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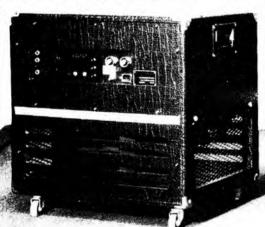
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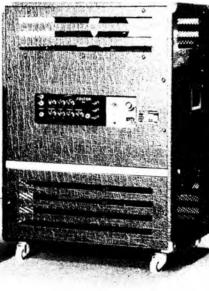
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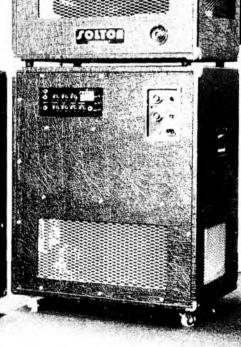
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101 BLINDFOLD TEST

No, not pin the tail on the donkey, but the first in a new series where top guitarists are invited to play through a concealed amp while our intrepid reporters take down their full uncensored comments.

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Dave Mattacks

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As UK, the latest supergroup, start to take off, Eamonn Percival catches up with one of Britain's most respected guitarists Allan Holdsworth and finds out why he hates being labelled a "jazz guitarist".

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Talk is cheap but not when you're with Cheap Trick guitarist Rick Nielson. Steve Rosen encounters one of rock's newer eccentrics.



30 SLIP SLIDING AWAY But before he did so we managed to find out what makes Bryn Hawarth one of the hest slide

Haworth one of the best slide guitarists in the business.

32 MANNY OF NAZARETH

No, not the latest Lew Grade epic, but a rap with Nazareth axeman Manny Charlton about guitars, producing, writing and arranging.

52 THE GLYN JOHNS INTERVIEW

In a rare interview, Glyn Johns, one of the giants of the recording industry, reveals what it is like working with the world's superstars.

59 THE DONAHUE DOSSIER

In his second piece for IM, Jerry takes us on a guided tour of his guitar collection and explains the technique necessary to play them.

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118 APRS PREVIEW

A taste of what is in store at next month's annual Association of Professional Recording Studios exhibition in London.

176 SSE GO MODULAR

Go ahead PA company Sigma Sound Enterprises of Nottingham have introduced a new modular system to give smaller bands the same quality sound as the supergroups. We catch up with them in between a tour with The Darts.

181 DELFT'S WORKSHOP

A peep inside the master luthier's lair to discover a few secrets of the great man's work.

Editorial

Recording fever grips London again! Early summer is always the time when the technical heads of the recording industry gather to discuss the latest developments in techniques and equipment and to plan the development of the recording industry for the coming year.

International Musician plays a central role in the recording industry by bringing together creative artists who are always the final customers and the technician who's role it is to assist creativity.

Methods of recording and therefore perpetuating art are increasing all the time and obviously we are very close now to realising full dimensional recording. The video disc (or tape) will undoubtedly be the next major entertainment medium and musicians will have to consider their method of projecting in this medium.

In a future issue we plan to discuss the possibilities of ordinary working musicians harnessing the power of inexpensive video medium and we will be looking at topics such as: "Hiring Equipment and Making Your Own Demo Tape' "Getting A Video Crew To Record A Gig", and "Making A Video Dummy In A Video Studio". At this moment video tapes in the entertainment industry are used principally for promotional purposes. If a manager of a band in Britain wants to show a promoter in Los Angeles what the act is all about the best way is to play him a video tape. Tomorrow, however, recording companies will be issuing video discs and tapes of their best selling artists and if an act wants to win the recording contract they will most certainly have to be prepared to submit video demos.

Watch this space!

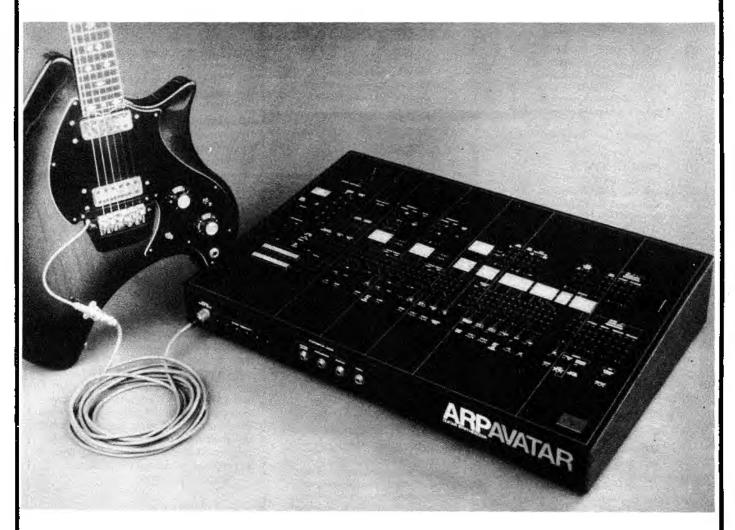






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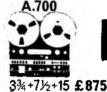
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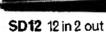


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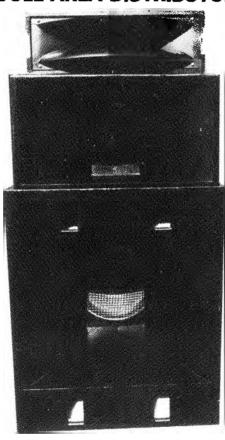
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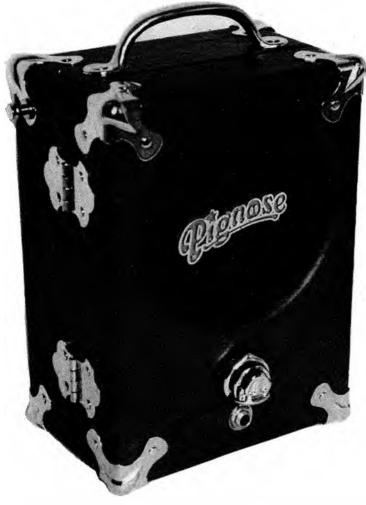
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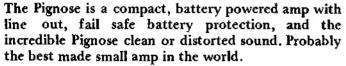
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The Marsia Set-Up

For as long as big PA systems have been in use, Marshall have been in the forefront of research and development. This is shown in the practical way in which they solve problems. For instance, the 2125 100W Reverb 8-channel Mixer Amp uses rotary volume pots because they are quieter, more reliable, and less likely to become blocked with beer and cigarette ash—the usual hazards!

This is a 400W Marshall PA system built on the 2125 Mixer Amp (shown below). It adds three 2205 Power Slaves to the 100W 2125 to make 400W and reproduces the sound via four 2120 100W Supabins with two 2128 Piezo Supa Hi Horns. Monitoring is simple and effective with two 2121 100W Slave Monitors.

This is the method:

Stack the bins as required — each bin will handle 100 Watts or the output of a 2205 100W Power Slave. For 400 Watts, use two each side.

Always put the Slaves as close as possible to the bins and keep speaker cables short. It is very important that the correct sort of cable is used for speaker connections — do not use coiled guitar leads for instance.

You can always run reasonable lengths of screened signal cable i.e. from mixer to slave or slave to slave, so a neat set up is easy to achieve.

To add on the Piezo super high tweeters, you merely run a speaker lead from the top 2120 bin which has an integral passive crossover. This device also has an attenuator pot on the back in case the top end is too strong.

The mixer can drive one bin and a slave nearby can drive the second bin on that side. On the other side, you can stack the two slaves and each one will drive a bin.

There is, of course, no limit to the power you can stack up. All you need is another slave and speaker system — such as the 2205 and 2120 arrangement.

To connect the monitors, all you need is a mains socket and a screened lead between mixers/monitor 1/monitor 2. It's as simple as that.

So, when all the equipment is set-up, the wiring should be as follows:

- Connect all equipment to the mains. Be certain that the mixer has a good strong earth which is unbreakable and disconnect the earth lead on all slaves and monitors. Do not let it flap around though. Strap it back to the main cable outside the plug with white insulation tape. This will tell you instantly that the unit is in a de-earthed state.
- 2) Connect all speaker leads it is important to connect these after the unit is switched on in big systems where electronic crossovers are used but here it does not matter too much. Remember to put speaker jacks into the amplifier firmly and cleanly. Do not short the output by leaving a jack half in-half out. Check the impedances are correct. The 2120 Bin is 8 ohms and all the amps should be set to 8 ohms. The Piezos will not affect the impedance.

Next take a screened lead from the mixer slave output to slave 1. Then run a long screened lead over to the other side and connect it to slave 2. It does not really matter which input you use but using as designated (input and link to next slave) can make wiring more methodical. Connect this slave again with a screened lead to slave 3 and the PA is ready to go.

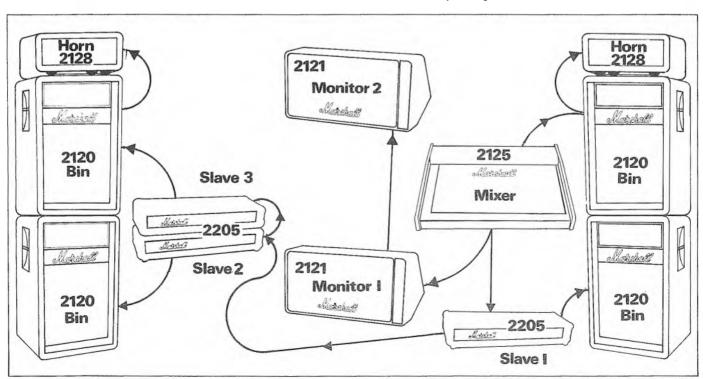
Connect a screened lead from the mixer foldback output to monitor 1 and another screened lead to monitor 2 from the link input on monitor 1.

Turn the presence controls to zero and operate the mixer as usual. The foldback control works in proportion to the master volume so the more power you use, the greater foldback you will be able to get (foldback is another word for monitoring).

If you are miking up instruments, particularly bass instruments, you will need plenty of watts. To mike up a big rock band completely you should start at 1000 watts but, in normal circumstances, 400 is a good compromise.

Marshall PA is used by many top stars and hire companies — and now you!

How to build up a 400 watt PA system with 200 watts of monitors and a complete bin/horn system with Piezo super highs!



AKG-Studio Quality with Road Reliability

AKG products are widely used in many professional recording studios, and many professional bands demand the same high standard of sound reproduction in a live on-stage situation.

Some musicians regard microphones as being of secondary importance to a good PA system, without realising that a good PA sound originates from the source of the sound itself—the microphone.

A poor quality mike will produce a poor quality sound; something that nobody wants to hear.

When you choose an AKG microphone you can be sure that the audience will hear your true sound reproduced by the superb technology perfected by AKG engineers. There are mikes from the AKG range to suit all situations, from the powerful voice of a rock singer to the subtlest overtones of a cymbal.

The D120E is a relatively inexpensive mike but nevertheless produces the quality of sound which has become synonymous with the AKG Available in either high or low impedance versions, the low impedance version comes with a Cannon XLR connector, enabling the musician to reach professional sound reproduction standards with a long lead and low intereference. One of the latest additions to the AKG range is the D170E. Designed as a high quality vocal mike, it is available in low impedance only with XLR connector but the UT332 low to high transformer lack enables this mike to be used in a high impedance situation where necessary.

The D12 microphone is

the only one of its kind, designed specifically for bass use, either bass drum or bass guitar. Its unique tone chamber permits accurate bass response at low frequencies, and it is seen in studio and stage use throughout the world. A dynamic mike, the D12 is rugged and reliable making it the ideal mike for use on the road.

For the vocalist who demands the ultimate micro-

phone, the C501 is a cardioid pattern condenser mike, which works on a different principle to dynamic mikes and uses its own SE5 power supply unit to drive the CE1 condenser capsule. Designed for use in situations where high quality vocal sound reproduction is required, the C501 is the ideal microphone for both stage and studio use.

These microphones are only a part of the extensive

range of AKG products available. Each one is designed for specific needs, and you can sure that whatever your needs, AKG will be able to provide the best possible equipment to meet them. The next time you choose a microphone, insist on AKG and be sure that your audience hears your sound as you intended it to be heard; clear, powerful and distortion free.









New Era of Ludwig Service



John Shearer with his 19-piece stainless steel Ludwig kit.

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WALES

Gamlin Pianos Cardiff 0222-20828 To give British drummers the ultimate service in drumming Ludwig's UK distributors, Rose-Morris, have set up a special network of Ludwig Percussion Centres. The 40 British dealers participating in this scheme will aim at nothing less than giving drummers the best facility for obtaining information and service.

Ludwig has always been the first name among rock drummers and until now, there has been no organisation of outlets that would be equipped to give both pro and semi-pro drummers the service they need.

Rose-Morris marketing director Keith Drewett explained the scheme was primarily to give Ludwig drummers the confidence of knowing that no matter where they are in the country, they will be assured of the same high level of service from a Ludwig Percussion Centre. Whether a drummer wants a new kit, a snare drum, a pair of sticks or a wing nut, a Ludwig Percussion Centre is a guarantee of top service.

To bring home the message about the Percussion Centres, Rose-Morris will soon be launching a national promotion scheme which will include drum clinics by top players and teachers, and advertising to identify and support each dealer in the Percussion Centre chain.



Nothing can really compare with the natural tone and beauty of wood and Ludwig have borne this in mind with their 2001P Octa-Plus kit in natural maple. Inspired by both studio and rock drummers, the Octa-Plus outfit offers the ultimate in tonal perfection!

Applause! Applause!

The Applause guitar must be considered the most advanced guitar in its price range. This is all due to advanced technology - the Applause is made with modern materials for the modern player. Produced by the Kaman company in America who also make the fabulous Ovation range of guitars, the Applause is tough enough to withstand years of playing.

It features a semi-parabolic bowl made from Lyramold, a very tough and durable synthetic that stands up to the rigours of the road without any loss of tone or fidelity. The unique design of the guitar creates a superb response — the full, clear sound is projected fully without loss of power.

The neck is from one-piece precision cast aluminium incorporating fretboard, frets and neck brace in a strong warp-The frets themselves are proof unit. specially treated with nickel for a smooth, fast action. While the bowl is from Lyramold, the top is laminated spruce for the ideal combination of strength and sustain.

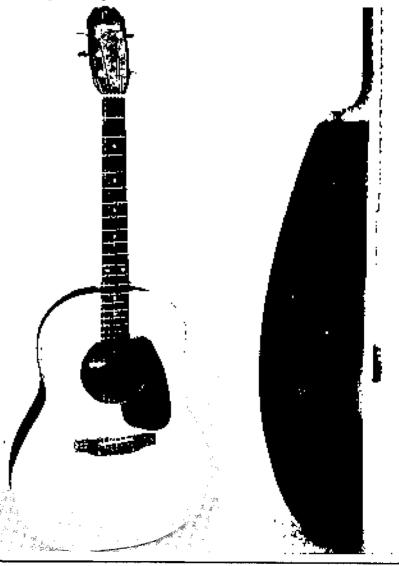
Beautiful raised purfling protects the finish of the Applause and adds strength to the body. The neck joins the body at the 14th fret using a block which is moulded into the bowl for extra strength. Because the neck brace is moulded with the fingerboard in a single casting, there is no need for a truss rod and, as aluminium is impervious to changes in humidity, the quitar will retain its intonation and stability in all weathers.

The peghead of the instrument has an internal A-brace for added strength and, for extra fine tuning, quality chromeplated machine heads have a 12:1 gear ratio. The list of exclusive features on the Applause just goes on and on. There is a combined soundhole protector and pickguard which, apart from protecting the top from scratches, also enhances the sleek appearance of the Applause.

The overall design and sound of the Applause is unique in its price range. No other guitar in the same price range can produce the rich, powerful warm sound. The sound is clean and well balanced. The patented Lyramold roundback design is the secret. Top vibration is reflected off a smooth surface free of bracing that lead lines. There are four finishes available would trap or absorb sound and, therefore, volume.

bowl or shallow bowl model. The deep "electric" why not pick up an Applause bowl generates a rich, full range, well which has special pick-ups built into the balanced sound while the shallow bowl bridge giving clear acoustic sound at model produces added "cut" in the solid-body volume. treble range, making it ideal for solos or

from Applause - Sunburst, Red, Natural and Tan plus the option of deep or Each instrument is available in a deep shallow bowl. And if you want to go



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BANJOS

Bajtite of Market end of the Collection Field of the Complete Collection Field of the Bajtite of the of th To Bartato de Mandie de Letter de la Charles


Money-motivated Holmes?

Dear Alan Holmes, Having read your rather misleading, contradictory, money-motivated article on Practice and Professionalism (March issue), I would like to make comment, not as a professional, but as a guitarist trying to reach that standard.

Your point in relation to 'ripping off' other professional guitarists; indeed we must start somewhere, however, surely we must not 'rip off' every last note. I would personally suggest that young musicians should listen to as much music as possible gaining as many styles and techniques which would be beneficial for reference when 'laying down' your own members e.g. Townshend for power chords. Alvin Lee for double bends and lay-overs and Kossoff for accentuated bands and tremeloes, Alex Lifeson for intricate riffs and timing and Bolan for lead breaks in 6th's blues scales.

Indeed knowing vast styles and techniques should be discovered. After listening to various styles, the musician should select the combination, which he feels is most appropriate to his preference, and this should be developed, which brings me to a further point you make about 'your own' music and cutting albums. Surely we should be playing what we want to play and not what others want us to play. If your idea was put into practise we'd all be playing like ABBA which is more commercially accepted judging by the charts. You must want us all to live in a musical 'utopia'.

The attitude you appear to take has in fact been adopted by a number of local 'musicians'. I know that they have this idea, which you appear to take, that if you play fast you play well, if you rip off pro's to the last note and you play what others want you to play you 'make it'. Unfortunately they are all still giggling locally to small club audiences, having advanced no further than running round in ever decreasing circles until they eventually disappear up their own jack plug sockets!

Regan Cairns and Kevin Thompson Co. Durham

Alan Holmes replies:

I was very sad when I read your letter because I had wasted my time in trying to explain to you the concepts contained in my article on 'Practise and Professionalism, (Taking Care of Business Pt.3)'.

"Professional" means playing for money. If you play for money and rely on playing to pay your bills for being alive then you might as well try to make enough so that (a) you can go on playing for a living and (b) save enough money to see you comfortable when you're too old to rock.

You need to make enough to compensate for the total lack of state pension when you get to retire and have been self-employed. Money orientated? I should hope so. The article was meant for all musicians and singers and not just guitar players and of necessity the choice of artists to copy is left up the individual.

The ripping off of a solo on a record is a valuable education of how a great player chooses notes and phrases and is purely to develop knowledge and technique.

When you play a solo note perfect then you can use it to add to your own personal style and indeed this is essential. It is just as important not to scrub round the difficult bits with the excuse that you're 'doing it your way'.

As a professional musician it is also

essential that you have enough talent to unite and choose material for yourself that you can live with after a hundred gigs as well as ensuring that enough people will buy tickets who share your taste in music. You won't keep a recording contract for long if nobody buys any of your records and if you only really like playing a particularly discordant form of Jazz Rock then you will no doubt take the attitude that audiences don't like your music because they are too thick to understand it.

Without punters to buy your music you will quickly starve. If you really want to have a completely free choice then don't give up your day job and only do gigs where they don't charge admission. 'He who pays the piper calls the tune.'

My motivation for writing the 'Taking Care of Business' series is to provide genuine help and advice for the would be and newly professional musician, to aid them in surviving in an increasingly competitive, complex and vicious business.

When you say that if people put my ideas into practise they would all end up playing like Abba which you describe as the height of commercialism and then go on to say that I must think this state of affairs is a musical utopia, then I know I am wasting my time as a writer and am very inclined to pack it in and let you get on with finding out about the business the very hard way.

Too much commercialism is as futile as too little. Speed and technique are only the envy of those unwilling to practise hard enough to achieve them. Without the command of the instrument that technique provides it is difficult to be convincing at any tempo. Very slow playing is more demanding on control than ultra fast, so a total familiarity with all styles and speeds is essential to develop real command. To communicate through an instrument and to transmit any emotion through it that isn't just frustration, means it has to respond to every slight detail of your musical ideas.

Skill and technique on an instrument do not guarantee success. Success only comes through on a world class level through wanting it to the exclusion of all else save music from your life. There are many brilliant musicians who just gig locally because they lack the drive and ambition to take the plunge and really work hard to make it.

Most of the world's best musicians are still at home practising as they don't think they are good enough to push themselves forward. When I put an advert in a paper ten years ago for a keyboard player the response was disappointing. Some weeks later one of my band saw Keith Emerson in a clothes shop. He said that he had seen the advert but hadn't replied because he didn't think he was good enough, even though he was out of work at the time!

Really top musicians have to be sensitive to other people's moods to be able to pick up on spontaneous ideas and have an insight into many different musical possibilities as well as a large degree of creativity. The fine emotional tuning that makes all this possible also makes them depressed over their own (usually fentastic) ability. The better they get, the more they realise they have to learn.

The music business is full of people who have been nowhere, done nothing and who have no measurable talent except that of self advertisement: Why is it they are always right?

Pull Fingers

Dear Sir,

I am writing to say its about time English musicians started to pull their fingers out and got down to some hard work.

After coming back from the States and comparing our groups with theirs, we are put to shame. Now you might think, who the hell does he think he is, well it's about time something was done about this and as a musician myself I realise how serious the situation is.

In recent issues you have had many letters about live and disco music and all the pro's and con's, well it's about time the complainers, braggers, boneheads and shit sturrers buckled down and started to practise what they preach.

Too many groups in England get away with murder playing crap in clubs they call music and half the time if it wasn't for the fact the singer told you what the song was, you could be listening to the same Three-Chord-Wonders over and over again. A lot of groups turn up late, have equipment troubles, have no stage lighting and when they get around to playing look as if they couldn't give a toss. What gets me is they only have to do 2 hours, where in America 4-5 hours isn't unusual and if they don't repeat a song once it's because they came on late so the time was tight. No wonder discoshave taken over, clubs won't pay money for rubbish and that's what a lot of groups are. As things are people won't see live bands in many clubs and discos for a long time, groups have spoilt it for themselves by this general attitude towards music, this unfortunately leaves the rest of the groups who care, out of a job. It's alright going on about Cowboy discos, what about Cowboy groups who get away with crap that they call music, what's more they can't play properly, they use inferior equipment, and it takes all night for them to tune up, and when it comes to show for money you might as well watch a party political broadcast for a few hours; at least they're more entertaining.

Now I'm into any music so I'm not taking sides as this letter is directed at all groups not just pop and Rock.

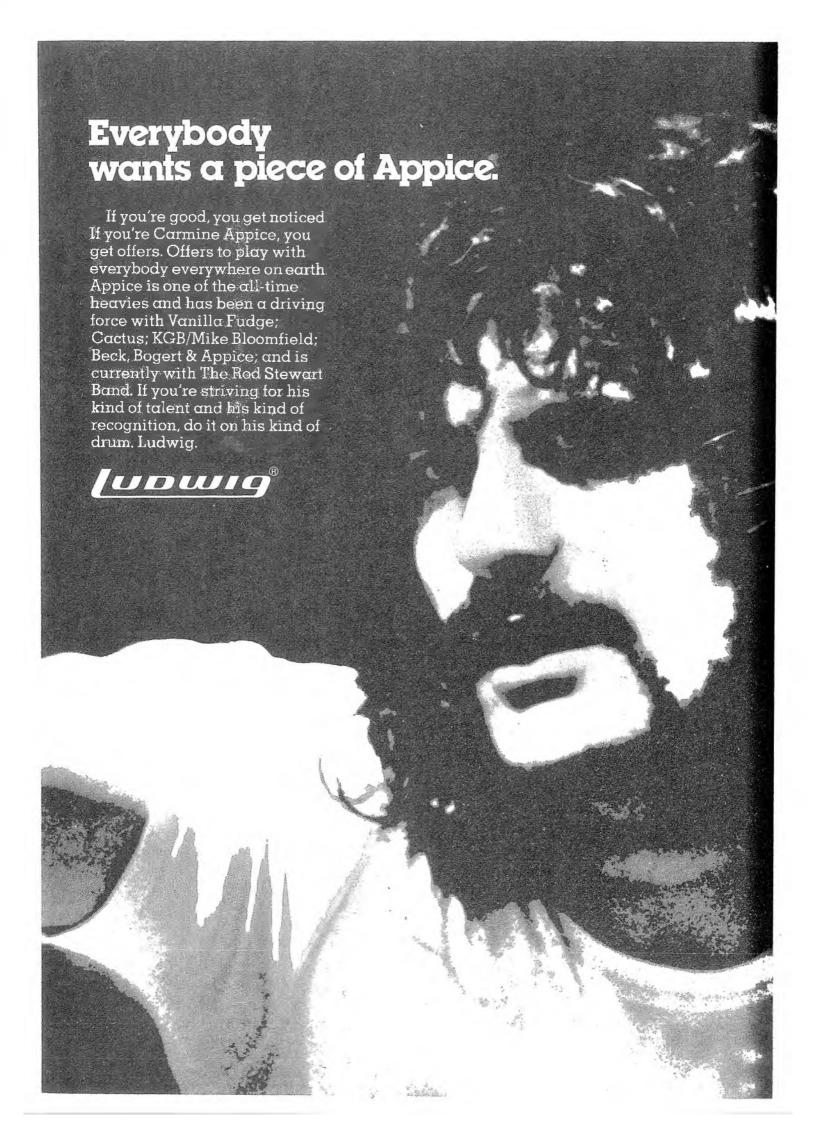
In America it's just the opposite; if you're no good you don't stand a chance as the competition is so hard. Nearly every club and disco has a live group on at least once per night and they have to play for at least 4 hours, with 10 minute breaks between sets, and they can produce excellent music perfectly played, well rehearsed, good sound mix and an overall varied entertaining night without repeating any one song.

If an English group had to play for that long it's a good chance a few songs might be played more than once.

I'm not slagging any one group but I am just saying that what it all boils down to is if the general public wants the best, that's what they should get. So it's our job to tell these Wazzers who reckon they can play to thin out and let the men show them who's boss, then we can get England playing better than anyone.

Meanwhile I'm thinking of opening a rotten fruit stall; in some of the local clubs I think I could make a fortune.

Keep Music Live. M. Gorst SE STBD Mess HMS Hermes BFPO Ships, London.







IF FENDER PUT THEIR NAME AND EXPERTISE BEHIND ANYTHING, YOU CAN BE SURE A GREAT DEAL OF THOUGHT HAS GONE BEHIND IT.

It can't have escaped your notice that Fender have been involved in the folk and classical guitar field for some time now and to our gratification guitar pundits, experts, players and

musical instrument dealers have unanimously voted the project a 100% success. Isn't it time you matched your fantastic Fender electric with a Fender F Series — for folks sake,

Be sure to 'try one on' on your next visit to your local music dealer.



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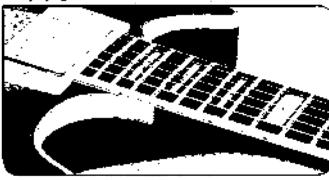
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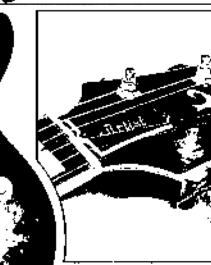
And of course, the Artist EQ is backed by the Ibanez lifetime warranty.

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By Steve Rosen

Frank Marino has been attacked from all sides musician and critic—as bringing nothing new to the electric guitar. They claim he is simply a rehash of passed Jimi Hendrix phrases and knows nothing of originality. Wrong. 23-year old Marino, a Canadian resident, has created a style of guitar playing one might simply tag electric. He pushes the sound through phasers, fuzzes, and fusions to create a sound recognisable as that of Mahogany Rush.

There have been stories about how he first started playing; of how after a bad clash with drugs he suddenly realised a "vision" and was able to play. Not so. While in the hospital Marino whiled away the time on an acoustic guitar and when he was released he formed Mahogany Rush — his first and only band.

Now six albums later Frank Marino is spoken of with far more reverence. True, he does admit his biggest influence to date was Jimi Hendrix. And he does acknowledge the late great one's contributions. But Marino is donating heavily himself and there may be a time when up-and-coming players see him as a potential heir to the guitar throne.

What type of guitars are you using now? The guitar I use now is an SG Les Paul Standard (Les Paul name with SG body). I have this one rebuilt every year because I beat the hell out of it. I bang the neck — bang, make the sound — and hold it by the neck and kick the back of it.

What types of amps are you using?

Acoustic 270 tops with homemade bottoms and JBL speakers, K140's. The amps I'm using presently are not my conception of the overall best sound. I mean I'm still looking for a good amplifier and sound. I use two heads and four bottoms.

Are there certain settings you use for tone and volume?

Yeah; I tend to use the treble full with the bright switch on; midrange at half; bass on full; amp (volume) on half; and the graphic almost flat but up in the higher range and down on the high end. That's not that I like treble, mind you, I don't have a trebly sound. It's just that they don't make treble in those amps.

What type of amplifier would you like to change to?

If I knew I'd go get it today. I know what I want it to sound like but I don't know how to go about gettin' it anymore because things are made crappy. I used to use Fenders, old Fenders, and I used to



use all sorts of things, anything I could get really.

You use quite a few pedals on stage; what is the exact setup?

I use two Crybaby wah-wahs for failsafe; if one doesn't work, go to the next one. I use a Big Muff fuzz; I use LPB1 boosters and I'm also using Hawk boosters now. Boosters are all the same, they're all crap. I use a Uni-Vibes which I don't use; I use an Eventide flanger which I use heavily; I use a Maestro pahser as a backup, it's a failsafe to the flanger. I didn't want to spend S800 as a backup so I used my old Maestro phaser. I use an octave divider. Actually throughout the course of a show I may use four pedals. Oh, I also use Echoplex but they're garbage now.

Do you use any digital delay effects?

No, I tried a harmonizer and it sucked. It doesn't do anything; it gives you an oscillation which is a little bit in harmony to your note and kind of out of tune. It's got a DDL in it but to spend \$3,000 on it! No, you don't need DDL unless you're playing clubs and dry halls. If you're playing halls who's ever going to hear your DDL? It's like these guys who spend thousands of dollars to make their guitars in stereo and they put two amps on each side of the stage and they think it's real cool. But who knows it five feet from the stage? If you're playing mono, monitors, and a sound system, they wouldn't know the difference. Guys that spend thousands of dollars trying to think up ways to convert one pickup for each string and run it into six amplifiers with a big multicable so that when they do a run the thing can go all the way across the stage,

right? It doesn't work; you've got to be practical with pedals. You've got to use everything you can, everything you can get but use it wisely. You've got to use your tremolo arm, your wah-wahs, you've got to use your boxes. You've got to use everything you can get if you're going to be an *electric* guitar player. Otherwise you're not an electric guitar player.

What is your concept of electric guitar playing?

My concept of electric guitar playing is taking a sound inside my head and that's very weird in my head. Some people say it comes out as a woodwind; but in my head it comes out as electricity and it has to be done through electricity. Electricity is the most potent form of harnessed energy and when you utilise that harnessed energy and use it to actually create impressions of things you're thinking about or feeling or things that you want people to feel or think about when you're truly an electric quitarist.

I'm always going to use everything I can; I think people have forgotten what the electric guitar is. I think that a lot of people actually think the electric guitar is dead and in fact the electric guitar is not dead. And I'm probably one of the few people alive who's proving it. There's never a point where you spend more time trying to press the right pedal than you do in playing?

It comes so natural; you say, 'Alright, I want a horse' and I can make a horse; 'I want a jet copter' and I can make a jet copter. Things that I can't really describe in this world and you can make them if you take the little bit of time you need to make them. And then it comes so

POWER TO THE PEDAL SAYS FRANK MARINO, GUITAR "TECHNICIAN" WITH MAHOGANY RUSH.

natural, it's like walking. They say, 'How do you do that?' and it's so simple but they invariably turn on two or three things at once and it just sounds scrambled. But I can do it because I know how to drive the thing.

All the pedals are built into one special board?

Well, no, it's a board and it's all wired one to another but it's not built into any special board. But really the guitar is so great in itself.

I don't believe that garbage that all the licks have been played. Maybe all the licks are being played over and over again but that doesn't mean all of them have been played. And I don't believe it's gone half as far as it can go, Even with Hendrix who definitely took it the farthest. He was the big daddy daddy. But papa's gone away and the mice will play. Did it take a while to feel comfortable with the board?

No. it didn't because of two reasons. Number one, I built the board slowly as I started playing; I wanted this device and then I hooked up the next device thought about how I was going to do it. As a matter of fact sometimes it even took me a year to get around to realising that the fuzz sounded better before the wah-wah than after the wah-wah. But that's because I bothered to experiment with it: I just happened to hook it up in the studio any old way and it takes time to realise these things.

If one pedal goes out the whole board is inoperative?

The way I've got it now, yes it does. Which is very bad but it rarely, happens and usually if it happens we'll catch it before a show. It has happened during a show. We've had all kinds of weird things happen during a show. I've been playing guitar and what I do is I throw my guitar up in the air and when it came back down the cord whipped like a snake and wrapped around my fuzz volume dial and shut it off. And this was in the strobelights and immediately the sound went phfft and the strobelights were still going. And I know usually what to do in a case like this; none of my crew really knows what to do with my pedal board but I know what to do. And I immediately check the obvious things -- the switches, the boosters, this and that and I'm fooling around with the guitar and it's like dead silence. I didn't find it because I didn't think a cord could whip through the air and hit a dial that

small 20 feet away and turn it off, And they only found it after the show - the show was over at that point.

How do you keep the pedals from drawing too much power from the amplifier? Boosters; that's why the Hawk boosters are there. Let's say I have ten pedals -I'll put in a booster and bring it back up to level; then I have more pedals and I put in a booster and bring it back up to level. But placement of the boosters is very important because for instance you've got a sequence here of wah-wah and a phaser and a flanger and an echo. Now, put the booster at a certain place and turn on your flanger and you're going to hear too much swirl; but put the booster prior to the flanger and you get the same amount of flange but you won't get all the noise. Also those boosters tend to be microphonic and they'll pick up hums and all sorts of weird audio

My pedal board is a caveman, archaic structure; it's like a real big monster, a mess. And these guys come with their newfangled pedal boards and all their and hooked up the next device. And It little doodads with led's and everything and they all sound like crap. Once they go to low impedance to high impedance to low impedance, they try all this to try and get away from having noise and they lose the effect of the pedal. It's like taking an Echoplex or one of these pedals that sounds good by itself and taking it to some technical company and telling them to build the same pedal with the same components. And invariably the thing comes back and doesn't sound good at all. Because sometimes you need the crap to make it have the life.

You use a cordless guitar?

Yeah; that's been about two years now. On those SG's that I've converted to sound like Stratocasters by putting Strat pickups on them, I've had like a glass plate but on the front. And I invariably step on my jack and I've cracked so many plates and when you crack a plate you have to have a new one made. It's not something that's mass produced. I go to do a move and I get it (jac) on my heel and I'd crack the jack out of the plate in the middle of the show. I'm off on stage right somewhere and there's no way to fix it; get another guitar somewhere.

Going wireless for me was basically for me just to give myself freedom of movement. I want to learn how to dance, I want to learn how to really dance when I play. I still can't do it; I can move and I can imitate and emulate but I can't dance like James Brown. And that's what I want to learn how to do. I want to be like James Brown - one foot, two foot, turn around on the souls - and do a number.

So you think visual is an important part of guitar playing?

I think tasteful visual is an important part of guitar playing as much as tasteful guitar playing is an important part of guitar playing. In other words the fastest quitarist in the world playing his scales up and down is garbage. Because he's not playing with any kind of feel or any kind of taste whatsoever. He's not following the chord structure, he's not making notes, he's not making moods appear. The same thing with a guy who moves on stage like a lunkhead; I mean you get some guys who move on stage and it's like they have no knee joints. They'll just bounce around straight-legged and look really dumb.

You mentioned earlier there are still a lot of licks yet to be played; what do you think about when you play a solo? I don't think; if I'm thinking at all when I'm playing I'm not playing. Because when I'm playing I'm not thinking. Thinking is the limiting factor to how well you play. In other words if someone goes and says, 'I saw Frank Marino play last night and he was incredible' then that must have been because I wasn't thinking. Because as soon as I start thinking I start messing up. You've got to get out there and try and put yourself in a state where you're not thinking and it's the hardest thing to do. It's so hard - for me anyway - that one out of fifty gigs is what I call perfect. Last year we did 53 cities in the States and 3 of them I played well.

What types of actual scales do you work from though?

I work with a lot of blues, blues is where I'm at. Blues and where blues has led other forms of music. Blues is like an all-encompassing thing; some people think blues is so limited but it isn't. If you know how to play the blues, how to change with the chords, how to do transitions, then you're getting into jazz. And if you can do blues and jazz with feeling you can do rock. Now if you can only do jazz there's no way you can do rock. But you get these guys - George Benson who are the greatest technicians of jazz today and he's got a lot of feeling and he's one of my prime all-time favourites and if he tries to play rock scales or bend it's dumb.

RUSH JOB

"THE FASTEST GUITARIST IN THE WORLD PLAYING HIS SCALES UP AND DOWN IS GARBAGE"

I try to be as versatile a guitarist as I can and not be afraid of my musical ideals. If I write a tune that is totally not Mahogany Rush like 'Look At Me' on the World Anthem album and it sounds like cocktail music, I'll play it. I'll play it because I'm going to let the music go wherever it goes. I'm never going to hold it back and I'm never going to force it to go anywhere. And that's what makes a musician grow. Some guys write a song and they get petrified; they go home at night and have nightmares that they wrote a song that isn't in their vein of music. They don't want to change, they're afraid of change.

You use your vibrato arm quite a bit

I will not play a guitar that doesn't have one. If I play a guitar without a vibrato arm I probably won't use it for a lot of numbers; but whenever I play one that doesn't have one sure enough I got to have a vibrato arm. I just had an idea for a vibrato and it ain't there. That's why I've got 22 pedals down there on the ground; if I want to do it, it's there. I don't use them, I use 4 a night.

People say, 'Oh, he only uses his pedals'. To heck with them, I'd like them to come and play my pedals. There's an art to it. At least I can come and do any of my recorded effects live. Without somebody saying well he used the DDL in the studio and he used this and that he comes out dry through a Marshall and can't do nothin'. If they want the 'Dragonfly' solo, I'll give them the 'Dragonfly' solo; if they want the 'Moonwalk' solo, I'll give them the 'Moonwalk' solo,

What equipment do you use in the studio?

When I go in the studio I set it up just like on stage. Unless I'm getting funky and trying new things, Bring me in a Princeton, I love doing that; a small Fender amp, There is nothing like a small Fender amp for doing rhythm tracks and blues and soft things and jazz, Kenny Burrell and all that kind of stuff. The reverb on a Fender is primo. My Acoustic reverb is the pits; I'm gong to get rid of it and get a Fender reverb unit. I'm a reverb freak, I think too many guitarists have gotten dry. I think it makes everything sound warm and stick together. When it's dry you say, 'Well the guitar is on the left side of the speaker and the drums are on the right' but when you have a little reverb on everything you have something holding it all together.

Do you play much acoustic guitar?

Yeah, I play it all the time. And you wouldn't believe the stuff I play on acoustic guitar. I don't mean that I go and play a lot of fingerpicking, I'm talking about schmaltz. Playing The Shadow of Your Smile' and 'Chestnuts Roasting On An Open Fire' and things that give me pleasure to play. I'm happy with one fact — I can sit down and play my guitar.

I have a 12-string Epiphone, an Takamini 6-string and an Ovation nlyon string. The Ovation is an electric nylon string.

I never have played any acoustic on stage because I don't know if the (audience) would accept it. It's hard to say; they might or might not.

What special techniques do you use in the studio?

When I'm in the studio I try to do everything that I possibly can. From putting garbage cans up on the walls; the amp on one side of the room, a garbage can on the wall on the other side, and miking the garbage can to get the difference in sound. I try to do everything I can because I want each song to be varied. And a very good example of that is Mahogany Rush IV. Where every song has a totally different mood; on 'I'm Going Away' I'm working with harmonies and 7ths. And I put mellotrons on that, That's a beautiful tune, I think the guitar work on that is really inspiring. On Man At the Back Door' I was working with echo repeats; I was using echo repeats to create syncopation. In otherwords if the song is 1-2-3-4-5 timing we'd use an echo repeat to syncopate with it.

Do you play slide guitar?

I play slide with my tremolo arm, it's my own invention and you will never know the difference, I couldn't play slide so I developed this, I play a different assortment of notes than I'd normally play and you don't bend; you do all the bending with the tremolo arm, You have to pick every note cleanly and use the arm to give the slide effect. I can play a lot of licks with my arm that you really wouldn't think are arm, But if I could play slide like Johnny Winter I'd throw away the remolo arm for that.

is it easy for you to develop solos in the studio?

When I'm in the studio I try not to do ists should say solos. If we're doing a rock and roll tune where I can't OK but if I'm doing something like 'I'm on that instru Going Away' I try not to do a solo. I I don't want try to do notes that will fit the tune. I finding things.

don't want people to say to me, 'What does that mean? Why is that solo there?' I try to paint the picture. I'm a guitarist so I do it with the guitar, if I can't do it with the guitar, I'll do it with the synth; if I can't do it with the synth, I'll do it with the mellotron; and if I can't do it with that I'll do it with my voice. It's all what the song needs; never mind showing your flash or what you can do or how fast you can go or how loud you can be or how hard you can be. Do what the song needs, if the song needs that give it to the song. It doesn't matter if it's not you.

What kind of picks and strings do you use? I use heavy picks and very light strings; Fender heavy picks. They're also good because they stick to your forehead. Honest. Let's say I'm doing a thing and I've got to get rid of the pick because I've got to start picking, I'll just tap it on the forehead and it sticks. Static electricity. I'm not too happy now with my strings. I'm trying these GHS things now. I was using Fenders for a long time with Rotosound .007's because I couldn't get .007's in anything but Rotosound. I will never use D'Addario and Bullets I didn't like at all, Now I'm using a lot of Ernie Ball but they're crap. I got these GHS's, a couple of .007's and .009's and I put them on the guitar and they didn't break. I'm going to try the whole set now instead of just the high strings. Ernie Ball low E strings have to be the murderers for losing their sound in an hour and stretching out of shape; the 12th fret harmonic goes out in like an hour. They come on so bright when you put them on and then they just go so dead.

I'm able to get enough sound out of the light strings only because I use so much amplification. A lot of times when I go play with bands or jam in bars or if I work in a studio on somebody else's album I just use what they give me to use. They give me their guitar and their amplifier and it invariably has heavy strings on it and I just play what the song needs with that. I don't try to do what I would do on mine.

What do you see in the future for Frank Marino?

To prove that the electric guitar is not dead lest any of those intellectual guitarists should say so. When I reach the point where I can't find anything more to do on that instrument, I'll hang it up. And I don't want to hang it up so I'll keep finding things.





Any Key in The U.K. By Edmonn Pe

Allan Holdsworth is often referred to as a "jazz guitarist" although he hates the tag. Although he is virtually a household name in the business, he only turned fully professional when he joined Jon Hiseman's Tempest in 1970. Since then, he has consolidated his reputation as a fine guitarist with Soft Machine, Gong, Tony Williams' Lifetime and Jean Luc Ponty. From these bands, it's obvious where the "Jazz" image comes from. He has never, in his professional career, played with a real mainstream rock band and it seems that any band who occasionally veer away from 4/4 time become labelled "jazz" automatically. His latest venture is a unit called U.K. consisting of Bill Bruford, John Wetton, Eddie Jobson and Allan. They have just released their debut album and are currently on tour in England.

When and why did you start to play guitar?

I started when I was about 16 or 17 after I left school because I'd always been interested in music. My father was a pianist so I was exposed to a lot of music at home. He was like an inspiration to me really in that he often presented me with things I wouldn't normally get to hear. He helped me a lot in that way but I never actually sat and down and learned to read music.

What kind of band did you play in first?

They were a few semi-pro bands from around Bradford, where I was born. It was all workingmen's clubs and that type of thing. After that, I got in one of those Mecca bands in Sunderland and Manchester and played with them for three years. I eventually met Ray Warleigh, the alto player, and he told me that he had a spare room in London because I wanted to move so I stuck it out with the Mecca band for a while and then decided that I couldn't take it any more. I left to go down to London and moved in with Ray. I couldn't have done

it without his help, really. It's pretty hard if you don't know anybody.

I was lucky really because I hadn't been down very long and somebody told Jon Hiseman about me and he called and asked me to play and that brought about Tempest. That was my first pro band. I left Tempest in about 1972 and a couple of months later, joined Soft Machine. That was an accident, it was through a Musicians' Union clinic. They wanted Soft Machine to do a clinic but they also wanted a guitarist so they called me separately and told me we could rehearse a few things before the clinic. I just learnt a couple of their simpler numbers and we did them. Afterwards, they asked me to play a few gigs with them, as a quest. That's how that started and I just gradually sort of . . . stayed.

What kind of music were you listening to when you came down to London?

Well, all sorts really. From extremes to extremes, I listened to a lot of classical music, not classical guitar music so much, but a lot of violin music. I like jazz as well. I don't like the word 'jazz' but I like anything to do with improvisation. Like, classical music is virtually just one guy's improvisation but it's not spontaneous.

How did U.K. come about?

Well, it had been going for a while before I knew anything about it. John and Bill got together first and then found Eddie and, around that time, I met Bill who asked me to play on his solo album. I was introduced to the other guys and that's how it happened. Nobody actually knew it was going to work or whether we'd get on together 'cos there are a lot of differences. That's probably one of the things that make it good.

What guitar are you using with U.K.?

Basically I'm using a Strat. It's got DiMarzio PAF pickups now. Before that, I had Gibson pickups. It's just got a volume and a tone instead of one volume and two tones. I also did away with the middle pickup. The toggle switch is just an ordinary three-way. It gives you either pickup or both. I like it because it's really simple. I like to keep the guitar as simple as possible. I chose the DiMarzio PAF's because they're supposed to be an authentic reproduction of the original Gibson pickup. I found with the DiMarzio

ALLAN HOLDSWORTH, THE COMPLETE GUITARIST.



Super Distortion pickups that, although they're very loud, the sound isn't as good. I don't know why, I'm not really up on what you can do with pickups. I know that if you go over the top with the windings, they become self-inductive or something and I know that if the magnets are too powerful, they'll stop the string vibrating which is your source, really. These pickups are really good. I can't tell the difference between the PAF's and the original Gibson ones, but I can tell the difference between the PAF's and the Super Distortion pickups — they're very different.

Are you after a Gibson sound with a Strat "feel"?

No, I'm not particularly after a Gibson sound. I feel the Strat is potentially a really great guitar but what lets them down is the pickups. The reason I like Gibson pickups or pickups like Gibsons is because they're humbucking. I always use high amplifier settings. If I use a non-humbucking pickup I get lots of problems with buzzing and things. Obviously a double-bobbin pickup is better in that respect and I think they have a bigger output too and obviously, if you're going to get it from anywhere, you've got to get it from the source.

What amplification do you prefer to use?

Well, I've used lots of different amps. The one I use now is a Marshall 50 amp with two 4x12 cabinets. I like to have a lot of speakers and not much amp. I don't like the speakers to distort.

Have you any other guitars?

Well, I'm having another one made by Dick Knight. He did a lot of work on my Strat. It has a very wide fingerboard. It's 1% inches which isn't ridiculously wide but certainly wider than most guitars these days. The fingerboard is very flat because I like the flatter feel, original Fender fingerboards were cambered. In fact, Dick virtually made the He's making another that's quitar. almost ready which is really nice. I'm still going to have two pickups on it instead of three but I'm gonna use the DiMarzio Strat pickups with the adjustable pole-pieces. I really like Strats 'though, the design is amazing. I also use the tremelo arm a lot and the Strat tremelo has got to be the best one ever. The whole thing moves so you don't get that "sawing" effect which pulls them out of tune. I have an old Gibson Firebird with their vibrola on and, when the strings move back and forth over the bridge, even though the tension's pulled up to where it should be. If a winding gets caught up on the bridge saddle, that string will be flat or sharp according to which way it gets caught. That doesn't happen on a Strat. I've heard people say that they can't keep Strats in tune with the tremelo arm but mine never goes out of tune.

Have you taken any springs off?

Oh yeah, I've only got three on there. It just matches the weight of the strings on there. If you put heavier strings on, then you'd possibly need more springs. I don't think anyone needs five though.

Any other guitars?

I've got a Gibson 12-string. It's like the 335 but it's really narrow at the nut so I don't like it much. Unfortunately, there isn't much choice with 12-strings because I've looked around and I couldn't find one electric 12-string. Nobody seems to stock them. It's OK apart from the narrow neck. It's narrower than my Strat and it's got twice the number of strings! I don't suppose I'll be playing it that much. I have an Ovation acoustic guitar. The only reason I bought that was because it's amplified with that bridge thing. It's much better than the Barcus Berry. You can get more volume without feedback. I've also got an ibanez L5 copy and that's beautiful. It's the best acoustic I've ever heard. I used it on the album. I've finally found a guitar that I can play my own way. It's not very loud but it's really nice for recording.

You don't use any effects do you?

No, I don't really like them. I've probably said this thousands of times but you can practically tell when a record was made by what's on it. 'Oh, that was made in 1973 or 1974 when they invented phase shifters and that sort of thing. I tend to avoid that and try and get the best sound from the guitar itself.

Where did you record the album?

At Trident. The only time I've used Trident before was when we mixed a Gong album there but it's great, a fantastic place, the engineers are great. We produced the album ourselves. I think it needed to be done like that really this time. Because the music wasn't written by one guy, it changes from player to player as it goes through each piece. It might be better to get an outside producer for the next album because he'll have a chance to listen to the material first but it was better this time if we produced it ourselves. And besides, we had Steve Taylor as an engineer and he's fantastic!

Were there many overdubs?

Well, there were some, not an awful lot. We started with bass and drums mainly. That's a thing I'd never done. I don't like that way of working at all. We're going to do it different next time.

Can you pinpoint any one particular influence that helped you evolve your style?

Well, I think I was influenced in that I think I wanted to play a different instrument to the guitar! It started very early when I was listening to jazz records. The guitarist would be playing well but I was often more impressed musically with the sax solo. That's what inspired me really. I wanted to get a more horn-like thing out of the guitar. It's very natural. I didn't consciously go out to do that. I knew I loved that but I didn't know that I was approaching it differently until a few years later. I just like that sort of liquid thing as opposed to guitars with a machine-gun feel. I really like it to be like . . . water. It's more like patterns as well. I know people mock guitarists who play fast things but I don't think of it in terms of a stream of notes. It's like a pattern, you create a pattern or a colour that you see as one. It's like a colour that appears before your face.



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"CHEAP TALK"

Rick Nielsen was born in Chicago but he won't tell you when. He's played on numerous other records as a session man but he won't tell you with whom. There was a rumour that he replaced Jeff Beck in the Yardbirds for two weeks but he will neither deny nor confirm it.

