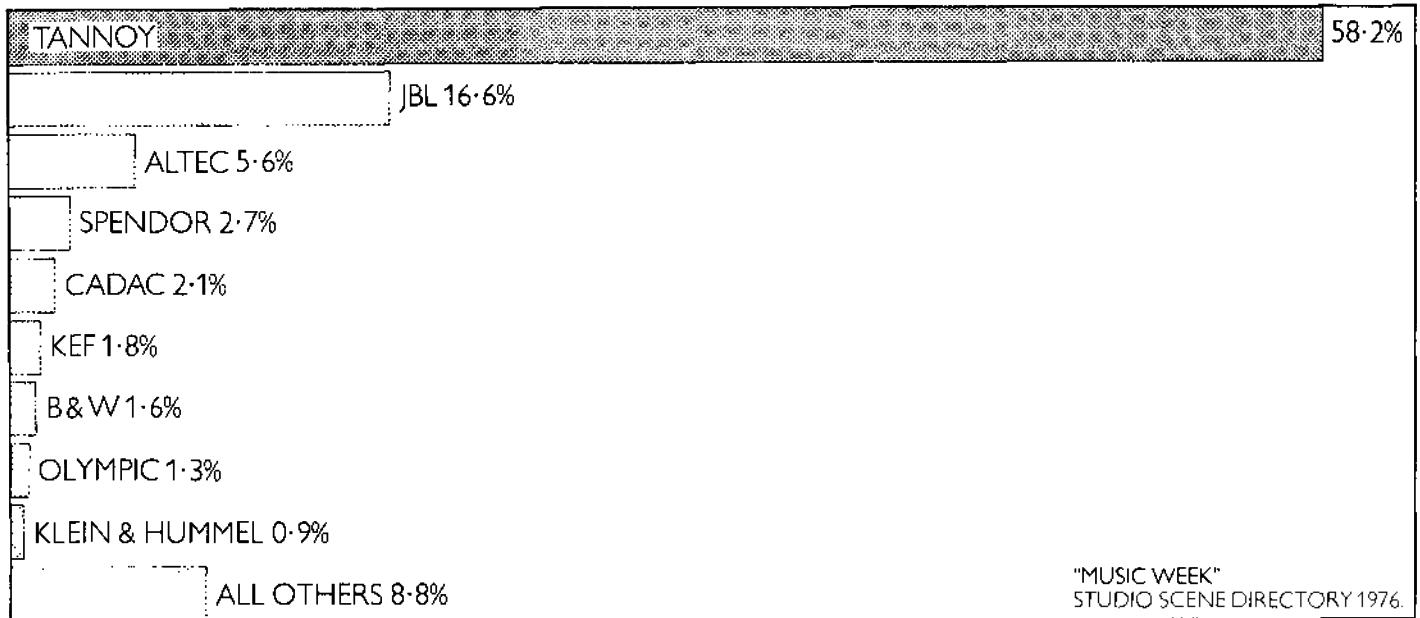
First, bringing a couple of powerful lamps near the machine, in order to stimulate on-stage lighting conditions, the reflected glare from the see-through perspex covering made it very difficult to see the switches and their labels on the front panel. Wearing sunglasses partially alleviated this problem, but rendered invisible the LED display that provides the memory status position. As this display is far too tiny anyway, even for players with good eyesight, stage lighting reflections renders it useless. And the display is very important to the operation of the sequencer (see further on for why).

The EMS sequencer is, however, compatible with every make of synth that I tried it with (from a total of seven different manufacturers), because, with a standard 1 volt per octave, it will interface with any manufacturer's product.

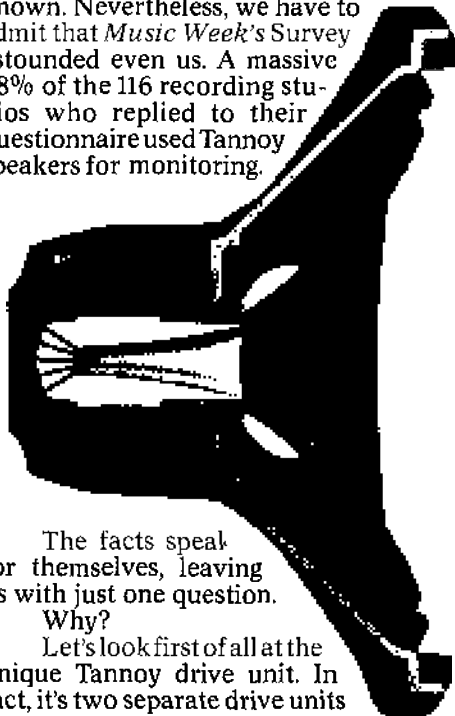
I have always considered a sequencer to be, as it were, a spare or third hand for a keyboard player in a gig situation. A sequencer can be



An independent survey of British recording studios speaks volumes for us.



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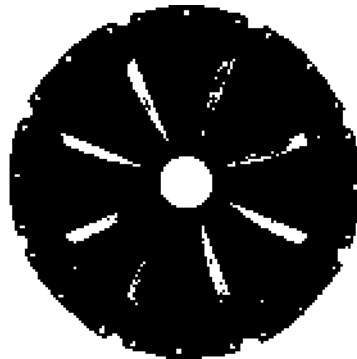
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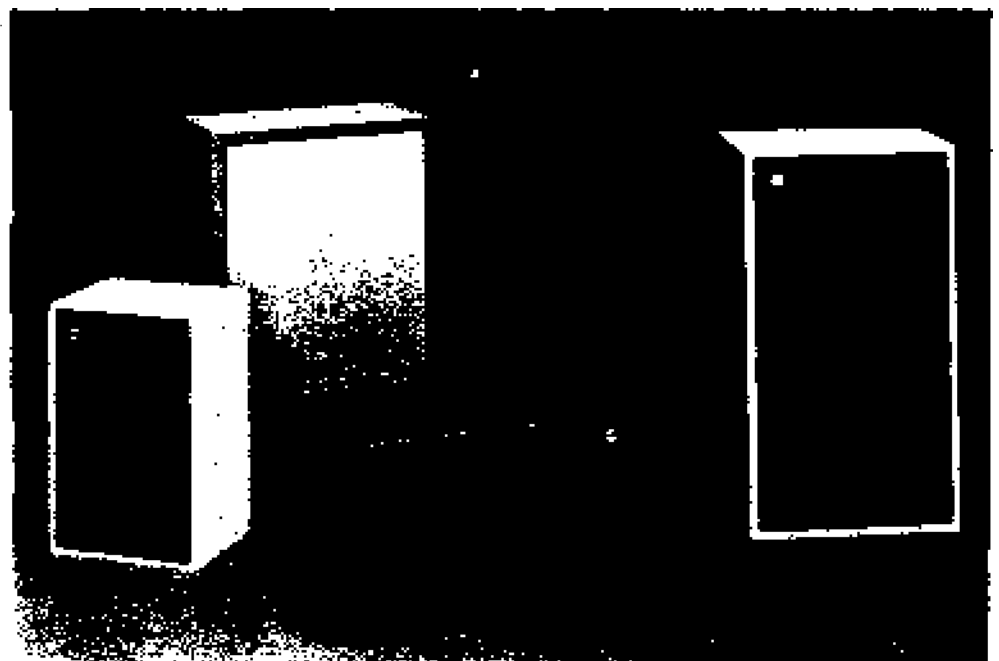
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programmed in advance to play lines or riffs in a monophonic manner, by connecting it up to a synthesizer, and causing the synth to automatically repeat the memorised sequence for as long as necessary. This allows the player to get on with playing other keyboard parts over the top of the sequence. This facility may be required several times in a given stage set of tunes, for as you've bought a sequencer, you'd perhaps be expected to want to use it more than once a night. Thus it is reasonable to expect that any sequencer should have some sort of memory facility, whereby several different sequences can be stored, recalled and used by button at different times during a performance.

The EMS unit can hold a sequence of up to 256 notes, which is a very long sequence indeed, and a length that is unlikely to be fully exploited. But its real shortfall here, as compared to its competitors from the States, is that it can hold one sequence, and one only. This effectively means that you can only prepare it in advance of a gig with one sequence, and for further tunes in a show, it would be necessary to reprogramme it, presumably during chat spots between tunes. As any gigging musician knows, this doesn't give you much time at all, and certainly no margin for error (given that with this model, you're up against it anyway with too-tiny LED displays and reflected glare from perspex tops). I would consider this lack of memory facility would cause anyone to think twice before parting with his money, given that for the same money, they could buy a sequencer *with* a memory system of more than one sequence.

Tragically speaking, there are a few more criticisms I feel must be made about this machine, if only to make the point that I think that EMS, coming later into the retail market than their competitors, should really have gone at least one better than the American units. After all, they were with the enviable benefit of hindsight. Instead, I feel that their machine, although it operates faultlessly within its own parameters, falls quite a bit short of the US units, especially given that they're all roughly at the same price. If the EMS sequencer was substantially cheaper, my criticisms would have been milder, as it would have offered better value for money. It is doubly upsetting for me to have to be a bit blunt about a homegrown British product, and appear to favour American equipment, but performance on test dictates realism in comment.

Where the EMS does differ from other sequencers is that it comes with its own keyboard, so that you don't need to use the keyboard on your own synth to programme the sequencer. The keyboard supplied, however, is one of those printed "touch" type diagrams, rather than actual articulating keys. This is fine, bearing in mind that using an actual set of plastic keys and springs would cause the price to rocket as far as the planet Algon, but these touch type keyboards are not as easy to use as a conventional key system, and you're more liable to make mistakes. This is especially true under gig pressures, which is when you'll want to use it, as there are no memory facilities apart from the one sequence in this device.

But the advantage of using a separate keyboard, rather than the keyboard built into the synth you're using anyway, remained a mystery

to me. So the magazine asked Robin Wood of EMS for his reasons and opinions, in an attempt to be fair and square before levelling criticisms on this point. We inferred from Mr. Wood that it gives you more options. The Memory Status LED readout is very important to you when you're programming, because it tells you how far through a programme you've gone at any moment, and how many notes you have left for a given programme. On the EMS, this LED readout is very tiny, and quite dim in normal lighting. It is invisible under stage lights, especially with the plastic cover glaring at your eyes.

I am sad to say that I have another criticism yet, and that is the size and shape of the unit. It's quite large by comparison to its more compact competitors, and takes up valuable stacking space on top of your Rhodes or whatever. The Americans have designed theirs in stout metal boxes that can be fitted into amp racks, or away to the side on a space echo or ancillary effect box, because of course, with their memory facilities, you don't need to work on them much during a set, certainly not to re-programme them, anyway.

But for all this niggling, the EMS Universal sequencer does what it says it does perfectly well, and you can change key in mid-sequence to follow chord changes, programme complex or simple rhythmic sequences, and have them faithfully reproduced, just like other similar products. It's just that the American machines that do more than this one, are, I feel designed much more with the *user* in mind, are more compact and strongly packaged, and actually cost the same money, or as near as makes no odds at all. So you pay your money and takes your choice.

Robin Lumley



Guitarcheck:2

Antoria Apollo 24 £310 inc. VAT

I first saw the Apollo 24 at the British Music Trade Fair in August last year. It attracted my attention for two reasons. First, it looked like an electric version of the old European "Wappen Gitarre". Secondly, it looked rather pretty, and I remembered that various people had asked me about the possibility of a solid guitar with a shape like a small 335. In the rush of the trade show, I did not at the time notice that it also had 24 frets on the fingerboard and better than usual access to the higher frets. I was, however, sufficiently interested to ask for it to be sent for review sometime.

Some time came to pass and model 2683 arrived for review. When I checked with the catalogue, I noticed that there are some discrepancies between the instrument and the written description. This is most unusual for the particular company which imports the 2683: their specifications are usually completely accurate. It is possible that these discrepancies may cause some confusion so, to set the record straight, my sample has a rosewood fingerboard and a mahogany body with a curved maple front. The fingerboard is certainly the colour of ebony, but I would bet it was rosewood when it left the tree. There is nothing substandard about a good rosewood fingerboard.

I have reviewed a few guitars previously which had 24 frets on the fingerboard. Some of them had rather restricted access to the highest frets because of the position of the heel at the back of the neck. On this Antoria model, the heel does not even begin until about fret 18, and there is a fairly gentle increase in neck thickness up to the full depth of the heel around the 20th fret. This seems to me to be a very good point, as there is not a lot of use in extra frets which are difficult to reach. I think most people who would deliberately look for a 24-fret guitar would want to be able to get at all the frets without hindrance. The Apollo 24 is not perfect in this respect, but it is much better than some other 24-fret instruments I have played, and probably as good as is possible without involving a weak neck joint or the much more expensive "straight through" neck construction. (I find that even some of these straight-through-neck guitars have fairly thick and bulky heels and that access to the upper frets is not as good as it would appear from a casual inspection.) Bearing in mind price, durability and player's comfort, this seems to be a very good compromise.

Of course it is only a very good compromise for you if you are certain you want a 24-fret fingerboard. If you can manage with 22 frets, you should remember that guitars with long necks are more difficult to make reliably and tend to be more expensive than the same quality of guitar with the standard length of neck and fingerboard. This is a nicely-made guitar but there is no point paying for what you don't need. On the other hand, if you want that top octave E and you think you can do something useful with it, you don't have many guitars to choose from. Most of them are more expensive than this one and some of them, as I have mentioned, may not offer quite the advantage you would expect.

Despite its considerable length, this is a lovely straight neck. It feels good and looks good. All the frets are smooth and rounded and

the ends are finished off neatly. The fingerboard edge binding is laid over the fret ends so you will not have sharp fret ends sticking out if the guitar is kept in a dry climate. The outer edge of the binding is a bit sharp and would benefit from a few minutes' work rounding it over. It is not a serious disadvantage, but the rest of the neck is very smooth and comfortable and it is a pity to leave the edges "square".

The machine heads are probably Japanese and similar to those sold under the name of Gotoh Gut. This sort of enclosed, metal button machine head is now quite common on the better Japanese electric guitars. Most samples work very well and the more recent patterns seem to be smoother in operation than earlier ones. Some players blame their machine heads for erratic tuning problems, when the real fault is the strings sticking in the slots in the nut. Unfortunately, many new guitars are sold in this state. I am happy to say that this Antoria has good machines and a nicely adjusted nut. It is easy to tune and the tuning is as stable as one can expect on any guitar with light strings.

The bridge and tailpiece are one of the standard Japanese designs. Some of the adjustable string saddles in the bridge can move from side to side as the strings vibrate and I do not think this is a good arrangement. The design of these bridges does not seem to make enough allowance for manufacturing tolerances of the individual parts. Some bridges have wobbly saddles, while others fit together more accurately. I feel that the less play you have in the bridge parts, the more likely you are to get a nice even sustain. The problem can arise on several makes of guitar, not all of them Japanese. It is easy enough to check, and it is easy enough to ask for another bridge. (But you may be disappointed if you expect this sort of service and the largest discount in town.)

The electrical system of this guitar is quite straightforward. There are two humbucking pickups of the Super 70 type, two pairs of volume and tone controls, and the usual three-way selector switch. The Super 70 pickups seem to give a brighter tone than usual and I needed less treble and more middle on the amp to produce the standard sort of humbucker tone. I am quite happy about this. There is room for many different sorts of pickups with many different voicings. It would be very dull if they all sounded the same. Neither of the pickups produced any unwanted feedback when the amp was turned on full and the guitar placed close to it with the strings damped. Also, although this guitar does show some sympathetic ringing between played strings and unplayed ones, the effect is small and pleasant. The body and pickups do not exhibit undue handling noise even when the amp gain is turned well up. The instrument has a relatively long natural sustain, particularly on the lower strings, and should be suitable for overdriving the amp to get a long "clipped" sustain.

I found it difficult to play this guitar sitting down, partly because of the longer neck and partly because it kept slipping off my knee. It balanced well on a strap as long as the neck was allowed to slope upwards, with the head around shoulder height. I must say that the strap button on the point of the cutaway looks very close to the edge, and there can't be very much wood



holding it in place. I would prefer to see it moved in towards the neck by at least half an inch. It does have a little felt pad under the button so that it will not chip the lacquer as it is screwed down.

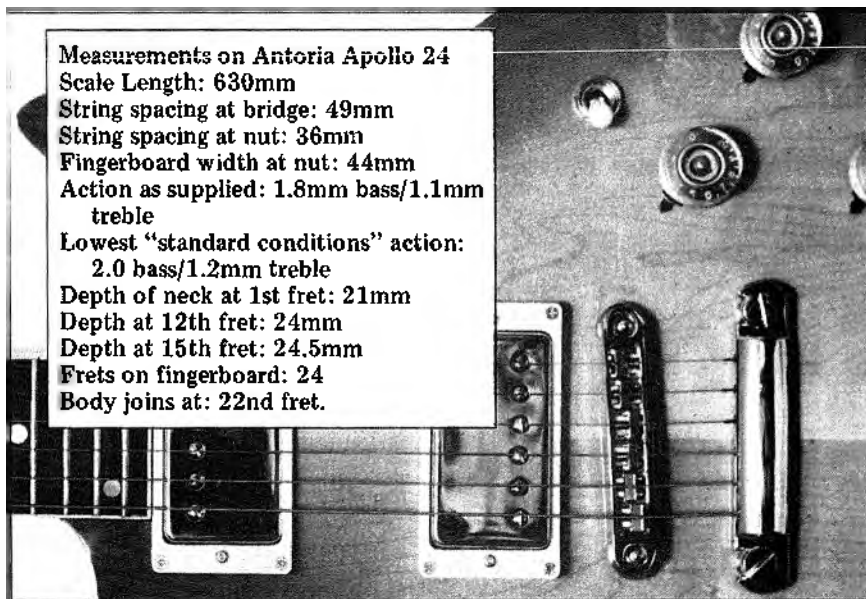
The guitar is finished to a very high standard, with red lacquer on the body and neck and a red sunburst on the front. Edge bindings and pickup surrounds are cream plastic and the metal parts are chrome plated.

Conclusion

This is a well made 24-fret guitar with a basically bright sound, which can be modified over a useful range by the tone controls. I found the most interesting sound was with both pickups switched in. This setting, with both tone controls on maximum treble, was also the best setting for overdriving my amp, although I had to lower the treble setting on the amp. The guitar works well with a low action. A lined and fitted "square" case is available.

Stephen Delft

Measurements on Antoria Apollo 24
Scale Length: 630mm
String spacing at bridge: 49mm
String spacing at nut: 36mm
Fingerboard width at nut: 44mm
Action as supplied: 1.8mm bass/1.1mm treble
Lowest "standard conditions" action:
2.0 bass/1.2mm treble
Depth of neck at 1st fret: 21mm
Depth at 12th fret: 24mm
Depth at 15th fret: 24.5mm
Frets on fingerboard: 24
Body joins at: 22nd fret.



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Guitarcheck:3

This is a delightful little instrument. It has been around my workshop for several weeks, and many different people have asked about it. It has been played by classical guitarists, rock guitarists, beginners, expert session players, tall people and small people. Everyone liked it. It has been called "cuddly", "a little round guitar", "just the thing to take around with you". I think most people would want one of these as well as a standard-pitch guitar, not instead. Even so, this model surely has to be a winner.

You may not have come across a requinto until now. As you will see from the photo, it is like a little Spanish guitar, with the normal wide fingerboard found on classical guitars, but having a smaller body and a shorter string length. It is usually tuned a third higher than standard guitar pitch. (The top string is tuned to G, three frets above normal guitar E, and all the other strings are raised by the same amount.) The requinto can also be used for teaching a child to play classical guitar, if his/her hands are too small for a standard size instrument. With "high tension" nylon strings, most requintos will work quite well tuned down to standard guitar pitch. The string tension is lower than normal but, for a small child, this may be an advantage.

The very first requinto made by the Raimundo company which I saw was a fine bit of guitarmaking, but it was very expensive. I believe I was not the only one to suggest that, nice though this one was, there might be more general interest in a less expensive requinto. After a reasonable time, there appeared... a less expensive requinto: several hundred pounds less expensive, in fact. I was bit apprehensive when I realised the price difference: I was afraid that the cheaper model would sound a bit like a toy guitar.

It does *not* sound like a toy guitar. My sample sounds a lot more impressive than some full-size guitars costing about the same amount. It has a beautiful fluty treble, which begins to deteriorate only beyond the 10th fret, on the first and third strings. This is a remarkable performance for a newly-made instrument. It is hard enough to make a good requinto at the best of times; to do so at this price is either outstanding luck or a very good design.

My sample does not sound quite as good as the (much) more expensive instrument. I imagine that it might not be able to hold its own so well with an orchestra of five or ten standard classical guitars. To ensure this, one would probably have to spend over £500, and probably hand-pick the individual instrument. However, this is a counsel of perfection, and out of the question for most players. Also, most of the people who have played and liked this review instrument were certainly not thinking in terms of a classical guitar orchestra. I think this instrument has many other applications for recording, for song accompaniment (it seems to suit female voices very well) and as a small, portable instrument for composing and/or dreaming.

The model 128R has a solid, fine-grained spruce soundboard, a laminated mahogany back and mahogany sides (which may be laminated or solid). The rosewood fingerboard is just over 51mm (2 inches) wide at the nut, and the frets appear to have had Rosetti's usual and excellent

fret-polishing job. On my sample, the bridge saddle leans forward a bit and may cause trouble if not corrected within a year or two. There seems little else wrong.

The nut is well adjusted, the intonation (with the maker's strings) is completely acceptable, the machine heads are middling-quality Japanese ones, but they work well enough. This is not a very fancy instrument, but my sample is neatly and tidily finished, and it is refreshing for a change to see more effort put into the sound and playability than into the trimmings.

Whether you wish to use this instrument as a true requinto, or as a baby guitar, it looks to me like very good value for your money. Even people who say they don't play nylon-string guitars seem to like it.

Postscript

While experimenting with different tunings, I made the fortuitous discovery that this instrument sounds particularly good when tuned one semitone up from normal guitar pitch. This provides an unusual alignment between the body resonances and the tuning of the strings, and alters the tonalities which I associate with certain keys on a standard size classical guitar. The effect is very interesting. I don't know whether this would apply to other samples of model 128R but it is certainly worth trying various tunings between the limits of standard guitar pitch and one fourth higher. This chance observation indicates that there may be other viable alignments for nylon-string guitars apart from the ones in general use.

I have not included the usual measurements, because they could not easily be compared with ordinary guitars, and we don't often review requintos. The scale length is 535mm and the action on this sample is perfect.

Stephen Delft

**Raimundo
Requinto
99.95 inc VAT**



MXR 31-Band Graphic EQ £317.23 inc VAT

This single channel 31-band graphic EQ is sturdy and compact, designed to accept a 19" rack mount. While the mechanical engineering of the MXR 31 certainly has all the hallmarks of a device built to withstand rough handling, a special road case is also available for the unit. Alternatively, a digital delay unit fits with the 31 in a special MXR rack designed with an integral power supply.

From its blue anodised front, 12dB of boost and cut are available at 1/3 octave ISO standard centres. The fascia also sports a level match/gain control and an EQ bypass for instant A/B comparisons between source and modified signal. Connectors at the rear are XLR balanced, with 6mm jack socket duplication. Though the mains lead is of the captive type, we must assume a plug-in modification is made to meet area standards where such an arrangement is not permitted. To the right of the fascia the panel removes for access to protection fuses, all of which are internal.

The overall standard and layout of construction inside the MXR 31 is really quite superb. High slew-rate RCA operational amps are used for all active stages, and the circuit is a modular assembly of three printed circuit boards which stack together for ease of maintenance. A most impressive visual first impression.

Equalization, as an abstract ideal, simply maintains through a chain of signal processing as close an order of component relationships as were presented at the system input — ie, at the source. And it should be true to say that there are few amplifying stages without EQ of some description. Input/output tracking in an idealised sense takes no account of flaws at the source, problems affecting the power stages or deficiencies at the speaker end.

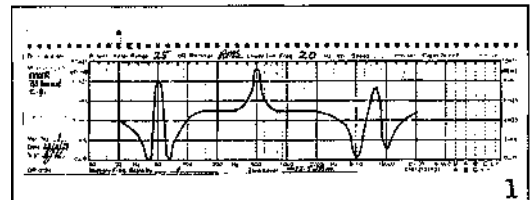
Variable EQ at some point central to the sound chain makes it possible to modify signal responses at the amplifying stages and thus — in a given acoustic environment — control the spectral energy distribution of PA/monitors exactly to suit the application. EQ may be used to filter response at frequency extremes to make better use of amplifier reserves, to "notch" out troublesome peaks and feedback bands and also for programme "doctoring" as in special effects. Unsurprisingly, perhaps, a narrow-band equalizer will also help you get your sound smooth — ie, just equalize.

The argument may be put forward that tone controls at a mixer or in a board take care of tuning and equalization problems — which is true, but only insofar as the variables to be encountered have been accounted in choice or design of the control. Such a course would

also need to offer the flexibility of a narrow-band graphic in coping with these variables if such is the intention. A parametric is therefore a good option if you find you have the time, patience and knowledge to select what you need before each next gig.

Measured performance of the MXR 31 is related to the curves 1 and 2 published with this report.

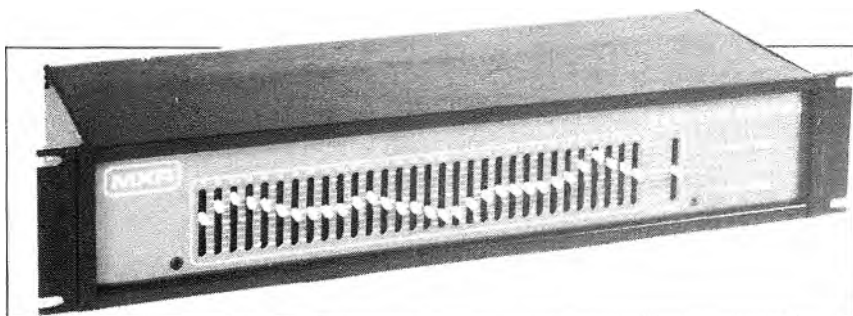
Recording 1 shows a highly "unnatural" setting for a graphic. It shows 50Hz, 500Hz and 8KHz at full +12dB boost and adjacent bands at 40Hz, 63Hz, 5KHz and 10KHz at full cut. From the curves, you should observe that neither bands at 50Hz or 8KHz achieve the full 12dB of boost, though this is the case at 500Hz where no adjacent bands are similarly affected. This very cruel test is designed to show the mettle of a good graphic — the result displayed is, in effect, excellent. Few graphics will manage to struggle up even to their zero level in the presence of maximum cut either side. The real practical suggestion of the result is that the bandwidth controlled with each slider is independent of adjacent bands, and very finely judged in design of the unit. In use, this means fine adjustments are possible which fit within close tolerances of in-band accuracy — the band you choose to modify will not have an unpredictable effect on rest of the sound.

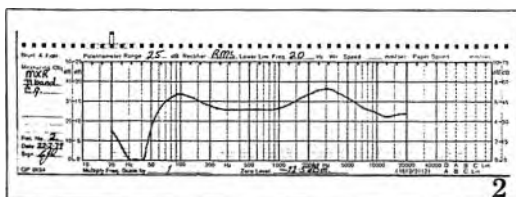


Recording 2 represents a more realistic set of operating conditions — though the combination of settings across the passband might, of course, not occur in practice. The sliders for 31.5Hz and 40Hz are set at minimum — say, to eliminate a woolly, boomy bass quality. At 100Hz is a halfway boost, smoothly contoured to a shelf from 63Hz to 160Hz. This situation might accord more "punch" to the bass: a heavier bottom end to a rock'n'roll formation, a funkier soul train. Where presence is maybe required on vocals or a guitar needs bringing forward without pushing up the line level too drastically, 6dB of lift at 3.15KHz, contoured from 1KHz to 5KHz makes the transition across 3½ octaves to achieve this end. Cutting down on PA hiss, reducing sibilances on vocals or taking the high level gain out of your upper mid horns controls at 10KHz and 12.5KHz are here set approximately 1/3 of the way down.

The example in Recording 2 is in fact rather basic and shows a rather truer condition of use. One of the most encouraging observations made in listening tests is that the MXR 31 does not "ring" even at full boost — which is neither to suggest that 12dB of boost should ever be occasioned in use nor that a degree of ringing puts a graphic equalizer out of any but the most discriminating of uses.

A further point needs to be stated: the discussion has so far concerned itself more with the uses of a graphic equalizer as a corrective device — a first-line priority any such device





We have here a graphic (as opposed to drastic) equalizer; well-conceived and well-executed. If manufacturing tolerances are as close as suggested in the review sample you are onto a winner — check it out.

James McGill
Chris Rogers

needs to meet. Creative special effects are, of course, a matter for intelligent experimentation and at the disposal of the user.

PARAMETER	RESULTS	REMARKS
Frequency Response	8.7Hz — 31KHz 2.4Hz — 54KHz	-0.5dB -3.0dB
THD	0.006%	irrespective of lift/cut
IM distn. (SMPTE)	0.008%	Below clipping and irrespective of lift/cut
S/N	dBm	Limit of test. No sign of hum on output.
Gain (overload)	+24dBm, +24dBm +11dBm	20Hz — 20KHz full boost full cut "clean" with no signs of latching or overshoot
Slew rate	7v/mic Sec.	excellent
Square wave performance		clean at all settings. Little sign of ringing or other effects.

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Soundcheck:2

Roland GA120 R&P amp £495 inc VAT

The name of Roland is synonymous with design progress in professional musical instrument electronics. The Roland Corporation of Japan is also without doubt one of the most innovative companies manufacturing guitar amplifiers. Every year brings a new batch of exciting products from Roland, one of the more recent being the GA Series of combination amplifiers launched in 1978.

The GA Series covers five basic models each with various facilities, the GA 20, GA 30, GA 50, GA 60 and GA 120. There are also two special high efficiency speaker versions, the GA 60 R&P and GA 120 R&P; and for this review we chose the latter, which is the model at the top of the range.

The GA 120 R&P is a very sturdy and well designed combination amplifier. It is also powerful, being capable of a power delivery well in excess of 120 watts RMS into its twin 12" special high efficiency speakers (see spec. table). The amplifier has some interesting design features such as a Power Compressor control, a six-band graphic EQ, and an Overdrive control, as well as the standard range of tone controls and a reverb. The overall range of facilities and controls gives both the guitarist and keyboard man plenty to play with.

Construction

The cabinet is strongly built and gives an overall impression of ruggedness. The amplifier front panel is finished stylishly in black, silver and blue with contrasting black and silver knobs, and the speaker cloth fits into this scheme with a weave in the same colours. The

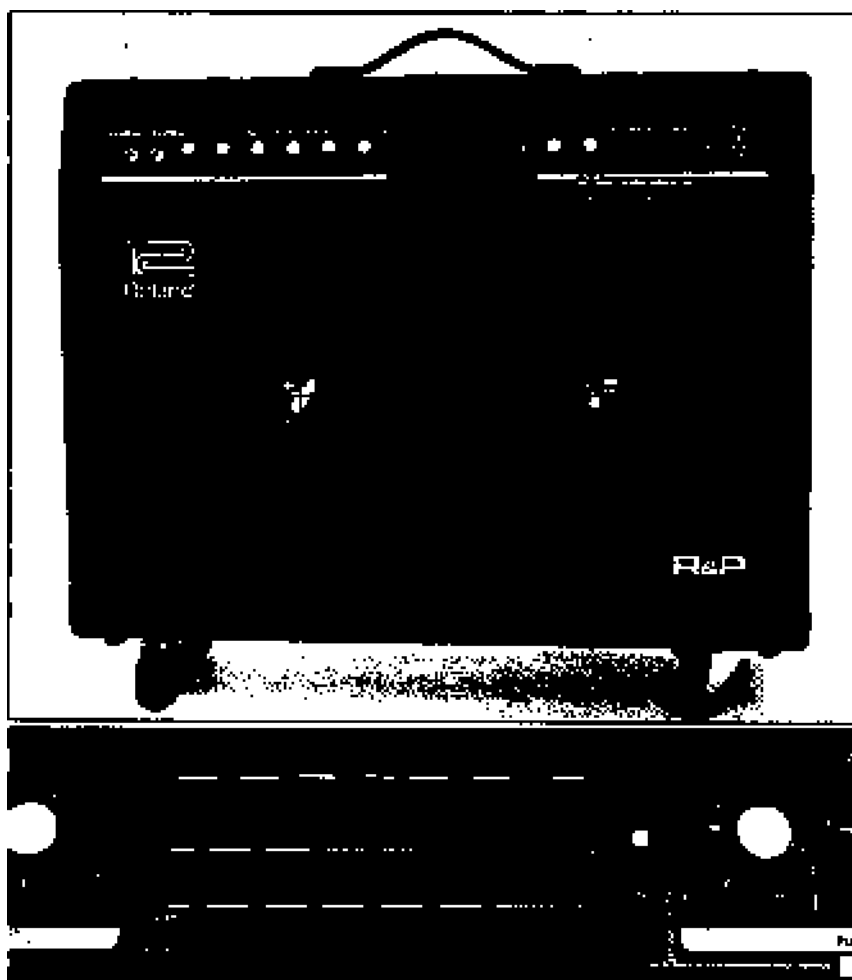
cabinet is finished in a sort of crackle-finish black PVC material and there are black plastic corner caps and good quality detachable castors. There are no corner caps, however, on the front edge above the front panel, nor are there any recessed handles on the sides of the cabinet. There is a strong strap handle positioned where you would expect to find it at the top of the cabinet, but there is a lot of amplifier to hang on that – about 88lb to be precise. The dimensions of the combo, for those interested in constructing flight cases, are 29" long x 25" high x 11½" deep.

The wide range of tone controls including the six-band graphic EQ are well laid out across the front panel of the amplifier. The graphic EQ is positioned in the centre of the panel and follows the rotary tone controls, marked in the normal way, Treble, Middle and Bass. There are approximately six octave bands on the graphic, giving ± 12 dB on each filter. The fader positions are marked, 100Hz, 300Hz, 600Hz, 1.2KHz, 2.5KHz and 5KHz (see spec. table for measured results). Each slider is provided with a centre click setting for ease of use. The bank of six filters is followed by a master EQ level control and an On/Off switch for the graphic. At the front end of the amplifier there are two standard ¼" jack sockets giving both high and low sensitivity inputs. Between these and the graphic are ranged a series of rotary controls marked Overdrive, Volume, Treble, Middle, Bass and Reverb. There is also a pull-on Bright switch incorporated into the Volume control.

The remainder of the front panel to the right of the graphic houses the Master Volume pot, the Power Compressor (pull-on) control and the On/Off polarity switch. There are also four footswitch sockets for the Reverb, Overdrive, EQ and Compressor.

The Power Compressor is an interesting control which works very effectively. As the name implies, it controls and limits the output, distorted or otherwise, by compressing the power. The control is calibrated like a VU meter (-15, 0, +3dB). With the knob set to 0, the output is geared for approximately 120 watts. With the compressor knob set to -3, the output is cut back to approximately 60 watts. Using this control with guitar produces some really deep sustain effects. We had some howling trouble using the Compressor with the Overdrive control at the same time, but you have to experiment with the two controls in order to get it right. All the tone controls except for the rotary Middle control (see spec. table) worked very well, enabling us to set up nice bass sounds to razor sharp trebles. Full bass response is limited owing to the open-back design of the speaker cabinet but the range is wide enough for electric guitar, pedal steel and most keyboards. The rear panel section contains two line In/Out jacks, a headphone jack, an extension speaker jack (8 ohms min.) and a fuse. The mains cable is wired into the amp.

The amplifier section is easily removable, giving immediate access to the circuitry. The electronics are well planned out and are localised on three PCBs, one for the power amplifier, one for the pre-amp and one for the graphic EQ. The power stage uses a pair of Sanken 2SC1585 power devices driven by two NEC B628/T-D234 plastic encapsulated transistors. The



EQ module is very compact and nicely screened designed to give about $\pm 12\text{dB}$ per filter. Our measurements differ slightly from the manufacturer's figures but this is not at all serious as each band centre frequency is specified ± 3 to 10% tolerance depending on the tolerance of the components.

There is a tremendous tone range available on this combo. To my mind, the Middle control left a little to be desired but the rest worked admirably well. The equalizer section, in particular, was extremely effective and careful experimentation led to an astounding range of tones. The Distortion control was OK at high level playing, but the signal noticeably "broke up" at lower volume settings. However, the Reverb facility is nothing short of excellent. A subtle reverb effect can be obtained by setting

the control to 3 while a real Fleetwood Mac *Albatross* sound can be obtained by setting it on 7 – any more and you're into the realms of Pink Floyd effects. An excellent control range. Generally, the sound is as adaptable as any player would wish, particularly by using the EQ section with the rotary tone controls.

Conclusion

A professional amplifier is every respect, as you would expect from a company of Roland's standing in the electronic music scene. The amplifier is very powerful, very well built and has a wide range of tone controls and effects. However, the unit is a little on the large side as combos go and, at 88lb., is not to be taken lightly.

Mark Sawicki



PARAMETER	RESULT	TEST CONDITION	COMMENTS
Specific power output, watts RMS Ref. 1KHz	156.25W RMS 88.77W RMS 70.85W RMS	Onset of clipping into 4 ohms Onset of clipping into 8 ohms Onset of clipping into 16 ohms	Manufacturer claims 120W RMS of output power into 4 ohms Ref. 1KHz. The GA120 amp is equipped with two 12" Roland model C1230 (120W RMS/8 ohms) loudspeakers. The amp's power stage uses a pair of Sanken 2SC 1585 silicon transistors.
Total Harmonic Distortion (THD)	0.15% 0.12% 0.09% 0.08% 0.12% 0.29% 0.38% 0.49%	@ 120W RMS @ 100W RMS @ 80W RMS @ 60W RMS @ 30W RMS @ 10W RMS @ 5W RMS @ 1W RMS Into 4 ohms Ref. 1KHz	Very rich nice sound. The lowest level of THD measured at approximately 50% of the claimed power level. At the low power levels, THD figure rises up to approximately 0.5%.
Input sensitivity in mV RMS for 120W RMS (21.90V RMS) Output signal Ref. 1KHz	Input 1 (high) – 25.4mV RMS Input 2 (low) – 78.1mV RMS	Ref. 1KHz/4 ohms. Tone controls set for the best square wave response: Graphic EQ off; Reverb off; Power Compressor at +3dB; Overdrive off; Master Volume @ 9.	Acceptable, however no manufacturer's figures available to compare my results. On this test Power Compressor was set at +3dB which means practically that compression action was removed in order to get nominal output level.
Tone control range (swing in dB)	22.5dB swing 6.8dB swing 28.1dB swing	Bass @ 20Hz MT – Flat Midd. @ 800Hz BT – Max. Treb. @ 5KHz M – Min; B – Flat	EQ – off Bright Switch – off Beautifully symmetrical. Middle control not very effective.
Graphic equaliser (swing in dB)	25.1dB 21.6dB 20.5dB 19.6dB 23.6dB 24.1dB	Band 1 Ref 100Hz Band 2 Ref 300Hz Band 3 Ref 600Hz Band 4 Ref 1.2KHz Band 5 Ref 2.5KHz Band 6 Ref 5.0KHz Tone controls flat; Reverb/Overdrive – off Power Compressor @ +3dB	Manufacturer claims that each slider controls by $\pm 12\text{dB}$ the level of each of six approx. octave bands at 100Hz/300Hz/600Hz/1.2KHz/2.5KHz/5KHz. Each control provided with center click for easy setting. Additionally EQ level control and EQ on/off switch are also provided.
Signal/noise ratio	78.8dB	Ref. 120W RMS/4 ohms output level; Graphic EQ off; Tone control flat	IEC – Curve "A" weighted test with a true RMS reading. Nothing out of the ordinary.
Line input sensitivity	0.340V RMS	Ref. 120W RMS (21.90V RMS) output signal; 1KHz	Satisfactory.
Line output level	0.658V RMS	Ref. 120W RMS (21.90V RMS) output signal; 1KHz/600 ohms terminated.	Line output level seems a bit on the low side. Satisfactory when used with another GA-120 R&P amp. As recording output possible by connecting to a tape deck, of course.
Capacitive load test	OK	2 μf non-electrolytic capacitors and 4 or 8 ohms dummy load.	A little overshoot observed, otherwise it seems that it would not create any problems.
Open circuit stability test	OK	Dummy load removed, tone controls/EQ max. Overdrive/compressor/master, max.	No problems.
Short circuit test	5 minutes	Dead short i.e. approx. "zero ohms" placed across GA-120 output terminals.	It looks like the protection works indefinitely. One of the best short circuit protection features I've seen in recent years. The short circuit operational temperature of the output transistors: absolutely normal.

Tama Superstar 5 kit £838.35 inc VAT

Tama's Superstar set was launched to critical acclaim in 1976. It's constructed of cured, four-ply rock maple and birch with two-ply glue rings formed in what they call a heat-compression mould. Its joints are staggered around the drum's perimeter to eliminate any weak spots — the final join on the outside is set not at right-angles to the sound edge as usual, but at a very oblique angle which gives even more shell-strength.

The Superstar 5 kit has 13 x 9, 14 x 10 and 16 x 16 tom-toms, a 22 x 14 bass drum, a 5" metal-shell snare drum, hi-hat and bass drum pedals, two cymbal stands and another for its snare drum.

Bass Drum

The bass drum has 20 timpani type "T" tuners, pressed steel claws and large cast nut boxes, "Beaver-tail" shaped. The drum is the first to have wooden (maple) hoops. It has disappearing spurs made from substantial rod with lockable, adjustable rubber or spike tipped ends. The holders which locate these spurs face slightly forward at 15° and are cast and heavy enough for the job and boast the hefty and sensible "T" shaped locking wing-bolts which are prevalent all over the set at adjustment points.

I found the sound of the drum a little disappointing -- it wasn't open enough for me. It was a little constricted and somehow too thin. It comes with Tama Ambassador heads (by Remo) as standard but I feel, as (according to recent photos) does Billy Cobham, it would sound thicker with CS heads or even pin stripes or Evans Super X. With two heads on, the bass drum tended to "clang" a little so perhaps front dampening could be the answer.

Snare Drum

Tama's "King Beat" snare drum is mechanically something else. The one which comes as standard has a five-inch seamless metal shell with 10 square-headed tension screws per head, double-ended lugs, a pair of triple strengthened "beads" to keep the shell true, Tama's PC die cast hoops and their usual screw-adjustable, lockable, quick release under batter head operating damper and 20-strand, extra long, wire snares. This drum too is fitted with the Ambassador heads which locate precisely on the shell's 45° inverse flange which has a 2mm radius at the contact point to eliminate any possibility of choking. There's also a graduated snare location area on its bottom edge.

The "King Beat's" pièce de résistance is its cast snare strainer mechanism. It's called KG and allows separate control over snare stretch tension and snare head touch pressure. I appreciate that this is hardly an innovation, since both Ludwig and Rogers did it years ago with the "Super Sensitive" and "Vibra Sonic" drums, but Tama's seems to embody the best features from each of these. The snares are held equally horizontal to the snare head (which goes a long way to stop snare buzz) and attached directly to the strainers so there's no need for strings or plastic strips. Only the KG strainer has the facility to take Tama's newish snappy snares which are made from airplane control cable which they rightly claim will not stretch and which have less rebound distance from the head, thus more response.

It's very interesting that Tama fit solid die-cast hoops to the "King Beat" snare drum. These rims tend not to flex or buckle out of shape and so help to maintain more consistent head tension. Normally cast rims on a metal shell tend to deaden and yet strengthen the sound, but mainly they take away some of the higher unacceptable overtones — this of course makes them ideal for recording. My one criticism of die-cast hoops is that they make the rim-shot a little "clonky." The drum sounded orchestral and the nearest thing to an old Ludwig Super Sensitive I've ever heard. Tama have not made the mistake of copying the Ludwig's individually adjustable snares and the result is a really good drum. Its sound, while good, was not particularly rock 'n' roll, but since they also make a 6½" shell drum you would possibly be better off stipulating that. I say "possibly" because I haven't had the opportunity to play one of the deeper shell models. It is appointed exactly the same as the thinner drum but with a little extra depth.

Tom-toms

The tom-toms sounded really strong and penetrating, a lot like Slingerland's. They all had a very live sound which I'm sure would work fine on the stage. They were all fitted with the Ambassadors but even though they sounded good I feel CS heads or something similar would improve them even more. All three drums have triple flange hoops, the 13 x 9 has six tensioners per head, and the 14 has eight as has the 16.

Tama's drums have extremely substantial adjustable and lockable dampers which activate underneath their batter heads. These dampers are unique in that they have a form of cam



operation which, once set, returns them to exactly the same tension against the head each time — an excellent idea.

The legs on the floor-standing drum locate into a cast block fixed to the shell which contains an eye bolt insert. The feet of these bent legs are exactly the same as the ends of the bass drum spurs — lockable rubber or metal spikes. The tom-toms too have beaver-tail cast nut boxes, slightly smaller than the bass drum's — a sort of cross between Slingerland and Rogers with perhaps a little Ludwig thrown in. The tom-tom shells are beautifully finished inside as is the bass drum's and all of the screws and nuts inside are kept very neat and clean.

Accessories

Tama provide a very heavy duty snare drum stand with the Superstar 5. It has the unique new tripod legs found on cymbal and hi-hat stands. All these Spartan stands have die-cast inverted "U" alloy legs and their extremities have convertible tips which swivel to offer either a rubber foot or a double square section spike. Also all these stands have a nylon bush in a shaped cast frame at their height adjustment points which is Omega-shaped and works as a clamp when the large wing bolt presses into it.

The snare stand has a basket-type holding mechanism like Ludwig's old Buck Rogers. It locks to the drum via a large threaded collar with capstan arms which runs up a thread and tightens by moving inwards the completely rubber tipped arms. The actual snare drum playing angle tilting mechanism is new to me. Evidently it works like a brake drum on a car and doesn't use ratchet teeth. Instead, it has a cone inside which friction-locks and springs against a plastic material type clutch and is locked with a large "T" shaped wing-bolt. It appears to work well.

The Spartan cymbal stand (two are supplied) has exactly the same wide spreading legs as on the other stands. It's a three-stage unit with two of the nylon adjustment bushes and is made from wide bore steel tubing. It has a cast ratchet tilter which locks with a "T" bolt and has a sensibly extra long extension from it up to the cymbal holding thread. This thread has a large metal washer, two felts and Tama's unique two-way nylon nut. One way up it allows the cymbal to move freely — the other way it enables you to apply the felt against the cymbal to dampen it slightly.

