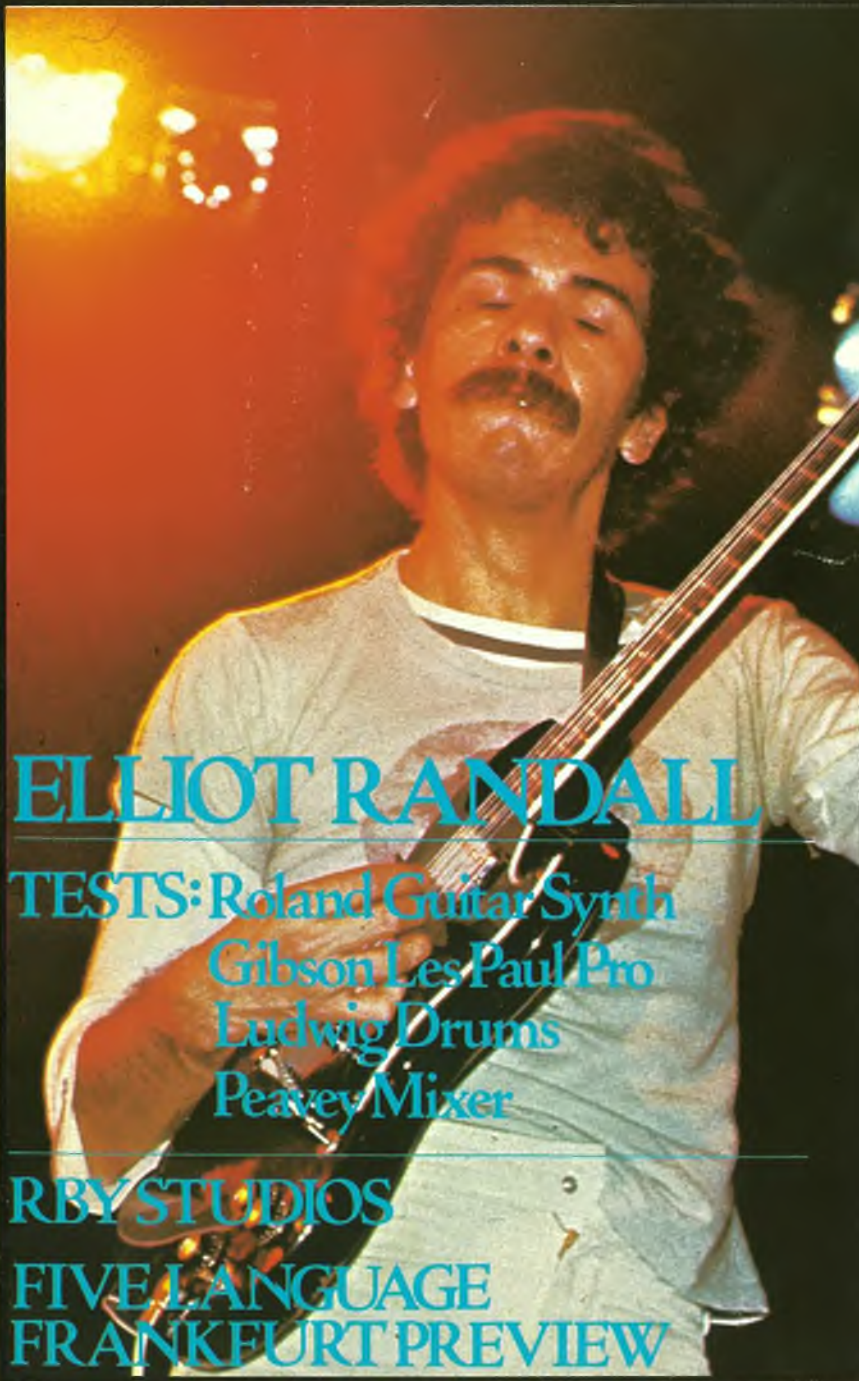
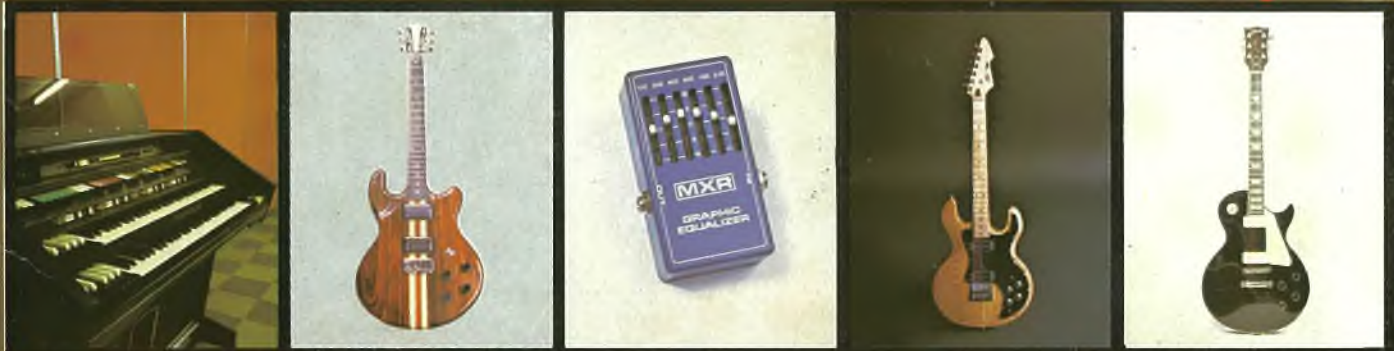