Nielson, in other words, is not your common variety of guitar player. He plays with a reckless style and at high volumes but his sense of melody is sweet and warm. He combines a European flash with an American economy in his playing and is continually experimenting with new guitars and sounds.

He works Cheap Trick 300 nights a year and they are quickly becoming a well-known entity. But Nielsen will never follow the mainstream so read what follows quickly before he decides to become an airplane pilot.

How long have you been playing?

I've been playing for a number of years and I've been collecting guitars since 1960 when I got my first Les Paul, a 1955 Les Paul that I still have today. And that was the beginning of playing really nice guitars; I'd had two-bit Sears-Roebuck guitars but they never made any sense. And I had pianos in the house and my parents were opera singers so there was always some sort of instrument around the house if not a voice.

Did you ever have any training?
No, I never took any lessons at all; I did take drum lessons from a very famous rudiments drummer whose name was Frank Arsenaldt. To drummers he might be known but to other people probably not. I don't know what he's doing anymore but I think drumming is a good base to have for playing rhythm and lead guitar.

What was the first semi-professional band you were involved with?

Well, the first live performance I made when I was two years old; I walked on the stage at the Met where my father was performing "Aida". I just happened to walk out and my babysitter wasn't watching me and I guess I got a few laughs so I've been at it ever since. And I really have never even played "Aida"!

At what point did your guitar playing really come together?

Oh, about 20 minutes ago! I don't pride myself on knowing that I'm technically this or that. I play by feel and when we do records I don't sit in there for three hours trying to get the same thing over and over. Every take I take is different. So the producer and myself have to decide which take we're going to use because I do change it all the time. I don't try to be like Steely Dan where it's pretty straight and they know exactly where the notes are going to fall. A lot of mine is feel and that's the way I feel best doing it. So far it's worked - we're making records so that's pretty exciting to me.

Steve Rosen talk to Cheap Trick's Rick Nielson



When you record a solo then it might be a first take?

Oh yeah, a lot of times. That's the whole band though. We play so much that a lot of tracks we've done on albums have been first takes. Once you get the sound then you're all set. Because we know how to play, it's not like we go in there and we're learning and throwing the things together. We've got it down and we all know how each other is going to play so the fills and the spark seems to hit off just at the right time

What type of guitar are you playing now? On stage I have two Hamer Explorers, a '58 and a '59 Gibson Les Paul Standard, I have four Stratocasters — a '56, a '57, a '58 and a '59 all with tremendous vibrato arms which I love — a '52 Tele, a special custom-made Gibson I had made for me, a '58 Flying V, and a Hamer mandocello which has eight strings — two C's, two G's, two D's and two A's. That's about what I bring on stage with me.

Which of these are your main guitars?

I use them all, I use every one of them. Maybe not each night but I've got a guy who works with us whose name is Dave and he does all the guitars for me and he does all the guitars for Tom (Petersson, bass guitar). At a certain portion of the show I'll point to a guitar and for the next song he's got it up there for me. We really change every night. I've got interesting guitars and I like to play and I like to toy around with 'em so a different one here and there is always fun.

Is there any guitar you feel most comfortable with?

No, I can make almost any guitar sound terrible! It doesn't make any difference to me.

You mentioned the vibrato arms on the Stratocasters as being "tremendous"; has any work been done with them?

No, I try to keep all my guitars stock even down to the tuning pegs. I like the Strat and the vibrato bar; hardly anybody really uses it anymore. It's a shame because it's really like a new dimension. I mean it's an old idea but it's like a new dimension to music because really not that many people use it. If they use it they use it so bad they sound like the Ventures instead of somebody taking a chance.

Was there any guitarist you listened to who was using the vibrato arm?

Well I think may be when I was learning the guitar they were doing things and I'd end up learning how to do it without using a vibrato bar; just by doing these crazy bends, warbles and twangs. And then finally you find out you can do it with a machine too. And so you go with that. And even today I'm one of the few guitar players that plays two or three guitars at once instead of like a double-neck.

How is that done?

Well, part of it is a big secret but some of it is I'm sort of ambidextrous so I can

play left and right-handed and I can play on top of the neck and underneath the neck and over the neck. But I don't play with my teeth because I respect my teeth too much. You see I have a lot of guitar picks, my teeth aren't insured but the picks are.

Has your vibrato arm work just recently developed?

No, I've been using Strats for years and one of them I've had for ages. People don't know about me just because we've only been making records for the past year. To a lot of people we're a new band; 'Hey, this is new or hey, that's a new idea' and it's just because we were known in a certain region and not having records. We're new to the west coast and we're new to Japan but if they knew our backgrounds then they'd know that Tomand I have been playing together for over ten years. Nothing we've done has been overnight even though it's going real fast and we love it.

What kind of amplifiers are you using? On stage now I've got five Marshall 100 heads and six Sound City bottoms all from 1968. I bought them in 1968 and I liked them then and I like them now. And also I use a Fender Deluxe; mainly I use that for me, it's aimed at me on stage. So if I wander to one side or the other of the stage I can always hear myself if it's shooting across the stage. That's what I use that for.

Do you use fixed settings on the Marshalls to give you the right sound?

Yeah, well I set them up different because I always have at least two of the heads on and one I'll have real clean and one I'll have dirty. And then the guy who mixes me at the board, he'll have two or three different mixes he can use at once. If he wants it a little dirty he's got that, he can shove that up at a certain spot or if he wants it extra clean for a rhythm spot he's got that. We leave a lot up to the sound man. And I think you have to today because it's not like you go out there and everybody plugs in and hopefully the audience hears you from the stage. That's not how it works anymore. You play big halls and you have to rely on the sound man. We have good people. Do you use any pedals or gadgets?

Yeah, again I've got a Vox wah-wah from 1968 that Todd Rundgren gave me, he threw it out. He went and bought a synthesizer. And I also have an MXR phaser that I don't even know when it's on, I can't really hear it too much on stage. Really the effects I do use I use at a minimum and I let the PA man do most of the stuff. Like if there's a phase it comes out truer than me screwing around with all the miles of leads that I have and me running back and forth and have to worry about pressing a button at the right time. It hampers the playing so I just tell the sound man where I want something. Do you use the same setup in the studio? Yeah, I mean I won't have all six buttons running at once in there because you just Do you play any slide guitar? don't need it to get the sound. Because in there you can do an overdub or you can do this and that.

Do you play any acoustic guitar?

Oh yeah, I have an 1864 and 1865 Martin and one of them has violin tuning pegs which is real rare. They're like regular violin tuning pegs, they just stick right through the wood, there's no metal involved at all. Six ebony pieces. They're sort of interesting; they look more interesting than they sound because they don't play that hot. Being that old they're just real dated guitars. For collectors they're interesting.

You play acoustic guitar on record?

Oh yeah, but when we've done records I really haven't done anything as far as bringing my own guitars; we'll rent guitars because I don't have any new Martins at all. I'll usually rent a D-45 or a J-200, whatever I need. I go in and try out stuff but the actual model numbers I couldn't tell you, I'm not that aware of acoustics. I don't even need them for live and we play 300 nights a year so that's all I'm really concerned with - live shows. And then what comes with being in the studio I just rush out and try about two or three and take one or two into the studio with me. But we usually use those only for effect because live or in the studio it's a real rockin' band and we go

What kind of picks and strings do you use? Well, I have my own picks made for me. the Rick Nielsen Cheap Trick picks, They're like the old Fender mediums and they're white because I throw them in the air and try to catch them all the time. I remember when I used to be in clubs that was the only way you could see them because the clubs were so dark so I'd have white picks. And I just kept using white picks but now I have my own made because they make them better; they make them exactly the way I want them. The exact weight and size. And we buy about 100 gross at a time because I use a lot of picks.

And as far as strings, the guy Dave who works on the guitars actually has certain gauges he uses for different guitars. I know for some of them he'll use pretty much a straight Fender Rock and Roll set, the light gauge. But a lot of guitars I use have a pretty heavy gauge of strings; it doesn't sound like it the way I play because I've got strong fingers from pounding it so hard. And like Tom, he has two custom-made basses made for him by Hamer; one has 12 strings and one has 10 strings. Three G's, three D's, two A's and two E's on the 10-string and three G's, three D's, three A's and three E's on the 12-string. That's what he uses now. In the studio on our new album if you listen to the cuts a lot of times, it sounds like there's more instruments going on but it's actually the overtones

Well, a lot of times I'll use the mike stand or I'll play slide against my Sound Citys; or I'll grab another guitar and rub the neck against the strings. I don't try and do it the conventional way because I don't think I'm the conventional type guitar player.

What other techniques are solely yours? Well as I said I play two or three guitars at once which I haven't seen many people do. I have some of the finest angles at which I play; very technical angles. You have to go to a school to learn some of these. One of these days I'm going to be opening a school for guitar angles. And I have some advice for a lot of guitar players – to be a somewhat original type guitar player listen to our records to get an unconventional approach but at the same time it's 4/4 rock. And also everyone that wants to play guitar should go out and buy a cello and learn how to play rock and roll riffs on a cello. after you've mastered the cello in two or three months you go and get a guitar and everything you play will sound crazy. Because you've learned it on a cello; it's an added dimension.

You did this?

You know how to play cello?

I still don't; that's why my guitar playing sounds like it does.

You're obviously into the visual part of guitar playing?

Well, not too many people can see me on records and I think our records sound nice so , , . live I'm an entertainer. And in the studio people like the way I play there; the engineers like it, the producer likes it. But we don't really have a big audience in the studio.

Are there stock runs you tend to work from?

Yeah, E - B - A. No, I'm just kidding. Every song if it needs a solo, great, if it doesn't need a solo I'm not the kind of person who puts one in just because it's, 'Alright, we've done two verses and two bridges, now let's go into a solo.' I don't care about that; I think the songs stand out enough that we don't need to add a solo for the sake of adding it. But at the same time if it needs it I do know how to play it.

When is the new album due out?

It's due the second week in May and it's called 'Heaven Tonight'. That's one of the cuts from the album.

How would you describe your right-hand technique?

I use all my fingers and all my picks, Fingerpicking plus besides just strumming up and down I pick with my fingers, I like pluck it on top. Which I think is sort of an odd approach,

What else can you tell me about your

playing?

Well, without bragging I'm probably one of the best guitar players in the world. No, I don't know what I can say. In print

no matter what I say sounds bad. At what I do I'm the world's greatest; no one else wants to be me hopefully but it's nice when I hear other bands do our material and it's nice when somebody will steal something from me. I think that's terrific.

Getting back to the Hamer guitars, what is it about them that you like?

The angles; the angles fit my personality just right. And plus they play good and they look good. They're just all around good rock guitars; I feel when I pick up a Les Paul I look too much like Charlie Daniels so I don't like to do that. Leave Charlie Daniels to Charlie Daniels.

The Explorer has nice angles too.

Yeah it does that's why it's good for me; those obtuse and odd angles fit my personality better than a nice "safe" guitar.

Has guitar pick-flicking been something you've done for a while?

I've been doing that for years; now it's 'Hey, that's a new idea.' In my career I've probably thrown to the audience about \$280,000 worth of picks! Because before I had them made for myself I was paying two for a quarter like everybody else. Now I get a little discount because I buy in such big quantities. That's the reason I'm poor; that's why I can't afford nice shoes like everyone else.

You just spend all your money on guitars? I don't pay high prices for guitars; I collect guitars because I'm a collector, I'm not a hoarder. I don't go out and say, 'Hey, alright, a Flying V, I'll give that guy \$2,000'. I don't care, I'll wait until I find a nice deal; if I don't find a good deal on something I'll skip it and let Eric Clapton buy it. He has hit records so let him buy it or let Ted Nugent buy all the Byrdlands. I'm not dying to get 'em.

You don't play any hollowbody electrics? I've got a 1958 blonde 345 that is terrific but they feed back a little too much although I could use that one because it's a real heavy-duty guitar. That's the one with the 6-way switch. Dave Edmunds wants to buy it from me; I know him pretty well now. I just met him when we played in England, he came to a couple of our shows and we went over to his house and fooled around.

Who do you listen to? Do you listen to guitarists?

Not too much anymore; the only people I listen to is someone we're on tour with. I write most of the stuff so on my free time I'm usually busy writing. Luckily my mind hasn't gone blank yet; once it starts going blank I'll probably start buying Ventures records. I heard they're good guitar players, right? Maybe I'll take a Mike Bloomfield course, he makes some of the best faces next to Peter Frampton when he plays. That's an art in itself; I mean there are a lot of guitar players who can make dopey faces but those are among the more successful dopey face makers. Let's see, who is another dopey face maker? Alvin Lee, oh he's a good one. There are some guys I've met that are in ecstasy and make dopey faces when they're using their strobe tuners. It's quite amazing, there's quite a technique to it.

What about your rhythm style?

The rhythm guitar is what it says; you go with the flow or what the song is. Or if it dosn't have that certain flow you try and make a base or a foundation that all of that stuff can be laid on. I mean if you just go into free form rhythm and just start going around then the music can get too confusing. But the way I play it doesn't ever get confining because I try different stuff but stay within a framework of being a rhythm player. Good rhythm guitar playing is a rarity because almost every guitar player gets that syndrome that they want to be Jimmy Page from Fred Zeppelin or Fred Nugent and they just want to play lead and that's it. 'Gee, I'm a lead guitar player I better play some lead.' And then the rhythm guitar player says, 'Gee, I can't get enough girls if I play rhythm so I should probably play lead too.' It's like dumb thinking but believe it that's the way a lot of people I've met have been, a lot of people aren't happy to be the this player or the that player; not realizing that, as a unit, the whole band really is benefitted by people doing what they should do.

Pete Townshend is a great rhythm player. Yeah, yeah. What group is he in though? Black Sabbath?

No, the Who!

Who? Oh, Kansas, right! Yeah Townshend is great but it burns me up though that a lot of those guys take a year-and-a-half or two years to make a record and that's an insult to me. I really think so. I can't believe it. I think these people should say they're on tour of Tasmania or on tour of Russia and sit at home rather than obviously be sitting at home. Like the Stones; they could say they're doing this and that and instead you see Mick Jagger here and there and Keith in Canada getting busted, I'd rather see them at least making an attempt to live up to what they are being musicians. Either that or say look, I'm going to quit the business. But instead they just leave the audiences hanging. Like a guy like John Lennon; 'Gee, when is his new album going to come out?' He never says anything. I like to see a talent out there working. That's one of the things we've done, we keep at it 300 nights a year. We're not at the stature of some of those groups but in many ways we are we think. The live show is the thing for you?

Well, I love to play and I like making records, too. But it's all different; in the studio it's pretty controlled and live it's real natural. We're out there playing and things may go wrong and the sound may be bad or the guitar solo didn't come up in the right spot and this and that hapoens or a guitar string breaks. We admit sometimes everything doesn't work great; a lot of bands refuse to admit anything ever goes wrong. They're the greatest and if the people don't go nuts the audience is sick. You know but sometimes I believe the band or the sound is at fault and so we go with that. But we always try and remedy that; every bit of money we ever made has always gone back into better equipment and more sound instead of more Porsches and bigger dinners and this kind of stuff.

Do you practice when you're not performing?

Always, sure. Maybe not as a band. But I mean we're always playing live and we've never had any time off in the 3½ years this band has been together. None of us has ever taken a vacation. It's just because we play all the time; if we're not playing we're making records. And that's playing, too. And if we're not playing or making records we're doing interviews like this one.

Do you use any special tunings?

It might sound like it but it's really pretty straight. It's usually E, B, G, D, A, E, but on the mandocello it's C, G, D, A which is odd. It's the world's only electric mandocello. The guy who made it for me is Hamer. I use it on the new album on the title track. You'll hear it, it's real low; the low C gives a big drone sound. It sounds like an orchestra playing when there are only two instruments; the 12-string bass and the 8-string mandocello, there's 20-strings right there droning and groaning and wailing and harmonizing and harmonicizing. It makes for big sounds and then if you do an overdub with it it just makes it even more unlike anything else that anybody else does.

Is there any interest in a guitar album? I'm sure I could do it and knowing that fact is enough. Knowing that we could do it is enough for us. I mean we'd rather make rock records that more people could understand. If you get into that, that can get to be a little much. We make records that we enjoy and plus we make them so people enjoy them. Actually, our records we listen to them; we don't make them and say, 'Uch, this is a crummy record." There's things that we would change. Anybody would say that but if we're not happy we are one of the bottom lines. Because we have to live with it; I mean the people at the record company get paid no matter what we put



Bryn Haworth is one of those rare performers who carries the reputation of being a "musician's musician". One of Britain's most inventive and melodic slide guitar players, Bryn is also a competent songwriter and performer in his own right as his last three albums show. Although he is only now breaking through in commercial terms, with a new record deal and album out on A&M Records called Grand Arrival, Bryn has been steadily playing both in America and Britain for many years.

He has spent several years in America playing with people like Lee Sklaar and Ritchie Hayward (Little Feat) but Bryn still holds on to his Lancastrian roots.

Bryn picked up his first guitar, a classical instrument, when he was 11. His parents made him go to lessons and he fought down his initial feelings of resentment and soon came to relish the instrument although he really wanted an electric guitar.

"My first guitar was a Futurama," he told us. "They were great — they used to break. As soon as I got it I was always working out melodies, especially TV themes. The classical lessons gave me an ear for melody and composition and I was really into chords.

"The slide thing developed when I couldn't figure out how other guitarists bent strings. In those days guitars had thick strings and I used to hear records by Booker T and the MGs and Steve Cropper was bending. I thought "how on earth does he do that?"

"I'd heard about blues players playing with pieces of metal for slides so I went to my mother's drawer and found a kitchen washer about ½ inch long. I didn't know about open tuning or stuff like that. When I went down to London from Lancashire and saw how guitarists were bending notes with light-gauge strings. I chucked the slide away and never bothered again.

It is surprising to learn that Bryn has never really listened much to blues as an influence on his slide playing. He claims he finds it too depressing to listen too long to the old bluesmen.

"My main influence was Steve Cropper. There's an album called "Soul Dressing" and I learned every solo on that record because I was so struck with the sound he was getting".

For a long time, Bryn used a '65 Stratocaster before the instrument was stolen in 1967 after a gig at London's Dingwalls Dancehall. He regularly uses

a fabulous Les Paul of uncertain age and has recently acquired a Gibson L6 which has the fattest frets you're ever likely to find on a guitar.

"I like the thickness of the L6 sound. I was looking for something in between the Gibson and Fender sound".

Bryn's last album "Grand Arrival" was recorded in Nashville and produced by J.J. Cale's producer Audie Ashworth. The Nashville recording differed from Bryn's previous studio experience because this time, Ashworth had lined up all the musicians and to a degree Bryn lost the control he was used to in picking his own sidemen.

"I didn't know who the musicians were or if they could play rock 'n roll. I thought it was all just country out there but it's not at all. The musicians there are really fast. They are all mature musicians who have been around for ages."

When Bryn brought the tapes back to London, A&M shut him away in a studio to mix the sessions so the guitar was more up front. Bryn however feels he's more than just a guitar player now saying "when you get into more things like writing, you're not so single-minded aboust just hearing the guitar and you



tend to arrange songs more, rather than just stick the guitar out front."

Bryn has some tales to tell about J.J. Cale's legendary old Harmony guitar. "He took the back off it and it's just incredible when you look at it. It'd held together with plastic wood. There's a big old hook in the back which holds the thing together. When it travels he spends hours just putting it back together. He got it to Australia and the neck was off. He's constantly fiddling with it and he showed me how to work the thing. There are four inputs all around the guitar. One for each pickup, because he took the pickups out of \$500 quitars and stuck them on this old \$50 Harmony, but it plays beautifully. It has a really low action and the strings are quite thin, but you can get away from Fenders and Gibsons with it.

"Anyway he let me use it. brought the Bassman amp down and I plugged it in. I was trying to work out a solo on it and it kept giving me shocks and then it would go off. Every time he came in the room it would come back on again. I used it for the guitar solo on Summer Wine off the album."

As far as his amps go, Bryn swears by his old AC30 and a Fender De Luxe. But just because something is old doesn't mean it has to be good he claims. "You can get a '59 Sunburst Les Paul and it may sound nothing. Just because a thing is desirable doesn't mean it's going to be good.

"Personally I haven't found any new equipment I like although I'm sure there is good stuff about. I don't like the transistor thing, I hate the thinness. I'm always trying to get the sound 'fat'. A Fender with a Fender is very tinny but a Fender through a good Vox amp is great. I originally got a Vox because the first group I saw were called the Vampires. They were playing Strats and the first AC30's | ever saw.

I nearly bought a Music Man for the last tour but I couldn't get it to do anything. It's a good sound but very new sounding. A lot of the new gear is very clean and new 1978ish and that's alright but I like an old dirty sound,.. They should stop trying to make new amps sound like old amps and just make them how they think they should be".

Bryn has an interesting tip for guitarists using their amps through the PA system. "What I found from the last tour was I always turned my amps around so the speakers were facing the wall. What I do is have them facing out on the soundcheck, then turning the amp around when I've got my sound. All the sound is then reflected and not blasting in your ear. You don't have it in the back of your head all the time and it doesn't leak into the vocal mike. It really helps in a tight club situation and you don't have to sing loud because you're not fighting it!

generally. It's just that you can get so many sounds you want to try. For instance, every instrument likes its own gauge any style of string, you've got to experiment. On my Les Paul I've used lots of different strings but the ones I've settled on are Regular Ernie Ball Slinkeys with a .12 top."

As far as effects go, Bryn just uses a



"I'VE BEEN BORN WITH THE GIFT OF MUSIC"

Experience has shown Bryn that he does not regard himself as being the ideal producer or session man. production with me takes too long. I like to do it but I have to spend so much time with the artists to work out the songs and arrangements and shape them. up months before going into the studio. I've found I'm not really a session manhaving had the nasty experience of being involved in sessions where you get the music stuck in front of you and you're expected to whack it off just like that. I can't do that. What I can do is if somebody plays me a song I'll play it by feel and if they want me to do a solo I'll do it straight off. Give it to me for three hours and I'll work out a part. But the thing is it takes time with me. really a drag when people say 'this is what I want'. I don't feel that's my thing".

As far as his instruments and equipment go, Bryn is always looking to improve his sound, "It's like a constant 'how do I get it better?'. I suppose I am 'neurotic' about my gear to be honest. Instruments are so close to you it's good to get them right. But the thing is you can never get them right because there is always going to be something better.

"I'm happy with the sound I get

flanger although he admits that the addition of an effect thins out his sound. "It makes you start thinking about using heavier strings, then when you use heavier strings you can't play all the songs you want on one guitar and so you need another guitar. As soon as you play your instrument with any gadget it thins it out"

Bryn has quite a radical philosophy when it comes to music. He sincerely believes that you are either born a musician with the gift of music or else you work at it extremely hard. He places himself in the former category.

"I've been born with the gift of music. It takes a long time to realise it but being born a musician means you're going to do music whether you have a record company or not. With people who are born musicians, they can't do anything else so they do music all their lives and nothing ever happens commercially but they are still working and travelling all over the world being musicians because that is what they are".

"Obviously I want to have the facilities to make records which cost an awful lot of money. It's a real privilege to make an album I feel. For me music is a way of life I can't do anything else, I'll always do it".

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The Style and Philosophy of Bryn Haworth

Manny of Nazareth

by Steve Rosen



Nazarath's Manny Charleton goes far beyond the normal confines of a lead guitar player. He produces, sings, writes, arranges. He is a curious combination of Scottish and Spanish (he was born in Spain and moved to Scotland) and the latter element can be heard in the firey and minory runs which make up the bulk of his solos.

He is the first to admit he is not a "great" guitarist in the sense of a Jeff Beck but his other contributions make up for any lack in technical skill. He is currently searching for a new amplification setup and is always looking out for the new and unexplored. In the following he talks about it all.

What was the reason for taking up guitar?

The reason I started playing guitar was because when I was 16, I got really into Elvis Presley. He appeared on the scene with 'Heartbreak Hotel' and up until then I had sort of been listenin' to my folks' music like the Four Aces and Nat King Cole. But Presley took my head off and when I saw a picture of him with a guitar and the hair all over his face I said, 'Oh, this is for me'.

My mom bought me his first album with the lime green Elvis and the pink Presley. The guitar playing knocked me out and really turned me around. I thought, 'I'd like to play guitar like that, because it was so exciting. That was Scotty Moore; plus all the other guitar players who were happening like Gene Vincent, Ricky Nelson, James Burton, Cliff Gallup and Eddie Cochran.

They were the guys who laid it all down and it hasn't really progressed that much.

When did you get your first guitar?

When I was 18 my morn bought me an acoustic cello guitar. I struggled with it for about 6 months but got absolutely no sense out of it at all. I started buying sheet music and concentrated on learning chords and how to use them. Fortunately, at that time pop music was very simple so you only needed to learn about 4 or 5 chords and you could play just about anything. I listened to the records and just tried to pick up bits and pieces.

Then in the '60's the Shadows thing happened in Britain; the instrumental quartets. Big Jim Sullivan played for a band called the Crewcuts. I listened to as many quitar players as I could like Chet Atkins - and just absorbed it all. I decided not to sit down and learn things note for note. I found it very frustrating, sitting down with a record player and trying to learn somebody else's notes; especially if it was a solo. If it was a melody then it was different. I would sit down and pick the melody out. Some of them were very Russian and Hungarian; 'Hall Of the Mountain King', for instance. Many of them were semi-classical pieces.

From then on I just went into the Beatles thing. Then the Hendrix/Cream period happened and turned the top of my head around again. So I spent a little while trying to learn a few blues licks, finger vibrato and things like that.

But I don't attach too much importance to technique. I'm not interested in being a 'guitar player'. That's too narrow for me. I've got to sort of do other things as well; I'm interested in sound for its own sake. I'm also interested in writing, producing and singing.

That's basically my guitar philosophy — just trying to be myself as opposed to sounding like other people.

Would you sit down and practice 10 hours a day when you first started?

No, but I would sit down and play my favourite record and try and learn the licks, 'Hello, Mary Lou', things like that. I'd try to play it exactly like he was playing it. But you can't do that, you can never express yourself the same way as somebody else.

When did you get your first electric guitar?

It was about two years later. I joined a band purely on a rhythm basis. I was asked to by the rhythm guitarist because the original one thought he should move up to lead guitar when the lead guitarist left. It was good because it gave me a chance to develop my knowledge of chords and develop a sense of rhythm which I still have to this day. I'm basically a rhythm guitarist. I like to put the rhythm into the band.

Were you playing lead by this time?

Yeah. I was using a Gibson. 335, semi-acoustic, a real old one. It was a good guitar and I wish I hadn't sold it. I sold it because I got fed up and the band folded. After Mark V I was in a couple of show bands that played strictly Top 20; they play No. 1 through No. 20 and then started at No. 1 again. We did everything that was in the charts, irrespective of whether it was good, bad or indifferent. I hated it but it was steady money, it got me an amp and a guitar. I got my 1960 Les Paul then.

That was during the mid-days in Britain with the Tamla Motown thing; just when the soul thing was happening — 'In the Midnight Hour'. It bored the ass of me because it was purely a rhythm guitar, just chording all the time. How old were you when you got your Les Paul?

I was 26 or 27 and this was about 1968 just prior to joining Nazareth which at that time was It was called the Shadettes. probably taken from the Shadows because they had been going a long time in the 60's and they were into a soulful thing as well. (Agnew) and Dan (McCafferty) used to do like the 'Harlem Shuffle' and all this Sam & Dave stuff. When I joined them I said 'Look this is dead, it's pointless. We should be doing something that is more relevant and more current'.

The place where music was in the late 60's was the best, it was finally happening. Everybody was coalescing things. There was so much good music and we just did all the stuff that was coming out; we did what we liked whether it was in the charts or not. Lots of Spooky Tooth and Zeppelin and the original Jeff Beck Group. We'd actually sit down and learn them and do them. Plus we were starting to get the West Coast stuff as well like Moby Grape and Spirit. And all of it was underground.

What equipment were you using then?

I was using my Les Paul, 3-pickup Custom, 1960. I was using that and a Marshall stack. It was right at the time, it felt good. But my idea of sound and guitars has totally changed; it's changing all the time. I just get into different things all the time.

As I said to you before, tech nique doesn't interest me. I'm not going to sit down and learn chromatic runs and diminished runs and things like that. I haven't got time to do that — learn it slow and then learn it fast. The object for me is to express



myself and be in control of a total record, not just the guitar playing. Are you still using that same Les Paul?

Occasionally I use a Les Paul but it's not the same one. Now I've got more guitars than I know what to do with; I've got 22 at the moment and rising. On stage I use a couple of Les Pauls. I use a black Deluxe that I've fitted with standard Gibson humbuckers and I've fitted on a Hot Rod stirrup to give it that real biting attack. Les Pauls tend to lack a top end above 10,000 cycles and then it sort of rolls off. But for some reason if you fit Alembic Hot Rods in there it makes it so much brighter and hotter. But it still seems to be clean. I.ve also got DiMarzios, the super distortion, but they just totally overload the input of the amp and it's like using a fuzzbox. You can't get rid of it. It's OK for certain things but I like it a bit cleaner. Because I do a lot of chord work. it has to be full but clean and not like the wall of fuzz that Kiss or Black Sabbath use.

I also use another Les Paul that was fitted with DiMarzio PAF which aren't quite so heavy as the super distortion ones. But I'm not happy with it; I just got it as a spare.

I also use an old Gibson acoustic on stage for slide. That makes for a different section of the set and gets away from the power trio thing for a little while. We do 'Vigilante Man' which we did on Razamanaz but that was electric; we re-arranged it for two guitars, Pete plays acoustic rhythm and I play acoustic slide.

That brings the whole level down, changes the sound and everything. Then we do an acoustic/electric version of 'Cocaine', the J.J. Cale/ Clapton song. The main reason we did was because we dug it and thought it would be acoustic but it would still be uptempo. People wouldn't sit back and think, 'Oh, here comes Crosby, Stills & Nash'. We wanted to keep the energy level up but the sound different. Pete's is a J—200 but I'm not sure what mine is.

What amplifier setup are you using?

I'm going through changes now. I was using four Marshalls (100 watt stacks). They always sounded good at one point, at a specific register only, but if I tried to get any other colour or tone out of them it didn't happen. So I've had them all converted to low impedance and I was driving them at line level

What you do is you convert your guitar, which is a medium to high impedance pickup, to low impedance and do the same to the amp; hence if you're using a lot of effects and a lot of leads you lose the top end of the guitar, you start to lose highs. So I used one lead which went into an impedance converter which is also a little amplifier so I could drive the Marshall with this amp. I still feed it at line level so there were no losses there. It was good but it was too powerful, there was too much of it) it was too limited in the sound.

The Marshalls never sounded as clean though and when I wasn't playing they were quiet. So that was the answer for me for a while

but I got tired of that one sound. I wanted to have a complete range of tone colours like I get in the studio. When I'm in the studio I use a small amp; a Galleon Kreuger or a Fender or a Pignose and I can get different textures. That's what I'm into as a guitarist. When I'm recording I like to get different textures and different sounds. I hate for every track to sound the same.

At the moment I'm trying to get a combination of amps which will give me the range of colours and textures that I can get in the studio; it's getting there, I've narrowed it down now to the Galleon Kreuger; I'm driving two Marshall speaker cabinets with it which have Celestions. It's really good but it sounds transistorized: It has that transistorized sound as opposed to valve sound. But it's the closest to a tube sound out of transistors that I've ever heard. I really like the amo and it records really well but transistors ruin it. When you drive heavily with transistors they clip long before a valve; it's like having a limitor on it. What happens is no matter how hard you play it you don't get any more volume. So you're stuck with a limiting effect which is great in the studio because you're not going to have to use limitors and compressors on the quitar.

So what I'm going to try and do is use that in combination with a valve job; I'm going to check out Mesa Boogie and Music Man and use the Galleon Kreuger with one of them and try to get it that way

'I'VE GOT MORE GUITARS THAN I KNOW WHAT TO DO WITH'

It's experimenting. I've got quite a few guitars and I'd like to use them in the set because they all have a distinctive thing.

Do you just use the one stack then?

Yeah, but it's monitored pretty heavily so everybody can hear it. It kicks up a bit of noise, you know? Remember that one little Galleon Kreuger doesn't replace four Marshalls, no way. It is 100 watts but you can limit the output which is what I like as well. It has a power output control. It's a good amp and I'd recommend that anybody looking for a good amp should check it out.

Do you use effects on stage?

At the moment I'm using an Echoplex and a digital delay and that's it. Pedals always affect the natural guitar sound. I like to hear the guitar as straight as

possible. If I could get an effects board done up so it did not interfere with the natural sound of the guitar, I'd use it. Even when they're out of the circuit — I've used an MXR and not had it in circuit — and it still affected the guitar sound. It's different from plugging straight into the amp. A lot of people have come to terms with it but I haven't. I can get exactly what I want in the studio but now I'm trying to get it on stage.

What equipment do you use in the studio?

I use Fender amps, a Telecaster – a nice old Telecaster that I like – and a Fender Strat that I like. On 'Gone Dead Train' (Expect No Mercy) the rhythm tracks are all Fender; they give a clean biting sound. That's the other thing with the Galleon, if you play a different guitar through it, it responds. A Marshall is not quite so responsive to different guitars; you don't get the best out of them,

There's a combination of different Gibsons that I use with different pickups. They all have different pickups and all have a slightly different sound to them. What about on the 'Expect No Mercy' track?

That was done with a Strat and a lot of overdubs. The rhythm track is a Strat and the guitar underneath the chorus parts that hit home when Dan is going 'expect nooooo mercy' is done with a Les Paul. The solo was done on a Les Paul Jr. and various effects were used on the actual solo.

I prefer to record the guitar straight first; get it on tape straight with quitar and amp. Then if I want an effect I'll use the tape source. That way you don't affect the original guitar sound. I prefer to do it with tape then I've got complete control over it; I'm not stuck with an effect on the guitar, I can put it on another track. By using the tape as a source I'm putting it through the effects and then recording that on another track. So I've still got the original guitar and the effect guitar and then I can get the right blends that I want. I'll use anything - like harmonizers - on guitar. For 'Kentucky Fried Blues' Lused a harmonizer on a Flying V. Some people think it's a voice bag but it's not. Even when I use a voice bag I do it from tape as well.

What I do is I play the guitar straight into the amp, get the sound I want from the amp and get that on tape. Once I've got that on tape if I want an effect I'll use the tape as the signal source and then put it through the

Manny of Nazareth

Continued

effects. So I end up with multiple guitar tracks and then balance them up between effect and straight guitar.

For instance check out Close Enough for Rock and Roll, there's a track on it called 'Born Under the Wrong Sign'; there's a voice bag on that. We kept the original guitar on the left and we put the voice bag on the right. And it's very subtle.

That's the way I work; I've developed this way of working because I have more control in the studio. I don't like what effects do to the original guitar signal. It means if I don't like the effect I'm stuck with it on the track. I might play a great solo and I've got maybe an MXR phaser on it and later on I decide the phaser isn't the right effect so the solo is gone, it's blown. Whereas if I've got the solo pure with just guitar then I can decide in my own time when I'm mixing and things if I want to try a Leslie or an MXR or digital delay to get that right texture, that right sound.

Do other people work that way? I've no idea, probably.

You use Fender guitars in the studio; have you ever used them live?

On stage I can't come to terms with them for a whole set. I like Fender guitars because they have a very distinct sound and they're very clean. But for lead work I've always used Gibson; I just can't come to terms with the Fender neck. Although I can do some things on my Telecaster I can't do on my Les Paul. Different guitars make me play differently because they respond to me different. If like to feel a response from an instrument; I like it to motivate me. I can plug in an amp and the sound will make me play something that I wouldn't play if I had a different sound.

When you produce a Nazareth album is the guitar the main concern?

It's not the focal point. That's getting back to what I said about technique for its own sake not interesting me. My reference point is the band as a complete unit. I want the whole band to sound at its best. These are my reference points - first, the song, the material itself has got to be good; then Dan's performance, the vocal performance tops everything; then the guitar parts; and then the rhythm tracks. That's my order of priorities for performance but when I'm recording the whole thing is reversed. What I go for is a good rhythm track first, a good bass and drums track; then a goo dirhythm guitar part and a solo or whatever it needs; then vocals. The vocals is the



most important thing to get that song across. I spend longer on vocals and mixing the track than I do on anything else. It's not my album, it's not a guitar album; it's a Nazareth album. It's not a showcase for my guitar playing. That's where I differ from a lot of people.

I don't make albums for guitar players because there are not enough of them. Do you know what I mean? The average kid in the street really doesn't know, he just knows if he gets off on it, if he digs it. The kid that buys a record will buy it for a whole bunch of different reasons and I think the amount of kids who buy a record purely for a guitar solo is small.

Does it take you a long time to put a solo on record?

Sometimes it takes me ages and other times it comes right off. I prefer the one that comes right out of the blue because it usually has the most spontaneity.

Are the other members in the studio at this time?

No, they wait until I'm happy with it and then they listen to it. I mean I could go on forever playing guitar solos but that's not the point. There comes a point where sometimes you get bogged down with a guitar solo for a

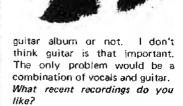
specific track on the record. Sometimes you'll see me sitting for a whole afternoon trying to get a solo for something that's basically so simple. I'll just get bogged down so I'll leave it and come back to it. If it doesn't happen within an hour or so then I'll leave it. I'll change guitars, amps and the sound of it and just try to approach it from a different point of view. Sometimes Liget totally bogged down with it and I'll say, 'That'll do'. Sometimes you get to the point where you can't think of something that's going to be an earth shattering solo so I'll play what I cail a cursory solo. Sometimes that's all that's needed anyway.

Do you ever miss another guitarist or keyboardist on stage?

No, I don't want anybody else there. I think it would be very hard to find somebody who could complement my playing and understand what I'm doing because I play a lot. I'm used to playing in a three-piece. I tend to fill up the space myself and another guitar player would just get in the way.

Would you like to do a guitar album?

I'll do an album on my own eventually but I can't decide whether I'd want it to be a



I like Ronnie Montrose's album (*Open Fire*). I like some of the things Ted Nugent does because it's animalistic; the guy is an animal but he can play guitar; I don't care what anybody says, he can play guitar.

What type of slide do you use on the acoustic?

I use a brass slide on my ring finger because it's really heavy. I listen to slide players, but I don't bother with them. If I hear somebody play slide and they play it well, I'll dig it. I like Joe Walsh's slide playing and to me Ry Cooder is the master. If you want to listen to slide guitar listen to him. I also like Lowell George and David Lindley. The important thing is to have a style. I don't want to sit down and learn somebody's style, I'll just play the way I feel.

You did say technique is not that important to you but are there phrases and scales you usually work from?

Yeah, I'm sort of stuck with the old minor 7th runs. I'll either use that or sort of minory Spanish runs. You know, little things like Ritchie Blackmore plays, those types of minor sequences. The sort of thing that's in the title track (Expect No Mercy) is very Spanish/Hungarian because it has melody. I like pure melody structures which are based on the melody of the number. The solo in 'Love Hurts' was done that way; I just basically worked around the melody.

What kind of sound do you look for on a guitar?

It changes all the time. It depends on what part I'm doing, whether it's rhythm part, and what types of material. I tend to think of it like painting with sound and not like doing scales and exercises and trying to impress people, or like playing standard Eric Clapton southern Texas boogie licks — there's enough people doing that.

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Mark Sawicki is an M Sc. (Eng.) consultam in electronics who also designs and builds electronic equipment.

TEST ON: Vox AC 30 Reverb

DATE: May 1978

PRICE: £273.90 + VAT \$546

Introduction

Vox sound, like the Beatles, is a legend — a legend of the 60's, revered by the Punk Rock generation of today. As in any legend widely different stories and versions exist. One sure thing is that the whole story began a long long time ago in the Jennings Organ laboratories, and the second thing is the combo I used over ten years ago is a dead replica of the combo that has just arrived on my doorstep from Vox Sound Ltd of Shoeburyness, Essex.

Its famous front panel acoustic crisscross grill cloth with its characteristic pattern and colour is still the same after so many years. In rememberance of things past — hundreds of famous faces names, long-forgotten record labels, movies and gigs (or concerts as they were then known) come flooding back.

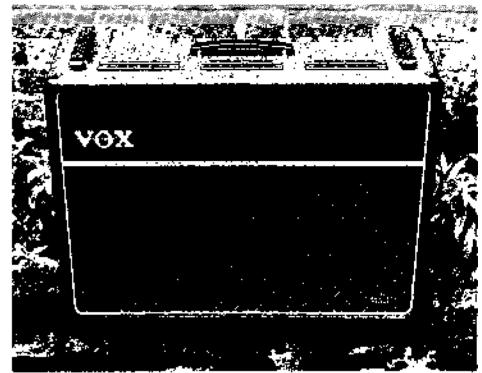
Most of these things exist only in the memory of those who are now most probably respectably married citizens living in suburbia — but the Vox Combo goes marching on — still very much in business. There is still a demand for its characteristic sound in contemporary music, which surely goes to prove that there are still musicians looking for a true valve, Class 'A' linear legend, Musicians are looking for the traditional unspoilt sound of the 60's, despite the hard facts of the naturally lower technology than solid state, and relatively higher prices of the valve amps.

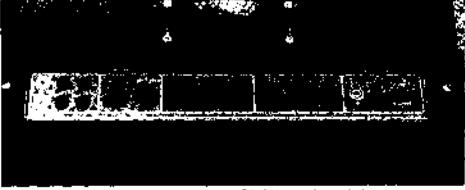
Construction

The Vox Model AC 30 Rev combo construction is, in the full sense of the word, traditional. Two large plated steel chassis, one for the pre-amp and one for the power stage, house the whole system's sub-assemblies and components including two large transformers, a massive choke, smoothing capacitors and twelve thermionic valves inserted into octal-based sockets.

The entire input stage ECC 82, 83's are magnetically screened and all the preamp's input circuitry is kept a reasonable distance away from the power supply, (environmentally the noisiest area). This is one of the 10 commandments of valve design technology.

As mentioned above the AC 30 Rev is constructed in quite a traditional manner and there is not a single PCB in the whole construction, the small components being soldered directly onto a couple of orthodox tag strips and group





panels. The system's controls are all localised in the control panel being at the top of the enclosure.

New Reverb

If anyone can still remember the "old" Vox AC 30, then this new Reverb model (AC 30 Rev) has basically the same features, with the addition of an Accutronic (Hammond type) reverberation spring. The intensity control is fitted in place of the speed control, speed now being controlled by a multiposition Vibrato/Tremelo switch.

A word about speakers — two 12" Model G 12M "Celestion" 25 Watt speakers are provided and the output impedance is adjustable for both 8 or 16 ohms operations by means of an internal link on the transformer.

As I mentioned previously, the AC 30 Rev is a valve class 'A' amplifier employing, on its output stage four of the

EL 84 pentodes and the system produces an approximate level of audio power of 30 Watt r.m.s. when measured at onset of clipping, Ref. 1.0 Khz signal conditions.

The measured steady state T.H.D. distortions were in general typical for this type of valve amp, with an average figure through a whole power range of approx. 4.21% of the T.H.D. Ref. 1.0 KHz - and these figures can be regarded as satisfactory. Although at some power levels (see spec. table) the steady state T.H.D. distortions comprised the second harmonic product with a smattering of the third. In both situations their dominence can be considered as quite inoffensive as far as the quality of the sound is concerned.

With regard to signal/noise performance at the 53 dB (52.82 dB is typical) it's not really what I would class as my cup of tea — and could be better. I wonder what the manufacturer has to say about this point. I was impressed with the variety of sound (s) available from this small unit and liked the overall controlability. Don't forget that this class of combo with its 30 w r.m.s. output power level is not really appropriate for Open Air gigs or large concert halls unless, of course, you are using additional amplification. However, because of its unique sound character it can be ideal used as the backline amplifier at small venues.

The Vox AC 30 Rev combo appeals to my taste in the majority of its features, but I would like to mention one or two things that I don't like. The system's control knobs are very stylish as far as the audio "antique" look is concerned but they are a bit difficult to operate in practice. They are basically a black plastic pointer type, the sort of thing being widely used on electronic multi-

meters and other professional electrical test equipment. I suppose that these knobs are part of the Vox tradition; and that traditionalists won't mind the inconvenience. One thing that you must not forget, and this is clearly outlined in the AC 30 Rev's operation instruction booklet, is the fact that this amplifier being a valve construction (high anode voltage), a good quality 3 core earthedtype mains lead MUST be used. Without a proper earth connection an insulation breakdown in any of the mains carrying components could cause injury to the person or damage to the equipment and no manufactrer would be responsible for such injury. One other thing to be remembered is that the vents fitted into the top of the amplifier are there to ensure the free flow of air - never allow these vents to be covered or restricted in any way whilst the AC 30 is in operation.

Conclusion

The ubiquitous Vox AC 30 is part of amplification establishment and is revered by many a rock guitarist today. The Vox company (Vox Sound Ltd.) have carried on manufacturing their amplifiers in a traditional way in order to maintain the unique tonal quality and overall character of the AC 30 line. This really is a brave policy in the face of fierce competition from new amplification companies specialising in solid-state technology, with many extra facilities for the price. However the AC 30 has withstood the test of time and is capable of producing sounds which will enable it to go on delivering its own particular brand of guitar music regardless of modern trends in new amplification. Perhaps it is this which makes the art of rock music and amplifiers like the Vox AC 30 something apart and rather special.

PARAMETER	REŞULT	TEST CONDITION	COMMENTS	
Specific power Output (Watts RMS) Ref. 1.0 KHz	MS) 30.56 W r.m.s. Onset of clipping into: 8.0 ohms		Originally equipped with two "Celestion" - 12 inch Model G12M speakers wired for 16 ohms operations. Bass resonance is 55 Hz. The ÂC 30 Rev. output stage employs 4 x EL 84 pentodes or equivalent 4 x 68Q5 (made in U.S.S.R.)	
Total Harmonic Distortion T.H.D. (%) Ref. 1.0 KHz	5.7% 4.15% 3.42% 3.20% 3.95% 4.20% 4.90%	@ 28.0 W r.m.s. @ 23.0 W r.m.s. @ 18.0 W r.m.s. In to 16 ohms @ 15.0 W r.m.s. @ 10.0 W r.m.s. @ 5.0 W r.m.s. @ 1.0 W r.m.s.	predominance of the 2nd harmonic predominance of the 2nd harmonic predominance of the 3rd harmonic predominance of the 2nd harmonic predominance of the 3rd harmonic predominance of the 2nd harmonic predominance of the 2nd harmonic	
Input Sensitivity for 28.0 W r.m.s. = 21.16 V r.m.s./Output signal — mV r.m.s. Ref. 1.0 KHz	a) 1.95 mV r.m.s. 4.22 mV r.m.s. b) 1.11 mV r.m.s. 2.60 mV r.m.s. c) 1.09 mV r.m.s. 2.75 mV r.m.s.	Hi, Gain "Vib/Trem" i/p Lo. Gain set for the best Hi, Gain "Norma!" i/p Lo. Gain response Hi, Gain "Brilliant" i/p Lo. Gain 1 KHz into 16 ohms	The Vox-AC30 has three channels (%" jacks), each channel with two inputs. The upper three inputs are LOW GAIN and the lower three are HIGH GAIN. The first pair of inputs are "VIBRATO", the second pair are "NORMAL" and the third "BRILLIANT". Ample sensitivity for most electric guitar applications,	
Tone Controls range Swing in [dBs]	18.26 dB — swing 37.5 dB — swing	Bass @ 100 Hz (*) Treble @ 10 KHz (**) (*) — Treble — Max, T/C Cut — Min (**) — Bass — Max, T/C Cut — Min	The AC30 Rev. is a "multi purpose" guitar amplifier and therefore should have slightly more "BASS" range. The complete AC30 Rev. TONE CONTROL circuit incorporates: 1) TREBLE CONTROL 2) BASS CONTROL 3) TONE CUT "TREBLE" — Very good. The treble, bass and TONE CUT controls are probably the heart of the "Vox" sound.	
Signal/Noise Ratio in [dB]	52.82 dB	Tone controls — Max, measured at 1.0 KHz into 16 ohms.	Fair. Noise is mainly hum.	
Capacitive Load Test	O.K.	2 uf + 16 ohms dummy load	Good stability margin for a "valve" amplifier.	
Open Circuit Stability Test	O.K.	Gain/volume — Max, Tone Control — Max, Dummy load — removed	Acceptable.	
Short Circuit Test	1 min.	Short Circuit at full drive.	Did not blow fuse on Short Circuit Test but the EL84 anodes became red hot. Some smell of hot varnish,	
Effects: Reverb Tremelo	Subjective test only	Marìa Elena ín "F"	REVERB: The Shadows crossed with the "Underground" TREMELO: Chet Atkins crossed with The Shadows (Both controlled by footswitch).	



Stephen Delif is a futbler and instrument repairer. He is also a solo performer and a member of the institute of Musical Instrument Technology.

TEST ON: Gherson R.B. Bass

DATE: May 1978

PRICE: £230 inc. Case and VAT \$458

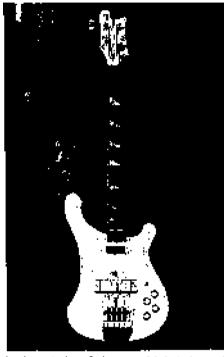
Introduction

It may seem to some of our regular readers that the large-scale electric guitar business is virtually a straight fight between America and Japan, with a few Korean guitars at the lower price end, and no-one else having even a toe in the door. For a change, and to redress the balance a little, I am going to review an Italian bass guitar which, as you will see from the photo, looks remarkably like Rickenbacker bass. Certainly I have seen Italian electric guitars and basses before, including one model which bore an equally remarkable resemblance to an early Fender Jazz bass.

For the remainder of this review, and probably until further notice, I shall refer to such instruments as 'Rick Copies' and 'Fender Copies'. (For that matter, I may even refer to 'Guild' or 'Gibson Copies'). In the ordinary usage of English amongst musicians and others in the Music Business, these descriptions mean exactly the same as the previous statements. However, they are more straightforward and economical in the use of words, and more readily understood. As such instruments are apparently copies by their appearance, and probably copies by intent, I trust that the proprietors of the various famous "Originals", will not be unduly distressed by my economy of language, in what is both a statement of fact and an implied compliment to their own products.

Finish

To return to this month's review instrument: I cannot remember ever having seen an Italian Rick Copy before now. This sample compares very favourably with similar Japanese copies. If anything, I think the finish and some of the fittings are rather better than I would expect to find on the average Rick Copy. An instrument such as this, with the neck running through the body, is very difficult to make neatly, and one usually finds poor finishing on internal corners, concealed by a thick build-up of lacquer. This is not the case with the Gherson bass. On this sample, all the woodwork was well finished before any lacquer was applied, and the lacquer process employed gives an unusually attractive and transparent appearance. I suspect that it is either one of the more recent finishing materials, or alternatively that it may be a well-known material applied in an unusual way. The lacquer film appears to be scratch-resistant, slightly flexible, and rather thinner than usual. This may seem 'technical' and



irrelevant, but I do not think it is at all irrelevant when an instrument immediately stands out from the crowd by its pleasing appearance. It is not an essential feature of a good instrument, but it is nevertheless very welcome.