The Spartan hi-hat stand seems to be the same mechanically as their slightly cheaper Titan model with the addition of the inverted "U" shaped legs — which needless to say have the swivelling rubber or spiked feet together with a sprung adjustable spur under the stand's centre. It's a very weird stand because its legs work on a very shallow angle and don't look right. Even so, the stand is stable. (You can open the legs out further but this raises the base plate off the floor and makes it unplayable.)

The double tom-tom holder is roughly the same as Ludwig's original, although maybe closer to Premier's. It has a large cast block bolted to the bass drum shell which has a hole in it to take a substantial tube with a large cast "T" shaped top. To this are bolted two cast, splined, but not sprung, ratchets. These are of

course adjustable in an arc and contain, via an eye bolt, two splined "L" shaped rods conveniently provided with memory lines. These rods then locate into a leg holder type block, also with an eye ring insert, which is fixed to the shell of the drum to be mounted. This fitting effectively holds the tom-toms in any desired playing position.

The height adjustment is activated by a large "T" shaped hand-bolt. Nowadays, Tama have given their tom holders a memory. A moveable key lock clamp fits on to the down tube of the unit which is effectively a collar with a key block protruding from it. This key aligns with a slot in the cast base-plate block and stops the whole thing from rotating around the bass drum. The "L" shaped rods have a locking system too, which uses mini locking clamps (drum key operated) which also have a key sticking out from them which locates into a slot in the tom-toms' shell-fixed bracket mount. As far as I can see, there's no problem with this unit.

The bass drum pedal which comes with this month's set is the "King Beat." It has a single post which is of cast, square-section alloy and it too has the curved two-piece footplate with its non-adjustable toe stop and a pair of spring-adjustable spurs. It has an adjustable compression spring which I found difficult to adjust from plying position — it has a thick knurled tube for this job but it is definitely easier to take the pedal off to adjust it with the screwdriver provided. The pedal locks to the bass drum hoop with a cam-activated clamp which, once fitted to the hoop with a drum key, needs slight movement of a lever to remove or replace it. There's something I've never seen before which is a screw adjustable rubber pad under the heel which elevates the heel portion and changes the foot plate angle. Besides this, the stroke of the beater can be changed on its splined cam, as of course can its height. The spring's push rod works in a nylon sheath to keep it smooth and quiet and the pull itself is via a metal strip.

I found the pedal action a little stiff, with a strange feel about it which I didn't manage in the time available to adjust out of it. To be fair, I'm not used to this type of pedal so naturally it felt alien to me. Perhaps it's an acquired taste. I understand too that this is the new improved model.

Appearance

I was disappointed in the exterior finish of the set. Its matt lacquer looked decidedly tacky and there was a definite nickel-plated look about the claws on the bass drum. I know the new high lustre lacquer finishes will please me more, because I've seen them. I like Tama's badges and admire the way they now thoughtfully provide each drum with a number. Other Japanese manufacturers could copy this since it's of great advantage if your drums ever get ripped off. Tama incidentally now fit these badges to the side (opposite the holder) of their tom-toms to solve the 13 x 9 on the left problem which I discussed in the Ludwig article. Anyway, I like the sound of the drums very much and look forward to the new finishes and shells being available.

Henry Roberts



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IM

In Brief

Piggy Amps 1: £75 inc VAT 2: £99 inc VAT

There are numerous small combos on the market these days, many of them intended for tune-up/practice purposes, some for stage and recording use. These two amps originate in Japan but are distributed in Britain through ABC Music of Surrey.

The Piggy-1 is the smaller version and is rated at 15 watts. The front panel houses two inputs – Boost and Normal – linked to two rotary controls marked Gain and Volume. The Volume control does what it's supposed to while Gain seems to be a weird and wonderful way of achieving an over-driven distortion. The distortion increases as the gain control is turned up, although a fairly natural distortion occurs when the volume is wound up anyway.

There is also a rather grandly-named Equalizer section which consists of two rotary controls marked High and Low. These are, in fact, not too distant relatives of old fashioned bass and treble controls and both work well.

The next control gives you the note of A (440Hz) via a volume control – very handy for tuning to concert pitch if you suddenly find yourself bereft of tuning forks. It really is a good idea and is something that could be usefully fitted to other amplifiers.

Next to that, there's a headphone socket and mains power switch plus indicator lamp. The amplifier section is mounted, via four Phillips screws, at the top of the unit, and the 8 ohm 8" speaker is bolted directly below.

The amp's sound is nice and clean at low volume without the Gain, but also gutsy and distorted when the Gain is brought in. At the rated 15 watts, it would hardly be powerful enough for stage use, but certainly for practice or in the studio, it would be useful.

The Piggy-2 is the 20 watt version which has a larger speaker plus a built-in reverb. The strange thing about the reverb facility is that you can get all you need by turning the control to the first notch – after that, you enter into the realms of Pink Floyd-type cosmic noises, the like of which you wouldn't possibly use unless you wished to simulate the sound of a fat man walking downstairs underwater. My other criticism about the Piggy-2 is that whether or not you're using the Gain control, distortion occurs much too soon. It's acceptable to get distortion above a certain volume level but the review sample began to fuzz at the lowest possible setting. Not a good idea but, to be fair, I suspect the sample review was a faulty model.

EP



Bird Brothers Flight Case £55 inc VAT

Bird Brothers of Rochdale manufacture a wide range of flight cases including some excellent ones for guitars, such as this new model. Like the rest of their range, the high density polyester foam insert is interchangeable to suit any shape or model of guitar.

This case differs from previous ones I have seen from the same company in as much as it is an all-aluminium clad model. The seams are all bound in aluminium and the overall impression is of a very robust and heavy-duty (without being heavy-weight) flight case.

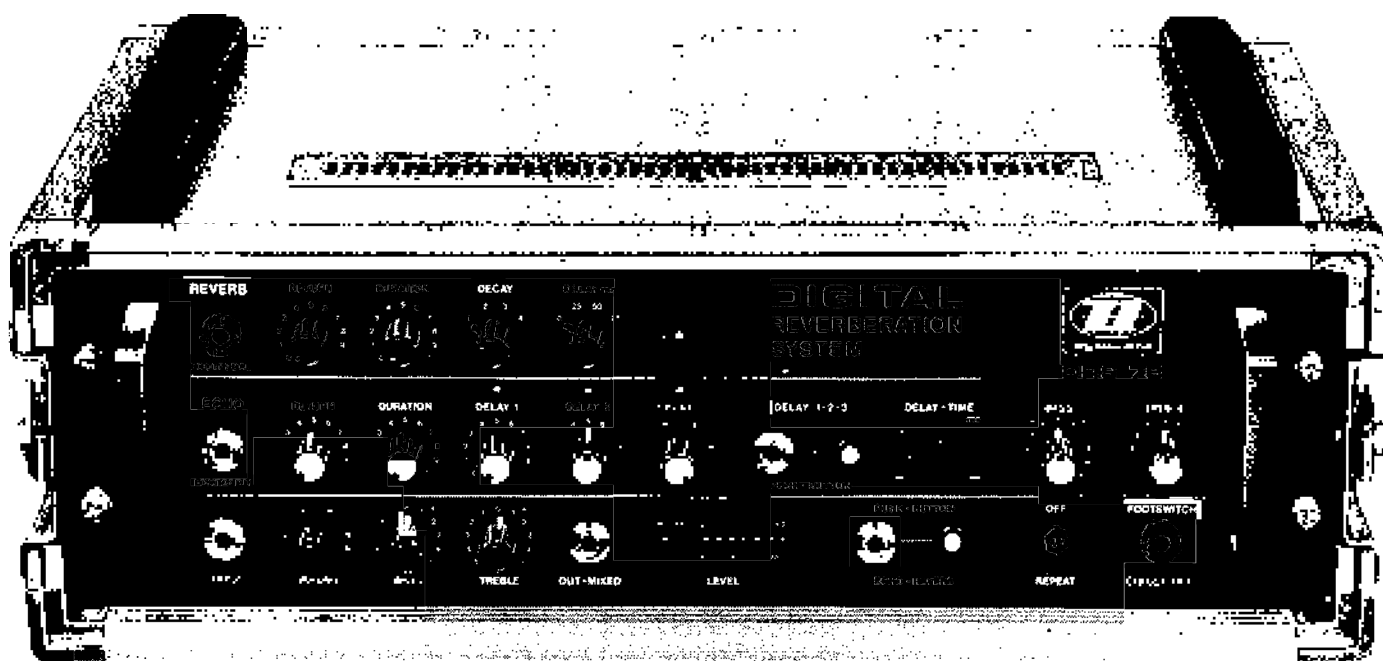
Hand-riveted American JH Sessions corners are fitted and a solid leather handle makes the case very comfortable to carry. At either side of this handle is a large, heavy-duty USA-made Excelsior latch. Two keys for these latches are also provided.

Two similarly heavy-duty hinges attach the top of the case to the bottom, further strengthened by a two-piece fold-down hinge inside the case. Bird Brothers make cases for any type of guitar and this one, which measures 3' 6" x 1' 4" x 4½", is pretty universal for single-neck instruments, with the exception of the shaped foam insert which can be ordered to the exact contour of your instrument.

EP



DYNACORD T is WOLF for Y



DYNACORD AND YOUR ART. Dynacord has been working with the musician for many years. As Europe's largest amplification manufacturer, Dynacord has amassed a wealth of experience which makes itself apparent in every new design. Dynacord has established a research team to continually investigate ways of improving the sound and the methods used by contemporary musicians. These two new products are examples of technology being harnessed for art.

THE TAM 19. This product is at the forefront of musical technology. It's a device for "Time Axis Manipulation" and in simple terms it uses two delay lines to create some beautiful and interesting effects.

The use of two solid state delay lines (in parallel, series or other combination) allows a whole range of effects to be instantly created. Flanging, phasing, pitch shifting, double tracking, ambience enhancement, chorus and space sound can all be had at the flick of a switch. In the TAM system the music signal is alternately expanded and compressed in time and

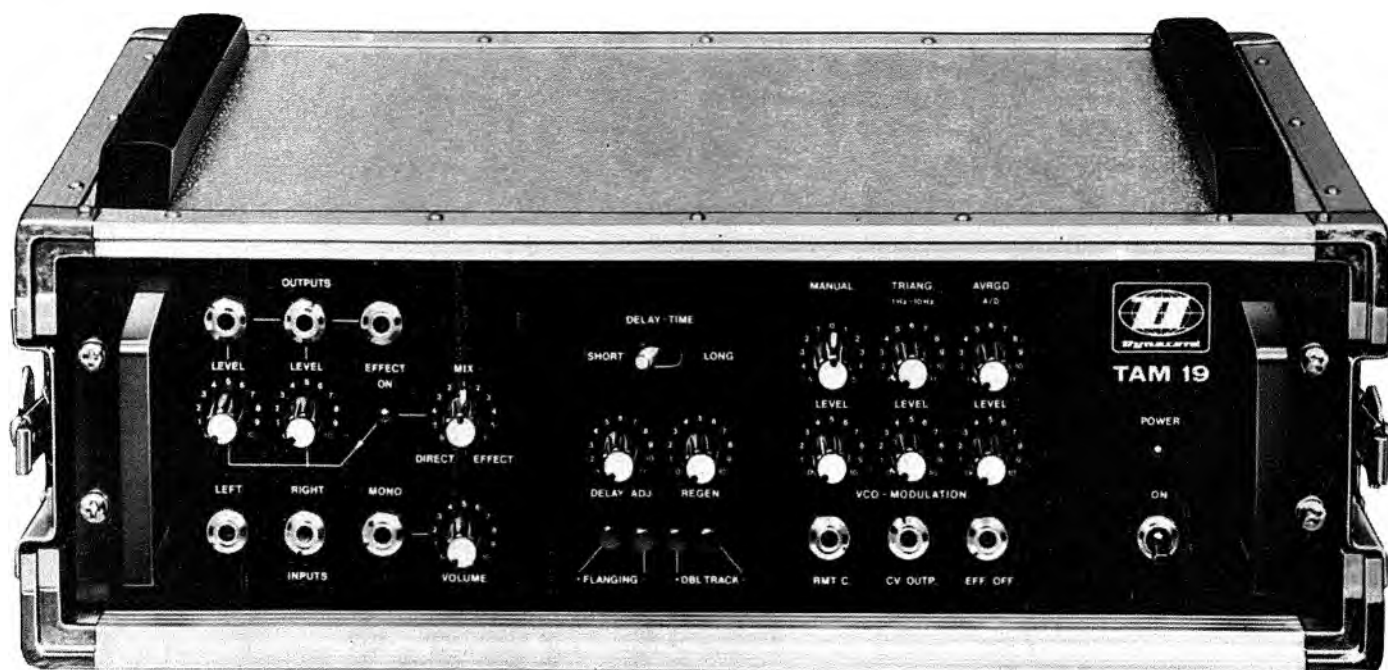
remixed in various ways with the original.

Mixing the manipulated signal with the original creates a comb-filter-like progression in the musical spectrum. Outstanding stereo effects are easily obtainable with the TAM 19 and the stereophonic design makes it possible to achieve positive and negative flanging, phasing and even pitch shifting.

The TAM 19 is equipped with three internal generators for time axis manipulation — triangle, sine and AVRGD (averaged), which can be mixed with one another in any desired combination. Of particular interest here is the AVRGD generator, which used the average value of the input signal for control of the time manipulator. Using the AVRGD generator, a drummer can, for example, control the temporal progression of the flanging by varying his technique. A foot switch makes remote control of the manipulator possible. The internal generators remain in operation, however, so that a maximum of four control signals can influence the TAM 19 simultaneously.

This is Dynacord technology working for you.

TECHNOLOGY WORKING FOR YOU



TECHNOLOGY IMPROVES MUSIC. Who says so? Most of the good musicians who use technological advances subtly to improve their art. No amount of technology can improve poor music, but feeling can be aided by the judicious use of the right effect. Dynacord specialise in making just the right effects.

THE DRS 78. Reverberation is an underrated effect. Throughout history men have built churches and concert halls with only the reverberation time as their guideline. It has been considered so important that Cathedrals have been extended to achieve it. Today good quality reverberation comes a little easier. The Dynacord DRS 78 digital delay system provides the best answer.

Reverberation gives "body" to music without employing horrible "repeat" effects when not required. The DRS 78 converts your input signal, guitar, PA, keyboard, etc., into "digital" information. This is then delayed on a line which allows you to remix it with the original signal at whatever point you require. Thus the reverb time can be very short or lengthened

into an echo.

The DRS 78 works quietly and effectively and it's provided with all "on-stage" facilities like line-output and footswitch control. Full equalisation controls are also fitted.

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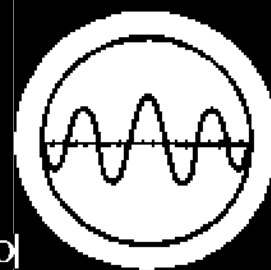
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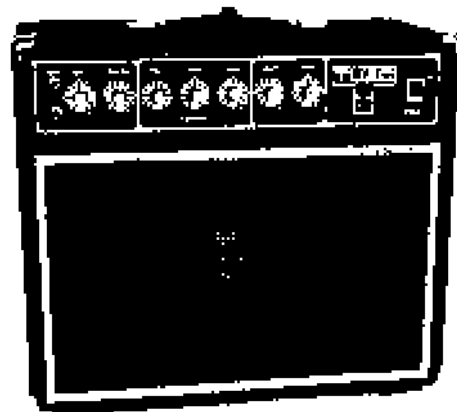




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TR60 TOP

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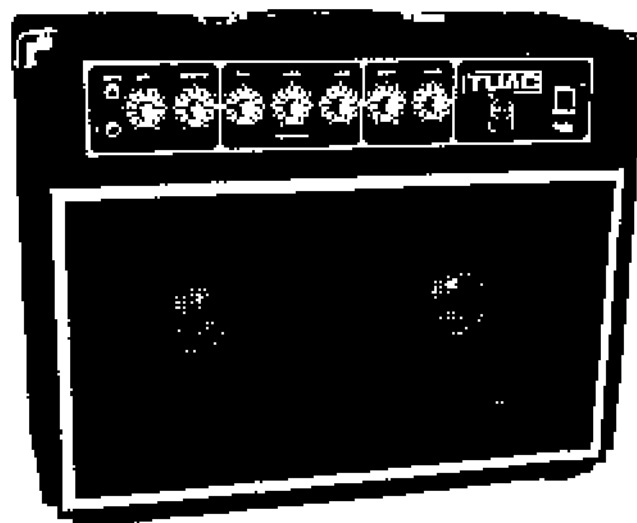


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BILLY COBHAM

'It's difficult to get people to relate to **5/4**



BY JOEL SIEGEL

It may be a bit pretentious to say that Billy Cobham revolutionised modern drumming, but it wouldn't be unfair to say that he influenced an entire generation of young drummers, not to mention changing the attitudes and approaches of some of the old guard.

Known primarily for his work with the Mahavishnu Orchestra, Cobham has an impressive list of credits which clearly shows that he's participated in most of the groups influential in the development of fusion or jazz-rock music. He has modernised jazz drumming by doing certain things, as one older colleague put it, "because he didn't know they just couldn't be done."

Drums were always the centre of Billy's existence and the people who unknowingly shaped his style and approach are drummers who in their time were the founders of a new style. "I guess my main influences," Billy explains, "would have to be Tony Williams, Elvin Jones, Jimmy Cobb and Art Blakey."

It was while attending the High School of Music and Art in New York that Billy started his professional playing career by sitting in as a sideman in his father's band. This led to a long list of sessions and gigs with Sam and Dave, Esther Phillips and a wide variety of R&B groups. In 1967-68 he played and recorded with jazz stars such as Billy Taylor, Horace Silver, Kenny Burrell and George Benson.

Cobham soon staked out his own territory by co-founding one of the first jazz-rock groups, Dreams, which included the Brecker Brothers among its line-up. Although Dreams was short-lived (two albums for Columbia), the band was influential in furthering the development of fusion music and many of its members went on to successful recording careers.

There was another kind of fusion going on at the time between Billy and John McLaughlin. Billy had worked with the legendary guitarist on some of the landmark Miles Davis albums (*Jack Johnson* and *Live Evil*), as well as on Larry Coryell's *Spaces* and McLaughlin's own *My Goal's Beyond*. When McLaughlin formed the Mahavishnu Orchestra, Billy was the obvious man for the drumming slot and what resulted was the development of a "hot" fusion style that has yet to be equalled. As jazz musicians they explored odd time signatures and unstructured improvisation and as



rock 'n' rollers their music was high powered and aggressive.

Since the Mahavishnu Orchestra broke up, Billy has primarily pursued a solo career, although he did co-lead a band with keyboardist George Duke. Billy has been prolific in the output of albums, producing 10 to date, including two with George Duke. *Alivemutherya*, an all-star live album, also included Steve Kahn on guitar and Alphonso Johnson on bass. And although he's just released his latest, *Simplicity of Expression, Depth of Thought*, he is already working on his next.

Produced by Wayne Henderson, the album's line-up is not set at present although Billy foresees Jay Graydon (guitar), Bobby Lyle (keyboards) and Ned Phillips (bass) as possibles. His lack of regular working partners points out a specific fact about the development and style of the drummer: he does not have any favourite playing partners when it comes to making records. "Nine times out of ten I'm always searching for somebody. There are some people that I sort of like to work with depending on what the music is. But my music is changing and it's difficult to use the same people."

'Nine times out of ten I'm always searching for somebody'

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BILLY COBHAM

Equipment for any musician is a primary concern and for Billy Cobham, Tama seems to have answered all of his problems, although he's always on the development path and is looking for new methods and ideas for improving kits and hardware.

Right now, I am using a 22 x 16 bass drum, an 18 x 24 and a 15 x 20 bass drum, a 6½" concert snare, a 3" piccolo snare and a 5½" snare, an 8 x 12, a 9 x 13, a 10 x 14 and a 12 x 15 tom-tom, two 16" and two 24" conga drums.

"I use A. Zildjian cymbals, a 26" swish, a 22" ride, 20" crash, 18" crash and a 17" crash. Sometimes a 7" splash too."

When it comes to choosing drums, Billy says, "One of the most basic and most important factors is durability. A drum set should be designed and constructed so that it has minimum breakdowns in comparison with its cost. Even if your equipment sounds great, it's virtually useless if it continually falls apart. For me, buying a drum set is like buying a fine automobile. I don't care how much it costs if I know it's dependable and won't break down."

"How a set is made is also very important. There are things that can be done with wood that haven't been done with drums, yet. I saw a drum set made in Japan for Santana's drummer which gave me some ideas and told me someone else was way ahead of me. I think experimentation with new concepts, both in construction and visual appeal, is a primary responsibility of drum companies. I'm currently experimenting with the engineers from Tama on many new products."

"We're working on a viable triple bass/triple snare set, new and unique shell depths, and a versatile hardware system that encourages individual experimentation by drummers. Each drummer has a unique character and his drum set should be capable of enhancing that character."

Billy Cobham is no stranger to synthesized drums. "Tama has something out called the Sniper, which is made for them. It's got that popular Syndrum kind of 'whooooo,' lots of range and sweep. That's about it. Other than that I use a lot of Eventide products, the omni-pressor, phaser, flanger, digital delay, harmonizer, roll-in-space echo. Sometimes I use a Synare."

When talking with Cobham it's easy to remember some of those exhilarating recordings and performances he made as part of the Mahavishnu Orchestra. He recalls those

days fondly. "It was highly educational for me because I was schooled rhythmically in a highly exotic area of rhythm playing, which was playing in odd rhythms. So it was a time for learning that stood out a little bit more than other times."

But why doesn't Billy incorporate more odd times to his current work, since it was such an exciting element of his work with Mahavishnu? "It's extremely challenging, but it doesn't really pay the rent. You know, there's a certain amount of economics involved which for logical reasons dictates what I record, what I write and play. It's difficult, more often than not, to get people to relate to 5/4 on a consistent basis."

It is sad to report that the Mahavishnu days have haunted Billy Cobham rather than inspiring him to do better. He is not a natural leader and his bands have never really jelled, mainly because the personnel keeps changing. John McLaughlin is certainly more the leader type and the personnel changes of his bands usually mark his desire to change musical forms and style, not just to perfect one particular style. John was a leader for Billy, someone who could direct his great abilities. In theory, this is also the job of the record producer. Unfortunately, in reality there are few men in music as great as John McLaughlin, or better

"Buying a drum set is like buying a fine automobile."

yet, Miles Davis, or John Coltrane, or Duke Ellington.

Billy was hurt by the break-up of the Mahavishnu Orchestra and he is quick to point out that John disbanded the group and that he never quit. The bad feelings have yet to subside. There was a reunion of sorts on McLaughlin's latest, *Johnny McLaughlin, Electric Guitarist*. Billy recalls: "On that one I did two tunes. I felt like they were not now. I mean the whole thing is not of this age. Things have changed. I didn't realize it until after we did it. I found that the first one that John and I did with the band was a piece we played in 1972 and never got a chance to record. It was nostalgia time. Nothing had moved forward. I felt like I had moved into another area in my playing, just a different dimension, and John had moved off into another dimension."

"It was a disappointment for me, musically, but at the same time it was important for me to do it so that I could find out that that was an era



that has passed and should be left alone. It's done. It was the foundation for something and to try to reconstruct it... I don't know. I could see Return to Forever reconstructed much sooner than Mahavishnu."

Some of the Mahavishnu Orchestra performances were breathtaking. The amount of energy generated was phenomenal. "To give you the God's honest truth, when we felt good we could play for hours and hours and hours, and not get exhausted. I would go back to my room and have to go to sleep because I knew the next day we had to go someplace. It was just for pure health reasons. If we felt good, we would stay up after a 3½-4 hour show and play ping-pong or tennis, or something like that. It was the strangest kind of thing that you couldn't go to sleep. When I did have to go to sleep, I would get into the bed and my eyes would stay open for an hour or two. The music would be going around in my head. I would be thinking to myself, that was unbelievable."

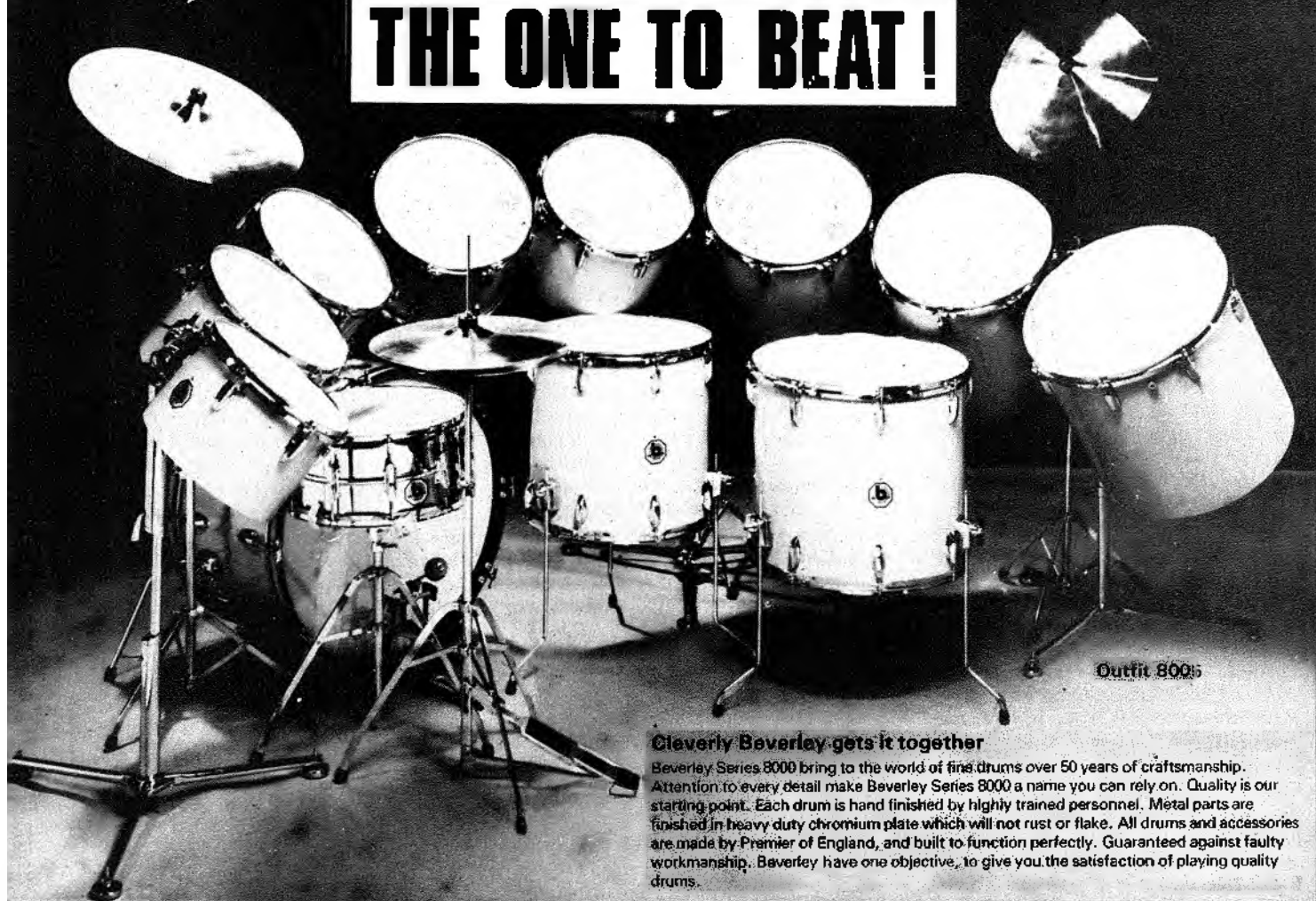
Billy remembers Miles Davis' sessions as being particularly demanding. "When doing portions of *Live Evil* or *Bitches Brew*, you never knew. I mean he never did tell me exactly what he wanted, and I really didn't know. You just sort of had to go for it and hope that you didn't get punched in the mouth (Miles is a boxer). I never did get punched in the mouth, so I guess it was cool. He would look at me sort of, kinda funny, and I would never understand what the look meant. Most of the time I couldn't see his eyes because he wore dark glasses all the time. I never knew what was going on."

"I don't even remember him counting off the beat. Somebody would start, maybe John would start playing on the guitar, and all of a sudden something would happen. It would all sort of fall out, or he'd tell Michael 'Let's hit it,' and Michael would start the thing. Michael Henderson. That's when you'd know you were doing a tune."

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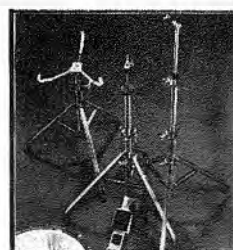
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DAVE GREENFIELD

DAVID LAWRENSON meets the man behind the Hammond behind the Stranglers

The Stranglers are one of the most enigmatic bands to have emerged over the last couple of years. They are the most commercially successful New Wave band in Britain and — perhaps for that reason — have attracted their fair share of criticism. Even their labelling as a New Wave outfit has been called into question.

The fact remains that they consistently sell records and fill concert halls. To many, they are one of the more acceptable and accessible faces of the New Wave, "crossover" artists bridging the gap between heavy rock and punk.

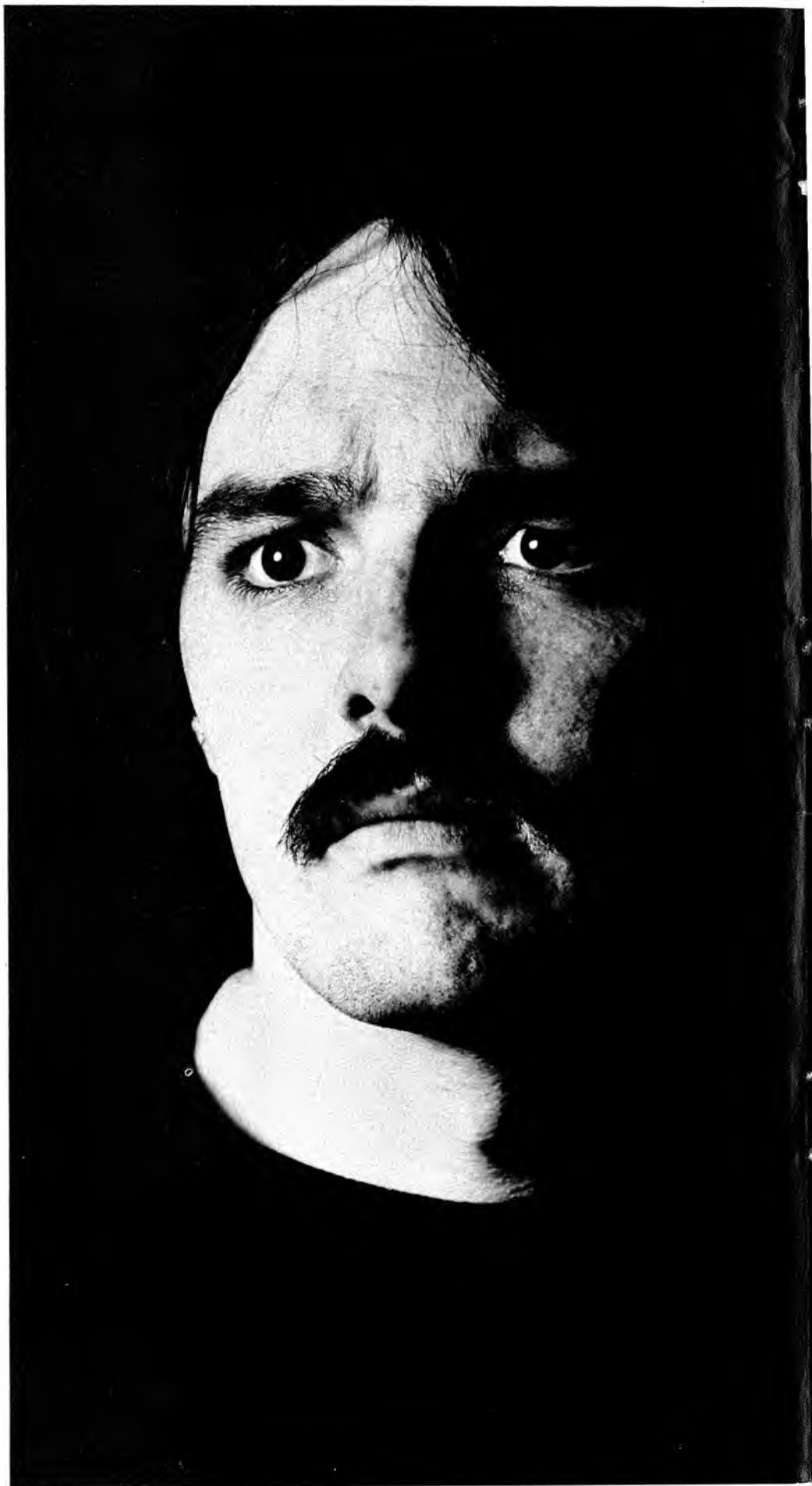
Whatever your view, there's no denying that on record they have an instantly recognisable sound, which in itself is something of an achievement in today's rock music. At the heart of that sound is a combination of Jean Jacques Burnel's rasping bass and Dave Greenfield's haunting Hammond organ. Greenfield was probably the first New Wave keyboard player, and remains the best known and most distinctive. There have already been a stream of young bands trying to imitate the Stranglers sound, Dave's Hammond sound in particular.

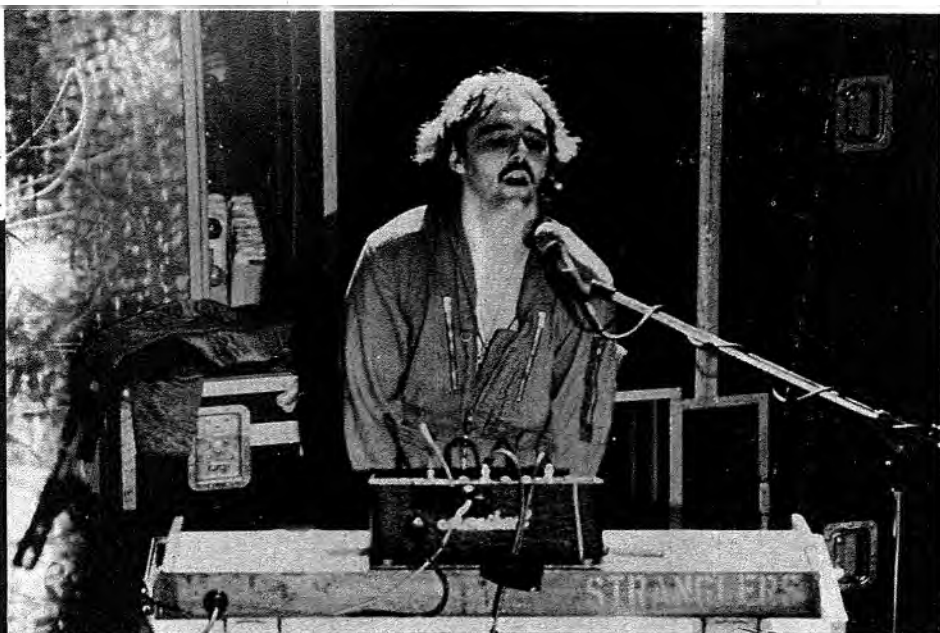
He is currently in the process of changing some of his equipment, and is becoming more involved in synthesizer. Still the trusty old organ remains in the line-up. "I've still got my old Hammond L100 which I've been playing for about nine or 10 years," he says. "I've had others before but it's this particular one which I like.

"It is modified to the extent of a switch control which will continually sustain the second and third harmonics. On the old L100 you could sustain the third harmonic by putting that fully down and the second harmonic half-way down. I can do that with the switch now, which I use a lot of the time purely for attack.

"The only other modification is a variable switch pitch control which affects the speed of the motor that drives the generators to a degree. It's not very positive and if you manage to set it exactly right you're lucky. If not, I just use it for effects not for positive control.

"I have two or three favourite settings which I use. In a hard driving number I will use sustained third harmonic attack. The position of the drawbars is, on the upper manual the first four are full out on eight, and the remaining ones range from zero to eight in a line. On the lower manual I think it's eight, seven six, eight, six, five, six, something like that — which





is a common setting. I don't usually change the bottom end anyway because that's usually for basic backing.

"The other favourite sound is a sustained second harmonic with settings on the top manual similar to the ones on the bottom. Obviously for specific numbers I will change them, but I don't use the organ a quarter as much as I used to, its mainly for backing now."

Dave remained unmoved by some music critics who seemed to take exception to the use of a Hammond, seeing it as a symbol of the bad old days of hippiedom and self indulgence. Apart from the few modifications the only effects that Dave uses on his organ are an MXR phaser and an old Schaller wah-wah.

He also plays piano and has recently parted with his beloved Hohner Cymblet in favour of a new Yamaha. "The sound of the Cymblet was lovely. I thought it was really individual but as it got older and older - it has been out of production for eight years - we had trouble and it just got worse and worse.

"When the humidity in a hall got too high, the thing used to short out because it just had one big pickup bar inside. So unfortunately that had to go and I will now be using a Yamaha, the CP 30. It's touch-sensitive whereas the other wasn't, so I've been trying to strengthen my fingers to get used to it. The piano is basic, but I do have a little effects box built for it which does varying things. This includes noise gates, a frequency cut-off and a few other things which alter the sound slightly. This goes through a phaser in the organ, and is patched in and then patched out.

"I'm worried about the Yamaha solely because I've been playing on non-touch-sensitive keyboards for so

long that my fingers aren't as strong as they should be. Suddenly I find myself on this Yamaha, which is fine when I start playing and I can build up the same kind of speed, but after a few numbers my hands start to get tired and that slows me down. I've been practising on my piano at home to try and strengthen my wrists."

Dave is not really known for his work on synthesizers, except for a dash of MiniMoog here and there, but things are changing. He is already using more synthesizer than organ and has just invested in a new synth.

"The old MiniMoog is still there, but it will be on its way out very shortly because I've just got an Oberheim. I have the four banks at the moment but I'll be adding the other four when I fully know the instrument. I'm extremely pleased with it so far. I tried a few synths, but mainly went by reports and the two I was basically interested in were the Oberheim and the Prophet. The Prophet is a lot easier to set and change, but the sounds I thought were too similar to the MiniMoog.

"Up to getting my first synth a few years ago, I had no knowledge of synths. I still consider it extremely sparse. I know the MiniMoog now and the Oberheim is a challenge. I don't know the limits of the machine at all yet, but if you use the memory correctly it is quite easy - providing you remember to set everything up.

"You've got far more scope on a synthesizer, especially a polyphonic, than you have on an organ. I mean I could synthesize the sounds of the organ very easily on the polyphonic - which may well happen. I can synthesize a full eight-note organ chord on the Oberheim just by pushing one note if it is set right.

"I'm already discovering the vast use of the Oberheim and I've only had a few rehearsals with it. To have a full chord at the touch of one note that sustains, for a short time anyway,

means that instead of holding the full chord, your hands are free to mess around with whatever else there is. I've also been trying out a Wasp which is very similar to the MiniMoog but for the price is totally amazing. I've got one at home which I might use on stage but it depends."

With all this dabbling in synthesizers it would seem that there is a threat to the familiar Stranglers' sound, with no place for the Hammond. But Dave maintains that their basic sound will remain and only change to the degree that it already has. As he explained anyway, it is possible to programme the synth to create a sound pretty close to that of the old Hammond.

SStill, the sound you get from your instruments is only as good as the equipment you use to project it and Dave has spent some time perfecting his current system. "When the band first started making it we had an ordinary piano, no mixer, an old 100 watt Selmer PA amp and I was going through a Vox Supreme cabinet which had four 12s and two horns. We also had a cabinet which we called the Abortion because that's just what it was.

"It had a home made 18-inch speaker and a couple of Acoustic 201s, which were a lot better but couldn't stand the total range between top piano and deep synth. Now I have a Kelsey 20/4/2 mixer. The reason we got that was that to get six or eight channels, or whatever I'm likely to need that is compatible to all the equipment, would cost twice as much.

"The whole lot is run through one master volume pedal apart from the sliders, just in case I can't reach them in time. It goes through Turner amps, two A500s and one A300. The 300 drives the top range through two cabinets, with obviously crossovers and everything, and JBL monitors. For close range work, and what I wanted to hear, the studio monitors are the best. They don't throw so much but the sound is perfect where I am, and for outside, miked up they are ideal."

Having established themselves as an important British act, the Stranglers are now set to conquer new markets in Europe, Japan and possibly America. As with many successful bands, the individuals are starting to branch out with their own projects and Dave himself has plans for a solo album.

But for the moment the success of the Stranglers are his main concern, so we are likely to hear that distinctive organ sound for quite some time yet.

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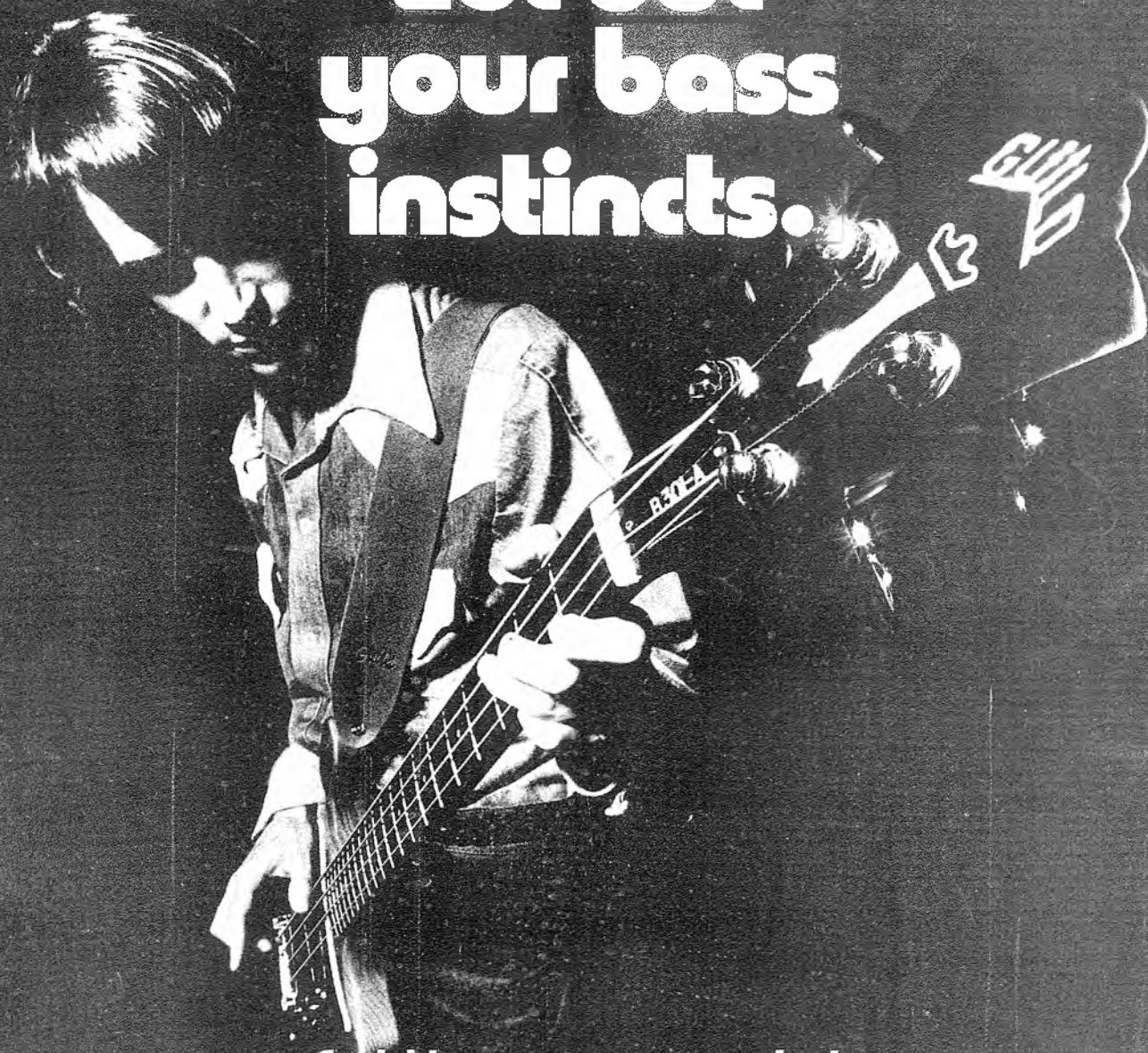
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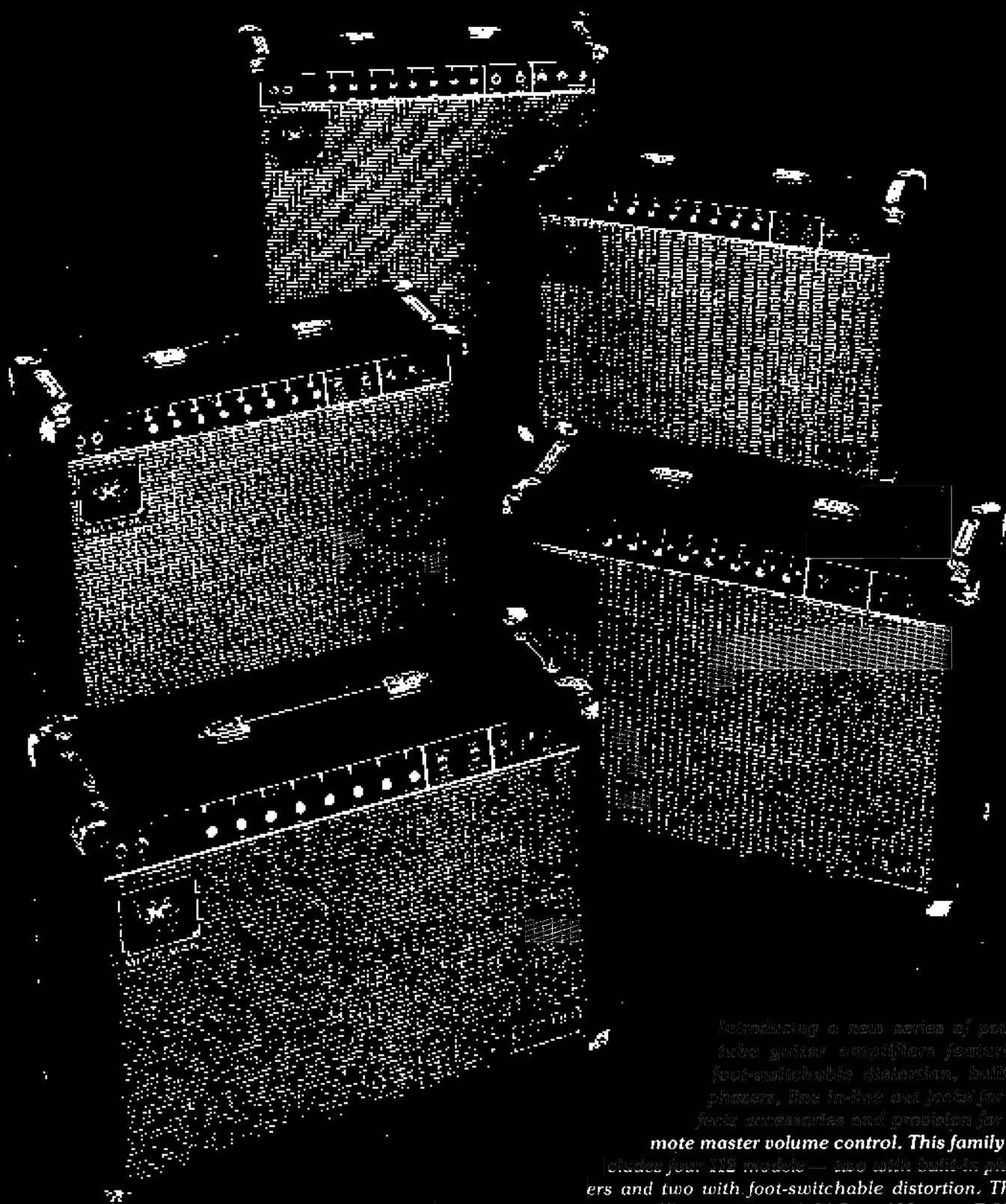
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Last month, we began a study of styles. A short musical example, with the chord changes, was presented and three difference styles of playing thy rhythm part were shown and explained.