Neck

There are two most distinctive features on a real Rickenbacker bass; the neck and the sound. As most people would assume this review guitar to be a copy of a Rick, and see it possibly as a cheaper alternative, I suppose most people would wish me to compare these features on each instrument. There are various practical problems in the way of exact comparisons of this sort. I have noticed some variation in the shape of Rickenbacker bass necks; not enough to make playing difficult, but enough to give some instruments a different 'feel' from

However, within this variation there is usually a factor which is common to most instruments of any make and type. I think the feel of this neck does fall within the usual range of Rick necks, but with the exception that one is aware of a sharp or abrupt edge on the outer corner of the plastic binding. This is not serious and could probably be filed and burnished away, but in its present state I find it intrusive.

Sound

Comparison of the sound is equally difficult. Firstly, a large proportion of Rick bass players use Rotosound, or similar, round-wound strings and this Gherson is fitted with semi-flat strings. This will make the sound less brilliant and twangy. Secondly, not all real Rick

basses sound the same. There seems to have been a basic change in the sound. when the old double-horseshoe magnet, which also formed a slotted hand rest. was replaced by a one-piece hand rest with no gap in the centre, and a different sort of treble pickup underneath.

As far as I can tell (without fitting different strings), this Gherson sounds quite similar to the more recent Rickenbacker instruments. I do not usually try to compare copies and originals so bluntly, but the famous Rick sound is so distinctive, that there would be little point in a copy which did not at least approach the same performance. I think this copy comes as close as one could reasonably expect.

By comparison, I have come across some samples of the original which pleased me more, and a few which pleased me rather less than this review instrument. One difference, which I believe may be significant, is that the pickup near the fingerboard has adjustable pole-pieces on the Gherson instrument, and this permits some balancing of the levels of the four strings. Working from memory, I believe the original only has adjustable poles on the treble pickup, under the cover.

While on the subject, I would advise owners of old-model Ricks with the magnets forming a slotted hand rest, to leave the pickup and magnet assembly strictly alone. The pickups can be rather fragile, and the magnet system can be weakened by mis-handling. I know of only one laboratory in England which is willing and able to 'revive' these magnets.

A further difficulty in assessing the sound of this Gherson is that while the selector switch has three positions, two of them produce very similar effects. There is no apparent electrical control for balancing the outputs of the two pickups. though possibly adjusting their respective heights from the strings would give a different sounding middle position. Apart from the selector switch, the control system consists of the usual two volume, and two tone controls. There are two output jacks on the edge of the body. marked 'standard' and 'stereo'; I do not think this needs any further explanation, The 'stereo' socket requires the usual 'A-type' stereo plug and seems to be less smooth in operation than the 'standard' socket, although it connects perfectly well

The two sockets are fitted onto a small metal plate, of which two corners do not fit the edge of the instrument, and could catch on clothing. As the mounting screws at the same end are both in at an angle, and the plastic edgebinding nearby has been distorted, there would seem to be a small problem of

tolerance here. I am also surprised to see all the countersunk screws in the front panel recessed neatly except for the two which support the fingerboard pickup. These are not recessed. They are harmless, but would look better if recessed like the others.

The machine heads fitted are Schallers, of the large, semi-open type. Probably opinions differ, but I find these much more satisfactory than the smaller bass machines from the same company. Three of them function perfectly but the G string machine has a little backlash. (The button feels a bit loose). There does not appear to be anything wrong with the machine head itself, and such problems can be caused, on this type of mechanism, by imprecise mounting, or a bead of lacquer in the hole through the head. Whatever the cause, the result is acceptable, but not as convenient as the tuning arrangements for the other three strings.

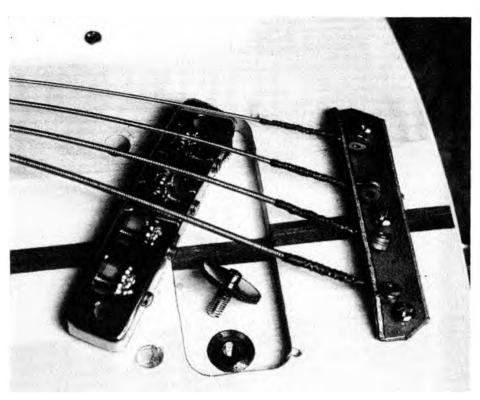
The original Rickenbacker neck is fitted with an unusually thick fingerboard. This is usually made, not from rosewood, but from an orange-red wood, probably Padauk. The Gherson bass has a similarly thick fingerboard made from what appears to be African Mahogany. This timber would not be my first choice for a fingerboard, but if carefully selected, it should permit a reasonable number of re-frettings before wear and tear on the slots becomes troublesome.

The fingerboard is lacquered, so its slightly open texture is not a problem, and on the review sample, the neck and fingerboard seem perfectly capable of taking the strain of the medium-gauge strings fitted. In fact the neck is commendably straight under tension. Some bass strings permit a slightly lower overall action before buzzing, if the neck is very slightly pulled forwards by the string tension. I suspect this may be the case with this bass and these strings, and possibly the buzzing on the lower frets could be cured by slightly re-adjusting the neck. If the neck was less good, it would probably pull forwards in an uncontrolled manner without deliberate adjustment. However, such bass necks often continue to move forward progressively over a period of time, eventually producing an unplayable action. I much prefer the situation of deliberate adjustment when necessary, as found in this Gherson.

Action

As supplied, the instrument had a relatively low action but buzzed on some of the lower frets. I discount buzzes on bass guitars which are not present in the electrical output to the amp. Most nicely adjusted bass guitars exhibit such 'acoustic' buzzes. However, some of the buzzes on this sample could be heard from the amp. To remove these by adjusting the bridge height only, would require an unusually high action and some adjustment to both neck and bridge is probably needed, to produce a useful compromise.

The intonation settings for each string were not correctly adjusted on the sample when it reached me, but the bridge has ample adjustment to set the octaves correctly with the manufacturer's



strings. There should be enough range of adjustment also for most other bass strings.

The hand-rest over the treble pickup on the old Rickenbackers consisted of one side of a facing pair of horseshoe magnets: the hand-rest on later models of the Rick appears to be plastic with a thin metal plating. Although this is slightly flexible and can vibrate, its proximity to the treble pickup is unimportant, as it is virtually non-magnetic. The handrest over the Gherson treble pickup is plated metal and rings when tapped with a fingernail,

Although this cover is mechanically preferable to a plastic one, it is just possible that it might cause microphony or feedback when playing at very high levels, or close to a powerful amp. Plated brass, aluminium alloy, or non-magnetic stainless steel would be some obvious solutions, but two layers of the stickier sort of Gaffer tape, covering most of this hand-rest, seems to provide sufficient damping. The tape works equally well across the outside, or neatly fitted to the underside of the metal rest.

Also made apparently from plated steel, is the tailpiece cover. Close inspection shows the tailpiece and bridge assembly is not a light alloy casting (as on the real Rickenbacker bass) but a relatively thin metal shell, covering a steel string-holding bracket, and a recess in the body in which is fitted the same type of bridge as is used on certain other basses from the same maker.

On closer inspection still, I noticed that the string-break angle over the bridge has been reduced and that the bridge support pillars now screw into metal bushes, fitted into the bottom of the recess. Thus, although the impressive-looking bridge shell seems to be mainly a cosmetic feature, the bridge mechanism

underneath does seem quite suitable and reliable. The damper mechanism on this sample works on the top two strings, but would need stronger fingers than mine to wind it up far enough to touch the lower two strings. I think some re-adjustment is needed here.

Conclusion

The cosmetic nature of the bridge/ tailpiece assembly is a little surprising, and the string-holding bar underneath looks rather crude, but none of this appears to affect the working of the instrument, and it must be admitted that some of the solid, cast tailpieces in this style are not without their problems.

In other respects this instruments seems particularly solid and well made, and is supplied as standard with good quality Schaller machines. It balances well when played sitting, and on a strap, has a straight and comfortable neck, and rather like sounds Rickenbacker bass. I should like to see some slight adjustment to pickup levels to give three distinct tones, and possibly for the instruments to be supplied with the octaves adjusted more closely. Judging by this sample, the Gherson RB bass seems to offer very good value for money.

Measurements on Gherson RB Bass

Action as supplied 1st 3 mm/4th 2.6 mm. This is too low for the instrument at the moment, but it only seems to need careful setting up.

Scale Length 840 mm (approx. 33 inches) String spacing at bridge adjustable 52 mm or 55 mm.

String spacing at nut 33 mm Fingerboard width at nut 43 mm

Depth of neck: Nut end 21 mm at first fret; Body end 23 mm at 12th fret; Body end 23 mm at 15th fret. (Measured from front centre of fingerboard to back centre of neck).

Weight of instrument 4 kilos.



delft's GUITARCHECK

Stephen Delft is a luthier and instrument repairer. He is also a solo performer and a member of the Institute of Musical Instrument Technology.

TEST ON: Antoria Viking

DATE: May 1978

PRICE: £230 inc. VAT S458

Introduction

This review guitar is not brand new. It has had perhaps one year's use, although as far as I can determine, practically the same instrument is still available from the same importers. The price quoted is that which appears in the current catalogue for the current model.

In spite of the iniquitous system by which used instruments are re-taxed each time they are re-sold in practically all circumstances except for some private transactions, many musicians continue to purchase secondhand instruments, both from shops and by answering private advertisements. Indeed, if no-one bought secondhand guitars, the sales of new ones would almost certainly go into a decline. This particular instrument was bought recently by a musician who would have liked an 'original' but could not afford even the new cost of a good copy. think that situation is one which will be familiar to many of our readers.

The standard of finish and fittings appears to be fairly typical for one of the more expensive Japanese copies of American guitars, and it may be of interest to our readers if I make some comments on how well the instrument is surviving reasonable wear and tear. I must emphasise that if I mention, for instance, that some of the gold plating is coming off, it does not mean that this particular guitar, or make of guitar, is singularly poor in this respect, any more than similar comments about the 'Vintage' Gibsons which I have reviewed in the past relate to new Gibson guitars. After several years' yse, you can expect most similar Japanese guitars in the same price range to have developed faults like the ones on this sample.

The Antoria Viking is quite plainly a copy of a Gibson 'Flying-V'. More specifically, it exhibits many of the features of the 1958 Flying-V series, together with some slight variationa which do not seem to have been used on any of the issues or re-issues of the Gibson instrument. Part of the popularity of the Gibson instruments was, and still is, due to their unusual shape. I think it



is fair to draw the same conclusion about the various Flying-V copies. I feel that they are all primarily exotic-looking 'stage' guitars. You can be certain this shape was not designed to be played, sitting at home in your favourite armchair.

While I have seen and played several of the Gibson originals, only one of them was sufficiently in original condition to be considered representative, and I would prefer not to compare the sound of the review guitar with my memory of this one instrument.

My impression of the Antoria Viking is that it possesses one of the characteristics which often separates Japanese copies from their American originals. The sustain on the bottom strings is sufficiently long as to make me feel a little uncomfortable while playing, while the sustain on the upper strings seems rather short. On this particular instru-

ment, the second string seems to be more satisfactory than the first or third. This is a complicated subject, and really requires a careful study of "decay envelopes" of the various strings, played in various positions. (A Decay Envelope is just a sort of picture of the way a note swells or fades away, after its beginning). It is clear to me that on some of the most highly valued electric instruments, the sound of the plucked string appears almost to swell in volume, before beginning to fade away, and on these instruments the phenomenon appears particularly noticable on the upper strings.

There is considerable disagreement about the assessment of guitar sustain. On the basis of my own ears, I find the sustaining properties of this review guitar comparable to those found in some examples of recent American instruments, but not as good as the average, and certainly well below the best and most highly admired American instruments.

This is not a bad standard to achieve at a present retail price of £230 including V.A.T., and must be compared with a present selling price (if you can find one for sale) of £800 to £2,000 for a really fine example of a vintage American electric guitar.

Aside from the sustain, the sound quality from this guitar is pleasing and versatile. As I have mentioned I do not have enough experience of unmodified Flying-Vs to say whether the tone quality of this copy is the same, but it is certainly a sort of Gibson-like sound, and there is a useful difference in tone between each pickup alone and the various possible blends of the two together. My impression is that, even by today's standards, the pickups have quite a high output.

The electrical system consists of a selector switch for pickups 1, 2 or both, two individual volume controls, and a single overall tone control. The tone control does not seem to do very much, until turned down to about 3 or 4, but this could easily be changed, and regular readers of these reviews will appreciate that this feature, if not exactly desirable, is at least typical of a fair number of recent Gibsons — and this is after all a Gibson copy.

Controls

All the controls seem to be working well in spite of obvious use, but the plating on the pickups is worn through and blistered in places and one end of the bridge is just about through to the base metal and beginning to corrode. The bridge saddles, which actually support the strings are in remarkably good condition and require only brushing clean with a little Paraffin or Alcohol.

The holes in the ends of the bridge for the support pillars are considerably larger than the tops of the pillars making the bridge position and therefore the guitar's intonation, rather uncertain.

It appears that the enlarged holes are not due to wear or corrosion, and the bridge has probably always been loose.

The gold plating has also become transparently thin on the metal V-shape through which the string ends are fastened, and on the machine-head buttons. It is very difficult to make gold electro-plating resistant to prespiration, but it usually remains intact for longer, if put on rather more thickly than is usually found on guitar fittings. I have had pickups and screws re-plated by a man who restores jewellery, and the work he produces not only lasts longer than the plating on commercially available "gold" guitar bits, but it also have a more pleasing colour and a quite different appearance.

I noticed the same discrepancy on a Gretsch guitar I reviewed, between the parts made (and presumably plated) by Gretsch, and some standard parts bought in from other manufacturers, which by comparison looked more like brass than gold.

It is most important that plated parts for guitars, whether gold or nickel, have surface porosity kept to the very minimum possible, as each minute pore or pinhole is a potential site for corrosion and blistering. I really don't see much point in paying for gold plating unless it is going to stay on for considerably more than 1 or 2 years.

Another place where corrosion has set in, is the small position markers which protrude from under the control knobs. These are sharp enough to present a hazard, and are by now beginning to rust.

Although the gold has worn off the buttons of the machine heads, they still seem to function at least as well as similar units when new. They are made after the general style of enclosed Schaller or Grover heads. There is a tradition that such Japanese machines feel good when new, but do not last. These seem to be lasting quite adequately so far. They have a 'star' medallion on the gearbox, with a minute letter G below it. I believe this identifies the maker or

brand name as Gotoh Gut. Six machine heads is a very small sample, but I shall certainly consider such machine heads more seriously in future.

The Antoria Viking has a Maple neck with a Rosewood fingerboard, and a body made from what the current catalogue describes as Ash. The body on this sample looks similar to Ash, but does not seem to be the European Ash which I know. Whatever it is, the instrument is nicely made. It originally came into my workshop because the neck was coming loose from the body. As this was obviously caused by a considerable impact, and the same shock had separated the neck and fingerboard from the nut to the 5th fret. it is very difficult to say whether the neck joint was in any way deficient. Under the circumstances, it must have the benefit of the doubt.

Neck

The neck is slim and comfortably shaped, and there is obviously no significantly weaker point between the head and the neck, otherwise the same impact damage would have broken off the head.

The fingerboard is of good Rose-wood, and although the frets are by now quite worn, indicating a fair amount of use, there is very little wear to the surface of the Rosewood. This is as it should be. Some types of Rosewood can wear away quite rapidly, and although they look satisfactory when new, should probably not be used for fingerboards on good guitars.

The action cannot be set as low as I would like, as the neck/fingerboard assembly is not entirely straight. There is no overall bending, but the neck appears to be very slightly spiralled, and there is a small hump on the treble side around the middle of string length. This is not ideal, but it does sometimes happen after a few years, and as long as the neck eventually stabilises, it can usually be straightened when the instrument needs re-fretting.

The fretting is a little unusual, in that the frets stop just before the edges of the fingerboard. I imagine this was intended to prevent fret ends projecting from the edges of the fingerboard under certain dry climatic conditions. It appears to be entirely successful so far, but as with some bound-edge fingerboards, it does bring the ends of the frets rather close to the outer strings. Some players might find the top string tending to fall off the ends of the frets. This could be cured by a new nut with the strings placed closer together.

It is possible to unscrew and lift up the panel carrying the controls, without unstringing the guitar. This not only saves my time as a reviewer, but also makes emergency electrical repairs faster and less complicated. I wish more makers using front-mounted controls would do the same. Inside, the wiring is neat and there is some screening foil under the panel and on the back of the cavity. With such a simple cavity, it is a pity it was not completely lined with foil. It would not have been much more trouble, and would have given much improved resistance to electrical interference. It is possible that current instruments are more thoroughly screened.

Conclusion

As with most gold-plated guitars, the plating has more or less given up, after quite a short time. It does not have to be so, Some samples of Schaller and Gretsch components last much longer: possibly others also. It is possible that the neck/fingerboard was never quite right, or that it has warped a little, but there is apparently nothing wrong with the assembly, which cannot easily be put right by lightly skimming the fingerboard, and re-fretting.

The lacquer finish is wearing well, but has been damaged at the back by contact with a metal belt buckle or something similar. The lacquer film in this damaged area is dented and crazed, but shows no signs of peeling off. It is mainly the wood underneath which has been dented, and the lacquer has remained attached. (On some instruments it tends to come off in small flakes under those circumstances).

In general I think this guitar is standing up to use very well, and with a re-fret and the fingerboard trimmed, there is nothing important to its working which requires replacement or major repair. I am obviously excluding the recent neck repairs as this was due to normal accidental damage. It is obviously solidly made, and would seem to be a reliable instrument, either new or secondhand. Purchasers of used instruments should bear in mind that a re-fretting job, and/or other minor repairs may be necessary, and that this should be taken into account when determining a fair

Measurements on Antoria Viking (which does not seem to have a serial number. Guitars need identification numbers).

Scale length 630 mm.
String spacing at bridge 50 mm.
String spacing at nut 38 mm.
Fingerboard width at nut 43 mm.
Lowest action under standard conditions 1.4 mm treble/2.0 mm bass.
Depth of neck at first fret 20 mm, at 12th fret 23.5 mm, at 15th fret 24 mm.
Weight of guitar 3.3 kilos.

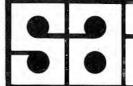
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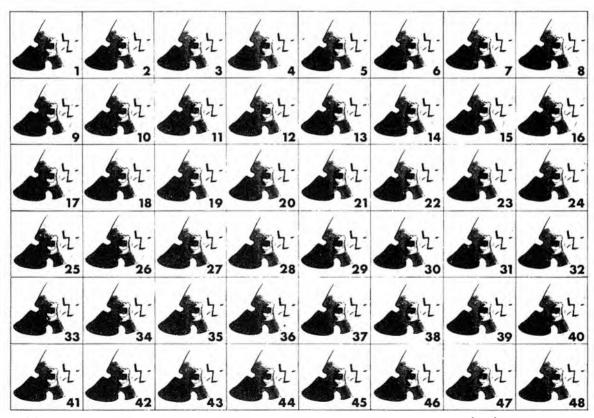
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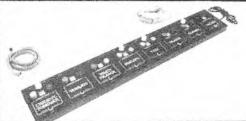
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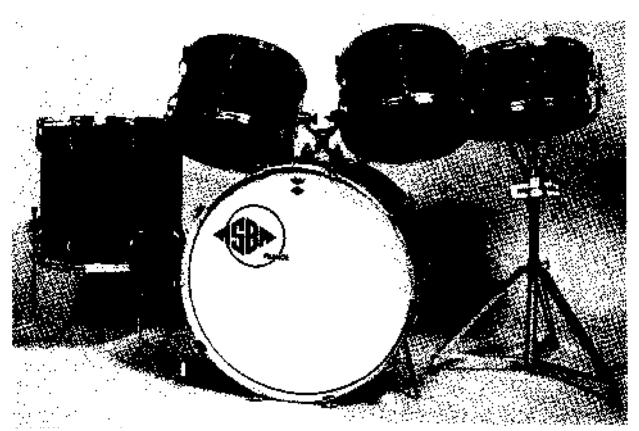
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mattacks' DRUMCHECK

Dave Mattacks is one of Britain's top session drummers who has worked extensively with dozens of top artists including Andy Fairweather Low, Kiki Dee, Brian Eno and Rick Wakeman. Although he works mainly freelance, Dave is a full time member of the Albion Band. He has been playing drums for 14 years and was with Fairport Convention between 1969 and 1974.



TEST ON: Asba Metal Shell Drums

DATE: May 1978

PRICE: £653.44 (drums) £182.52 (stands)

inc. VAT \$1,306/\$365

Introduction

Discussions will always take place comparing the merits of one wood drum kit with another, but when it comes to metal shell drums — "well, they're real loud and clangy!" They've been around for a while now but, as far as I know, Asba were the first to bring an all stainless steel kit onto the market and are now the first company to come up with a range of finishes apart from the stainless steel one. One of the most interesting points about the new range of finishes is the effect they have upon the sound: that is, the sound you normally expect from a metal-shell kit.

My overall impression of the drums was of a high quality product made with attention to detail; this was marred only by one or two small points. The kit I saw was as follows: 14 x 6½ snare drum, 13 x 9, 14 x 9, 16 x 16 tom-toms and 22

x 14 bass drum. The price I've quoted above for stands is for two cymbal stands, snare drum stand, hi-hat and the Caroline bass drum pedal. Ray Kitchen from Musicaid, the company importing the French drums, stresses that he wishes to get away from the idea of selling "the complete kit".

In other words, the prospective buyer could have just four drums without the tom-tom holder, for example (and also could choose what Remo heads he wants fitted) or he could have a complete kit with whatever stands and pedals he wants. To me, this is an obvious and excellent idea; does anyone buy a new complete kit and use ALL the drum company's fittings, pedals and stands? Incidentally, Asba are now doing a range of concert toms which are also available in metal.

Sound

I personally find that the Remo Ambassador heads have a far 'liver' sound than the CS heads, so it made sense to me that CS had been fitted to toms and bass drum. This definitely "thickens" the drum sound and cuts the high overtones.

The CS heads combined with the sandblasted/baked-on finish on all the shells (both inside and out) gave a loud yet thick sound. There was no sign of that "banging" sound --- certainly plenty of volume but with tone as well. The bass drum had a felt strip damper fitted to the front head but not the the back; for me, the wrong way round. One fitted to each head near the edge would have been preferable. The snare drum matched the other drums pefectly — a thick sound, yet bright and sensitive.

Bass Drum

The shell (like the snare drum's) is a millimetre thick — the tom-tom shells are .8 of a millimetre thick. The shell join overlaps — the same way the plastic covering does on a wood shell — and is spot welded very neatly along the length of the shell. None of the drums has the conventional 45 degree inverse flange, but instead all have a strengthening concave bead just down from the edge of the shell, top and bottom.

All the edges have a thin piece of "U"-shaped plastic fitted which prevents damage to the head and, as far as I can tell, does the job perfectly well. The bass drum has 20 lugs fitted which, like a lot of other odds and ends on the kit, look very Gretsch-like. The wooden hoops are natural wood with a matt black inlay which matches the drum finish.

Neither the bass drum hoops nor the shells of a natural light wood finish kit I saw when inspecting this metal set had any sort of polyurethane coating, so you'd have to be careful to handle the "unprotected" wood with clean hands because marks won't just wipe off and you could end up with a very grubby, uncleanable drum kit/bass drum hoops very quickly. The cast claws and the handles of the "T"-shaped tensioners were a little on the small side but, because both were obviously well made and efficient, the size didn't really matter; not that you need any great leverage to tighten a bass drum head. The disappearing spurs have very sharp points and are set at a sensible angle: approximately 75 degrees and pointly slightly forward. They were very efficient and once fixed in place by tightening the large round knob, didn't budge at all.

They reminded me of the old style Trixon spurs which definitely did their job very well, too. The new style tomtom holder... well, let me first make it plain that it's no big project to order the drums without one fitted. It looks (and acts, to an extent) like something from a 1970 Olympic drum catalogue.

It's basically a disappearing/wing-nut locked ratchet type. A poorly chromeplated cast block sits in the middle of the bass drum (wrong! When will drum companies learn and start putting mounting blocks near the front head so you can have your mounted toms close together without them hanging right over the back of the bass drum?) with two poles side by side into which go two tubes with wingnut locked cast ratchets at the top. Each of the two tubes - one for either tom has TWO telescopic stages (the height being adjustable by wing nuts which don't really grip or prevent turning) enabling you to have your toms approximately 2½ feet above your bass drum should you so desire - real handy, eh?

At the top of each tube the cast ratchets have a short stem which ends in another ratchet turned through 90 degrees to the lower one. Each tom has the other half of this final ratchet bolted to its shell. To separate the tom from the rest of the fitting for packing away purposes you have to undo and remove the wing nut which then allows the two halves of the ratchet - one on the tom, the other attached to the tube - to come apart, time-consuming and fiddly. Although the tube(s) which fits into the bass drum can obviously be turned through 360 degrees, and because of the way each ratchet is separated by a 90 degree turn (on a vertical, then horizontal axis), in theory it's possible to put the toms in any position.

However, this is a classic example of theory going right out the window when practicality rears its head. At certain angles it was possible to even get to the wing nuts to tighten the ratchets up! The most straightforward ideas nearly always work best — witness the basic simplicity of the Rogers Memriloc tom holder, for example. As it's the only item I really objected to on the kit, I'll mention again that you can have the drums without it.

Toms

The 13 x 9 and 14 x 9 toms both had 12 lugs per drums and the 16 x 16 had 16. All the toms were beautifully finished and fitted with solid cast Gretsch-style counter hoops. No air holes are drilled.

Slot-key tension rods are fitted throughout the kit and my only criticism of that aspect of the kit is that because the workmanship and machining is so precise, tensioning each head was very easy and gave me the impression the rods could be inclined to slip under heavy use a bit more than normal.

Neither the 13 nor the 14 had dampers fitted, but the 16 had a large adjustable felt strip underneath the top head. Tightening a knob (similar to the one used for the spurs) brings the felt strip up against the head much in the same way the Gretsch "Jimmy Pratt" bass drum damper works.

It was efficient. But I frankly thought it strange to fit such a comparatively large damper to the floor tom and none at all to the hanging toms. Asba have fitted a new style leg and bracket to their floor tom. They've dispensed with the ratchet/angle idea - with the previous method the only way it was possible to angle the leg outwards was if the drum was at maximum height - and employed a straightforward eye ring (which the wide-angle leg goes through) and wing nut device. My only criticism is that the wing nut could be a bit bigger and a "knurled" finish on the top section of the legs would help prevent slipping.

Snare Drum

The 14 x 61/2 was fitted with 20 lugs (the top row offset from the bottom), CS reverse head (ruff coated surface with the centre spot attached underneath), cast hoops, key holder, "flip-up" style damper, cast cam-action snare mechanism and 25-strand snares. The lugs (as fitted throughout the kit) are cast and springloaded. Instead of threads tapped into them, each lug has two short pieces of threaded rod attached which fit through corresponding holes in the shell. Washers and nuts keep each lug in place. On the snare drum, each rod of each lug has a plain washer, a serrated washer and finally a domed nut. It certainly makes a change from (in some cases) one selftapper for one double-ended lug. And yes, I do think the drum sounds better. The snare mechanism is excellent. The snares can be tightened or loosened from both sides of the drum by turning a large round knob (again!) which moves the release and/or the butt out from or onto the shell. The snares are attached to both ends of the mechanism by plastic strips and the shell has a very slight snare bed.

The damper is a variation on the earlier Ludwig "flip-up" style; a lever turns a small felt pad up against the batter head. The actual mechanism works well, but the damper itself isn't very efficient. The surface area is small and the whole thing tends to be a bit "on" or "off" without any in-between. There is also a key holder which is basically a hole in the shell with a rubber grommet. It works perfectly well, but to help stop the key rattling when in the holder, the key has a rubber washer around it which gets in the way when you want to tension or change a head. However, apart from the damper, and the relatively small point about the key, the drum is really excellent, beautifully made, and with a sound I especially

Accessories

As this review is mainly concerned with these new metal shell drums, I'll just briefly describe the stand available. Pride of place must go to the Asba "Caroline" bass drum pedal. When I first sat behind the kit I couldn't believe how great the action was - so smooth and positive. It must have been some time since I last tried one out, because after playing it I was sure it would be the only pedal that might ever make me change from my old Swiv-o-Matics! It has a onepiece footplate and a twin post cam action with a straightforward single expansion spring. Two long tightening screws, parallel to the twin posts, push a spring steel clamp onto the bass drum hoop and lock the pedal in place. The snare stand has a wide-angle tripod base and the angle adjustment utilises the ball and socket principle. When I did the wing nut up on the cast cage (which in turn tightens around the split ball, thereby securing the angle) it unfortunately didn't prevent me from tilting the drum. To retain the drum, you revolve the drum with the basket arms around it and the arms tighten onto the drum. To loosen, you spin the drum and arms around the opposite way. It was very secure once tightened up, but in my opinion it's another idea that's great in theory but rather irritatingly impractical in prac-The cymbal stands have heavy wide-angle tripod bases and cast ratchet They don't seem to do just a tilters. straightforward cymbal stand; one model branches out into a "Y" shape at the top so you can put two cymbals on it and another has a sort of boom device like an arm which attaches to the end of the tilter, but without a counter weight. All look fairly substantial. I didn't see a hi-hat when I went to review the drums, but apparently there's a new heavier version of the earlier one which has just come out onto the market. It has a wideangle tripod base with double struts, a spur at the bottom of the centre tube and a one-piece footplate with a toe stop and a fibre strap.

Appearance/Summary

The sand-blasted/baked-on type finish looked superb. The kit I saw was Ash Black and Asba do another four in various shades of blues and greys. This is apart from the stainless steel finish, of course. A bass drum had just been unpacked which had a bluish/grey finish to it (I don't know the name given this finish) and that looked great, too. As I said earlier, the overall impression is of precision and craftsmanship; the drums themselves really are beautifully made and finished. I feel that if Asba can get a little more in tune with what contempporary drummers are after (in other words, do a little more market research) without sacrificing their excellent quality and too much of their individualized style and design, it will improve matters considerably. In terms of value for money, I think the drums are very good indeed; a very competitive price for someone who's after a virtually customised metal kit.



rodford's BASSCHECK

Jim Rodford has been playing bass for bands including Argent and Phoenix, His latest gig is a world tour with the Kinks.

TEST ON: Kramer 350B Bass Guitar

DATE: May 1978

PRICE: £433.81 inc, VAT \$866



Introduction

The concept of an all, or part metal, guitar, has always interested me, and a few years ago I commissioned "Roger Miles" to build me a solid aluminium copy of an old Danelectro long horn bass I own.

The incredible treble, and "ringiness" achieved through the acoustic qualities of metal, give it a unique, but rarely usable sound. It's a great one-off instrument to own, but not to use as a bass guitar in the accepted sense, as it is impossible to achieve the variation of sounds required. It was with great interest then that I followed the emergence of the Travis Bean range of metal necked guitars, followed by the Kramers of similar concept.

Gary Kramer helped to design the Travis Bean, before leaving to develop his own ideas, which explains the obvious similarities. The instigation behind my experiment, was from a "sound" point of view, whereas I presume with Kramer, the main consideration was that of achieving unwarpable and untwistable rigidity in the neck, as well as perfect intonation fretwise.

This has unquestionably been achieved, and for me this is the most positive and "functional"-feeling bass I've ever played. The neck is a T shape in cross section, to allow wood inalys to be inset on the back, and therefore present a "warmer" surface to the left hand than the all-metal neck of the predecessor. This is a great improvement and works to a point, but I still find the comparative coldness of the remaining exposed metal a bit off-putting.

In a warm sweaty venue this would not be a problem, but might cause discomfort in a large "chilly" arena, or open air gig. The mirror finish U shaped head I find extremely attractive, and the "Schaller" machine heads look as if they have been designed for the instrument. The fingerboard looks like ebony, but is in fact a synthetic material called "Ebonol", which will not deteriorate or warp as wood can, and refretting can be carried out in the normal way when required.

The scale length is 33.750 ins, slightly shorter than a Fender precision, with twenty frets. The nut piece is aluminium, and is used only as a string spacer, presenting the strings to a piece of fretwire at the open position, at the exact top of the scale. This provides a more accurate method of string height and length adjustment, than the normal nut design, and the unwearable grooves in the nut accept any gauge of string.

Body

The body is constructed of extremely hard and dense Shedua and African hardwood, which gives plenty of sustain as well as an attractive appearance, having a similar shape to a "Precision".

On this model (the 350 B), there is only one pickup, placed midway between the bridge and the body neck joint. It is amply powerful, and tonally wide-ranging, with emphasis on the high treble frequencies. Together with the ringy acoustic properties of the metal neck, a great funky bass sound is obtainable, especially when hammering and pulling is employed.

Harmonics are also extremely easily found, with more extra multiple overtones audible, than from any other bass guitar I have tried. There are two rotary controls, volume and tone, and although as mentioned above, the treble response was fantastic (even more so than a "Rickenbacker"), I found it impossible to get rid of the "ring" altogether.

This could well have been due to the extremely "live" roundwound strings provided with this model, but I couldn't quite get the "thickness" of a "Precision" pick-up with the tone pot turned back. Bridge

The bridge is similar in concept to Fender, with screw and spring adjustment for the saddle movement, to alter string length. Two downward screws through each saddle, either side of the string seating groove, provide height adjustment for the strings.

A set of Allen Keys is provided for all these alterations as well as for many other screw adjustments at different locations on the guitar, this being the screw head design prefered by Kramer, with obvious quality factors in mind, which is admirable,

The only criticism I can level here, is not at the adjustment concept, but at a large percentage of musicians, myself included, who are notoriously "untogether" regarding this aspect of their hobby or profession, and would find it very easy to mislay a set of Allen Keys.

The point is it's much easier to find a screwdriver quickly than a set of Allen Keys that fit, in an emergency adjustment or repair situation, outside shopping hours. However, this is only a very minor point, as the quality of all the fittings is so high that, once set up to your individual requirements nothing should budge for years, unless something drastic happens to the guitar.

All the fittings and back cover plates are made of stainless steel or aluminium, and quality is evident on every feature of this instrument. The Jack socket is the Switchcraft double lock type and the tone pots are C.T.S. speed pots.

Finish

The finish is outstanding, with a substance they call "Diamond Coat" being used. I am informed that it is extremely durable as well as highly attractive, and makes the use of a scratch-plate unnecessary. The grain of the chosen cuts of wood for every instrument is extremely fancy and eyecatching and, all in all, this is one of the most beautiful and best finished basses available.

Other minor criticisms include the fact that there is no easy thumb rest for fingerstyle playing. The pickup usually provides this facility, but on this model the single pickup has highly chamfered edges, which do not provide a comfortable anchor for the thumb. As mentioned before, the comparative coldness of the remaining strips of metal on the back of the neck, even at ordinary room temperature is for me a small drawback, as is the general weight of the instrument. It's heavier than most basses obviously because of the metal neck and other fittings, plus the dense, hard wood used, but the advantages gained through intonation accuracy, and greater sustain, far outweigh this factor.

Conclusion

This single pickup model, the 350 B, is the second choice in a range of four bass guitars: 250 B, 350 B, 450 B and 650 B. At £433.81 including V.A.T. I feel this is probably one of the best-value-for-money basses on the market. Its delightful appearance, extremely durable and functional construction, plus all the aforementioned quality and sound factors, could possibly qualify it as a natural successor to the Fender Precision, as the definitive bass guitar. I was impressed.



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lumley's KEYBOARDCHECK

Robin Lumley is a record producer and keyboard player working mainly in London. His first major venture in the business was as keyboard man in Bowie's Spiders and he later formed a writing partnership with Jack Lancaster.



TEST ON: Hohner Clavinet D6

DATE: May 1978

PRICE: £499.86 (ex. VAT) \$1000

Introduction

This review covers two instruments this month, neither of them new to musicians or listeners, but both very important stalwarts of anyone's keyboard inventory. They are both, shall I say, "historic" instruments, in that they helped to shape the sounds of keyboard players before synthesisers really began to happen, and since players got a little tired with just having an organ to play.

So it was a real pleasure to sit down and play with these two keyboards, and see what Hohner have done with these revamped versions of their tried and tested favourites. I have, at one time or another, owned versions of both these two instruments, albeit far earlier marks, and have recorded both of them under studio conditions, as well as giving them plenty of "on the road" battering, and in fact was recently considering buying another D6, as mine has really "passed beyond".

Clavinet D6

Having tried the new Clavinet, with the resultant report for you, I can say that I'll be on the phone to Hohner to order one as soon as possible. So, first, the Clavinet, or "Clavvy", as it's fondly known:

For those of you who don't know about it already (and I suspect that can't be many), the Clavinet appeared first on the market round about 1970 and found 48

immediate acceptance as a funk machine, if you like. It is a mechanically-operated keyboard instrument, that causes an actual (rather than an electronic) sound to be produced, which is then "heard" by pick-ups, and plugged into an amp, much the same as a guitar. It has 60 keys, operating 60 plucks, that clonk 60 strings, all separately tunable. Thus the name. Clavinet, as it leans a little on the note-production principle of the Clavichord. So it's characteristic sound is that of a plucked rather than struck string. As it is purely mechanical, it's automatically touch sensitive: i.e. the harder you hit, the louder it sounds, just like a piano.

The keys form a single arm lever and when struck, the plunger underneath touches the string and presses it onto what the makers call an anvil. The string impinges (what a nice word) on the anvil with greater or less strength according to your key pressure, thus affecting the dynamics of the note. Immediately the key is released, plunger/anvil contact is broken, leaving the portion of the string behind the anvil free. As this bit of the string is wound with wool (in fact, the whole lot together looks like the hem of your favourite green cardigan), the string vibration is immediately muted. Magnetic pick-ups are situated at the right-hand end of the strings, (which run diagonally across the instrument below the keyboard) and their outputs wired through a series of rocker switches that control each of the pick-ups as well as four tone colour selections. The internal electrics are themselves powered by a 9 volt battery (PP/3), which seems to last a fair old time provided you remember to use the On/Off switch (though not while you are playing of course!)

That's got that techno-gumph out the way: what have Hohner done to their D6 for its 1978 version? Well, not a lot, and one could argue that they didn't need to, anyway. It still comes in its familiar box of nicely finished wood and vinyltype covering, so the appearance hasn't altered, and what's more important is that the sound hasn't altered. When one is purchasing a clavvy, it's for one specific purpose, and that is to have the Clavinet sound because, even with slight differences from the tone select switches, it's still the same, basically recognisable Clavinet sound. There is a damper lever which, when slid in (across variable positions) damps the strings somewhat, and this is a very useful tool when varying the kind of sound one obtains. But to have just one basic sound is far from being a drawback or a criticism of the instrument: in this case, it's a positive plus, because the Clavinet does just one thing, and does it Oh yes, I superbly well, soundwise. suppose it still feeds back a bit when you turn up too loud close to your amp, and yes, I guess it goes out of tune fairly easily, as they always do, but this has been around so long as an instrument. and has been used and loved by so many people, that it's almost an insult to start sounding off about improving the ergonomics, or pontificating about the tuning stability. It's a Clavinet, and we know what they're like, and we wouldn't want them to change. They sound great, and let's hope they'll keep on being built.

Incidentally, unlike many things these days, the workmanship of this 1978 model is, if anything, better than on my ancient 1973 version, with a better wood finish and, I think, slightly improved framing arrangements.



TEST ON: Hohner Planet T

DATE: May 1978

PRICE: £320.23 (ex. VAT) \$640

Pianet T

Now, to the Pianet T. I have a soft spot for Pianets in general, because when I started to learn to play the piano in 1971, it was a second-hand Pianet N that had to suffer constant wrong versions of C major scales, and hours of blunderingly inaccurate arpeggios (I could spell 'em then, even if I couldn't play 'em). I bought it for £30 in a shop in Devon, after walking in to look for "something to learn on". Of course, one really shouldn't try to learn on a Pianet (always stick to an acoustic piano) but I later found that you could connect it up to an amp, and even drive it through wah pedals and fuzz boxes. Dave Kaffinetti, of the original Rare Bird group, was a master of the use of the Pianet in this way, as they had no guitarist, and no synthesizers to substitute either.

As this is another "old" instrument the Pianet, reworked to a "T", (sorry about that awful joke) has certainly improved since its earlier incarnation. Gone are the internal wiring horrors, and that old photo-electric cell operated tremelo, and gone too are any traces of mains power or even battery powered circuits. Instead, this instrument is now very much like a guitar, in that you plug it in to an amp, and play it. The note production principle is unchanged, but the mechanics therein have been improved. It works, as ever, on the "twanging knife blade" idea, as each of the 60 normal-sized piano keys cause their respective metal tongue to vibrate, which is in turn heard by a pick-up.

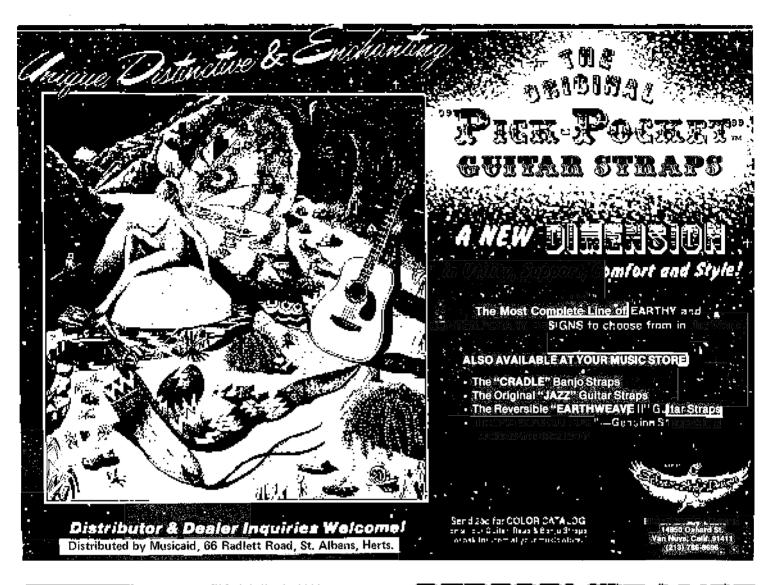
The vibration is caused by the key pulling on a little rubber suction pad, which is normally gobbing itself onto the flat surface of the metal reed. Pressing down on a key causes the pad to pull the reed upwards a wee bit, until the suction is overcome by the springiness of the reed, which then lets go and starts twanging. Really simple, eh? In the old Pianet N, there were sticky pads of everwet "gunge" that pulled up and let go in the same manner, and they always were collecting dust and mank, and geneally behaving in an anti-social manner. Well, that's cured now, and smart black case and strong clips also look better than the old wood finish.

The instrument again, like the Clavinet, has only one sound, and a slight criticism would be that no tone controls whatever are provided, and not even a volume pot. I don't see why they couldn't have popped one of those on, at least. Tuning is a little complicated, as if it does

wander out of tune, you've got to potter about with a blob of solder and a knife to change the soft metal loading at the tip of each blade. Still, that's no worse than a Wurlitzer electric piano, and with the Pianet you can say "Well, it was in tune when I bought it".

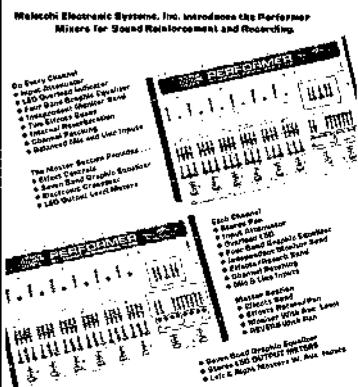
As for the uses in the present day for the Pianet, well they are really fine for the band who wants a quick and pleasant sounding keyboard, perhaps as an extra on-stage instrument for a guitarist, or as an extra little sound source to be plonked on top of a pile of Rhodes/MiniMoog/ String machine/Organ. But for today's bands, I would think it unlikely that the Pianet could exist on its own for an on-stage keyboard player, as it really doesn't do enough, and if it's all you have to play on, you could soon become tired of its sound. Blast it through various boxes and pedals, and have fun with it: it's really good for that sort of thing, but can't hold up entirely on its own. The Pianet T, reworked so well as it has been by Hohner, doesn't really stand the test of time like its stablemate, the Clavinet. Players expect and demand far more from an electric piano these days than the Pianet can offer, although I must stress that there is essentially nothing wrong with it; just limitations, Nevertheless, I thoroughly enjoyed encountering one again, and I might even buy another to have at home for working out little ideas of composition.

"They are both 'historic' instruments, in that they helped to shape the sounds of keyboard players before synthesizers really began to happen."





MARTIN STRINGS AND ACCESSORIES

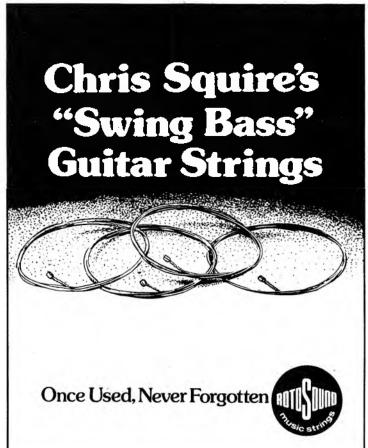


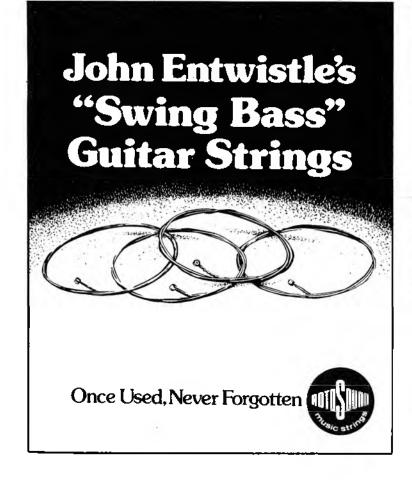


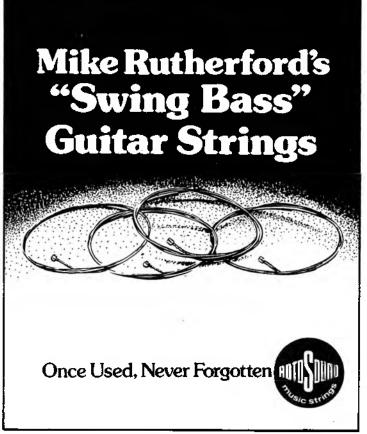
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You name 'em, and in the field of rock and roll Glyn Johns has produced 'em. Probably one of the most sought-after producers in Britain, Glyn has produced artists of no less a stature than The Beatles, Traffic, Eagles, Rolling Stones, and The Who to name but a few. His latest project was completion of A&M's "White Mansions" album, a lyrically graphic and musically excellent account of the American Civil War seen from the Southern point of view, and written by Britisher Paul Kennerley.

It was his satisfaction over "White Mansions" that prompted Glyn to consent to a rare interview. Certainly nobody's fool and with a self-admitted ego "as big as anyone you'll find", Glyn revealed himself to be a producer of radical, but simple, technique who feels he has done his job only when he has represented an artist in the best possible way they can be recorded.

As well as being a producer of undoubted ability, Glyn has also worked as an engineer giving him the advantage of being able to instantly choose the

correct technical route to achieve the sound he wants without going through a second pair of ears. He began as tape operator simply because he wanted to get into the record business as a singer. He cut a few singles under his own name which sank without trace and then began steadily working and learning his art.

This was the time when British rock was booming with all the famous bands like The Who and Stones cutting their best work. Glyn Johns was there with them producing and his reputation soared with the careers and record sales of the groups he was recording.

He was selected by the Beatles to salvage the tapes of the "Let It Be" sessions and mix the album virtually single-handed. Although he had strong feelings about this incident at the time he "couldn't give a monkey's" now.

More recently he was the guiding hand behind Joan Armatrading's first album acclaimed as being one of the strongest debut albums by anyone with the purest recording of acoustic guitar that you're ever likely to hear. Glyn has also brought American acts to England such as The Eagles and Ozark Mountain Daredevils and recorded them so authentically it is hard to believe they were not cut in the States. "Desperado",

l he **Glyn Johns**

Interview

by Ian White



Glyn Johns (far right) with Waylon Jennings (left) and John Dillon. ("White Mansions" sessions).

"I DON'T LIKE MANY OF THE NEW STUDIOS"

the Eagles' tale of the West was produced by Glyn in London.

He was fortunate enough to work in what he regards as the best studio in England at the time, IBC Studios, about the only independent studio there was then. There he had experience with working with the largest possible cross section of artists and music. He was taught in mono where multi-tracking did not exist and everything was done "live". This taught him to make snap decisions so he was well prepared when Rock came along and he had to formulate his own ideas of dealing with the problems the "new music" presented.

He was in on the ground floor of rock music in Britain and he also had plenty of experience in recording live classical concerts a time he refers to as "very educational".

When his singing career floundered, Glyn turned freelance engineer, the only one in England for about six years. The progression to producing was natural and the first album he produced in its entirety was. Steve Miller's "Children of the Future" in 1967. He admits he was lucky as well as being knowledgeable in working with top artists when he was an engineer and agrees he is always learning which is "what it's all about".



It seemed one of the obvious questions to ask Giyn exactly how he goes about recording an album and what his technique is. His reply may upset a few applecarts but his method is mainly free of clutter and basic in its technical application.

"I don't sit down before the fact and figure out precisely and exactly what I'm going to do with each song. The way I work is to listen to a song and think about how it can be changed to improve Then, having decided roughly on how I want to do it I then think about who I want to play on it. Instead of getting an arrangement done, the idea is to select musicians to play on each piece who actually suit the piece and allow them to interpret the music. Then, a proportion is controlled as you go along. Somebody might pick up on a song the way you thought or you may find your original idea was completely wrong and someone else will come up with an idea on the session. It's just a matter of having your ears to the ground and knobbling it when it comes along,"

Does Glyn Johns ever put a piece of music in front of a musician which the player must adhere to? "Oh Christ no! Absolutely not. The only time when a piece of music is written on a session that I'm involved with is if I've got a string section because clearly that is necessary. Even then I'll have a rough idea of what I want and I'll go through it with the arranger who does the writing.

"Being an engineer is a great advantage because I don't have to go through anyone else's head to get the sound I want. Having all the technical facilities at my disposal and control over what's played makes it a lot easier.

"I work in probably the most simple way there is. I'm not at all technically orientated. I work 16-track, I never work anything else and very rarely fill all them up. The music itself on most of the stuff I do is clearly the most important thing. Obviously there are certain instances where you need to create a mood when the music will actually call for something. But I rarely get over-technical at all".