The three examples used a disco

case here, you want to bend up to the D from C#, then let the string return to its normal position for the C#. The end of the bar requires a similar motion, however, you will bend up a whole step rather than a half step this time (C# down to B).

Using an electric guitar with a soft sound setting, play the piece very smoothly. Take your time with it, don't rush the notes and try to make it sound very relaxed. Remember, you're trying to create a mood, that is the essence of this style of playing.

Notice that the melody is almost identical to that of the original. The only changes are the rhythms in bars two and six, and the ending which uses an A Major 9 chord with a harmonic afterthought on the B and E strings at the 12th fret.

The last example uses a twangy electric sound in a country setting. The idea is to give the tune a happy feeling. Study Example 4.

First, you'll notice the addition of 16th notes in the melody. This gives it a double time feeling which is one

EXAMPLE #1



rhythm on electric, a ballad using a classical guitar, and a hoedown country style, also on electric. Hopefully, you've had some time to play and study last month's examples. If not, it would be wise to go back and take a stab at them before proceeding to the following material.

Let's look at the original phrase just to refresh our memories (Example 1).

Using the first rhythmic style from last month, how might you treat the melody with a disco rhythm section? Take a look at Example 2.

What I have done is utilise a few rhythmic changes, such as two 16th notes in the pick-up bar rather than an eighth note, using intervals of thirds and fourths in the first, third, fourth, fifth, seventh and eighth bars to give the melody a harder sound, and add harmonic continuity with the changes. The second beat of bar one is notated with ties. This means you finger the

In bar three we have a different bending situation on the first beat. Bend the B on the third string, fourth fret, with your third finger, and bend it up to the C#. Then play the E with

EXAMPLE #2



your fourth finger since it's right there. Be conscious of the pitch because that's the biggest problem with bending (other than having the string pop out

characteristic of this type of country music. Also, there are a couple of country type fills to add to the feel. The first one is the fourth beat of bar three, and the first two beats of bar four. Play it all on the first and second strings using as many open strings as you want (in this case the B and E strings).

The other fill is at the end of bar six going to bar seven. Here again you may use open strings except in bar eight where it is indicated to bend the C to a B. With your third finger, bend the B on the third string a half step to C, play it and then bend back to B. This is the same type of thing you did in the disco example. Anyhow, have fun with it.

EXAMPLE #3



C# and F#, and slide down to the B and E. You may choose to attack the B and E, or you may not. Play it the way it sounds best to you.

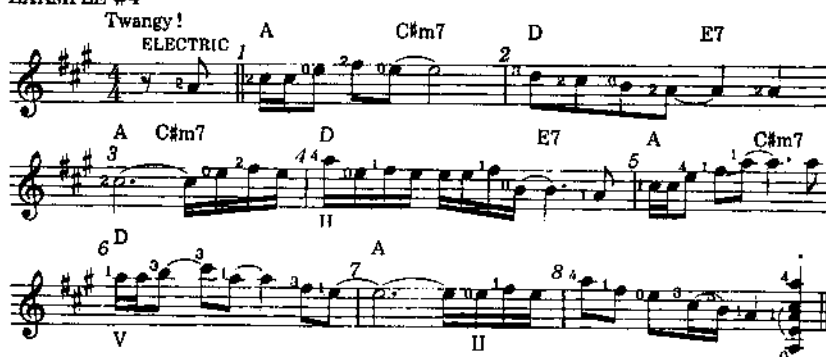
Going to the second bar, you will notice markings on the first and second eighth notes (D and C#, respectively). One mark is a U-shape sitting right side up, the other an upside-down U. This has become a common way of indicating bends and whether you are to bend up to a note or bend it above the pitch indicated and come down to it. In our

from under your finger). The bend in bar six should be executed like the one in bar two.

Let's look at Example 3, the ballad.

Mitch Holder is a guitarist with experience covering television, recording and touring. He is much in demand as a session player having worked with top name artists such as Barry Manilow, Barbra Streisand and Billy Davis. He is also the author of "Quadraphonic Fingering".

EXAMPLE #4



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What I'm going to do in this article is attempt a list of pointers and ideas to help the drummer going into the recording/demo studio for the first time. There will be no magic revelations — all these tips are little more than common sense — and some of the suggestions pertaining to the drums and hardware (as opposed to studio tuning tips) are applicable when you return to live work.

Because of the many moving parts of each stand and pedal, hardware invariably causes a problem at one time or another. Here are some things to check. Hopefully you've got yourself a comfortable stool. Make sure it doesn't squeak when you turn even a fraction to one side. You'll feel pretty stupid if you get a great take of a quiet number and as you reach out at the end of the take to slowly muffle a ringing cymbal...

You all know about noisy bass drum pedals, I'm sure. Check the unlikely spots if you're still getting a rattle, where the beater enters the hub, for instance. It's not always the spring that's the culprit. If the pedal has metal links, a small amount of thick grease in the right place won't go amiss, and if it has a fibre or leather strap, try doubling up (one on top of the other) to safeguard against wear and breakage.

Checking the unobvious spots applies to the hi-hat pedal as well. Listen for a larger-than-life "click" when the pedal returns after being depressed. If you're getting something akin to a scraping sound, it could be that the centre rod is moving against the inside of the top tube. A piece of plastic tube (similar in size to that used at the top of cymbal stands) around the centre rod halfway down and a little masking tape to prevent vertical movement will help keep metal from metal. With the top cymbal of your hi-hat pair too tight, the cymbal won't vibrate. Too loose and the sound of the clutch moving against the partially immobile cymbal will be heard. Remember that in the studio your drum set is under a kind of "aural magnifying glass" and the things that you either didn't notice or did but didn't bother about are going to come under close scrutiny. Without suggesting going out and buying bedroom slippers, it's also advisable to play in a soft-soled shoe — otherwise there is the possibility of contact between foot and pedal being picked up.

Last, the cymbal stand. Hit all your cymbals on stands quietly and then gradually increase the volume — slow single beats, not a roll — with

mallets. No rattles? Good. Up ten places; collect free drum kit. Rattles? Could be one or all of a half a dozen things. Check the rivets: no loose and rattling legs? Maybe the stand is very low and tubes are rattling against tubes. If so, try loosening the wing nuts at the height adjustment stages just a little. Is the curved washer underneath the felt (underneath the cymbal) loose? If you've a metal washer and then just one thick felt underneath the cymbal, that should be sufficient, and that should also leave an ample amount of plastic tube protruding to screw the wing nut onto (to stop that vibrating!).

That leads me neatly from hardware to drums and cymbals. If you think your cymbals are ringing too much, my first reaction is to say you've bought the wrong cymbal. However, I'll temper that and say that rather than try to choke it with felts, a little masking tape should help. (I advise masking tape rather than gaffa tape or its variations on drums and cymbals because its effects aren't so severe and it doesn't leave a mess if and when removed.) If you have to tape your cymbals, tape them underneath and rather than two or three long pieces, try four or six shorter pieces roughly the same length going out from the edge of the bell and evenly spaced (four pieces: twelve, three, six and nine o'clock). This way, you'll slightly deaden the cymbal evenly as opposed to stone dead.

The drums. As likely as not, you'll set up and play and within minutes both engineer and tape op will rush out armed with enough blankets, curtains and tape to stifle China. This is where it starts to get a little difficult. Now I admit that I don't feel nearly so vitriolic towards studio engineers as I used to, mainly because I've worked with too many good ones. However, the key to your whole relationship with your first engineer is give and take. Unless you're in the middle of a huge room and just using ambience (distant) mikes (you're probably in a very small booth), the amount of ring your drums have, as they've been tuned for stage work, is excessive. Some engineers would like to remove this almost completely. The variables that affect how much ring should remain are unfortunately many. How you play, the type of music you're playing, how much you're "spilling" onto other instruments (this sometimes enhances the sound) ... this list goes on. There is also good ring and bad ring! Bad is getting too many overtones and/or "setting off" other drums in sympathy. Judicious use of masking tape here and there will help to cut

out some of these undesirable factors.

Check that the heads are on evenly; make sure that the tensioning between the top and bottom heads of your toms isn't wildly different. What I've found over the years is that if the drums sound good to me from where I sit, they should sound good in the control room. Although that may seem obvious, what I'm implying is that if one tom-tom doesn't quite "fit in" with the rest, don't expect the engineer to "take care of it" on the board. Work with him; if you have the time, ask if it's possible to record a little of you playing by yourself. If so, don't flash around the kit. Play something slow and simple — four bars of rhythm on the hi-hat, then your cymbal. Do a slow fill, for example an open, simple phrase on each tom. When you go in to hear it back, you'll be able to evaluate each drum's sound. Do the toms have a similar tone or does one ring more than another?

Although it's usual for the front head to be removed from the bass drum, the tension of the remaining head and the amount of dampening affect the final sound a great deal. If the head is too tight, a lot of padding has to be used so the "note" from the drum isn't too predominant. I personally prefer a slacker playing head with just a little damping against the bottom inside the shell. Also, if you've been playing on stage with both heads on the drum and using a wooden beater, you may find that with the head off you're getting too much impact and not enough drum. Try a cork or similar mid-density beater.

Finally, the snare drum. As there seem to be about a million different recommended ways of tuning it, I think I'll say nothing here but give you a couple of general pointers about your drums and its care. These apply to whatever work you're doing, studio first time or not. General things are: (1) make sure the damper works effectively and doesn't rattle in the on or off position; (2) likewise the snare release or strainer; (3) if you suffer from tension rods working loose, try either substituting the plain washer with a serrated one or removing it all together.

Finally, I'm going to trot out a few of the clichés you always hear! Keep it simple, don't be flash, think about everyone else's parts and not just your own, etc. I hope it all goes well and if the engineer still complains about your sound, don't tell him you read this.

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In the series of articles on pedal steel guitar which came to an end in the February issue of IM, I referred throughout to the 10-string, E9 chromatic tuning with the basic pedal set-up or "copedant". For the purposes of such a series, aimed primarily at beginners, I felt it was necessary to stick to some sort of standard tuning, as it would be confusing and not really practical to cover all the possible ways of playing chords if we had to take account of different tunings.

This new series of Playing articles will be covering a wider range of subjects and techniques for the pedal steel, so now is the time to look at other tunings and set-ups than the one covered so far. You may remember that I mentioned in the previous series that there are two standard tunings mainly being used at present: the E9 and the C6. Having already talked about the E9, I'll now give you a run-down on the C6.

The standard C6 tuning also uses 10 strings, but tuned as follows:

- String 1 G
- String 2 E
- String 3 C
- String 4 A
- String 5 G
- String 6 E
- String 7 C
- String 8 A
- String 9 F
- String 10 C

The E on the second string is the same pitch as the fourth string on the E9 chromatic tuning, and also the same pitch as the first on a regular six-string guitar.

The most standard of the pedal set-ups consists of five floor pedals and one knee lever, and the changes which are available give the copedant chart shown in Fig. 1.

PEDALS						
	A	B	C	D	E	KNEE
1	G	+G*				
2	E		+F			
3	C			+D		-B
4	A	+B		+B		
5	G	-F*				
6	E		-E*			
7	C				+C*	
8	A	+B				
9	F	+F*			-E	
10	C	+D			-A	

Fig. 1

Like the E9 copedant, the pedals aren't always arranged in exactly the same order, for some players swap them around for their own personal preference. Also there are variations as to which side the knee lever is situated and in which direction it travels.

It's interesting to note that the basic C6 set-up seems much more complicated than the basic E9, although in fact it preceded the E9 as we know it today by a long time. The C6 tuning was a development from some of the early Hawaiian steel tunings, which were usually of six or eight strings. Extra strings were added later to extend the tuning to the present 10-string pattern. (As a matter of fact, they're still being added as the instrument develops - see later.) Whereas the C6, in one form or another, has been around for some time, first without pedals, then with them, it seems that the E9 tuning developed and increased in popularity alongside the mechanical advances which enabled the use of pedals. (The use of pedals, I believe, started around 1940 and it's been a continuing story). The E9 tuning would be very limited and

the tunings it will have. What happens is the A, B and C floor pedals for the E9 neck are situated on the left-hand side of the guitar's body and the five floor pedals for the C6 neck continue along in a row to the right, giving a line of eight pedals. The knee lever changes for each neck may be operated by one common lever acting on both necks simultaneously, or the two changes may be divided and operated by two separate levers, probably one for each knee. Fig. 2 shows a typical copedant for a twin-neck 10-string steel.

Notice that the pedals have been given numbers rather than letters this time. Pedals 1, 2 and 3 are the same as the A, B and C pedals we have seen already and pedals 4-8 are the A-E pedals referred to in the previous C6 diagram. Different tutor books and systems of tablature use numbers or letters but the basic idea is the same and it's not too difficult to think of your pedals as having letters or corresponding numbers. You will also see from this rather complicated-looking diagram that it is basically just the two copedants side by side on one body but with some extra knee levers.

	KNEE	KNEE	1	2	3	4	5	6	7	8	KNEE	KNEE
E9	F*											
	E*											-D
	G*			+A								
	E	-E*	+F	+F*								
	B		+C*	+C*							-B*	
	G*			+A								
	F*											
	E	-E*	+F									
	D											
	B			+C*							-B*	
C6	G					+G*						
	E						+F					
	C							+D			-B	
	A				+B			+B				
	G					-F*						
	E						-E*					
	C							+C*				
	A				+B							
	F					+F*				-E		
	C					+D				-A		

Fig. 2

probably extremely difficult to play without pedals - and it would certainly be impossible to achieve many of today's sounds without this type of pedal set-up.

You often find that the two so-called standard tunings have been brought together and fitted on to one instrument known as a "twin-neck" steel. For many years, this animal has been the trade standard, if there is such a thing in the steel guitar world. When you come across a twin-neck pedal steel these are almost certainly

As players have progressed, and the mechanics of the instrument have improved, there has been a tendency to add more and more pedal or lever changes to steels in order to achieve yet more chordal inversions and thus a greater variety of sounds and licks. We have also seen more strings added. Models with 11, 12 and even 14 strings are now in existence, the most common, other than 10, being 12 strings.

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Paul Rowan is one of Britain's finest exponents of the blues harmonica. He has played with Alexis Korner, Long John Baldry, Van Morrison, Champion Jack Dupree, Arthur Crudup, Duffy Power, the Muddy Waters Blues Band, Stefan Grossman and many others. In recent years, he has been involved with reggae groups, adding a new instrumental voice to their sound, but now he is heading back towards his first love and aiming to get a blues band together. He begins his first *Playing* article for IM by outlining the harp's role in the musical spectrum.

When the harmonica first appeared on the scene as a blues instrument, it was a way the poor American black people could render the bitter-sweet blues tonality without too much financial outlay. Its purpose in a band is rather like a saxophone, italicising and embroidering the vocal lines of a blues song. The famous Chicago bassist, composer and session fixer, Willie Dixon, has stated that it is also useful because of its ability to sustain chords and help thicken the sound.

Because of its low price and compact size — out of all proportion to its musical flexibility and big sound — the harp rapidly became very popular and not surprisingly, players of astonishing virtuosity started to appear. Some of them have become legends of the blues with international appeal. Brilliant players such as Sonny Terry, Little Walter and Sonny Boy Williamson, have won world-wide fame and have been aped by myriads of imitators.

There are two main schools of blues harp playing. One is that headed by Sonny Terry, a more folksy, rural method. The other is a more urban, modern sound as popularised by players like Little Walter and Junior Wells, which stretches back in a direct line to Hammie Nixon, accompanist to Sleepy John Estes in the early Thirties, and to Noah Lewis of the Cannon Jug Stompers of the same period.

It is this second method which is the basis for most modern innovations and the foundation of the modern Chicago-style amplified blues harp method. It is known as Chicago-style as most of the players were based and recorded there, including the vastly influential and nowadays underestimated John Lee Williamson, the first of the Sonny Boy Williamsons. It was he who first gave the impetus and laid the foundations of the modern band style of playing.

Before going any further, it is important to define the difference between the two methods of playing. They are mainly centred in the way sound is produced from the instrument. The most popular method of producing the distinctive blues tonality from a harmonica — i.e. bending notes



Sonny Terry

— is by what is known as the “second position” or “crossed harp” method, achieved by sucking, starting from the second hole. This changes the pitch of the harp so that you are actually playing in a key a fifth above that to which the harp is tuned.

Of the two methods of producing a note, one that most blues harp players seem to use is simply to point the lips as though to whistle, and suck. The other method is to place the tongue over the holes on the left of the harp and suck the holes on the right. This second method is the right way to play amplified Chicago-style blues harp and all the top harp stylists use it. All the things played by the first method should be possible by the second. Other advantages are a fuller tone and much more flexibility than is possible by the pursed lips method.

The modern amplified blues harmonica was pioneered and popularised by “Little Walter” Jacobs, who was probably its most inventive player. Every amplified player since owes a debt to him. One imitator, George Smith, even appeared on record under the title “Little Walter Junior”! Little Walter’s amazing technique transformed the humble blues harp into an instrument that could imitate the trumpet, saxophone and organ. He amplified his harmonicas by cupping a microphone in his hands along with the harp. Other players who followed include the brilliant Big Walter Horton, Junior Wells, George Smith and Carey Bell.

Another player with a more rural background than Little Walter was the also brilliant second Sonny Boy Williamson, also known as Willie “Rice” Miller. He took the name of the first Sonny Boy because of the vast popularity earned by John Lee, but the pseudonym was really unnecessary, as he was as equally influential. He too spawned many imitators of his style, including Jimmy Cotton and Little Junior Parker. Sonny Boy II

didn’t often play amplified harp; in fact he only recorded a few times in this mode. His playing was sparse with a very dry sound, his timing incredible.

These are just a few names to listen to on record and a little background for those new to the noble and never-ending art of blues harp. Many of the names mentioned can be heard on the recordings of the Muddy Waters Blues Band, a group that has been a training ground for many great players. In later articles I hope to expand on styles and also include tips on blowing and harp care. It cannot be stressed enough, however, that after learning as much as possible from listening to other harp players on record — and preferably live in action — it is important to develop your own style and not be just an imitator. After all, who wants to be Little Walter the Second? It’s much easier and much more satisfying to be yourself the first. And when you see harp players in action, go and ask how they do it.

Two new harps to expand the ever-growing range from Hohner and of interest to blues players are the new plastic-and-metal style “Special 20” and the famous “Marine Band”, now available in Britain for the first time. The Marine Band is of special interest as it is the original blues harp. Although exactly the same as the “Echo Super Vamper” except for its top cover plate, it is a welcome addition to the harps available in this country for blues playing, partly for the prestige in owning it but also because it’s available in all keys.

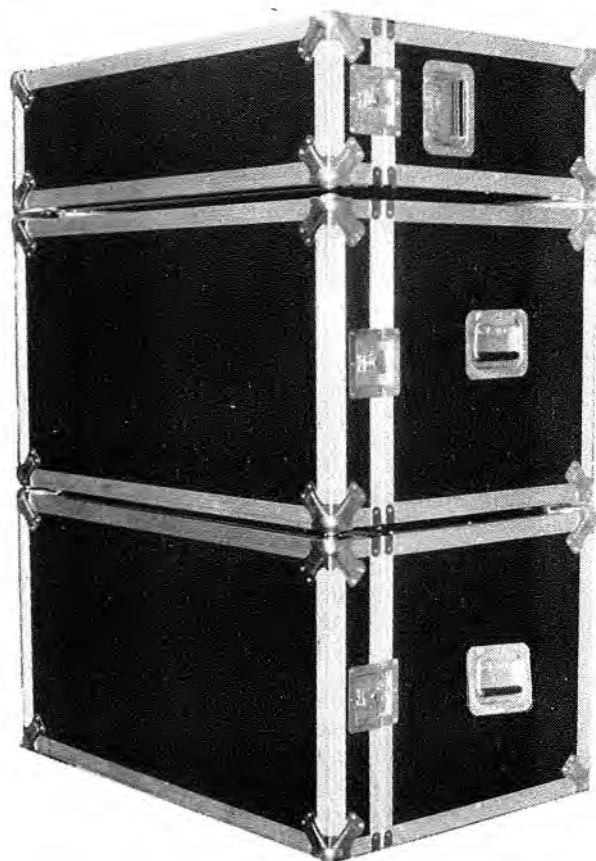
The other new model is also welcome and of special interest to players as it is one of Hohner’s new designs and made of plastic and anodised metal. If my sample was representative of the general quality, then I believe it is a definite improvement on the earlier wood-and-metal models. I am glad to see it is held together by a screw at each end, which facilitates easier cleaning (impossible on those models welded together). I’d like to see this taken up by Hohner with their “Golden Melody” vamper and I’ve already mentioned this point to them. I was somewhat sceptical at first of the tonal properties of the Special 20, but I was pleasantly surprised at its volume, smooth action and the ease of breaking it in. With the same specification as the other 10-hole vampers, it is made of black plastic with silver coloured anodised cover plates. The holes are also numbered 1 to 10 (a curious practice, as it is impossible to see which hole you are playing when it is in your mouth). It comes in a plastic pochette and is available in all keys.

Paul Rowan

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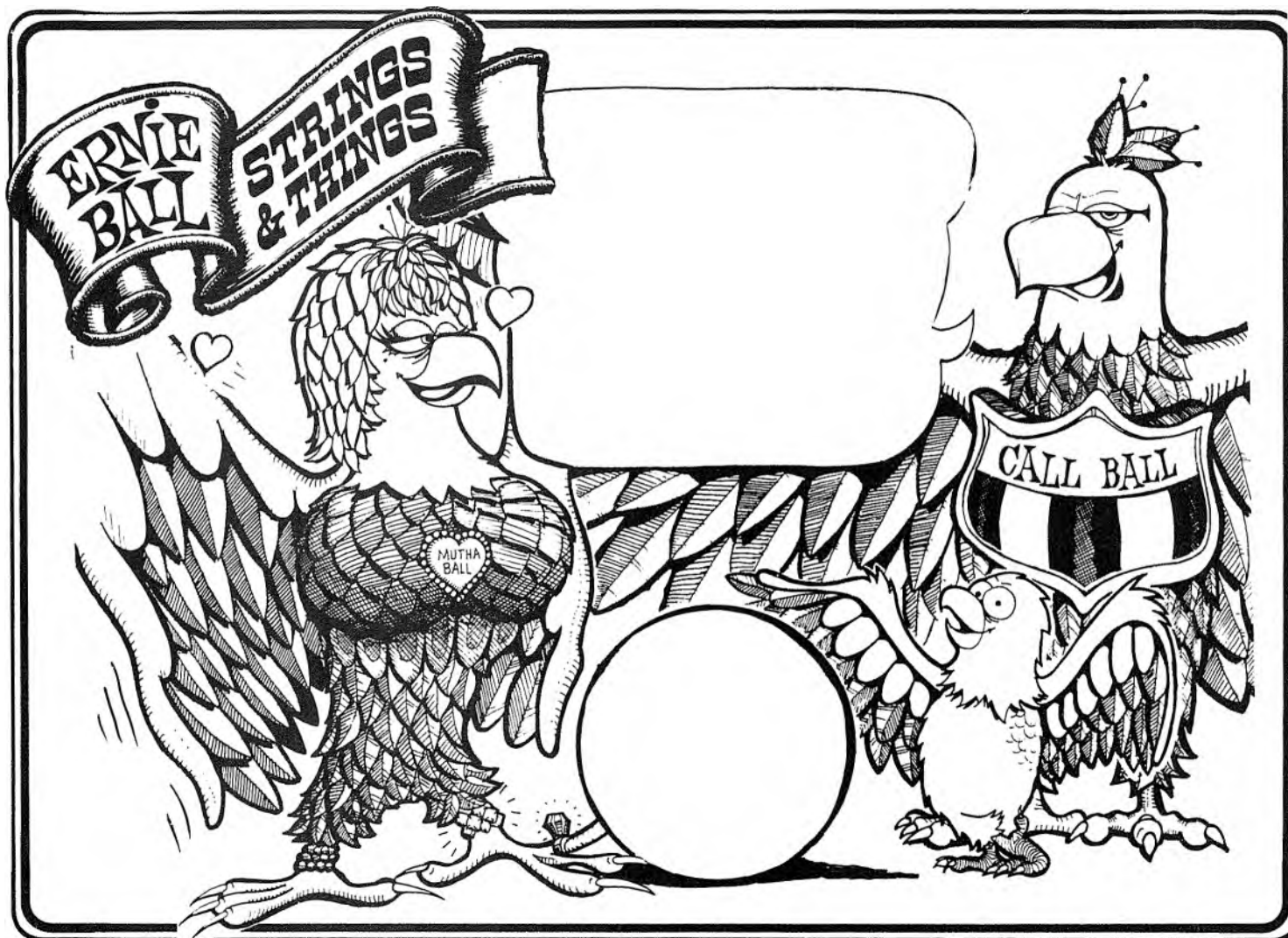
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BRIAN BENNETT

17 years a Shadow

Last year, the Shadows celebrated 20 years in show-business. In 1958 they formed as a backing group for Cliff Richard and now, in 1979, they have just scored a large chunk of chart action with an instrumental version of *Don't Cry For Me Argentina*. Although Brian Bennett wasn't the original drummer for the shadows, he's now in his 17th year with them, having replaced Tony Meehan in 1962.

In 1968, the Shadows split when rhythm guitarist Bruce Welch decided that 10 years with the Shadows group was enough. Along with Hank and John, Bruce formed Marvin Welch and Farrar, a CS&N-influenced trio which lasted for two albums. Meanwhile, Brian Bennett concentrated on sessions, production and writing, all with considerable success.

The situation now with the Shadows is not too clear. In 1973, they recorded a reunion album, *Rockin' with Curly Leads*, and since then have toured, taken part in the 1975 Eurovision Song Contest and released three more albums, including *20 Golden Greats* which went to Number One. Last month saw the release of *Thank You Very Much*, a live set of Cliff and the Shadows, recorded at their reunion season at the London Palladium last year. With the rest of the group involved in production, sessions and writing, it seems the Shadows exist really only as far as recording goes, although they usually find time to tour once a year.

Brian Bennett, throughout his career, has usually been associated with Premier drums and it comes as no surprise to discover he still favours the brand.

"I've actually got about six different kits," he reveals, "but I do tend to use Premier quite extensively. The after-sales service you get with them is great — anything you need, you can phone up and get it straight away, whereas with a Gretsch or a Ludwig, you can wait six months for a screw. Premier are one of the few companies who actually spend time working on new plans and talking to drummers. The stands are rock-solid with big wing nuts which is great because, with some of the old ones, you'd bust your nails tightening up a wing nut and you'd be bleeding before you'd set the damn thing up. Mind you, I love my old wood Gretsch and I've got the old silver Ludwig kit I bought in New York 17 years ago. I'd never part with it."

On stage, Brian uses a fairly standard kit with 22" bass drum, although the number of drums and cymbals change from tour to tour.

"I used to just use a bass drum, snare, two tom-toms and a couple of cymbals. The last tour I did, I had four tom-toms, six cymbals, the usual snare and bass drum, a piccolo pedal tympani and various odds and sods. One concert, I hired a gong — it cost £20 for the night and I only hit it twice. It looked good, though."

In the studio, Brian has his own "recording kit": "I call it an ASP kit, which stands for 'all spare parts.' I've got a great snare drum for recording which is made up from Ludwig hoops, Slingerland lugs, a Gretsch shell and a Rogers snare fitting. The heads are the really old Everplay ones, full of dirt. They're great heads — I go and buy secondhand heads from Footes when old kits come in. It's a great kit — very dry. You could literally just put one mike over the top of it and get a good sound if you wanted to. On the snare, I've got the name of the mike I use written down and I've sketched in where it should lie but the kit is so in tune with itself, one mike can get a good sound. What I usually do is to mike up all the drums individually and then mix them with an overhead ambience mike. I couldn't tell you the names of the mikes but I only work in about six studios and engineers like Tony Clark, Peter Vince and Dick Plant all know the kit and know how to mike it up best."

With many drummers getting involved in drum synthesizers now and various companies bringing new models out, I wondered what Brian thought of this recent innovation.

"They're OK," he replied. "I had a problem with one because it was rattling but I like all new sounds. The thing with drum synths is that it's a bit like the sitar in the Sixties — people flog 'em to death. The thing is really you can only use them once or twice on an album. The trick is, like a lot of things, to use it sparingly."

Brian is actually spending more and more time writing these days and, unfortunately, drumming is being pushed into the background. He has been writing a lot of library music for TV and films, plus material for other projects including solo work under the name of the Brian Bennett Band who released two albums on DJM last year, *Rock Dreams* and *Voyage*.

"The thing that interests me about library music is that a company will send you a brief and it might be for a film, a documentary or even a news caption and you get the whole spectrum of writing in there."

So all the musical ideas that have been bubbling under in my subconscious can be used. I can now divide my musical activities into certain definite groups which is great, although it can be hard work.

"The bulk of my time is spent sitting down working on my writing. I get up as early as I can and plan a routine for the day. If a tour is coming up, the first thing I need to do is to get out the practice pads to keep the chops in shape — any drummer needs to do that. On a show, I've probably got to do a 15-minute drum solo on *Little B* and you can't just sit there and play like a crud. With me writing so much now, I need to practice to get in shape."

"The funny thing is that I find I'm playing better now than when I





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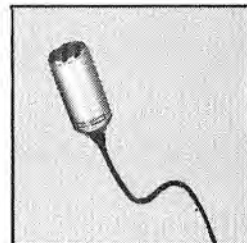
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“When rock came along, a lot of people wouldn't play it . . . They didn't want to know and now they're probably not working — they're driving a cab somewhere listening to Billy Cobham.”

was playing all the time for some reason. It's a mental as well as a physical thing. I'm happy to sit down and play without worrying too much about the reaction. Once I've practised a bit at home and I feel I'm in shape, that's it. I go on stage and it's a case of 'This is the way I play and if you like it, I'm very happy.' That's a lot better than sweating on a coach on the way to a gig with a practice pad, worrying about every little beat. By the time you get to the concert and actually play the thing, you're already knackered.”

As well as drumming, producing and writing, Brian is also an accomplished arranger. When the Shadows used to tour regularly in the early Sixties, he took a postal course from the Berkeley School of Music in the USA to teach himself the complex art of arranging.

“The postal course helped a lot and our producer Norrie Paramor was a great help as well. He'd come along with a score and let me read it and arrange and conduct some things. One of the first things I did in that direction was Cliff's *Silvery Rain* with Spanish guitar, harp and a string orchestra. The song was about insecticide and crop spraying and I ended the piece with a piccolo representing the last cuckoo on earth. Needless to say, it was lost in the final mix and no-one ever heard it!

“I wouldn't say it was an easy thing to learn arranging. I mean, I still need to do revision and brush up on things. For instance, I'd never written for a string quartet before last year so I had to do a lot of homework and revision for that project. I actually got my old violin out to work out positions and to make it sound good. There's a difference there between just writing down notes that sound good, because other things will sound better. Also, the range of the instruments has to be taken into account. That's one of the first things you learn in arranging but I still have to get a book out from time to time when I've forgotten something. Trumpets, trombones and saxes are fairly easy to remember, but if you're working for a contrabass clarinet, you have to think 'Does it go down to D or D flat?' There's nothing worse than standing in front of an orchestra and someone saying 'Excuse me, this instrument doesn't go down that far' — you just want the earth to open up beneath you. Usually, the people I work with are friends, though, and they are helpful and sometimes suggest things that might

work better. There are those that say 'You write it and I'll play it' so you don't book guys like that. You book musicians who are interested in their craft — and I really believe we've got the best musicians in the world here.”

Brian is a firm believer in letting musicians have a free hand in injecting something of their own into the part.

“You can go through all your books on rudiments and things but you get with a band, and you really have to kick something in of your own. Reading's just a guide to what's happening — you just don't sit there and read the dots. There are a lot of guys who read anything but you put them in a band and they start to slow it down. Then you get guys who can't read and you put them in a band and they really kick it along. A lot of the emphasis on reading is a form of snobbery in a way. Like one night, we were talking about Elvin Jones and someone said 'He's the greatest' — somebody else turned round and said 'Yeah, but can he read?' and we all cracked up. He'd miss the point entirely.”

Brian listens to everything, not just drummers, but when asked what modern drummers he liked, he had no hesitation in citing Steve Gadd as one of his favourites around today.

“I really rate Steve but I listen to loads of different things. Like Billy Cobham — within his framework, he works perfectly. To hear him do his thing is absolutely fabulous on one hand and then to hear Mel Lewis sitting there and just laying back, hardly doing anything, is just as beautiful. The whole underplay thing.

“That in itself is something a lot of people come unstuck on — underplaying. When I started I used to put it all in. Playing and writing is the same in that respect. It's easy to overwrite, and it's the same with drumming. I've been guilty of it for 20 years. When I've done live albums and listened back to them, I've thought how desperate I had played, putting everything in and trying too hard. I can understand why it's done though. It's just enthusiasm, total enthusiasm. Of course, showing off comes into it as well.”

In the late Fifties and early Sixties, with the exception of a few drummers like Brian, Tony Meehan and Clem Cattini, the standard of most pop/rock drummers was pretty low compared to their jazz counterparts.

Brian puts this down to the fact that a lot of drummers hadn't gone through jazz in those days.

“I used to go down to the record shops and get secondhand jazz records and listen to them. The nearest thing to rock 'n' roll in the early days was Fats Domino records and then, soon after, early Presley stuff. But if you listen to them now, you'll hear a kind of dotted jazz thing going on. All I wanted to be was a big band drummer. The only gigs at that time were dance bands — there were no rock bands. I did some gigs with the Don Rendell Quartet and I thought I was going places. The thing is that when rock came along, a lot of people wouldn't play it. There were a lot of very narrow-sighted musicians around then. They didn't want to know and now they're probably not working — they're driving a cab somewhere listening to Billy Cobham.”

Brian agreed that, out of most musicians, it seems to have taken drummers longer than most to develop their craft, and it's only in the past decade that they've “come into their own”.

“I think a lot of that is to do with brain damage when you were a kid and you lived in a block of flats trying to practise and all the time people would shout 'Stop that bloody row' at you. Even on a practice pad, I used to bug the people in the floor below. Even now, it happens. When you go on stage and there's a soundcheck going on, maybe you want to check your snare drum. Because of the mere fact that it's a loud instrument, you hit it a couple of times and you get 'Hang on, man, we're trying to tune up.' Three hours later, when the guitars are in tune and you think you've got time to get your kit nicely in tune, they say 'The audience are coming in now, can you stop making that damn noise.' It's a never-ending battle. And when we were talking about over-enthusiasm, that's the same thing. It all builds up inside you, particularly with drummers, and it all comes out in that drum solo or that two-hour set.

“The same thing happens in sessions so when you do one, you want to get asked back and you don't want to upset anyone so you have to explain diplomatically that, if you're to get a good drum sound, you'll need 10 minutes or so to sort it out. Diplomacy, amazingly enough, has to come into it.”

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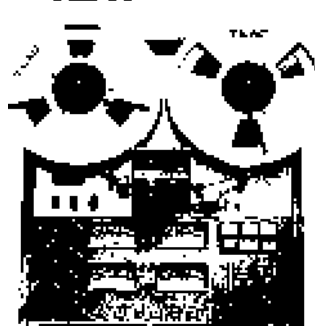
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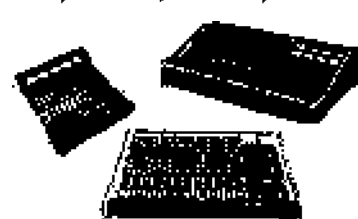
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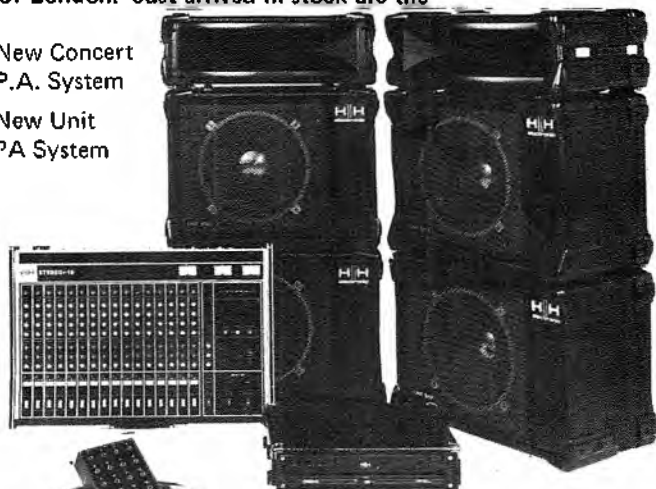
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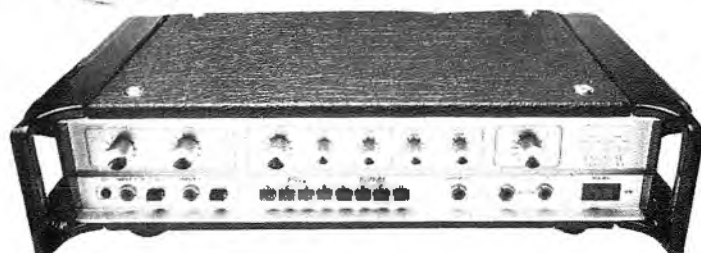
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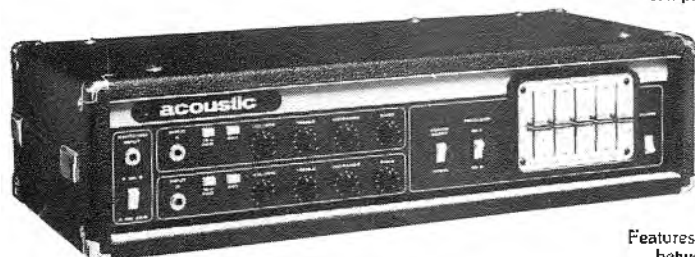


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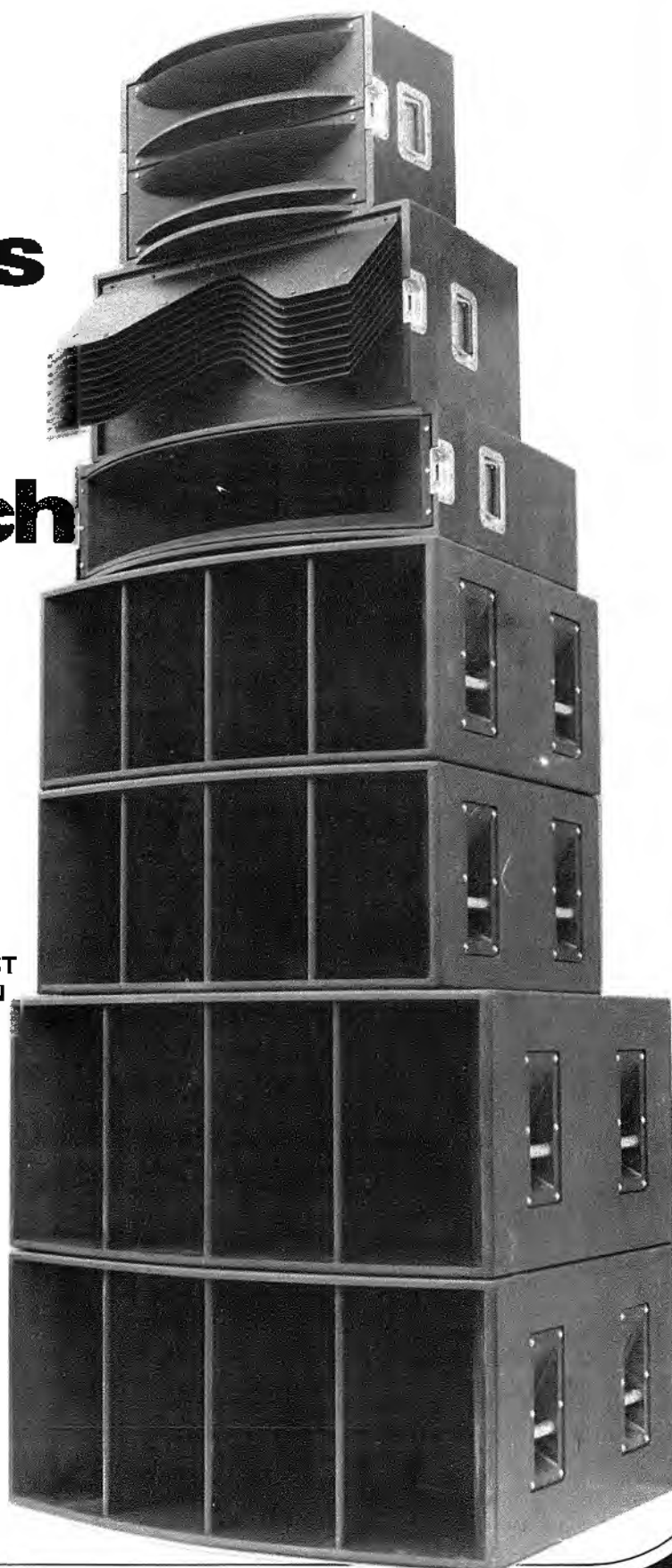
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Taking Care of Business

When you sign a contract with a manager, it can be the smartest move you've ever made – or it can be a disaster. Once again Alan Holmes asks, Do you know what you're signing? And once again he lets a top showbiz solicitor lead him through the legal labyrinth.

A management contract is different from the other two sorts of contract we've talked about so far, because in a sense it's all-embracing. It covers every aspect of the artist's life and it's a very, very personal thing: a musician can be successful with a recording company or a publisher without a personal relationship – although it helps to have one – but with a manager it's a question of ideas, of philosophy, of outlook and of relationships.

It's important to find a manager who thinks the same way as you, or at least whose judgement you trust absolutely, because it's that guy who's going to be governing your life for the next few years. The question is often asked in fact: what is the role of a manager? There can't be one specific answer to this – every manager is different and every manager assumes a different number of functions.

There are some artists who really don't need a manager at all. If you have a record company and a publisher, which therefore takes care of your recording and your songwriting, and you have an agent who will get you your live performances and your tours, and you have an accountant to look after your money and your books, and you have a solicitor to do your contracts... then there doesn't seem an awful lot left for a manager to do. In the case of some artists, this is absolutely right.

But this very much depends on the artist, how together he is, how able he is to look after his own affairs and to deal directly with all these people. It's perhaps most difficult for an artist to go and hassle a record company or a publishing company and encourage them to do more – which is very often one of the major functions of a manager and very important one. But an artist can get through life quite happily without a manager, if that is his inclination. If he does choose to have a manager, he must make sure that his ideas and the manager's ideas coincide and that he believes in the manager and has faith in him. It's then also a question of whether the manager is there simply as a person or as a system through which business matters are carried out and decisions are made, or whether he is also there as a source of finance.

Record companies are often reluctant to sign an artist without a manager, principally because they expect the manager to make a financial contri-

"Sign with me and I'll make you a star..."

bution and to share the cost of certain things like performances and tour subsidies with them. Also, many record companies are just happier when an artist has got a manager, particularly if it's a good manager that they know, because they feel that the artist will be guided and directed by him and that less of a burden in this respect will fall on them, the record company.

It's probably easier for a record company to inform the manager that they don't propose to exercise the option and carry on with an artist than it is to tell the artist direct. There are other unpleasant things also which are conveyed to managers more easily by record companies than to an artist but this isn't a good reason for an artist to have a manager. It's just a reason for the record company to want the artist to have a manager.

Most managers work on a percentage of the artist's income. The basis of this varies quite widely; it's not uncommon these days for a manager to receive 15, 20 and even 25 per cent of the whole of the artist's gross income. In the case of publishing and recording income, gross income and net income are usually the same thing – although you have to make sure that your manager is not entitled to a percentage on things such as recording costs or tour subsidies, which is not money which actually goes to the artist at all, but is merely paid out for his benefit. In the case of live performances and gigs, the difference between the gross income and the net income is of course enormous. On the face of it, one can receive quite a lot of money as a performance fee. But by the time you've paid your travel and your sustenance, and for the equipment hire and for the transport and the roadies and the whole entourage that goes with it, it's normal to come out with a loss rather than a profit. Nonetheless many managers will still take that 15, 20 or 25 per cent on the gross income, totally disregarding the expense element. This can often produce a very unfair result.

In addition, in respect of live performances, there is usually an agency commission payable. Some managers will agree to pay the agency commission out of their own percentage, which is fine, but if they don't agree to, the artist has got to find that on top again.

For example, if a band gets a fee for one gig of £1,000, it has to pay some 20 per cent of it to its manager, that's £200 gone. It has to pay maybe another 10 per cent to its agent, that's a total of £300 gone. It's already down to £700 and it's in the artist's hands to pay all the other expenses. It is therefore normal to find that on live performances where there is this sort of contract with a manager, the manager earns considerably more out of it than the artists, even if it's a solo artist and not a group.

The second area with this sort of management agreement is what happens to expenses. You have to be careful as to what power the manager has to spend your money without reference to you. He might spend it for your benefit supposedly on promotion and things such as that. But it's always a good idea to have the right to be consulted or the right to give your prior approval to any even relatively minor sum – because they can all add up in a year to major sums.

The other aspect is what expense is the manager incurring and what he's entitled to recoup or to recover from the monies he receives for the artist. It really should always be a rule that the manager has to pay all his own office expenses, all his own travel expenses and accommodation expenses, certainly within the UK. If he goes abroad on tour with the band, it's not unreasonable for him to have his travel and accommodation expenses paid out of the gross income of the artist from the tour. But this should only really be with the artist's approval.

There is a form of management which is in fact not management at all but which is pure employment, whereby a manager will employ an artist or group of artists at a guaranteed salary but that's all the artist ever sees. The manager then pays all the expenses but equally receives all the income. An artist can win or lose from this. If an artist is unsuccessful and never makes it, then he's had a good wage for a period and the manager comes out losing. If in fact the artist becomes very successful then it's the manager who's going to reap the benefits of that success, not the artist. It's not a particularly good way of doing things unless you're really unconfident in your own future as an artist and unless you really feel that the security it offers you outweighs all the other

advantages of the other sort of deal.
So normally an artist employs the manager?

It's not an employment agreement – the artist doesn't employ the manager. The manager agrees to render his services to the artist. It's not an employment where you pay PAYE but it's a rendering of services where the commission is taken gross. Yes, you could say the manager is working for the artist in that sense, although in actual fact it often turns out that the artist is working for the manager as regards the relative earnings from the activities.

The management commission I referred to, if say a 20 per cent rate is fixed, first you should try and get it on profits and not earnings from live performances and secondly, in many cases artists feel that this commission should not apply in the case of songwriters, where really the manager does nothing to help with the songwriting. On the whole, artists sit down at home with their piano or their guitar and produce the songs. If a manager comes in it's a disruptive influence, not a helpful one. I know that many artists in fact write or develop their material in a studio; again the role of the manager in that is usually limited, unless he happens to be extremely musical and artistic himself.

The manager will argue that, OK, you've written the song by yourself but if it wasn't for my judicious management the song would never have been recorded and never exploited and there's an element of truth in that. It's for this reason that one often comes down to a compromise on income from songwriting, where the manager receives a commission at, say, one-half of the rate that he's otherwise receiving it at. Alternatively, if the artist has his own publishing company, then perhaps the manager participates in the publisher's share of the income but the writer's share of income is kept free of management commission.

It must be made clear in your agreement with the manager what activities are covered by the agreement. The manager will always want it to be an exclusive agreement which prevents you having any other manager and which prevents you managing yourself. Thus if you happen to be, for example, an actor, who appears in commercials and on the stage or in films, and you go into the music business as part of a band, you must limit the scope of the agreement only to the musical area. Otherwise, you'll find the manager coming along and claiming 20 per cent of your acting fees, your commercial fees, and your voice-overs.

The term of a management agreement is really very similar to that of a recording agreement although it is

normal to have a longer initial period, thereafter with options to the manager, although in this case it's not unusual to find much shorter agreements if the artist and the manager agree they will have, say, a trial period during which they will see if they get on together. That's not uncommon and, in fact, if you don't know the manager very well, it's a very good idea. This means, say, for six months or a year you're bound to the manager but at end of that both parties have to agree to the agreement continuing, otherwise it terminates. That apart, a manager will on the whole go for as long a period as possible because the obligations on the manager are not that great. In a sense, contractually they're as great as the manager chooses to make them and he will want the security of knowing that when his artist has just made it after three years, the contract doesn't then expire leaving the artist free to go and obtain another manager. This one, who will claim to have been the cause of the success, is left out in the cold.

Accounting is not usually a manager's strength

The obligations on a manager in an agreement are on the whole fairly nebulous. The manager has to use his endeavours, reasonable endeavours, best endeavours, to promote and further the career of the artist, to procure him employment in the entertainment industry or the music industry, to negotiate his contracts and to liaise with record companies, agencies, publishers and television companies. But that is only a general intent and provided the manager carries out a relative minimum of these functions, it's very hard to say that he is in breach of the contract, thus entitling the artist to get out of the contract. Clearly if the manager does nothing at all, this is a different question.

The other function of a manager is normally for him to collect the artist's monies. If this is the case, there must be some specific provision that he must account regularly to the artist for the balance of the monies due to him and he must allow the artist and his accountant access at all reasonable times to his books, so the artist can get a picture whenever he wants it of what sort of earnings and what sort of expenses he's got. It's terribly important to have a very tight accounting clause in the agreement so that you can ensure that you know every penny that you've earned and every penny that's been spent. Accounting is not usually a manager's great strength and the accounts of an artist in a year can be extremely

complicated – particularly from live performances with all sorts of expenses going through. There is great scope for the manager not being as straight with the artist as perhaps he might be. So it's very important to watch this, to know as much as you can independently of the manager, as to what fees you're earning and what monies are being spent, and as I said, to have this right of prior approval to any monies being spent on your behalf. So if the manager turns around and tells you that you have to make a payment to somebody to procure you a tour, which payment is in fact a bribe and can't go through the books, you will be able to say, well I never approved that, therefore you weren't entitled to make it, therefore you must account to me for it.

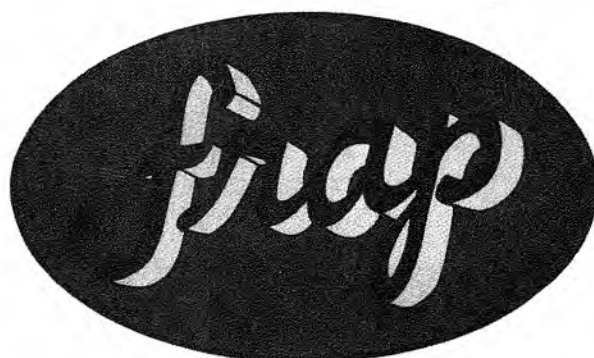
You must ensure that the manager makes all statutory payments that he has to make on your behalf, such as National Insurance stamps and tax, and that proper provision is made for this. If the manager is in fact ripping you off and keeping you very short of money, and one day you realise this and you go in and confront him and he perhaps even admits it and then says you'll have to sue me for it, you won't have enough money in your pocket to engage a lawyer to sue him. You will therefore have to try to get legal aid – and if you're behind with your social security payments, the legal aid authorities won't look at you! So in a sense, the manager can preclude you from suing him by keeping you short of money and by not making your social security payments.

You should ensure in a management contract that the person with whom you have your relationship and whom you regard as your manager, is in there by name. Ideally the contract should be with him personally. If he wants the contract to go through his limited company then you should ensure there's a clause in the contract which says that if he ceases to work for that company, and ceases to be available to render the management services to you, you have a chance of terminating the contract at that point. If you end up being managed by a limited company and there is no individual named in it, then the individual can leave the company, the company can be sold to other people and you can find yourself with totally different people managing you. There's nothing you can do about it. It's a very important provision.

You should always obtain your own independent legal and accountancy advice on schemes that a manager proposes for you, such as tax avoidance schemes. It can be perfectly legal but you should have it looked at from your point of view and not by the manager's lawyer or the manager's accountants. You should also ideally have your own contracts looked at from your own point of view by a ►►

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lawyer who is experienced in the music business. The interests of the artist or writer and the manager are not always the same. In many cases, if a manager is entitled to income earned only during the term of his limited agreement, and the agreement hasn't got that long to go, it is in his interest to obtain as high an advance up front as possible. That way, he will participate in it more than in a better royalty rate but a lower advance, because the royalty rate gets paid over a longer period and he may not participate later on. Those sorts of areas must be watched carefully and you should discuss them frankly and openly with the manager. I would add, however, that it's not uncommon in a management contract for a manager to be entitled to continue to receive his percentage on all income which arises from contracts entered into or negotiated during the period of the agreement, even if they go on afterwards. This in itself is a bad practice because if you have a five-year recording contract and your management agreement runs out after two years, and you don't want to go on with your manager, with this sort of clause he is entitled to go on receiving his percentage on all the income you obtain under that contract for ever, whereas you may well want to engage a new manager — who will also want a percentage from that income because he feels he's working on your records and on your material. You may end up having to pay two management commissions, so this is an area which should be watched carefully. The items on which the manager is entitled to commission and the length of time during which that commission is payable ought to be watched and, if possible, limited.

I should say in conclusion that there are many good managers in the business who are totally honest, who put a lot of money into bands and lose a lot of money because bands aren't successful, and yet who will want some of the things I've warned you against earlier in this article. You must weigh it up — the manager is obviously going to want security, he's going to want a fair return for what he does. In the end it comes down to trying to achieve a balance; you must first of all find the manager that you want and it must *feel* right. After that you've got to try for the best deal you can. You'll have to give way on some points, the manager will probably give way on some points, and you'll come out with what is not an unfair compromise.

What about agency contracts?

You're with an agent because he's the guy with the contacts to obtain you the live gigs and tours, etc. You'll pay an agent between 10 and 15 per cent of the gross income you earn from it — in this case it always is the gross income, regardless of expenses.

Ideally, you shouldn't have a contract with an agent at all

Ideally you shouldn't have a contract with an agent at all, you should simply engage an agent on an *ad hoc* basis to do certain tours for you and at a fixed rate. Then when you're fed up with that agent, or the agent's fed up with you, you feel you can say goodbye.

Many agencies these days do want fixed term agreements and in this particular case, there are certain points to watch for. One is the territory. It's no good signing to an agent in the UK who's only any good in the UK, but giving him exclusive rights to your agency for the world because he's only going to subcontract it elsewhere and you won't have direct contact with his subcontractors in other countries. You should try to keep the major territories free and have a deal direct with an agent in each of those major territories.

The second thing to ask is how good is the agent. It's a good idea in an agency contract, if it's got to be exclusive for a term, if you have not earned a specified amount of money in gross income from gigs obtained for you by that agent within a period of three, six, nine or twelve months, then you have a right to get out of the contract because clearly the agent isn't doing the sort of job he said he would do. The figures that go into this contract are going to be on the low side but from your point of view as the artist, they should be realistic.

How does one go about getting out of a contract?

First of all, I should say that you should regard a contract you enter into as binding, assuming you intend it to be. You shouldn't go into it with the view of "I'll always be able to get out of it." That's unrealistic, and totally the wrong basis on which to contract. But if things don't go right, there are really three lines of attack for an artist to get out of his contractual obligations, which can cover any of the four sorts of contracts that we've talked about.

The first is a simple breach of contract. If the other party has committed a material or substantial breach, not a little thing but a major breach, then generally the artist will have the right to rescind the contract and will also have the right to obtain damages for the breach of contract from the other party. Secondly, there is the area of unreasonable restraint of trade which was dealt with and established certainly from the point of view of the entertainment industry in the case of Tony Macauley against A. Schroeder Music Publishing Co. Ltd. which went to the House of Lords. In that case, what was then the standard

songwriting contract in the publishing business was held to be unenforceable in that it was unreasonable restraint of trade. The basis of this was that there was not enough obligation on the publisher to do anything with the work: he could effectively put it in a drawer. He had to pay very little to the artist and consequently there was an inequality of bargaining power in the negotiation of the contract.

There's no reason why this principle can't be applied not just to publishing/songwriting contracts, but to all other sorts of contracts both in and outside the entertainment industry. Again, it's really a question of each contract being looked at on its facts.

It's very material to know whether the artist had legal advice at the time he entered into the contract. If he did, it's unlikely he will be able to get out of it. But this is not a good reason for not getting legal advice at the beginning. It's no good going into a contract with the view of getting out of it and mitigating it later. It should be the right contract at the beginning. But assuming these things have gone wrong, then one has to weigh up all the factors in the contract, see where the balance lies and it may be the contract is unenforceable because it's unreasonable restraint of trade.

The third area really involves the manager and is based on breach of trust. On the face of it, it is a breach of trust on the part of a manager to sign an artist to himself or to his company for recording and publishing unless it is the best deal available at the time. Therefore if your manager does sign you to all these things and thereby profits more than he would have if he had taken only management commission, he is going to have to show that he did go round the companies in the business to a reasonable extent and that the offers he got, or perhaps there were no offers, were not as good as the deal he ultimately ended up doing with his own artist.

Again, all I should say is that it's not advisable to go into a contract with a view of getting out of it. But if you have to, then go and see a solicitor who's experienced in these activities and he will at least advise you as to whether you have any grounds under these three headings, or perhaps any other reason he may find for getting out of the contract.

We are grateful to John Cohen, a solicitor who specialises in music and entertainment law in London, for his help with this series.

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GRUPPO SPORTIVO

Satire without solos

Gruppo Sportivo have beaten the Dutch syndrome. Armed with a bagful of barbed pop songs and a barn-storming stage act that makes Blondie look like hackneyed Sixties poseurs, Sportivo are blithely following their musical course with the conviction of true reactionaries. It is ironic that the inspiration for the songs that have made them a remarkable band stems directly from the music scene of Holland. And the music scene of Holland — if we are to believe Hans Vandenburg — is pedestrian as a musak-filled shopping mall, churning out instantly forgettable records as bland as unsalted dump-lings.

Two years is all they have taken to become Holland's most noted pop-rock group, having attracted a loyal home following for constantly satirising their musical contemporaries. Every "musician" who ever grimaced with pain or bathed in bliss during his featured solo comes in for a drubbing. Punk superstars and BOFs are trashed with equal vigour. This band take nothing seriously, least of all their interviews.

Talking with one Sportivo could be meaningful but conversing with three, the urbane organist Peter Calicher, praying mantis-like frontman Hans Vandenburg — aka Van deFruits — and sultry singer Jose van Iersel, is to have your questions batted between them like a shuttlecock. One slip and you could find yourself the subject of their next song.

Gruppo Sportivo found form a couple of years ago, on the high school-youth club gig circuit in Holland. Calicher gave up his day job, Jose's coquettish co-choruser Meike Touw threw in her exams and Hans preened for stardom when they had instant success. Hans certainly didn't expect "stardom" with his high school band, The Running Tights. After all, he said, "it is so hard in Holland."

February and March saw them swinging through a UK tour, their third. Hans explains Sportivo's past very simply: "I had some songs written, we rehearsed for a month, then we began playing. We toured



Belgium first, did a few dates in Hamburg, in other German towns and France came later. We played schools and small youth clubs the most, for about two years. We made two singles, *Out In The Jungle* and *Hoola Fever* for a record company (not the present Epic) that didn't want us to make albums, only singles — we could make an album when we got a hit. We wanted to make an album, it is not necessary to have a hit." Peter adds: "We have played all over Holland, everybody knew us."

Ten Mistakes was their first album, "an album of songs," Hans insists. It gave the band a reputation as Dutch weirdos commanding the booming nostalgia market for Sixties sounds. It also revealed them as a group of satirists as subtle in their cynicism as they are in their accuracy.

"We love the music of the Sixties, the feeling was stronger then than it is now," says Hans. As for their spoofs, Abba are not among their targets. Hans: "We don't spoof Abba, that's commercial music. When we see a really serious band, with a big light show and playing rock stars, we try to spoof something like that, like the Bee Gees. They are not funny, they aren't even ridiculous, just too serious. They seem to be saying, 'I'm a musician, look at me playing fast.'"

Hans Vandenburg appears to be the chief wit of Sportivo and the group tool seems to be a stylised rendition of Sixties pop. *Ten Mistakes* could have been an inspired release of material recorded 15 years ago. Yet the band don't think they are tailoring their songs to popular tastes, even though their latest single, *Disco Really Made It*, utilises the dreaded policeman's knock beat.

"We are changing our material because our major influences are changing... we never really were a punk or new wave band. You know that synthesizers are very popular in modern music and I think we'll do something with that, one voice and a lot of synthesizers. A joke, you know? We play it when it is modern or hip. When it is hip to use French words like "le shirt" we play with it. You see pictures of that disco in New York where the boys don't wear pants and..."

Jose: "Wearing G-strings and roller skates! It's impossible to ignore that!"

However strong the lyrics and vocal influence of Sportivo's female chorus are (the girls joined after the band had enjoyed some success), Hans writes most of the songs on his guitar. Rather than always starting with a chord sequence, he might begin with



a newspaper story, not a vocal part but rather a snatch of melody. The arrangements are very tight — "No room for improvisation, no solos either," says Peter — and Hans claims they try as hard as possible to avoid the verse, middle eight, solo, verse construction.

The emphasis of Sportivo songs is always on arrangement. Peter claims the lyrics are very important and Hans can't see why lyrics are not always important with all non-instrumental groups. He is emphatic that the strength of their sound is in the arrangement. "It is everything. You can write something that is not very interesting, like some of the Banshees' songs — they are interesting because parts are used well. For instance you can do anything with one theme by simply cutting or changing the values of the notes. We work on a song for a long time before we play it."

That work is very obvious in a Gruppo Sportivo concert set. They are watertight onstage, though it all looks like good off-the-cuff fun, a practised eye can pick careful signals and conducting throughout. Songs like *Superman* are stunningly spare, empty rather than full. Peter plays organ and string machine in unison, making a sound that has led other keyboard players to ask him what sort of booster he uses on his organ! Peter flippantly claims the rhythm section of the band is not important but bassist Eric Wehrmeyer, drummer Max Mollinger and Hans rehearse their parts together, keyboards are added last.

"If he likes the song he might play," says Hans. "There were a couple of songs where we said 'Well, we don't really need an organ player . . .'" Peter breaks in: "And the song was never played on stage! There is no song without an organ player. He is always very anxious to leave the organ out, he said 'We don't really need an organ part there.' So I said all right and we went for coffee. A couple of months later he said; 'It sounds a little empty'."

Hans accepts the provocation in good spirit. He says the reason he didn't fill the hole with a splashy guitar solo is because he can't play a solo. "It's not new wave, it's because we can't." Jose goes further and claims they are all musical invalids, but since Hans can play three chords they make the most of his deficiencies. Hans continues: "We can almost play and if necessary we will arrange our songs very properly. If you want to have a solo and you can't play something that sounds good and original, you leave it out. It is simple. There are many groups leaving solos out because they don't sound good. They said when

Sid Vicious began playing with the Sex Pistols he couldn't play bass at all. Later on it was said he was improving but it wasn't any good then. It was just another band with a good bass player. It sounds very interesting when there is a band playing that can't play. It was very charming. That's why we sound charming."

Though they would like to be able to play like 10cc, Steely Dan or Frank Zappa, Sportivo have a spontaneity that is totally refreshing. "We met and made music," says Peter. They had no premeditated idea of what sound to strive for and the strong bias to the pop organ sound came by accident.

"We thought there were some things needed in songs," says Hans. "Peter didn't have an organ when we started. We needed an instrument that would go eeeeeenarrroww! That sound came from an organ so we bought an organ. Then we had a song with violins and we thought 'How can you do that?' The answer was a string machine. That's how it happened. If we had a piano player with all that equipment we might have wound up with a boring jazz rock group. When

often high-pressure atmosphere of the recording studio. "Sometimes bad things sound good because they are bad," says Hans. "Like we might have a bad organ sound but on the track it sounds great." Peter delights in recounting how they coerce their recording engineer into distorting drummer Max's snare drum. "One day we asked him, 'Can you put a little more top on it?' He said, 'Well, ah . . .'" Hans chimes in: "One day he did it and went too far. It went heccht! heccht! and we said 'That's it! Keep it that way!' He said, 'Oh, you can't record it that way.' When Peter's organ doesn't work and goes arrrggghh, arrrggghh, we think, 'Maybe we can use that in a song.'" Peter laughs: "Life is hard for our producer."

A certain producer at a British radio station caused them worse aggravation. "We told him we wanted a certain sound and he said it didn't sound at all. I said 'We want to have it this way.' He said, 'You can't have it that way.' We pleaded, 'Can we have it a little higher?' He said, 'Oh, no, no, you can't have it that way. I have worked here for 15 years, I know what



we started we had only old guitars and amplifiers."

That ancient equipment, still lovingly nursed about, is the key to the Gruppo Sportivo sound. Hans uses an old Telecaster with a Vox AC 30 amp. "No effects," he says, "though I do use a Pignose." Jose cackles: "Very professional! The old radio sound is what we come out with but it was more or less a mistake. It just happened without any work." Peter adds: "We never used a big Hammond organ. I use an old Vox organ and it has a real nice sound. I also have a Wurlitzer and a string machine." Hans says the group records "punk-wise" by sticking a mike into their amps and recording it.

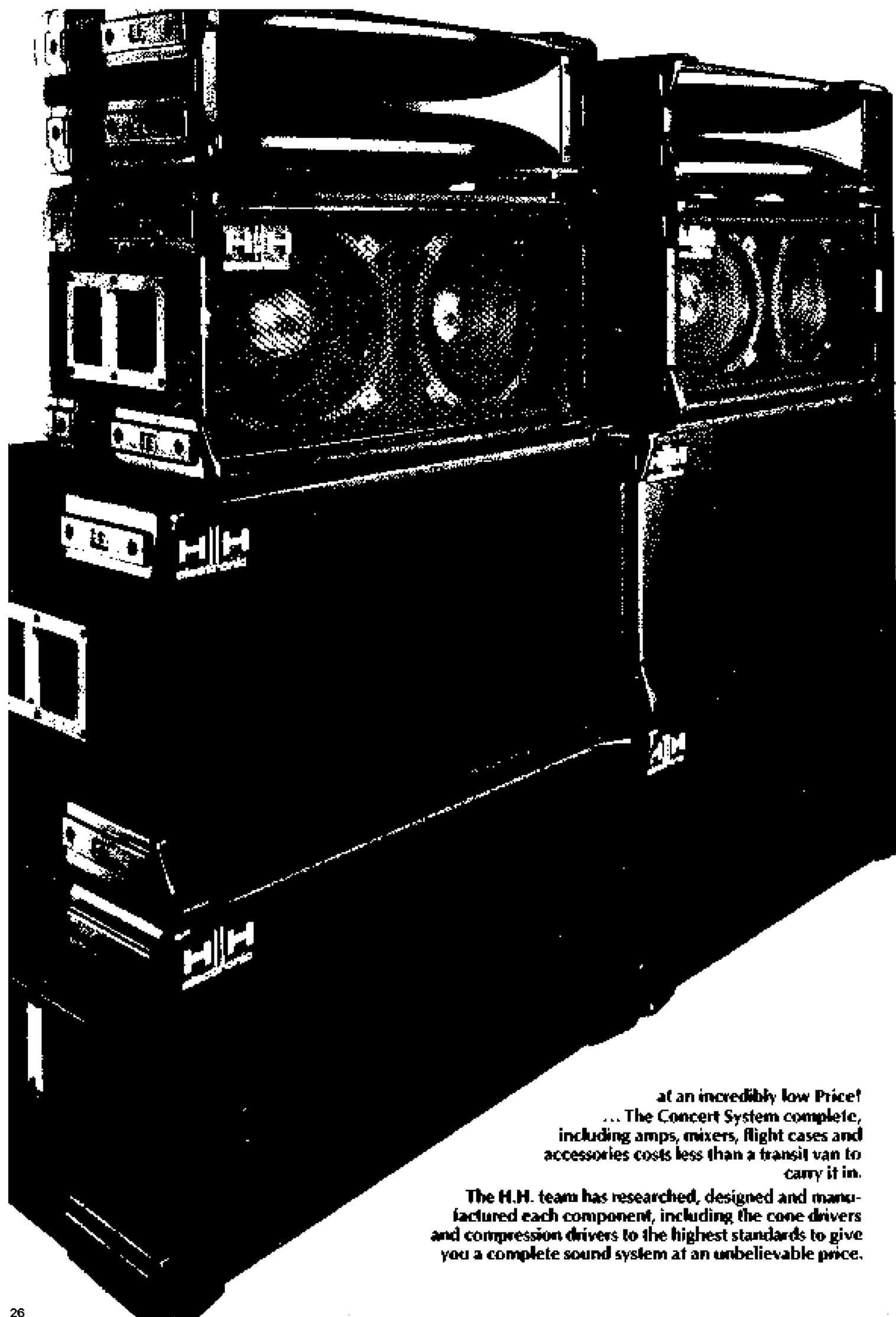
If that is all Gruppo Sportivo do in the studio, it works well for them. Their albums have an uncluttered but rich sound that is instantly attractive, the sort of ambience that other bands spend months trying to achieve. Their last single was just an idea when they entered the studio, in four days it changed into a carefully filled-in disco-flavoured spoof.

With a good friend (who never argues) producing, Sportivo have a completely carefree attitude to the

to do. We asked could we have the piano a little bit louder and he said, 'No, it's too loud.' He's telling me it's not possible. He's not making the song, he doesn't know what it is about. It's too loud, he says, he wants to hear everything in a line or something.

"There are a lot of producers in Holland like that. That's why for Holland we sound very different because we know what we want. All those groups with real producers, the producers tell them what to do. We know that an organ which is very loud, or a voice or guitar, can make a song. We listen to English and American new wave acts a lot, we like the organ sound of Elvis Costello, the way it floats behind, it is very good. Sometimes it is on top of the song. We have lots of songs that are made like that. We say to the engineer, 'No, that's not McCartney; make it more like McCartney.' We do it among ourselves, 'No, that's not Costello, do it more like this.' Or 'No, that's not the Byrds, make it like the Byrds.' That's the way we talk. When we record something and it has to sound particular, I look for a band. If the engineer knows all the bands then it's OK. That's it."

Sean Hogben

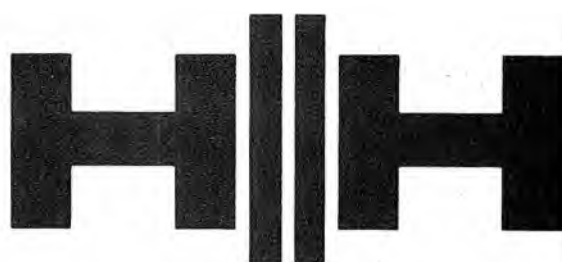


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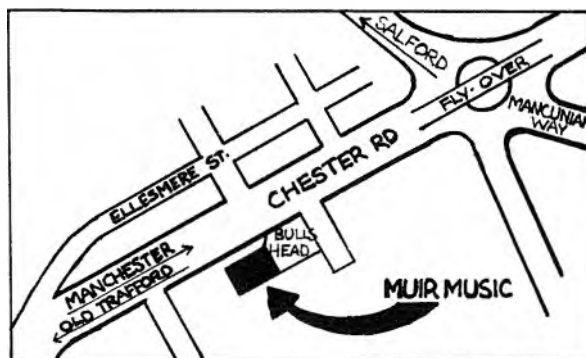


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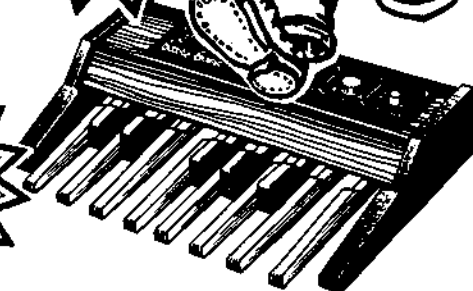
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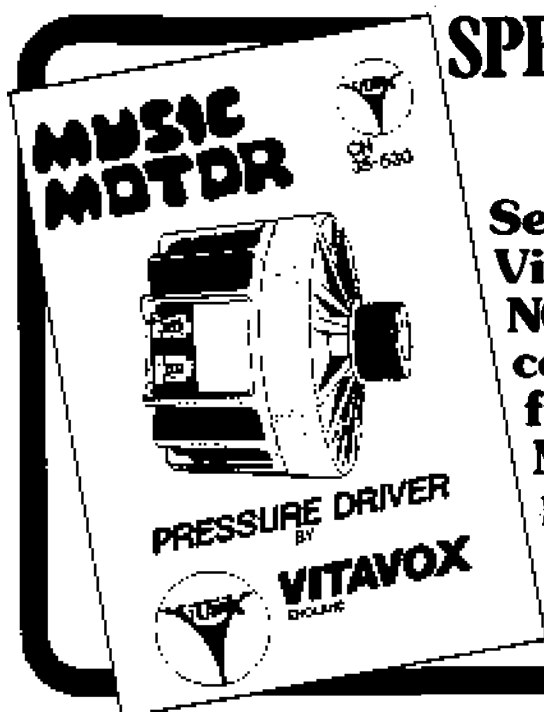
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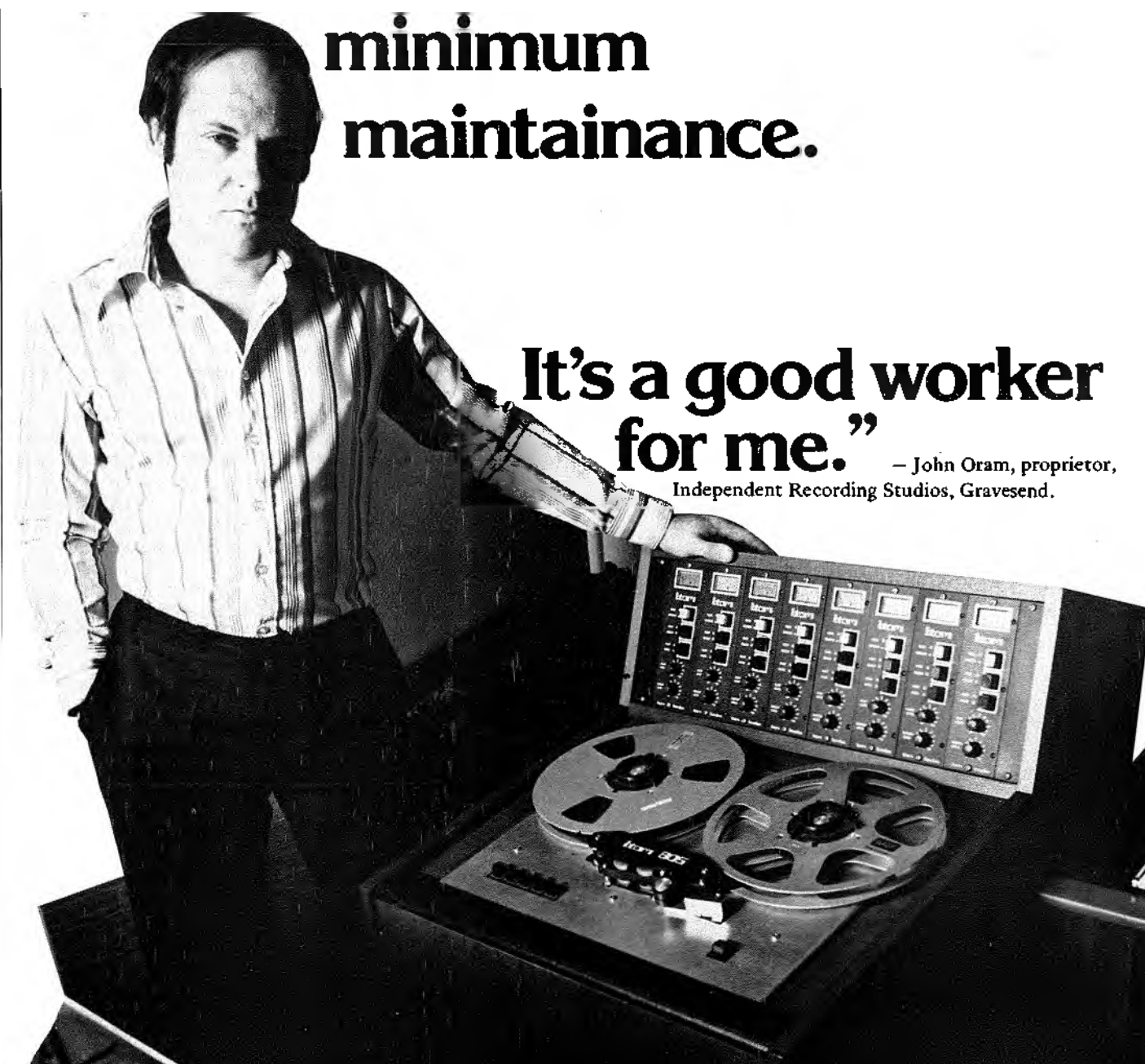
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Jean-Luc Ponty

The Dickies

The Stranglers

Jean-Luc Ponty

Cosmic Messenger (Atlantic)

There aren't many violinists playing jazz rock, and there certainly isn't another violinist playing it as well as Ponty. So it's strange that he spends so much time trying to pretend that he's not a violinist. He does this by playing mostly electric violin and processing it electronically so that it sounds more like a synth than a fiddle. The result is music which scintillates and fascinates the ear, but lacks the personal "woody" character of the violin. Still, if that's the way he wants his instrument to sound, that's his problem. The music he plays on it is often quite brilliant.

The band on this album has Ponty on violin(s), Allan Zavod on various synths and pianos, Peter Maunu and/or Joaquin Lievano on guitars and the superb rhythm section of Ralphie Armstrong (bass) and Casey Scheuerell (drums and percussion). Only a couple of weak tracks: *Ethereal Mood* is just a chunk of ethereal mood music — ethereal violins (acoustic ones, this time) soaring over ethereal acoustic guitar riffs, with a tabla keeping time. It's all very... what's the word? And *I Only Feel Good With You* is more aimless meandering in the same style, but with a more electric overall sound.

The other six tracks are far more positive. There's more jazz than rock in most of them, although occasional funky rhythms burst through to set your toe tapping. Some toons, like *Puppets' Dance* and *Fake Paradise* use odd time structures (or regular ones like 12/4 subdivided in weird ways) but everyone seems quite at home in them — especially Ponty. The precision of some of the ensemble playing reaches awe-inspiring Mahavishnu proportions.

Jeff Pike

Produced by Jean-Luc Ponty, engineered by Ed E. Thacker. Recorded at Cherokee Studios and Chateau Recorders, Hollywood.

Jean-Luc Ponty



The Dickies

The Incredible Shrinking Dickies (A&M)

If there is such a thing as soft-core punk, this is it. The Dickies spend most of their recorded time raging through the standard new wave postures and predictably, much of this album could have been left out. However, they know a good stance when they've struck one and some of their songs cling.

Their cover versions are well done. Apart from incremental changes in chords, tempo, dynamics and arrangement, the Dickies interpret the Sab's *Paranoid* astutely, and guitarist Stan Lee charges through the song armed with Ionimi's thundering riffs. Vocalist Leonard Graves Phillips puts over a clear vocal on *Paranoid*, and hoots the Barry McGuire protest classic *Eve of Destruction* over a cacophony of dentist drill cymbals and guitar notes. But it is too much of a good thing. *You Drive Me Ape* (You Big Gorilla) suffers Phillips' methedrine blabberings and is barely saved by constructive keyboards and counterpoint guitar.

Poodle Party has quite sardonic lyrics (oh doggie do, you're the sleaziest, you're the easiest), *Curb Joe* features cute squeaky noises and carefully placed silly bars but *Walk Like An Egg*, *Mental Ward* and *Waterslide* career off the rails. What to the Dickies expect when they shower sparks and thunder like a train arriving at a points failure?

Sean Hogben

Produced by John Hewlett, engineered by Cisco De Luna, Earle Mankey and Gerry Kitchenham.

The Stranglers

Live (X Cert) (United Artists)

If my memory serves me correctly this would appear to be the first live album from a New Wave/Punk band, and considering that live performances were very much the essence of the movement this latest release from the Stranglers has added interest.

The cuts on this album are culled from performances at the Roundhouse in 1977 and Battersea Park last year — and I'm afraid the Roundhouse gig seems definitely to have been an off night. The whole of the first side, bar one track, are taken from that gig, which seems to have been a sound engineer's nightmare.

From the opening number, *(Get a) Grip (on Yourself)*, the sound is terribly messy with only Jean Jacques Burnel's bass cutting through at all, which it also does in fierce fashion on *Burning Up Time*. Dave Greenfield's organ is continually lost, swirling in and out of the proceedings at irregular intervals, and the vocals pretty well buried.

After the fourth number, one is tempted to blame the venue. After all, I wouldn't have thought that the Roundhouse would come at the top of any sound engineer's Best Gig Guide. However, *Hanging Around* was recorded at the same place a few months earlier and shows a marked improvement. The sound is less topky and more balanced, the vocals are clearer, the whole thing is more solidly put together, and it's nice to hear Hugh Cornwell's guitar cutting through.

The pick of the rest of the album are drawn from the Battersea Park gig, with probably the best being *Go Buddy Go*. It's a pity that a number like *Five Minutes*, which has a great intro, should be subject to the Roundhouse sound gremlins.

Altogether a disappointing album which fails to capture the true excitement of the band on stage and will only serve as a souvenir for those who have fond memories of the performances which are captured here.

David Lawrenson

Remixed and produced by Martin Rushent.

Velvet Underground

1969 Velvet Underground Live (Mercury)

Ten years old and the sound is still as fresh as ever. Another decade will pass by and the Velvets will still win new fans. If today's music is anything to go by, Lou's Velvets are very much overground. Escaping hippie love and techno-punk, this double album will undoubtedly claim a place of honour in most rock 'n' rollers' collections. Next to *The Doors Live*, perhaps?

In 1969 Lou Reed was a modest and genial entertainer. Forget his present flippancy. Backed by Sterling Morrison on guitar, Bill Yule on bass and Mo Tucker on drums, uncle Lou will stun you, pacify you, swing and twist you and furthermore you'll probably sing along with him. And when you reach the final track, *I'll Be Your Mirror*, you'll sigh to that great love song and, just for the road, slip Side One on again to sip the coolest version of *Waiting For The Man* you'll ever hear. And all this for the price of a single album!

Hervé Corre

Mastered by Gilbert Kong. No further details available.

The Amazing Rhythm Aces

The Amazing Rhythm Aces (ABC)

A six-piece Memphis band who blend various influences quite marvellously. Even before you hear the music, the instrumentation listed on the sleeve gives a clue to their diversity. Duncan Cameron, for instance, is down-home country: guitars, pedal steel, mandolin, banjo and Dobro (and jolly good he is, too). But what's this? James Hooker on acoustic and electric pianos, organ, clavinet and vibes. Or how about Billy Earheart on accordion, xylophone, pianos and organ?

The Aces' versatility is their strong suit. They don't, thank Heaven, try to combine all their styles into one huge goulash, but instead switch quite happily from jazzy soul in one number to bouncy bluegrass in the next, then to bluesy rock and so on. Russell Smith's voice is warm and impressive and his handling of the R 'n' B songs recalls the young Ray Charles — he really is that good.

It's hard to pick the outstanding tracks from such a variegated set. In fact, it's hard even to compare one song with the next. But *Whispering in the Night* is a poignant, atmospheric lament, empty and lonely until the magnificent Muscle Shoals horns charge into the last chorus for a great climax. *Love and*

Happiness is a jaunty rendition of the Al Green song. And *Rodrigo, Rita and Elaine* is a Tex-Mex ballad of jealousy and passion with an outrageous twist in the tail. Good stuff.

Jeff Pike

Produced by Jimmy Johnson, engineered by Steve Melton, Gregg Hamm, Bill Fair and James Griffin. Recorded at Muscle Shoals Sound Studios, Sheffield, Alabama.

Al Roberts Jr.

Rockabilly Guitar Man (Frog)

At last — Frogabilly. Al Roberts Jr., in collaboration with his alter ego Bob Clifford, has devised a rockabilly entertainment that should delight students of the genre and fun-lovers everywhere. Roberts sang and played everything, with the aid of a roomful of Teac and Revox gear and a spot of sax on *Rock 'n' Roll is oh so Fine* by one Jim Goldring. The results are surprisingly impressive. Al can obviously roll out rockabilly guitar lines till the cows come home, as in *Telephone Rock*. The spoof quavery guitar intro to *Haunted House Rock* is another example of his range. He can sing, too, though his voice could use a little reverb or something to make it sound less dry. But listen to the harmonies on *First High School Love*.

The album is saved from repetitiveness by its humour. Titles like *Haunted House Rock*, *Rockin' in Egypt* and *UFO Rock 'n' Roll* combine to produce an atmosphere of relaxed absurdity. My favourite is *My Gran' Pappy Don't Smoke No Grass*, where it transpires that the old boy's abstinence is due to the fact that he's "Out of his mind on coke and speed." Disgusting. In all, a triumphant debut for Al Roberts, Bob Clifford and Frog. As the biog.

Velvet Underground

Al Roberts Jr.

The Amazing Rhythm Aces

The Dickies



Lou Reed

Albums

The Emotions

The Gladiators

Rufus

says, "the music won't change the face of rock 'n' roll but it marks a rather nice return to good-time/fun music . . . and we all need some of that . . ."

Adam Sweeting

The Emotions

The Best of The Emotions (Stax)

A must for all Northern Soul freaks, this collection of Emotions' greats brings back memories of discos dominated by the sounds from Stax, Tamla and Atlantic. The Emotions are three girl singers who carried on where the Supremes left off in the late Sixties/early Seventies.

The Hayes/Porter songwriting team are very much in evidence on this album, with their *Stealing Love* given superb treatment by the girls. *Somebody Wants What I Got* serves as a reminder of the close connection between blues and early soul, featuring the unmistakable Stax brass sound.

Thankfully, the trio are still turning out top class material today, but for a glimpse of what dance music was like before funk and the Bee Gees, this album would prove a worthy acquisition.

David Lawrenson

The Gladiators

Naturality (Virgin Front Line)

In many ways, the Gladiators have a lot in common with other Jamaican vocal groups (Culture, the Abyssinians, the original Wailers, etc). They share the traditional style of vocalising, with one lead voice supported by the other two, and the traditional rasta lyrics, with hymns to Jah and yearnings for Africa. But in other ways, the Gladiators are in a class of their own.

For one thing, their songs (nearly all by lead vocalist Albert Griffiths) are irresistibly melodic. For another, the lyrics draw heavily on homely proverbs. Also, the innocent-sounding settings have the effect of emphasising the lyrics in a very powerful way, whether it's one of their vaguely "political" songs, like *Nyahbingi Marching On* ("under the red, green

and gold") or an optimistic ditty like *Get Ready*, a simple celebration of the joys of dancing.

The backing group includes the cream of Jamaican session men, with the admirable Sly Dunbar on drums. They keep things appropriately simple and deceptively lightweight. But turn it up loud and all the rhythmic power of roots reggae is there. Only one track involves much Production with a capital P - their version of Marley's *Exodus*, with changed words. There's loads of extra percussion, a string synthesizer and snatches of echo thrown in strictly dub-wise.

Jeff Pike

Produced by Tony Robinson and engineered by Sylvan Morris. Recorded at Harry J Studio, Kingston, Jamaica.

Rufus

Numbers (ABC)

If, like me, you pick up this album expecting to hear the vocal talents of Chaka Khan then, like me, you are going to be disappointed. The lady has quit the band to pursue a solo career, leaving the five-piece to carry on.

They have not attempted to replace her, but merely spread the vocal duties around and recruited outside help where necessary. The music is mainly good up-tempo funky stuff with the odd soulful ballad thrown in for good measure. It is all extremely well played, *Ain't Nobody Like You* being a good example. The problem is that there are just so many bands who are doing this type of stuff.

Dancin' Mood is a red hot slice of funk with a powerful brass sound which shows that the band can cut it when they really try, while Freddie Hubbard adds some nice atmospheric trumpet for a change of pace on *Bet My Dreams*.

The biggest problem with disco/funk is coming up with something original to set a particular band apart. With Rufus that something was Chaka Khan, and without her they will still sell albums, but for me lack that main ingredient.

David Lawrenson

Recorded at Dawnbreaker Recording Studios, San Fernando, California. Engineer, Roy Hales. Produced by Rufus and Roy Hales.

Gilgamesh

Another Fine Tune You've Got Me Into (Charly)

Witty title for a very clever album. If you're frightened off by "clever" albums, don't shy away yet. Just lend an ear to four sensitive musicians making creative music together. Keyboardist Alan Gowen leads the quartet, plays imaginatively on a comparatively small range of instruments (two synths and two pianos, as far as one can tell) and wrote most of the tunes.

He says in his sleeve note: "My aim is to produce music in which it is impossible to tell what is written and what is improvised." No easy task, but he has succeeded by and large, thanks to his sympathetic awareness of his fellow musicians and their innate ability and

The Gladiators



receptiveness. They are: Phil Lee on guitars, Hugh Hopper on bass guitar and Trevor Tomkins on drums. They all have their chances to shine. Tomkins introduces *Underwater Song* with a staggering drum solo, Hopper dominates *Foel'd Again* with some freaky bass harmonics, and Lee takes as many solos as the leader (including an unaccompanied classical guitar piece, *Waiting*). He occasionally tried to play a little too much on his Les Paul, but still has some original ideas. Gowen has no such hangups. Subtle, pointed synth playing, often with a pure, liquid tone.

It's all very well produced, with very few overdubs, and reveals more musical depth with every listening. All right, so it's clever. But we can't all be stupid.

Jeff Pike

Produced by Gilgamesh, engineered by Dave Anderson. Recorded at Foel Studios, Caerinion, Wales.

Chris De Burgh

Crusader (A&M)

The strange case of Chris De Burgh. He is a singer-songwriter who can be at times inspired and at times banal. The same is true of his albums, unfortunately.

There are some good songs here, like the opener *Carry On*. It's nicely structured with a sympathetic string arrangement and flowing bass guitar building up to a very strong chorus with Ian Bairnson's multitracked guitar adding effect. *I had the Love in my Eyes* is the first track to be lifted as a single and it's a fair choice. Chris sounds not unlike Paul McCartney on this cut – in fact, there's a very strong Beatles influence, especially on the harmony parts and the French horn solo!

Unfortunately, there are some awfully trite songs on the album as well. *The Girl with April in her Eyes* not only sounds like a Cat Stevens title, it also sounds like a Cat Stevens song. Side Two opens with *The Devil's Eye*, a song about the devil paralysing the world via television. At times, it sounds like Freddie Mercury at his wickedest but it's really tongue-in-cheek and includes a nice line referring to his *Spanish Train* album. The title track is, naturally enough, about the Crusades. It's in four parts and quite adventurous, albeit in a Moody Blues sort of way.

I personally find Chris' lyrics a bit twee and quite a lot of his musical ideas tend to sound the same. Not a completely satisfying album, but certainly listenable.

Eamonn Percival

Produced by Andrew Powell, engineered by Jon Kelly and recorded at Air, Abbey Road and Superbear Studios.