Having worked studios both sides of the Atlantic, does Glyn find any important differences between recording in America or Britain?

"You can find rooms or facilities that would be similar to your taste so you can find whatever you want if you're prepared to look for it. I actually don't like many of the studios that have been built in the last ten or fifteen years".

"There are circumstances in a live room where you have to separate people off. For instance, if you've got acoustic guitars with a loud drummer. Even then you must take into account where you're putting the acoustic guitarist. If you're putting him in a booth it must be a "live" booth. You can't put him in somewhere where there is a carpet because it won't be fair on his instrument."

To what extent were Glyn's records produced under "live conditions"?

"You can't generalise because each circumstance calls for different techniques. Some artists like to play a lot of things themselves. Some people like to work with large rhythm sections. Wherever possible I try to use as many musicians on the track I can.

"It isn't always possible and sometimes the song actually develops better if you don't do it that way. But from what I can gather of the way other people work, I do things in a completely different way in that respect. I actually like to use lack of separation in the studio. I like the sound spreading. That's how I get half the sounds I get. Whether you like it or not is another matter.

"I prefer to just get on with it. If you take any rhythm section, and you want to put another guitar on it, and the song requires a really delicate feel which hopefully it does, an overdubbed rhythm instrument cannot affect the instruments that have already gone down.

"The musician becomes like part of a machine. He might as well be playing

"I WORK IN PROBABLY THE MOST SIMPLE WAY THERE IS"

with a rhythm box. It's a little more complicated than that, because it pulls and tugs in different directions. Just that in itself is not conducive to good music and that's the bottom line of it.

"A lot of people say I'm talking absolute toffee because some great stuff has been done by someone starting with one track and building up ten more. I'm not knocking that. It's just not what I particularly enjoy doing.

"I don't like studios any more here than I do in America because they don't allow me to work in the way I usually want to which is using the "sound" of a room. Very few studios have actually got a "sound". They are built to be dead and stop any sound escaping from one area to another in the room where the music is played. As far as the control room is concerned, the same thing applies. Designers of modern studios seem to have a method of building control rooms that they consider "flat". Although quite what they think "flat" is I don't quite understand. "Flat" is about it actually boring. If the rooms have no inherent colours to them at all I can't hear very well in them.

"What someone's opinion of a totally "flat" room is and what my opinion is are two different things. There is no such thing as a "flat" room, that's absolute balls! If anybody who tells you when you walk into a studio 'this room is flat' you might as well walk out because they obviously don't know what they're talking about.

"What they have done to get what they consider to be "flat" is taken any human element away from the room. They've made it completely dead and equalised the monitoring system to create what they consider to be a "flat" graph of sound. It's just a totally unrealistic way of working. You use probably at least twice the wattage in amplifiers to achieve the same level to the ear in such a room, which is mentally tiring. If you have a musician playing in a dead room with maximum separation of instruments, the sound must suffer.

"If you put a microphone really close up to something it is an increadibly unrealistic sound. What is being relied on then is the technology and the electronics

Interview

in the control room to re-create some kind of perspective in the sound.

"It's also for the people who are playing that I go for a live feel. Not everybody feels this way but I think a lot of musicians have never actually been fortunate to work in this way.

"There's a new studio in London which has a very live room. Someone told me they went in there and found they could work without earphones. I guarantee if you take an average rhythm section into that studio and tell them they don't need earphones they won't believe you and they'll put them on automatically. In a room like that a musician can play, he can hear what he is doing better, make his instrument be more expressive, as they can hear each other better. So clearly they are going to play better."

To what extent did Glyn allow someone he is producing to do what they wanted to do in the studio? "It very much depends on the individual and how strong they are. Basically I don't think I've ever worked with anybody, be they a novice, or not, that I haven't had a degree of respect for. There's no point.

"My job as a producer is to represent the artist on the record, not represent me. It's a very fine line. I suppose there have been occasions where I've felt an artist has been completely wrong about something. But I think the decision has been made basically in their interest. If anybody feels that I'm overruling them to their disadvantage, they can walk out. I never have any deal that sews someone up to me for five years. I'm not interested in that."

Didn't he think an album with the Glyn Johns name on it would carry more weight than it would otherwise?

"VERY FEW STUDIOS HAVE ACTUALLY GOT A 'SOUND'"

"If that's the case it's simply because the albums that people have seen my name on have been with great artists. And that's that. I've been really fortunate enough to work with people who are amazing and so I've been associated with them. If that means my name carries weight it means perhaps they'll identify with the artist whose record it is".

After Glyn Johns has produced a record though, is it essentially a Glyn Johns-produced album or a record by the performer?

"I don't think it's anybody else's business whose record it is. I think from the point of view of anybody listening to the record, that person has gone out and bought a record performed by somebody. Whoever aimed it in whatever direction is neither here nor there.

"That's why I rarely do interviews. If my name means something it's because of the artists I've worked with. If you go out and buy a Beatles, or Rolling Stones record you don't know what I did on them. And I don't really care if you don't know what I did on them. What matters to me is that the people with whom I work got off on it and that they're satisfied with it. If their performances have been done in a way that makes them feel as good as they are then that's my job done.

"Nobody knows what I've done on any given album even if it was someone who was there from the first session to the last because they've been involved in their own thing while the album's been going on. That's the way it should be, I can sit back at the end of it in the privacy of my own home and listen to it and think 'yeah, alright' or 'I blew it there'.

"If I'm not pleased with something I've done then I'll go and put it right. I won't let it go as far as the person buying the record. If I played the album having mixed it and there was something I didn't like about it I'd correct it if it was feasible to do so".

"White Mansions" was the first project of its kind that Glyn Johns has been involved in. That is, an album not belonging to a specific artist and having a definite story to it (i.e. the rise and fall of the South's resistance to the North in the war). It contains performances by Waylon Jennings, Eric Clapton and Bernie Leadon, with the rhythm section of Henry Spinetti (drums), and Dave Markee (bass).

""White Mansions" was fun because there wasn't an artist. There was a bunch of people and there was no egoclashing and you didn't have to worry about anyone's career or whether this or that was right for them."

The most difficult part of doing the album for Glyn was squeezing 25 minutes on to each side of the disc. He resolved this by not using track-separation bands much to the horror of some record executives who wanted the bands for the Disc Jockey's benefit. Glyn's answer was simple — "I don't make records for disc jockeys".

These days many artists insist on producing their own records. Glyn claims it is virtually impossible to be self-produced.

"It's very difficult for anybody to be that critical about their own performance. That's all it is. There is no other reason. Obviously when a lot of musicians have a producer they still end up doing what the producer does in a lot of cases. When it actually comes down to their own performance or even a song they've written, they're too involved to be objective about it."

Surely the same problem would apply to a producer, i.e. the danger of getting too involved with a mix or the arrangement of a song to be able to stnad back from it? Did that ever happen to him?

"I don't think like that somehow, I just go on my instincts of the moment. I don't know that I ever have to stand back and think in that way. It can happen that I can hear something too much. In that case I'll ask somebody else whose opinion I respect."

How familiar does he have to be with an artist before he goes into the studio with them? "The more familiar the better. I suppose it's an advantage to be a stranger. I don't know. Very often first albums are the most interesting because sparks fly a bit. Everyone is trying to assert themselves.

"I've had rows and disagreements with people. Funnily enough they're very rarely to do with the end result. I've had incredible rows with people over stupid things, which have just been their misbehaving or getting on my tits or whatever else. Like most people, I appreciate a degree of professionalism when I'm working.

"It's very easy for someone to get off the rails a bit. If you're trying to do something and they don't respect what you're trying to do and make a noise in the control room or whatever else, and then they invite their mother in. That's the sort of thing. You just have to tell them to piss off and that doesn't go down too well".

Does he have to be a fan of, or respect, the performer he is producing?

"I couldn't produce someone if I was apathetic towards them. There's no point



Glyn Johns - far right. ("White Mansions" sessions).

in that at all. The two most important things are (1) you get off on what they do and (2) you get on with the person.

"I go through the same process every time I'm introduced to an artist I'm asked to produce. And they are the two things you try and achieve some sensible answers to before you agree to do them. On a couple of occasions I've not done my research well enough before I've started and its not worked."

What is it like for him as a producer to tell someone whose music he really gets off on that they are not doing it right?

"I wouldn't just get in there and tell them they're not doing it right. You have to be more tactful than that. Anybody, be it a "star" or somebody who is in off the street, has to be treated with the same respect and courtesy.

"Before I can make a suggestion to anybody that they can improve something, I try to get in the position where they are going to listen to what I am going to say. If they really like what they've done, then that's it I wouldn't say any more."

Interview

One of Glyn's pet hates about producing is mixing. He hates it, "You can get too involved; I might get an idea to change the arrangement while I'm mixing which is why I like the artist there when I'm doing it. I can ask him then and there if he approves of it,

On Joan Armatrading's albums, the acoustic guitar clarity is amazing. How does Glyn record acoustic instruments,

"I invariably use a Neuman 87 condenser on the acoustic guitar. I use it from a distance, I don't actually mike anything particularly close. I don't approve of miking anything closely. There are instances where it is necessary, and there are instances where you actually require that sort of a sound. But it is a false sound that is achieved that way in my opinion.

"This is why I like a room with some colouration to it. I usually mike an acoustic guitar from anything between two and three feet away from the instrument. In my experience electric guitars, other than basses, don't record well direct. They're very dull. The only person I've worked with who has done DI successfully on his guitar is Pete Townshend. He uses a Geld pre-amp with its own graphic equaliser."

Is there ever a problem with sound levels in producing bands who play very loud in the studio?

"It can present problems. But if you've got a band like The Who and that's the level they play at, then the idea is to try and capture what they are doing

rather than try and alter the way they play. You can't interfere with someone too much otherwise you are destroying what you are in there to do. The most important thing is that the musician is comfortable when he is playing. If he's not happy he's not going to play well".

One of Glyn's best live records was the Stones' "Get Yer Yah Yahs Out". Generally he likes recording live. In his experience, recording a live gig can be very problematical or it can be a piece of cake.

"You have very little control. You might be able to choose the venue. Basically you're just putting microphones in the best places possible and hoping to luck. There is no such thing as a producer of a live album really because he doesn't have any control. An engineer records it and he mixes it and selects what takes go on. But he has no control over it unless he gets involved with the rehearsals beforehand and makes a contribution to the input then."

When he does not have to work with the musicians in a band, Glyn tends to select his sidemen from a small pool of session players. He is particularly enthusiastic about Henry Spinetti and Dave Markee (drums and bass respectively).

"They've worked for me in the last two to three years. They are absolutely incredible and I personally owe a great deal to both of them. They are remarkable people to work with. They are fine musicians, incredibly versatile but more than that they are great to work with. There's no ego involved, they are there to do it and I always enjoy working with them".

Many people ask him who he would still like to work with and his answer is that he is satisfied working with the people he is producing at the moment so he doesn't think too much about future projects.

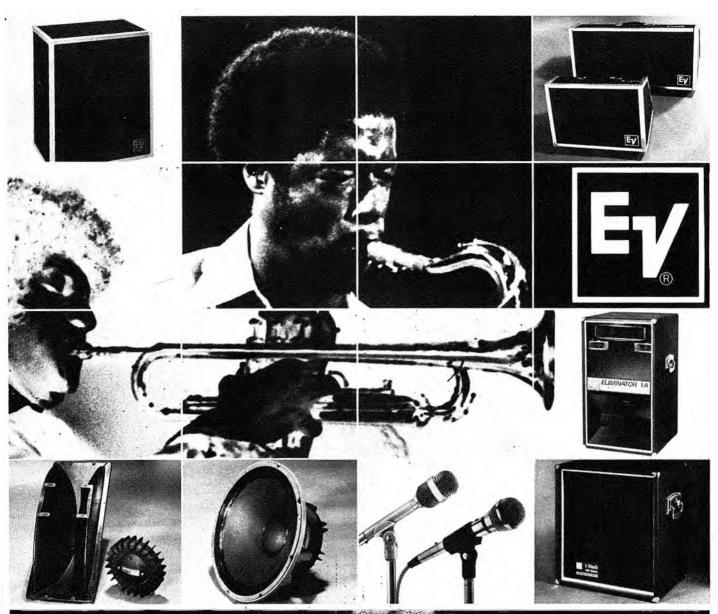
In the immediate future however, Glyn will be producing albums for Bernie Leadon, Eric Clapton and Joan Armatrading. His taste in music remains extremely wide.

"I've tried to keep a wide contingent of artists. Originally I was known for rock and roll and only ever did groups. I was very proud of that but I was equally interested in other things".

Would he ever want to record other types of music such as jazz or classical?

"No, because I'm not qualified to, I really enjoy listening to classical music, I enjoy certain aspects of jazz. But I'd be a big fraud if I went into either of those categories,

"I still enjoy music tremendously. If I didn't I couldn't possibly do what I do. That's why I'm so amazingly lucky, because I get to work with, watch, and learn from some really interesting musicians. It's an amazing job".



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donahue Dossier



There may be many people who think that Jerry Donahue is an Englishman because of his long association with Fairport Convention, But the 31-year old guitarist hails from New York and grew up (he moved to Hollywood when he was 6) in the glitter city.

He combines an American country feel with an English folk sensibility which makes his style solely unique. He is camfortable playing heavy rock phrases or gentie folk runs and his technique has been praised by everyone who hears him. Here he writes to about his technique and career which lad him to be one of the most respected names in the field.

Lately I've been using the Strat most of the time, the curly maple one, It's a '59; the body itself is different, it's a Charvel (guitar customizer in Los Angeles) maple body because the other body was in really bad shape and I don't think it was the best piece of wood they couldhave used, it just didn't have anywhere near the sound this one did. It's got the old sound even better now because it's got a heavier body. Some of those old oak bodies they used to use were really great But that's pretty rare even then because they used ash a lot, The Strat has got a five-way

toggle switch so I can use combinations of pickups. And also its got a little tone control you can pull out which has nothing to do with the tone except what it does it kicks in the treble pickup with whatever else happens to be on. So you can get two extreme pickups by putting the toggle switch in the neck pickup position and pulling that tone control out and then you get the treble pickup as well. And then you get all three with the toggle switch in the next position up from the neck which would put in the middle pickup and the neck pick up. With that tone control pulled out that would put in the treble pickup. So that's all three pick ups. The work was done by Red Rhodes (master

craftsman of guitar). The first guy to give me the idea of a five-way toggle switch though was Dan Armstrong. He gave me the idea of using two volume controls rather than two tones. So, you had the tone control operate all the pick ups and then I had a volume control for the middle pick up. You're only supposed to get one of three sounds out of a Strat but I'm sure nobody used it that way They either try to wedge the toggle switch in-between which is kind of messy if you're trying to get the sound in the middle of a number. The five-way toggle switch is an improvement so why not use it?

Red Ahodes rewound the pickups on one of my Strats. The Telecaster is stock, a '52 and with a body made by a guitar builder in England named Dick Knight which is bird's eye maple. That has a stock Telecaster pickup and in the neck I've got a rewound Strat pickup. It's rewound pretty powerfully so it metches that Telecaster pick up. The stock neck Tele pick ups are for rhythm and don't have any power so it's kind of hard to get any sustain out of them, A Strat pick up really works well there.

TELE PICKUPS

I tried various pickups in that position: I had a humbucking pick up there but they really don't match up very well. The humbucking pick up is too bottom heavy and too woolly sounding for the Tele; it's too sharp a difference. With the Strat pick up I've got a lot of punch but at least I've got a lot of punch but at least it's the same kind of sound. The amp I'm now using is a Music Man 2 x 10", 130 watts. But when I'm on stage and need more power I use a Mitchell 2 x 12" Altec Lansing cabinet and one of those Mitchell reflex cabinets. They're really heavy because they're sand filled or sand packed and then fibre glass lined from the inside so that all the sound just goes straight

in the States I use a Music Man and over in England I use the Fender Twin. In the studio you can mess around with the sound a lot and get pretty much what you eed anyway. But for stage I prefer the MusicMan.

I've got quite a good effects board that was built for me by a guy in England calledChris Myring called Myring Wiring. It's got a wah-wah pedal and a volume pedal. The volume pedal is really interesting because it's a master volume pedal, it turns the amplifier down instead of the guitar. I've had the master volume control on the amplifier taken off and a stereo jack put in there.

You put a stereo jack into that and into this pedal and the way it's been rewired means it acts like the master volume that was on the amp. So wherever you have the volume set on the preamp that determines the kind of sound I'm going to get; if I want a really raunchy sound I'll turn that volume all the way up and then keep my pedal volume not too loud, But it's great because I can play around with the reverb and stuff like that. If you hit the reverb and then pull back on the master volume it cuts out the sound completely, If I hit the strings with the sound off and then let the pedal out you hear just the reverb and then the note. here are more obvious advantages like not losing treble when you pull back on the volume and you do lose the hiss of course because you are turning the amp down. So if you need something quiet you pull back on the pedal and it's coming out quiet without all that

It's a De Armond case for the pedal but the volume pot is something Chris put in there. Actually that was Dan Armstrong's idea.

I have little buttons for each effect - there are about six effects - which I can use in and out. One, is a Dan Armstrong limiter built into the board. Then there's a reverb switch which can give me two settings of reverb and I can set both of those from the amplifier so if I want a little reverb for while I'm playing and then want to kick in a lot more for a solo I don't have to go reaching back to the amplifier; there's another switch which will take the sound off completely so that if I need to tune on stage I can cut it off. It's a mute button which cuts off the sound totally and yet I can still look back at the visual tuner and I can tune to that without the audience hearing any notes, I use an MXR compressor and an MXR phase shifter and also sometimes an MXR distortion unit; they're all plugged in from an external outlet. That way I can see if they're on or off because there's a light for each of those switches, Fuse an MXR flanger too, which is independent of the

I play a lot of acoustic guitar and I've got a Martin 0018 which has been kind of battered up and is in for repair now. I got it for nothing from a friend of mine; I think it was hit over somebody's head because it's got a real bad crack in the rib, on the side, so I think that's going to need to be replaced. And the neck has been pulled half way away from the body; it's in pretty bad shape but ypu can still heer it's a great sound. It's a 1944 model.

ACOUSTIC GUITAR

In fact I only just got hold of recently which is why it's still in the shop. With Fairport I used Dave Pegg's Martin in the studio; I think that was a 0018 or an 018, it had a fairly small body. But I used it on that track from the *Nine* album, a track which starts off with acoustic guitar and fiddle called "The Brilliancy Mediey & Cherokee Shuffle," That's got a really good sound; I used it on all the stuff in the studio. On stage I always use electric

electric.

If I ever played acoustic on stage it was only when I had a solo spot. There were a couple of tours that we did where each member of the band would go out and do their little thing so I played an instrumental by Jerry Reed called 'The Claw.' But whenever we were all together it was just easier to keep it electric.

SPECIAL TUNING

Luse pick and fingers on acoustic, but Joan (Armatrading) went through a lot of different acoustic tunings that were exactly the standard guitar tuning but everything was down a tone so it still sounds the same but it just gives a huskier sound. And of course when I played a chord and she played a chord we'd be doing different inversions. She'd have an E shape and I'd have a D shape this gives a wider sound. Her 12-string was tuned to a standard E and she had another 6-string which was tuned to an open Dichord. But I usually stick to the normal tuning. The only thing I would change is maybe the top string which I'd tune down a tone if I was going to use some bottle-neck.

The kind of picks I use I got from England and I managed to save enough to keep me going for a while. They're tortoise shell and they're illegal now. But I've gotten so used to the feel that it's hard for me to use plastic because plastic breaks and tortoise shell doesn't. It wears down gradually so there's never a fear of breaking a pick on stage. I use very heavy ones. I just use the transparent plastic ones and fingerpicks on the Dobro.

I'm now using D'Arco Funkies standard light strings, I used to use the ultra-slinkies but they're not powerful enough. I sort of worked my way up Into a heavier gauge. I used to use those because I do bendings that require more than just a tone difference, some of them go two tones, so I couldn't start right off the bat with this particular gauge.

I don't like thin picks because I don't want any give from the pick; I want the give to come from me if there is any.

I can make the guitar sound like a pedal steel which usually comes from bending more than one string at a time. Sometimes I bend them in different directions so that will give the effect of the steel guitar sound pedals. I just listened to a lot of steel guitar players and just tried to get the sound as close as I could on the guitar, I started doing that just before Fotheringay and I incorporated a lot of that sound into the band's music.

I've been using a steel slide lately; it's just whatever I can get hold of in some store somewhere around the country

by A. Horsman B.A.Ph.D

Confused by sine waves, VCO's and amplitudes? This new series by expert Tony Horsman will clear up the mystique of the synthesizer.

Introduction

In this series of articles, I will be describing in a way which you can easily follow how synthesizers work and how they can be used to produce the sounds you are searching for. There will be at least ten articles in the series, each leading on from the one before, starting next month with simple descriptions of the individual synthesizer modules and building up gradually step by step so that, in the end, you will be able to understand the most sophisticated of synthesizer systems such as those used by Tangerine Dream and Tomita.

But before we start on the synthesizer modules themselves (I will be explaining the mysteries of voltagecontrolled oscillators, keyboard voltages and gate pulses in future articles) let's have a look at some basic terms, many of which you have probably heard and used countless times. Some of them you may be a bit vague about; so let's press on and relate these terms — familiar or not! to sound synthesis whenever we can.

Sound Waves

All music, speech and noise reaches you through minute variations in the pressure of the air between your ear and the source of sound. A loudspeaker is an obvious example of a sound source, the loudspeaker cone producing sound by moving in and out in response to the electric current supplied to its coil by the amplifier. The movements of the cone produce pressure variations, or sound waves, in the air which travel outwards at about 1100 feet per second - that's approximately 750 miles per hour. These pressures waves quickly reach your ear and produce movements of your ear drum which are very similar to the movements made by the loudspeaker cone. What we hear as sound are the rapid changes in pressure of the air near the eardrum. All this is illustrated in Fig. 1. You will see that the movements of the loudspeaker cone are along the direction of the sound itself, and for this reason sound waves are known as longitudinal waves.

Oscillations

Suppose we take an acoustic guitar, place a microphone in front of it and

connect the microphone to an amplifier and speaker as shown in Fig. 2. Pluck a string and, assuming all's well, we hear a note emerge from the speaker. It is worth thinking about the different types of process that have occurred:

First, a string was set into vibration by plucking it. The regular, repetitive (periodic) movements of the string back and forth can be described as "oscillations"; the string is oscillating. Second, the vibrations of the string were transmitted very rapidly through the bridge to the body of the guitar (pressure waves in solids and liquids travel incredibly fast -much faster than in air). Thirdly, the guitar body set the air vibrating and the sound waves travelled to the microphone. Inside the microphone is a diaphragm which vibrates when sound waves strike it, and the fourth stage of the process was the production of electrical currents by the vibrating diaphragm. The amplifier converted the tiny electrical signals from the microphone into currents sufficiently large to produce vibrations of the speaker cone . . . and you know the story from there (see Fig. 1). Don't think that "oscillation" just means the ear-splitting howl due to "feedback" in a P.A. system.

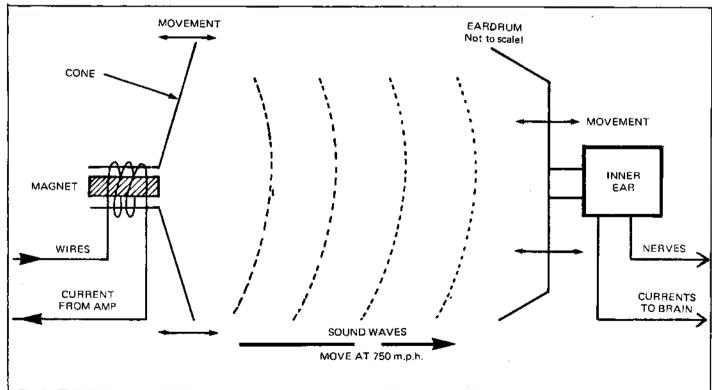


Fig 1. This diagram is definitely not to scale, but shows how the movements of the loudspeaker cone and eardrum are similar. It's a curious fact that synthesizers produce electric currents (it's the

loudspeaker that produces the sound!) and our brains detect sounds from the electric currents received down nerves from the inner ear. Do *not* attempt a direct connection!

UNDERSTANDING SYNTHESIZERS

Oscillations are vibrations — vibrations in solids and gases (air for example), or vibrations of the tiny particles (electrons) to the amplifier and from the amplifier to the speaker.

Frequency

Let's return to the vibrating guitar string; it is oscillating back and forth very rapidly. If you could see the individual vibrations, you would find that the string is repeating a fixed cycle of events (cycle for short). Starting when the string is straight, it moves out to one side (getting tighter as it does so), back again the This cycle (one complete "vibration" or "oscillation") would occur about 82 times a second if the lowest E string was plucked and about 329 times a second for the highest string. Another way of putting this is to say that the lowest string vibrates with a frequency of 82 cycles per second (c.p.s.) or 82 Hertz (Hz) (pronounced "hurts"). Cycles per second and "Hertz" are the same thing (Hertz was a scientist). I will be using the abbreviations Hz (Hertz) and kHz (kilo-Hertz) in later paragraphs, the latter standing for "thousands of cycles per

seconds). So, for future reference, 2kHz means a frequency of 2,000 cycles per second. By the way, the term frequency is used interchangeably with pitch; low-pitched notes have low frequencies and high-pitched notes have high frequencies. It is worth remembering that everytime the frequency doubles the pitch rises by one octave.

There is, of course, a direct correspondence between the movements of the guitar string in Fig. 2, the variations in air pressure around the microphone and the electrical signal generated by the microphone. Fig. 3 shows how these different types of oscillation can be represented by very similar graphs. In Fig. 3A, the first guide is marked starting at • and ending at X. If 82 of these cycles are occurring every second (frequency = 82 Hz), then one cycle takes 1/82nd second (that is the period of the oscillation).

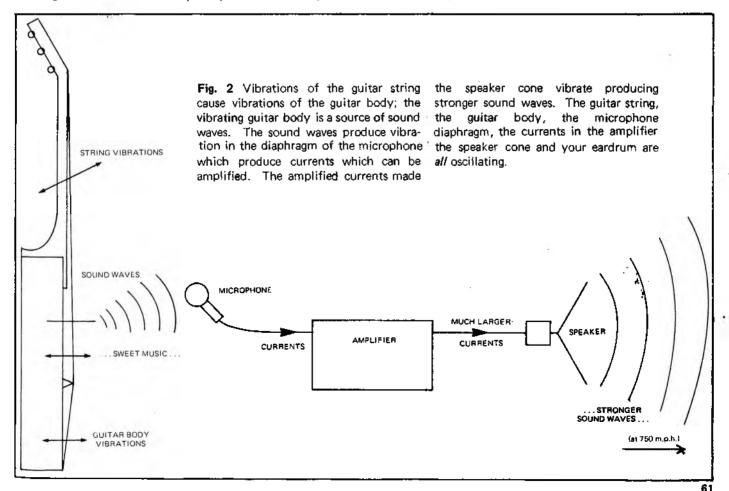
Synthesizers produce the widest range of frequencies of all musical instruments, from frequencies as low as 1/10Hz (i.e. only one cycle every 10 seconds) to frequencies as high as 20kHz, which you cannot hear — a total range of more than 17 octaves! For comparison, the range of the pipe organ is about 10 octaves, the

piano usually 7 octaves and the human voice only about 2 octaves.

Amplitude

We have so far considered only the pitch (frequency) of sounds, but of course there is another quality of sound - its volume - which is all-important. Referring back to Fig. 2, it is common experience that plucking the guitar string harder produces a louder sound because the string then vibrates over a wider range. The maximum movement to right or left is called the amplitude of the vibration or oscillation. Just as the term "frequency" can be applied to different sorts of oscillations (e.g. mechanical vibrations or electrical signals), so the term "amplitude" applies to all types of oscillation. In Fig. 3, the maximum height of the curves above or below the horizontal line represents the amplitude of mechanical oscillations (Fig. 3A). pressure oscillations (Fig. 3B) and electrical oscillations (Fig. 3C).

Now Fig. 3 shows only about 3 cycles of each type of oscillation and it looks as though the amplitude might stay the same indefinitely. Synthesizers are one of the few instruments capable of



UNDERSTANDING SYNTHESIZERS

producing oscillations at constant amplitude, but almost every other instrument produces sounds which vary in amplitude (volume, or loudness). Fig. 4 shows how the amplitude of the sound produced by striking one note on the piano increases very suddenly, then decreases gradually as long as the key is held down and then decreases quite rapidly as the key is released (when the damper stops the strings vibrating). As you will be hearing later in the series, synthesizers do have facilities for varying the amplitude of its signals (the oscillations) and it is possible to produce very authentic piano sounds using a relatively small synthesizer.

Decibels

Whatever the type of oscillation, frequency is always measured in terms of "cycles per second" (Hertz). At first sight, you might think that amplitudes might be measured in different terms according to the type of oscillation . . . and you would be right. Distances can be measured in inches, pressures in pounds per square inch, electrical signals in terms of amps (current) as volts (voltage). But suppose we think of everything in relative terms? Let's imagine we have a musical genius, Fred, who can always pluck the guitar in Fig. 2 in exactly the same way. You come along and have a go after Fred. Now we can compare the amplitude of the string movement you produced with Fred's; relative to Fred, you produced say twice the amplitude. Relative to Fred, the microphone produced twice the output when you played - and so on. All the amplitudes for the different types of oscillation have the same relative value when you compare your efforts with Fred's. When amplitudes are expressed relative to some reference value, the term "decibels" is used. Because of the way engineers have chosen to define them mathematically. decibels (dB) have one particularly useful property, which is best illustrated with a table:

reference amplitude is	called	0db
x 10	**	+20dB
x 10 x 10 (100)	**	+40dB
x 10 x 10 x 10 (1000)	"	+60dB

Every tenfold increase relative to the reference amplitude is called an increase of 20dB. You might like to check that 120dB corresponds to 1,000,000 times the reference value, and as a useful fact for future reference, every time the amplitude doubles we say the "signal" has increased by 6dB.

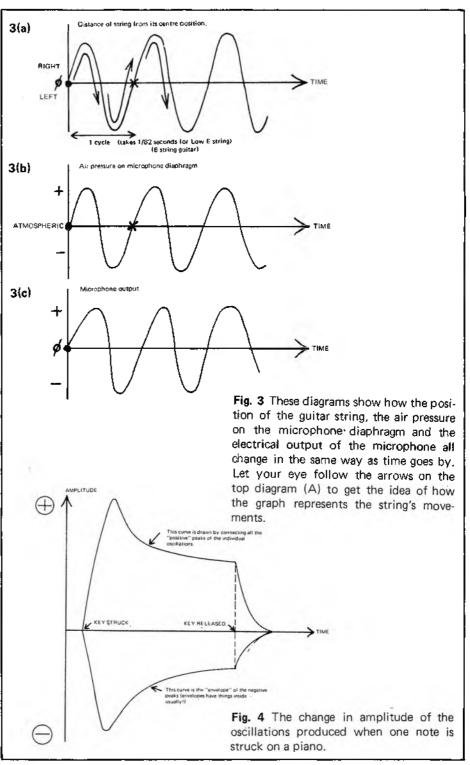
Amplitude is measured in *Volts* and the above decibel scale is used to compare voltages. With synthesizers we are dealing with voltages, *not watts*. In order to clear the minds of those of you who may be a little confused about power decibels, (used to compare power outputs from loudspeakers or amplifiers), the following rule applies. With power (watts):

x 10 x 10 (100) " x 10 x 10 x 10 (1000) " 20dB

30dB

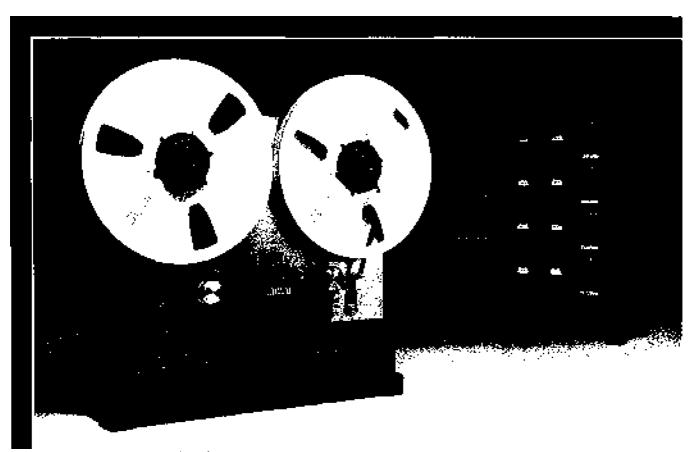
Doubling the power, say 50 watts to 100 watts is a 3 dB step or increase. However, do not forget that we are dealing with volts when we are talking amplitudes and dealing with synthesizers.

Next month we will go on to discuss OdB Aural Sensitivity, Vibrato, Tremelo and 10dB Waveforms in general.





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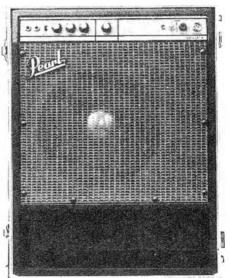
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1 IC. 12 Diodes **CONSUMING POWER: 150W**

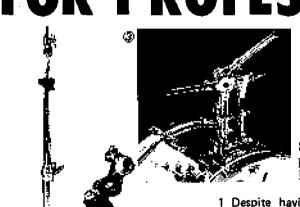
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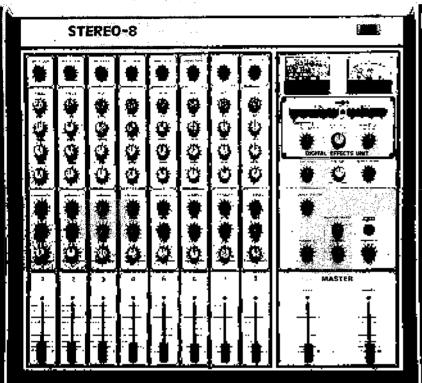


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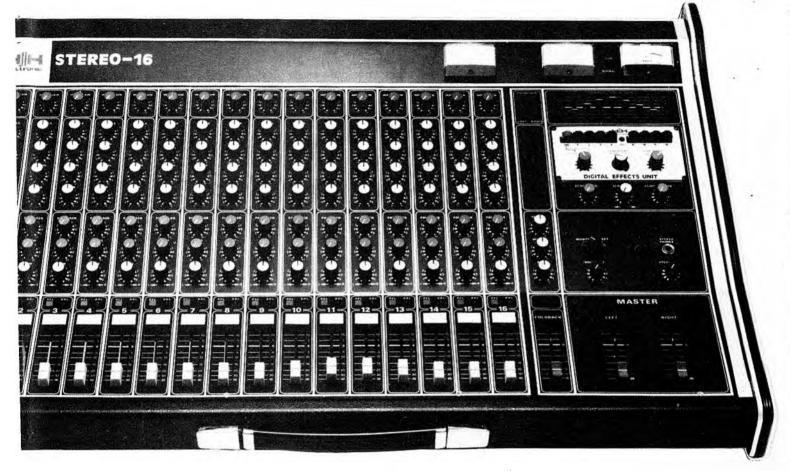
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IN BRIEF IN BRIEF

On Test: Gherson solid. Price £160 inc VAT (\$320)

This guitar, like the rest of the Gherson range, originated in Italy and is styled after the Gibson SG guitar. Gherson are very much into the "copy" market but they are also very good at it. I remember seeing a Gherson Jazz Bass about three years ago that compared very favourably to the real thing.

The body is solid ash and, while this review sample has a maple fingerboard, there is also the option of ebony with block inlays. The pickups are doublecoil units with adjustable pole-pieces. The bridge and tailpiece seem to be their own design. Certainly, I have never come across them before. The bridge is adjustable for height via two thumb-rollers and string length can be varied with the six individual screws. On top of these screws, six individual roller-type saddles sit so there are no sharp angles for the strings to run across. However, with the bridge set so close, adjusting for intonation is very awkward.



The controls are as you would expect — volume and tone for each pickup and a three-way selector switch for back, front or both pickups. One criticism here: the bass tone control is situated much too close to the jack socket for comfort. If, like me, you usually adjust the tone by curling your little finger around the knob, you will find it a little difficult as your finger becomes jammed between the knob and the jack plug.

The machine heads are Schallers and all worked well with the exception of the third. Admittedly, the strings were light and the G a plain string, but with the slightest amount of bending, it slipped out of tune. It's possible that the machine was just a one-off bad one but certainly something to look out for as Schallers are becoming notorious for their inconsistency of quality.

I'm told that ace guitar maker Chris Eccleshall sets up each and every Gherson before it leaves the warehouse so that's a great plus in their favour. Certainly, the review sample was perfectly set-up, the intonation faultless and the action just right. The sound of the guitar was also better than many other copies, the pickups sounding nice and gutsy with lots of sustain.

Last, but certainly not least, the price. With so many smaller manufacturers bringing out copies for many times the price of this Gherson, it's got to be well worth checking out.

Eamonn Percival

On Test: Shure 702 Monitor Price: £125 (inc. VAT)

You can't beat a good monitor. On stage it's perhaps more crucial for the band to hear what's happening than the audience. Let's face it, you only play well when you're comfortable with the sound and a decent monitor is a chief link in the chain.

The Shure 702 is one of the clearest and, just as important, unobtrusive monitors we've seen and heard. Here is a monitor that has been designed to be just that . . . a foldback unit designed just for onstage use. Even at high volume levels its feedback capability is thankfully almost nil and the sound dispersion is quite extraordinary. With the 702 in the middle of the stage it was heard by everyone in the band that tested it — again with no feedback.

The secret of the 702 is the threetweeter design which ensures that the high-end dispersion fans out. As a result, crisp vocals are thrown out to the sides as well as the front giving exceptional stage coverage.

The 702 was tested through the Shure Vocal Master system but it would be equally at home with any good PA



system. The 702 handles 50 watts continuously at 16 ohms and puts out 114 dB of sound pressure level at four feet.

The actual clarity of the vocals through the 702 was astounding. Vocals cut through bass, drums and guitars like a knife through butter. The two 8-inch speakers provided just enough "body" to the voices while the tweeters took care of the brightness. The 702 is equipped with a volume control so each performer can adjust the level of his own monitor to suit himself. However, using just the one monitor means the volume should be set at maximum to achieve the right ohmage. A decrease in volume with one 702 in the system means you lose the cutting edge.

One of the best features of the 702 is its compact size. Two units can easily be carried in one hand and its smallness means minimal stage clutter. A musician could have one at its feet and hardly notice it was ever in his way.

The 702 can be set up in either a 30 degree or 60 degree position and is equipped with rubber feet on two surfaces. We'd definitely recommend the 702 to any band looking for good monitors or wanting to upgrade their existing setup.

Ian White

Bandstand — The Spirit of '56 combo. Price £291 plus VAT (\$382)

A new company called Bird Brothers have produced this attractive little valve combination amplifier which pushes 70 watts of power through a special Fane 15" speaker.

At first glance, it looks very similar to the early Fender combo. It's covered in a beige leathercloth with the same heavy-duty speaker grille and a brown front panel, which is angled back at 45 degrees to the front.

There are two channels — each with its own volume control. All tone controls (Bass, Middle and Treble) affect both channels which, in turn, are linked to a

IN BRIEF



Master Volume control. By turning the Channel Two volume on full and turning the Master Volume down, a beautiful overdrive effect is produced. This sound worked particularly well with an SG copy with double coil pickups but not so well with a Strat copy.

With the Strat copy, the notes tended to break up, the sound wasn't quite as smooth with single coil pickups. To the right of the front panel, the fuse holder and the Power and Standby switches are located.

The Bandstand combo was very loud indeed and, even at full volume, there was no undue distortion. I felt, however, the sound was somehow "held back", almost compressed. But it's a very clean amp if you're not using the overdrive facility—it would probably make an ideal small studio amp. It would also make a great stage amp if 70 watts is enough for you—ideal for the smaller club or cabaret group as it is quite small.

Although it is a little on the heavy side, you can purchase a specially built flight case for an extra £60 (\$120). The top of the case lifts straight off, over the combo leaving the Bandstand standing in the base of the flight case.

All in all, a pretty versatile and powerful combo although, in our opinion, about a third too expensive.

Eamonn Percival

On Test: Powertran D.I.Y. amp kit Price: PS14001 £205 (+VAT) PS14002 £220 (+VAT)

Powertran Electronics of Andover have recently introduced two new D.I.Y. kits to their range of kit products, which should interest those of our readers who are practically minded.

The new kits enable you to build two very high-power slave amplifiers each giving over 400 watts into 4 ohms and the amplifiers have been given model numbers PS14001 and PS14002.

The amplifiers can only be supplied

in kit form and come complete with all components including substantial metal-work and hardware as well as a very informative instructional booklet on how to assemble the amplifier kit.

The booklet also covers resistor colour codes and soldering techniques which is very helpful for beginners to electronic assembly work.

The PS14001 and PS14002 are two channel amplifiers with twin stabilized power supplies and can each deliver over 200 watts per channel into 4 ohms at something like 0.03% T.H.D. A hum and

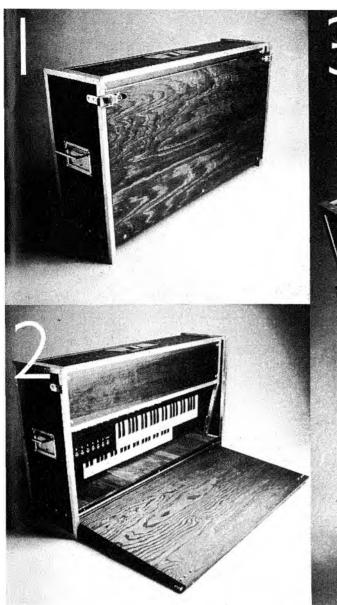
noise figure of -101 dB (CCIR weighted) is claimed.

The assembled amplifiers are substantial and professional in both design and appearance and are suitable for 19" rack mounting or free standing applications. The PS14001 has a gain booster switch incorporated to change the input sensitivity by varying the amplifier gain by 10 or 20 dB and the PS14002's sensitivity is set at 0 dB (775 mV.).

Malcolm Green









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WLM organs come in two models: the HIT is a portable combo organ that folds into its wooden case in ten

seconds. Its well-designed structure and sturdy cabinet easily withstands the rough life on the road — a source of comfort to a touring musician.

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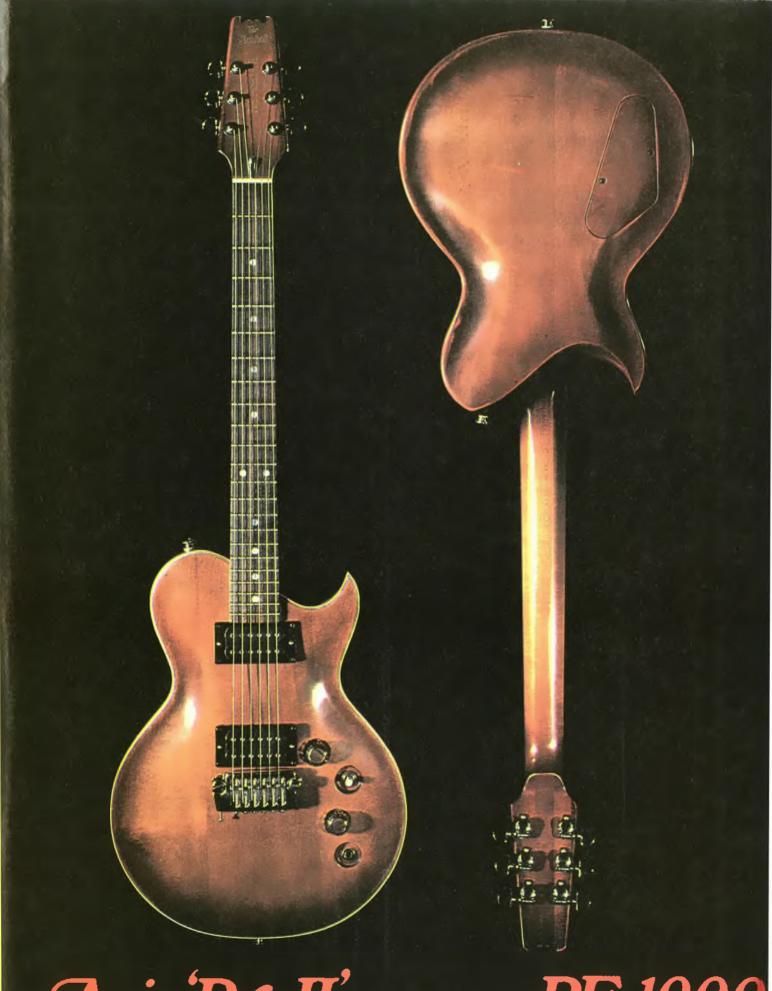
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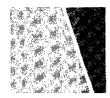
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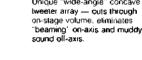
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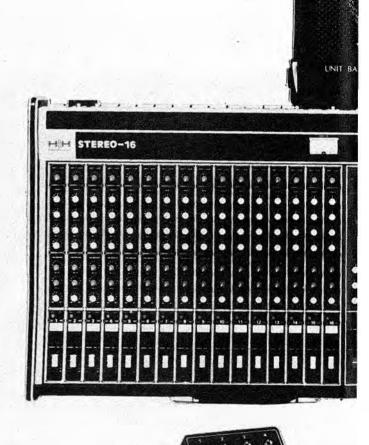
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PICK-UP POWER

Ray Hammond talks to Larry DiMarzio

Larry DiMarzio couldn't afford humbucker to a Strat and discovera Gibson Les Paul. He wanted one. after all everybody in New York was playing them in the late sixties. But Larry had a Stratocaster. So because he didn't have any money he was forced to sit down and mess around with different pick-ups until the Strat sounded the way he wanted it to. So an industry was born.

Now head of the DiMarzio Corporation, Larry went on to produce the finest "replacement" pick-ups for electric guitars the rock world had seen. That step made him rich and allowed him to remain within music – his first love in one qo.

Originally Larry wanted to be a professional musician and teacher. His private ambition was to introduce the study of rock into the conservative music colleges, but along the road he got sidetracked.

"I started playing guitar when I was 13 or 14." Larry recalled for International Musician, "I played professionally in bar bands and discos and I studied music at college. I was principally into rock but I studied jazz with a guy named Jack Wilkins for a long time and I worked with a lot of people who were at New York City Studio.

"I was really serious when I was in school because I wanted to teach, I really love teaching the quitar. It seemed that being a musician and a teacher would be a really good way of earning a living and I felt there was a void in music schools. Their idea of progressive is jazz and be-bop and I wanted to deal with popular music and electronics.

"My electronics thing came about because I originally went to school at Brooklyn Tec. which is an engineering school and I was working on being an audio engineer in hi-fi and electronics. My idea of a good time was taking apart a T.V. that someone had thrown out.'

Because necessity was the mother of invention. Larry started to adapt his own guitar. At first he had failures - fitting a Gibson

ing that the string spacings were wrong for example, but later he began to do some really nice work on guitars. So nice that he landed a job at a shop called Guitar Lab in Manhattan. The job called for Larry to be a guitar repairman and he wasn't really allowed to work on anything but woodwork type repairs. His burning desire, however, was to continue his pick-up research that had started when he first tried to adapt his Strat. Then the boss gave him a box of unwanted

"He gave me a box about 12 inches deep full of broken pick-ups. I took them home and there was almost every single pick-up there, humbuckers, Fenders, the lot. There were a lot of similarities in these pick-ups and I began to sort out the differences in design. Then I came to the question of working out why these pick-ups sounded the way thev did. Everybody then was wanting old guitars and it seemed that everybody felt that old guitars sounded better than new ones. I tried to find out why and the answer came down to the pick-ups."

This research was the foundation stone that led to DiMarzio pick-up technology. This musical electronics engineer had hit on the fundamental element in a quitar's sound. It was only a short step to winding his own pick-ups.

"At first I was just building them for friends but they became very popular and I started to take little advertisements. At that time I was just supplying the pick-ups by mail-order and as my sales built up so I stepped up my advertising."

From this point onwards the DiMarzio story enters the public arena. Larry got the company onto a commercial fitting and was joined by the partner who was to become the marketing force of the organisation, Steve Kaufman.

"I remember the early days on the road trying to sell DiMarzios. We went though all the usual traumas that new companies exception the reception from the exception the reception in the dealers was excellent. It built up very rapidly indeed. It seems that every guitarist had been waiting for a way to improve his favourite guitar.'

Steve took the DiMarzio name right across the world. Today the products from the wide range of DiMarzio pick-ups are fitted to guitars manufactured in many countries in the world. DiMarzio has even designed a simpler version of his famous electric pick-ups to be fitted to an economy quitar built in Japan.

Ask any rock quitarist to name his ultimate instrument and nine out of ten will pick a quitar "with DiMarzios".



Larry DiMarzio

Steve Kaufman

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DOUBLE TROUBLE

An Exclusive Interview with Carmine Appice

Carmine Appice is as responsible for the shape of contemporary rock drumming as anyone. Back in the days when he was still with the now-legendary Vanilla Fudge, he instituted the large double bass drum sound as well as large drums in general. His use of double bass drums influenced many players to come and such greats as John Bonham and Roger Taylor aknowledge this.

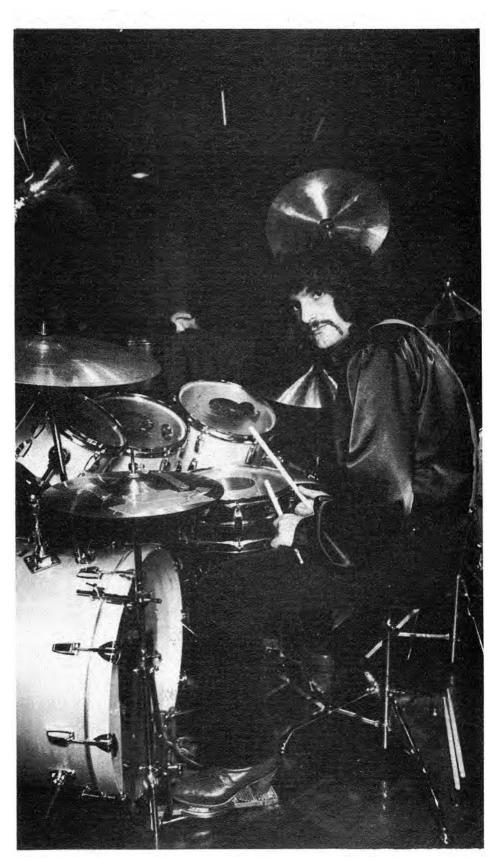
While with Cactus he perfected the speed type of playing which was that band's hallmark and later, with Jeff Beck, he provided perfect support for the English guitarist's brutally masterful playing. Now, with Rod Stewart, he takes the part of the perfect metronome, giving balance to Stewart's vocals.

Appice is a player. He takes pride in his stage and studio work and to ensure the ongoing process he takes part in clinics, lectures, the writing of books, and the making of teaching records. In the following conversation he talks about all of the above and much more.

When did you first start playing?

I guess I first started banging on pots and pans when I was eight or nine years old. I used to bang on everything in the house and my folks said "Well, he's banging on everything so let's get him a set of drums." They got me one of these toy sets of drums with paper heads. For two years running. I'd get them in the morning and, by the evening, I was right through the heads because they were made of paper. I did that for a couple of years. When I was at school, I used to go check out the bands and go where the bands were practicing and bang on the drums. I didn't really get serious about it all until I was 14, when my parents bought me a regular set of drums which cost \$55. It was just a snare drum, bass drum and a cymbal. I had that set from about 13½ until 15 and then I bought a set of Gretsch, a 3-piece set which cost me \$325. Those were the drums that I used with "You Keep Me Hanging' On" with the Fudge. So I had them a long time.

When I was 13%, I played for six months on my own listening to Gene Krupa and Buddy Rich and all those big band people. In those days there were drum singles out too like Sandy Nelson's



"Teen Beat" and I used to learn all that stuff. Then I started studying when I was about 14, and I noticed an amazing improvement when I started studying. I took lessons for three years but in the three year span I learned five years' worth of work. In the first week I was there I went through half of the first book. And the teacher said, "Wow, this is a first for me". I did real well with him; he was just a local guy, Dick Bennett, and he used to teach around Brooklyn, I noticed myself improving at an amazing rate. I had a friend and he was always the neighbourhood's best drummer and I was out to get him. He was way up there and I was way down there. I started taking lessons and passed him and he just stood there. For me it was like, "Wow, I beat out the neighbourhood drummer, this is amazing!" And so I kept with it, kept studying, playing, studying, until I was about 17 or 18.

Then I started playing everything — bar mitzvahs, sweet sixteen parties, weddings. When I was about 17 or 18, I started directing more towards rock dances for churches and clubs where you had to do all rock. So, from then on, I just got basically into all rock and left the society gigs out. That went on until I joined a group called the Pigeons which was later the Vanilla Fudge.

How old were you when you joined the Pigeons?

I was 20 years old. When I joined the Pigeons, Timmy (Bogert) was always a loud bass player and in those days, 1966, he was using two Dual Showmans and he was loud as hell, so I put a microphone in my bass drum. I always used to cut up paper and varnish the insides of my bass drums and all my drums to make them louder because that would seal up all the pores. I'd have a layer of four or five inches of chopped up paper. I'd lay the microphone right on top of that and it would come out the air hole and we'd plug it into Timmy's amp. That worked pretty good because Timmy played out of it and the bass drum came out of it and it gave the spread of the bass drum from the two amps and the sound of the bass drum itself so it was a pretty big sound.

I used that from '66 through '67 and then about April or May of '67, just as we were changing our name to Vanilla Fudge, we were playing up in Poughkeepsie, New York, and a friend of mine who was a drummer said "I know where you can get this big old bass drum." It was a 26" bass drum, a Leedy bass drum from the 1930's. It cost five bucks, so I said "Great". My concept was, "Well, if they're using bigger amps, I'll use bigger drums." In those days everybody had

little drums. So I had this big bass drum which I covered myself in red sparkle to match the rest of the kit which was a hell of a job. So now I had this Gretsch kit with a Leedy 26" bass drum which was amazing. Everywhere I used to go, drummers would come up to me and say "Where did you get that?" and they just used to freak out, especially in Europe. The first time the Fudge went to Europe, all the English drummers went bananas over that drum.

I used the kit with the big bass drum from May '67 onward. I was using one bass. I replaced the Gretsch bass with this one and left it at home along with a couple of other drums which, in turn, my brother (Vinnie) started playing on. He was nine years old and I went home one day and he was playing all these amazing drum patterns that he learned himself. So I told my parents to send him for lessons to the same guy I went to. He went and studied for three years also.

How long before you went to double basses?

Well at that point, it was about a year because I got my Leedy bass drum in May of '67 and then "Hanging' On" came out in June and we went to Europe that year. I still had it then and I got my sponsorship from Ludwig in June of '68. That's when I went crazy with the big drums. They said "What do you want?" and I said "Well, let me see." I told them I used a big bass drum and I thought the concept of all big drums would be great. So I ordered 26" x 14" bass drums, my small tom was a marching tenor drum which was 12" x 15", and my next sized tom was a 16" x 18", and then they made me a 22" bass drum over on the side for a big tom. With a $6\frac{1}{2}$ " x 14" snare, that was the drum set that started the whole craze with big drums. When I got that set I couldn't believe it and, as a matter of fact. they couldn't believe it. Ludwig called me up about two weeks after the order went in and whoever was in charge of advertising said "Mr. Appice, we have an order for drums here that we don't think is right." And I said, "What is it?" and they named it off and I said "No, that's right." They said "But these drums are real gigantic, what are you going to do with them?" I said "That's what I want, real foud drums," So their minds were blown, they had never even seen a kit like that in 20 years. So they built it for me and when I got it I couldn't believe it; it was just unbelievable.

So you feel you were the first to develop the big drum sound?

Yep, without a doubt. Before "Hangin' On", who had a big drum sound? Keith Moon had a big drum sound but it wasn't really as ballsy as we had; Ginger Baker never really had a big sound, he always had a pretty thin drum sound. My kit was definitely the first big kit. And then when we took Zeppelin on tour and John Bonham saw those drums, he said "Oh man, get me some," I remember calling Ludwig and saying "Look, I have this guy who is on tour with us, an opening band called Led Zeppelin. think they're going to be big. He wants to get a duplicate set of mine so if you can't give them to him for nothing maybe you can give him 50% off or something." So it ended up they sponsored him from my phone call and he ordered a duplicate set of mine. The next tour we did, it was equal bill and we both had the same set of drums and he was real happy with them. But mine were definitely the first ones and I'm proud of that because now everybody has something so different that they're looking and searching for a way to set their kits up differently with a 92" tom tom in the front. They're getting to the point now where I've seen drummers with 32" bass drums and they just sound terrible. They're too big. A little kid thinks "Ah, I've got to have a gigantic bass drum, it'll sound amazing." But that's wrong because the beater does not hit in the middle of the bass drum; it hits too far down at the bottom. And it sort of messes up the sound. I found that out from my 26's.

It was easy to play 26's and that big set with the Fudge because there was a lot of down material. When Cactus came along it was real high energy stuff and I switched over to an Octa-Plus set and I changed the bass drum size from 26" x 14" to 24" x 15" and I only lost one inch. The size of the head was really good because the beater hit right in the middle.

You were already singing with the Fudge? Yeah, I've always sung with all the bands I've been with. As a matter of fact before the Pigeons we couldn't afford a boom stand and I used to have a microphone hanging right to my left and I'd always

You never had any problem coordinating playing and singing?

turn my head and bang into the mike.

Not really. The only time is when you're working up a new tune and there's counterparts happening between your playing and your singing. It's just that you have to practice it; it's an independence, another independence you have to learn. It gets a little difficult if you're playing a time signature and you're playing 7/8 and singing but you get used to it.

Your playing on the first Cactus album is some of the best you've ever done.

That was a hot album, that was a real hot album. I mean we just smoked; (Jim) McCarty was ungodly.

Let's backtrack a little: tell IM about the show with Vanilla Fudge, Jeff Beck and Ten Years After.

Oh, God. That was the first time I ever saw Beck and Rod and all that. We actually played with him before that, he did the Coke commercial with us. There was a Coke commercial out with Vanilla Fudge and Jeff played on it because Vinnie got sick. That's when we first played together and that's when the whole thing started. That gig was unbelievable; Ten Years After opened up, then there was the Jeff Beck Group with Rod and Ronnie and then Vanilla Fudge. But, in between, Zeppelin came up and jammed with them and it was very hard to follow. It was at an outdoor stadium, oval in shape, and I was sitting behind the stage area all the way up the top. And I remember seeing the Beck band and Stewart prancing around with the microphone. My mother and father were there and she still remembers Stewart from It was great, they were really amazing. Beck was just ridiculous. Tony Newman was playing drums and he was pretty good, I enjoyed him. Zeppelin came up and it was total insanity. I was going to join in with them too in the jam but there were two drummers going already and Bonzo had just stood up and took all his clothes off. My mother said "What is he doing?" and she really freaked out. It was an amazing gig, I'll never forget it. And then we went on and Vinnie Martel was really really bummed out and I mean can you blame the guy? Playing with Alvin Lee, Jeff Beck and Jimmy Page and then he's got to go up? We used to do "The Break Song" and Vinnie was trying so hard to be as good as them and he'd make a solo go for 20 minutes. And we're all playing and we're going "Geez, Vinnie, c'mon, let's cool it already." But after that, me and Timmy started realizing where it was at and maybe we should try and get a thing together with Beck.

So Beck and Page were on stage playing together?

Yeah, it was amazing. The audience was going totally bananas. I think they did "You Shook Me." Zeppelin would go on before us when it was an equal bill thing. One night they'd go on before us and one night we'd go on before them, so I remember one night they went on and their last song was "How Many More Times." So you know where Page and Plant did their thing together? Well me and Tim switched with John Paul and Bonzo because we knew all their tunes and they knew all our tunes. So the fill came in and me and Timmy were playing and Page turned around and said "Oh, far out" and we just jammed around. We went on and opened with "Shotgun" and Page and Vinnie were playing guitars and Bonzo came out and was playing on some of my drums and I was playing drums and Plant was singing with Timmy and Mark. John Paul was playing piano and Mark was playing organ. Those were the good rock days, those were the days when it was fun. Now it's back to singles and being ultra-commercial and it's very hard, especially for drummers. That's why I'm trying to bring drums to the front again.

You enjoyed the Cactus band?

Oh, yeah. You see all the bands with Timmy had the same ending. Timmy is such a good bass player he should get in a band where he should have a bass player and he should play lead bass. Because he's the only one who does it the way he does. Whereas, when you've got a trio with a vocalist or whatever and you get a guitar player who goes for a solo, Timmy is right on his back. After six months of that, the guitarist says "Hey, man, I'm tired of this," That's what happened with Jim McCarty and Cactus and we got this new young kid and he got fed up with it; me and Tim split and went with Jeff and, for the first six months, Jeff loved it. He used to lay chords down so Tim could play solos but, after a while, Jeff used to come up to me and say "Can't Tim lay back? Can't he play a groove?" And I'd have to talk to Tim. Finally it just got out of hand. It's the same story with any guitarist that Tim's ever played with. I was always in the middle. But I dug Cactus, it was a high energy band.

What about the Isle of Wight show?

That was three o'clock in the morning, freezing our asses off and the audience so far away, 50 feet away. You couldn't even see them. So we just went up and played "Parchment Farm" for ourselves and got off. We did the whole set but it was so late at night we just wanted to get the hell out of there. But it came out pretty good; we had the right to go down and mix it. The sound wasn't the best but it was honkin'. McCarty was just amazing, so much energy. I'm sure that if the vibe between Jim and Tim didn't go the way it was, the band would have ended up being a fairly large band. The first two albums did great for us.

What did you think of the Beck, Bogert & Appice album?

I thought it was one of the best things I've done playing-wise. It was just the type of thing where we knew it was going to be a big album and we knew that we were players and that the audience was going to be listening to the playing. So we just played great, I thought. Tim even played good on that. Tim is a great player in his style but on that album he really shines. Because he's playing his style but holding the groove. I thought "Lady" was just amazing bass playing.

But it's very hard to record with Tim because he plays so loud and his bass range is right in the midrange where your drums are. It would knock out your drum sound immediately. At least now on the Stewart album, the drum sound I've got is what I want. I'm back to a "Hangin' On" type drum sound.

What kind of set did you use with the Beck band?

I used my walnut Octa-Plus set, the same set I had in Cactus, I did the first two Cactus albums on a smaller set, I didn't use the big set because I was experimenting. Then I went to the Octa-Plus and I did the BBA album with the Octa-Plus.

I got the Octa-Plus set in '71, about a vear after Cactus got together and I started using that. So I had the Octa-Plus set from then until now. As a matter of fact, the set I use with Rod is the walnut Octa-Plus set, the original ones. It's actually the first Octa-Plus set Ludwig ever made. It sounds amazing, it really does; that's what we used on the tour here. And I started using that with BBA except, if I remember right, it wasn't that particular set that I used on the album because I've got two of them. One is walnut and one is mahogany and the mahogany set I got in '73 before the BBA tours. And I used the walnut set for Europe and England, we left that set there, and I used the mahogany set for America, Australia and Japan. The recording of the BBA album was done with the mahogany Octa-Plus set, I also did the live Japanese album on the mahogany set.

What is the exact set you're using now?

I'm using (2) $24'' \times 15''$ bass drums; a $5\%'' \times 14''$ Ludwig Super 400 snare, and the total Octa-Plus tom-toms which have 10", 12", 13", 14", 15", 16" right down the line. A 20" tympani; a 52" Paiste gong; I use a wah-wah hookup on my snare drum which I had built when I was with Beck; I use a set of Syndrums which are implanted in my 6" and 8" tom-toms so they don't look like the Dyndrum, they look like a regular drum. I use a 22" Paiste heavy ride; a 20" Paiste medium crash; an 18" Paiste medium crash; Sound Edge 15" medium hi-hats; Speed King pedals and all Ludwig hardware. I also have two Chinese cymbals, one 18" medium Paiste with rivets that always fall. out so it doesn't have rivets anymore and one 1930's Chinese cymbal; a real old one from China which is a real ugly brown colour. I use those two on two boom stands over and in front of me.

What is it about Ludwig that you like?

For me Ludwig is good because I have my drums custom made and all the stuff I have holds up real good; I hardly ever break things. They're going through a thing now where they're going to make a lot of new changes. They're going to make their stands a lot heavier; for instance, the hi-hat. I've got a couple of prototypes that are amazing, really thick. But basically what I like is the drums; the Ludwig bass drums and toms sound real good. They have a lot of balls, good tone. And now I have the new maple kit. They're six-ply and really heavy; they won't warp and they sound good.

I like the snare drum, There's something about a Ludwig snare drum that has a certain sound, a certain crack that's good for rock. It's good for anything really. I've used Rogers snare drums and Ludwig and Slingerland and Gretsch and I find that the Ludwig has a little more bite and a little more sound. It's very hard to explain sound.

Again, if I need something, they make it up for me and it holds up great. I'm like their guinea pig if they want something tested. When the 1402 stands came out, the big heavy ones, we were playing a gig with Jethro Tull and Led Zeppelin. It was when I was with Vanilla Fudge and it was a gig in Chicago at the Kinetic Playground. I was testing their 1402 stand that night and I hit it a few times and cracked it right in half. I gave it back to them the next day and said "Here's your stand back!" They really care about it, they want to know why things break.

Have you always used Sound Control heads?

No. I use the Remo black dot head in the studio for recording on the snare drum because it gives a little more bottom end. But I use Ludwig silver dot heads on everything else. I find the Ludwig heads last longer. I had this freak Remo head on for 70 concerts and two albums, it never broke. The way it eventually broke was when a truss fell and hit the snare drum and split it. So I put Remos on and every show I would have to put another one on because they got wrecked. I think Ludwig are making real good skins now. The only thing they fall down on is their sticks. Their sticks aren't too strong but they're getting better.

What kind of sticks do you use?

I use Regal 5A's and 1 throw out Ludwig 5A's on stage.

You use the heavy ends when you play? Usually; when I'm playing all-out heavy rock. But, for soft tunes, I turn the sticks around. That's why I use the Regals, because they get a good cymbal sound, it's very clear. Even on the toms it's clear.

You use a matched grip?

Yeah. I played 12 years traditional and the way I switched over to matched grip technically is a very funny story. I was on tour with BBA and I had this amazing callous, a blood blister. Two nights later, we had to play in London and people like Emerson, Lake & Palmer were gonna be there, a lot of heavies from London, and I had to be good so I saw a doctor to see if he could so something for me. And the doctor was Dr. Roberts, from the Beatles song. So I told him the problem and I said "Give me something to rub on it to deaden it." He said "We have to inject it" and I said "I don't want you to inject my thumb". So he put two needles in and novacained my thumb and it was great for that night. But then I noticed over the next couple

of days where he had injected it it was still hurting. I went on for a week and a half and, before I knew it, there was something wrong with the needle and it gave me an infection that went up my arm and reached up my elbow and hit a gland. I was back in London and went to see another doctor, a lady doctor, and she lanced it, and said "It was a good thing you came here or you could have got gangrene!" That was all over and done with and I finished the tour and came back to New York and had my drum studio going and I was there teaching. I put this traditional grip there because when we went through technical books I used to hold it that way and I couldn't do any of the 5-stroke, 7-stroke or any of the rolls because I couldn't put any pressure on that thumb where the needle went in. I had to turn the stick around the other way so, by teaching four of five days a week on my time off, I went through all the elementary books with the students, I went through the technical books and, after about 3 or 4 months of that, my hands started developing.

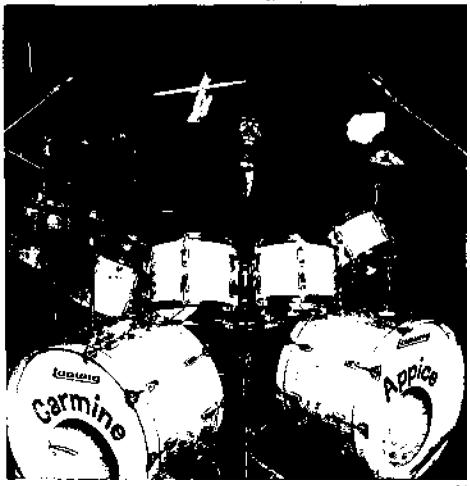
In a way it is better because when I used to play live and do a solo and I wanted to do something technical, I'd have to switch my stick around. I'd be playing the heavy stuff and if I wanted to do accented triplets or 5 or 7-stroke rolls, I'd have to switch the stick around. But now I do it all with matched grip.

How would you describe an Appice solo? I have a skeleton solo that I use and I try to incorporate showmanship the way Krupa did. Stick twirling and all that because it's not just the solo that people get off on. It depends on what audience I'm playing for. For instance, if I play for a BBA audience, it would be a more technical solo than if I played with Rod. Because the audience level of technical consciousness is a lot less with Rod because it's mostly a lot of little girls that don't know the different between a 7-stroke roll and a four-stroke ruff. Whereas, when you get an "instrumental" audience, they know the difference.

With BBA I used to do a lot more technical stuff; I used to try and start the solo off and build it to a point and bring that dynamics down and fool around with different accents and wah-wah and sound, cymbal sounds and bending, and I liked to get the audience involved with me. I'd get them clapping and then I would play to them. That way it's all like one unit. I try not to do it too long because it gets too boring; there's some guys now who still do 20-minute solos.

You really have to lay back playing with Stewart?

Yeah, obviously. With Rod, it's playing more power than technical beats but when I joined up with him he knew who I was and he said to me "I don't want to cramp your style. You will get a solo and you can play like you played in Cactus." In a way it's good because, through the show, I concentrate on keeping the grooves, playing real powerful, and playing with a lot of showmanship. And by the time my solo comes, I have lots of energy to do it.





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If you're keeping a groove and you do some real good fills and then come back to the groove the fill comes out that much better. I used to tell Tim that. I'd say "Tim, when you space out, it's great but if you have nowhere to come back to and stay spaced out all the time, nobody is going to realise how good that spaced out thing you did was."

Rod is a little different than anyone I've ever played with: I quess it was because he played so long with Kenny Jones (Faces drummer). Kenny is a good drummer and he'd always play behind the beat. There's the beat and you can be a little ahead of it, right on it, or a little behind it and still be in that space of a quarter note. Kenny always played on the very back of the quarter note and Rod got used to that. For me, when I first came in there, I would play spot right on the beat and Rod would say "Lay back a little bit." So what happens is I have to lay back to almost slow down the track and the guitarists have to stay on top of it in order to get that effect. When we do that I count another tempo so it makes it like a flam almost. And that's how I try and keep behind it or otherwise I would just naturally stay right on top of it. It's good because it gives the group a really loose feel instead of a tense feel. With every group you play with, you learn something new; with McCarty and that band I learned to play

How do you think your use of double basses has improved?

I don't know if it's improved in the last couple of years because the material I'm playing doesn't call for double bass drums, especially with Rod's band. It has seven pieces and if you put another bass drum in it just makes everything cloudy and muddy. When I played with Beck it was a trio so you needed the double bass drum to fill it up. improved to a point; I do things like play backwards and play the rhythms I play with my right foot on my left foot just to keep the left foot in shape. The the basic patterns I use are the same I did with the Fudge. And also the fact that the hi-hat has become so important. You really need a third foot to operate everything so I use a lot more hi-hat patterns than I used to and less double bass.

Are your drums amplified in any special way?

They're just miked from the top, a hole in the bass drum head. I try not to pad anything up; I just put a little piece of foam rubber in the bass drum and just mike around the tops, overhead around the snare drum and mike the hi-hat. In the studio we have a whole bunch of different tricks.

Do you like your drum sound on the Stewart album?

Yeah, Andy Johns is amazing. We've been experimenting together; now I don't use earphones but I use speakers behind

me and there's a mike right over my shoulder for the snare drum. Rear mikes and mikes in phase and I think we're developing a good drum sound. On the last album, I didn't use tom-toms and they seem to explode more. Bonzo does that with Zeppelin. I used to do that with the Fudge for the first three albums and then I switched over to the Octa-Plus for three or four years and my drum sound changed. I was thinking back on what I did different and I remember all my drum heads used to be on top and bottom and the bass drum as well. So we're back to that: I started a thing and got off it and people like Bonzo jumped on it and really developed it and so now I'm back to where I was.

Would you like to do same work on your own?

Yeah; my managers and I feel the time is right to do some drum singles a la "Topsy Part 2" and "Wipeout", Sandy Nelson and all that. Except I'd do it modern. What I'm trying to do is cross it over with jungle rhythm type stuff and disco bass drum patterns which is 4/4. Having intricate patterns on the tom-toms and a real strong melody over it; a bass, few guitars, drums and a few percussion things, tambourines or whatever, and voices. I really feel strong about it; the last one who had a hit like that was Cozy Powell. I thought they were pretty good; the drum sound was great and Cozy told me that he just laid down five minutes of drums and then Mickie Most put it all together.

I also want to put my own album together. There will be a remake of "Ain't That Peculiar" with the Rod Stewart band on it and a thing called "Level Crossing" which is a big epic cross between Zeppelin and the jazz rock thing. And about six or seven other tunes with regular vocal harmonies I'll be singing.

On "Ain't That Peculiar", I don't use any tom-toms, I just use Syndrums for tom-toms and the sound is unbelievable. It sounds very English almost like Gary Glitter but a little more ballsy.

You like the Syndrum?

Yeah; I really dig them. I've been looking for electronic things for years. As you can tell, I've got a wah-wah snare drum and I've had that since '73. I don't use the Syndrum very often but when I hit them it's at a dynamic point and they stick out like a sore thumb.

Would you like to go out on your own?

Oh, yeah, I want to bring the drums up front. I want to do theatrics with drums. Sort of like what Earth, Wind & Fire did with the spinning drum thing. I have a way of doing a disappearing drum solo. I think that's one of the only instruments that hasn't really happened. You've got your Elton Johns, the keyboard players, your guitarists naturally, your Stanley Clarkes and Larry Grahams but who has done anything with the drums? Cobham almost did it; "Spectrum" did it and if he

had followed that up with another Spectrum-type album I think he would have been doing what I'm talking about. But he went too avant-garde. You've got to keep that rock audience in there but keep your technical stuff. But I feel mixing drums with theatrics is like a first. Gene Krupa used to do it so why can't it he done again?

Who else do you listen to besides Cobham? I don't listen to that much Cobham anymore, I used to a few years ago. I listen to more rock now; I listen to Zeppelin, I listen to Queen. I don't listen to Purple at all; Ian (Paice) used to listen to me a lot so it's just like taking my own licks. It's flattering when guys do my things and admit it. When I see Bonzo he admits it, he'll fool around and do my little cymbal tricks. It's guys who take from other people and don't admit it or think that they're so hot and their egos so big that they don't say "I got that from Appice" or "I got that from Bonzo". If somebody asks me where I got my stuff from. I just tell them.

Where do you get your style from?

I have a whole combination of people; Gene Krupa, Buddy Rich, Philly Joe Jones, Chico Hamilton, all the real old greats. When I was growing up there weren't any good rock drummers; Sandy Nelson was the best guy and he was terrible! I grew up in between eras. It was when rock bands were starting to happen and big band jazz was still happening.

You're doing work with drum clinics?

I'm doing a tour in June for Ludwig and we're going to hit about 12 cities in America. We're going to take a full set of stage gear with a band and a roadie and a couple of amplifiers and tape machines and go in and do like a miniconcert/lecture/clinic. We're going to call it Drums On Wheels to get away from that clinic air because a lot of people hate the word *clinic*. Nobody else in rock does these clinics because they don't want to be bothered. But I do write drum books and I am into teaching. It builds you a lot of respect in the teaching community.

How many books have you written?

Four. I have a beginner's book like all the books I fearned from put under one cover, a hi-hat book, a double bass drum book, and rudiments of rock. *I'm going to do a record to go with the first book I did. "Realistic Rock."

Do you still practice?

When I'm not playing. If I'm off for a while and I know I'm not going to be playing, I will sit down in my drum room and get out the pads. A couple of weeks ago I went through the books for 5½ hours which is the first time I've done that in a long time. And the next day I did a couple of hours. That really gets you back in it. I don't practice as much as I used to or even as much as I should.

Steve Rosen



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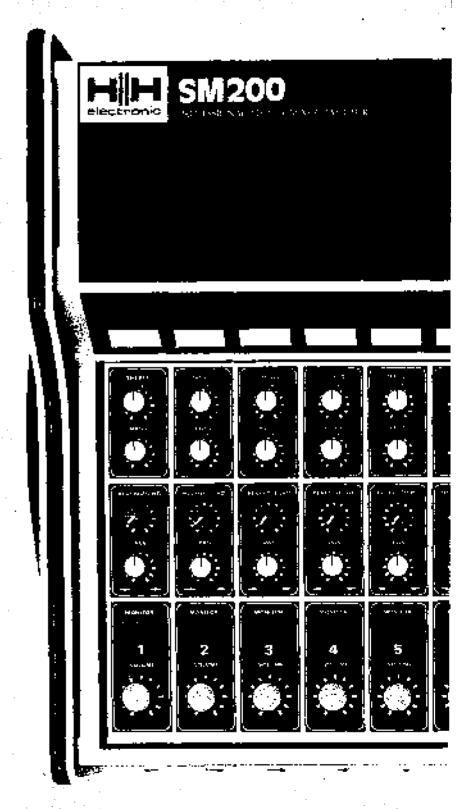
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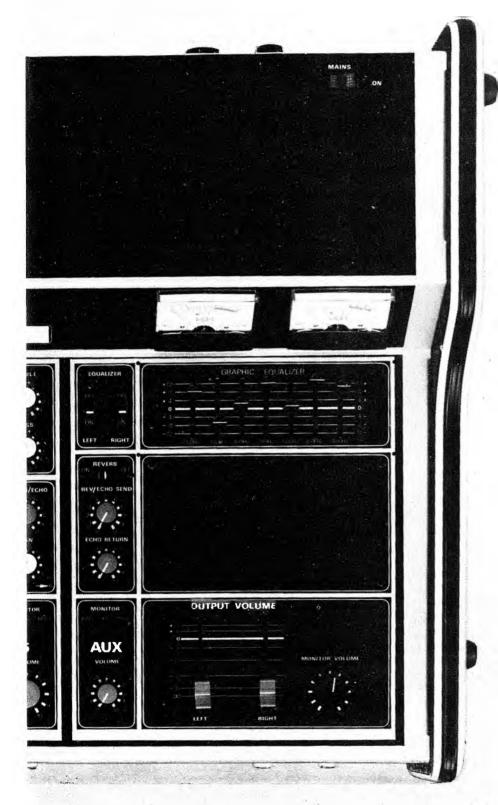
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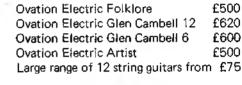


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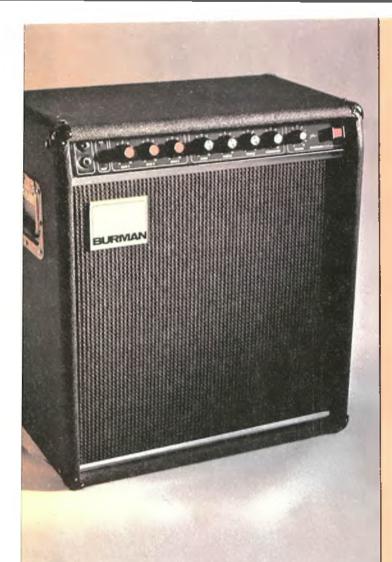
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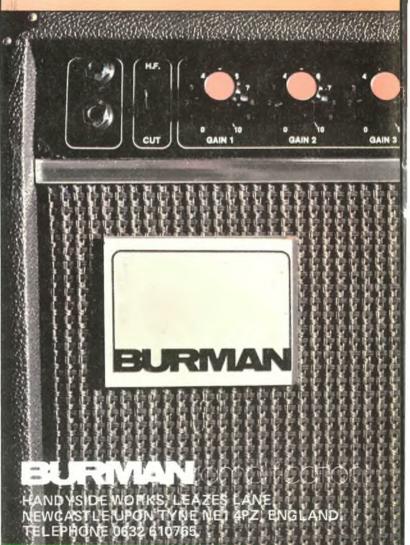
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Jim Rodford: Bass:Harmonics

month's Continuing 14SL harmonics discussion, if any of you have been experimenting with this technique you will probably have discovered more than you thought possible to Last month's article obtain. included a fingerboard diagram, showing harmonics possible at various positions, but unfortunately it was not printed because of space problems, so I include it below for your reference. Although harmonics are sparsely used in general bass playing, I am finding them increasingly useful as an extension to tonal expression, as are a rapidly increasing proportion of the top bassists.

A simple example would be, for example, ending a song on a chord of E7. Hit the last downbeat by plucking the open E string with the thumb, in conjunction with the bass drum only, Let this ring on, and then two or three beats later, pluck two harmonics together, located directly over the seventh fret position, on the 1st and 3rd strings. The third string harmonic produced is an E, and on the first string a D, the dominant seventh interval in an E7 chord. In conjunction with cymbals only with the harmonics, this provides a delicate but different sounding ending to a piece.

Apply the same timing and instrumentation method ending on a G Mai 7 chord, and a increased degree slightly of difficulty ensues, but the barring practice I suggested in an earlier article should help here. Fret the G, at the 3rd position on the E string, with the first finger and pluck with the thumb of the right Whilst holding this note hand. and letting it ring on, locate the harmonics at the 5th position on the G string and the 4th position on the D string, with the fourth and second fingers respectively, The harmonics produced are G and F sharp respectively, the F sharp being the major 7th interval in a G Maj 7 chord, and they should be plucked simultaneously with the nails of the first two fingers of the right hand.

A pleasing sound is produced by these two close harmonics intervibrating, as they are only one semitone apart in pitch, and the low fretted G droning on the bottom, adds richness to a chord with distance between its component parts, which was unachievable on bass guitar before this technique was opened up. It is admittedly difficult, physically, to play a shape of this nature, and a high "bridge" should be formed by the left wrist to allow the palm to clear the first, second and third strings, allowing the touch harmonics to be delicately found, and sustained whilst still holding down the low G.

If you can master these two examples, you'll begin to realise the possibilities this technique and thinking offers, but on the other hand you may feel it's a waste of time, and not valid within the concept of bass playing. I feel it's up to the individual and purely a matter of personal choice. For many types of music, especially heavy rock, its uses are obviously very limited due to overall volume problems, although in a three-piece format, with Bob Henrit and John Verity, on recent Phoenix amplification clinics we undertook, we performed our own rendition of Hendrix's "Little Wing", and the nature of the song, such as its key and "spaciness" of some of the passages, plus the dynamics employed, allowed me to throw in a few harmonic chords to quite nice effect. Generally though, I suppose the Jazz and Jazz-rock area is an ideal platform for this form of bass guitar expression.

Another simple melodic exercise which will maybe help to point the way is the "Big Ben" clock chimes, played harmoni-Many of you probably know this already but I feel its worth pointing out to those who The harmonic notes do not. required are found thus:- at the 4th and 5th positions on the G string, producing B and G respectively, and the 3rd and 5th positions on the D string, producing A and D respectively. Now, as soon as you find these harmonics accurately, you will easily be able to work out the permutation of these notes, required to reproduce the "Big Ben" chimes melody. Also if you move the complete pattern down one string and play the corresponding harmonics at the same fret positions on the D and A strings, you of course produce the same melody with different notes, and the same applies with the A and E string relationship, but as you will have already found, it's harder to obtain clear results in this region.

An interesting follow-on from this would be to find the following harmonics on the G and D strings: G string, as before, at the 4th and 5th positions produces the notes B and G, the D string at the 3rd and 4th positions produces A and F sharp respectively. Now play them in this order: B, A, G, F sharp, and you have the opening four notes of the main melody

from Pastorius' "Portrait of Tracy". Now drive yourself round the bend trying to work the rest of it out.

On fretiess bass, an unusual effect can be obtained by sliding harmonics up or down. delicate touch control is necessary to achieve this, and if you are a semi-pro and bricklaying or heavy building work is your main trade. you may have trouble here. You touch-locate the chosen harmonic note in the usual way, and then immediately after it starts ringing strongly, you depress the string to contact the fingerboard fractionally either side of the position, depending on whether you intend to slide up or down and then slide the "captured" harmonic increasingly sharper or flatter as required. This requires a great deal of "touch" practice, and at first you'll find yourself deadening the harmonic completely which can be frustrating, but once mastered, the amazing "high swooping" sound can be used to great effect, especially in funky bass patterns. A fretless fingerboard is essential, as fret contact would automatically deaden the harmonic slide.

I used this technique on a recording session recently on the track "Time Of The Season", a Rod Argent song, shortly to be released by my band Phoenix as a single. If it gets any airplay you'll be able to hear the use of sliding harmonics, most evident on the intro.

The second method for achieving harmonics at all positions has been used by certain guitarists for many years now, It involves mainly the right hand, as the left hand is used to fret the notes in the normal way, that is to push the string down in contact with the fingerboard, at the chosen position. To achieve a harmonic in this way the right hand has to be employed thus: If the fretted note is an A held down at the 2nd position on the G string, place the fingertip of the first finger right-hand lightly above the 14th fret position of the same string, which is one octave length along the string, in other words 12 frets up from the fretted note. Now reach down with the thumb until it contacts the string at right angles causing the first finger to be at 45° to the string. The touch of the fingertip has to be light and delicate, as with the previous method, and the harmonic note is obtained by plucking the string with the thumb nail, and simultaneously and rapidly lifting the finger from the string. Again, with practice, a good clear harmonic note, one octave above the fretted note, is quite easily produced and, unlike the first method, the harmonic is always the same as the fretted note, but one octave above in pitch.

All you are doing is shortening the string length with a finger of your left hand, which now takes the place of the nut. Your right hand is performing the functions of both hands in the previous technique, when touch locating the 12th fret harmonic with the left hand, and plucking with the right. Further, in theory, it's now possible to obtain all the notes in the harmonic series, using any fretted note as the fundamental. and using the right hand technique just described, pick out the same relative harmonic intervals, at the corresponding positions, transposed up to the new open posi-In practice this is very difficult especially using higher positions as a fundamental starting point and is, I feel, for these pages, going too far, but touching on it serves to indicate the magnitude of this general topic.

With this technique, any fretted note on the fingerboard has its one octave up harmonic, traceable twelve frets above on the same string. These are easy right hand positions to find for fretted notes in the lower positions, as the frets near the top of the scale are accurate pinpoints, but on a 20-fret bass for instance, a left-hand fretted note above the eighth position is harder to harmonically execute with the right hand, as you've run out of frets as markers (8 + 12 = 20).

A bit of research on your part, and again much practice, will soon familiarise you with all the corresponding left and right hand positions. Once you've found most of these, if you experiment further, you will discover positions even further up the scale where harmonics two octaves above the fretted note can be obtained, also you can bend any harmonic produced with this method, using the fretwire, and "pulling" with the left hand fingers in the normal way.

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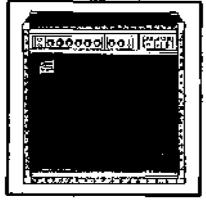
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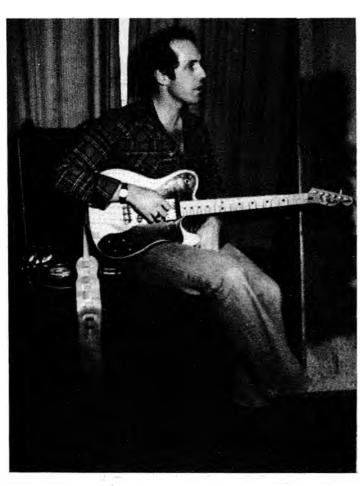
TEST

This is the first of our new series of "blindfold tests" in which we invite name guitarists to try out review amplifier sight unseen and give their unbiased comments.

In both cases, the amp was concealed behind a curtain and controls were operated at the player's request by IM staff. At no time did the musicians know what amp they were playing through, nor could they be sure if it was valve or solid-state. After trying out the amp at all settings, the curtain was pulled back and the amp revealed.

Each month, the guitarists will alternate but the procedure will remain the same. When the amplifier is eventually revealed, the guitarist will be asked for his comments.

For the first "blindfold test", we invited Ray Flacke (ex-Meal Ticket, currently with Maddy Prior) and John Verity (ex-Argent, currently with Phoenix) along to play through a Vox AC30. Ray thought it was either a Fender or a Marshall whereas John guessed it was a Vox in a couple of minutes.





Ray Flacke

"Nice. Lovely. There's nothing wrong with the sound at all. It sounds good at medium level but not flat out. I thought it was either a Fender or a Marshall. It really sounds Fender-ish through the brilliant channel.

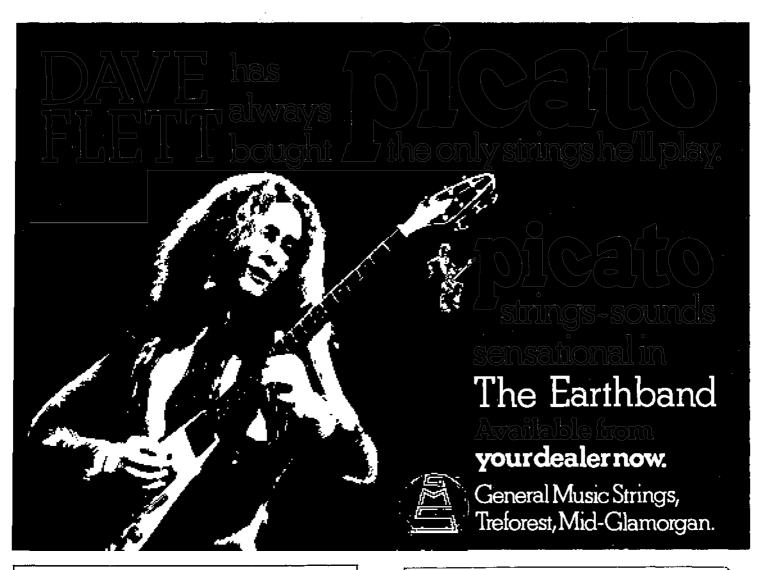
"I've never had a Vox and it's been so long since I played through a valve amp but I could tell it was a valve job—it's more of a rounder sound than transistors and certainly when you turn its level right up, it's got a different sort of broken-up sound.

John Verity

"It sounded good straight away. I knew it was a valve amp straight away as well. I thought at first it might have been a Marshall 50 but then recognised the Vox sound.

"It's got a very big sound for a combo and a very brilliant top, much different to the Fender toppy sound. The full tone control is in the Cut control.

"It's still one of the best amps to just plug in and play and automatically get a good sound from. It's great. A good, authentic Vox sound."



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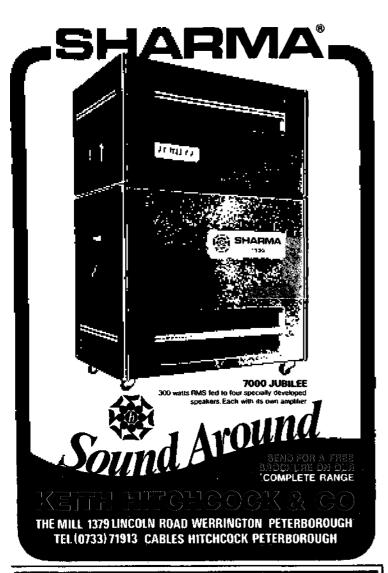
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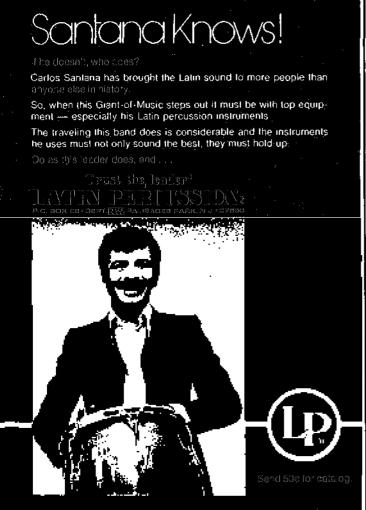
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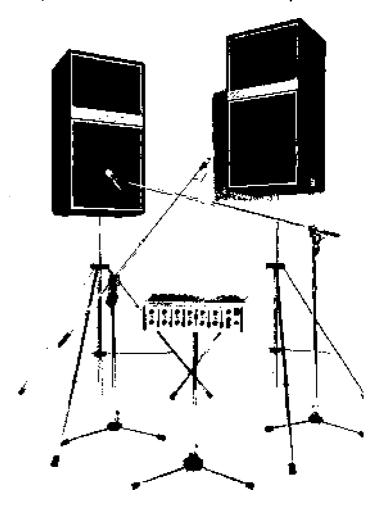
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HGV Win Third TEAC/TASCAM Session

HGV already have a publishing deal with Gillan/David Coverdale flavour for the mike to lay down the vocals. EMI and were no strangers to the studio powerful high-volume rock being put out when they set up at Ivan Berg's 8-track by the band. studio in London's Broadhurst Gardens.

Mike Dowling (drums). Unfortunately, style for them. when HGV did their session they were

HGV are at present: Gary Beager form or another for 18 months. They House in Canning Town. (lead guitar, harmony vocals), Steve have auditioned numerous frontmen but semi-pro at the moment, but eventually Beager (bass and harmony vocals) and have still to find the man with the right hope to land a record deal they are

For their session, the band put down

The third, and final band, to win a without a lead vocalist and Gary and their rhythm track and Gary then did master tape in the Teac/Tascam competi- Steve did an admirable job in coping with several drop-ins on guitar. When this was tion organised by International Musician. the vocal chores that took on an Ian right both Gary and Steve attacked the

> HGV have already gigged at such venues as the Nashville in London, The band have been together in one Fulham's Greyhound and The Bridge They are happy with.









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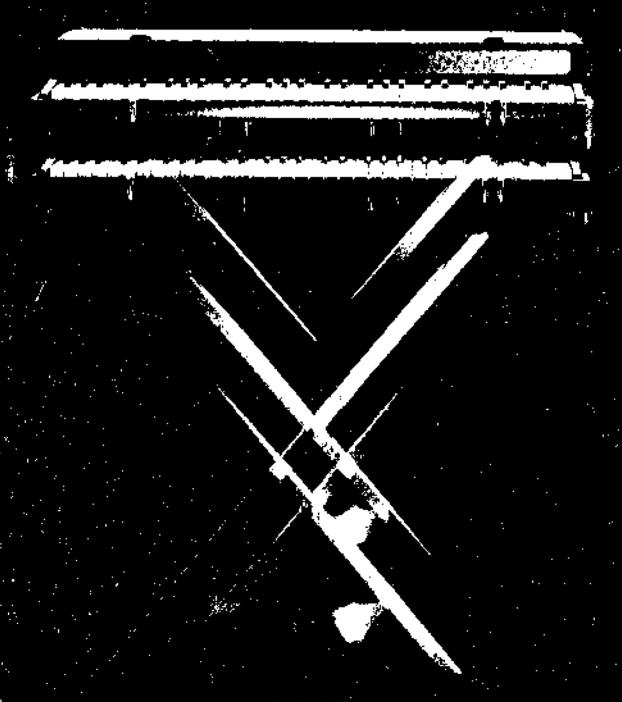
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MAKING A SOLID GUITAR

nishing Frets

This really has to be done in two parts: a rough levelling and trimming of the ends is me now, before any lacquer is applied. After equering, the final fret finishing, which ually requires some oil on the frets, may be impleted. It would be very convenient to do e whole operation before applying the equer, but any oil which found its way onto e neck or body would prevent the lacquer icking properly.

For rough fret trimming, you will need a D inch 'Mill File'. This is a large fine file with junded edges and 'single-cut' teeth. Such files to used for sharpening large circular saws, and or this application it is not necessary for them to be made absolutely straight. However, for ling frets, you need a file which is as straight a possible, on at least one face. You will most certainly need to look through one or we boxes to find a good one.

The only makes which I have found atisfactory are P.S. Stubbs and Nicholson, and ou will still have to check these for straightness. It is possible to buy very good and straight files rom specialist merchants, but these are usually louble- or triple-cut and the resulting teeth do not seem to work as well on fretwire. There is definite art to using a single-cut file, and if you practice on a piece of soft brass, you will find that you can adjust the cutting qualities by urning the file at a slight angle to the direction nickness when you are pushing it. A good file of this type is very sharp, and will cut with gentle down-pressure when you have the best angle to suit the material and hardness of your frets.

If you look at the top picture on page 54 of last month's article, you will see that I amoutting off the frets at an angle of about 60 degrees.

This will leave small barbs projecting at the bottom of the tang at each fret end, and these may be removed, either with a small fine file, or with the same fret cutters, held against the edge of the fingerboard. I prefer to use cutters, but they have to be sharp and truly 'flush-cutting'.

After this is done, check that you have not loosened the ends of any frets. If any are raised a little from the fingerboard, put the neck back on its pile of books and neck support and gently tap the fret ends down. It tapping gently doesn't put them into place, hitting harder will probably make matters much worse.

Check that the slot is deep enough at the ends to take the fret tang. If not, gently prise up the fret, deepen the slot, and fit a completely new piece of fretwire. If there is room for the tang, and the fret can be pressed into place, but will not stay there, you have several choices.

If you generally seem to have no trouble with fretting, first try another piece of fretwire, paying particular attention to the pictures last month. If this fails, or if the whole process has been a struggle for you, work some white glue or, preferably, liquid hide glue, under the fret(s) and clamp the ends down under pieces of soft wood such as Cedar or Obeche, until the next day.

Fret ends

The fret ends can now be trimmed at 45 to 60 degrees to the axis of the fret with the Mill-file, as shown in photo No.1. The 45 degree bevel makes it easier to produce smooth and inconspicuous fret ends, but may require the guitar strings to be a little nearer together, to prevent the outer ones from slipping off the ends of the frets.



Always file along and partly downwards. If the fite has any upward movement, it may pull out the fret ends, and it should be lifted away from the frets for each return stroke. It is likely that the file will cut one side of the frets more harshly than the other, requiring caution when you start on the second side,

The file could be used so far in an ordinary handle, but for levelling the frets, which comes next, you will need to make and fit a side handle as shown in the photograph. This is a small block of wood fixed to one side of the tang to provide a hand grip. I usually soften the tang and about 20 mm of the end of the file and drill and countersink for three number three woodscrews. Sometimes the tang is soft enough to permit drilling two or three holes, but there is now a drill available which seems to be able to cut straight through a file without softening, although you will need a larger drill of the same type or a high-speed grinding point, to make the countersink.

The drills are distributed in the UK by ASBO UK, 119a High Street, Teddington, Middlesex. I have not actually used on of these myself, but I have seen a demonstration, which certainly cut repeatedly through a file. I am relying on memory for the details of the supplier, but I think the address is correct. You will only need to buy the smallest size; also one just larger than the screw head if you don't have a grinding point. Alternatively, softening the end of the file allows the use of ordinary drills and countersinks, or you could glue the handle on with Epoxy.

Even Support

Ideally, the neck should be supported evenly, all along, but it is usually sufficient to use the sort of support shown in the fretting

pictures, with the neck holder around the 5th fret and the body lying quite flat on the pile of books. With the help of a straight-edge and someone to hold the guitar body, file down the tops of the frets until they are all level and you have just trimmed the lowest part of the lowest fret. That is all the fret work needed at the moment.

Give the guitar a final sanding all over, and inspect it for dents and blemishes under a strong light. Use a cloth moistened with "cellulose" or "polyurethane" thinners to remove as much colour and gum as possible from the edges of the fingerboard. When no more colour comes off on a clean bit of moist cloth, allow one hour to dry.

There are many ways of finishing guitars and if would refer interested readers to my previous artcles on re-finishing an old American guitar. The most forgiving material which will be easily available to you is cellulose. Any good quality, 'non-bloom' lacquer for wood will do. You can buy cellulose for brushing but application is tricky.

It is well worth hiring a small spray gun and compressor. It must be spotlessly clean inside the gun, with no trace of old colour, if you want to use clear or white lacquer.

You should ask for equipment for spraying cellulose, and for advice on proportions of lacquer and thinners needed for that gun. Also ask the lacquer supplier for the same information. The answers may differ, but somewhere between the two will probably work. Take the advice of the lacquer manufacturer on suitable fillers or undercoats for his own materials. Don't try to use Dye or transparent colours until you have had plenty of practice. Stick to clear lacquer or opaque paint colours,

If you want a more complicated finish, which will wear better, or if you have to brush on the lacquer, find your nearest international Paints stockist. International products are very popular with people who have small boats and ocean-going yachts, so you should look for Marina shops and Ships Chandlers. International make two-pack polyurethane varnish, two-pack polyurethane paints if you prefer an opaque colour, and suitable grain fillers, undercoats and polishing compounds to go with them. Order 2-pack varnish, together with grain filler to match your guitar wood or, alternatively, 2-pack paint and recommended undercoat. In either case, order an equal quantity of thinners.

You will also need either a spray outfit or a good varnish brush. Leave small electric sprayers which buzz when operating, entirely alone. Some of the better ones are grand for painting houses and boilers, but rather crude for spraying guitars. One of the ultimate spray guns for guitar makers and repairers is shown in Photo 2. It comes from De Vilbiss who have branches all over the world.

You are unlikely to find one offered for hire, but if you are taking instrument-making seriously you could always buy one and hire a suitable compressor, when you need one. Hired sprayguns have a very hard time, and there is a lot to be said for buying your own gun. You will notice a cylinder attached between the gun and the airline. This is a filter. One of the best is the De Vilbiss 'Dryfit'. It is worth every penny of its modest price, as it catches minute drops of oily gunge which may be hiding in the air line, waiting to leap on to your guitar. You still need one even if the compressor has got a proper air-cleaner.