Tanya Tucker

TNT (MCA)

This record makes a real change for Tanya Tucker. She's still sticking to her country roots but (for mixed metaphor lovers) branching out into other styles, in much the same way as Linda Ronstadt did. Her voice is strong – it's also adaptable. She can be powerful on one

song and sensual on the next. This sensuality comes over strongest on a song she co-wrote with producer Jerry Goldstein called *I'm the Singer, You're the Song*.

The similarity to Linda Ronstadt is very strong on Phil Everly's *Lover Goodbye*. The verses sound uncannily like *Love is a Rose* – even the vocal harmonies sound as if Andrew Gold had a hand in them.

There are three beefed-up covers of rock classics on the album, the best of which is *Not Fade Away*, a really solid re-working of the Holly song with a very tight rhythm section. Holly's *Brown Eyed Handsome Man* is treated in a similar way. On *Heartbreak Hotel*, Tanya even manages to sound like Presley, with bags of echo on the vocals. This cut also features a great slide guitar solo from Jerry Swallow, sounding not unlike Joe Walsh at his best.

Another really good track is *The River and The Wind*, featuring Seals and Crofts on harmonies. It's a slow countryish ballad and one of the best moments on the album.

Generally, the arrangements are superb throughout and the sound is both clean and gutsy. Credit too to the musicians – John Hobbs (piano), Paul Leim (percussion), Jerry Scheff (bass) and Billy Joe Walker and Jerry Swallow (guitars).

Eamonn Percival

Arranged and produced by Jerry Goldstein, engineered by Ed Barton. Recorded at Kendun Recorder, Burbank, California.

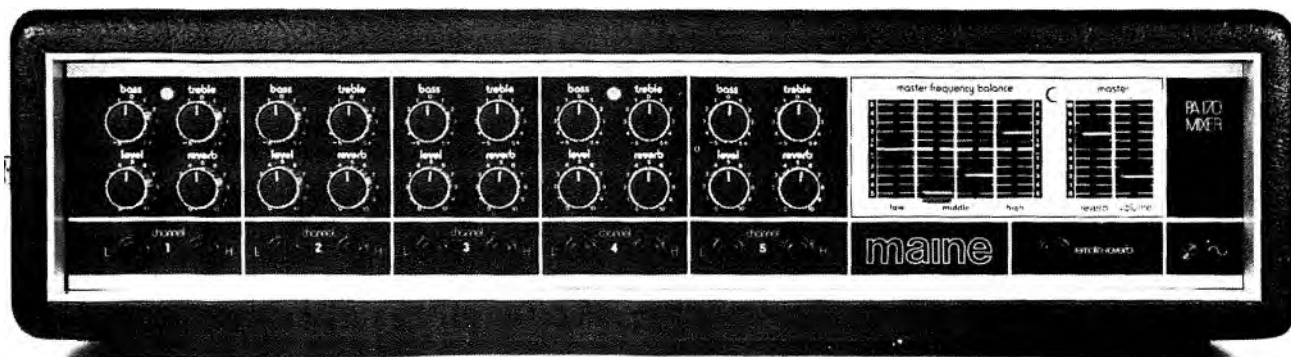
Chris De Burgh

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Albums

Larry Carlton

Larry Carlton (Warner Bros.)

A very West Coast album, which is only to be expected, really, for since his stint with the Crusaders (and even during it) Larry Carlton has spent many hours in Californian studios. And the band he's picked for his first solo album are all experienced session men, too. As so often happens, the result is a set which is virtually note-perfect from all concerned but often lacks any definable character. Rather too many tracks for comfort are padded out with MOR strings and the two vocal numbers are bland rip-offs. (One's called *Where did you Come From?* and the answer is the Bee Gees. The other is *I Apologize*; he should, to J.J. Cale.)

But there are some brighter spots. *Room 335* kicks off the first side with some ballsy guitar playing, Carlton using a beefier tone and fiercer attack than we ever heard in his Crusaders' days. The last track on the album, *(It was) Only Yesterday*, is very fine, too; clean, restrained blues licks in the style of Roy Buchanan. But the piece of resistance is *Point It Up*. It's a coup de grace and a tour de force, too. Call it state-of-the-art rock guitar playing if you must. Carlton's solo deserves every superlative. Fast, urgent, inventive, punchy, witty, magic. What a pity he didn't put half so much energy and daring into the rest of the album.

Jeff Pike

Produced and engineered by Larry Carlton.
Recorded at Room 335, Hollywood.

U.Brown

You Can't Keep a Good Man Down (Virgin Front Line)

From a smiling, relaxed start with *Weather Balloon* to a grinning, uneasy last track, *Trad Along Jah*, U. Brown's backing musicians manage to squeeze out the little vocal beauty he can express. The lyrics, based on serious social topics are spat out through layers of elastic guitars, crisp percussion and loud, superball-bouncing bass. *Row Mr. Fisherman*, a toast on the deteriorating conditions of life in Jamaica, is particularly committed to this sound. Very tight rhythm gently rocked by a supple keyboard carry U. Brown's vocals to a seductive maximum. A punchy, to-the-point combination of music and words.

Hervé Corre

Produced by U. Brown, recorded and mixed at Channel One, engineered by Crucial Bunny.

SHORT CUTS

Godley & Creme *Music from Consequences* (Mercury)

If you found the original triple album just too pretentious, try the edited highlights. Strong songs, clever arrangements, nice Gizmo-sounds.

JP

Vangelis *The Dragon* (Charly)

Slow, repetitive, boring. Somebody went to the trouble of delving into the 1971 vaults for this dirge -- I wish they hadn't bothered.

It's a far cry from *Aphrodite's Child* and the *Splendid Albino* 0.39. It's fairly obvious why nobody bothered to release it before.

NO

Booker T *Time is Tight* (Stax)

A great collection from one of the most influential instrumental groups in modern music. Tracks feature Booker T with the MGs, Steve Cropper and also with the Stax house brass section, the Mar Keys. The title says everything about this outfit and their music. Great.

DL

Leo Kottke *The Best* (Capitol)

I suspect Leo Kottke's best is yet to come but here's a sample of the story so far. Includes acoustic, electric, live, studio and vocal work by this idiosyncratic guitarist. Some good, some bad, none indifferent.

JP

Ian Carr's Nucleus *Out Of The Long Dark* (Capitol)

One of the English pioneers of jazz rock, trumpeter Carr has gathered some of the country's best known jazz musicians for his latest Nucleus line-up. Quite surprisingly, the album shows not a trace of jazz/funk crossover.

DL

Willie Nelson *There'll Be No Teardrops Tonight* (United Artists)

UA capitalising on Willie's belated success by re-releasing old Liberty tracks. Anyone want to hear an album of Willie Nelson trying to sound like Hank Williams? I don't.

EP

The Secret *The Secret* (A&M)

Desultorily, the Secret despoil the pop vibes of the early Seventies (Steve Harley, Bryan Ferry, Sparks), mishandle them and dress up for the album cover like splay-footed fairground balloon-merchants, which is their only originality.

HC

Steppin' Out *Steppin' Out* (Charly)

London band. Reggae rhythms. White vocals. Great drummer. Ordinary songs. Well mixed. Red vinyl. Nothing original. Why bother?

JP

Inner Circle *Everything is Great* (Island)

The latest in the line of reggae crossover bands, Inner Circle seem set to follow in the steps of Third World with this commercially soul-tinged album.

DL

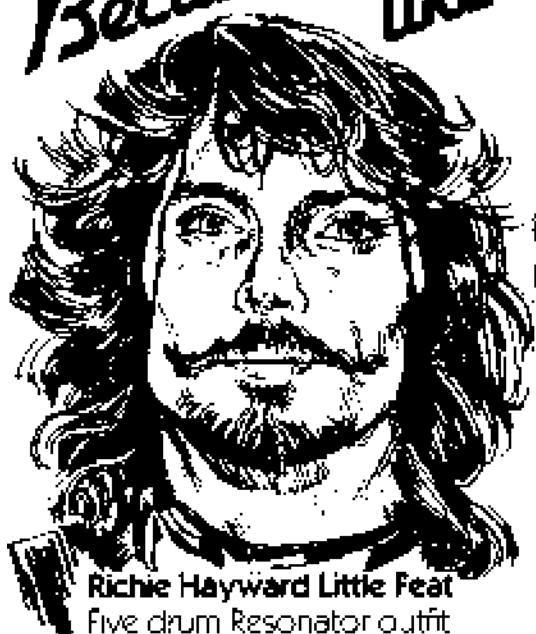
Larry Carlton

U.Brown

Booker T. and (below) Godley and Creme



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like the other guys.*



Richie Hayward Little Feat
Five drum Resonator outfit



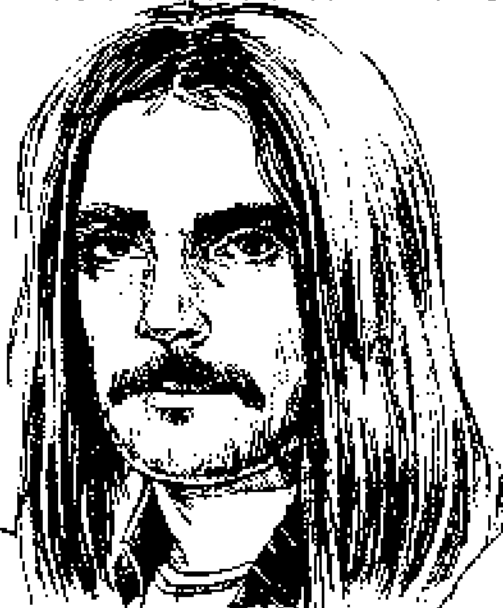
Clem Burke Blondie
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Darrell Sweet Nazareth
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Phil Collins Genesis
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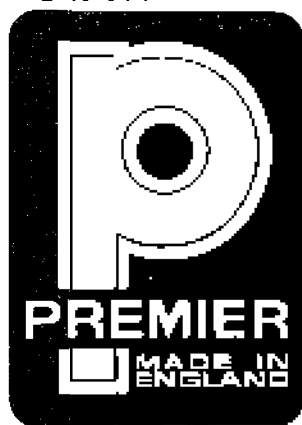
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Your Queries

Horses for courses

I'd be very grateful for Robin Lumley's opinion. I'm interested in buying a synthesizer, but I am a complete beginner in that I've got no keyboard experience whatsoever.

I've read your review of the Wasp and have played one. Being a novice, I was impressed by the sound that it produced, while looking like a "toy". The £200-300 price range is what I am prepared, or rather would like to spend on one as a starting instrument, so your opinion please on the comparison between the Wasp and the Korg MS10 and MS20 and/or any other low price "value for money" synth on the market worth considering.

Richard Crowley,
London SW1

Robin Lumley replies: Asking such a question as "What's best; the Korg MS10 or the Wasp?" sets me a really difficult task in replying, because there is no simple answer. You see, first you must analyse in your own head exactly what you want a synthesizer to do for you as a musician, and then try out as many instruments that are available within your set price range until you find the one that satisfies your requirements. These requirements may be quite different from mine altogether, so my opinion would be useless to you.

I don't know whether you intend using your synth in an onstage situation, or a studio one, and the parameters of facility-range and operative functions are different for different jobs like these. Certain ergonomic shortfalls may be quite all right in the atmosphere of a studio, with no audience looking at you, but totally insupportable at a gig. Horses for courses, really. And then it's down to your personal taste in sounds produced by a synthesizer; and it's impossible to make someone's mind up for them on that score.

Send your questions about instruments, amplification, music and the business to Queries, International Musician and Recording World, Grosvenor House, 141-143 Drury Lane, London WC2. If you'd like your question answered by a particular one of our consultants, mark your envelope "Stephen Delft", "Mark Sawicki", etc.

Odd springs

Thank you for Alan Holmes' very interesting articles and reviews of saxophones, mouthpieces, etc. I have found them very helpful, but wonder if you could help me with a rather unusual problem.

I am the proud owner of a Grafton plastic alto sax which I'm very pleased with. However, I have been having trouble with springs weakening and breaking. Unfortunately, the springs are very unconventional, as is most of the instrument, and I have found it impossible to find replacements. I realise that Grafton have not made any saxes for several years, but would have thought that someone would have some spares left.

I have written to some London repairers but with no luck. Can you offer any advice?

Andrew Batchelor,
Royston,
Herts.

Alan Holmes replies: Alan Billington's Musical Instruments of Bexleyheath which is near Welling, Kent, do in fact have some key work for Grafton alto saxophones and they would possibly be able to find some springs. If they can't help you try Bill Lewington's Musical Instruments, 144 Shaftesbury Avenue, London WC2 who will possibly be able to make you some springs. They have a very skilled repair staff who will be able to make springs for the instrument. They will probably have to keep it for a couple of days.

Diplomatic modifications

I have recently purchased a Selmer Diplomat acoustic guitar (second-hand for £35). From its appearance and the way it plays, I get the impression that it is of slightly better quality than the run-of-the mill acoustics on the market. I would appreciate your comments as to how good this guitar really is.

Also I would like to electrify it, looking for a beefy electric sound. I would be grateful for your advice as to type and model of pickup, also any problems that may have to be overcome in fitting.

Alan Eckersley,
Nuneaton,
Warwick.

Stephen Delft replies: Glad you like the guitar. If the neck is OK, for £35 it has to be a bargain. Gibson now make an interesting pickup called a BJB Jazz, which should suit your guitar very well. It comes complete with controls and jack for mounting on the scratchplate of the guitar. There are also suitable De Armond pickups available.

When you fit a pickup, try not to cut holes in the front of the guitar, as there are likely to be important internal struts just where you need to recess the pickup and they run all the way from the neck to the bridge.

Satisfied custom-er

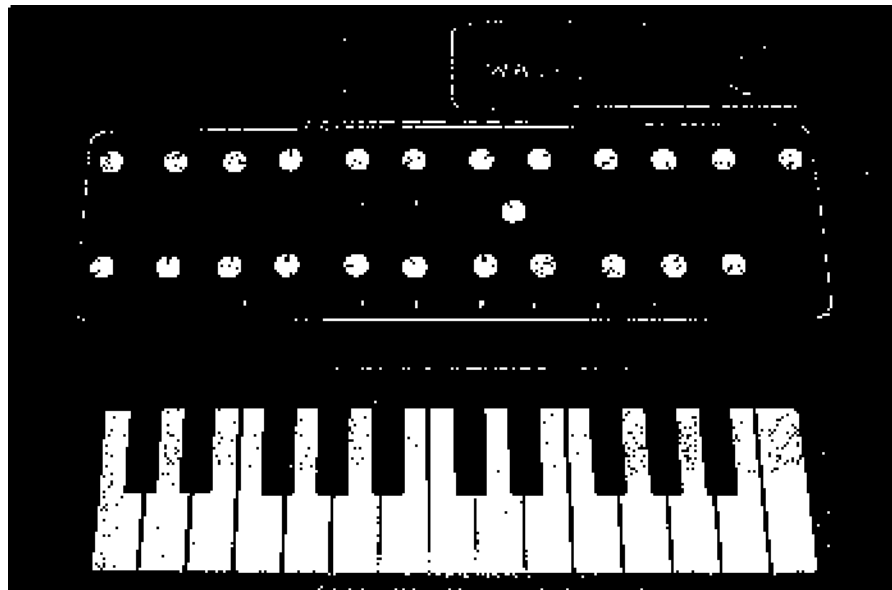
Could you possibly let me have some information on Shergold guitars (especially the Custom Masquerader). I own one of these guitars and I am quite satisfied with it, but I would like to find out more about it and the other guitars they make.

Peet Pargma,
Ilkeston,
Derbyshire.

Stephen Delft replies: For information on Shergold, contact Shergold (Woodcrafts) Ltd, 9 Avenue Industrial Estate, Gallows Corner, Harold Wood, Romford, Essex RM3 0BY.

How much power?

After several weeks' frustration, discussing with electronics engineers and musicians, I have had to admit defeat over the understanding of the power rating of a Marshall Mercury combo that I recently obtained. The problem came to light when I compared the amp with a circuit diagram I obtained from Rose-Morris. According to the back of the amp, it is rated as: Voltage 250V, Frequency 40/60Hz, Watts 25. The amplifier, however, contains only one EL84 valve which can, according



Wasp synth

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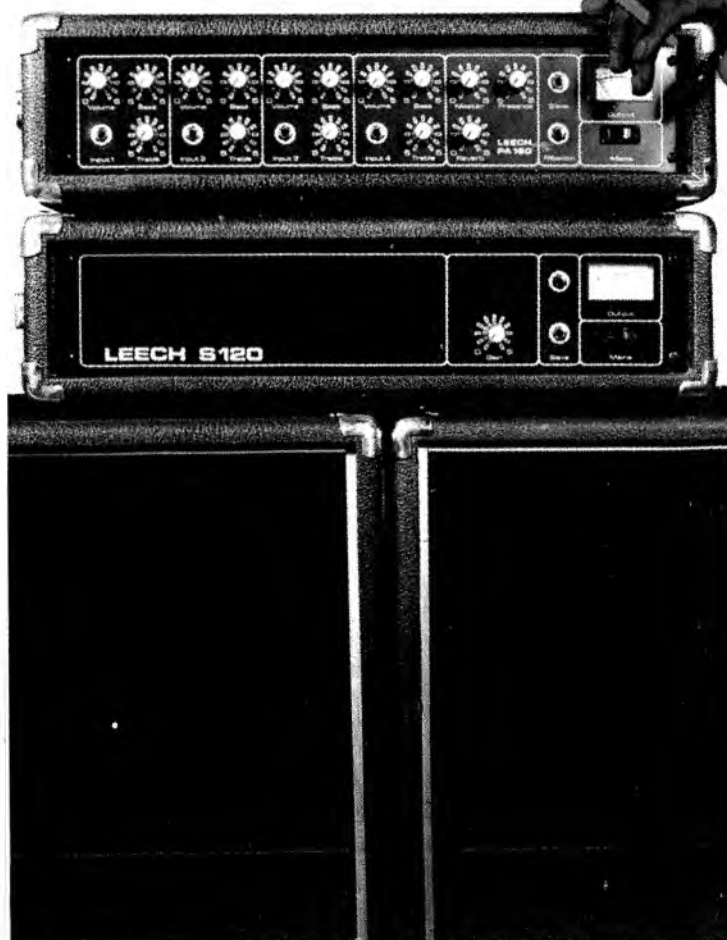
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Your Queries

to tables, produce only approximately 6W RMS with 30% TD.

This seemed rather strange so I took it to an electronics engineer, who measured the power output with a 440Hz sine wave and found that with an eight ohms speaker approximately 6 watts maximum were delivered, and using a three ohms resistor (to compare roughly with the three ohms impedance on the circuit diagram) only 4W maximum was produced. I was still none the wiser. How could this be called a 25W amplifier?

S.A. Austin,
Loughborough,
Leics.

Mark Sawicki replies: The figures given on the back of the amp (including Watts 25) refer to the total consumption of electrical energy of the unit and have nothing to do with the power output. In fact, it is physically impossible to get 25 watts out of an EL84 valve, as confirmed by your electrical engineer. Four watts power output is a much more realistic figure



Fender Tele

for this amp. Incidentally, I would suggest that a 1KHz sine wave should be used instead of your 440Hz, which is rarely used and tends to make comparison with manufacturer's specs difficult.

Buying in

In the February issue of International Musician I noticed the letter concerning the importation of instruments. The fact that I am about to buy either a Fender Telecaster or the Stratocaster model has prompted me to write to you to enquire about the price of these models straight from the factory in America and the excise duty I would have to pay on these guitars.

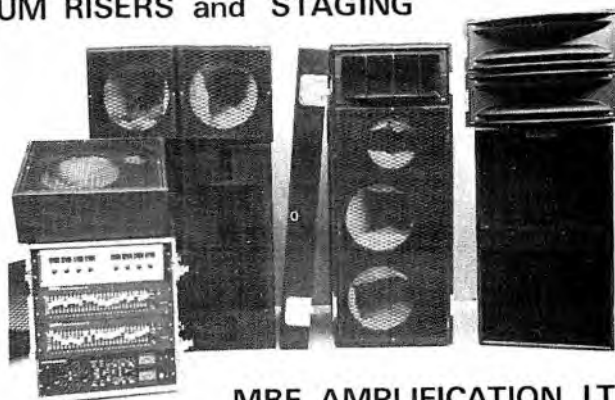
G. Buckle
Orpington,
Kent.

For the price of a Fender guitar straight from the factory, you should write direct to the CBS Musical Instruments Division, 100 Wilmot Road, Deerfield, Illinois. The usual excise duty is 10 per cent, plus a further 12½ per cent VAT.



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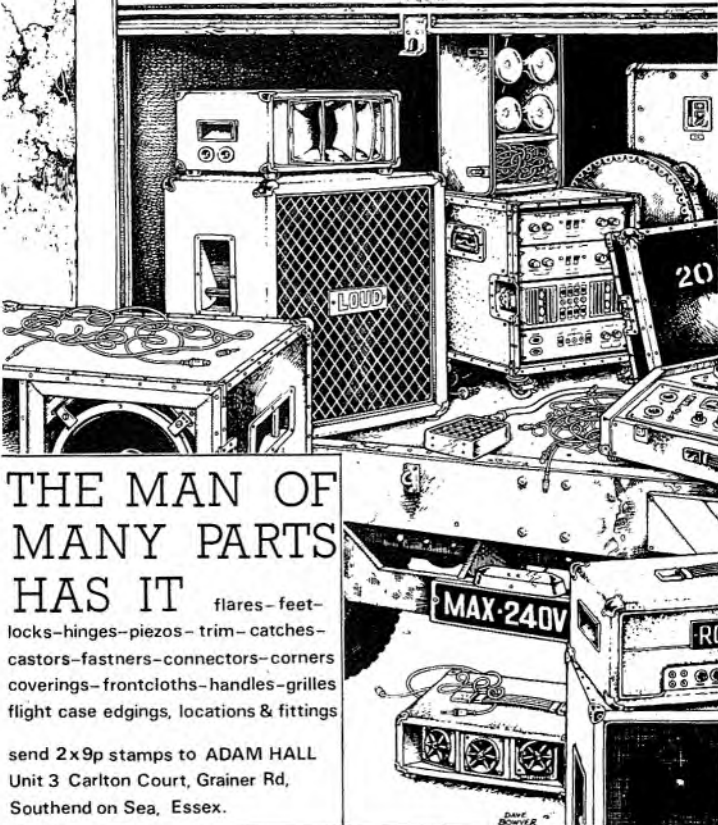
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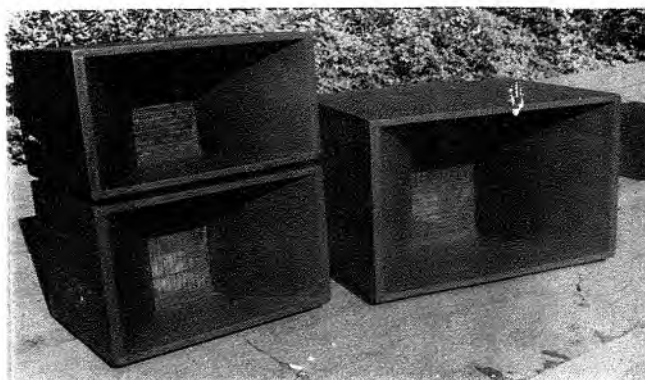


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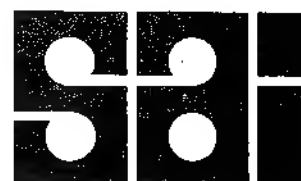
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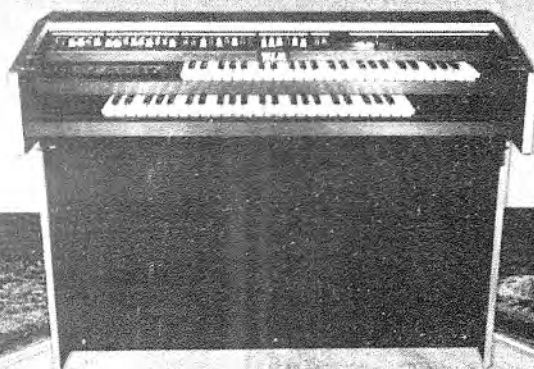
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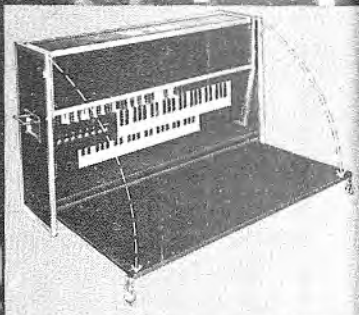
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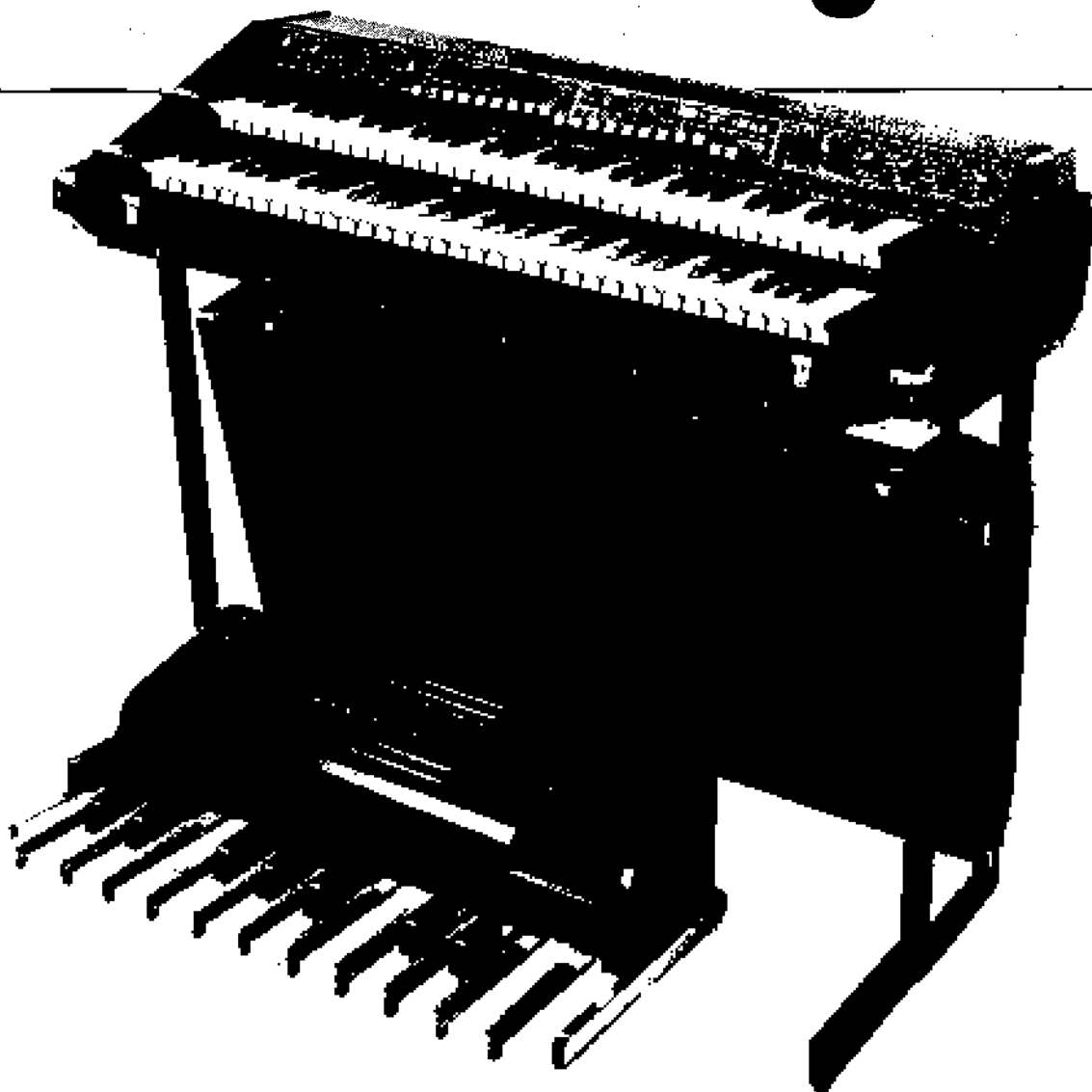
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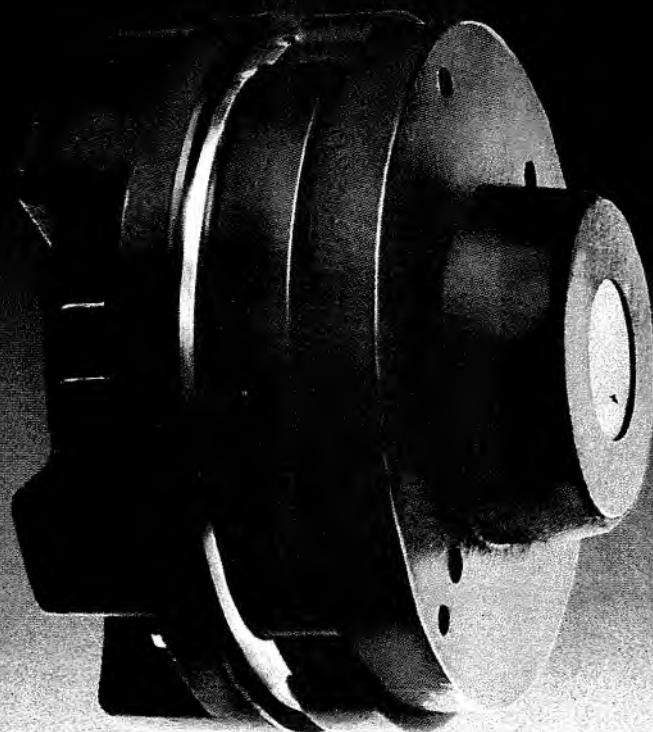
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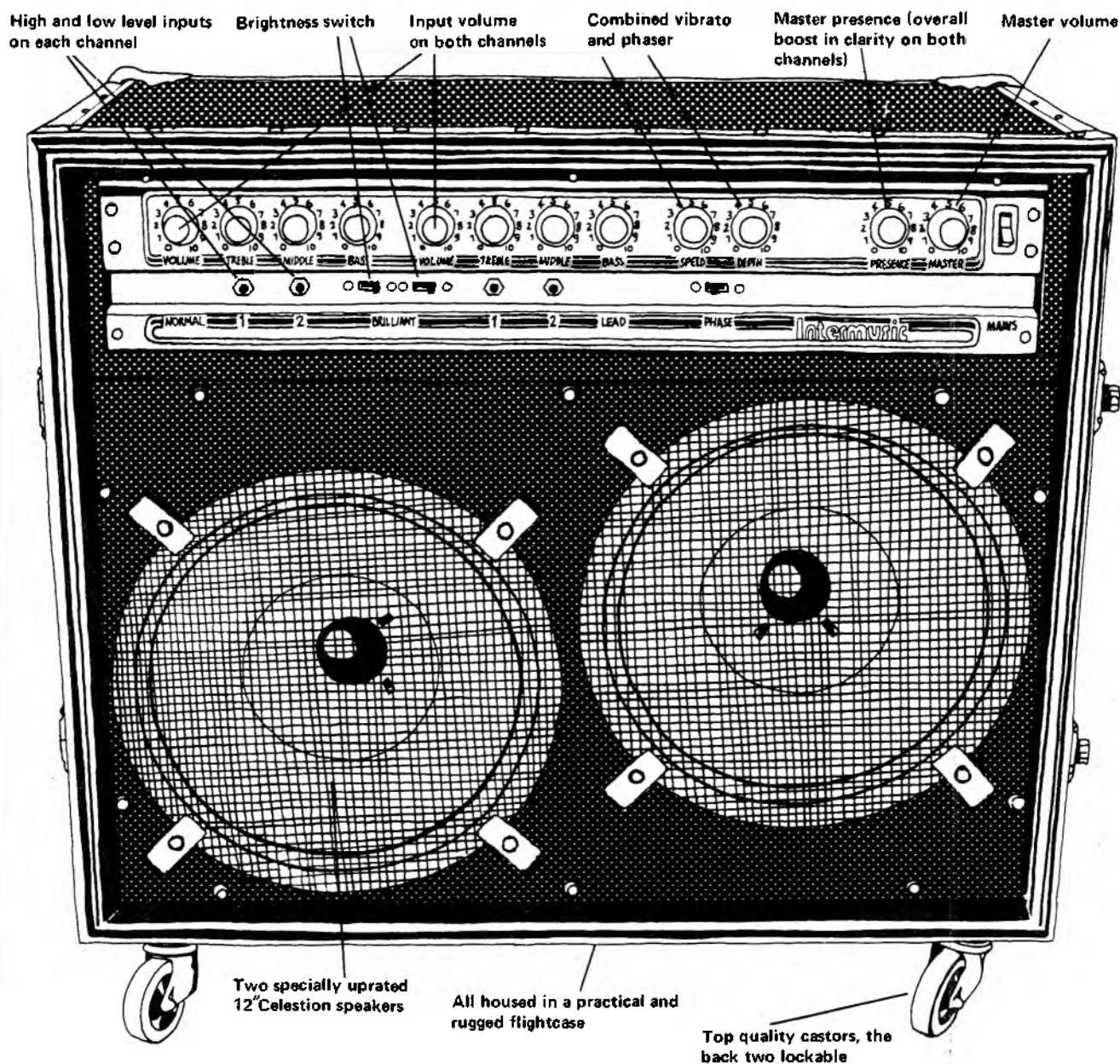
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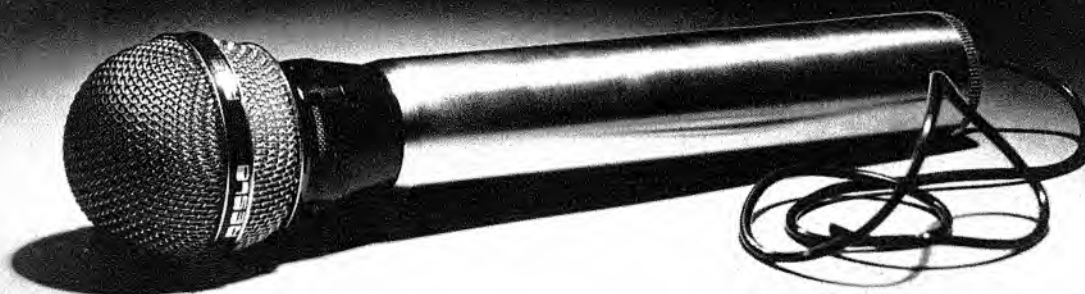
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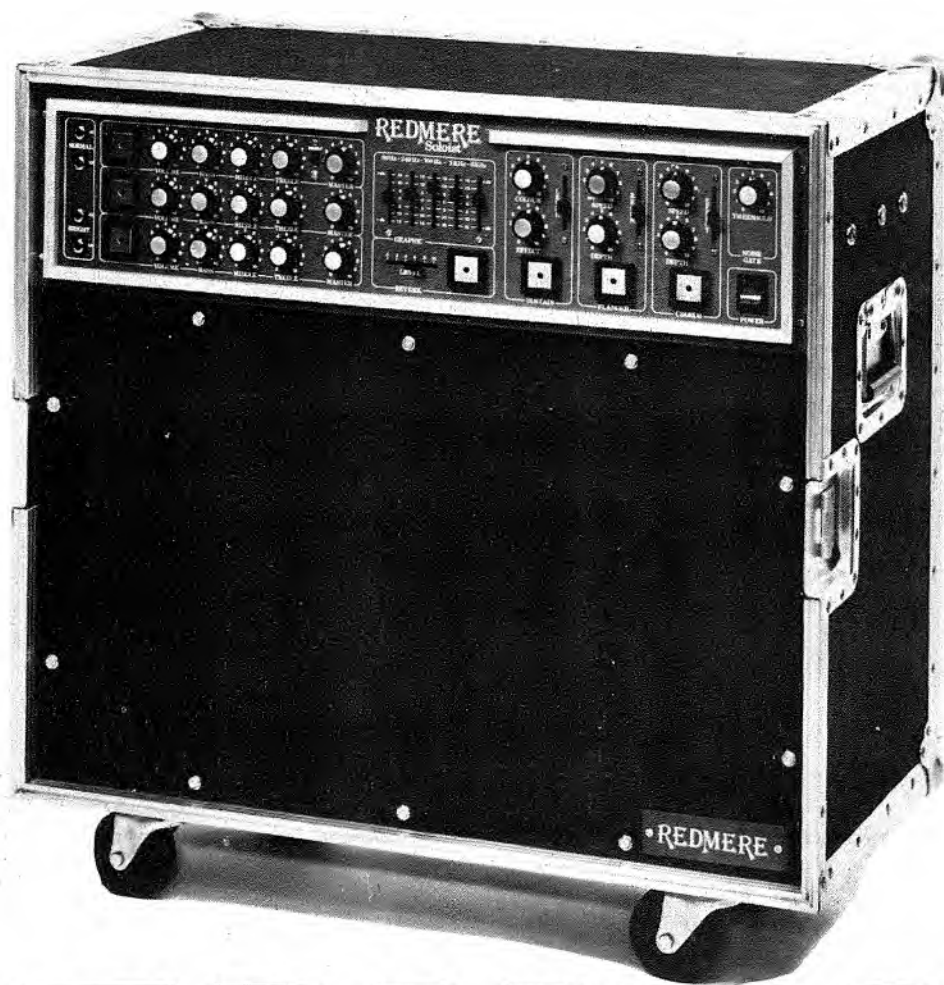
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RECORDING WORLD

STUDIO DIARY

Who's been recording what, where...

Basing Street Studios, London

The band who introduced the word "reggae" into the musical language, Toots and the Maytals, have been recording an album with producer Chris Blackwell and engineer Norman Mighell... CBS is financing recording, coffee and sandwiches for Reggae Regular who are working on an LP produced by Robert Ash and engineered by Lloyd Pattes... Rhett Davies is producing a CBS band called Starjets... Hi-Tension were completing their new single... Engineer Rhett Davies had the amusing task of preparing a compilation of tunes from the great Roxy Music... for a radio show... Engineer Howard Kilgour prepared a videotape of "business-is-cool" Inner Circle... Non-stop touring band Straight-8 were recording some tracks with producer John Burns... Island paid the bill for some Slits tracks produced by Dennis Bovell... Two months ago they did the same for Decca... The Mobile unit caught Roger Chapman in Sheffield, crossed the channel to see Gong gigging with Mike Oldfield, captured the Earth Wind and Fire UK tour and went down the road to record Herbie Hancock at the Chelsea School of Art.

Ramport, London

New Wavers Gloria Mundi have been working day and night with the very pro engineer/producer John Punter... In the studio since late January, the team is scheduled to leave the premises by the end of March. The fruits of this work will appear on an RCA album.

REL Studios, Edinburgh

Douglas Bogie can engineer just about anyone... Just read on... The UK Upstarts were in for a single, Douglas also produced... Upcoming Scottish band The Monos were recording a stereo single... Glasgow-band The Shapiros were producing their own little platter... Leaving New Wave for a while, Douglas Bogie also engineered a self-produced folk

band album by the Tannihill Weavers... Silly Wizzard, another folk ensemble, were preparing an album.

Studio 92, Paris

The ever-trendy John Halliday has been recording an EP with titles like *Le Temps Du Rock 'n' Roll* (Rock 'n' Roll Times) and *Ras-le-Bol du Disco* (Fed-up with Disco)... Jean-Claude Charvier produced and Roland Guillotel engineered... Tell your dad that Nana Mouskouri is recording a new album with producer André Chapell and engineer Roland Guillotel... Other French or francophone recording artists have been in and you might even have heard 'em if you sipped a pastis in a Wurlitzer furnished Bistro last summer, Michel Sardou... No?... maybe Eric Charden... Oh well, what you might find interesting is that when you see an American or British album with Made in France on it you can be preeetee sheure zat Mastering Engineer Jean-Pierre Mariel had something to do with it. Remember those singles by the Sex Pistols? Well, here are a few names he's worked on: Alice Cooper, Yes, Frank Zappa, Neil Young, The Band, Rod Stewart, Billy Cobham, ELP, etcetera, etcetera... Merci, mon général.

RAK Records Mobile Studio

Was it the weather? But Rak only did business inside this time... 115 guitar-owner Steve Howe was recording his art with engineer Greg Jackman. The result will be a self-produced album... Singer Roy Sundholm was recording a single with producer Vinnie Castellano... Pop band Racey has good connections; Mickie Most-illustrious is producing and engineering their forthcoming single.

TW Studios, London

Paul Brett was recording an album for RCA with producer Tom Newman and engineer Alan Winstanley... Alan also engineered an album by Trickster,



Steve Howe



Gong with Mike Oldfield



Herbie Flowers

who were recently touring with ELO . . . Star producer Martin Rushent is producing Ian Gomm's new album with the busy Alan Winstanley at the controls . . . Alan also helped on the mixing of Count Bishops' new piece of vinyl.

Riverside Recordings, London

Ex-Damned lead guitarist Brian James was recording a label-less single with engineer Neil Richmond . . . Nick Glennie-Smith was engineering and producing a single by the Inmates . . . Ace blues guitarist Brian Knight was recording some tracks for an album with producer/engineer Neil Richmond . . . 999 are at Riverside with Mark Hunt engineering their forthcoming self-produced album . . . Anthony David is the engineer behind the Softies' new album; up front you find producer Big Mick . . . Talking of big, session-man supreme Herbie Flowers was down by the riverside producing his own album with engineer Anthony David . . . Alan Tarney and Trevor Spencer were due

in from Down Under but the forthcoming album will have to wait for the go-ahead from Heathrow control . . . Isn't rock 'n' roll a tough life?

EMI and Abbey Road, London

Steve Harley is back in town recording an album with producer Jimmy Horowitz . . . The evergreen Manswell has also an album in perspective; helping him are producer Norman Newell and engineer John Kurlander . . . Talking of green, Cliff Richard's new album will soon see the light. Tony Clarke is engineering, Cliff and Terry Britten produce . . . Bob Carter was working on an album with engineer John Kurlander and producer Geoff Jarrett . . . Paul McCartney is back in Abbey Road, producing a further Wings album with engineer Phil McDonald . . . Marshall Hain are putting pieces together for a self-produced album with the help of engineer Alan Rouse . . . Black Beard Dennis Bovell is producing Matumbi's new single with engineer Pat Stapley .



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John Cale

Interview John Cale? Sure. He used to scream at potted plants until they died? Well... I don't know. And bust up pianos with sledgehammers? Wait a minute. Will he be armed? No. Can I be armed?

Many people will tell you that John Cale is a case. But you'd expect it from someone who formed the Velvet Underground with Lou Reed and produced the first Stooges album *ten* years ago (maybe a little ahead of its time?). "Volatile" is a word he often used to describe himself.

America got its first taste of Cale in the summer of 1963 when the young Welshman arrived from England on a music scholarship at Eastman Conservatory. The inclination is to believe him when he says, "They thought my pieces were unnecessarily violent and wouldn't let me perform them. They threw me out."

Figuring there would be less repression in New York, he headed for Greenwich Village and promptly fell in with Lou Reed, Andy Warhol and Nico. The Velvet Underground was formed when Herman's Hermits were singing *Mrs. Brown, you've got a Luvly Daughter* and the Beatles were proclaiming that they feel fine. The Velvets said simply, "Heroin, it's my life and it's my wife," and laughed about the backlash.

Other than a three year stint in L.A. when he started working for Warner Brothers in A&R ("It was great, I played tennis and all that crap, but I missed live performances."), Cale has been based in New York ever since. On this particular afternoon, wearing a number 42 football jersey, jeans and work boots, he is walking around the room at Wartoke, his Manhattan office, searching for an answer. The question had something to do with the Velvet Underground, purveyors of rock and roll psychodrama if there ever were any.

"It was an *adventure*," Cale says, bringing to life the precise, softly maniacal voice which captivated all who ever heard his reading of *The Gift* from the Velvets' *White Light/White Heat* album. You know — the track where Cale relates the story of one unfortunate young nurd who mails himself to his girlfriend because it's cheaper, only to have her unsuspectingly try to open the package with a pair of sheet metal cutters and plunge them "right through the center of Waldo Jeffers' head, which split slightly and caused little rhythmic arcs of red to pulsate gently in the morning sun."

He continues. "We were trying to create a musical revolution. I'm surprised the band's acceptance blossomed so much from records like that because the records really didn't have too much... except for *Sister Ray*. That was about it." Public reverence for the band even seems on the rise,

with Nico's first N.Y. appearances in six years (assisted by Cale on violin) sellouts over the previous weekend. "It's a form of necrophilia," Cale offers, acknowledging that many of those same people would turn on them if they ever reformed. "But *boy*," he fantasizes, "how much money could you get for a scalper's ticket to a Velvet Underground concert today!"

At present, John Cale seems to have more projects going on at once than he can handle. "Seems" is the key word here. He is part producer, part band-leader, part record company head and part accompanist, popping up in clubs whenever there are artists performing who appeal to his sense of nouveau wavo. But if any one project is more important than the others, it is Spy Records which is housed in his 57th St. office. Spy, with the A&R (signing of bands) side headed by Cale and the business end taken care of by Jane Friedman, is the label he last released his own material on — a three song EP titled *Animal Justice* featuring *Chicken Shit*, *Memphis* and *Hedda Gabbler*. Spy is John Cale's utopian record company with its own sister distribution company, Cheap and Nasty Products, which he also heads. Cheap and Nasty also distributes a lot of British products in the States, some of which, on Illegal Records, Cale has produced (singles by Menace, Sham 69 and others).

As for Spy Records and what it takes to get a company like that off the ground, he stresses, "It's sticking to your guns and not falling into the trap of letting major labels offer you large sums of money and you ending up with your records sitting on a warehouse shelf somewhere. What that

effectively does is, it keeps you off the market. They give you some money to go away in a corner and shut up."

His first release on Spy distributed this way will be out soon — a four song EP by Model Citizens (a New York punk band) and a single by rock critic and aspiring singer Lester Bangs, *Let It Blurt*, both produced by Cale. His own solo LP will come later.

At this point in fact, after recording six solo albums during the past eight years, John Cale wants it known that he is available as a producer and even enjoys producing other people more than making his own records. "Doing my own stuff, I know what it's going to be like before I go in there," he explains. "Doing other people's stuff, you don't know. Those surprises are what really keep it alive."