Other possibilities

As the finishing progresses, you will also need a 'Tack Rag' and some 400 and 600 Wet and Dry paper. If your supplier doesn't see the need for a tack rag, either he can't get them, or you have the wrong sort of supplier. Try automobile re-finishing shops . . . which brings me to the next point. You could always ask them to spray it for you. The snag is that auto re-spray places often fail to appreciate exactly what is important in finishing a guitar. On the other hand, really good sprayers are artists in their own right.

No-one is likely to tell you that he is only fair at his job, so if you plan to have a commercial spray shop finish your guitar, you should ask to see some examples of work other than straightforward auto, re-sprays. You might also consider taking your completed instrument to a local guitar repair shop which offers a repair and re-spray service. Again, you should ask to see samples of re-finishing work, and if possible, speak to other guitarists who have had guitars re-finished by the same company.

Most such guitar repair shops offer a very good service, some will provide different standards of work for different sorts of prices, and a few have produced rather more disasters than could be accounted for by the law of averages. Some vary from year to year, according to who is working for them. So ask to see recent samples of work. Allowing for the possible difficulties, paying a professional to spray your guitar is still a realistic and economical course of action if you have neither equipment nor experience in this field. Always obtain a written quotation of cost and clear description of the agreed job before anyone starts working on your guitar. Then everyone

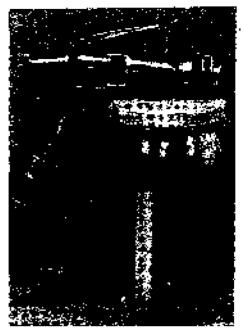
knows where they stand.

If you deliver the guitar nicely sanded, and spotlessly clean, wrapped in a plastic bag and then in a cardboard box or a guitar case, you are more likely to get a spotlessly clean (and lacquered) guitar returned to you. You can't really blame the sprayer if you find your dents and fingerprints under his lacquer. Equally, if the guitar is soiled or damaged while it is being finished, any reputable shop will have the damage made good to your satisfaction and the instrument refinished at no additional charge. It is possible (and not unreasonable) that an automobile spray-shop may not show the same concern over very small blemishes as you would expect to find in one of the better quitar repair companies.

You may feel, as I do, that it is more satisfying to complete the job yourself, or you may have no alternative. Here are some materials which you coulduse to finish your quitar but I DO NOT RECOMMEND THEM. If you turn your quitar into a sticky mess with one of these, I don't want to know about it. and I certainly shan't offer any words of sympathy. This list of un-recommended finishes is probably not exhaustive, but it may protect at least some of you from sad mistakes. Do not use: - Household paint, Something unknown which happens to be left in the spraygun, Soray cans, unless the instructions state on the can that it is a cellulose material - (Not Enamel! - even if it does dry in 5 or 10 minutes), Boat varnish, Spar varnish, floor paint, car paint, tile paint. Linseed oil. Wax polish, Furniture polish, Guitar polish, Metallic paint, Artists paints (although some acrylic colours are compatible with some polyurethane and acrylic lacquers if you want to point "Red dawn over Gatwick" on the back of your guitar), Teak oil, French Polish (unless you happen to be an experienced french polisher). also, on principle, beware of the latest heavilyadvertised "instant wonder". (This may vary according to the country in which you live.) There are some other 2-pack polyurethane lacquers and/or varnishes which could be used. but it is most necessary to use materials for base-coats and top coats which are compatible with each other, and which continue to adhere even when the quitar gets a few dents. As I cannot speak for other materials in other countries, and as I have quite a large collection of expensive, but incompatible, and therefore, to me, useless materials, I strongly suggest that "International" you use the recommended products.

You can at least reasonably assume that they are going to be fairly resistant to moisture. Also the same 'International' products seem to be available in a large number of countries and the 2-pack polyurethanes are particularly good if you have to apply them by brush. You can spray them equally well if they are thinned properly to suit your spray equipment, but ech coat will take rather longer to dry than with cellulose materials. As with many 2-pack materials, there is a re-coating 'window'. That is to say, you have a minimum and a maximum waiting time between coats. It might, for instance, be not less than 6 hours and not more than 2 days between coats.

This will vary according to local climatic conditions, and sometimes on the amount of thinner and the method of application. The main International distributor in your own country should be able to advise you. You can re-coat outside the advised time, if you rub down with wet and dry paper and the



Lacquer company's recommended lubricant, until you have a completely matt surface. Any small dents or corners which would normally remain glossy, will have to be roughened with a corner of abrasive paper on a bit of cork or rubber, until no gloss remains anywhere.

Under these circumstances, new polyurethane lacquer will usually adhere to older. hardened coats. Within the re-coat "window" time it is usually only necessary to 'flat' the previous coat lightly to remove minor surface imperfections such as drips, dust and hairs. This is obviously far less work, and should be In England and followed where possible. Northern Europe, the English language directions supplied with the lacquer and hardener seem to be quite satisfactory as, regards re-coat times. Cellulose Lacquer can be re-coated at almost any time as long as the previous coat is clean, dry and also Cellulose. This makes repairs to the lacquer film much easier - especially if you have one of the Badger model-makers' air brushes which can now be bought in England. The number 200 seems to be good value for this sort of work. On the other hand, cellulose lacquer is more likely to need minor repairs than carefully applied 2-pack polyurethane. There are some other 2-pack materials which can rival polyurethane lacquers and I do not wish to criticise them by omission, but I have to limit this discussion to one or two materials which I happen to fine useful and which are likely to be available in the same form, in many different countries.

I shall provide some more pictures and instructions on finishing your guitar next month.

All lacquers you are likely to meet are inflammable and represent a potential fire hazard if handled carelessly. The same applies to some base coats and most thinners. Keep cans sealed when not in use, and in a cool, safe place. Do not smoke or allow naked flames or glowing electric heaters. Provide adequate ventilation. People are designed to breathe air, not lacquer fumes. Some lacquers, particularly polyurethanes, may cause respiratory irritation. Protect hands and eyes, and wear a suitable respirator mask. A clear shield for the whole face, some thick plastic gloves and a charcoal filter mask cost less than a week off work.

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BIGGLES GOES WEST

The West Country is noted for its musical eccentricities from Acker Bilk through to The Wurzels so it is really no surprise to find a music shop by the name of Biggles in the heart of Bristol.

Bristol must be one of the most beautiful cities in Britain but it tends to be somewhat neglected as a centre for rock. Phil Thorne and Bob Crane, the men behind Biggles, are out to change all that.

The Biggles story began just under two years ago when Bob was working in a music shop in West Street. The store, which was run from London headquarters, was not a great success so the owners decided to pull out. However, the lease had some time to run so Bob together with Phil and another friend asked to take over the business on a caretaker basis.

Bob and Phil had been friends and played in local bands for a long time, and each had bitter experiences of music shops which were little more than supermarkets staffed by unhelpful salesmen.

Phil said: "When I was playing in bands I used to get so cheesed off with

going into those places. They are only really interested if you are going in to buy a brand new Gibson or something like that, and they don't really know what they are talking about anyway.

"Bob and I had talked about a music shop, so when the opportunity came to move into the place in West Street we took it. We came in on a caretaker basis originally just until the lease ran out. We started up with four cabinets, three guitars and an amp head — the only capital we had was our own effort."

Apart from playing in local bands, Phil was also into electronics and even had his own electrical contracting business, but when the opportunity came to run a music shop he had no hesitation in moving in.

The shop was christened "Biggles Music" after a particularly good night out, and when a friend came up with a good logo, the name became permanent. Eventually the pair bought out their third partner and began to shape the store to fit in with their own ideas.

Bob said: "We tried to find out what musicians wanted, and had very little capital to work with, so we couldn't afford to go out and buy 15 synthesizers.

"We relied a lot on secondhand gear and had to be very careful with the new gear that we bought."

Slowly, but surely, the business began to take off and when the old lease ran out they took up the option on the West Street premises themselves. The store is well situated on a fork in the road which gives a vast amount of window space.

Still the pair are conscious of the need for improvement, and before

Christmas had decided on a move to even better premises in Victoria Street. Unfortunately the deal fell through due to difficulties with the lease, so West Street is to be given a facelift and remain their permanent base.

The key to the success of Biggles Music is their attitude towards the customers and musicians who come into the shop. They will always help when required, and realise that people don't just walk in off the street to buy a Les Paul without trying the instrument.

There are several rehearsal rooms in the building which are hired out to local bands for ridiculously low prices, in fact the whole Biggles set-up is so much more than just a place to buy guitars and amps.

Phil added: "We are really into the PA side of the business, because nobody else in Bristol is really into the heavy PA stuff. We have our own rigs and our own crew and are currently working on a 5k rig. We are trying to educate people in the whole PA business."

"I am all for live music, and there are so many excellent local musicians in Bristol but no really good venues. We would very much like to set up our own venue to give people somewhere to play."

Biggles are also looking into the possibilities of having a Trade Fair in the city which would really help to put the area on the music business map.

They stock an excellent range of both new and secondhand guitars plus all the big names in amplification and PA gear including RSD, MM and Mega. Phil and Bob are backed up by shop manager Richie, Dave, who is in charge of stores, PA crew Keith, Kevin and John, and Ian who is responsible for making the shop's own cabinets.

Phil Thorne (left) and Bob Crane of Biggles Music.





LARGEST STOCKIST OF MUSICAL INSTRUMENTS IN THE WEST COUNTRY

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Fender Twin Reverb Rogers Londoner V Ibanez Les Paul Ibanez Tete Copy Gibson Les Paul D/L Gibson Ripper Bass Guild S60 D/M, P/U Yamaha SG 2000 £299 £575 £155 £167 £470 £307 £499 £650

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A SERVICE FOR MUSICIANS BY MUSICIANS

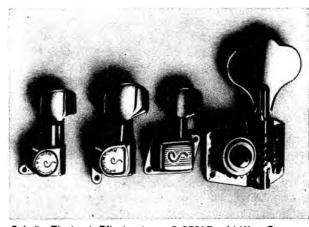
Send this coupon to any of our showrooms. Please forward details on

achine heads

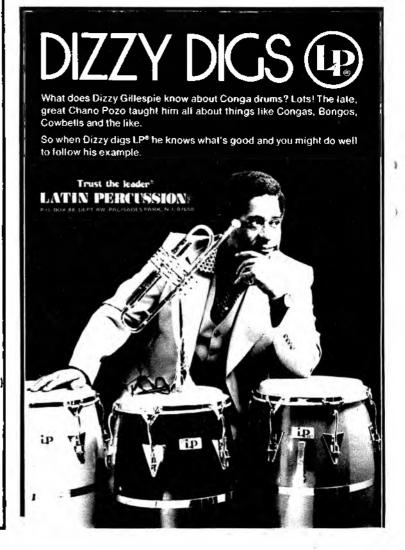
How can you tell a high-quality machine head? Look at what brand machine head the leading guitar manufacturers are using on their top line guitars. We're sure you will find that Schaller makes them.

3

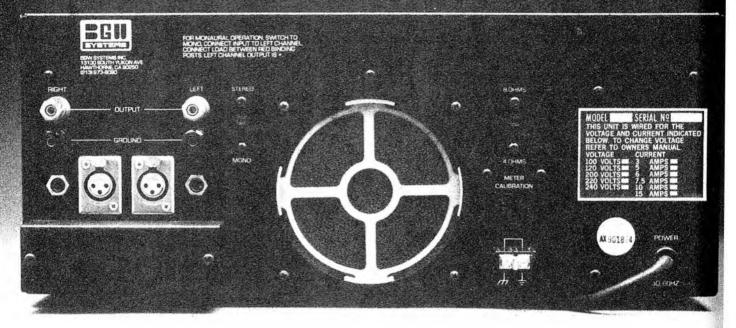
The Schaller reputation has been built on creative engineering, closer tolerance, care in handling, better buffing, and a high-quality chrome finish that is a good reflection of our name.



Schaller Electronic Pfinzingstrasse 2, 8501 Feucht, West Germany



PLAYER CETERINDEON



Nothing is more irritating than to have an amp fold on you in the middle of a gig. Experienced players know the problem. They also know the solution: BGW.

Behind BGW's much-imitated front panels lie serious electronics that the imitators have yet to rip off. Electronics that have made BGW the clean, reliable workhorse of professional musicians.

BGW's ruler-flat frequency response, phenomenal power and impeccable performance have won the respect of the most demanding engineers in the music industry. Sound quality is absolutely neutral right up to the limits of each model's extensive bandwidth... And beyond. Check it out for yourself, Hook a BGW amp to your heftiest, most reactive monitor speakers. Punch on the power. The silence will be deafening... Until you hit that first note.

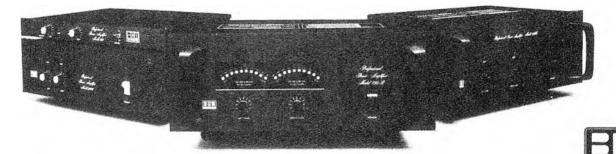
BGW amps don't blow out. Crank one up to clipping for a day or two. If you trip the integrated circuit breaker, a simple flip of a front-panel switch will put you back in business: No fuses. No hassling.

The huge, high efficiency heat sinks on a BGW let you send your heaviest signals without worrying about a shutdown from thermal overload. Super-solid welded steel packaging (with the famous integrated rack handles) protects your BGW from the worst abuse amplifiers take in sessions, on stage and on the road.

Get behind a BGW and plug into some real power: the 30 watt MODEL 100, the 100 watt MODEL 250, or the new 225 watt 750 SERIES amplifiers.*

BGW amplifiers may set you back a few bucks. But they'll never let you down.

*All power specs are per channel into 8 ohms, 20 Hz-20kHz, with less than 0.1% THD.



Get Behind Usi

BGW Systems, Inc., 13130 S. Yukon Ave., Hawthorne, CA 90250. Telex: 66-4494 Get Behind In Canada: Omnimedia Corp., 9653 Cote de Liesse, Dorval, Quebec H9P 1A3
U.K., Webland International Ltd., 129 Walham Green Court Moore Park Rd., Unit F, London SW6 2TP.01 385-9478. Telex: 25570 International Inquisites please contact the factory.

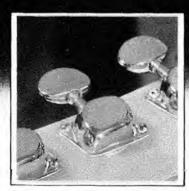
Hando II

only your wallet knows the difference

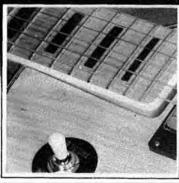
Take a long, close look at a Hondo II guitar and you'll be amazed at the quality of the finish, the fidelity of sound and the superb feel of the instrument. Now take a look at the price — you'll be in for a pleasant surprise. The famous style guitar illustrated model HLP2N costs around £79.00 (incl. VAT)

While everyone else is scraping together a deposit for the guitar of their dreams, you could be playing yours now! Only your wallet will know the difference.

Ask about the Hondo acoustics too - prices start from as little as £22.00



Smooth action individual machine heads with plated covers eliminating harmful dust and grit.



Beautifully finished body and neck. Accurate fingerboard with inlaid position marks. All Hondo necks are steel reinforced and adjustable.



Heavily plated fittings including fully adjustable bridge and high fidelity pick-

Available from your local music store or send a s.a.e. for a free leaflet, to-

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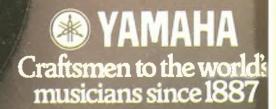
JOHN HORNBY SKEWES & CO LTD Salem House Garforth Leeds LS25 1PX

Folk legend.

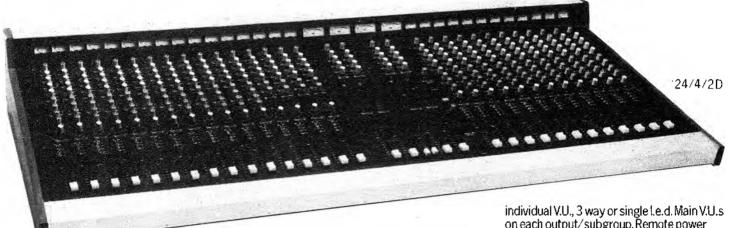
Every Yamaha guitar is a thing of beauty and a classic of its kind. Every model in the Yamaha range is a joy to the discerning eye and to the educated ear.

To see the unstinting attention to detail, the loving workmanship, and the beauty of natural and perfect woods—ebony, rosewood, maple, mahogany, spruce—is to understand something of the Yamaha magic; to hear is to understand completely. Brilliant and rich sounds delivered over years of hard use, with unfailing tonal response, are evident in the most modest as much as in the supreme

as much as in the suprem handmade instruments. Look, hear. A Yamaha is a superb guitar.



SIMPLY THE BEST.



*The Hill D Series Mixing Consoles are of modular construction, capable of taking any number of inputs and up to 24 subgroup/ output groups. Each input channel transformer balanced 200 ohms via XLR-compatible connector; mic/line switch, 4 band equalisation

with comprehensively switchable bandwidth, two foldback sends, two effects sends, p.f.l., pan and conductive plastic fader. Each output including foldback 1, foldback 2, effects 1 and effects 2 with conductive plastic fader, 4 band equalisation with comprehensively switchable bandwidth and XLR-compatible connector: The level of each channel can be monitored by Main V.U./p.f.l. system or

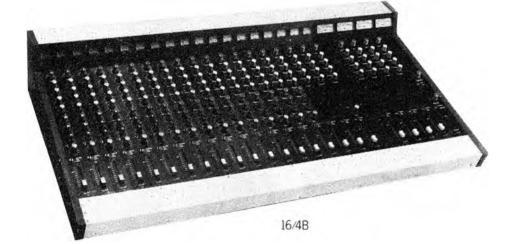
on each output/subgroup. Remote power supply. Studio models include multi-track monitor mix.

General Specification:

THD less than 0.05%

Noise better than -131dB 'A' weighted Maximum gain through mixer 110dB All mixing consoles can be customised for keyboard, P.A., on stage monitoring and broadcast applications.

*The Hill B Series Mixing Consoles are of modular construction, capable of taking any number of inputs and up to 8 subgroup/output groups. Each input channel transformer balanced 200 ohms via XLR-compatible connector; 4 band equalisation, twin foldback sends, effects send, p.f.l., pan, fader. Each output including foldback 1, foldback 2 and effects with fader, 4 band equalisation and XLR-compatible connectors. The level of each channel can be monitored by either main V.U./p.f.l. system or individual V.U., 3 way or single I.e.d. Main V.U.s on each output/subgroup. Remote power supply.



*The M162 FC 16:2 mixing console has the same electronics as the B series but is in a nonmodular form built into a heavy duty transit case and represents what most live sound engineers ask for in one package.

M162FC

General Specification:

THD less than 0.05% Noise better than -130dB 'A' weighted Maximum gain through mixer 90dB All mixing consoles can be customised for studio, keyboard, P.A. and on stage monitoring applications.

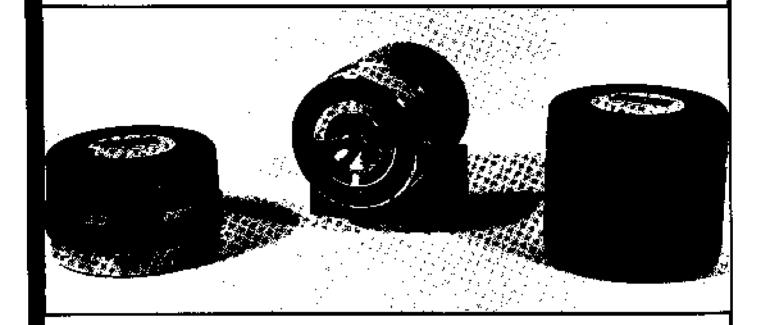
16/2B

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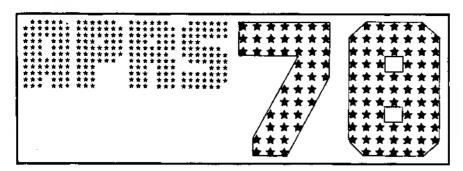
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Vitavox

Vitavox is planning to display the new Oracle horn-loaded monitor transducer. The company claims that due to horn loading of bass and high frequency sections, the Oracle is capable of handling "the most severe signal transients giving low distortion and natural and lively reproduction over the whole range".

Vitavox will also be showing part of their range of microphones and stands, multicell horns, studio speakers, and the Thunderbolt horn-loaded speaker system cabinet.

Harman (UK)

Harman are the importers and distributors of JBL equipment and plan to show the range of JBL speakers at APRS. Among the new models will be the 4301 WX broadcast monitor which can handle 15 watts continuous with a frequency response of 45-15K. Greeting visitors to the stand will be David Bisset-Powell (Professional Products Manager), and Frank Hughes (Marketing and Advertising Manager).

Electro-Voice

Electro-Voice will be showing a full range of studio and sound equipment. On show will be the complete range of Dynamic and Condenser microphones, Monitor Speaker Systems, Component Speakers and a range of accessories.

Electro-Voice have recently introduced a new range of condenser microphones 'System C' which along with the CO 90 Cavalier and the CO 85 Tie Tac microphones will be on display. Also our range of Dynamic microphones including the RE20, 635A and DL 42, will be available.

The Electro-Voice range of Monitor Cabinets has been completely changed and upgraded. New products such as the Interface D system have been introduced and old units such as Sentry V (now Interface C) has been given a face lift. Also on show will be the Sentry III studio monitor and the new FM series Monitors for foldback.

Solid State Logic

Solid State Logic will be demonstrating their SL4000 automated Consoles and computer mix for the first time in the U.K.

Every channel of the SL4000 includes an instrument quality compressor expander and a 4-band variable-Q parametric equaliser. Machine remotes are included within each channel and the unique SUPERCUE logic automatically provides artistes with correct foldback sources, even during complex drop-ins.

The \$L4000 computer mix recognises — for the first time — simple commands in English and song or mix titles without restriction. A 24-line TV display gives track and title listings and VCA fader displays as required. The system includes an AMPTE reader-generator and a fast learning intelligent autolocator.

Tannoy

Tannoy will be showing their Buckingham and Windsor lines of loud speakers. They will also have on display complete proposed drawings for the professional application of the loud speakers.



нн

HH will this year be showing a very large range of products. In quite a few instances it will be the first time that professional users will be able to see various products recently launched.

The range of mixing consoles has increased to four basic units, the SM200 which includes two built in power amplifiers, the Stereo 8/2 and Stereo 12/2 offering the choice of either Jack or Cannon type inputs and outputs, and finally the Stereo 16 a recently introduced model with many facilities including graphic equalisers and multicore connectors.

The now firmly established S500-D Stereo power amplifier with its flightcase system and portable sleeve case will be on display as will the TPA Range of professional power amplifiers.

Two further new products are the new digital vari echo and multi digital echo units which will be shown as either free standing or rack mounted units.



Shure

Shure Electronics Limited will be introducing the SM81, a new microphone not seen previously in this country.

The SM81 is a Unidirectional Condenser Microphone designed for the most demanding professional applications in studio recording, radio and television broadcasting and sound reinforcement. The SM81 features a wide-range frequency response with cardioid polar pattern, uniform with frequency and symmetrical about axis.

The microphone has a selectable fow-frequency response providing flat, 6 or 18 dB/octave rolloff, and a 10 dB lockable attenuator. Phantom powered, the SM81 will operate on voltages of 12 to 48 V dc.

Webland

Webiand have handled the BGW agency for 3 years in the U.K. and will be showing the 100, 250C, 750B and 750C. There is also a new pre-amplifier with the BGW 410 (200 watt power amplifier) for the domestic market.

The professional range has been tailored to meet PA studio & disco requirements including XLR and mono jack plug connectors with octal socket balanced line applications. Input gain controls have now moved to the front panel with clip indicators. New improved low noise fans have been incorporated for even greater reliability. As with the old range, crowbar protection continues to be a prominent safeguard and modular construction gives ease of service for quick turn around time in emergencies.

AKG

AKG will be introducing three new items at this year's APRS. The D222 is a new microphone using a two-way technique with a built-in wind protector, and a three-step bass cut.

The new SM2000 portable mixer will also be unveiled. It is a six-channel stereo mixer and features 100mm faders, three-position and continuously variable attenuator, bass and treble controls and more.

Last but not least, the BX10 will make its debut. It's a new portable reverb unit with two independent channels.

Trident

Trident will be displaying their new TSM studio desk and the FLEXIMIX modular mixing desk (which is ideal for road work as well as 8-track studio work). Also on display will be their new Low Distortion Oscillator which has a wide range of uses their parametric equaliser; and their stereo compressor limiter which is rack mounted.

Amek Systems and Controls Ltd.

Amek will be showing their new Syncon desk suitable for 16 or 24-track recording plus the Mod 3 console, which is an updated version of the Mod 2. It is designed specifically for 8-track recording and it includes a new module which enables it to be used for PA or theatre application.

The new Brennell Mini 8 recorder will also be on show, plus equipment like limiters and ADT units. Amek will be promoting their new 8-track package which includes a 16 into 18 desk, the Mini 8 recorder plus all the equipment you will need for an 8-track studio.

Rupert Neve

Rupert Neve, famous for its NECAM computer-assisted mixdown equipment, will be unveiling four new consoles at APRS. The biggest will be the 8078 40-channel console which is ready to accept NECAM and has full equalisation and talkback facilities. Also on show will be the 8066 20-channel console with 45 mil. module width, The 5315 console a 24-channel desk specially suited for broadcast work, will be at APRS. This console has a 35 mil. module width. At the smaller end of the range, the 5422 suitcase mixer is being shown for the first time.



The new Studer A800 24-track machine with tape lock system will take pride of place on F.W.C. Bauch's stand this year, along with the rest of the Studer range of equipment. Other names to be displayed will be Revox, Neumann, EMT, Ivie, ITC, Urei, Transco, MRL, Lexicon, Danner, Switchcraft and many more top lines associated with sound reproduction.

EMI Tapes

EM1, giants of the recording industry, will be showing their comprehensive range of tapes. The range includes top quality tapes for reel-to-reel or cassette users.

Allen & Heath

The full range of Allen & Heath mixers will be shown, including the Syncon 28 input/output console for 16- or 24-track recording. The Mod 3 desk will also be on show. This is an updated version of the Mod 2, designed for 8-track recording but with a new module which will enable it to be used for PA use. Allen & Heath will also be promoting their special 8-track studio package which should be well worth checking out.

Agfa-Gevaert

Agfa-Gevaert will be showing their range of professional and amateur reel-to-reel tapes and cassettes. Recording enthusiasts are well advised to visit their stand.

Audio Developments

Audio Developments will have a full stand this year. They are expected to be showing their 19" rack-mounting stereo compressor/limiters plus their range of portable mixers and more surprises.

Leevers Rich

Leevers Rich will no doubt have a good display of their excellent recorders which includes the E200 which made its debut at last year's APRS show. The popular Proline 1000 Series should also be there, as the Series is already in use with radio, TV and recording studios.

MCI

MCI will have on show their ranges of mixers and recorders, many of which are popular in the recording and broadcasting fields.

384

3M will have an amazing collection of top quality merchandise on display at this year's APRS show. They are expected to be showing their range of professional multi-track recorders, along with Scotch 250, 206 and 262 tapes.

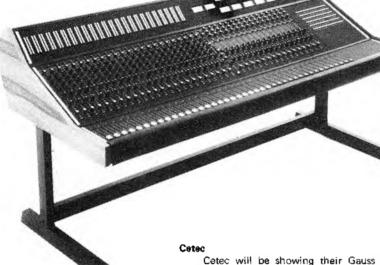
Roger Squires Ltd.

Roger Squires Ltd. will be playing part of their complete range of studio-related products orientated toward the musician. Products represented will be MXR, Brennel, Revox and Soundcraft. Free copies of their 60-page catalogue will be distributed.

Midas

Midas will be exhibiting their comprehensive range of PR consoles this year. The main frame has been redesigned to allow for the inclusion of the direct monitor module and overhead meter housing for multi-track recording applications, and has a new hard-wearing finish.

The latest series of modules, designated 'A', will also be shown, along with a 16- or 24-track recording console together with the well-established front-of-house and stage monitor mixers for concert sound reinforcement applications.



Soundcraft

Soundcraft will be exhibiting their range of sound mixing equipment at the APRS 1978 Exhibition. The range comprises the Series 1S portable stereo and 4 group mixers and the Series 2 and 3 studio mixers for 4 to 24 track recording.

The Series 3 is being exhibited for the first time in Great Britain. A console of fully modular construction, the Series 3 offers the engineer an ergonomic and attractive console featuring a four band equaliser (each band sweepable frequency) on each input channel, 8 auxiliary busses, auto solo (pre and post fade stereo), 16 channel monitor mix into main stereo buss, 16 and 24 track main frame options.



Turner Electronic Industries

Two new power amplifiers designed for quality PA systems will be shown by Turner at APRS. These are the B302-XLR and B502-XLR. The B302 gives 100 watts into 8 ohms while the B502 gives 190 watts into 8 ohms and 340 watts into 4 ohms. The new design has XLR connectors on the front panel.

Cetec will be showing their Gauss highspeed tape duplication system for the mass production of cassettes. They will also be making their annual presentation of loudspeakers and will show a three-way and fourway new electronic crossover system as well as their acoustic lenses and horn flares.

Scenic Sounds

Wayne Jones of Amber Electro Design will be introducing a new Amber 4405 Distortion measuring system which is complementary to the new Amber 440A multipurpose audio set.

Steve Marshall of Marshall Electronics will be introducing the new 400 millisecond delay measuring time modulator and the new series of pre-reverb delays, 250 and 500 milliseconds.

MICMIXERS new low-cost DYNA-FLANGER will be introduced at the show.

Bever Dynamics

The new M260NC ribbon mike will be shown by Beyer along with a full range of microphones, headphones, transformers and accessories.

Lockwood

Lockwood are promising some new additions to their range of monitoring speakers on Stand 6 at APRS. Among products on show will be the Lockwood pro disc reproducer available with different combinations of arms, cartridges and turntables.

Macinnes Laboratories

Amoron equipment will be highlighted on the Macinnes stand and as a result of direct marketing of Amoron equipment, lower prices will be offered to customers. The Soundcraft Series 3 console is ideal for 16- or 24-track recording studios demanding technical sophistication at a reasonable cost.

It has all the facilities professional engineers expect, and one or two other features thrown in that should raise an evebrow or two.

The technical specifications are excellent, partly due to a new range of integrated devices which have high slew rate, extended power bandwidth and ultra low noise. We have succeeded in using IC's throughout where previous attempts with inferior devices had failed. Look at the figures below and judge for

If you've never used a Soundcraft desk before, you're in for a pleasant surprise. They handle easily, look beautiful (that doesn't make the sound better but will make you feel better) and are very reliable. We have

a comprehensive two year warranty that is rarely used. Please ask us to send you the 8 page colour brochure which tells all, then compare the Series 3 with other consoles offering the same high standard of facilities and specification. You'll find they can cost two or

three times more than ours. Just think what you could buy for the studio with the money you can save.

Soundcraft Series 3.

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4-band EQ exich send with sweepable frequency

pre fade or stereo post fade. y & Giles conductive plastic faders.

16-track monitor mix into mix buss.

Channel assign to groups and stereo mix buss. 250 point TT patch bay.

XLR or punch black interface. VU or LED array metering

See us at APRS—stands 36/37

THD +4dBu line input to any line output at +4dBu, 20Hz <0.03%, 1kHz <0.01%, 20kHz <0.05%; +4dBu line input to any line output at +4dBu, 20Hz <0.03%, 1kHz <0.01%, 20kHz <0.05%; +4dBu line input to any line output at +4dBu, 20Hz <0.03%, 1kHz <0.01%, 20kHz <0.05%; +4dBu line input to any line output at +4dBu, 20Hz <0.03%, 1kHz <0.01%, 20kHz <0.05%; +4dBu line input to any line output at +4dBu, 20Hz <0.03%, 1kHz <0.01%, 20kHz <0.05%; +4dBu line input to any line output at +4dBu, 20Hz <0.03%, 1kHz <0.01%, 20kHz <0.05%; +4dBu line input to any line output at +4dBu, 20Hz <0.03%, 1kHz <0.01%, 20kHz <0.05%; +4dBu, 20Hz <0.05%; +4dBu Signal at mic input with 50dB gain (200 Ω at source), 20Hz <0.1%, 1kHz <0.01%, 20kHz <0.1%

+4dBu line input to any line output at +4dBu, 25Hz: -3dB, 20kHz: -1dB Frequency response

Signal at mic input with 50dB gain (200Ω at source), 25Hz: -3dB, 20kHz: -1dB

Relative input noise with 20kHz Bandwidth, < -126dBu Noise

Mixing noise, 24 channels routed to mix all at unity gain, < -80dBu (DIN audio weighted)

Mic input, 800Ω (1.5k Ω with pad) Input impedance

Any line input, not less than $5k\Omega$ Maximum mic, 85db Input gain

Maximum line, 70dB

Output capability +22dBu into 600Ω

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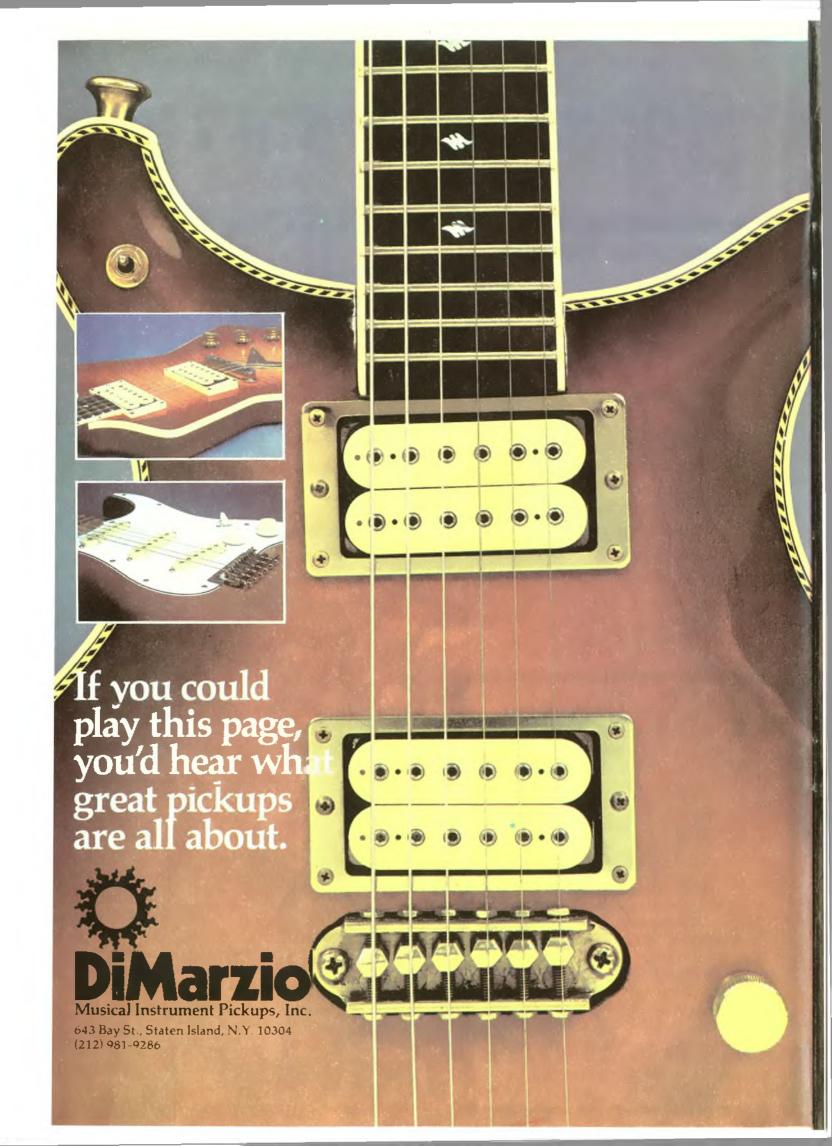


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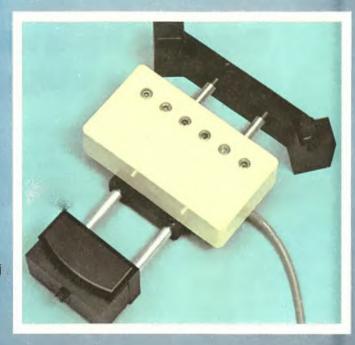
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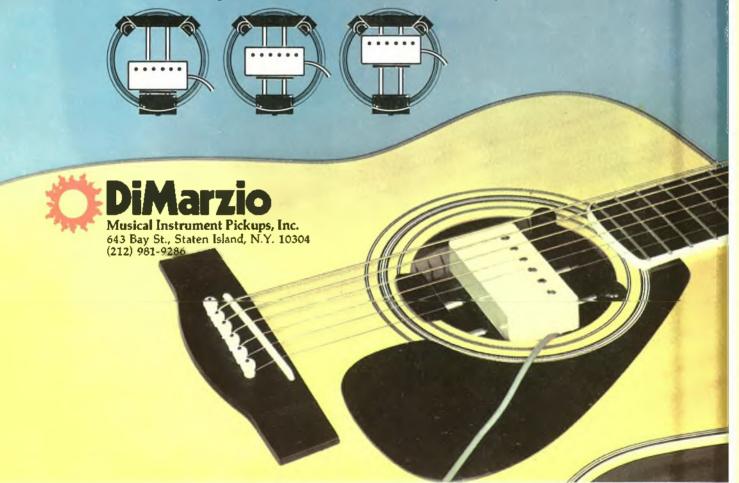
The DiMarzio Acoustic



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

The Model II also features six adjustable pole pieces, shielded cable and jack clip. All mounting parts are nylon, so there's no danger of guitar damage. Full mounting instructions included for easy installation.

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18 Watts RMS @ 5% THD Three-band equalization Master gain One 10" speaker Preamp out 15"H×17"W×9\/"D

Pacer

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"Dual-Axis Bass Drive System" delivers twice the output of it's legendary predecessor, the Model 371. Or experience the incredible new Model 330/403 Lead Stack featuring Graphic EQ, Reverb, and Master Volume which can be assigned to either of the channels. As always Acoustic has used only the finest materials and construction techniques, and we continue to offer our exclusive Lifetime Protection Plan. So compare our performance, rely on our quality, and Tour First Class....

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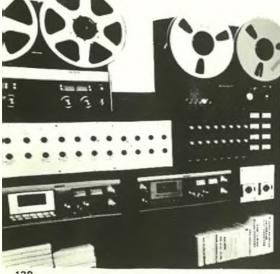
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CHASE MUSICIANS AMPLIFIED

In their never ending desire to provide musicians with professional equipment at prices that don't require a superstar's pocket book. Chase Musicians have

expanded into the realm of amplification with the opening of the London Amplification Centre.

Contd, on next page.















Chase Musicians Open The London Amplification Centre

Expansion can only be achieved through a solid reputation built on the word and enthusiasm of satisfied customers. Hence, the London Amplification Centre is a new venture that has evolved out of an old success.

Its predecessor, the London Synthesiser Centre, laid the foundation for success by being a shop that catered to a particularly neglected corner of the music market: the synthesiser corner.

Their concept was clear and simple: specialise in synthesisers, carry **every** synthesiser available and provide service that would encourage musicians to come in and try and compare equipment until they found the best synthesiser suited to their needs. It was a formula for success.

Like the London Synthesiser Centre, the London Amplification Centre is a small shop that thinks big. To many music stores carrying a range of products means carrying one or two models of a particular company's line. To the London Amplification Centre, range means one of every item a company has to offer.

Whether it's Roland, Yamaha or Peavey -- combos, P.A.'s or cabinets — the London Amplification Centre is sure to have it. The wide selection will also include the accessories and those special effects items that have become so necessary in today's music.

But a shop has to be more than a warehouse for goods. It has to offer musicians the kind of professional help and service that can answer all of their questions and cater for all of their needs.

The London Amplification Centre 88 Chalton Street, N.W.1. Tel. 01-387 7449

A Formula for Success

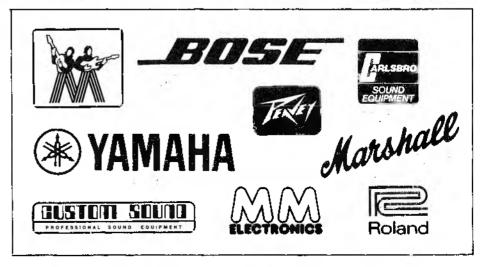


Amrik Singh-Luther Managing Director of Chase Musicians



Rapheal Preston

Pammi Singh-Luther

















Peavey

Electronics (UK) was formed in August 1976 to distribute Peavey products which had become the biggest selling amps in the USA. Over the last two years Peavey has become a major name in the British amplification market, hence its inclusion in the London Amplification Centre range.

Peavey have benefited from the trend towards smaller amplification coupled with sophisticated PA systems. The company excel in the production of superb units for just about every playing requirement.

In the PA field they make excellent compact systems, the Standard PA Mixer-Amp for example would give you four separately balanced inputs, bass, treble, reverb and volume on each channel with the same line up on the master controls. Thus you have all the features of a large mixer with the added advantage of 130 watts of built-in amplification.

For the guitarist there are the Classic, Mace or Deuce combos, while bass players are particularly well catered for with the 200 watt Peavey Bass. On stage monitoring is becoming essential for any kind of live performance, so Peavey have come up with the Professional Monitor System which consists of two tuned and ported enclosures and a 130 watt amp which will match most PA systems.



The Steve Gibbons Band rely on Peavey for their powerhouse stage

The Mace 160

The Peavey Mace is a truly outstanding portable amplifier which embodies the high technology and reliability of the company's products. It is a tube-type power amp which pumps out a beefy 160 watts and contains power and output transformers to match the tubes and give greater reliability.

The unique Peavey Automix circuitry, with the two completely separate master gain controls, is featured on both channels, and each channel can be pre-set or operated via a footswitch.

Each channel's controls are labelled "pre gain" for the regular level control and "post gain" for each channel's master level. This allows the musician to pre-set the channel levels and/or distortion sustain and then select either channel with the Automix footswitch.

These facilities enable the musician to get a clean and clear or distorted and sustained sound at the same time, thus cutting out a great deal of on stage adjusting. Each channel of the Mace has its own set of tone controls to give an even wider range of sound colour.

The Mace is available with either two or four specially designed 12" speakers, and can also be obtained in a "piggy back" power pack version.

















Vamaha

without a doubt, are among the leaders of the field of high-class amplification and their excellent range of amps are available at the new London Amplification Centre, on the same street as the London Synthesiser Centre.

This tremendous range of amplifiers manages to combine the warm sound of tube amps with the reliability of transistors. By working very closely with musicians, Yamaha have developed their unique Horizontal FET pre-amplifier which is the secret behind that fabulous Yamaha sound which incorporates the overloading effect and subtle tonal characteristics of tubes in a 100% solid-state design.

At last, you can choose exactly the amount of distortion you require as every Yamaha amp has a continuously variable distortion control. The lower settings will give you a subtle harmonic distortion, which increases as you wind up the control until a really "flat-out" raunchy sound is produced.

All the Yamaha range feature just what you would expect from them — top quality workmanship and amazing flexibility, and it's all to be found at the London Amplification Centre.



Gordon Giltrap finds the Yamaha ideal for his clean and cutting instrumentals.

B212

The guitar is just one part of the guitarist's instrument. The amp is the other half. No matter how good the guitar, partner it with a duff lifeless amplifier and you are wasting your money. Yamaha were among the first amp makers to realise that much of an instrument's sound is developed in the amp.

The trick was to achieve modern solid-state technology with traditional warm valve sounds. Yamaha know-how and FET technology have now done this. The range of Yamaha combos now available represent the finest music amplification technology.

The B212 guitar combo is the result of incalculable research by Yamaha scientists in consultation with musicians. In this 2 x 12 100 watt package you'll find space-age design with good old rock and roll sounds.

The B212 retains all the good traditional design points of guitar amps: two channels, full tone control, high and low inputs and reverb. All this is in a pleasing portable package. The volume of the B212 is startling. On stage it may look small and inoffensive compared with all those cumbersome stacks you are used to seeing. But just turn up that volume control a little and the B212 will take off with soaring high sounds that will give your electric guitar a new lease of life.

















Roland

has risen to prominence in the music world over the past few years in remarkable style. In just five short years their products have become the most advanced on the market and nowhere is this better illustrated than in the range of amplifiers which can be seen at the London Amplification Centre.

Roland's backline amplification caters for all the requirements of today's musicians offering a variety of products enhanced by the latest addition to the range — the Jazz Chorus series.

The company have taken the technology of amplification forward in leps and bounds to produce units that are extremely reliable, are beautifully designed and are very reasonably priced. Such qualities have earned them a permanent place in the showrooms of the London Amplification Centre.

The Roland amplifiers are a must for musicians who enjoy experimenting with sound to get that little bit extra out of their units. Come to Roland for solid state and solid power.



Mike Rutherford finds the Roland JC 160 the ideal amp for the sound of Genesis.

The Roland JC 160

The Roland JC 160 is a prime example of the company's advanced technology and development. It is one in a series of amplifiers which feature Roland's unique "chorus effects".

If you have ever listened to a 12 string guitar then you'll have some idea of what the chorus effect is all about. Thanks to newly developed IC's, you can now plug any electric guitar into the JC 160 and get a full rich sound. It is possible to get a softened yet wide-spreading sound which will give the guitarist unlimited playing possibilities.

The JC 160 has a two channel system for normal and chorus effect and features Reverb, Distortion and Tone (Treble, Middle and Bass) controls to enable full variation of tone.

The dual channel system means that sounds can be produced at two different tone settings and then mixed in whatever way the player wishes to produce truly original sounds.

To make things even easier, the amplifier also has a foot switch terminal for Chorus/Vibrato and Reverb control. Apart from its high technology and beefy 120 watts, going through four speakers, Roland have also taken care to give the JC 160 an impressive appearance. The design is refined but functional, being solidly built with all corners and edges edged with riveted glass fibre to give the ruggedness of a flight case.

















ustom Sound

products have, in a short time, shown themselves to provide a remarkably high standard of quality at prices accessable to the majority of musicians. The London Amplification Centre shares Custom Sound's philosophy in offering the best possible standard and will be carrying an extensive range of the company's products.

Custom Sound quickly built a solid reputation for the durability and reliability of their amplifiers. But more important than the sturdiness of their cabinets is the quality of the sound of their amplification. It is, needless to say, excellent, and it is because the Custom Sound amplifiers will get the best and most musical sounds of your instrument that the London Amplification Centre is really backing the Custom line

Besides the immensely popular Trucker range and various other products, the London Amplification Centre will be stocking the highly regarded 700 Series of amplifiers. This series is exceptionally rugged in construction and although incredibly reliable it has been developed for easy and affordable service by offering a power stage which is modular in construction allowing quick and easy replacement.

705 Combo

Highlighting the 700 series is the 705 Combowhich was the first shown in Frankfurt and is the result of extensive development by Custom Sound. The combo delivers 100 watts driven through two 12" speakers specially designed for this Custom Sound model. The 705 has been developed free of gimmicks and is designed to provide the widest range of sound with the advantage known to transistors of a sound readily controllable by the musician. Special features include the active four band tone network with an exceptionally wide range, the "OVERTONE" circuit which has been further refined for this combo and the excellent Custom Sound reverberation.

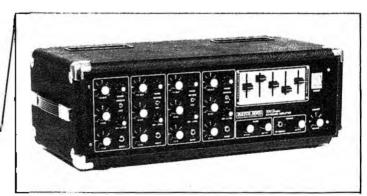
700K Keyboard Amplifier-Mixer

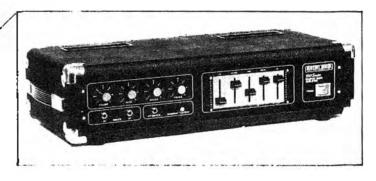
In the 700 series is included the 4 channel Keyboard Mixer-Amplifier which has a built-in graphic equaliser, phase and reverb. Already this model has proven immensely popular with keyboard musicians, particularly when used with the Custom Sound 72151 2 x 15" cabinet and the 7HPH High Power Horn Unit.

706 Graphic Bass Amplifier

Also in this highly regarded series is the 706 Graphic Bass Amplifier which displays the high standard of professional products to be expected in this range. The unit is 150 watts featuring a single channel with a 5-hand graphic equaliser so necessary to shape the sound to suit both the guitar and the cabinet being driven. Bass is often a unificult instrument but the 706 Graphic Bass is capable of handling it.





















Carlsbro

has always been one of the foremost names in British amplification and linking with the London

Amplification Centre will enable musicians to try out Carlsbro equipment first hand.

Hundreds of bands all over the world have obtained top results from the wide range of Carlsbro gear; all of which the London Amplification Centre will be carrying — whether you're looking for amplifiers, PA cabinets or speakers.

The people at Carlsbro have been making their equipment for 17 years and have always kept to the forefront the never-ending search for improved technology. A highlight of the Carlsbro range — readily available at the London Amplification Centre — was the recent unveiling of a whole new line of exciting effects products. Not content to jump into the market with the first thing they came up with, the engineers at Carlsbro took their time to develop the best units they could.

Full Range Flanger

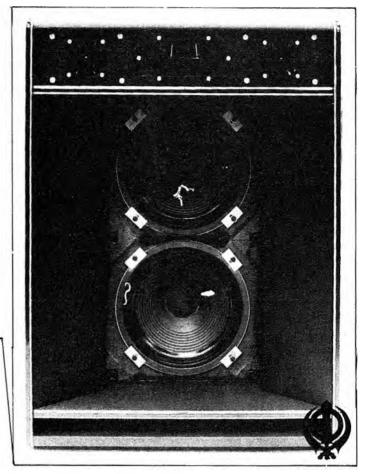
Carlsbro is always seeking to add new product to its range in an effort to supply the needs of musicians everywhere. Now a new speaker design from Carlsbro goes a long way to achieving that goal of the "perfect sound". This is the Full Range Flare, a three-way speaker system rated at K20 watts but capable of sounds that make you think you are hearing double that rating.

This is a cabinet that can handle all the frequencies you care to put through it: full bass sounds are covered by the two 12" Powertone Bass low resonance speakers which come with ventilated coils to ensure your performance may get hot, but your speakers won't. The mid-range of the system is catered for by RCF 50 watt horn with high frequencies projected with needle-sharp clarity through to Piezo electric tweeters.

Stingray Super Combo

This twin channel combo provides a tightly controlled sound and is equipeed with tremelo, reverb and sustain. The Stingray Super is fitted with two heavy-duty Carlsbro (Powertone 60) 12" speakers which are ideally matched to the power amplifier for 100 watts R.M.S. of driving sound — extension speakers can boost the power still higher.

The Stingray Super Combo comes with the extra associated with Carlsbro and is constructed with the same durable materials and craftsmanship that makes the equipment well known for its ruggedness.



















become success story in a business where successes are nothing new, but people would ar-

gue that the rise of MM over the last few years has something special. as is the Amplification Centre.

MM has grown and blossomed into a major force in the amplification and mixer market, exporting to more than 20 countries.

The secret of their success is quite simple — value for money products. Whether it be combos, mixers, graphic equalisers or slave amps the musician knows that he is getting the very best equipment at the cheapest possible price.

MM cater for the whole range of group gear from their wildly successful mixing desks, to the new Redmere and Intermusic combo amps. There is also the complete MM PA system which comprises a selection of matched devices hooked together in a carefully planned system to give the best possible

MM is a company run by people who are dedicated to the music equipment business, not just for commercial reaons, but out of the desire to give musicians everywhere the means to play their music at a price they can afford.



Dave Greenslade -- MM afficionado

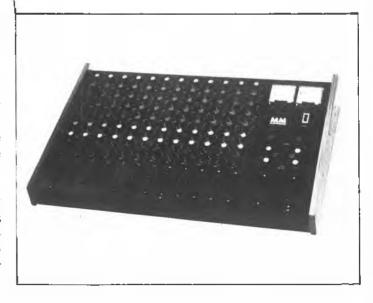
MP 175 Mixer

MM's MP175 12 into 2 mixer is without doubt the most popular piece of equipment that the company makes. Ask any of their dealers throughout the country and it will be top of the list of their best sellers.

After a quick trip around the MP175 it is not hard to see why this desk is at the top of so many bands' shopping list. Basically, the MP175 is a 12 channel stereo mixing console which can be used both in small studios or in portable public address systems.

It is a semi-modular construction, comprising 12 unbalanced inputs, two masters (including foldback, echo and headphones monitoring), two VU meter drivers and a regulated type of power supply unit. Each of the 12 input assemblies consists of all the channel controls i.e. Gain, Treble, Middle 1, Middle 2, Bass, Foldback, Echo, Pan and finally Channel Fader Slider.

The MP175 is well designed, professionally finished and despite so many facilities the consoles are extremely compact and convenient for transporting. It is an ideal desk for the band who are stepping into the world of miked up instruments for the first time.





Chase Musicians

London Amplification Centre

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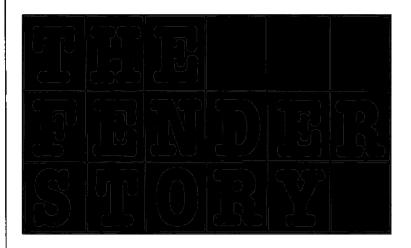
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Fender has become known as one of the big names in the musical instrument world, because it grew up with, and was an important part of that tremendous evolution of popular music during the fifties and sixties. Rock 'n' Roll could possibly go down in history as the largest single factor determining the social change of the twentieth Century. Certainly it is the largest single factor in the social emancipation of youth. To say that Leo Fender had any direct hand in the birth of Rock 'n' Roll, is a statement he would doubtless be the first to deny; it is certainly true that the instruments he created were tools for that "revolution". To the historians, he may be as important to those years as Levi Strauss or Sam Philips; one of the catalysts you may say that caused the reaction.

The kids of the Rock 'n' Roll era were weaned on blue jeans, Elvis Presley, coffee bars and pink Stratocasters. And the electric bass of course! Without that, the juke box would have been inconceivable! Without that, the juke box would have been inconceivable!

Leo Fender was born on a ranch in the same locality in which he was to build his business and his life, 30 miles South East of central Los Angeles, between Anaheim and Fullerton. The cautious shyness of the man belies his keen business acumen and unique inventiveness.

Whilst he is known to have played saxophone in his school band, and to have taken piano lessons as a child, Fender is not a musician, yet through his talents and creative genius, the whole face of popular music has been affected. During the early twenties, Fender was beginning to dabble in electronics. His school studies included technical subjects like maths and science and he became something of a radio ham. His hobby was to become his living and between 1930 and 1947, he operated a radio repair business and PA hire and service outfit. He had dabbled in guitar construction as early as 1925, being interested in the instrument, although never playing it. His interest was maintained through this period by the odd guitar player who stopped by the workshop to have an amplifier fixed or to experiment with the amplification of a guitar.

During the thirties, Hawaiian music was enjoying considerable popularity, and with it the steel guitar. The Rickenbacker Company in nearby Los Angeles were the first company to commercially produce an electric steel guitar in 1931, followed by a range of acoustic electrified instruments, and Fender's awareness of the field resulted in his own experiments to develop a better magnetic pick-up.

In the early forties, Leo Fender was employing several repairmen in his busy company, and was enjoying his experimentation on amplified instruments. More and more musicians were putting pick-ups on acoustic instruments, only to find that feedback was making it difficult to use any volume on their amplifiers, and Fender began to design a guitar which could not resonate in the body. And so a solid bodied instrument was born! Using a pick-up adapted from a steel guitar, Fender had a solid bodied guitar prototype in 1943, and it was quickly made the subject of the first of many patents.

The various prototypes which were made during this period were rented out to musicians, and the word quickly spread that here was an answer to many a guitarist's problem. It was a lean time immediately after World War II, and raw materials were difficult to obtain, and it was still to be some time before a commercial venture to produce the new style instruments could be considered. Much of this early work was a result of Fender's relationship with "Doc" Kauffman, who came to Leo from the Rickenbacker Company, and together with whom Fender was involved producing steel guitars and amplifiers in the K & F Company. Goods like this were in short supply directly after the war, and the workshop business was beginning to have growing pains as demand increased. Early in 1946, the business was poised on expansion and Kauffman pulled out to leave his partner in sole ownership of the renamed Fender Electric Instrument Company which now boasted some fifteen employees, and over three and a half thousand square feet of production space.

In 1947, Leo Fender was perfecting with George Fullerton the Broadcaster, a guitar which was to appear the following year as the first production model solid body guitar. The design was typical of the man — common sense, no frills, easy to build and easy to repair. It was, however, well designed enough to remain in production to this very day, and by the time it hit the music stores, was as near perfect as it could then be made.

The setting up of the machinery was executed to the finest tolerances, and only the best materials were good enough. Experiments with inaccurate fretboards from other manufacturers, led for example to Fender working down his own fret positioning, accurate to 1/1000th of an inch, and then fitting the frets directly into the neck of his new quitar.

It is true that the activities of Leo Fender in the height of 1948 set the path which rock 'n' roll and all modern musical trends were to tread. He would not claim to be the inventor of the solid guitar; others such as Les Paul or Merle Travis and Paul Bigsby were following similar paths of design experiments during the early years, but Leo Fender is without doubt the father of the solid guitar as we have come to know it.

He would doubtless prefer to be known as a practical man rather than a visionary, but no one could have possessed more vision than this man with his new instrument. The competition ignored him and hoped that it was a flash in the pan, but the musicians loved him. At last a practical alternative was available to them, and those amps, covered in herringbone tweed luggage covering, were to set the back drop of every leading artist's stage line-up in the early days. By 1953 the competition had caught up with his ideas, but Fender's head start found him in a new 20,000 square feet Fullerton location, and growing fast.

When the Broadcaster made its debut, Fender was concerned primarily in manufacturing. Don Randall, a radio spares wholesaler assumed a distribution role for the Fender products. In 1953, Fender and Randall formed the Fender Sales Company which was to be the sole distributor for the expanding range. In 1954, Forrest White joined Leo Fender, and eventually took over the production and administrative responsibilities from Leo, allowing him to spend more time in the development of new products, and constant striving for the highest standards. In 1955 some fifty people were employed, yet by the early sixties this had increased one hundred and fifty percent with a 54,000 square foot operation.

During 1964, Leo Fender was suffering from deteriorating health. It was impossible for him to maintain control of the business which was increasing in size so rapidly. Close on five hundred employees were on the payroll, occupying close to 200,000 square feet. And so it was that in January 1965, the giant CBS Corporation purchased the Fender Companies in their entirety for thirteen million dollars.

Such trusted colleagues as Forrest White and salesman Tom Walker remained active for a time in the new set-up, as did Don Randall as Vice-President. Fender was retained as a consultant under the terms of the deal, although his new found "retirement" gave him the opportunity to travel and invest in property. Three years after his selling out, he found a doctor who was able to treat and cure his illness, and his insatiable desire to invent and innovate drew him back to the business he loved.

White and Walker left the CBS set-up to pursue their own ideas for amplification design and manufacture, and this original Fender team joined forces to create Music Man, an amplifier and guitar manufacturing company, which today utilises the designs of Leo Fender through his CLF Research Company.

Taken from Ken Achard's book "The Fender Guitar" published by New Musical Services, 20 Denmark Street, London WC2H 8NE.





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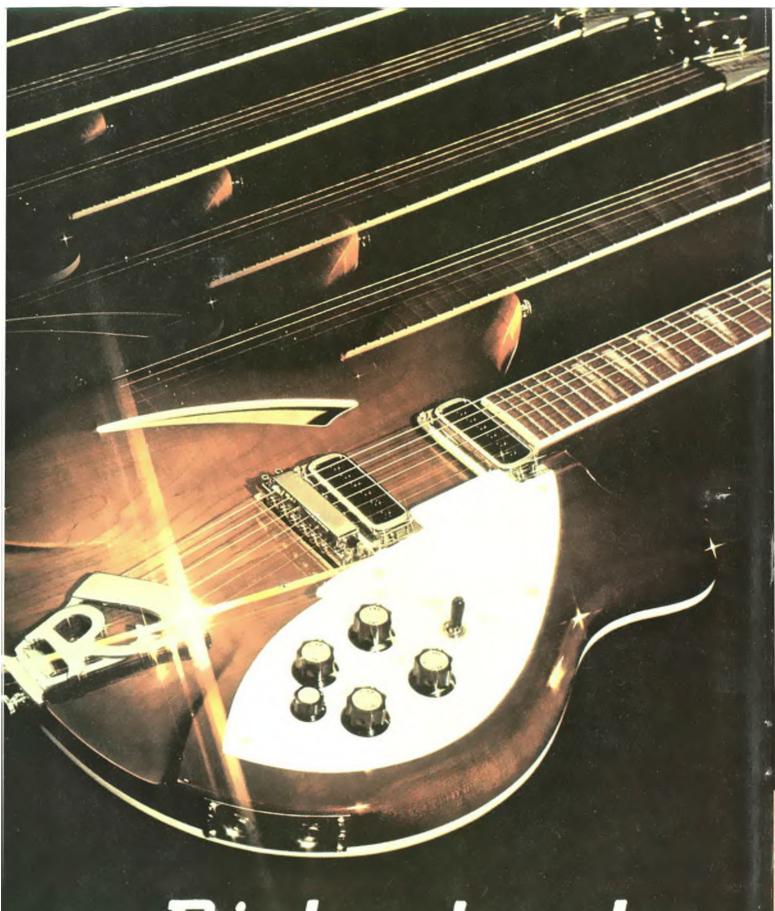
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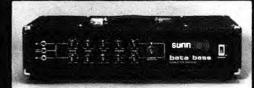
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O ALBUMS O

Flamin' Groovies: Flamin' Groovies Now (Sire 9103 333)

With the current vogue in Britain for Sixties pop music and Beatles impersonations, the time at last seems to be right for the Flamin' Groovies. However, I feel that the band deserve more than to be simply lumped together with what is essentially a media-induced movement.

The Groovies have been through many images during their career but about two years ago began buying up all the existing stocks of Beatle boots and emerged as if from some Sixties time warp. Their affection for the early beat music is reflected in this their latest album.

"Flamin' Groovies Now" sees them teaming up with the Welsh wizard of rock and roll, Dave Edmunds who in addition to producing the set contributes some guitar, piano and vocals.

Where the band score heavily, is doing versions of Sixties material. The album opens with a perfect version of the Byrds' "Feel A Whole Lot Better" which had the IM Byrd freaks gasping in amazement. The sound, vocals and note-fornote guitar solo really has to be heard to be believed.

Similarly, there is little to choose between the Groovies' "There's A Place" and the Beatles original. Unfortunately, the band's own material does not quite match up to these originals or their own "Shake Some Action" classic.

The nearest they get to it on this album is the Monkees-sounding "Ail I Wanted" and "Don't Put Me On". While the playing and vocals remain immaculate throughout, the self penned songs don't quite make it.

The Dave Edmunds influence is unmistakable, although I think his production is a little "toppy" overall. He takes a slide guitar solo on "Move It", one of the few numbers which does not benefit from the band's treatment, and plays some piano.

The Groovies seem essentially a live good time band, whose sole purpose is to entertain. Comparisons are always odious, but one cannot help placing them alongside The Pleasers — and really there is no contest. The Pleasers play at being a Sixties band whereas the Flamin' Groovies display an affection for the music which goes much deeper.

David Lawrenson

Producer and engineer: Dave Edmunds. Recorded at Rockfield Studios, Monmouth, South Wales.



Jefferson Starship: Earth (BXL1-2515)

When a group has been around a long time and has developed a distinctive, original style, it becomes difficult to remain fresh and inventive. In many instances the result is an imitation of the sound that made them successful — such is the plight of "Earth".

The Starship's new album has it all, it just doesn't seem to know what to do with it. Marty Balin continues to sing with a voice that early-on marked him as one of the foremost rock singers. And Grace Slick shows no lessening of her powerful voice that she often uses to achieve intense, high pitched lyrical tones which intertwine with the music like a well-laid out guitar piece. As a vocal album, "Earth" displays its moments, but musically it falls far short of vintage Starship music.

Opening side A, "Love Too Good" sets the tone for a weak album. The orchestration seems ill-defined and buried becoming more of a distraction than an addition to the song. "Count On Me", of course, has that predictable "it grows on you" chorus that is drummed in over the airwaves and although "Crazy Feelin" begins to pick up the pace it's not until the final cut, "Skateboard", that the album approaches anything near the rock and roll that is the Starship signature.

Distinctly absent on the A side is the guitar work of Craig Chaquico and although keyboards take up some of the slack, the runs are often predictable although not unpleasant. The B side fares little better than the A opening with the same lack of conviction and a poorly arranged "Fire".

It's not until "Runaway" that Chaquico finally offers some guitar work worth taking note of and the song builds as a lead-in to the final cut "All Nite Long" which comes near to achieving what you've been waiting for all along — vintage Starship.

Bill Stephen

Produced by Larry Cox and Jefferson Starship. Engineered by Larry Cox.

Television: Adventure (Elektra K52072)

Television are one of the most interesting bands on the rock scene today. Led by guitarist Tom Verlaine, this American combo are certainly unique because I cannot think of any other outfit to compare with their approach and sound.

What Verlaine has set out to do is to try and come up with something original, not by using complex instrumentation or clever studio techniques, but by experimenting within the guitars, bass and drums set up. It doesn't always work, but at least he and the rest of the band are trying and the times that it does come off results in good music.

Verlaine takes lead vocals and the majority of the lead guitar breaks as well as contributing some keyboards Richard Lloyd is the other guitarist with Fred Smith on bass and Billy Ficca on drums.

The material on the album is diverse, ranging from the wistful "Days" which features a Richard Lloyd solo, to the Heavy Metal riffing of "Foxhole". The latter is the stand out track with an excellent riff and some searching guitar lines from Verlaine which reminds me of Jorma Kaukonen's early work with Jefferson Airplane.

"The Fire" features "switchblade guitars" which one can only assume is a bottleneck effect, although the sound is not unlike a musical saw. There are many interesting sounds on the album where the band, and Verlaine in particular, are trying to wring out something original from their instruments.

Verlaine is the more innovative of the two guitarists using his Fender Jazzmaster without any effects, but relying solely on his own imagination. Lloyd is more of a straight rock guitarist, but the two work well and the styles balance out

The hardest thing to get used to is the leader's vocals which are similar to Dylan's early whinings, still it didn't prove too much of a handicap to him!

It is hard to categorise Television's work, their image and approach puts them into New Wave territory while some of their riffs would please the most ardent headbangers. Still they never fall into the trap of long cliched guitar solos which is something to be thankful for.

Although Adventure contains some rather weak material, it holds considerable interest particularly for guitar players.

David Lawrenson

Produced by John Jansen and Tom Verlaine. Recorded at Soundmixers and The Record Plant, NYC. Engineers: John Jansen, Craig Bishop, Gray Russell, Jay Borden. Mastering: Joe Brescio.

O ALBUMS O

Various Artists: White Mansions (A&M AMLX 64691)

Would you believe here at last is a "concept" album that really works? "White Mansions" is the story of the South's rise and fall against the North during the American Civil War. It is told in the form of a beautifully-illustrated book and 50-minute album. On the educational, musical and dramatic levels, it succeeds admirably.

"White Mansions" was written by Englishman Paul Kennerley who has developed a fierce interest in the history of the war. He wrote "White Mansions" only after thorough research and develops his story through the eyes of four characters who each represent a different facet of the South's people at the time.

Some of the stars taking part in the sessions were: Waylon Jennings, Jessi Colter, Eric Clapton and Bernie Leadon with the English rhythm section of Henry Spinetti and Dave Markee (drums and bass).

Although the performances stand up on their own, it is essential to follow the story with the booklet that is included with the record to understand the background and historical significance of each song.

There are a total of 15 tracks, each one able to stand on its own. There is a definite thread to the story. Side One deals with the background to the war, enthusiasm of the Confederates to fight and initial victories. Side Two starts with the turn of the tide and the submission of "Dixie" (the southern states) by the Union leading to the eventual surrender and desolation of the aftermath of the war.

Fhe album is a successful piece of doesn't come off. Yes, it's ragtime and propaganda for the South's cause and is bound to cause some controversy in the lead lines but his technique is very States when it is released.

Musically "White Mansions" is anything but boring. Glyn Johns has gone for effective simplicity in the arrangements, letting the players and the songs stand on their own merit. Waylon Jennings has never sounded better and Spinetti and Markee hold the work together with forceful drums and bass that never let the songs become lifeless.

"White Mansions" could easily have become a cumbersome, maudlin opera. Instead it is an evocative and musically uplifting album that deserves the widestpossible audience.

Ian White

Written and composed by Paul Kennerley. Produced and Engineered by Glyn Johns.



Michael Bloomfield: Analine (Sonet SNTF 749)

Quite a strange album from Michael Bloomfield. The first side is great while the second side doesn't do much for me at all. His own "Peepin' an' a Moanin' Blues' sounds like an authentic '20s blues number and Bloomfield is really in good voice, sounding, at times, not unlike Fats Domino. "At the Cross" features nice slide guitar but with a pedal steel approach as far as phrasing goes. It's a gospel-type number which would sound great in Roy Buchanan's repertoire.

"Big C Blues", like "Peepin", features Bloomfield on piano, guitar, organ, bass drums and vocals and, again, sounds quite authentic. It's a honky tonk bar room type blues with Bloomfield sounding more like Buchanan than Buchanan does.

Side Two doesn't fare quite so well. "Hilo Waltz" is just this side of tedious and is further destroyed by a muddled, boomy mix. "Effinonna Rag" seems to be Bloomfield's attempt at doing a Stefan Grossman. Unfortunately, it doesn't come off. Yes, it's ragtime and yes, he picks the bass strings with the lead lines but his technique is very heavy-handed and the general result is a bit of a mess.

Duke Ellington's "Mood Indigo" is absolutely atrocious. The arrangement just doesn't sound right for the number and the whole thing comes across as very laboured. The title track is written by Nick Gravenites who also sings it and plays guitar but, like the Ellington number, it is overlong and slightly boring. If only you could buy one-sided albums.

Eamonn Percival

Produced by Norman Dayron, engineered by Richard Beggs and Jenny Mosieu, recorded at Beggs/American Zoetrope. The Band: The Last Waltz (Warner Bros.)

It must have been one hell of an evening that night at Winterland. How do you begin to capture the atmosphere and excitement on record? Well this triple set goes some way to compensating those of us who weren't there although it is infuriating to listen to the applause and announcements of one star after another taking the stage and trying to picture what the Band's farewell concert must have been like.

On a musical level, and as far as being an interesting live album, "The Last Waltz" succeeds as a chronicle of an historic event in modern music. Anyone who ever had any doubts about The Band as one of the most expressive acts ever can just go and listen to cuts like "Up On Cripple Creek" and "The Night They Drove Old Dixie Down". Levon Helm was never better.

Normally a triple album would be a task to listen to. When it is peppered with slices of: Neil Young, Ronnie Hawkins, Van Morrison, Eric Clapton, Bob Dylan, Joni Mitchell, Muddy Waters and Emmylou Harris, the six sides just fly by.

What comes over on this album is that all these artists were up there playing without any pressure of their normal gigs. It's like old friends coming together for the ultimate musical party and no-one was worrying about egos or blowing anyone else off-stage. Putting it simply, there isn't a bum performance by anyone.

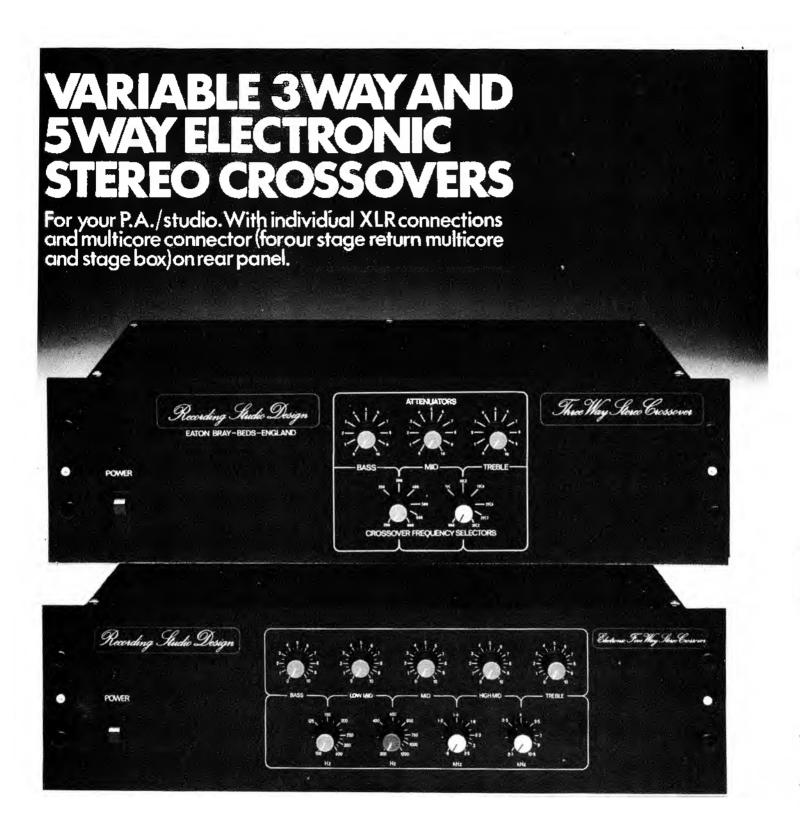
My own taste singles out all the Band's numbers, Emmylou Harris's "Evangeline", and the Dylan side which has him ripping the guts out of "Baby Let Me Follow You Down" with a vocal ferocity that is astouding.

If miracles were everyday occurences, The Band would realise they could never make better music on their own than when they were together, reform, and play a tour of small British clubs. However, that's fantasy, and "The Last Waltz" is as near as we'll ever get to that.

The only fault with "The Last Waltz" is the inclusion four times of "The Last Waltz" theme which is pure schmaltz. The live cuts say it all and the suites and refrains could have been happily omitted. "Indispensable" is not a word to be used lightly. In the case of "The Last Waltz" it is the obvious description.

Ian White

Produced by Robbie Robertson: Recorded at Winterland Arena.



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O ALBUMS O

Chris Rainbow: Looking Over My Shoulder (Polydor Super 2383 467)

At last, Chris Rainbow's second album. It's been over three years since his debut "Home Of The Brave" album was released and, while that album was good, this new one is sensational. Thankfully, some of his singles are also included, notably the amazing "Solid State Brain", his first single and still one of the best things he has done.

The album opens with "You and l", a slow number with Dave Lawson sharing keyboard honours with Chris and guitarist Mart Jenner putting in some tasteful fills including a beautiful "trickle" of harmonics towards the end of the track. The chord sequence is beautiful and builds up throughout the song. "Gimme Just a Beat Of Your Heart" was an early single and is what I'd call a "classic" pop song. On the chorus, bassist Pete Zorn and drummer Simon Phillips really show how a good rhythm section can work together.

"Show Us The Sun" is another slower number slightly reminiscent of some of the tracks on his first album with its sun/summer/beach theme. A really high spot occurs on Side One with "Dear Brian". Chris is a self-confessed Brian Wilson fanatic and this song says it all. It's got a very "Surf's Up" feel to it with beautiful and sensitive lyrics. "Allnight", another single, closes the first side and features a great Beach Boys-type acapella section in the middle and on the fadeout.

Side Two opens with the stunning "Solid State Brain". Why this wasn't a hit, I'll never know. It might be a good idea to re-release it now, as it was well ahead of its time in 1974. It's full of subtle but inventive ideas that crop up throughout the song and even features bagpipes at the end!

"Dansette" follows, performed entirely acapella. If you're a vocal harmony fanatic like me, this will astound you. The Four Freshmen meet the Beach Boys meet Chris Rainbow. "Blue Bird" is next and features a beautiful melody and chord sequence.

"Looking Over My Shoulder" has some of the best music I've heard for a long time. I just hope it doesn't get overlooked and suffer the same fate as his previous recordings.

Eamonn Percival

Produced by Chris Rainbow, engineered by Dick Palmer and recorded as CBS, London.



The Pirates: Skull Wars (Warner Bros. K56468)

The Pirates just get better and better. This album is one of the best collections of recorded guts and energy available today. The numbers are a mixture of originals and standards and the Pirates are probably the only band who could include "Dr. Feelgood", "Johnny B. Goode", "Talkin' About You", "I'm In Love Again" and "Diggin' My Potatoes" on an album and get away with it. And get away with it, they certainly do.

Their own songs are really good, too. If you're looking for songs about what it's like being on the dole, what the meaning of life is or any heavy messages, then look somewhere else. The Pirates write good rock songs, nothing more, nothing less. Mick Green's "Johnny B. Goode's Good" gets this point over admirably before they cut straight into a live version of Berry's "Johnny B. Goode".

The album was recorded in various locations — four at Rockfield, two at Jacksons, two at The Manor plus three live cuts from the Hope and Anchor and one from the Belle Vue, Manchester. Vic Maile, whose name crops up on all the best live albums, produced "Skull Wars" which, soundwise, is excellent. On a couple of tracks, the lead vocals are a bit too far down in the mix but I imagine it was intended that way for a more of a "live" feel.

There really isn't any more needed to be said. The Pirates are a great band, this is a great album and, if it's high energy rock 'n' roll you want, get this album,

Eamonn Percival

Produced by Vic Maile, mixed at Jackson Studios, Rickmansworth.

I-Roy: Heart Of A Lion (Virgin Front Line Records FL 1001). The Gladiators: Proverbial Reggae (Virgin Front Line FL1002)

A couple of years ago Virgin released a sampler album called "The Front Line" which featured a whole host of their reggae artists. Together with Island, Virgin are the only major record company to specialise in reggae, and have now launched a special Front Line label to cater for it.

These two albums from I-Roy and The Fladiators are the first releases on that label, and as such represent the changing face of reggae over the past few years. I-Roy (Reid) is one of Jamaica's best known talk-over artists, starting life as a DJ and adding his own lyrics to basic instrumental tracks.

His early work was much more basic with serious lyrical political overtones, but "Heart Of A Lion" marks quite a significant change in style. I-Roy has always had one of the most distinctive voices in reggae, a gravel-throated rasp that is instantly recognisable, on this album it is put to a more up-tempo, danceable beat obviously aimed at the disco market. The backing is much fuller, with noticeable use of synthesizer, to give a far more "poppy" sound altogether.

The second side of the album is generally better than the first with stand out tracks "Move Up Roots Man" and "Tiddle Le Bop".

The Gladiators follow in the tradition of Jamaican vocal outfits like The Hep Tones and Toots and the Maytals. Once again, the beat is distinctly danceable and the numbers smooth and melodic.

The Gladiators are Albert Griffiths (lead guitar), Dallimore Sutherland (rhythm) and Clinton Fearon (bass), although it is as vocalists rather than instrumentalists that the trio score. The three-part harmonies are superb and the whole album is far more accessible than much of the early reggae, which will hopefully widen their appeal. Particular favourites on this album include "Jah Works" and "Dreadlocks The Time Is Now".

David Lawrenson

Heart Of A Lion produced by Roy Reid and Harry Johnson. Recorded and Mixed at the Harry J Studios, Jamaica. Engineer: Sylvan Morris.

Proverbial Reggae produced by Tony Robinson. Recorded at Harry J and Joe Gibbs Studios. Mixed at Joe Gibbs, engineered by Errol Thompson.

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		Ibanez - 2617 A Ibanez - 2618 A			with Di Marzios	lbanez-2635 'Artist' semi-ac, inc, case banez-247t semi-ac, carved top banez-2355-DX175 Style		£317.50 £375.00 £258.50
Ibanez - 2710 Artist	R.R.P.	Ibanez - 2619 A Our Price	rtist Gi	uild – B301 Bass R.R.P.	Our Price	Ibanez-2453-CW Howard	•	£245.50
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		£495.00	KORG Mini Pops Pro Rhythm Box £211.15		ibanez, and other effects pedals.		ioc oii,	
AMPS								
Mesa Boogle – Shipment expected soon			Roland – J.C. 60 1 x 12" Roland – J.C. 80 1 x 15"	£349.00 £379.00	£314.00 £339.00	Yamaha - A4115H Self Powered Cab	£440.00	P.O.A.
Music Man -1 x 12"			Roland - J.C. 120 2 x 12"		£429.00	Maine -120 Watt	144U.UU	P.U.M.
65 Watt Combo	£428.62	£375.00	Roland - J.C. 160 4 x 10"		£469.00	2 x 12" Combo	£289.60	£259.00
Music Man – 2 x 10" 65 Watt Combo	£471.90	£399.00	Roland – SB100 Bass Co Peavey – Backstage	mbo £569.00	£513.00	Ampeg – S/H VT 40 60 Watt Combo	_	£320.00
Music Man - 2 x 12"	2 4.1/20		17 Watt Combo	£100.27	£89.95	Marshall-50w master		
65 Watt Combo	£558.49	£475.00	Peavey - Pacer 45 Watt	£184.14	£169.00	vol. combo	£270.95	€245.00
Music Man -2 x 10" 130 Watt Combo	£558.49	£475.00	Peavey - Classic 50 Wat Peavey - Deuce 120 Wat		£225.00 £315.00	Vox-AC30-still amazing value Vox-Battery/Mains 'Escort'	ue £268.95 £48.00	£245.00 £39.95
Music Man - 2 x 12"			Peavey - TNT 45 Watt			P.APORTABLE CLUB SYSTE		£39.93
130 Watt Combo Music Man - 65 Watt Head	£649.41		Bass Combo Yamaha - 1 x 12"	£226.00	£199.00	Peavey - P.A. 100 45 Watt	£259.45	£234.00
Music Man -1 x 15"	£316.05		G25 Watt Combo	£169.00	£119.00	system complete Peavey-PA, 200 100 Watt		
65 Watt Cab	£267.84		Yamaha -1 x 12" G50 Watt Combo	£259.00	£180.00	system complete	£380.85	£340.00
Music Man -130 Watt Head Music Man -2 x 12"	£402.63	£350.00	Roland-60 watt PA. Am		£160.00	Peavey - 240 Watt P.A. complete with 8-channel Mi	ixer	£795.00
130 Watt Cab	£318.06	£270.00	6-Channel special purcha		£175.00	Maine - 200 Watt P.A. comp		£499.00
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Custom Legend	£1,000.00		Ovation - Balladeer	£355.50	£295.00	Guild-F512NT		
Ovation EL/AC Legend Ovation EL/AC Classic	£635.00	P.O.A.	Ovation - Matrix Ovation - Applause (MN)	£239.95 1 £169.95	£215.00 £150.00	12-String with Hot Dots Tama - 50TK	£772.91	P.O.A
nylon strung	£639.95	£575.00	Guild - F50	1 2109.93	#150.00	new Rosewood Jumbo	£210.00	£190.00
Ovation - EL/AC	******		Rosewood with Hot Dots	£737.81	£665.00	Tama - 80TG	£210.00	2170.00
Custom Balladeer	£520.00		Guild - Acoustic Bass		P.Q.A.	new Mahogany Jumbo	£240.00	£215.00
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+ Large shipment of EL/Aco Ovation - Custom Legend	ustics expa £865.00		Guild - M20 all Mahogar Guild - D25 Mahogany	ay £219.24 £279.61	£199.00 £245.00	new Rosewood Jumbo Dobro – 36D Beli Brass	£280.00 £370.00	£250.00 £335.00
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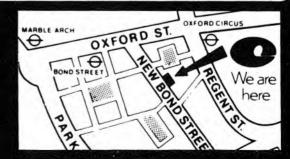
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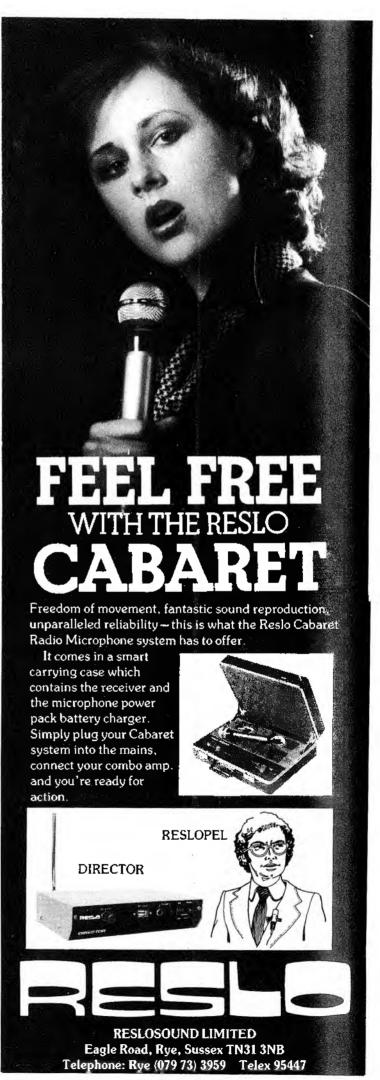
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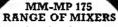
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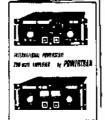
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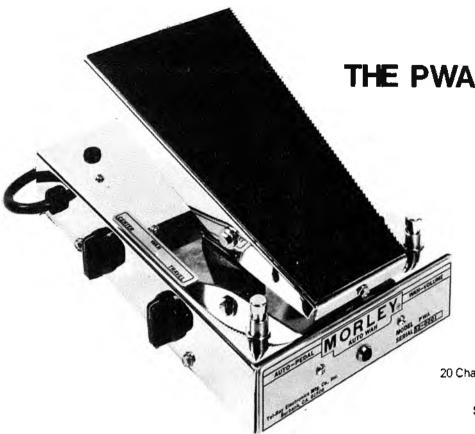
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O TRADENEWS O

D'Addario Half Round Guitar Strings

The D'Addario guitar string company have announced the development of their new Half Round strings which combine the best aspects of both round wounds and flat wounds.

Half Rounds are highly flexible, smooth surfaced strings which are made similar to D'Addario Round Wounds except that they are further ground to within 2/10,000ths of an inch diameter then hand buffed.

These durable strings are designed for both rhythm and lead guitarists and produce beautiful natural tones, giving excellent sustain without being too bright. "The D'Addario Haif Round Story" is enclosed in every string package, and available in selected gauges from all D'Addario dealers.

D'Addario are distributed in the UK exclusively by Summerfield, Saltmeadows Road, Gateshead.

New Fender Rhodes For Ray Charles

Fender Rhodes user, Ray Charles, has just taken delivery of a new Rhodes 88 electric piano. This will replace his faithful old Rhodes 73, which for years has literally travelled the world with him.

Ray says: "I have trouble finding that sound I like. Probably it's something psychological with the action — and the Rhodes action is good. The notes come out even, you hear them smoothly,"

On the amplification scene, Fender are also updating some of their products to meet the demands of today's musicians. The power and efficiency of three amps, the Bassman 10, 50 and 100 has been boosted.

"In spite of the fact that we're giving the musician more volume potential, we're now producing a series of amps that operate cooler and more efficiently than ever before," said David Gupton, vice president of marketing and sales.

The Bassman 10 is up from 50 to 70 watts, the Bassman 50 is now called the Bassman 70, with its power boosted from 50 to 70 watts and similarly the Bassman 100 becomes the Bassman 135 with a power increase from 100 to 135 watts.



Peterson Scanning Strobe Tuner

A new strobe tuner has been devloped by Peterson Electro-Musical Products of Illinois. Called the Model 700 Scanning Strobe Tuner, its design enables hands-free tuning.

The tuner will automatically switch the note up or down simply by pushing the foot pedal provided or by pushing the appropriate button on the front panel.

The pitch the tuner is set on will be lit on the display on the front panel. This display also transposes for Eb, Bb and F instruments.

New Sunn Amplifiers

The American Sunn Musical Equipment Company are launching their new Beta series of self-contained amplifiers and Power Plus units. Each amplifier is equipped with "Digital C-MOS Technology" which is the key to their advanced design and performance features. Each is also dual channel with internal switching capability through a highly advanced footswitch.

In addition, C-MOS chips, originally developed by the computer industry, offer unique sound characteristics to the musician. C-MOS circuitry reacts in may ways like vacuum tubes, activated by the Beta's "drive" control, this tube-type response is totally within the musician's control.

The musical benefits offered by the new Beta series goes even further, with the variable Q tone control circuitry and the stereo capabilities.

Each unit is 100 watts and a full colour brochure is available for all Sunn dealers or directly from the Sunn Musical Equipment Company, Amburn Industrial Park, Tualatin, Oregon 97062.

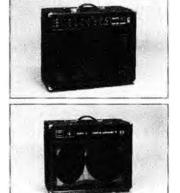
New Power Amp from Spectra Sonics

The Utah based Spectra Sonics company have just started production of a new power amplifier, the Model 701. It is a second generation DC power amp which will provide even better reliability and a considerable increase in power output. The 701 is also ruggedly built to withstand the rigours of hard usage.

WLM Organs

WLM Organs of Finland are extending their activities throughout Europe and will soon be establishing distributors in Portugal and Spain. Plans are also underway to promote the products in Singapore and even Japan.

Overall, WLM are exporting to 20 countries, which include Walton's Musical Instruments Ltd. of Eire and hopefully Crymbles of Belfast in the not too distant future. The Frankfurt Fair proved highly successful this year for the company.



Acoustic Sound Systems distribute Coral

Acoustic Sound Systems of Essex have become sole UK distributors of Coral Professional Audo Products. This will supplement Tony Rossell's own ASS products which have been on the market for the last five years.

These speaker units can be found in many of the big PA systems for example Tasco's rigs, Mega and Pink Floyd's sound systems. Despite their high quality the units remain reasonably priced to suit the pocket of most musicians and bands.

Morley Move

Morley, one of the top American effects manufacturers, have completed their second expansion move in nine months with the opening of a new 1,500 square foot plant in North Hollywood, California.

Marvin Lubow, marketing director and principal of the company said: "Our recent expansions are a result of two factors. One is the overwhelming acceptance by the music industry, and in particular by professional recording groups, of our pedals and the other is our aggressive marketing policy that includes contacting our entire dealer force directly each and every month."

The new factory will contain the most up to date equipment for the development and testing of products and will be a model of efficient electronic manufacturing and assembly.

Marvin Lubow was recently invited to conduct a seminar on the use of pedals, and other sound modifiers, in electronic music by the Guitar Institute of Technology in Hollywood. This proved to be so successful that Marvin has been invited to make it a regular part of GIT's curriculum.

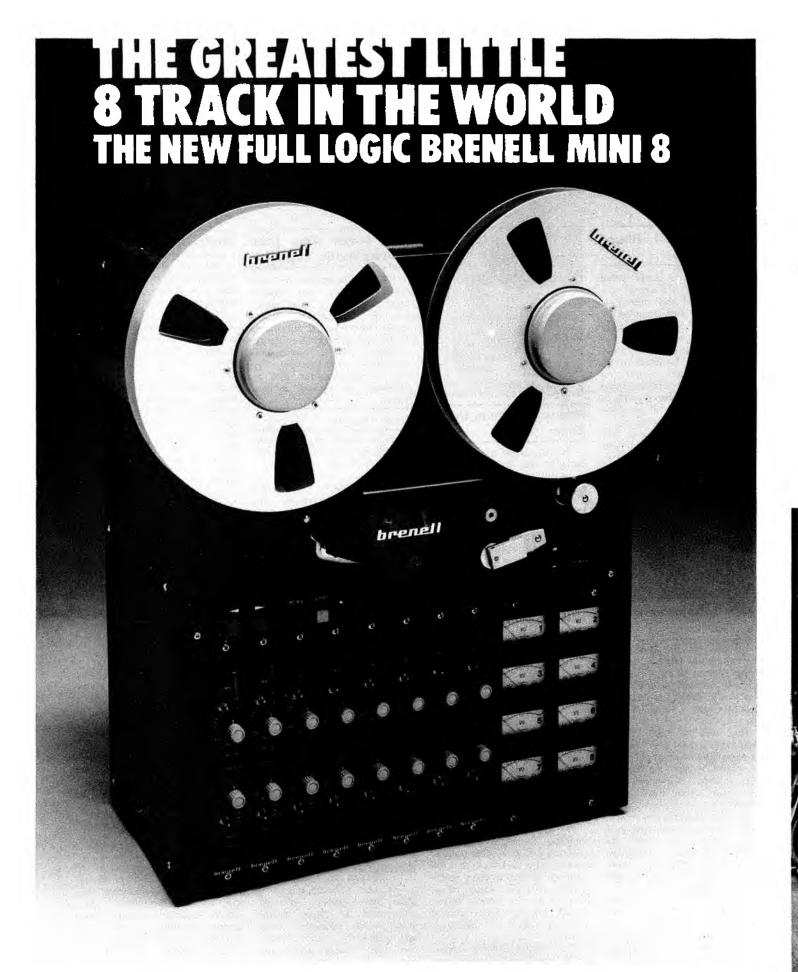
Finally, as a result of their expanding operations, the company has appointed two new regional sales managers. They are Keith Alexander, aged 33 from Washington, D.C. who was previously with Tychobrahe, and Jim Duck. 26, a native Angeleno who has long associations with the music scene of the Hollywood and Bay areas.

Chase Musicians launch new Amplification Centre

Following the huge success of their Synthesiser Centre Chase Musicians are now extending into the amplifier business. This month sees the opening of the London Amplification Centre at 88, Chalton Street, London NW1.

The centre will operate on the same format as the synthesiser store, namely stocking an incredibly wide range of equipment and offering musicians the best in professional help and service.

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SPEAKERCHECK

BY KEN DIBBLE

Introduction

Whereas the 18" loudspeaker once ruled supreme as the bass instrument reproducer. recent years have seen a swing away from 18's onto 15" units. It is interesting to reflect that the rise and decline of its popularity seemed to coincide with that of the old Vox Foundation Bass cabinet - fitted as it invariably was with a Goodmans Audiom 90, a 50 watt 18" unit. And a pretty good sound it used to make as well unless I am greatly mistaken. At any rate, the Rolling Stones, The Beatles and The Shadows seemed to think so from the number of years that they kept it in the amplifier line-up!

However, fashions change and the 4 x 12 took over - with the advent of the Marshall stacks the bass instrument sound became much more punchy and toppy with less concentration on the reproduction of the fundamental low frequency note, but more accentuation on its harmonics.

Later stiff, the fundamental note again started to become important and 15" units started to creep into the scene - mainly under the influence of the American manufacturers, and the old 18 never did regain its former popularity. There is little doubt that a properly loaded 15" unit can give a really good account of itself as a bass instrument reproducer - with the added advantage of being able to handle a certain amount of the middle register as well and gives a more crisp sound than did the 18" unit on its own. But for pure fundamental reproduction of bass open E strings and all that, in a simple infinite baffle enclosure without the complexities of horn loading etc. for my money, the 18 is still king.

As the market for the 18" unit fell away. so too did the incentive to manufacturers to include such an animal in the catalogue and therefore there are but few available on the market and for this reason, we have decided to include 'standard' and 'special' category products in a single review for this particular

For obvious reasons, we will not expect a similar performance from a unit in the £30-£40 price bracket as from a unit costing almost £260 and will therefore comment accordingly when making the final comparisons at the end of the review.

The shortage of products to include in this report was not helped by the fact that one leading maker, Rola-Celestion, on the market, were not able to get their units to us for one reason or another. This is a great pity, as after the success of their G18C over many years, it would have been interesting to put these new high power models through their paces. Perhaps we will be able to include these in an update test later in the

The enclosure

A new enclosure was constructed for the 18" tests, this time the 130ltrs. It was again an infinite baffle design with a quick-release clamp arrangement on the front to permit the rapid change-over of units, and was lagged with an 80mm thickness of fibreglass wool. Changing these units over - especially the Fane Crescendo with its massive assembly, proved to be a little more demanding than was the case with the 12" and 15" units.

The tests

During these tests we ran into a problem that quite honestly, we had expected to encounter earlier. We have been powering the loudspeakers from an HH TPA-100D power amplifier after laboratory testing its own frequency response and distortion characteristics.

It is interesting to note that this amplifier is perfectly linear over a frequency range that well exceeds the range of human hearing and that it will deliver sine wave power of up to 180 watts into an eight ohm load and up to 250 watts into four ohms before clipping, and is quite happy at these power levels.

Just as a safety precaution, we monitor the amplifier output signal on an oscilloscope to ensure that no signal clipping occurs. When we tested the high power 15" units - the Roland C-2038 is an eight-ohm unit rated at 200w. RMS and the JBL K130 has a continuous programme rating of 150w, we expected to run out of amplifier power.

In the event, distortion figures started to rise significantly at 150w. in each case so the problem did not arise. However, in the case of the present tests on 18" units, we have found loudspeakers with distortion as low as 1.5% at full rated power of 150 watts and it would normally be our policy to run these at a 50 per cent increase in power, and if this continued to show low distortion, a re-test of 100 per cent increase would be made. Therefore, in the case of the JBL K151, and RCF L18P/100A, we must content ourselves with a statement to the effect that the units are conservatively rated, as the amplifier used would be incapable of powering these loudspeakers at such power levels.

One final point that should be borne in mind when considering the results of these tests. It will be seen from the tables that follow that some of these loudspeakers are showing frequency responses going right up to 10KHz., and while this is nice to have for some 'punch' to the bass instrument sound, it is to be expected that the spread of this mid and high frequency signal will be very restricted from a cone of this diameter.

Our measurements are done on the main forward axsis of the loudspeaker and therefore we include this upper register response in our measurement, but it is unlikely that any useful energy at these frequencies will be audible at more than 20° off the main axis either upwards, downwards, or side to side. It is far better to use an 18" unit for its intended purpose -- as a gutsy bass reproducer and to use an additional horn for the 'punch' and to ensure a good distribution of the mids

The results

In the event, compiling the 'league table' this month was not the headache I was expecting, as the problem of comparing loudspeakers over such a vast price bracket almost solved itself. Beautifully made though the JBL K151 is, at almost £260 it is incredibly expensive and quite honestly, from our results, its performance does not justify expenditure of this magnitude.

The best overall performance is a tossup between the EVM-18B and the RCF L18P/ 100A, and in view of the £23 price difference, and the extra 50 watts of rated power handling - which between them outweigh the small increase in distortion levels, the RCF would find its way into my bass instrument cabinet. In fact, at just under £100, this is a remarkable loudspeaker.

Of the remaining units submitted for test and remember that Celestion were this time not included, the Goodmands Audio 18P at just £53 represents remarkable value for money and as the results tables show, it has better overall performance than say the Fane Crescendo 18A costing as much as the RCF at almost £100.

Even Fane's own Pop 150 gave a better overall performance than the Crescendo and if an extra 50 watts of rated power is worth an extra £13 over the price of the Goodmans, this too is a nice loudspeaker at a sensible price - these two units being very similar in most other respects.

This test briggs to an end the first phase of this project with the last of the cone transducers. We shall return to this subject later in the year with an update report and at that time, will look at some of the products we either missed out on this time round, or that have been introduced into the market since we reviewed its appropriate product group. Next month we shall sit back and take stock of the last few months' work, analysise the results so far obtained and ask a very pertinent question:- Just what do I get for my money if I buy one of the more expensive loudspeakers rather than a standard item?

Through the summer months, we shall turn our attention upon the horn and compression driver market and by the end of the year, go on to complete systems, so it looks as if there is plenty of interest over the next few months.







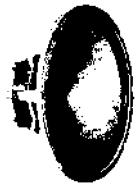






ELECTROVOICE EVM-18B

RRP Incl. VAT £121.50 (From end June 1978)



This is yet another fine product from this American manufacturer. The chassis is an enlarged version of the design used for the EVM-12 and EVM-15 units featured in previous reviews, and apart from its superb finish and presentation, it is of adequate strength and proportions for a unit of the size now under consideration. From a performance aspect it is faultless. It confirmed the makers 100w, power rating at a distortion figure of a mere 1.5%, and on a re-test at 150w, distortion was still below 2%.

The sensitivity of 101db, is very good indeed and a respectable frequency reponse curve was obtained. A very nice product, in every way confirming this maker's prestigeous reputation — but as with almost all American products, it is expensive on the UK market due to such factors as freight costs, import duties, handling charges and generous retail profit margins. The unit was delivered with a useful installation leaflet and mounting hardware including a gasket set for front mounting.

Perameter
Power
Distortion
Sensitivity
Resonance
Impedance

Manufacturer's Rating Test Result

100w. cont. sin.

Not Stated 54db EIA

40 HZ, ± 10%

Not Stated

4 ohms nominal

100w, 37/99 cs. Wave

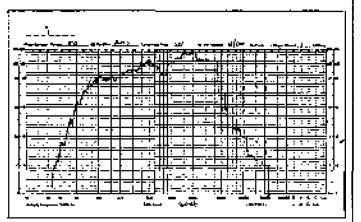
1.5% @ 100%

Miller Orland March

Kalis in 1900a (Send

O Storing in 17.5 chink

13 Hz = 55KH · 7 2006. See graNic

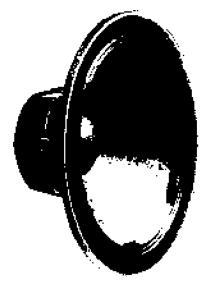


JBL K151

Useful Freq.

Response

RRP incl. VAT £259.20



This loudspeaker looks and feels the most rugged and substantial unit yet tested. The massive cast alloy chassis employs eight very thick, ribbed spokes to couple the front rim to the rear plate and to ensure constant alignment and rigidity. A massive magnet assembly is fitted, enclosed within a fluted cast iron pot.

The whole frame is finished in an unassuming black crackle paint — obviously stoyed, giving a very professional aspect. A medium weight, straight cone is fitted, with doped paper front suspension and a composit paper centre dome. The usual rear venting system is employed.

employed, A pair

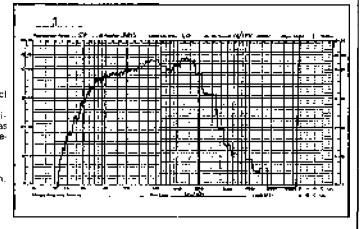
employed.