Cale's history as a producer began with the Stooges in 1969. Contrary to what one might think, he says, "That was easy. *Really* easy, in fact. It was a surprise because when you saw them live you figured, in the studio, they'd all be hanging from the rafters (laughs) but they were straight ahead." He looks on that record with a certain fondness. "Iggy's a funny character," he adds with definite affection.

He went on to produce two of Nico's four albums. If there can be any producer influences, he says, "It was Joe Boyd more than anybody. I met him through Nico. He was managing Mike Heron and got Nico a contract with Warner Brothers. He was producing it so he got me to arrange it." At the same time, Cale also met John Wood who was an engineer at the studio Boyd worked at (in England). The studio specialised in folk music, he notes, "and slowly, after Boyd and I got to know John, we polluted him with the idea of rock and roll to the point where now he's an excellent rock and roll engineer. And then we introduced him to all sorts of habits he wouldn't have gotten into had he stuck with folk music." Cale roars with laughter at this last statement. Evil sounding laughter, at that.

He went on to produce, among others, four of his six albums, Jennifer Warnes, *Chunky*, Novi and Ernie, Patti Smith's first, "Horses," and Jonathan Richman's first.

THE PRODUCERS

(left to right) John Cale, Lou Reed, Patti Smith and David Byrne



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RECORDING WORLD

As for the type of studio he prefers, he says, "I like Westlake rooms. They just built three for CBS in Japan. They built the Manor studio in England and the new Virgin one there. I don't think there are any in New York. There's a whole bunch of them in California. The Warner Brothers studio there is Westlake. Their sound is dependable. The stuff that comes out of Record Plant, for example, is standardised. The stuff that comes out of Westlake is a bit crisper and I know I can always take the tape, listen to it somewhere else, and hear the same things on it."

Cale doesn't really know what he likes about the nature of the room, he only knows what he doesn't like: "I don't like a cold room." What does he look for in a studio? "Comfort and a shrewd engineer." And he has been known to work the board himself. "It depends on who the engineer is," he says. "Sometimes I do and sometimes I don't."

What does he usually rely on his engineer for? His answer was surprising. "If you're evolving musical ideas, then I depend on him for musical ideas. If I was doing a disco record, I would depend a lot on him for other things. Engineers have become more creative with disco in the sense that there's a completely different ball game going on now with editing, rhythm tracks, end-to-end and doing different mixes of the one verse and tagging it on end-to-end and extending a song beyond the original song."

Is this John Cale speaking? Paramour of the avant garde? Professor of punk? Is John Cale making a disco record?

"I've done one," he smiles, checking my reaction. "We recorded a straight disco song. Then we dropped all the vocals, overdubbed a whole bunch of pianos and mixed the verses in two different ways and then put them on end-to-end. So you have this very, very long piece with different versions of it. We took those two tracks and copied it onto a 24-track and started from scratch again and then put thunder noises, rain, a stampede of horses whinnying. It's called *Equus* and it's going to come out on Spy Records. The musicians on it are your very good New York disco musicians."

Cale got the idea because "there are people who you pay just to remix your single. That's all they do. You give them the master and they do the disco version of your song. What we ended up with was the same thing only without the commercial disco elements, but with a little psychodrama in there. That's why it's called *Equus*. It's very dramatic. It's got reading on top if it."

Cale has a new five-piece band (he'll play guitar and piano, along with a drummer, bassist, synthesizer player and another Wurlitzer piano) with two female singers as well which he'll be taking out on the road for a month

beginning the following week. He says he'll be doing "all new stuff." Is he going to perform *Equus*?

"No," he laughs. "I'd need some horses."

The conversation drifting back to producing, Cale compares doing the chores for himself versus performing them for someone else. "You've got to be more careful with your objectivity when you produce yourself," he explains, "but the more you do it the better you become. On *Vintage Violence* (his first, which listed the producers as John Cale and Lewis Merenstein), the way the voice was mixed shows a little insecurity about the voice. I went to great lengths to cover it up. I had somebody there (Merenstein) but I produced it and mixed it. He was there for all of a day and a half."

Cale has also shouldered the responsibility of producing many people's first albums, usually a traumatic experience for the artist. How is that different? "You've gotta get them to trust you. You've got to turn them on to what they're doing. Patti's first album had multiple tracking of poetry which was an edge that set her apart from straight poets (Cale's idea). She ought to do more of it, in fact."

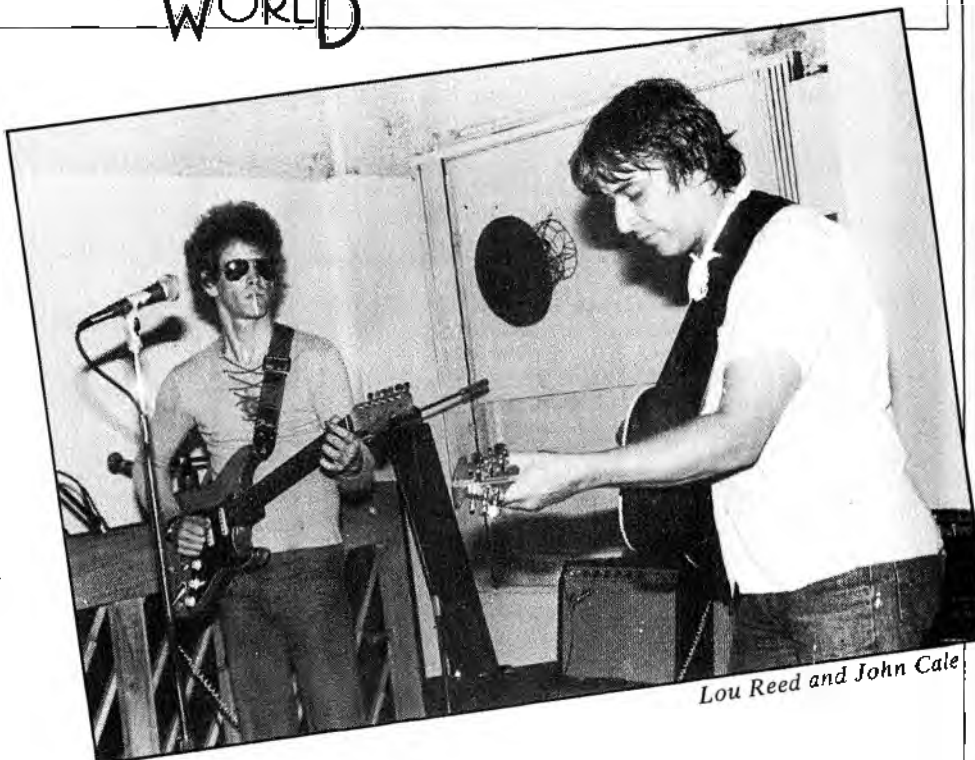
To further illustrate the producer/artist relationship as Cale sees it, he adds, "It can be tortuous in there and you go through a catharsis sometimes when you make a record. I'm not the most reserved of people (laughs) so things get a bit volatile. But it's exciting as well. There were times with Patti when it got especially volatile but it came down actually to the pressure of working very hard for a very short time and her being in the studio for the first time. And after a while you have to make decisions and they seem

as if they're snap decisions and people sometimes misunderstand the motive behind the idea."

In Cale's history, he has been associated with some of the more notorious albums of all time (Stooges, Velvet Underground) and his work, which features a taste for a progressive, avant garde approach, mixed with a decisively punk attitude and always with a tremendous amount of angst, has always been met with severe reaction, both negative and positive. This has been a pattern, more or less, in the people he has worked with throughout his career as well. He explains: "You have to align yourself with people you think will last." And asking my next question for me, he adds, "Most people wonder who I think are those artists who I've worked with — well, there's Lou and there's Nico who's still going; there's Iggy who's still making records."

Are there many artists John Cale would like to produce? "Beefheart," he says quickly. "He's a very strong personality. And Steve Harley." How about records he thought were especially well-produced? "The Pistols' *Never Mind the Bollocks*."

Why *Bollocks*? "It's not so much the production on those things that matter, it's the musical content you've got there," he says, referring to the Clash as well. "The Clash, though, are fighting a problem like Avis of, 'We're trying harder because we're number two.' They're still fighting Rotten. I mean, when you hear the new bands that are coming out of England like Resistance, Fashion and the new ATV album, they're more interested in making statements in production. Richard Perry is very efficient but he's like Chase Manhattan Bank. Mickie Most and Jeff Barry and Phil Spector were the unique people and I'd love to



Lou Reed and John Cale


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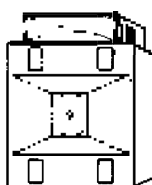
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RECORDING WORLD

make a record that the minute you stuck on, you can tell who produced it."

Does that mean he's searching for "the John Cale sound"?

"Yeah, but I'm involved with all these bands and 'the John Cale sound' has no relevance in all of that. I'm more interested in the — not the political content — but the seminal content, if that's the right word for it. It's in the attitude. It's more important than having a sound to brand somebody with. They're branding themselves with something more important. A different mentality.

"In the past year," he adds, "they've started writing *music* over there (Britain). They're writing interesting songs and you listen to them and you wonder how the hell did this guy get a melody like that? It's totally unrelated to anything else and really interesting writing. The B-52s over here is one band with the ability to come up with strange melodies that are very hypnotic."

I suggest Talking Heads.

"Yeah," Cale agrees.

And Devo...

"I dunno. I don't understand Devo. I think it's great though, that Talking Heads were on *Saturday Night Live*. They developed a new low in television sound," Cale is laughing at

his remark, yet serious. "This is *very* important in that it has broken that barrier and now other bands that really don't have the technical expertise can do it because now we've done it!"

Does he feel the majority of the punk bands being formed today will achieve commercial acceptance?

"Yes," he says convincingly. "Again, it's a matter of sticking to your guns. People imagine that it's just a fad and it's not. There's a whole new generation of people that are involved in this and they're not going to do the same music everybody's been accustomed to. Sooner or later they're going to develop their own audience and most of the establishment are not going to like what they're doing. There are a whole bunch of great new bands coming out and they have a more throw-away attitude. That's the flash behind rock and roll. I'm surprised at some of the young bands I've been working with on *Spy* that have never been in the studio before. Some of them can really knock it out. In a really hilarious way, the Sic F*cks knocked out ten tunes in one afternoon — all of them about a minute and a half long.

"Oh," Cale adds, "I just thought of another album that was especially well-produced. Van Dyke Parks' *Discover*

America. Lenny Waronker (producer) is very dependable. He's great. Always a gentleman. Also Captain Beefheart's last one, which he produced himself."

While we were back on the subject of producing, I had to ask him how he got the sound effects on Nico's *Innocent and Vain* from her last album, *The End*. The song begins and ends with some of the most astounding screeching bird sounds and storm noises ever laid to vinyl.

"It's a synthesizer that Eno used using a sequence on it to make it stutter and scream. He was trying to get a pteradactyl noise out of it (he succeeded). It turns from that into a laugh almost."

Has John Cale always been pro synthesizer?

"No," he says. "They can be deadly. Acoustic instruments are more interesting. I've used them but not to sound like synthesizers."

In closing, does John Cale have any words of wisdom he wants to lay on IM readers?

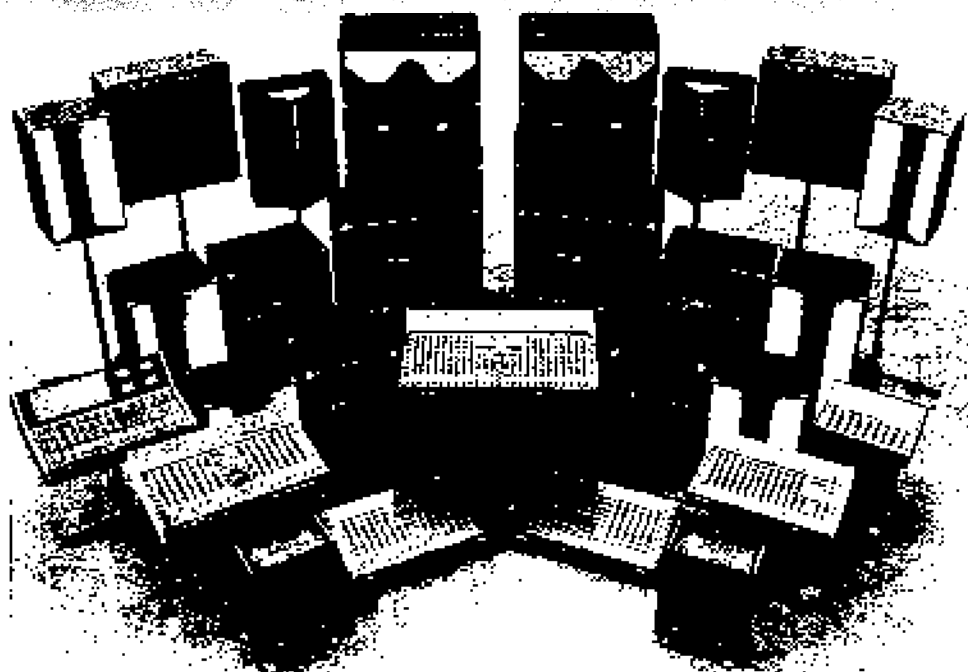
He walks over to the window and peers out. He turns around and scratches his head, keeping his hand there.

"I wish someone would lay some words of wisdom on me."

Steve Weitzman

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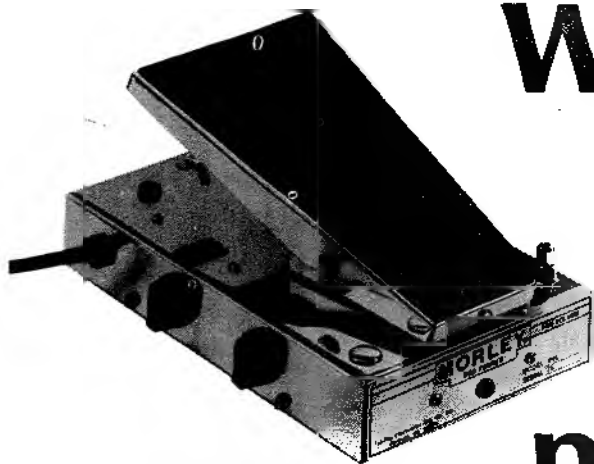
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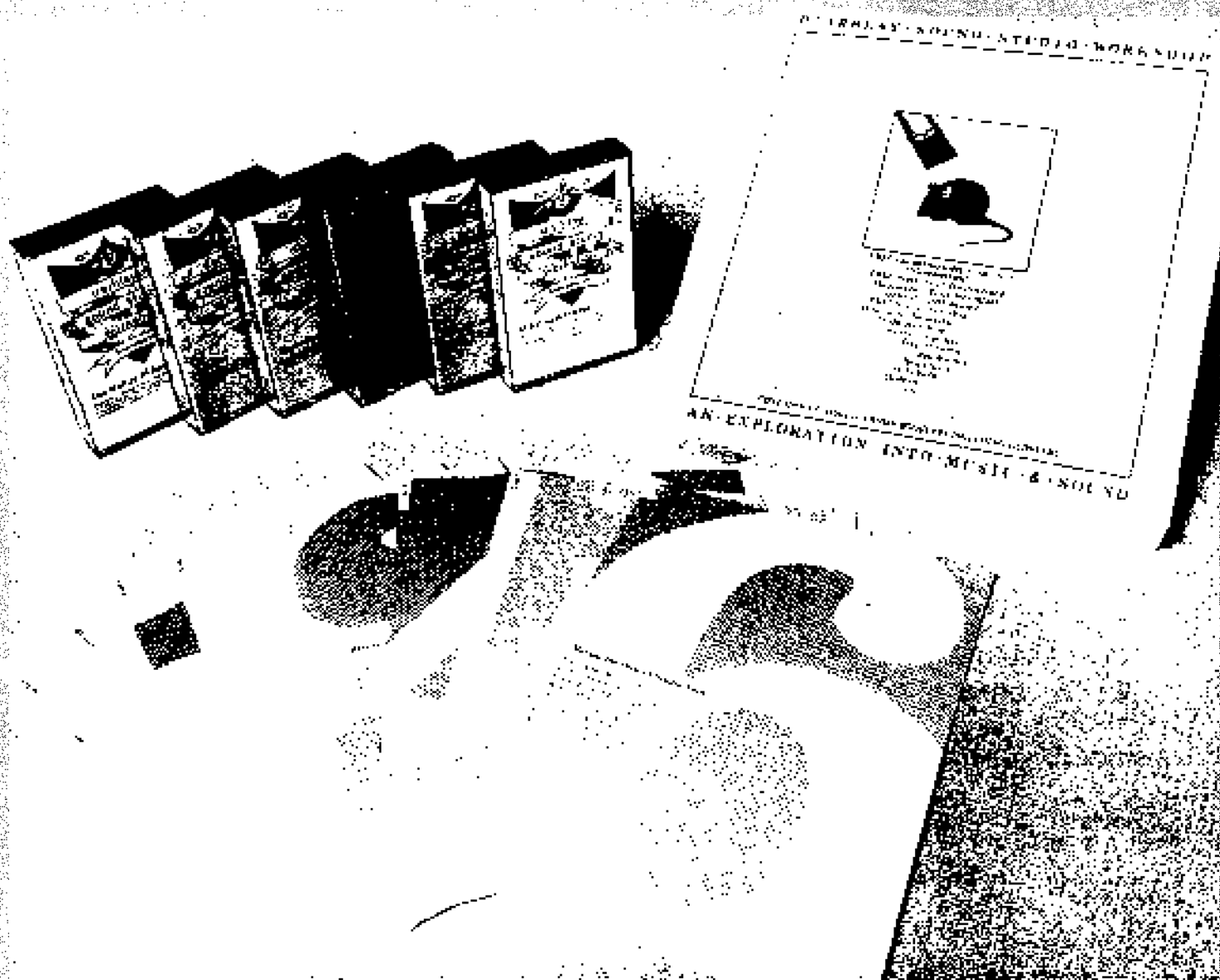
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Rockcity

sound studios

STUDIO OF THE MONTH

EQUIPMENT

CONSOLE : TRIDENT TSM SERIES
32 IN 24 OUT

MONITORING : AMCRON DC 300A
JBL 4343
AURATONES

ECHO : EMT 140 PLATE
AKG SPRING ECHO
8 x 15

MICS : NEUMAN, AKG,
BEYERDYNAMIC,
SHURE,
ELECTROVOICE

STUDIO
PLAYBACK : 2 TANNOYS

HEADPHONES : BEYERDYNAMIC
DT100

MUSICAL : STEINWAY GRAND PIANO
INSTRUMENTS BASE AMP AMPEG B-15N

TAPE : MULTITRACK : 24 TK 3M, M79 SERIES
MACHINES STEREO : TWO STUDER A80RC
: ONE REVOX A77
: ONE REVOX A700

VARISPEED AVAILABLE ON ALL TAPE MACHINES

AUXILIARY : UREI LIMITERS
EQUIPMENT KEPEX
GAINBRAIN
CASSETTE
DBX 162
TRIDENT LIMITER

HARMONISER
DELAY LINE
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Mixing desk at the Rock City Sound Studio

Examples of the equipment hired out by Rock City



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ROCK CITY, Shepperton

Shepperton studios have long been one of the homes of the British film industry. However, these days you're just as likely to meet a rock musician strolling round those famous lots as you are a screen idol. The Who were among the first to realise the potential of the site and have based many of their operations and activities there, including their hire company, ML Executives. Other bands came to use the giant stages and studios for rehearsals and many music orientated services began to sprout up.

Almost inevitably, wherever musicians gather together, recording facilities are never far behind and this year saw the opening of Shepperton's first studio – Rock City. The men behind the studio are Colin Pattenden and Chris Slade, both ex-members of Manfred Mann's Earthband, and Brian Adams. Brian is usually credited with coming up with the idea in the first place. He ran a management company but wanted to extend his operations to cover other areas of the music business, and Colin was already running a PA hire business from Shepperton.

Chris, who is a drummer, says: "Colin and I were with Earthband for six or seven years and when I left last year I was looking to start something like this. Colin and I live quite near each other in Sunbury as does Brian and we came here to have a look round.

"The building was empty, it was just a shell, but they had already taken the lease out for a rehearsal room. It was Brian's idea to make a studio and the original intention was an eight-track demo studio. I became involved and put the idea forward that we should go the whole hog with a 24-track."

The building, which was originally a film cutting room, had to be completely gutted and for the design they roped in a "friend of a friend," Chow Ng, who built the Island studio in Nassau. The construction was very much a team effort with friends and musicians lending various hands to knock in nails and mix concrete.

In addition to the practical help, Chris and Colin also contributed their experience of many years spent working in a wide range of studios. Colin in particular, with his involvement in the PA side of the business, had definite thoughts on certain aspects of the studio, and eventually the studio was completed and ready.



The sounds coming out of Rock City have far exceeded the expectations of all concerned and even have such seasoned musicians as Chris and Colin grasping for superlatives. Colin said: "The sound that comes out of the speakers, in comparison to other things that Chris and I have done in the past, sounds tremendous. It's a very flat response. We took some of the stuff we have done to Strawberry cutting rooms and it needed so little EQ it was almost a flat cut – and that is really quite rare. The ting is that you can get all this electronic equipment in to test the room, but really it's down to what it sounds like to your ear. The electronics will only tell you about one particular spot, it doesn't tell you how warm it is or how hard it is.

"From a musician's point of view the feeling of the room is great. The lighting effects work well enough to give you the warmth and it feels great to play in that room. We're running on 30 ips without Dolbies which gives you that American sound, and its really great."

Chris is already enthusing over the drum sound which is coming out of the room, and Colin has installed his own bass amplification, an Ampeg Portaflex with direct injection into the desk, which is bound to save bass players many hours of heartache.

For the desk they plumped for a 24-track Trident, which had one great advantage. "We decided on Trident because they are made here on site," says Chris. "Their offices are just up the road, so if there's anything wrong with the desk we just go up and bang on the door."

The equipment all down the line at Rock City is of the highest quality. It includes Studer and Revox tape machines, Amcron DC300A and JBL 4343 monitors, EMT 140 plate echo and AKG spring echo and the usual selection of mikes and auxiliary equipment such as Urei limiters, Gainbrain, Harmoniser, etc.

Although the studio will cater for

every recording need, it is mainly aimed at rock bands, the size of the room being just right for six or seven musicians. However, in theory they could become the biggest recording studio in Europe.

Next door to the studio is one of the biggest film stages in Europe. Often bands such as Uriah Heep and Nazareth use these stages, which hold 3,000 to 4,000 people, for rehearsals with full PA and lights. Rock City have permission to run a multicore from this stage directly into their desk, so for anyone who wants a real "live" sound, it's the ideal set-up.

The Shepperton site offers many advantages for musicians recording there with all the facilities concentrated in one area. For example, any shape or size of equipment can be hired from ML Executives, while the studio boasts its own 24-track repair service. There is also a pub and a restaurant on site and ample parking facilities – all this just half an hour's drive from London! So barring commencement of the Third World War, the place is entirely self-sufficient.

Although Rock City has only been open for a few months, a number of satisfied customers have passed through its doors including Sham 69, Five Hand Reel and Chris and Colin's new band, Terra Nova. The studio also have their own publishing company in addition to the PA hire, and soon hope to provide the whole package for bands from agency, management and recording right through to record label.

Rock City can certainly offer you something different when it comes to recording – and where else can you pop out between tracks and catch a glimpse of Farrah Fawcett-Majors!

STUDIO OF
THE MONTH

It even tells the time.



The recording time elapsed, that is. This is one of the many compact studio set-ups that we supply. The nerve centre is the new Allen & Heath series three modular mixing console.

Allen & Heath are well known for their craftsmanship, reliability and bright approach to design. The basic console includes many sophisticated functions that are needed for up to 8-track recording and mixdown, but for the expanding studio, has monitor and mixdown facilities for 16-track. We can offer a package deal on a complete installation.

Complementing this, the A&H Brenell Mini 8 is a truly professional 8-track tape machine combining the latest electronic circuitry with precision engineering. For many people, the A&H SD12-2 is the right mixer at the right price. Suitable for up to 4-track recording, or for live groups on stage, the semi-modular construction makes servicing simple. £430.00.

Although less than 18" long, the A&H Production mixer S6/2 is packed with facilities for the production of tape collages for radio, TV, and film. Four stereo input channels and two mono channels, auto start and auto fade are just some of the features. £430.00. Top of the range is the Syncon, which by careful design has avoided many of the production difficulties and high costs of sophisticated 24-track consoles. What's more, every item we handle at SES is fully tested and aligned in our

own workshops, giving you a double guarantee of quality. Of course, if problems do occur later on, our own engineers will quickly put things right. What does this add to the price? - Nothing. In fact, you'll find our prices hard to beat anywhere. Our clients include recording and AV studios, government departments, schools, radio stations, theatres and PA companies. We hold stocks of AKG, Allen & Heath Brenell, Beyer, Ferrograph, JBL, Keith Monks, MXR, Neal, Quad, Revox, Sescam, Shure, Sonifex, Studiomaster, Tannoy, Teac and Uher, and can promptly deliver to all parts of the UK.



STUDIO EQUIPMENT SERVICES

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SES spells success

In just three short years, Studio Equipment Services of North-West London have solidly established themselves as a leader in a very specialised field. They supply equipment, install it and service it for government departments, professional recording studios, theatres, colleges, universities, bands and individuals. And they provide whatever their customers require in the field of music or speech recording.

SES stock and supply equipment by AKG, Allen and Heath, Beyer, Brennell, Ferrograph, JBL, Neal, Quad, Revox, Sescor, Shure, Sonifex, RSD, Teac, Tannoy, Uher and Trident Fleximix.

Ian Downs is the man behind SES, a company which started out servicing and supplying Revox and Teac tape machines, plus assorted mixers. Foreseeing the development of the studio market, they soon carved a niche for themselves. Early customers came in the form of good-quality home studios, professional eight and four-track studios, and two-track speech, jingle and audio-visual studios.

SES is now a very busy company, dealing with a wide range of clients and an equally wide range of equipment. They also lay emphasis on the service and repair side of the business and have a very sophisticated workshop. Modifications, too, play an important part in their service.

Ian explains: "Obviously, we've done a lot of modifications on machines like the Revox A77 - fitting a varispeed facility and things like that. We've done a lot of odd custom modifications on various other machines. Things for exhibitions for instance, when we've modified a machine so it will play through to the end of the tape and then automatically rewind, we do editing conversions on machines. The B77 now has most of these facilities anyway. Mixer-wise, we've done all sorts of modifications. One interesting one was a recording system for courtrooms where we customised a mixer to record court proceedings, logging onto slow-motion recording. That kind of thing obviously keeps us busy but our main market really is supplying and installing equipment for studios which is the market we were aiming at initially."

There is obviously a world of difference between supplying a small studio on one hand and a community or hospital radio station on the other, but SES are geared up to handle both equally well.



Ian Downs

"Although the equipment is allied, the approach and requirements differ," says Ian.

"Generally, the smaller studios are more professional, in a way. There's a lot happening now with community radio and smaller local stations, and we're geared up to that."

SES can supply a studio from scratch, with the exception of the acoustics, an area they prefer to leave to the various acoustic design consultants. Firstly, they must find out what the studio will be used for.

"Obviously, budget comes into it at this point because, depending on how much the customer wants to spend, we will have to work out what machinery is right for his pocket and what the end product will be for. We then try to find out how much he knows and get the client down here and show him the machinery here and talk it over, and find out what ancillary devices they'll want. We then advise them what would be best for them and work out a package price which would include installation."

"The thing is, with a small eight-track studio for instance, there's only a fairly limited range of equipment for a certain budget. As regards eight-tracks, we like the Tascam 1/2" or the Brennell 1" machines. The best value at the moment for two-track tape machines is the Revox B77. The products we keep in stock and the products we recommend are all products which have been selected from quite a vast range of equipment because it's the right gear for the market. With microphones, people always expect to see certain mikes in a studio - obviously certain producers have favourite mikes. Among the AKG mikes, the favourites would include

the D202, D224E and the D12. A lot of people like the Shure SM57 and 58 mikes because they're used to seeing them on the road and they like to see them in the studio. Beyers like the M201 and M260 are also popular. Neumann mikes are a good old favourite but they're usually a bit too pricey for the small studios.

Ancillary equipment from SES would include MXR graphic equalizers and DDLs, Audio and Design or Trident compressor/limiters, Trident parametrics and the latest MXR Flanger/Doubler.

"The thing is that we're not only interested in the selling aspect," says Ian. "It's much more than that. It's down to giving people a good service so that they'll come back. We also service equipment that we haven't sold and pick up a lot of clients that way. Without the service, there would really be no point in selling - that wouldn't be a permanent way of running a business. If we just wanted to get rid of the goods over the counter, we'd be here for maybe a couple of years, make a killing and then disappear. We don't want to do that - we're here to stay."

"There are also various devices we'll be manufacturing as standard Studio Equipment Services products, like headphone boxes, microphone line boxes and small things that you can't normally buy. We'll have them on the shelves as opposed to treating them as custom-built things. And as the 16-track machines come onto the market, we'll be stocking and demonstrating those."

Future plans for SES include expansion into the 16-track market and increasing their workshop and service facilities.

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feature solid Die-cast Zinc and Aluminum cases and FR-4, G-10 Glass epoxy circuit board. All our products are hand assembled and individually tested by qualified technicians and have a full one-year warranty on parts and labor.

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ROLAND SHOWCASE

Roland's Jupiter-4 . . .

Action-Packed Playability.



Roland's Jupiter-4 Polyphonic Synthesizer

The Jupiter-4 is a compact, four-voice polyphonic synthesizer with a computer memory that stores your patches. Plus, it has ten preset patches that are really dynamite. A four-mode arpeggio feature plays circles around the notes your hand is playing. Probably most important is the fact that each of the four synthesizer voices has its own oscillators, filters, VCA, and ADSR's. This, along with some other very important design features, gives you a sound that's richer, fatter, and more impressive than any sound you've heard for anywhere near the price.

The oscillators used in the JP-4 are the same unbeatable quality as those incorporated in Roland's sophisticated System 700. Output waveforms include sawtooth, square, and pulse. A range selector lets you transpose up or down one octave. A four-position switch gives you 2' through 16' pitches, and a sub-octave switch adds a square wave an octave below the VCO pitch. When you turn all of this on and play a chord, it's like a flash flood of sound you never expected.

The four VCF's are controlled by a single set of controls. The tone of most natural musical instrument sounds (woodwinds, brass, etc.) changes significantly throughout the

production of each note. The VCF's ADSR, or envelope generator, lets you copy this characteristic. And when it comes to creating your own ADSR patterns, the sky's the limit. Attack and decay times range to ten seconds. A four-position keyboard follow switch compensates for bass roll-off variations as you play up and down the keyboard. Finally, a polarity switch lets you invert envelope polarities to the VCF so that the filter opens (the tone becomes brighter) as the sound dies away. This effect is enough to turn a few heads, especially when you use long release times.

In addition to the ADSR of the VCF Section, the VCA Section has its own ADSR. An especially useful VCA control is a Master Level which can be incorporated into each of the patches you program into memory. That way your master volume is preset for every patch you have set up . . . no unpleasant surprises as you jump from one preset patch to another!

Speaking of patches, let's spend a moment looking at the JP-4's "Compu-Memory." Once you've worked out the tunes you're going to play on your next set, all you need is a few minutes to put each of the necessary patches into memory. We

say a few minutes because a lot of planning went into the arrangement of the controls. They're placed for greatest convenience while performing. But better still, they're arranged and labeled so that it's a snap to memorize their location, functions, and tonal relationship to each other. Consequently, if the JP-4 *didn't* have a "Compu-Memory," it would still be easier and faster to set up than any other synthesizer of comparable versatility. Once you've set up a patch, push one of the eight memory buttons. Then merely depress the button labeled "WRITE" and your patch is instantly set at that position until you change it. You can store up to eight of your own patches that way. A special PROTECTION Lock Button helps prevent accidental erasure. Plus, an automatically-recharged battery provides enough power to retain the patches in memory for 12 months after the power is turned off.

In addition to the eight programmable patch buttons, the JP-4 has ten color-coded preset patches: a gutsy, staccato BASS; clear, realistic STRINGS; a FUNKY CLAVINET with a lot of bite; a rich, pleasing PIANO; VOICE with a breathy attack and natural-sounding variable-delay vibrato; a very rich, realistic TROMBONE; a SAXOPHONE with

Continued on back page

High-Priced Strings Cost Less Than You Think.

"Give us a better-sounding string unit with more versatility at a lower price." It's as though musicians all over the world told Roland that's what they wanted. Because that's exactly what Roland has recently introduced in its new Paraphonic-505. It's a deluxe string ensemble unit capable of producing really big string ensemble sounds with lots and lots of variations. Besides being polyphonic, it's paraphonic, which means it has independent sections which can be fed to different amps. When these amps are scattered around the stage, it can multiply the ensemble effect noticeably. This is because of the inherent response characteristics from one amplifier to another, plus the additive effect of interacting room acoustics.

The RS-505 is actually three instruments in one; a string ensemble unit, a polyphonic synthesizer, and a bass section. These sections may be played individually or simultaneously, and each section has controls for both the upper and lower portions of the split keyboard.

The String Section has sliders for controlling balance between 4' and 8' strings, on both the upper or lower sections of the keyboard. It also has a slider for ATTACK, and one for RELEASE. Rocker tablets activate UPPER and LOWER.

The polyphonic Synthesizer Section has dual 4' and 8' tablets for both upper and lower, plus 8' and 16' BASS tablets. There's also a VCF with Cutoff Frequency and Resonance Sliders. The VCF offers LFO and ENVELOPE sliders. And in addition to Envelope ADSR sliders, there's a SECOND TOUCH feature which allows you to re-trigger keyboard voices.

The Bass Section uses the lowest-note-priority system and provides three bass sounds which may be varied; CONTRA BASS 16', TUBA 16', and CELLO 8'. Ensemble sounds from the String Section can be added to the bass notes. And, you can shape bass sounds with the Bass Section's own AR (ATTACK/RELEASE) sliders.

For vibrato and growl, the depth, rate, and delay time are all controllable through LFO sliders.

Three preset ensembles are available on the RS-505. Ensemble I is a rich sound with minor harmonics and a subtle vibrato. Ensemble II is a big, rich string orchestra, and Ensemble III is a soaring, full, stereo flanging sound.

The balance between the Bass, String, and Synthesizer Sections can be adjusted through BALANCE Sliders.

The RS-505 features Pitch Shift, which allows you to move pitch up and down (1) manually, (2) automatically, or (3) by pedal, depending on how the mode selector is set. Located at the front of the keyboard for convenience, the Pitch Shift controls also include PITCH SET, and TIME Controls for amount of pitch variance, and pitch shift duration.



Roland's RS-505 Paraphonic Strings

Continued from preceding page

Although the RS-505 has a 49-note keyboard, its range covers six full octaves depending on sounds selected.

As with most of the other equipment Roland manufactures, there's a full assortment of convenience jacks and adjustments at the rear panel. Pitch, sustain, and VCF can be controlled externally with appropriate footswitches and pedals. TRIGGER and GATE OUT Jacks let you trigger

other synthesizers through the RS-505's keyboard. There are separate AUDIO OUT Jacks for MONO, STEREO, and BASS, and "H-M-L" LEVEL Selectors let you adjust audio output to input sensitivity. An ENSEMBLE Set Screw lets you adjust ENSEMBLE for brilliance so you can achieve the quality of string tones you prefer. An AUDIO Input lets you use the RS-505 to modify external sound sources.

With all that it has to offer, you would expect the RS-505 to cost a lot more than comparable ensemble keyboards offering just strings. Yet, the RS-505 is less than you'd expect to pay for the finest string unit on the market! Plus, the RS-505 is amazingly compact and lightweight. For once you can pay less money, and get more quality, versatility, and best of all . . . more sound!

Roland's GA Series Amps:



*Roland GA-60 R&P
Guitar Amp*

They'll Change Your Thinking.

Roland has designed a complete line of guitar amplifiers, the new GA Series consisting of six models, two of which feature the super-rugged R&P (Roland & Pioneer) speakers. There are 30, 50, 60, and 120 watt versions. From the 60 watt model on up, GA Amps feature built-in overdrive, compressor, and graphic equalizer.

The GA-120, for example, has the equalizer built into the center of the control panel. The sliders have a plus/minus range of 12dB. There's also a separate control for mixing output of the equalized signal. The equalizer may be activated by a panel-mounted ON/OFF Switch or by a footswitch.

Overdrive gives you soft distortion effects with a corresponding level control and footswitch jack. The reverberation units built into the GA Series Amps are not only high quality . . . they are also plenty adequate. Certain models of the GA Amps have two volume controls. The regular volume control has a "pull-for-bright-sound" feature which lets you obtain a really brilliant sound instantly. The Master Volume Control is used to preset the overall sound to the maximum desired volume level, allowing you full use of the other volume controls.

R&P (Roland & Pioneer) Speakers are incorporated into the GA-60 R&P and the GA-120 R&P.

The cones of these highly rugged speakers are made from specially treated paper with a carefully balanced strength/weight ratio for optimum dampening. The result is a fuller, richer sound that previously was possible only with larger, heavier speakers.

Another important feature of the R&P speakers is the careful attention that has been paid to keeping them operating at low temperature. There are special thermal absorbers around the voice coils that keep the speakers running cool even at top power for long periods. There are also finned frame arms and an engineering design that causes a high

Continued on next page

Continued from preceding page

speed air flow to be directed from the speaker oscillation to further reduce heating. A specially-engineered double damper and newly-developed damper material offer far greater strength than in conventional speakers. This provides predictable sound throughout the entire power range.

Roland's primary objectives in creating the R&P amplifiers were to assure musicians of sound that is always clear and precise, and operation that is unaffected by long periods of intense performance. Roland also sought to develop a

speaker that would provide exceptional fidelity, even at maximum power output. That's why R&P speakers employ an extra-large Alnico-V magnet and aluminite insulated aluminum ribbon wire voice coil. The affect of this design on the fidelity of the sound is astounding. And the sound is consistently so regardless of the volume level.

The new GA Amps have foot-switch Jacks to the right of the front panel to give you remote control of booster, reverb, and distortion. There's also a headphone jack with a speaker by-pass switch for practicing,

or checking the tuning of your guitar before going on stage.

With all of these features you wouldn't think there's anything special about the size and weight of the GA Amps. But there is. They are exceptionally lightweight and compact. The GA-50, for instance, measures 20x20x9" and weighs only 35 pounds.

You should try one of these amps. It might change your thinking about what a good amp is all about. If it does... well, that's typical of a Roland product.

When Is 200 Watts RMS Powerful Enough?

Roland's famous Jazz Chorus Amps now have a professional, 200-watt two-channel guitar amp at the top of the line. The JC-200 puts out an awesome 100 watts RMS per channel. The second channel is equipped with Roland's exclusive Chorus Effect now used by many of the greatest performers in the business.

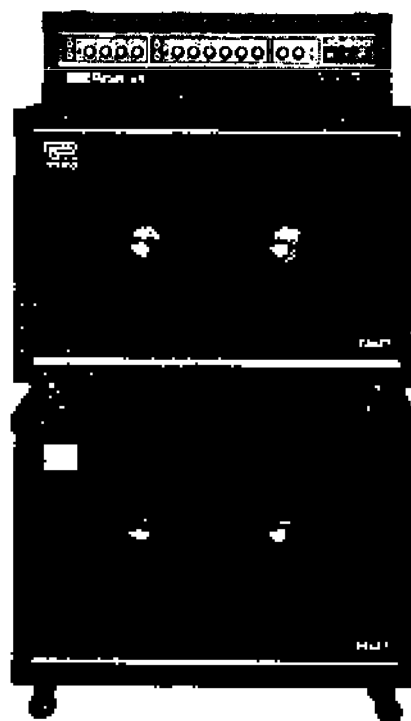
The JC-200 R&P speakers (Roland & Pioneer) have up to twice the acoustic efficiency of most conventional speakers. This means they require much less power to drive them. And that's an important point to keep in mind when comparing sound systems...one manufacturer's 200 watt system doesn't always give you the same amount of volume as another's.

There are dual controls on the JC-200...one set for each channel. They include VOLUME, BASS, MIDDLE, and TREBLE. There are also controls for DISTORTION, REVERB, VIBRATO SPEED, VIBRATO DEPTH, and CHORUS/VIBRATO.

Each channel has its own BRIGHT Switch. When this switch is turned on, you get some of the most brilliant, piercing sound you've ever heard in your life.

In addition to HIGH and LOW Inputs, there are footswitch jacks for CHORUS/VIBRATO, REVERB, and DISTORTION.

The JC-200 is packaged in a rugged, heavy-duty amp head and two matching speaker cabinets with large, rubber casters. It's definitely not a compact, lightweight system. But for its size and weight, it's about the most powerful, most professional you'll find anywhere.



*Roland Jazz Chorus JC-120 R&P
Pro Guitar Amp*

Roland's New Stage Piano.

If it weren't for the extraordinary success of Roland's electronic piano technology, this little gem would never be possible. At least not for anywhere near its price. Because using the same basic technology as they developed for the MP-700, Roland has created an instrument that's at once different and the same.

Roland has developed an entirely new keyboard action for the MP-600. It is touch-sensitive, mechanical, and feels exactly like that of a conventional piano. And it has top-quality electronics that keep it in perfect pitch from one job to the next. The MP-600 has a six-band graphic equalizer to give you just about any variation of timbre you could ask for. Probably the biggest advantage of this feature is that you can plug it into any sound system and compensate with the equalizer to get the sound you want. Add this feature to the three variable and combinable voices and you can see how it's possible to get a great variety of not only piano sounds, but other keyboard sounds as well. The equalizer gives you a $\pm 12\text{dB}$ variation of the six



frequency ranges from 100Hz to 5kHz. The three voice sounds are a soft piano, a bright piano, and a clavichord. A DECAY Slider gives you control of decay time.

On the rear panel you'll find a single tuning control for the entire piano, a LEVEL Switch, a jack for a damper pedal, POWER ON/OFF Switch, and jacks for audio output and headphones.

As portable and versatile as it is, the 64-note Roland MP-600 doesn't have much competition in its price range.

*The new MP-600
Stage Piano*

The DC-30 Analog Chorus-Echo.



Roland's DC-30 Analog Chorus-Echo

Roland has paved the way for a new breed of echo devices that are the most advanced in the world. These new echo units are entirely electronic, maintenance-free, highly compact, and highly versatile. And they're priced far lower than the pro musician would expect.

The new DC-30 has all of these terrific advantages, and more. Roland has developed a new analog delay chip for this model. This, together with Roland's FCF (frequency control filter) noise reduction circuitry, gives you extra-clean echo and chorus effects with exceptional fidelity.

The DC-30 is a two-input system with dual input volume controls for mic/line mixing. One of the inputs has a three-position level selector switch. DIRECT and EFFECT Output Jacks give you stereo output capability.

Additional controls include CHORUS INTENSITY, ECHO REPEAT RATE, ECHO INTENSITY, ECHO VOLUME, and TONE. In addition, there's a CHORUS/OFF/ECHO Selector Switch, and a two-step Output Level Selector.

The DC-30 is the perfect "on-the-road" echo machine. It's rugged, extremely portable, and can take a lot of rough use. On a dimly-lit stage you'll really appreciate the fact that controls are very easily identified and logically arranged. And when doing studio work, you'll especially like the fact that the DC-30 features completely silent operation. All in all, there's hardly a place where the DC-30 wouldn't fit in perfectly... particularly if that place is your budget!

Roland's New BOSS Products.

The BOSS CE-1 Chorus Ensemble.



The BOSS CE-1 Chorus Ensemble

So incredibly popular is Roland's famous Chorus Effect that Roland decided to package it into a compact unit, together with vibrato effects, and put it on the market as a medium-priced effect device.

The CE-1 features HIGH and LOW Input, an OUTPUT LEVEL Control, VIBRATO RATE and DEPTH Controls, CHORUS INTENSITY Control, and a MONO/STEREO Selector. Dual footswitches let you activate or cancel effects at will.

There are also two LED indicators; one for PEAK LEVEL, and one for CHORUS/VIBRATO/NORMAL.

By switching to STEREO and plugging in to both output jacks, some really nice, sweeping sounds can be created. It takes 14 transistors to make this little device perform... which should tell you it's not just your ordinary effect device. The CE-1 is one of the best ways to make any ordinary instrument sound like something really special.

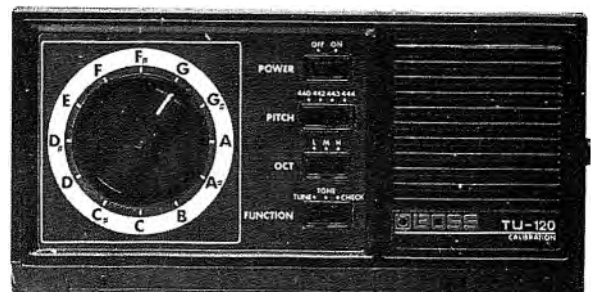
The BOSS TU-120 Tuner.

Just a few years ago a tuning device like this would cost five times as much, and take up about ten times more room. Roland's new TU-120 lets you tune your instruments to within $\pm 1.0\%$ in a fraction of the time it usually required. Plus, you have a choice of stroboscopic or beat tuning. Regardless of which tuning technique you prefer, Roland's super-accurate tuning fork oscillator and built-in electret condenser microphone will never let you down.

The stroboscope uses 16 LED's along its side panel for a dramatic, visual display of pitch while tuning. For tuning by ear, the TU-120 generates three different octave sounds.

Designed to tune to four concert pitches, the TU-120 is extremely easy to use. A large, easy-to-read dial on the top panel serves as a note selector. There are slide switches for POWER, PITCH, OCTAVE, and FUNCTION. The OCTAVE Selector Switch has LOW, MEDIUM, and HIGH positions. The PITCH Selector is a four-position switch for tuning to A-400, 442, 443, or 444.

The TU-120 is powered by a 9-volt battery or optional AC adapter.



The BOSS TU-120 Tuner

The BOSS TU-60 Guitar Tuner.

Believe it or not...here's an electronic tuner that weighs a little over eight ounces, has a built-in electret condenser microphone, an eight-LED display, and an advanced oscillating circuit that gives you $\pm 1.0\%$ accuracy!

The TU-60, like the TU-120, gives you two different methods of tuning; visual, or aural. The built-in microphone lets you tune acoustic guitars.

The TU-60 has a six-position pitch selector (one for each string), a control for selecting 440 through 445 concert pitch, and a calibration control. The unit has a three-octave range, and is powered by a 9-volt battery.