A pair of particularly heavy duty spring release terminals are fitted, but these are mounted very close to the cone, such that the solder-tags to which the feed wires are attached could well puncture the cone under maximum excursion. Also, the terminals are so positioned on one of the support spokes, that any stray strands of the connecting wire could easily short onto the chassis with the possibility of shorting the amplifier output. Not a very clever arrangement — especially when compared to the otherwise superb engineering of this product. product.

product.

The unit performed generally well, but has a disappointing low sensitivity for a product from this maker — in fact, it is the lowest of all 18" units tested at just 96db. The distortion figure obtained is however, in conjunction with the EVM-18B, the lowest yet obtained at full rated power, at 1.5%. Due to restricted power availability from the measurement amplifier used (see text) we could not try a re-test at a high power. As a results table shows, this was another unit with a very steep rise in voice coil impedance and again, overshot the results table snows, this was another unit with a very steep rise in voice coil impedance and again, overshot the scale of the instrumentation used, necessitating an estimated figure at the high frequency end. To summarize, a very nice unit, but disappointingly low in sensitivity, and very, very expensive. The usual, superb JBL installation manual was included in the delivery, along with a kit of mounting hardware.

Parameter Power	Manufacturer's Rating 300w, Cont. Prog. 150w, Cont. RMS	Test Result 150w. RMS Sine Wave
Distortion	Not Stated	1.5% @ 150w.
Sensitivity	99db, @ 1w. @ 1m.	96db, @ 1w. @ 1m.
Resonance	30Hz, free air	55HZ, in 130ltr. IB. encl
Impedance	8 ohms nom.	8 ohms – 45 ohms esti- mated. NB, this was outside the measure- ment range of the instrumentation.
Useful Freq. Response	35Hz 2KHz. unqualified	40Hz. — 3.6KHz. @ -20db. points, see graph.



FANE Pop 150

RRP incl. VAT £65.80



This loudspeaker is built on the same chassis as the Crescendo 18A also included in this review but in this instance, due to the considerably lighter magnet assembly fitted, it is quite adequate for the purpose and is in fact, a nicely finished unit. Suitable for conventional mounting only due to the continuance of the bevelled edge right to the outer circumference of the chassis — rather similar to the Richard Allen 15" unit in this respect. A smooth, curved, medium weight cone is fitted with doped paper front suspension and an unsual foam front gasket.

This is another of these 'freak' units with a liner dust cover painted silver to stimulate a metallic centre dome.

this is another of these treak units with a liner dust cover painted sliver to stimulate a metallic centre dome—just who do the makers think they are kidding with this sort of nonsense? Performancewise, this is a rather nice product. The sensitivity is good for a lower price bracket loudspeaker, the distortion is commendably low at 4% loudspeaker, the distortion is commendably low at 4% and the frequency response is good — despite the fact that the maker's ridiculous claim of a 20 Hz. LF response is not compiled with by a whole octave. (not that fane are alone in this respect.') The performance of this unit, along with that of the Goodmans 18P goes to show that it is not necessary to pay a fortune for a good quality bass instrument or showground loudspeaker.

Parameter Power Distortion

150w

Manufacturer's Rating

Not Stated

Sensitivity

Not Stated

Resonance

55Hz.

Impedance

8 ohms

Useful Freq. Response

20Hz. - 5KHz.

Test Result

150w. RMS Sine Wave

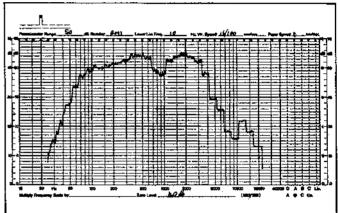
4% @ 150w.

97db, @ 1w. @ 1m.

80Hz, in 130ltr, IB, encl

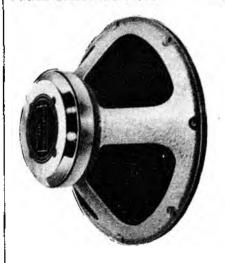
8 ohms - 33 ohms - estimated NB, this was outside the measurement range of the instrumentation.

40HZ. — 6.5KHz @ -20db. See graph.



FANE Crescendo 18/A

RRP incl. VAT £10.95



Adequate cast alloy chassis, probably better described as a bell housing with four large holes punched in the side as a bell nousing with four large noise punched in the side rather than as a spoked basket frame. It is quite unlike the usual Fane chassis we have come to expect, but in common with these, it is not designed for front mounting, nor is it at all practicable to adopt any other than the conventional mounting arrangement from the rear of the

conventional mounting arrangement from the rear of the baffle panel.

As the unit was handled during tests, a slight 'ringing' of the chassis was noticed and in fact, the whole frame does 'ring' at about 500Hz, and this could give rise to colouration in use.

This loudspeaker is very heavy Indeed with a massive magnet assembly and I would question the long-term ability of the chassis to carry such a weight without fracture if subjected to much rough handling. Termination is by the usual solder tags found on most British loudspeakers. A curved, medium weight cone is fitted with the front suspension consisting of a continuation of the paper cone moulding doped with a varnish preparation to reduce fatigue and reduce compliance — this being the usual paper suspension arrangement. A large, vented metallic centre dome is fitted.

Under test, the unit showed a reasonable sensitivity and a good frequency response for a unit of this size and type as the results table above shows, but unlike other units submitted for test by this maker, an alarmingly high second harmonic content resulted in a totally unacceptable distortion figure of over 15 per cent at the rated 175 watts input power. The only other loudspeaker to exhibit a distortion figure of this magnitude was the Gauss 2841 12" unit reviewed in the March '78 issue. In all other respects, this is not a bad loudspeaker considering its price, but from these results, it falls short of the

all other respects, this is not a bad loudspeaker consider-ing its price, but from these results, it falls short of the 'Pop 150' from the same maker — also included in this review, and costing a good deal less!

Parameter Power Distortion Sansitivity Resonance Impedance

Manufacturer's Rating 175w. RMS cont.

Not Stated

Not Stated

45Hz.

8 ohms

Useful Freq. Response

30HZ. - 5KHz. unqualified

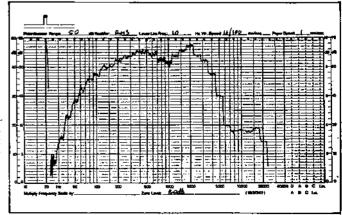
Test Result Not confirmed

15% @ 175w. RMS Sine 99db. @ 1w. @ 1m.

77Hz. in 130ltr. 18, enci

8.5 ohms - 38 ohms estimated. NB this was outside the measurement range of the instrumen-

tation. 45Hz. – 5.5KHz. @ -20db. See graph.



GOODMANS Audiom 18p

RRP incl. VAT £52.81



Substantial, generously ribbed, four-spoke cast alloy chassis, of adequate strength and rigidity and nicely finished. Very rigid, deep, parabolic cone, fairly heavy, with rubberized paper front suspension and linen centre dome. This unit is suitable for front or conventional mounting, although gaskets are only fitted for the latter.

Termination is by the usual solder tags, but some feed wires to prevent fracture through fatigue or shortling in that an intermediate anchorage to the rear suspen-

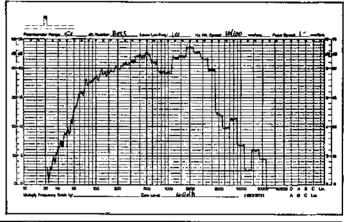
reed wires to prevent fracture through fatigue or shortIng in that an intermediate anchorage to the rear suspension diaphragm is provided and that insulating sleeving
is fitted. It is this sort of attention to detail at the design
stage that can often extend the life expectancy of a loudspeaker by several fold — and often at very little
additional cost!

A pressed magnet cover is fitted and it looks as though
this might be somewhat larger than the actual magnet
fitted underneath, although we did not dismantle the unit
to verify this, As the table shows, the unit performed
well. It is not particularly sensitive but neither is it
deficient in this respect. The 'distortion is pleasingly low
at just 3 per cent but we did not attempt any uprating as
a very large peak of second harmonic content was evident
in the region of the resonant frequency, and although we
do not take this into account in assessing our distortion
figures, any increase in this peak would probably have
resulted in damage to the unit. This is another very nice
loudspeaker from this British manufacturer and at this
price, is highly recommended.

Parameter Manufacturer's Rating 100w. to DIN45:573 Power Distortion Not Stated Sensitivity 96db. @ 0.6w. @ 1m. 45Hz. Resonance Impedance 8 ohms nam, Useful Freq. Graph given Response

Test Result 100w. RMS Sine Wave 3% @ 100w - see text 97db. @ 1w. @ 1m. 85HZ, in 130ltr, IB, encl 8.5 ohms - 27.5 ohms

50Hz. - 4.5 KHz. @ -20db. See graph.



RCF L18P/100A RRP incl. VAT £98.33



Parameter Manufacturer's Ratino Power 150w. unspec. Not Stated Distortion Sensitivity Not Stated 40Hz. Resonance Impedance 8 ohms nom. 40Hz. - 7KHz. Useful Freq. unqualified Response

Test Result

150w. RMS Sine Wave 3% @ 150W. 101db, @ 1w. @ 1m.

75Hz. in 130ftr. IB. encl 7 ohms - 12.5 ohms

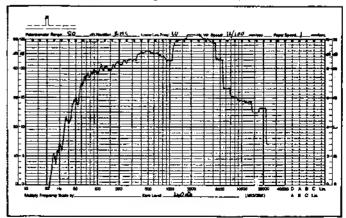
50HZ. - 10KHZ. @ -20db. See graph.

This loudspeaker is built on an excellent cast alloy eight-spoked chassis not unlike that of the 12" and 15" units reviewed previously. It has a really substantial front ring and a deeply flanged back plate that looks as if the chassis were originally intended for a much larger magnet assembly than that fitted to the loudspeaker now under consideration.

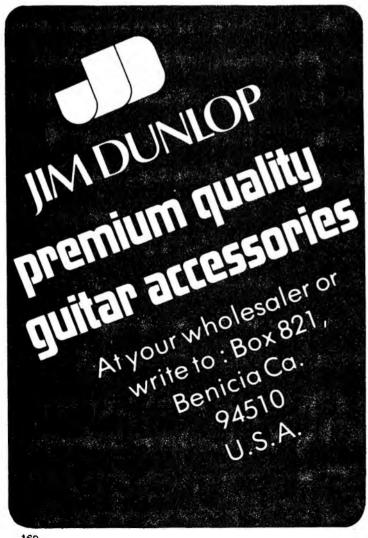
This is probably an attempt at some form of economy by using a standard chassis casting for all 18" models, even though some — such as the L18P/100A, may look somewhat odd as a result. Even so, the chassis is more than adequate, is well braced, and would certainly be able to carry a much heavier magnet assembly than that fitted in this instance,

Unusually for this maker, a rubberized paper front suspension is used to carry the deep, parabolic, textured cone. The rear suspension is of the usual linen or cambric and a composite paper dust cover is fitted. Also, this is the first time that I have found an RCF product with anything other than solder tag termination, and in this case, a pair of the American pattern spring release terminals are fitted. Another nicely presented product from this Italian

maker. From a performance aspect, the LISP/100A again lived up to to the standard we have come to expect with a high sensitivity figure — equalled only by a handful of all toudspeakers tested, a good frequency response and a tightly controlled impedance characteristic. Even on the distortion test — an area were RCF have fallen a little short, we find a figure well down at just 3%, but restriction on available amplifier power did not permit a meaningful increase sufficient to justify a re-test. A very nice loudspeaker and must be good value at this price.







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Getting your feet in the door

Over recent months, we've discussed in this column the many aspects of modern recording; how it's done, and how to do it. although much of my explanation has, for the sake of readability appeal, been somewhat simplified. Nevertheless, the mailbag for this column has shown that very many of you have gained something from these talks, and have been moved to write in and ask for specific Almost every corresadvice. pondent, however, has really been asking the same question: "How do I get into the music biz, and where do I start?" So this month I'm going to try to answer this. but I don't promise a quick and easy route; rather, I'm going to do my best to discourage you, on the premise that if you take notice of me, you'll never have made it anyway, because you're too easily put off!

I'd just like to say a quick word of thanks to all who've written in, and don't be disappointed if I don't get round to replying for a little while; I have a fairly busy time of it these days, and I'd rather reply personally than have a secretary write back. Let's have a look at some of your questions, and see what can be said.

Take for example Mr. Sikora of London, who has his heart set on being a tape operator in a recording studio. Well, writing in to the major recording studios is the only way you'll get an inter-Vacancies for tape ops. occur when a tape op, either leaves, or is promoted to engineer. The job is then filled by the senior (or most suitable) tea-boy. So when you write in to a studio manager for an interview to work at his studio, you're applying for an extremely menial and low-paid position, which may continue as such for up to a year before you're ever allowed to touch a single piece of recording machinery. You really have to want to be an engineer to stand making tea all hours of the night for gangs of musicians, who'll also be forever sending you out to the chip shop/cigarette shop/ Chinese restaurant/Indian take away/off-licence. But don't be discouraged if, like Mr. Sikora, you've not received a reply. Usually, most studio managers keep a file of letters they receive from prospective employees, and when teaboy vacancies happen, they get in touch with the folks whose letters are at the top of the These people are then invited to come in for a chat (rather than an interview). The studio manager then tries to find out if they are the right person for the job, and he's well

experienced at sussing folk out over a cup of coffee, so don't try to impress — he'll see straight through you! (Running a studio, filled as it is with complex, creative people, is constant practice at understanding and handling all sorts of persons,

Using some of your letters as a cross section of the most asked questions pertaining to careers in recording should enable me to point out the biggest problem.

Mr. I.L. Seris thinks that he may be able to crack the "How do I get in?" nut by obtaining specific qualifications in sound engineering, and wants to obtain a basic and practical knowledge of engineering principles. Now one way to do this, of course, is to go to school, as it were. One of the best courses is the Ton meister Studies course at Surrey University, Guildford. This is a four year course in either music or electronics, for which you need A level passes in Music, Maths and Physics to obtain an entry. It is a recognised university course, and can be applied for via the usual UCCA channels. Successful applicants are also, of course, eligible for grants from their local authorities to support themselves during the study period. Most of the graduates tend to be snapped up by the BBC or Independent Television and Radio. and the course is run in conjunction with the BBC. Unfortunately, if it's studios you're trying to get into, this type of course is of very little use because by the time you've graduated, you're too old to start in a junior position (as a teaboy, for example) at a studio. And most studios are not interested in fully qualified. ready-made engineers, as they prefer to train their chaps from scratch, and instill their own particular ways and methods onto raw material. Also, such graduates are perhaps a little too wellinformed technically to mentally accept starting at the bottom

This brings us neatly to the age factor for starting life in a studio. A letter from Mr. A. Robertson states that he works in the telecommunications industry as an engineer, but would very much like to transfer to the music recording side of things. He's quite prepared to "take a junior position" but, bluntly, at 24 years of age, he has possibly left it a little too late. You see, most studios are unwilling to accept anybody as a teaboy or junior tape operator if they are much over 21 years of age, because even starting them at 21 means they'll probably not be engineering until they're 24, at least not on a full-time basis.



And most teaboys start when they are between 18 and 20 vears old You can correctly assume that the Further Education types of qualification; i.e. from Universities or Technical Colleges, are not usually obtained by these people, as they actually work at the time they would normally be going to college. Therefore, the overall conclusion may be drawn that paper qualifications or technical experience are not really necessary, and prospective beginners are more likely to be selected on a basis of personality suitability, enthusiasm, intelligence and love of music. So, David from Coventry, at 23 years of age, with some A level passes to his credit. plus experience as a semi-pro musician, you might just scrape in if you act now!

Malcolm Gorst wrote in with further pertinent questions that are often posed; for example, "Is getting into a studio a matter of being in the right place at the right time?" "Does one need something special?" Well, it's a yes-ish to the first, and a definite yes to the second. Let me relate a couple of stories of how certain people "got in":

The senior engineer at Trident, Steve W. Tayler, is now 24 vears old, and started in 1974 at Trident by simply walking in the door and asking for a job as a teaboy to tide him over for six months. From that "right place at the right time" start, he added his own "something special" factor and rose through teaboy to tape op., and then to engineer in the short space of three years. He's now a top line creative engineer with formidable technical ability which, coupled to his musical knowledge and training, is combination hard to beat. And all his knowledge has been obtained, as far as the recording side goes, from being intelligently aware of everything that goes on, even while he was a teaboy. Now, he's in such demand as to have a very limited family and social life, because he's working so much. (A lot of that is my fault, as we make a successful team, and have done many albums together). But his success is down to his personality and his ability to relate to people, and not to paper qualifications.

And my own tale of "Ow I dunnit" is from the musicians' side of things, which is a whole different route, and thus worth

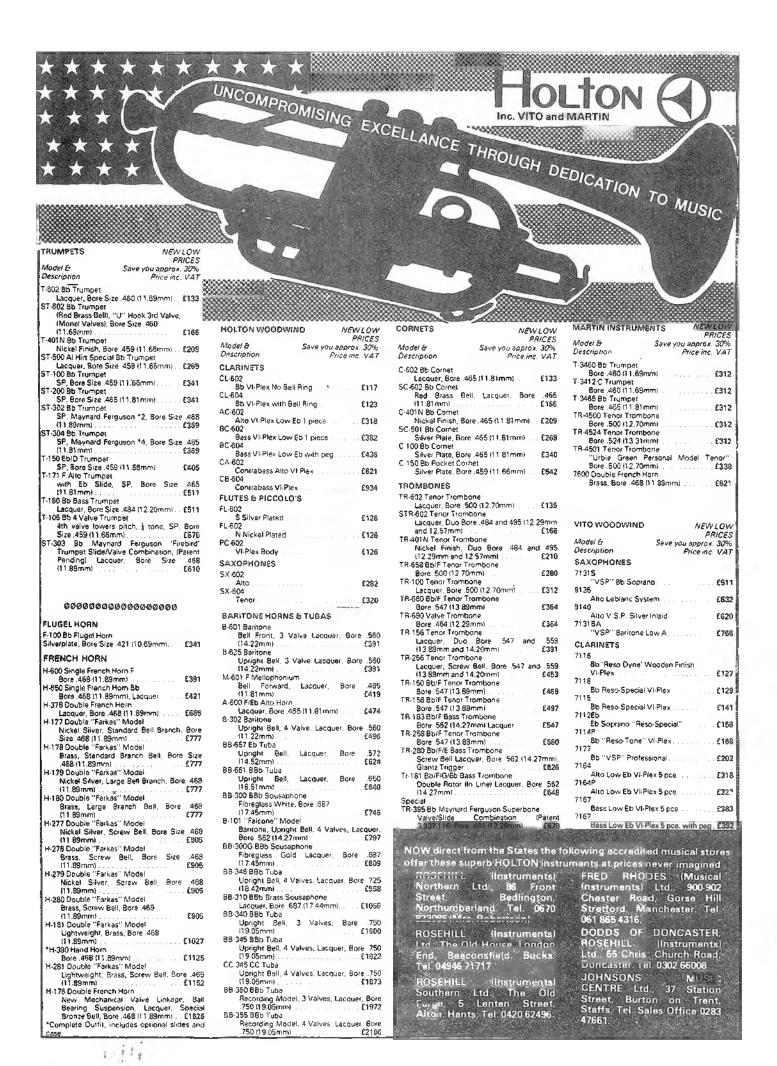


by Robin Lumley

mentioning. I'd been working as a very busy session player up until 1975, and enjoyed a studio environment, but hankered to get behind the mixing desk. So I started, as a complete novice, in charge of demo sessions for a publishing company, and some of those demos resulted in successful deals being concluded for the artist concerned. I then went on to make albums for other artists. and learnt more and more of the technical side by studying the technical publications, and asking questions endlessly.

You see, sad to say, there really is no definitive advice to be offered to any one trying to get into recording studios, and no set route that one can follow as in most other careers. If you want to do it badly enough, then write to all the major studios, and hope that they'll give you an interview. Every person is an individual, as this is very much a career that depends upon the strength of the individual, and so succeeding in getting a job is down, not to qualifications that you can proudly rattle off to the interviewer, but to less obvious qualifications of personal strength, enthusiasm and limitless energy, which you will certainly need to tap. If you really were fully aware of the hours worked by engineering staff and producers, week in, week out, year after year, you might think twice about the job as a whole. It's not in the least glamorous, you can forget that right away, and, like most industries that work towards creating "dreams" and larger than life people, is filled with very hard work, and little free time.

But if you're still not put off by all this, then do have a go at getting in, if it's really, really what you want to do; and I'll see you on a session some time! I hope that this series over the past twelve months has been of some use to you all, and to all those letter writers; don't despair, I'll reply in due course.

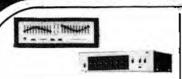




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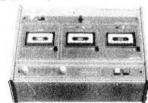
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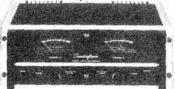
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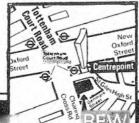
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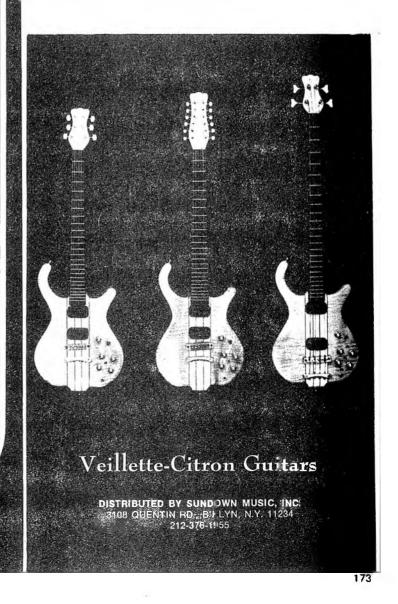
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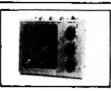


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S,S,E,Go Modular

The rapidly expanding Sigma Sound Enterprises have recently been very busy with The Darts' tour which was timed nicely to coincide with the exit of their hit "Come Back My Love" from the charts and the entry of their follow-up "Boy From New York City". The Darts intricate four-part harmony demands the best from a PA system and Sigma Sound were the people chosen for the task.

Sigma, in fact, have recently designed a scaled-down version of the very same system. The Darts chose to tour with. This smaller rig is designed for the smaller band who can't go out on a gig with 8K on the main PA and 4K on the monitors like The Darts!

Sigma's John Penn explained: "The basic system is a bin and horn rig which incorporates a JBL 4560 cab with a choice of JBL or RCF drivers according to the customers' budget. The horn is a long-throw fibreglass unit and the system is fitted as standard with flight case and lid plus heavy duty castors on the cabs."

The newly-designed system is modular and bands can therefore start with a modest 400 watt rig and upgrade, in just a couple of steps, to a 900 watt system.

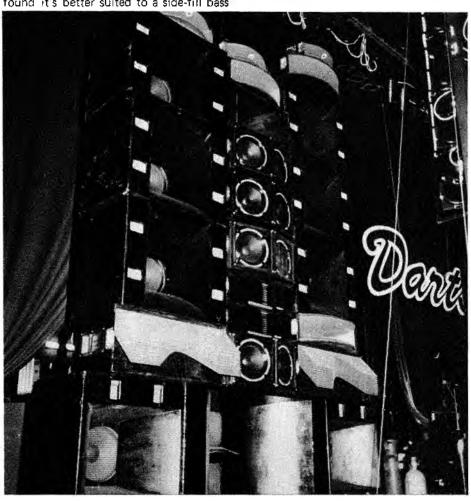
"I think the smaller band obviously want modular systems like this," explained John, "because their budget will grow with the amount of work they do and they will be able to add on horns and tweeters and three-way crossovers when they can afford to. All the components are designed to fit in with each other specifically for that purpose.

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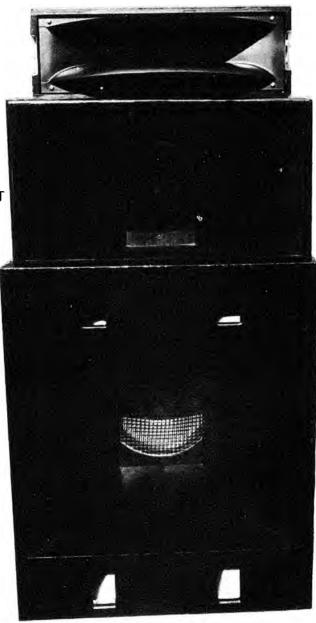


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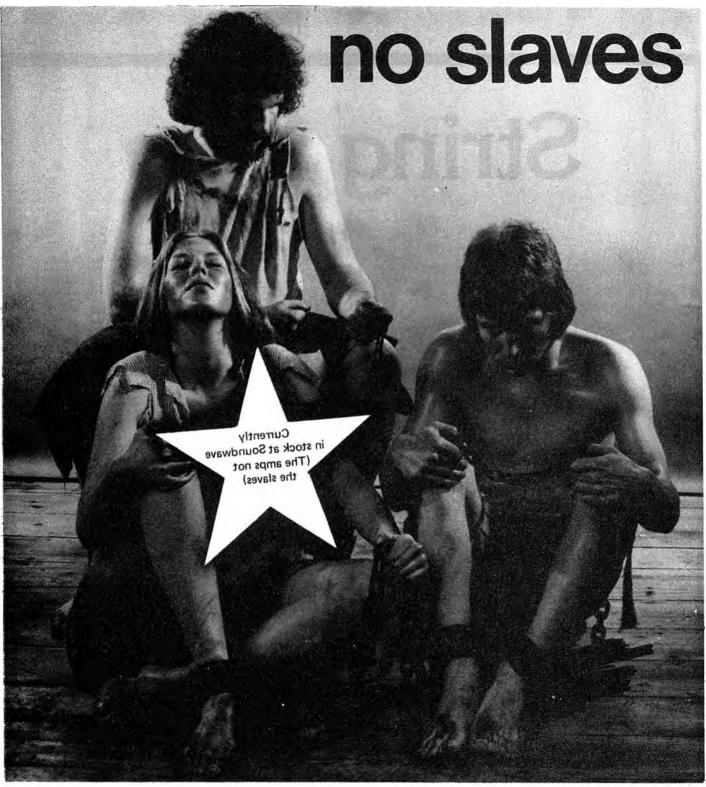
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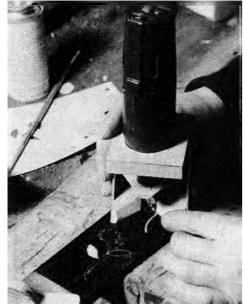
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DELFT'S WORKSHOP



This month for May issue begins a new and occasional feature under the title of 'Workshop'. It is intended that it should include reviews and reports of tools and accessories which may be of interest to guitar players, makers, and repairers. Its purpose is partly to bring useful tools and maintenance equipment to the attention of craftsmen whose work involves musical instruments, and partly to try to make some sense of the recent deluge of 'bolt-on' accessories and replacement pickups now available to guitar owners.

As an example, one of the current projects concerns a piece of equipment for making comparative measurements of the output level and spectrum of various accessory pickups. When this work is nearer completion, it should be possible to make some significant comparisons between 'vintage' pickups, more recent pickups, and 'replacement' pickups. I shall not be telling you which is "best", because musicians, and their likes and dislikes, come in many varieties. If one device was universally 'better', most of the other companies would be out of business — or making close copies. However, I hope our tests, when they are completed, will make it a little easier for you to decide which is the best pickup for your sort of music.

All this is just a taste of the future. This month's featured product, the Dremel Mototool, is likely to be of interest to makers and repairers, and to anyone who is already skilled in the art of pearl inlay, who would like an easier way of cutting the recesses in guitar fingerboards to take the bits of pearl. I must emphasise that I do not recommend an ill-considered attack on your best (or even second best) guitar without reference to books on guitar inlay work and much practice on scrap wood and broken guitars.

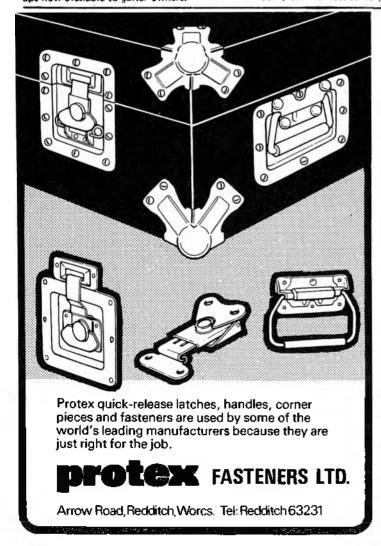
The Dremel Moto-tool is one of a series of small hand-held motor units manufactured by Dremel, also known as Ernerson Electric, in Wisconsin, U.S.A. They are fitted with collect-chucks to take a variety of grinding points in ebony fingerboards because the cutter spins at an unusually high speed of 30,000 r.p.m. This is about twenty times faster than the average electric drill. Although some skill is needed to guide the cutter round

complex curves by hand, if you restrict the cut to between ½ and 1mm, most people develop a 'feel' for the tool within a few hours.

The illustration(s) show a Dremel being used for recessing a simple flower motif in an Ebony fingerboard. The pattern is cut from thin hard paper, and transferred to the fingerboard with a *light* spray of quick-drying white spray primer. I believe one can also use certain acrylic spray paints, but tests would be advisable.

Dremel make a variety of accessories for their tools including a router base. A few of these have been on sale in England, but as I have several times arrived just in time for the 'sold out' sign, I made a crude substitute from bits out of the scrap box. This wooden base and my Dremel tool have lasted for over a year of fairly hard professional use, including such jobs as milling down two ½ inch by 20 inch steel strips in the neck of a repair job. It is hardly a fair test but I had no other power tool which could do the job with sufficient delicacy and by hand, it would have represented three days' work.

My only complaint would be that the bearings on my unit appear to be made to rather generous tolerances and the spindle is not entirely rigid. I am aware that I am using the lowest-priced model, intended for light hobby use, but that is the only one I could find on sale. I think the best compliment I could give the company is to say that if someone can direct me to an industrial model Dremel at a reasonable price, I will probably buy one. Although the routed inlay-recesses need some trimming in the corners with fine chisels, I would be most reluctant to return to removing all the waste wood by hand. Incidentally Dremel's cutters are very good, as are the Busch cutters which can be bought from Jeweliers' suppliers. (Try type 21-6), However I do most of my work with "D-bits" made from the shanks of blunted dental burrs.





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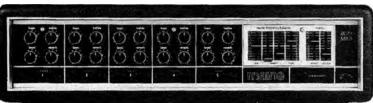






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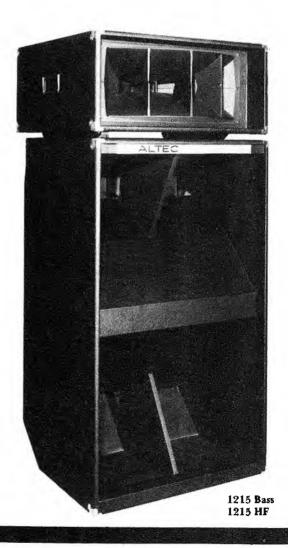
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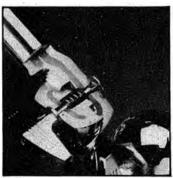
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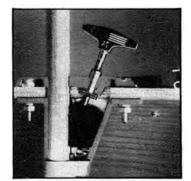
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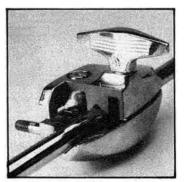
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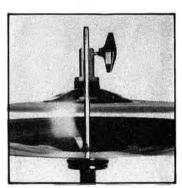
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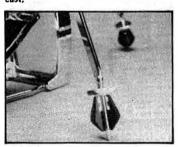
Wedge-shaped locking device with steel plate ensures reliable positioning of shell mounted tom tom.



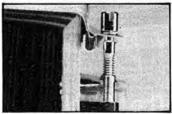
Prism clamping device ensures reliable positioning of tom-tom legs.



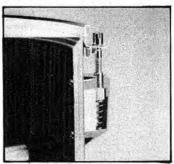
Hexagonal rod and guide ensures firm positioning of upper cymbal holder.



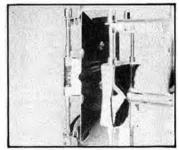
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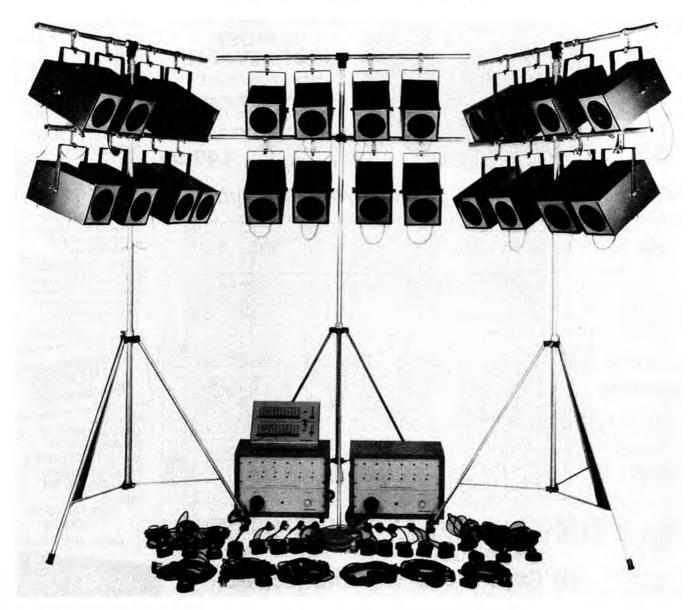
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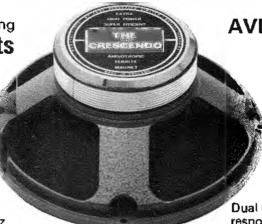


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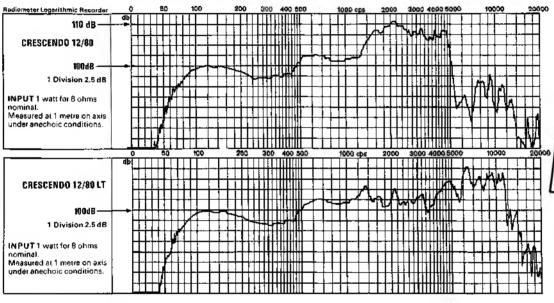
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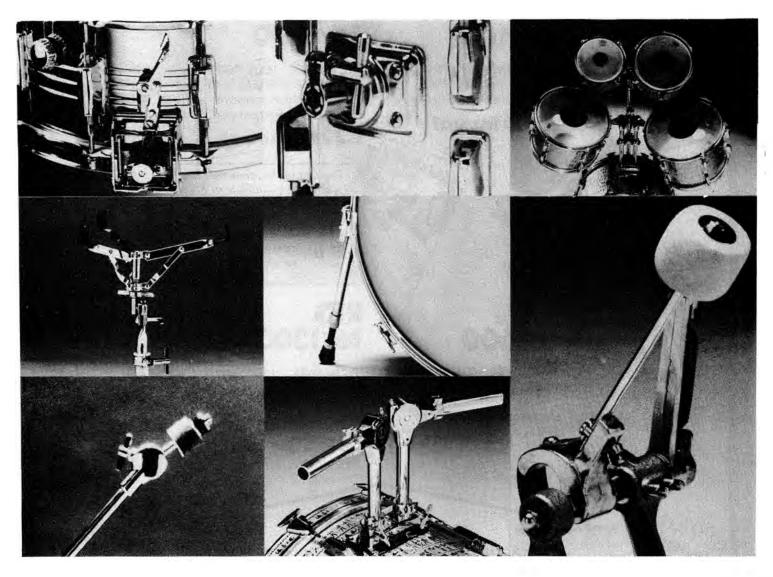
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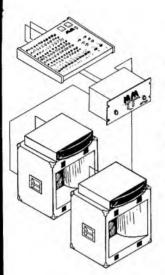
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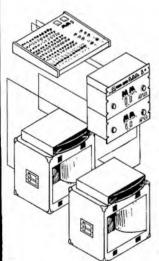
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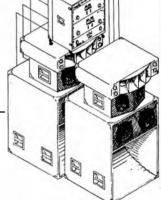
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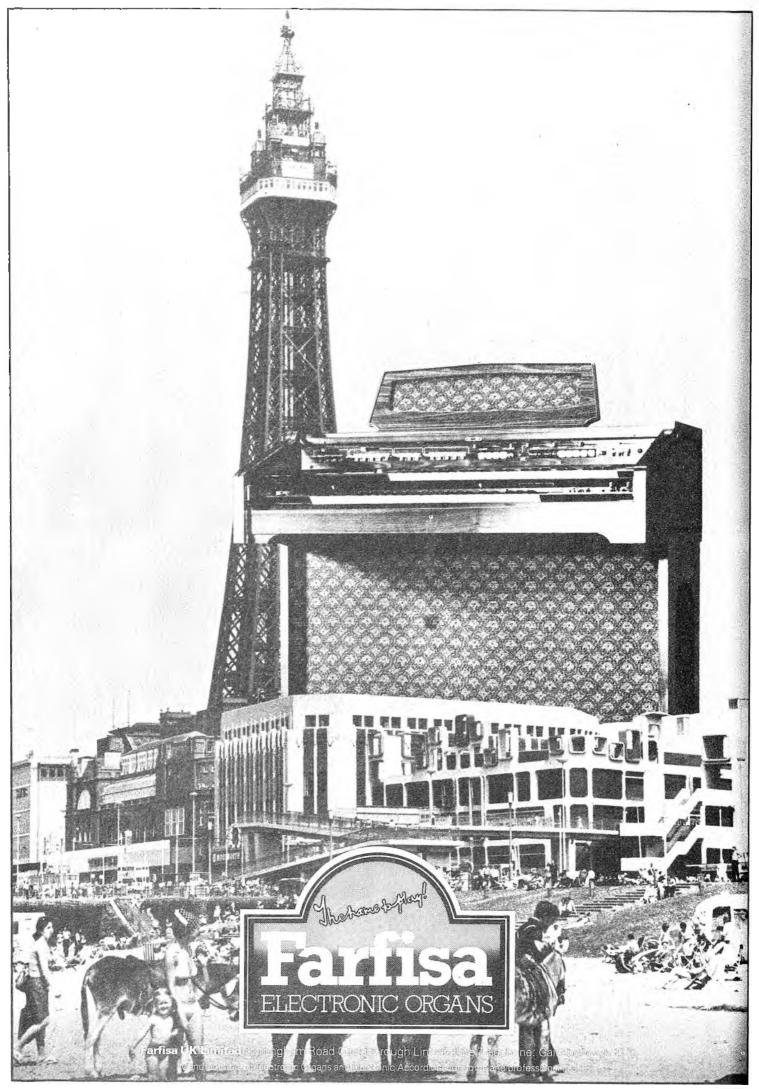
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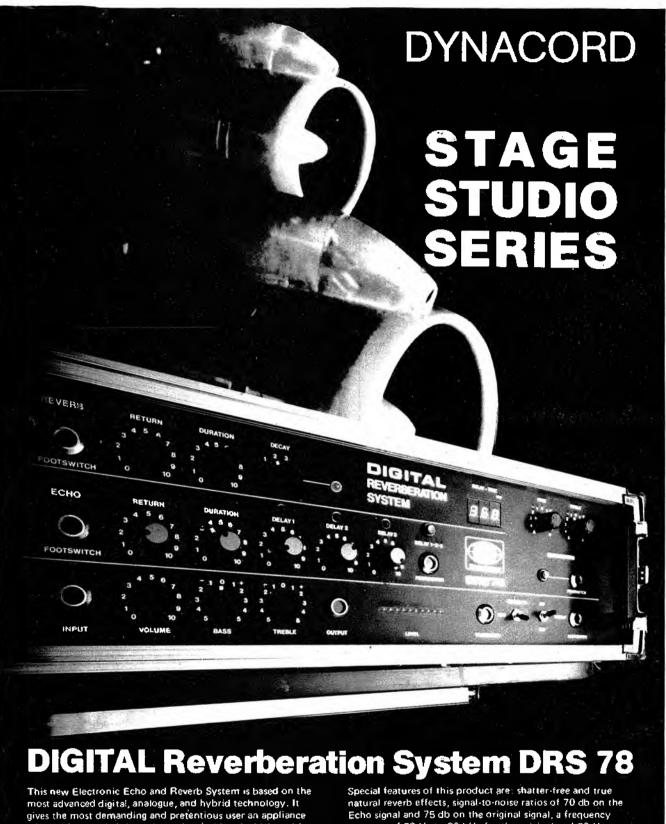
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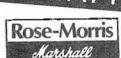
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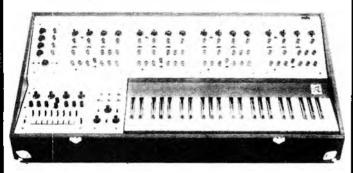


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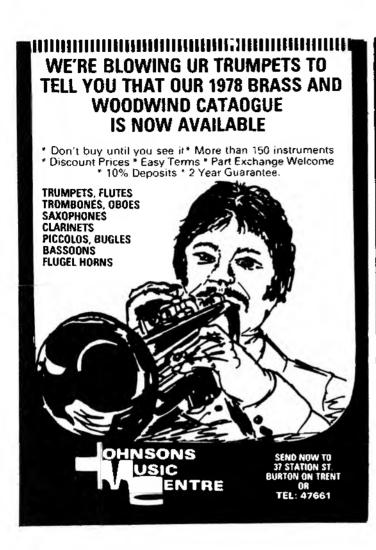


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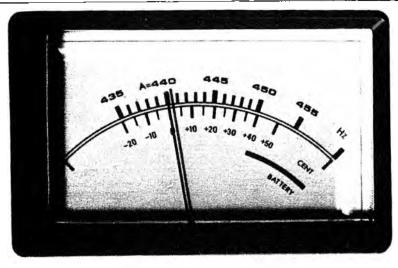








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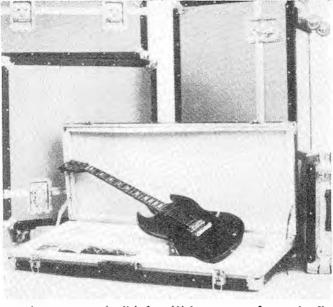
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MACARI No. 2 CHRONICLE

WHY BRIAN EPSTEIN WAS ANNOYED WITH I ADDV MACADI

"Brian Epstein got on the phone and gave me the biggest rollicking of my life," said Larry Macari, London's famous musical instrument dealer. "The reason was a photo session that I had tried to organise with the boys."

Larry Macari is probably the best known musical equipment supplier in Britain. In the last 20 years he supplied the very latest gear to the very latest stars and today he is as concerned with the new big names as he was with the stars of the Beat Boom.

"I remember that I did a deal with Brian Epstein that would allow us to supply a complete set of Vox equipment to the Beatles and we could do a complete photo session with the band with the gear. The trouble was that once Epstein wasn't around they didn't want to play and they were very unruly. I went down with a photographer called Dezo Hoffman and John had a really rough old pair of trousers on. The band were wise cracking and walking away when the shutter was clicking and generally making things difficult. I think Ringo was the only sober one and he was saying "Lets get the bloody thing over with lads" but Paul and John just wanted to muck about. We got what pictures we could and they were

printed in a magazine a bit later on. That was when I heard from Epstein. It was just at the time when he had spent a fortune on suits and he was very particular about their image. Then this picture came out and he was furious. I explained what had happened, but he was very unhappy.

"Luckily I saw the Beatles many times after that and helped them with different bits and pieces of gear and things became quite friendly again."



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Macari's

Today's multi-million pound guitar effects industry was born in the back room of Larry Macari's small shop in London's Denmark Street. The year was 1964 and the designer was a football crazy musician called Gary Hurst. Under the patronage of Larry Macari Gary developed the Buzz Box and through Larry's close links with the stars the unit found its way onto the end of Jeff Beck's guitar lead. The result was the big Yardbirds' hit "Over, Under, Sideways, Down." The effects unit had been born.

Larry had the idea of

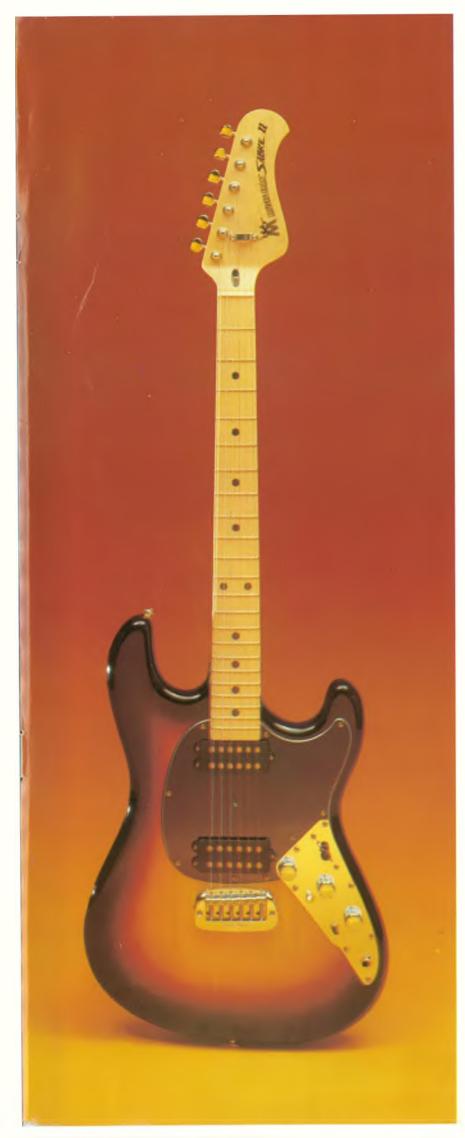
developing the original unpopular Buzz Box into something better and he encouraged Gary to spend his spare time researching and improving sounds.

"The actual development only took two months," recalls Larry. "Gary announced that he had improved the sound of the electric guitar and we decided to call it a Tone Bender. We had a

lot of guys hanging around the shop at that time, people like Jeff Beck, Jimmy Page, Spencer Davis and so on, and they all wanted a tone bender as soon as they heard it.

"Since that time I would estimate that we have sold around 30,000 basic tone benders."

Larry and Gary Hurst didn't realise what they were starting. After that Yardbirds hit the business went crazy for effects units and records like "The Crying Game" by Dave Berry prompted some more Larry Macari units like the Wah-Wah pedal. An industry had been born and Larry had contributed significantly to the development of contemporary music.



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left between them.

And who but Music Man would go to the trouble to design two different width pickups? The string passes directly over the center of each large-diameter magnet on both pickups! Bend that string all you want and there's no drop-out from the string leaving the magnet. That's the kind of attention to detail that you would expect from people with our experience.

Don't overlook the heavy cast brass bridge. That's where the sustain comes from. And the special design (patent applied for) which creates a recessed well for six stainless steel bridge sections, each individually adjustable for string height and length. And each one has internal adjustment screws that won't

interfere with your picking and muting techniques.

With all this, you get the micro-powered preamp which gives you separate bass and treble controls as well as a bright switch and low impedance output. This means you can run the volume control at one or two and the tone doesn't change—no treble loss. And you can run a 50-foot cord if need be-still no treble

Yes, those old originals may have been the best thing around for a long time, but take a look at some of the other things

we've done. . .

We had our tuning keys manufactured to our specifications by H. Schaller under our Patent Number 4046050. A tapered string post design forces the strings to lie flat against the head, improving the string tension over the nut. And the nut, itself, is rock-hard Melamine for long wear and precise notching.

To make sure you're comfortable with our new axe, it comes with a choice of necks. If you like jumbo frets and a flat finger board for easy string bending, try the SABRE ITM. If you prefer an oval finger board (7½" radius) for comfortable, untiring,

country-style fingering, play the SABRE IITM.

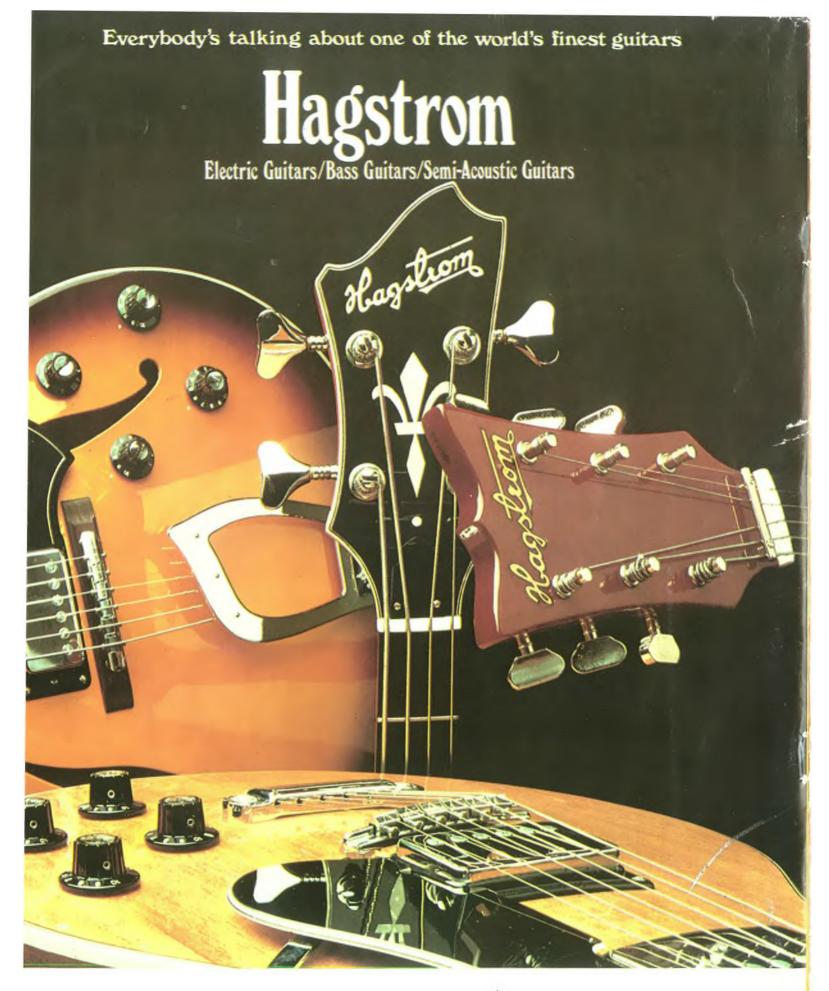
If we don't have your attention by now, keep looking for one of those old originals. . . .with half the performance at twice the price! And, yes, we almost forgot—SABRESTM are made in the U.S.A. by the people most experienced when it comes to building originals!



MUSIC MAN, INC.

The experience people. P.O. Box 4589 Anaheim, CA 92803

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For full details of the entire Hagstrom range including the Swede, Swede Bass, Scandi, Scanbass, Viking, Jimmy and Patch 2000 write to FCN for a free colour catalogue or contact your local dealer.

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