The BOSS TU-60 Guitar Tuner

The BOSS CS-1 Compression Sustainer.



The BOSS CS-1 Compression Sustainer

The CS-1 lets you hold a guitar chord as long as you like without distortion. Plus, this new, extremely-compact device can be used to emphasize both chords and individual notes. A NORMAL/TREBLE Mode Selector allows you to get a lot more edge out of the high notes. And, when the level is set low, the CS-1 can double as a limiter.

One of the most recent additions to the BOSS Compact Series, the CS-1 is small enough to carry right in your guitar case. Each of these power-packed modules measures only about 3x2x5" and weighs an average of 16 ounces. Like all the many other BOSS Compact units, the CS-1 has an extra-large foot pedal that makes it easy to operate on a dark stage. Switching is completely silent; there's absolutely no popping noise, because of a special micro-FET switching circuit. Another terrific feature about BOSS Compact units is that they can be powered by either a 9-volt battery, or an optional AC adapter. And when using a battery, an LED illuminates momentarily every time you activate the effect as long as the battery is in acceptable condition. And by the way...changing a battery couldn't be easier. Just use a coin to loosen a single screw, pull out the old battery, drop in a new one, and tighten the screw. Take a look at Roland's BOSS Compact Series. New, different models are coming out all the time.

Continued from front page

some real "edge;" a TRUMPET that stands out from the rest of the music like a trumpet should; a very impressive, powerful SYNTH with a long decay; and a very ominous sounding patch that's bound to get a lot of attention... THE FORCE!

Naturally you'll want to create your own variations of these preset patches. And Roland lets you do that. Because there are a few controls whose positions are not stored in memory... the ones that you generally operate while actually performing. These include the Bender, Portamento, Tune, and LFO Bend.

The JP-4's Arpeggio plays arpeggios of any four notes in the same order in which you play them. It's like having an extra hand playing with perfect precision as a back-up. And it's easy to activate. Just play a chord and set the arpeggio speed. Depending on the mode you have selected, the JP-4 will play repeating patterns of these four notes UP only, DOWN only, UP AND DOWN, or in a RANDOM manner. It plays those notes automatically, over a four-octave range. Use the right patch for

this "musical celebration," add a little echo, and you've got yourself a real show number! You can also play in time with the notes, particularly since the speed control has a very wide range, and get entirely different effects by varying the number of notes in the chord, and the sequence of the notes played.

The JP-4's Bender is multi-purpose: in addition to bending pitch sharp and flat, it can open and close the filter and make the instrument "talk." Or it can be used for dynamic effects by controlling volume. It also serves as a "mod wheel" on each of these parameters. *And, it can do all of these things simultaneously!* Sensitivity controls for the Bender let you preset its effective control range. The Bender is a spring-controlled lever with center position normal.

Portamento on the JP-4 is variable from zero to four seconds. Try the Portamento on four-note chords along with the VCA's ADSR levers set just right, and you'll get sounds that will leave you dreaming!

Some of the other JP-4 controls are as follows. A HOLD feature gives you infinite sustain. ENSEMBLE is Roland's exclusive Chorus Effect, now so famous that musicians seem to want it on almost every piece of Roland equipment. ASSIGN MODE combines the oscillators in various ways; for example, UNISON locks them together for monophonic sound... POLY assigns all oscillators to the first note played, and as additional notes are played (up to four), the next oscillator in line takes over. LFO Bend lets you vary the LFO speed preset in the memories. It has NORMAL and WIDE settings covering such an extensive range that when directed to the VCO's they produce beautiful bell and gong sounds.

It's incredible to have all this versatility in one, affordable instrument. But the most important key to getting all this versatility out of an instrument is *playability*. After trying the JP-4 you'll be convinced: it's one of the most playable, performance-oriented keyboard instruments ever designed!

Pros Using Roland.

Les McCann's latest album recorded live at the Roxy features the Roland MP-700 Stage Piano... Leon Russell's latest album also features the Roland MP-700 Stage Piano... a KISS guitarist purchased a GR-500 Guitar Synthesizer from Manny's Music, New York... Chet Atkins purchased a DC-30 Analog Delay & Chorus from Manny's... guitarist Jeff Beck plays a Roland GR-500 Guitar Synthesizer on his present tour... Genesis' Mike Rutherford is making extensive use of the GR-500 Guitar Synthesizer... Isao Tomita has a new album to be released on RCA Red Seal featuring the MC-8 MicroComposer and Roland's System 700 Modular Synthesizer... Jimmy Page of Led Zeppelin is busy in his studio with a new Roland GR-500 Guitar Synthesizer... Daryl Dragon is now using the new Roland VK-9 Organ... "Tangerine Dream" is making terrific use of the Roland MC-8 MicroComposer... Mandre's new album on MoTown features Roland's SH-1 and SH-7 Synthesizers and the GR-500 Guitar Synthesizer... Jeff Baxter is on tour with the Doobie Brothers using a GR-500 Guitar Synthesizer... Stevie Wonder purchased a Roland JP-4 Four-Voice Polyphonic Synthesizer from Coast Music in Costa Mesa, California.

Latest Roland Products.

Roland is introducing products faster than anyone can keep track of! Most recently introduced are the Mars II lead synthesizer with programmable memory... the Vocoder Plus, an instrument that polyphonically duplicates voices as they are fed into it... the System 100M Studio Synthesizer, a modular system which is a product of the same Roland technology responsible for the MC-8 MicroComposer and System 700... the unique Roland Cubes, a line of cube-style amps featuring portability, ruggedness, and efficient

cy... the CR-78 Compurhythm, a deluxe rhythm machine with 34 presets and a programmable micro-computer that lets you create your own beats... the CR-68 Compurhythm, a scaled-down version of the deluxe CR-78 and offering more than any comparable rhythm unit on the market. All these latest innovations will be shown at the 1979 NAMM Show. And between now and then, it wouldn't be at all surprising if Roland came out with even more to add to the list!



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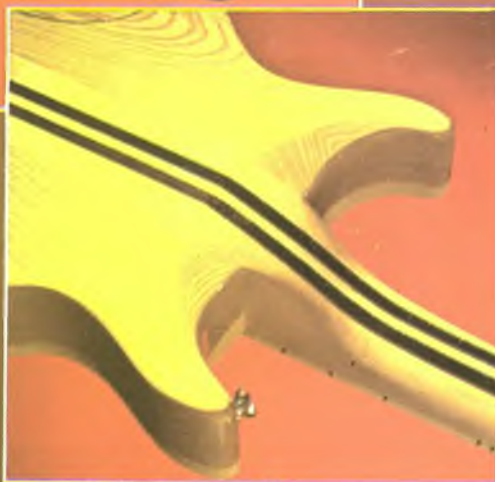
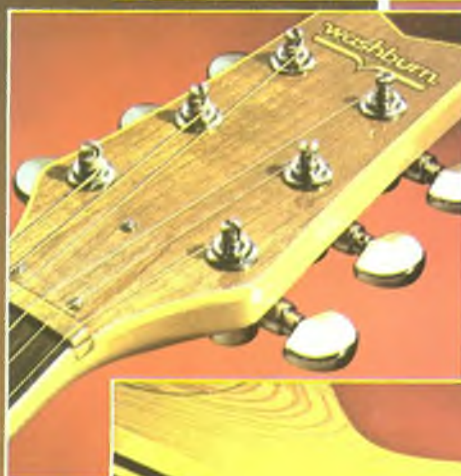
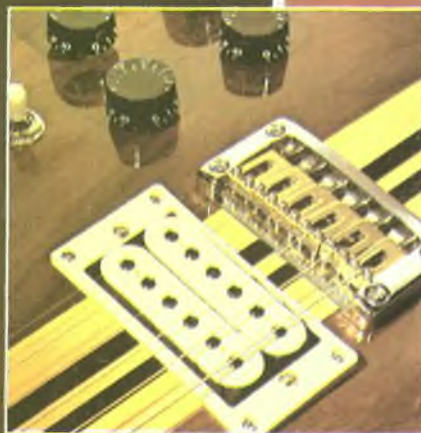
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- Brass bridge and nut
- Strings anchored from back of body
- Available in natural and antique sunburst finishes



Buzz

What's happening in the music biz

Yours Sinceros

Do you remember that almost quaint sounding phrase "pop music"? You know, all those boy-meets-girl songs that you could dance to and had you hooked by the second chorus. Well, amid all the post-punk outfits that seem to be inhabiting all the pubs and clubs these days, we have discovered a fab set of boys who play great pop music.

They call themselves the Sinceros, and the line-up is Bobby Irwin (drums), Ron Francois (bass), Don Snow (keyboards) and Mark Kjeldson (guitar). The band, minus Don, used to form part of a soul outfit called the Strutters who built quite a reputation on their live performances around the capital.

The rhythm section of Bobby and Ron also distinguished themselves on the Live Stiffs tour, and in particular through their work with Lene Lovich, while keyboards player Don Snow was one of the Vibrators.

Sinceros' music is all self penned and contains elements of pop, soul and reggae, delivered in a refreshingly original style. The playing throughout is excellent with Don coaxing some interesting sounds from his synth - he could be the first synth player to be influenced by Jimmy Smith.

Although only in existence for a few months, the band have already been signed by Epic, so catch them while you can before they hit the big time.

Cooking for beginners

A reminder to jazzers - and would-be jazzers - of the Jazz Centre Society's instrumental clinic this month. It runs from April 17th to 20th at Rutherford School in north-west London and the four days will be jam-packed with practical playing tuition, both individually and in groups. The tutors include some of Britain's finest jazz musicians, such as Dave Cliff on guitar, Geoff Castle, piano, Peter Ind, bass and bass guitar, and Bryan Spring, drums. Jimmy Hastings and Olaf Vas will handle saxes and flutes, and brass instruments are in the hands of Eddie Harvey, the organising tutor.

Tuition will lay special emphasis on instrumental technique (sound, intonation, etc.) and the development of playing within chord progressions, both standard and modal, chord substitution and suchlike. Sounds like

a lot of hard work, but very valuable experience if you're trying to get your chops together. All details from Barbara Ind at the JCS, 35 Great Russell Street, London WC1 (Tel: 01-580 8532).

Canadian Explosion

News reaches us from the Canadian West Coast of a hot new band called Night Flight, a three-piece rock group currently packing halls in concerts and clubs alike. In one of their recent club gigs, they surpassed all previous sales for liquor - much to the pleasure of the management, band and audience.

Partying, drinking and good music are the key ingredients for the band



who, according to manager Glen Parfitt, comprise "thundering bass, searing axe (we presume he means guitar) and shit-kicking percussion." Bassist/lead vocalist Sue Bain is the focal point of the band, who are currently planning a summer '79 tour. Those interested in booking the band can reach Glen on (604) 383-0383.

Hi-Fi '79

High Fidelity '79 is proving to be even more popular with the Hi-Fi industry than earlier exhibitions. Already over 80 companies are to exhibit and more than 150 brand names are to be shown.

Of particular interest is the high number of British companies showing at the exhibition. In recent years, the annual Spring High Fidelity Exhibition has gained a high reputation within the British hi-fi industry.

High Fidelity '79 will be held at the Cunard International Hotel in Hammersmith and is open to the public from April 27th to April 29th

with a "trade only" preview from the 24th to the 26th. It's open each day from 10am to 8pm until Sunday 29th when it closes at 4pm.

Liverpool Resistance

A well-managed Liverpool band is about to leave our shores for a tour of Belgium and Holland. Their name: The Resistance.

Viv Broughton manages this sparkling four-piece band. All their numbers are written by the lead-vocalist-guitarist, Mark Damron. The other guys are John O'Leary on violin-bass, Ian Reid on Tony Banks influenced keyboards and Martin Saunders behind a massive Ludwig drum kit.

Using Queen-like vocal harmony they hammer their way through their excellent repertoire with interesting percussion/rhythm effects.

You can catch this enthusiastic band at London's Rock Garden on Wednesday nights; but hurry, they start their tour in late April. In case you can't, there's always their single, *Kidnapped*, available on the Marquis label, distributed by Faulty Products.

Survival of the fittest

In the February issue, we told you about a band called Survivor based in the West Midlands. We have since heard from a London band called Survivor who apparently have prior and legal claim to the name as they have already registered it. As they have just released a single, they understandably would like to see the matter cleared up.

They formed in March 1978 when Dave Simmonds (keyboards/vocals), having split from a Southend band called the Diamond Jack Band, joined Jon Ivory (guitar/vocals), Paul Riley (bass/vocals) and Dave Sprigg (drums), who had been working in and around London under the name of Schoolgirl. Newest member of the band is lead vocalist and frontman Rob Mathews. As Survivor, they played their first gig supporting the Bishops and have since been working the clubs and pubs around London. The bulk of the band's material is self-penned and a mixture of sophisticated but aggressive late Seventies rock. They own their own 1500 watt PA and are fortunate to have an devoted and "over-efficient" road crew. Interested parties should contact Dave on (01)-580 5428 or Jon on (01)-398 4888.

A Good Omen

Does rock exist in Newark? Apparently so. A band called Omen, who have only been together for five months, have been creating a lot of interest in the area, and recently supported Japan at Nottingham University. They are a five-piece rock band who write all their own material and comprise Peps (vocalist), Bob Smith (lead guitar), Dave Trainer (rhythm guitar), Mid (percussion) and Ian Cannon (bass).

The band have a residency every other Sunday at The Cavalier, Newark, Nottinghamshire and Ian can be contacted on Newark (0636) 5895 or Mid on Newark 73441.

Hee-Haw! (or Carry On Cowboy)

Promoter Mervyn Conn promises "the most exciting and strongest line-up" for this year's International Festival of Country Music to be held at the Wembley Arena (April 14th-16th).

The festival will present some of the biggest names in country music in addition to the best of British country acts. The full line-up is Marty Robbins, Billie Jo Spears, Ronnie Prophet, Freddie Hart, Hank Locklin, Dotsy,



Crystal Gayle

Hank Williams' Original Drifting Cowboys, Billy Armstrong, The Duffy Brothers, Philomena Begley and Poacher on Saturday April 14th; Tammy Wynette, Ronnie Milsap, Moe Bandy, Freddy Fender, Barbara Fairchild, Vernon Oxford, Charlie McCoy, Floyd Cramer, Buddy Emmons, Don Gibson, Jana Jae and Jeannie Denver on Sunday April 15th; Crystal Gayle, Bobby Bare, Asleep At The Wheel, Joe Stampley, Mickey Newbury, The Mercey Brothers, Jim and Jesse & The



Earthbound

Virginia Boys, Raymond Froggatt, Nancy Peppers, Laney Smallwood and Randy Barlow on Monday April 16th.

In addition, the Marlboro Country Music Talent Competition, which Conn is organising under the sponsorship of Philip Morris Ltd., culminates in a three-day final to be held at the Wembley Conference Centre during the same period.

Bound to succeed?

Earthbound are a band who don't like waiting around for the music business to work for them. They prefer to do it themselves. Last year, they formed their own agency, Archway Entertainment, to publicise and promote the band. The result was a tour of Italy, a highly successful gig at

Ronnie Scott's Upstairs and various other appearances in and around London.

This year they went one better and formed their own record company, Archway Records. Their first release is a three-track 12" single (*Liberated Lady, Song for South Kensington and The Robot*), released last month. The distinctive vocals of Jutta Nienhaus front the well-organised music of Martin Thurn (guitar), Richard Brett (bass) and Scott Hunter (drums), with new member Mike Morgan on keyboards.

Interested parties should contact Archway Entertainment on 01-203 4632, or try to catch Earthbound at one of the club/pub/college gigs they're currently playing.

Rock at Roots

If you and your band gig around the south-east Essex area, you'll probably be familiar with the Roots Rock Club, based at the headquarters of Southern FC's supporter's club. It's not only a favourite venue for local bands, it's also a place where you can catch name (ex-Southend) bands playing warm-up gigs before tours. Eddie and the Hot Rods, the Feelgoods and Mickey Jupp have all warmed up there - and they all hope to be involved in the rock competition currently being organised by the club.

Thirty bands have been taking part in the heats, which started last month and continue until April 15.

At the time of going to press, Mickey Jupp, Lee Brilleaux and Hot Rod Graeme Douglas were all hoping to be able to join in the judging. The five heat winners, plus the best runner-up, will contest the final on Sunday, April 22nd. The prizes for the winning band include a day in Chalk Farm Studios, gigs at London's Hope and Anchor, the Nashville and the Bridge House, Canning Town, and a £50 voucher for equipment from Honky Tonk Music, who have generously provided a back line for the entire competition.

By the time you read this, it'll be too late to enter, but if you want to catch six promising bands at one gig, the Roots Rock Club is the place to be on the 22nd.

It's just as well we didn't put all our eggs in one basket.



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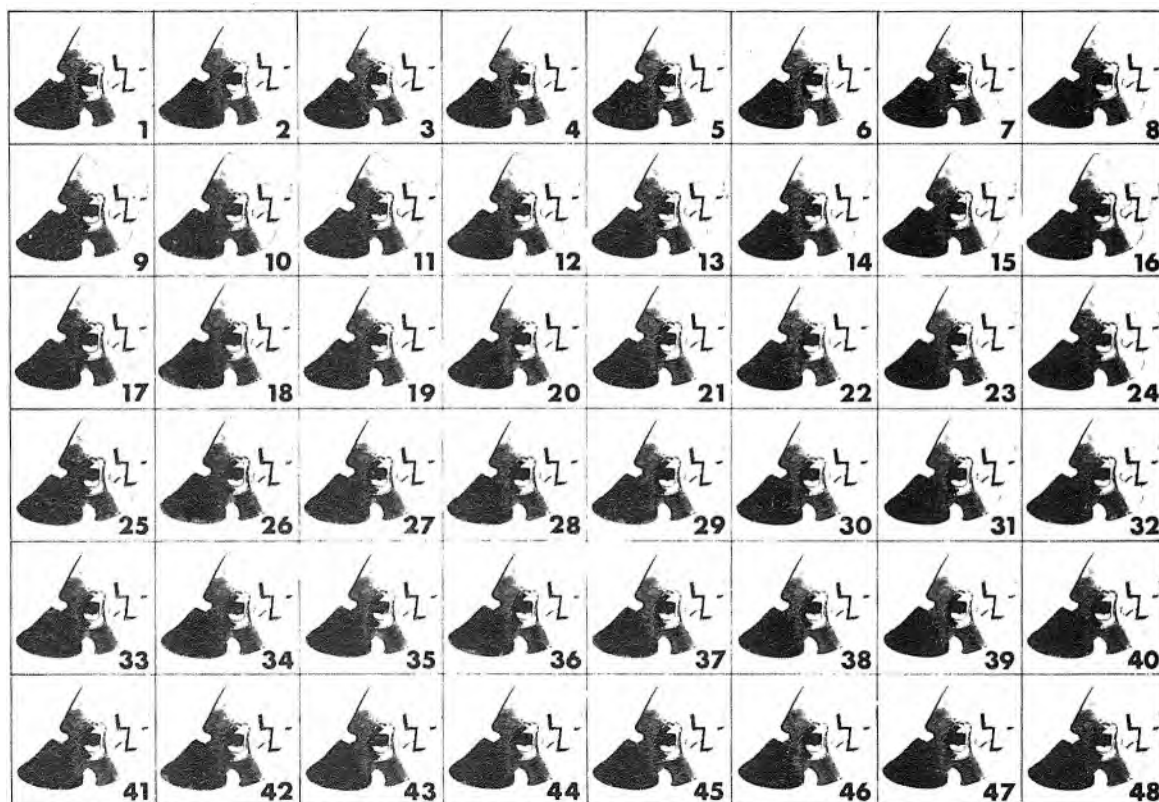
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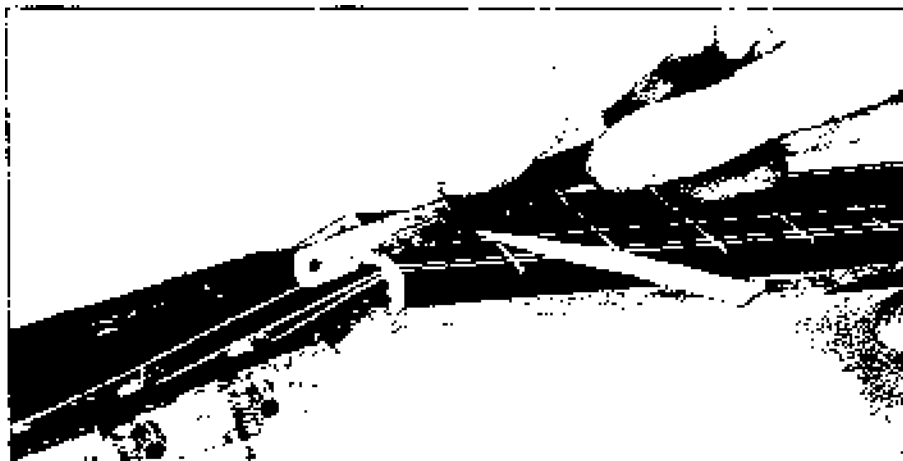
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Adjusting beginners guitars: 2

Here are a few simple repairs and adjustments which may be useful for low-priced nylon-string guitars. These are not intended for high-quality instruments, which require more accurate and more sophisticated methods. Most of the photographs show what I would consider as minor repairs. You really shouldn't have to do any of these on a new guitar. However, the first two pictures are related to string action adjustments and you may find you have to do these yourself on a cheap guitar, even a new one, bought from a music shop. If the guitar works, and doesn't hurt your fingers, leave it alone. However, if it is hard to play I think the most useful place to start would be at the nut. To adjust the nut, you will first need a feeler gauge to check the distance between the strings and the first fret. Ordinary colour film "en-prints" are usually about 0.3mm thick: you will need a strip about the width of a pencil. You will also need one new emery board, as used for trimming fingernails, a strip of fine sandpaper and a sharp standard-size, fine-toothed hacksaw blade.

Photo 1 shows the angle at which to hold cutting or sanding tools while widening or deepening string slots in the nut. When viewed from the side, the line of the cutting edge roughly halves the angle the strings make as they pass over the nut. The most common mistake is to cut from the other side of the nut, with your hand over the guitar head. This can easily cut the slots in a way which causes open strings to buzz or sound dull. If you hold the tool with your hand on the fingerboard side, as shown, and your knuckles just clearing the strings and frets, you are almost certain to cut at the right sort of angle.

There are two common problems with nuts on cheap guitars. Tune the instrument to the correct pitch and leave it overnight. Then find a quiet place and listen carefully while you slacken each string gently by about one turn of the machine head button. Then tighten the string gently up to pitch again. On some strings you may hear a distinct clicking or creaking sound, and you may even see the string jumping along its nut slot with each small click. If your guitar has this problem, slacken one string at a time until you can just lift it out of its slot, rub a soft-grade graphite pencil all over the inside of the slot and replace and re-tune the string. This will often allow the strings to slip smoothly in the nut. Any slots which do not respond in this



treatment are probably either very roughly cut or too narrow for the string at the bottom of the slot. It doesn't really matter how wide the slot is at the top; it is what happens at the bottom, where the string rests, that is important.

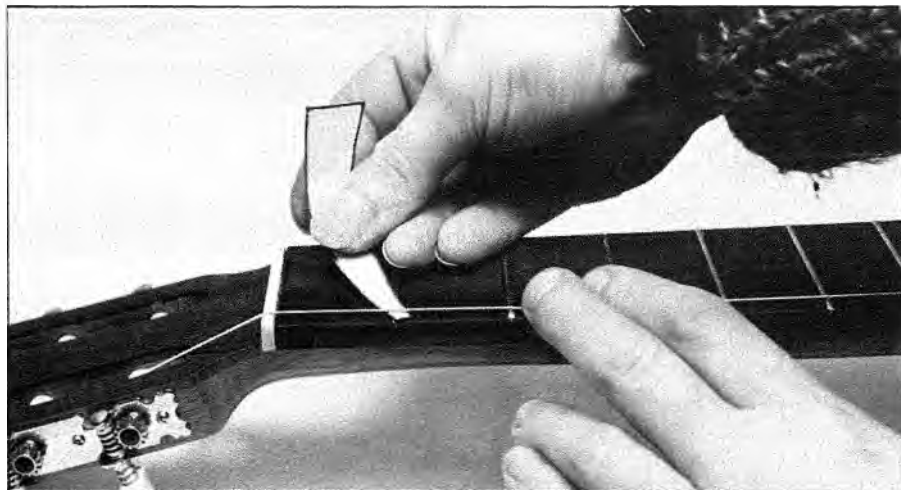
The difference between a too-narrow slot and a just-right slot is usually only as much as the thickness of a sheet of paper, so you don't have to remove very much material. This is where the emery board comes in. The great advantage of an emery board is that it cuts on both sides but not on the edge. You can work on the sides of the slot without accidentally cutting deeper at the same time. Hold the emery board as shown in Photo 2. Keep the edge of the board pressed down to the bottom of the slot. Two or three strokes on each side should be enough. If the slot is narrower towards the bottom, it may be necessary to twist the emery board a little with both hands so that it cuts mainly near the bottom of the slot. If any slots need to be wider, have a look first at the string spacing on the guitar. If the strings are spaced apart unevenly, and some of

the slots are too tight, you may be able to improve the spacing a little by cutting some of the slots on one side only. Use a new sharp emery board, use only light pressure on the side of the slot and keep the board stretched tightly between your hands. Be prepared to work slowly: if you press harder to try to speed up the cutting, you will cut the side of the slot curved and you may end up with buzzing strings. It helps to keep the board (and the cut) straight if your hands are close together, leaving only about 20mm of emery board showing between them. When it becomes blunt, change to an unused bit.

When each string can sit neatly on the bottom of its nut-slot without being pinched, put more pencil graphite in the slots you have sanded and check again for creaks while tuning. If a string still creaks, it is probably binding on some roughness on the bottom of the slot. This will be sorted out during the next operation.

If you really think you cannot cope with all this, fine. Trust your instincts and pay a repairman to do it. But don't be frightened because I have

By Stephen Delft



3.

described things in detail. I have assumed that you know nothing about guitar adjustments, and I have tried to explain how the job should *feel* to you while you are doing it. So far, nothing is particularly difficult or critical.

The second fault which is common on the nuts on cheap guitars is that the slots are either too deep, or more often, not deep enough. This lets the strings come too close to the first few frets by the nut, or holds them too far away. (The first or lowest fret is nearest to the nut. The top or highest fret is by the soundhole.)

If any slot is too deep, the string will probably buzz when played open (without any left hand fingering). If you have this problem on a new guitar, either don't buy it, or complain until something is done about it. If you have this problem on an old guitar, you may be able to raise the nut a little, as shown next month. If there is no other alternative, you could put a little epoxy adhesive in the bottom of the slot. If you don't leave it enough time for it to set thoroughly before you replace the string, you will also glue the string to the nut. Leave overnight for "10-minute" epoxies. Leave three days in a warm room for the slower-setting varieties.

To check the string height at the nut, you will need the strip cut from the edge of a colour photo en-print. Press each string down onto the fingerboard between the second and third frets, so that it rests firmly on the *second* fret (see Photo 3). This is easier, if you keep your finger fairly close up to the second fret. There should be a small gap between each string and the first fret. Try to slide the strip of photo print into this gap. If you can see a distinct gap, but the feeler strip won't go into it without disturbing the

string, that is just right. If the feeler strip just slides into the gap, that is also right. Fold the feeler strip double. If the gap between string and first fret is more than two thicknesses of your strip, the strings are higher than necessary at the nut and the guitar will be hard for a beginner to play. If the gap is as wide as four layers of your strip, the guitar will be hard for *anyone* to play. Some guitars are set up like this, although you may find some strings on a guitar set higher than others.

Where you have a gap over the first fret of four feeler thicknesses or more, you will need something more efficient than sandpaper to deepen the string slot. A standard, fine-toothed hacksaw blade is about the right size. If you use a new, sharp one with very light pressure, it will act like a file on the bottom of the slot. Hold the saw as shown in Photo 1. Slacken off one string at a time until you can push it sideways into an adjacent slot. Use the hacksaw blade only on the slots which need a lot of cutting down, and stop *before* they are deep enough. Take out the saw and check the slot after two or three light, short strokes. Guitar strings and nut slots come in differing widths. Unfortunately, you do not have the same choice with hacksaw blades. Although the saw will deepen the bottom of the slots, its cut will probably be too narrow for some of the wider strings. So every time you stop to check your work, you may also need to widen the bottom of the slot with the emery board. When you are sure the string will fit right to the bottom, replace the string, tune it to its correct note. Press it down between frets 2 and 3 and check the gap between fret 1 and the string. Stop using the saw when the gap is reduced to

about two feeler thicknesses.

You can take the slot lower, but the saw cuts too fast for final adjustments. Use two layers of sandpaper, stretched tightly over the smooth back edge of the hacksaw blade. Some people are interested in the exact materials I use in my own workshop. In this case the sandpaper is 120-C Openkote Garnet cabinet paper from Norton Abrasives, Welwyn Garden. The English Abrasives Co./Oakey's make a similar garnet paper which is just as good, but I think it has a thicker paper base. You might need to use only one layer over the saw-back for the slots of the two thinnest strings.

Use the sandpaper over the saw-back in exactly the same way as the toothed side of the saw, until the first fret clearance, when each string is held down between frets 2 and 3, is reduced to about one thickness of photo print. Keep the sandpaper stretched tightly over the back edge of the saw. All your pressure falls on the narrow edge. It will cut faster than you think and it will also become blunt quickly. When the abrasive begins to look worn on the edge, move the paper round a bit. Keep the saw blade at the same angle over the nut as shown in Photos 1 and 2.

When you use sandpaper over the back of the saw for adjusting string slots, you will not need to widen the slot further with an emery board. The sandpaper will cut at the bottom of the slot and at the side. It should leave a smooth, round bottomed slot, in which the strings will sit without sticking.

If the slots in your nut need to be deepened only slightly, don't use the toothed side of the saw at all. Just use the smooth back edge to support the sandpaper. You will still need to use the emery board *first*, to widen any slots which are too tight for their strings. In some cases, widening the slot allows the string to sit lower down in the slot and this may be all the downwards adjustment that you need. Make the slots the right width first, then check the string clearance. Use the saw teeth and then sandpaper, or just sandpaper, depending on how much adjustment is needed.

When you have finished, rub some more pencil graphite in the slots. Don't measure string clearance over the first fret without pressing the string down between frets 2 and 3.

Next month: playing action, bridge adjustments and loose frets. After that: how to repair a cracked head.

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Each spring the world's musical instrument trade meets in Frankfurt for the Annual Trade Fair. The new items for the year are displayed and new distribution deals arranged. The public are allowed into the fair on one day and they get a tantalising glimpse of products that will not reach the shops until many months later.

Here we present a photo review of this major trade fair. It wasn't an outstanding year for innovative new products, with only a few items standing out.

Roland launched a "poor man's Micro-Composer" called the Sequencer, Rick Wakeman displayed a shoulder-carried keyboard called a "Keytar" and Carlsbro showed that the tortoise often wins the race by displaying a really stunning looking range of amplification.

1 BJ UK boss, Brian Nunney, shows off the new Roland Sequencer which sells at only £449 in Britain.

2 Friendly Jim Dunlop has an excellent range of guitar accessories and he showed the full range at Frankfurt.

3 James Coppock of Fletcher, Coppock and Newman displays one of the new guitar straps the firm showed to the export market.

4 Carlsbro's complete range of equipment was re-vamped this year and this attractive 100 watt combo amp shows off the new look.

5 Daniel Mari of Mari Strings Inc. proudly shows a packet of his acoustic guitar strings in front of a board that shows the complete range offered by the company.

6 W.L.M. President Matti Vanhanen shows the superb portable "Hit" organ that has made WLM famous.

7 I.M.'s Richard Desmond and Julius Graifman (left and right) meet CBS/Arbiter Chairman Ivor Arbiter in the Frankfurt Aisles.

8 Sonor's newly appointed Marketing Director, Gordon Williamson shows off the new Sonor fittings on the Sonor stand.

9 On the Logan Electronics stand a new synthesizer called the Vocal Synth made an appearance. This exciting new instrument perfectly reproduces the basic vowels of the human voice and really does sound like massed choirs!

10 Norlin Music managed to get Les Paul along to the show to play regularly for visitors and here is seen demonstrating the new "Paul".

11 On Premier's stand, a new practice kit was displayed designed by Steve Palmer (Carl's brother). The kit will cost £62 retail in Britain and it is exceptionally quiet and portable.

12 Seen here with Torgil Hagman (left) is the new Hagstrom Managing Director Kulle Svenson.

13 George Osztreicher proudly showed off the extended range of Phoenix amplification on the British Music Strings stand.

14 The full range of combo amps and PA systems were displayed on the Laney stand.

15 Dave Reeves (looking cool) showed visitors the Hiwatt flightcased power amps.

16 Sterling Ball (Ernie's son) proudly shows the vast range of Ernie Ball strings.



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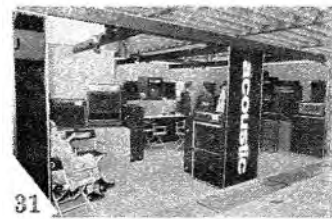
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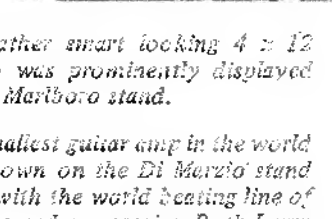
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- 17 Terry Gould makes some of the most original guitar straps produced in Britain. He and his wife showed the full range.
- 18 Roost would have been called a small British amp maker until recently. At Frankfurt they showed a range comprehensive enough to prove their success.
- 19 In addition to the excellent range of Nashville and Valley strings, Jeff Jeffries also showed the export markets some Welsh harps he is distributing.
- 20 The Puckhorse Case stand showed these really well built flightcases as well as hosting the new Rick Wakeman/Jeremy Simons product, the 'Keytar.'
- 21 Picato is one of the most famous of all guitar string names and Connie Stein, Dick Thomas and Dave Martin were on hand to help visitors.
- 22 As Europe's No. 1, Dynacord naturally had many things to show. Their products are in the forefront of musical technology, especially the new Digital and Analogue delay lines.

- 23 Always a particularly important British stand, Rose-Morris showed several new Marshall amps and displayed improvements to many existing models.
- 24 It was something of a communal effort on the stand shared by CP Cases, Rainbow Cases, ATC Speakers and Mick Johnson Music. It says good things for the future of the business.
- 25 Larry Macari's long-time associate Gary Hurst (inventor of the fuzz box) was on the Sola Sound stand this year. Larry showed the trade an extremely nice new compact piano.
- 26 Always ready with a joke and a smile, Dave Simms mounted his usual individualistic display showing August and Simms equipment.
- 27 As descendants of one of Britain's pioneer amp names, WEM amps always attract a lot of attention and Charlie Watkins himself was on hand to help inquirers.

- 28 This rather smart looking 4 x 12 combo was prominently displayed on the Marlboro stand.
- 29 The smallest guitar amp in the world was shown on the Di Marzio stand along with the world beating line of pickups and accessories. Both Larry Di Marzio and Steve Kaufman were on hand.
- 30 Yamaha's Dennis Holloway, poses proudly beside the new Series 5000 Yamaha drums now available in Britain.
- 31 The type of "class" that comes over from Acoustic products was reflected in the design of their tasteful stand.
- 32 When you've got Fender, Rogers, Rhodes etc. to show you might be forgiven for taking things easy. Not so CBS/Arbiter who mounted their unusual magnificent display.
- 33 That important name in group gear, Celestion, was in full presence at the show. Rod Fuller and Colin Alaridge were in attendance.

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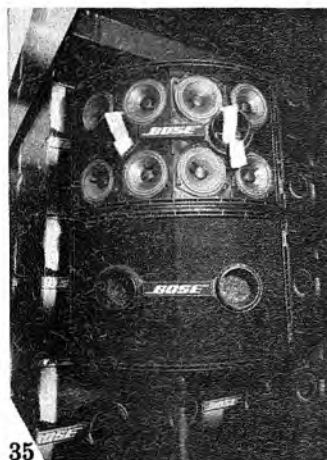
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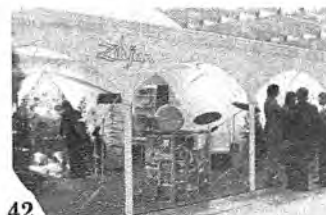
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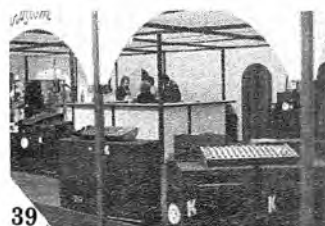
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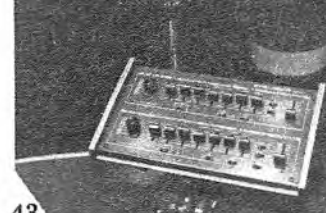
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34 Rick Wakeman turned up at the show to display his new invention "The Keytar." It plays like a keyboard but you wear it over your shoulder.

35 Endurance is always hard to assess, but Bose put this little cabinet through "deep breathing" exercises during the whole show to prove how well it took punishment.

36 Despite announcing no new products at this year's show, rumours are strong that AKG are about to launch a brand new range of mikes. They're now marketing direct in the UK.

37 Guild President Neil Lillian flew in for the show and he was able to show us a really interesting sample of a plexiglass instrument.

38 Energetic Electro-Harmonix boss Mike Matthews trained his team to Karate standard before the show and then dressed them in ceremonial fighting uniforms to greet buyers.

39 Kustom (with a K) showed their comprehensive range in their usual stand designed around a bar. Very civilised!

40 The Music Man stand is built completely of fine wood echoing the company's craftsmanship philosophy.

41 The Mighty Mite range is rapidly becoming vast and it includes pick-ups, bodies, hardware and all accessories. Somehow they managed to squeeze the lot onto their stand.

42 Zildjian's "Turkish bazaar" was mounted again this year with the full flavour of the East reminding visitors of the company's ancient origins.

43 Pearl never seem to let a Frankfurt show go by without launching new products. This year there was a new drum synthesizer and a new polyphonic synthesizer keyboard. Big news is that Gerry Evans and Glyn Thomas have been appointed UK agents for the Pearl line.

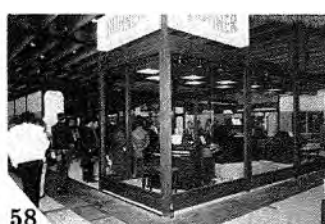
44 The superbly engineered Ovation range of solids and electrics was excellently displayed on the Kaman stand with Jim Hennessey as Master of Ceremonies.

45 The ebullient Barry Philips and smooth Dick Jeffries were proud to show several new items on the Custom Sound stand. Among them was this fine new mixer.

46 On the D'Addario stand is the proud slogan "For Eight Generations" and seen here are Jimmy D'Addario Jnr. and Herbie Hargail.

47 Former Prime Minister Edward Heath visited the opening day of the exhibition and he's seen here chatting with Jimmy How (boss of Rotosound at whose invitation Mr. Heath visited), Rt. Hon. Edward Heath, Richard Desmond, MD of Cover Publications and Alan Marcuson, Executive Director of Cover.

48 Berni Drage and the team proudly showed off the Darburn range for the second time at Frankfurt.



- 49** Hammond Organs scored a resounding success at the show by displaying the talents of jazz organist Rhoda Scott. Despite some problems with their stand on the final day, the company reported excellent business from the show.
- 50** One of the most striking stands on the Frankfurt exhibit was the Paiste display. Toomas Paiste and Jim Ledgerwood greeted visitors and Toomas and Jim are being kept busy organising the next Dortmund public music show.
- 51** As always the Sharma stand was put together very professionally and these elegant "furniture" speakers looked very attractive.
- 52** Crumar mount a large exhibit at Frankfurt and encase it in a wall to create a "village" effect within. It's extremely effective.
- 53** Dave Street and Todd Wells were excited by the business they did for their new Frunt line of amplification. One major US distributor was poised to take it and general export orders were reported as being excellent.
- 54** Rosetti's line of economy drums, Hamma, are always of interest to price conscious importers and the stand also showed the usual range of "traditional" instruments like pipes and marching drums.
- 55** It says something when a stand is permanently mobbed and that was the case on the Morley stand. They describe their effects as the "Rolls-Royce" of effects and obviously visitors thought so too.
- 56** Ian Barnes and Ron Maskel visited Frankfurt as an exporting team for the first time this year. They showed Rokk Amplification as well as concluding other deals to strengthen their new empire.
- 57** Big news on the MXR stand this year is of Ron Wilkerson's departure. He's set to join the Roland Corporation.
- 58** As well as showing the exciting new portable keyboards already doing well in the professional field, Hohner also showed a range of attractive home organs. The pity is that they are not due to be distributed in the UK as far as we know.
- 59** Both Don Randall and Chuck Widenner manned the Randall stand and proudly showed the new range of "heavy" PA equipment available.
- 60** The interesting modular Bell effects units were graphically displayed on the Bell stand.
- 61** Something of a chintzy setting for Barratts who showed brass and Wal guitars.
- 62** Yamaha's immaculate stand was, as always, crowded every day. UK Sales director Carl Spencer was on hand to greet British visitors.
- 63** Dickie Davis shows off the Reslo sound cordless guitar system.
- 64** The MM team proudly exhibit their Redmere combo (perhaps the most sophisticated in the world).
- 65** Adam Hall and Andy McCulloch were on hand to answer queries on the Adam Hall Supplies stand.

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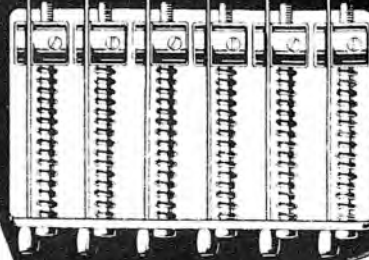
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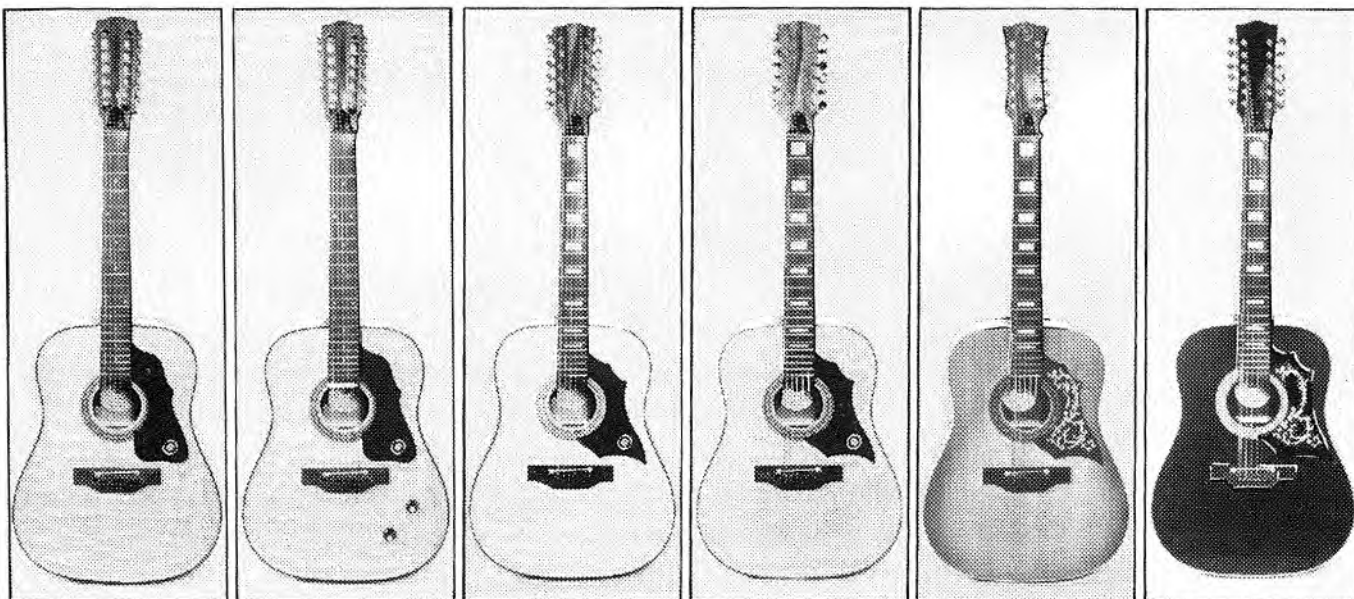
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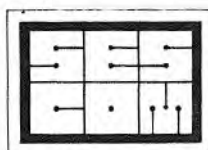
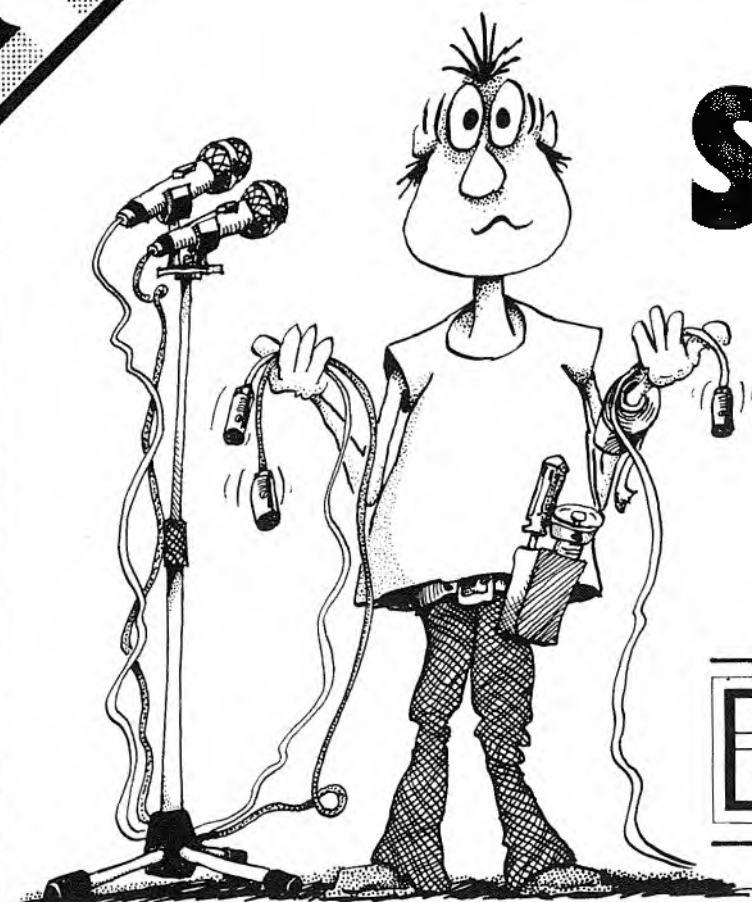
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UNDERSTANDING SYNTHESIZERS

PART 11

In this article I am going to describe three synthesizer modules – the noise generator, ring modulator and sample-and-hold module. The first of these, the noise generator, I introduced briefly last month when I outlined a complete basic synthesizer. Whereas all synthesizers contain a noise generator, not all contain both the other two modules. For example, the EMS VCS-3 contains only the ring modulator and the Roland SH-1 contains only the sample-and-hold module disguised as a random output in the modulator section. Larger synthesizers however almost always contain both modules, the ring modulator greatly extending the range of sound qualities the synthesizer can produce and the sample-and-hold module producing a variety of striking effects including automatic arpeggios.

Noise generator

In synthesizers there are essentially only two sources of audio signals: voltage-controlled oscillators (VCOs) and noise generators. Whereas the output voltage waveform of a VCO is periodic, a succession of identical cycles following one-another indefinitely (see Part 1), the output of a noise generator has no repeating pattern. A noise signal is jagged and irregular and its amplitude varies in a random fashion, as shown in Fig. 1.

In the same way that a periodic waveform such as the sawtooth wave can be regarded as the sum of a number of sine wave components (a fundamental and its harmonics; see Parts 3 and 4), noise can also be regarded as the sum of very many sine waves. However, whereas the harmonics of a periodic waveform have *particular* frequencies which are exact multiples of the fundamental frequency, the components of noise have *all* frequencies. It is not surprising therefore that when reproduced, noise has no definite pitch, sounding like a loud hiss or roar.

White and pink noise

Noise generators usually provide two kinds of noise signal called "white" and "pink" noise, selectable by a switch (see Fig. 1). White noise contains equal amounts of all frequencies, but because our ears are relatively insensitive to low frequencies it tends to sound rather high. Pink noise is produced by filtering white noise in such a way that the higher frequency components are reduced in amplitude relative to the lower components. It therefore sounds deeper than white noise as we are more aware of its low frequency content.

Noise signals are used mainly in two ways: as audio signals in their own right (for example, to produce wind and surf effects) and, for reasons which I

will explain later, as an input to the sample-and-hold module. (Noise is rarely used directly as a control voltage, but for those of you interested in synthesizing the sound of eggs frying, try using noise as the control voltage for the VCF!)

Special noise effects

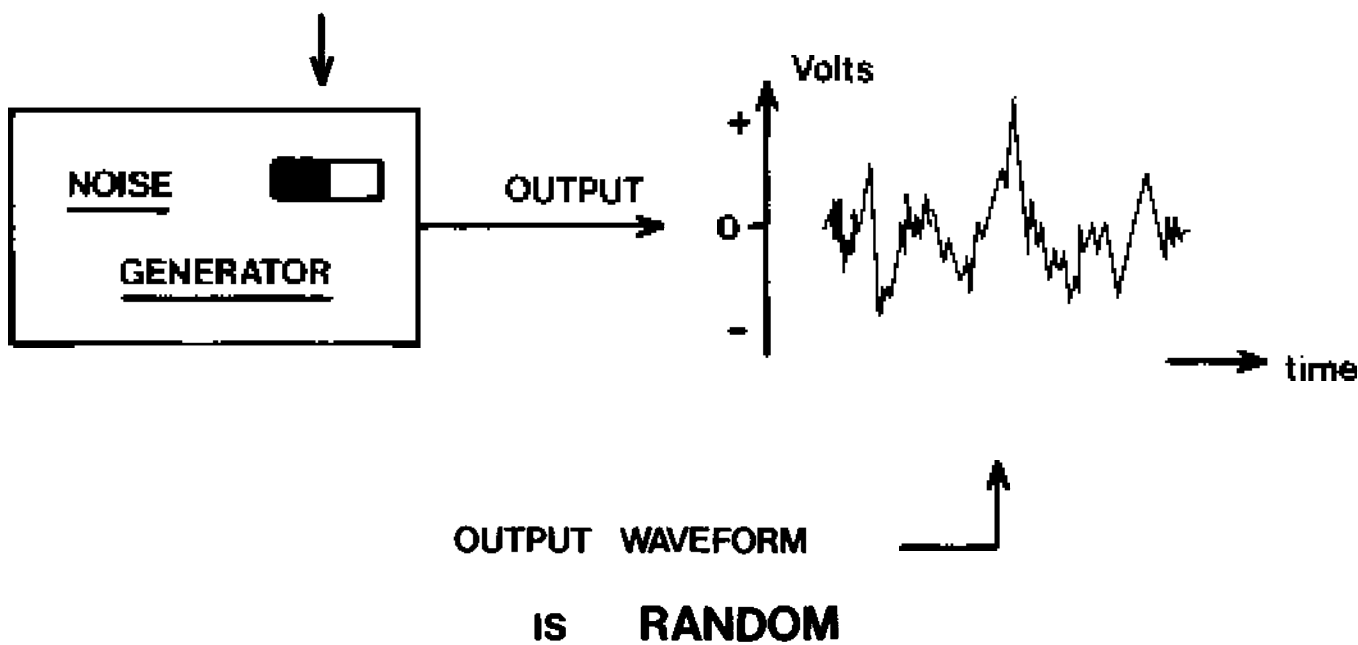
All the special effects such as wind, surf, thunder, etc. involve amplitude modulation of the noise signal (using the VCA in conjunction with the ADSR module and/or the LFO) and variation of the noise spectrum (using the HPF and/or VCF). Jean Michel Jarre used prolonged surf sounds towards the end of *Oxygène*, and Fig. 2 shows how he might have produced this effect. With that set-up, the texture of the surf sound can be changed manually by altering the cut-off frequency controls of the filters, the volume can be changed by altering the setting of the hold (or initial gain) control of the VCA, and slow periodic variations in texture and volume can be introduced by using the output of the LFO module to control the VCF and VCA.

Attack transients

Noise can be used in a more subtle way to synthesize attack transients, such as the slight "chiff" which, for example, occurs at the start of notes

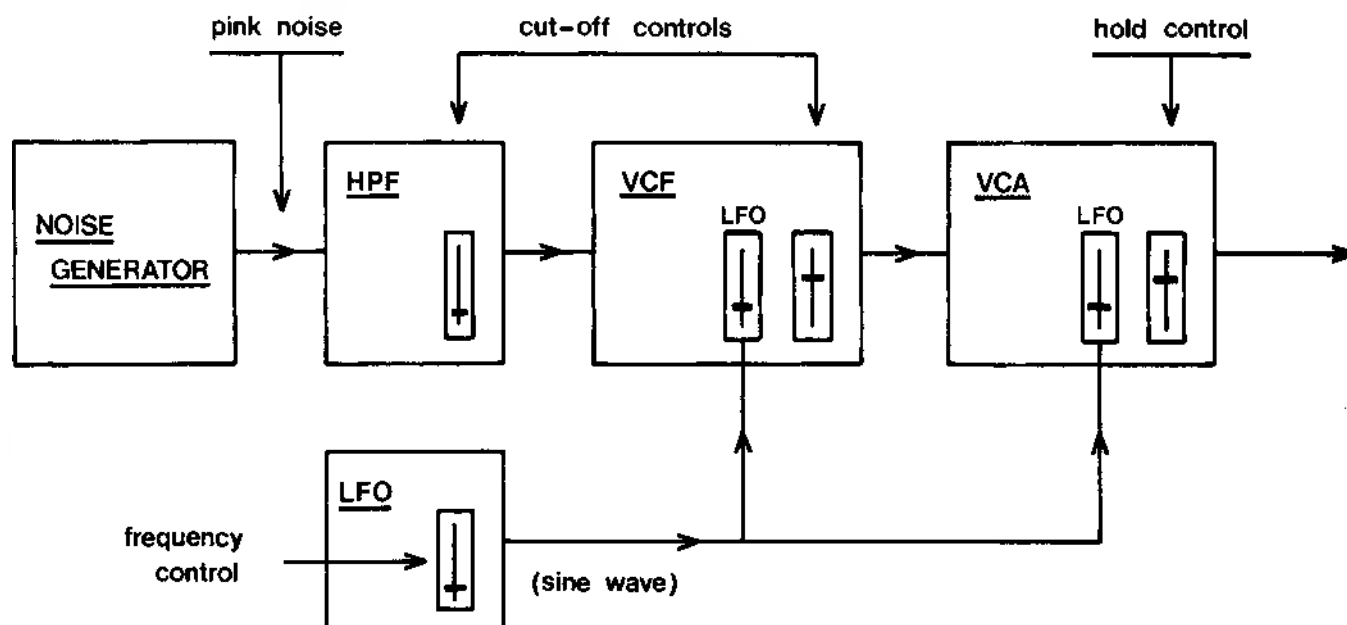
Fig. 1.

SELECT "WHITE" OR "PINK" NOISE



The output voltage waveform of a noise generator is random and when amplified produces a hissing sound. White noise contains equal amounts of all frequencies, pink noise containing a higher proportion of low frequencies.

Fig. 2.



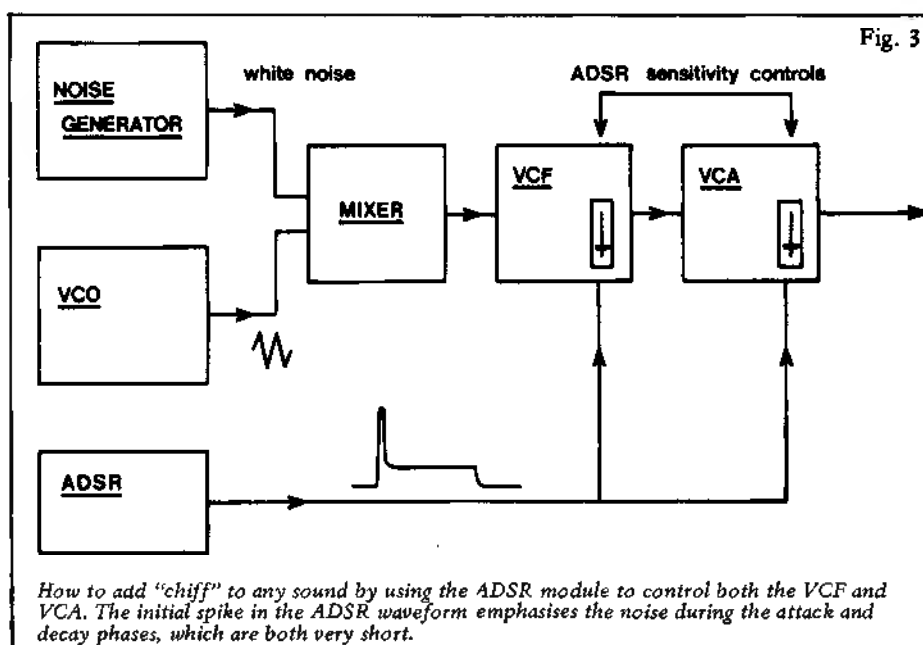
How to produce the sound of rolling surf from pink noise. Altering the filter cut-off frequency controls changes the quality of the surf sound, and the VCA hold control varies the overall loudness of the sound. The LFO produces the rolling effect (its frequency should be very low, about 0.1 Hz).

played on the flute. As I have mentioned in earlier articles, how a note starts is extremely important, attack transients determining the perceived tone quality long after they have died anyway. Fig. 3 shows how "chiff" can be added to a sound by using the ADSR module to control both the VCF and VCA. The initial spike in the ADSR waveform is produced by using fast attack and fast decay to a low sustain level (see Part 7). During the spike, the VCF's cut-off frequency is very high and the whole of the noise signal reaches the VCA, producing the "chiff". During the sustain and release phases, the VCF cuts out all the high frequency components of the noise signal, what is left being barely audible underneath the VCO's output.

Ring Modulator

The ring modulator, so-called because it can be used to synthesize bells, chimes, gongs and the like, is a module with two inputs and one output (see Fig. 4.). Usually one of the inputs is taken from either a VCO or the noise generator, and the other input is taken from either another VCO or the LFO.

The output of the ring modulator always contains components having frequencies equal to the sum and difference of the input frequencies. For example, if both inputs are audio-frequency waveforms, say two sine waves with frequencies of 550 Hz and 400 Hz, the ring modulator output will contain components having frequencies of 950 Hz (i.e. $550 + 400$ Hz) and 150 Hz (i.e. $550 - 400$ Hz). The important point to notice is that the new frequencies generated by the ring modulator are not multiples of the input frequencies — they are



How to add "chiff" to any sound by using the ADSR module to control both the VCF and VCA. The initial spike in the ADSR waveform emphasises the noise during the attack and decay phases, which are both very short.

definitely *not* harmonics. The reason why the ring modulator can be used so successfully to synthesize bell-like sounds is simply that chimes, gongs and, for that matter, timpani all produce these odd frequency components called "enharmonic partials".

If one of its inputs is in the audio-frequency range and the other is a subsonic waveform from the LFO, such as a low frequency sine wave, the ring modulator appears to work differently although in fact it is not doing so. In this situation the low frequency sine wave effectively amplitude modulates the audio-frequency waveform, producing a very good tremolo effect which is particularly useful when synthesizing bowed string sounds.

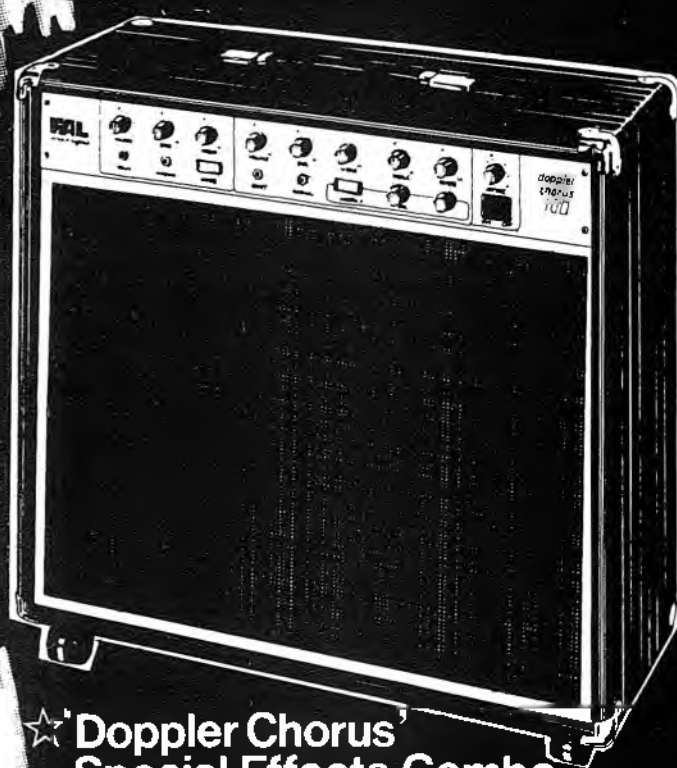
Sample-and-hold Module

The sample-and-hold (S/H) module

is a very interesting device which can produce some quite remarkable effects. This module, illustrated in Fig. 5, has one signal input and one output. Inside the S/H module there is a clock, an electronic circuit which produces narrow pulses at a rate which can be set manually by a front panel control, usually labelled "clock rate" or "sample rate". By altering this control, clock pulses can be generated typically at rates from as low as one pulse every 10 seconds to as high as 30 pulses per second. Every time the clock "ticks", the sample-and-hold module effectively looks at the voltage present at its input and transfers this voltage to its output i.e. it samples the input. The module then holds the output steady until the next clock pulse comes along.

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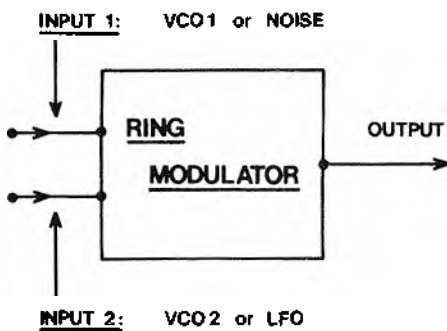
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Fig. 4.



The ring modulator, so-called because it can synthesize bell-like sounds, is a device which always needs two inputs.

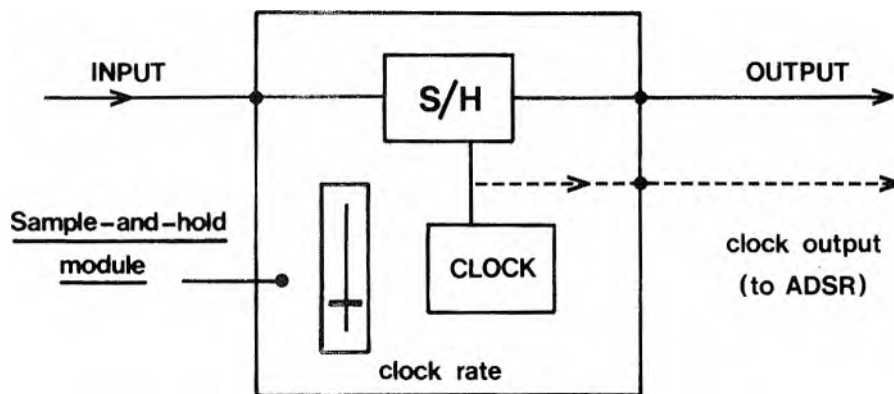
Staircase waveforms and arpeggios

Let's imagine that the input to the S/H module is a sawtooth waveform with a very low frequency, say one cycle every 10 seconds, and that the clock rate has been set to one pulse per second, as shown in Fig. 6. Every second, the S/H module will very quickly sample its input and transfer the voltage it finds to the output, keeping the output steady until the arrival of the next clock pulse. So the output voltage will change in steps (one step for each clock pulse), the S/H module effectively turning the input sawtooth waveform (or "ramp")

into a "staircase" waveform. If the staircase waveform is used to control the frequency of a VCO, the VCO will produce a sequence of descending notes (an arpeggio), jumping back to the top again every time the LFO starts a new cycle. If the clock rate is increased, more samples will be taken each second and there will be more, smaller steps in the staircase. So the VCO will produce quicker notes closer together in pitch, resulting in a descending glissando rather than an arpeggio.

If a low frequency waveform other than the sawtooth is used as the input to the S/H module, then of course the sequence of voltages at the output will change, altering the pattern of notes produced by the VCO. For example, a sine wave or triangular wave from the LFO can be used to synthesize arpeggios which move up then down repeatedly.

Fig. 5.



The sample-and-hold (S/H) module contains an internal clock which determines how often the input is sampled. The clock rate can be varied manually. Sometimes the clock pulses can be used to trigger the ADSR module so that, for example, each note in an arpeggio can have its own envelope.

Random notes

If the noise generator's output is used as the input to the S/H module, then because noise has a random waveform, the output from the S/H module is a sequence of random voltages. The bigger the noise input, the bigger the steps in voltage will be on average; the faster the clock, the more random voltages will be generated each second. If, as before, the S/H module is controlling a VCO, the oscillator will generate a series of random pitches or random notes, for which the uses are somewhat limited!

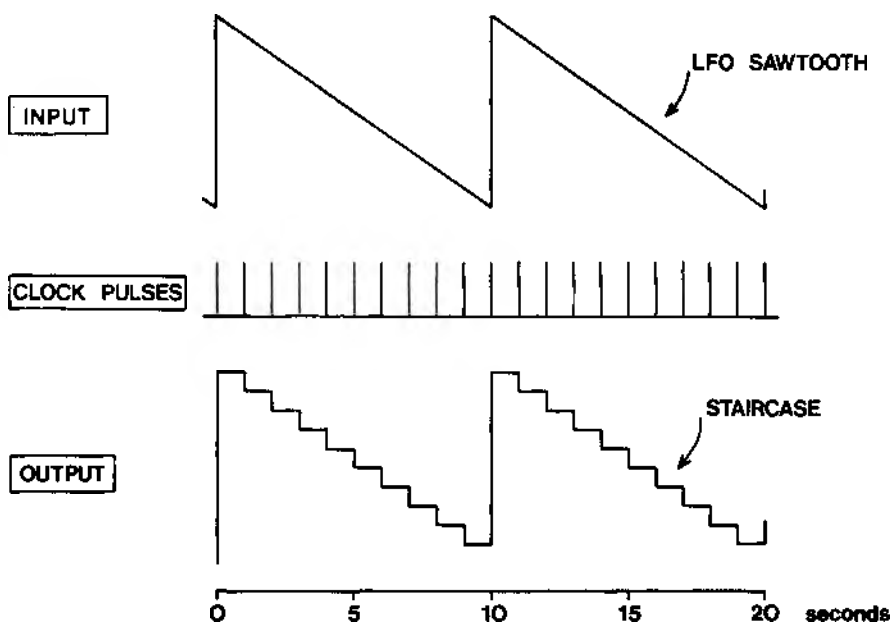
(The output of the S/H module can of course be used to control any of the voltage-controlled modules, producing for example random variations in sound quality using the VCF. However by far the most striking effects are produced in conjunction with the VCO.)

Other features of S/H modules

In some synthesizers, it is possible to use the S/H module's clock pulse to trigger the ADSR module (see Fig. 5), which in practice means that every note in the arpeggio or glissando can then have its own individual envelope. Notes can be separated by rests if required, and very attractive harp-like runs can be synthesized quite simply. Another refinement sometimes available is a "lag" control which acts on the S/H module's output in the same way that the portamento control affects the keyboard voltage (see Part 5). If "lag" is applied to the S/H output, the output voltage does not change in sudden steps, instead taking a while to reach its new value. Short lag times are useful for preventing the clicks which the sharp steps otherwise introduce when the S/H output is controlling a VCF or VCA.

In this series I have now covered all the modules you will find in most synthesizers. Next month I will be writing about sequencers and will explain how they can be used to produce predetermined patterns of notes, new low frequency waveforms and attack transients. **Tony Horsman**

Fig. 6.



This diagram shows how the sample-and-hold module can turn the LFO's sawtooth waveform into a descending staircase waveform. The frequency of the LFO is 0.1 Hz and the clock rate is one pulse per second, so there are 10 steps in the staircase.



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Sax Maintenance

IM's resident sax maniac ALAN HOLMES tells how to look after your horn and suggests a handy first aid kit for all reedmen.

The modern saxophone is a complex assembly of intricate parts which must relate very precisely if the horn is to operate properly. One of the most important functions of the instrument is to remain airtight no matter what note is selected. Because of the use of small pieces of cork and felt in cushioning the mechanism to stop it clanking, there is a continuous change in the adjustment as the cork is progressively flattened. The operation of certain keys closes more than one pad and the most common cause of leaks is that the two pads operated by one key do not close with the same pressure.

This can be checked with strips of cigarette paper. Place them under the two pads and apply normal pressure to the key. The papers should be both held so that an equal resistance is felt when they are pulled out. This should also be checked at the four quarters of the pads circumference, to check for twisting or closing at the back, caused by knocks.

I will deal with the first aid repairs of damaged saxes at gigs later, but it is easier to have most repairs done by qualified mechanics. However, there are some things that are not too difficult to do yourself, providing you have a repair kit. A very common cause of leaks is the top F pad becoming cut through because of the continual handling of the top of the instrument every time it is used and the crook is fitted. So vital items in the first aid kit are two high F pads and an E pad.

Repair men use a sort of varnish called shellac to stick pads but either clear glue like Bostik or brown glue like Gloy will work adequately. While on the subject of glue, the new "Superglue" instant epoxy adhesive would be useful for emergency repairs and some Araldite epoxy can also come in handy.

Having glued in the pad, the next stage is to seat it by wetting it till it is dark all over and then tying it down with string or thin cord for half an hour or preferably overnight. This is a substitute for the repair man's method of seating pads with a torch — a very skilled job if the laquer on the back of the key is not going to bubble or burn. The tying process works just as well but be careful not to tie round any key rods that might get bent.

The small pieces of cork that regulate the key heights and closure can often fall out or be dislodged while cleaning the instrument, so the next items on the list are a sheet of cork, a single-edged razor blade to cut it with and some fine sandpaper for

adjustments after the glue is dry (use Superglue in emergencies). The cork from a Champagne bottle (which doesn't suffer damage from corkscrews) is very useful as a source of thicker pieces and blocks of cork which can be used to wedge keys shut.

It is very difficult to replace broken springs to the right tension so a packet of assorted rubber bands can get you out of trouble till you can get down to the repair shop. But don't be the sort of player who has half a dozen rubber bands operating the sax and boasts about it. Rubber bands are much more likely to break and let you down than steel springs.

There is nothing quite so embarrassing as playing a solo in front of a large audience and having a spring break or cork or pad drop out, leaving you making a noise like a cat with its tail shut in a door and not being able to do anything but slink off sheepishly and try to fix it. This sort of disaster is much less likely to happen if the sax is kept in excellent condition, which means well maintained.

A sax should be put in for a service every year, rather like a car, in which the whole thing is checked and adjusted and any tired pads and springs replaced. The difference can be surprising, as you adapt your playing to compensate for a leaky instrument which slowly deteriorates over the year.

The keywork should be very carefully oiled with special key oil twice a year. Great care must be taken to keep oil away from the pads: it ruins them. Use a toothpick dipped in the bottle to place just a drop on each pivot point. The use of injector oiler makes this much quicker, as it acts like a hypodermic with its hollow needle.

The main reason why small pieces of cork drop out is that they get soaked in oil, which loosens the glue. So wipe off any surplus before it runs down the pillar or along the key. Be careful when cleaning off the spit marks from the laquer, as this is the other way that the corks get dislodged by careless fingers and dusters. Should you accidentally unhook one of the needle springs you will find a crochet hook just the tool to hook it back on.

The daily points to watch are: Check that the G-sharp key is not stuck down before playing, and to try not to play after sugary drinks (including beer) without washing your mouth out with water first as the sugar in your breath will cause the pads to stick. To clean sticky pads, sprinkle some talcum powder on a sheet of paper and insert it under the pad. Close the pad gently and draw out the paper so as to coat it. Normally, sticky pads are caused by dust and can be cured by doing the same thing with out the talc to remove the dirt.

Every time you finish playing, you need to take the mouthpiece off the crook and clean the inside, dry the reed and pull a swab through the

crook to stop deposits building up which could affect the intonation. Not to mention your health! Goddard's silver cloth seems to work very well on laquer as well as silver, after first removing the spit marks with a damp cloth.

You are setting up ready to do a gig and for some reason your sax gets knocked off its stand and falls over. When you attempt to play it it doesn't work. What can you do in the hour or so before the gig starts?

First check exactly what the damage is, using cigarette papers if necessary. Bend any twisted keys back as closely as you can, then, holding all the keys shut, run water through the sax till all the pads are really wet. Press down hard on the affected pads till a new seat is made, then make any necessary adjustments to the corks so that the instrument is playable. If the key rods are bent where the key is of the tube and rod type, then you are really in trouble. If it is jammed, there is no way to repair it at a gig, but most of the minor accidents usually involve only one or two keys and are mostly where the key pillar has taken the force of the knock and bent or dented into the body slightly. As soon as possible have the instrument repaired properly as it might not work when the pads dry out.

Your repair man will be only too glad to tell you when your sax needs a complete overhaul. The time interval really depends on how much you use it and whether it has been knocked about by touring.

It doesn't matter how good you are, you will play better on an instrument that works correctly. Any extra pressure you have to apply to the keys to compensate for leaks is going to slow you up and make for jerky playing, so it's well worth a few pounds spent regularly at the repairers to make sure that playing your sax is as easy as possible. Playing is quite difficult enough without trying to battle with a leaky instrument, too.

Repair kit

Spare E and F pads

Glue: clear Bostik or brown animal

Gloy. Optional: instant Superglue

or Araldite Rapid

Single-edged razor blade

Sheet of $\frac{1}{16}$ " cork

Champagne cork

Sheets of medium

and fine sandpaper

Assorted rubber bands.

Key oil (and preferably

an injection oiler)

Crochet hook for springs

At least 2ft. of strong string

Cigarette papers

Velvet or felt scraps

Screwdrivers, large and small,

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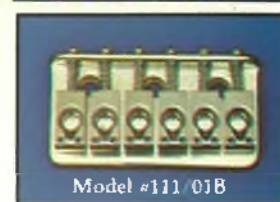
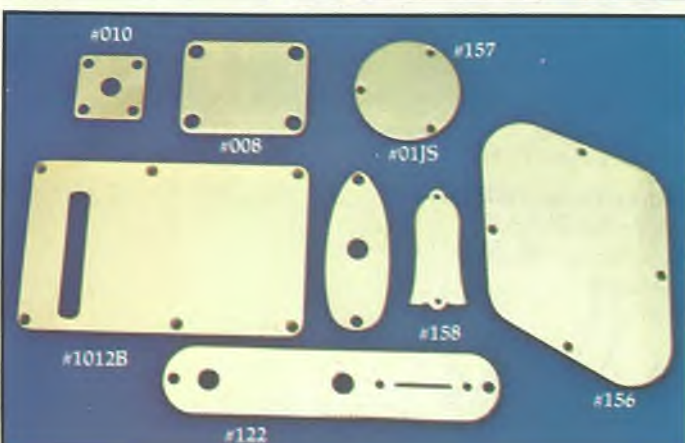
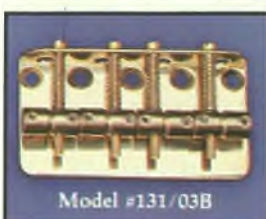


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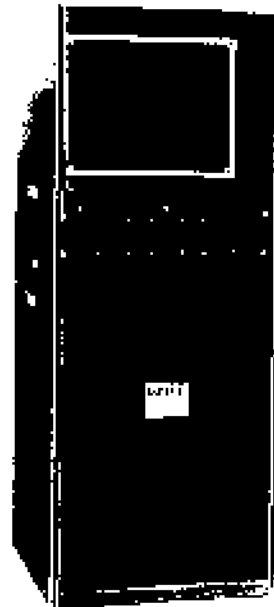
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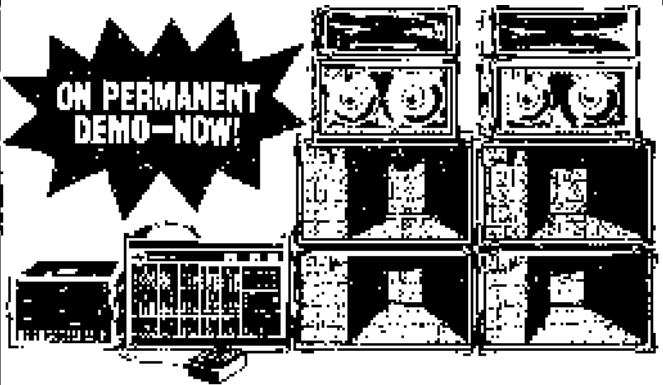
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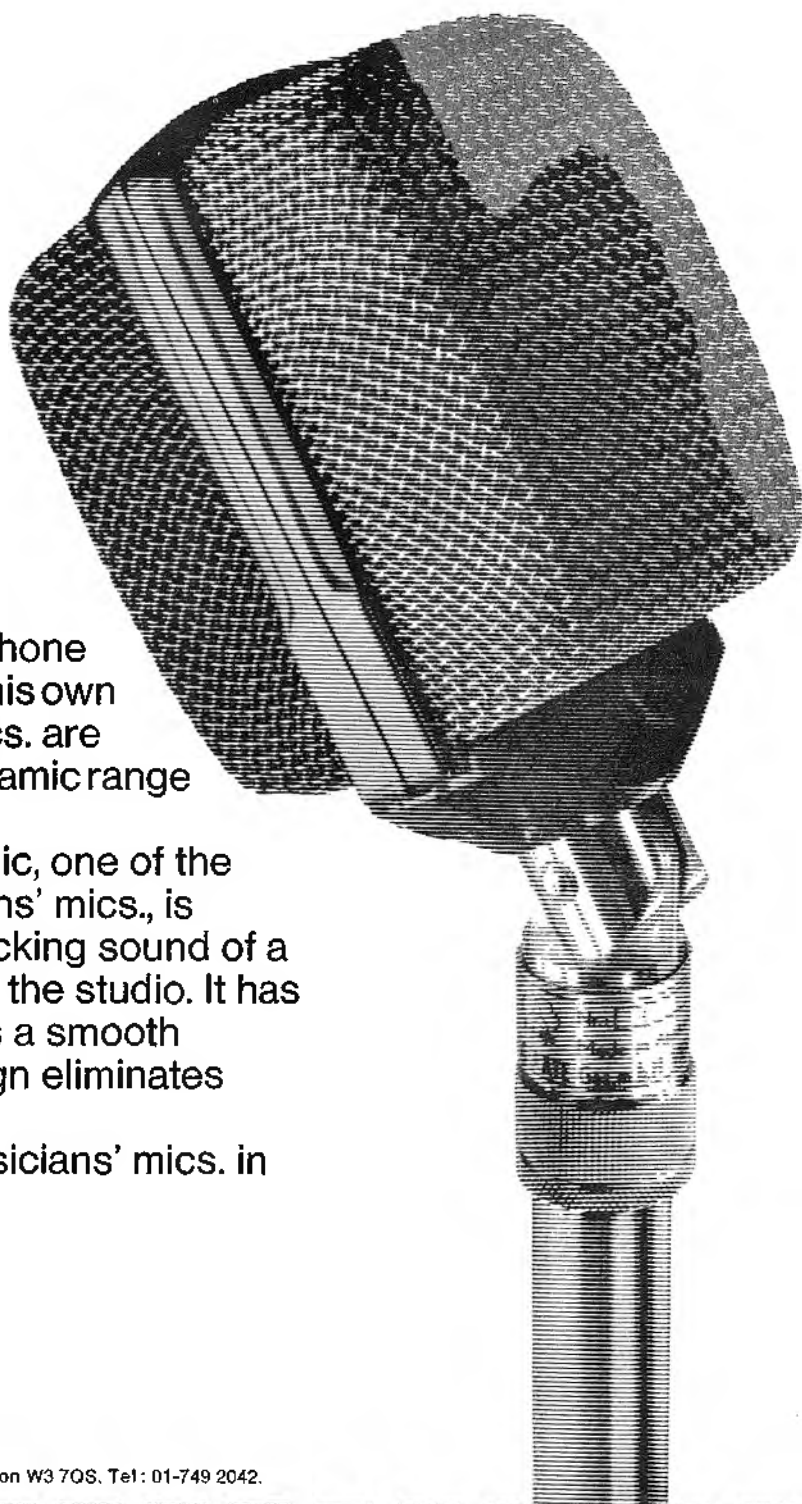
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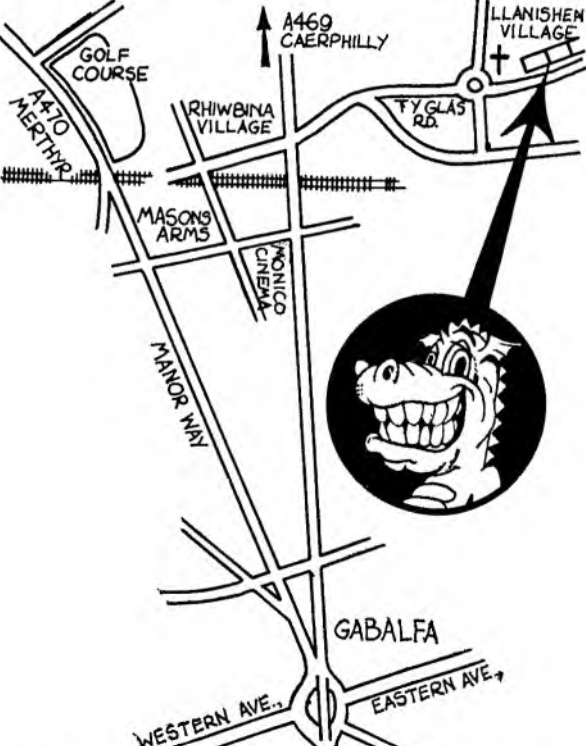
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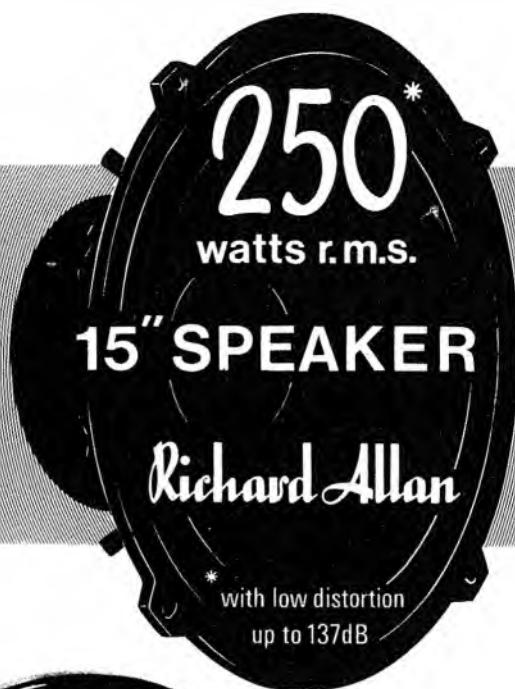
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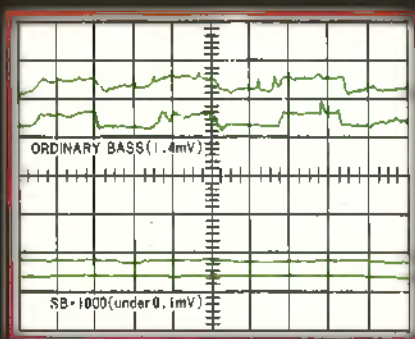
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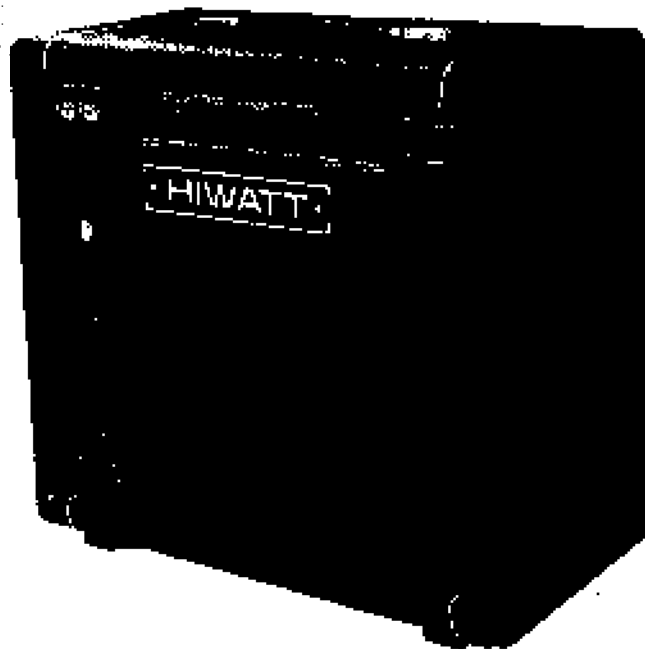
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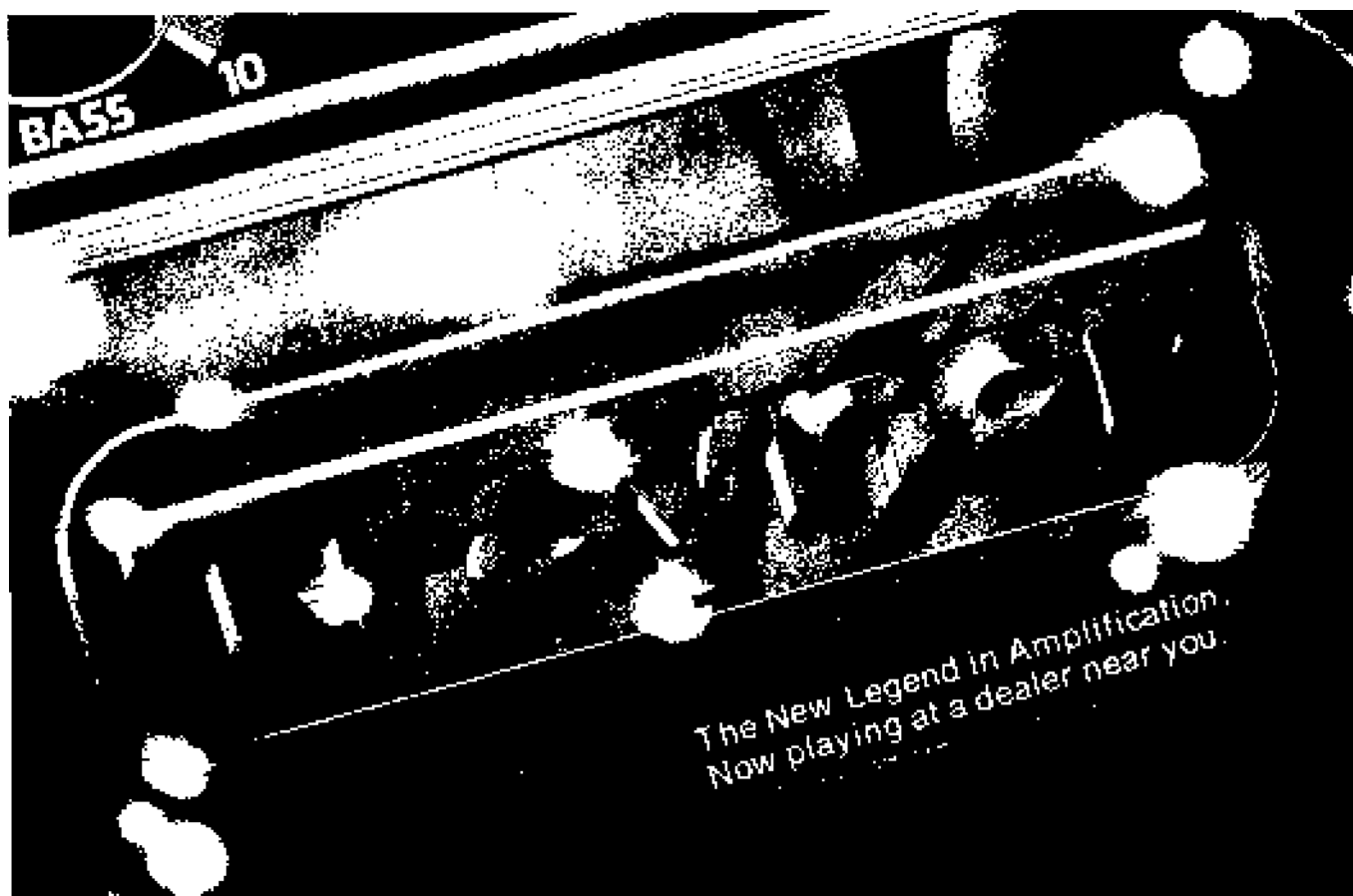


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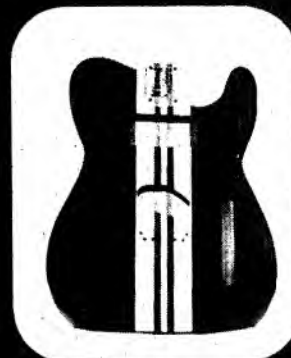
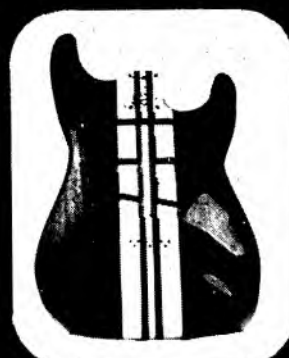
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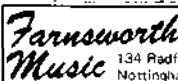
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St	Number of Studios
CP	Copying
tba	to be advised
Ka	Keyboards available
R-C	Reel to Cassette
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R-Cr	Reel to Cartridge
DC	Disc Cutting
Comp. Mix	Computer Mixing Facility
d-t	Disc to tape
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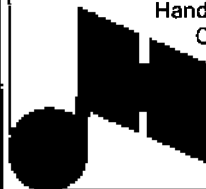
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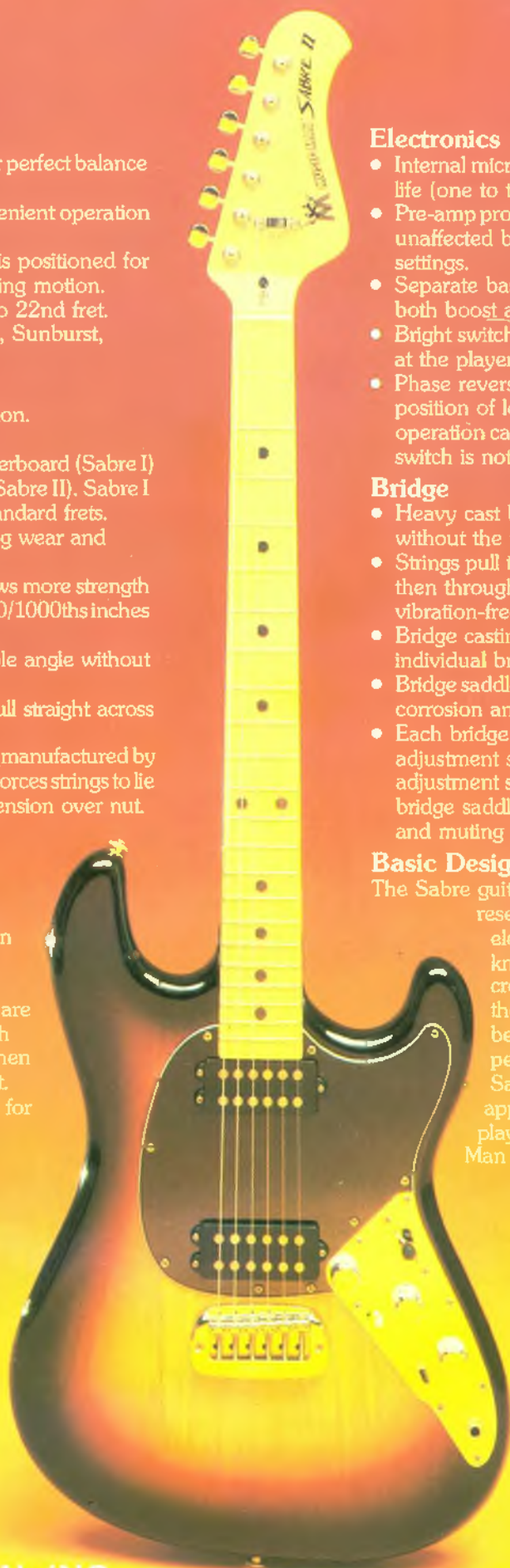
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