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Ludwig Drums  
Peavey Mixer

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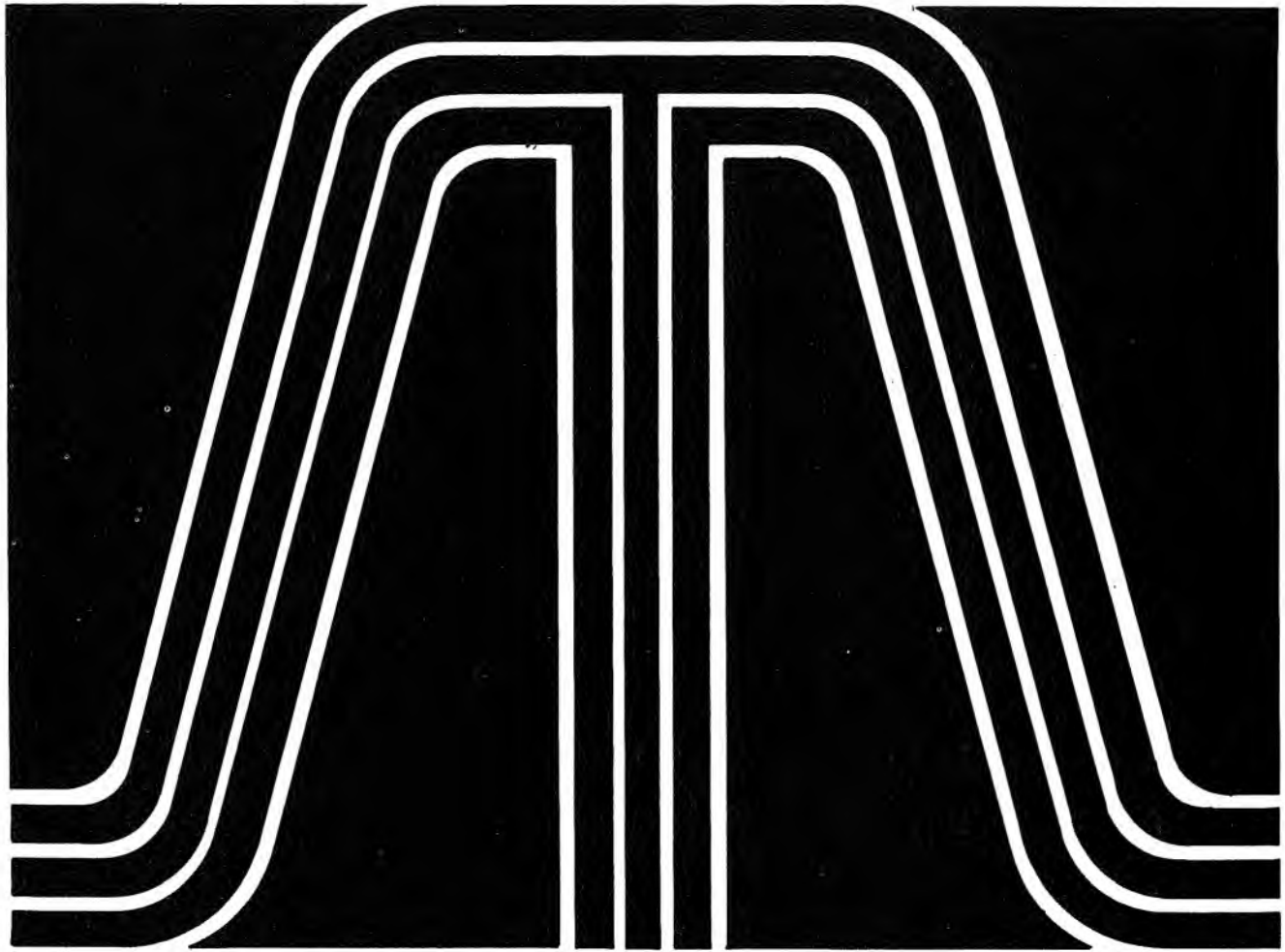
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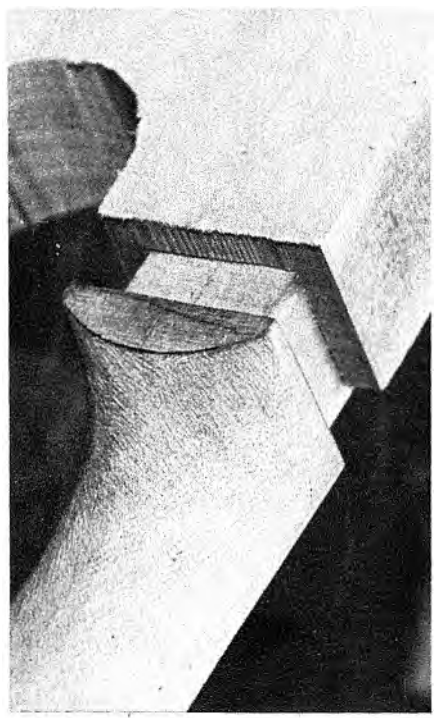
## SPECIAL FEATURES

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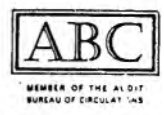
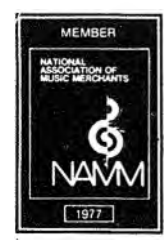


## EDITORIAL

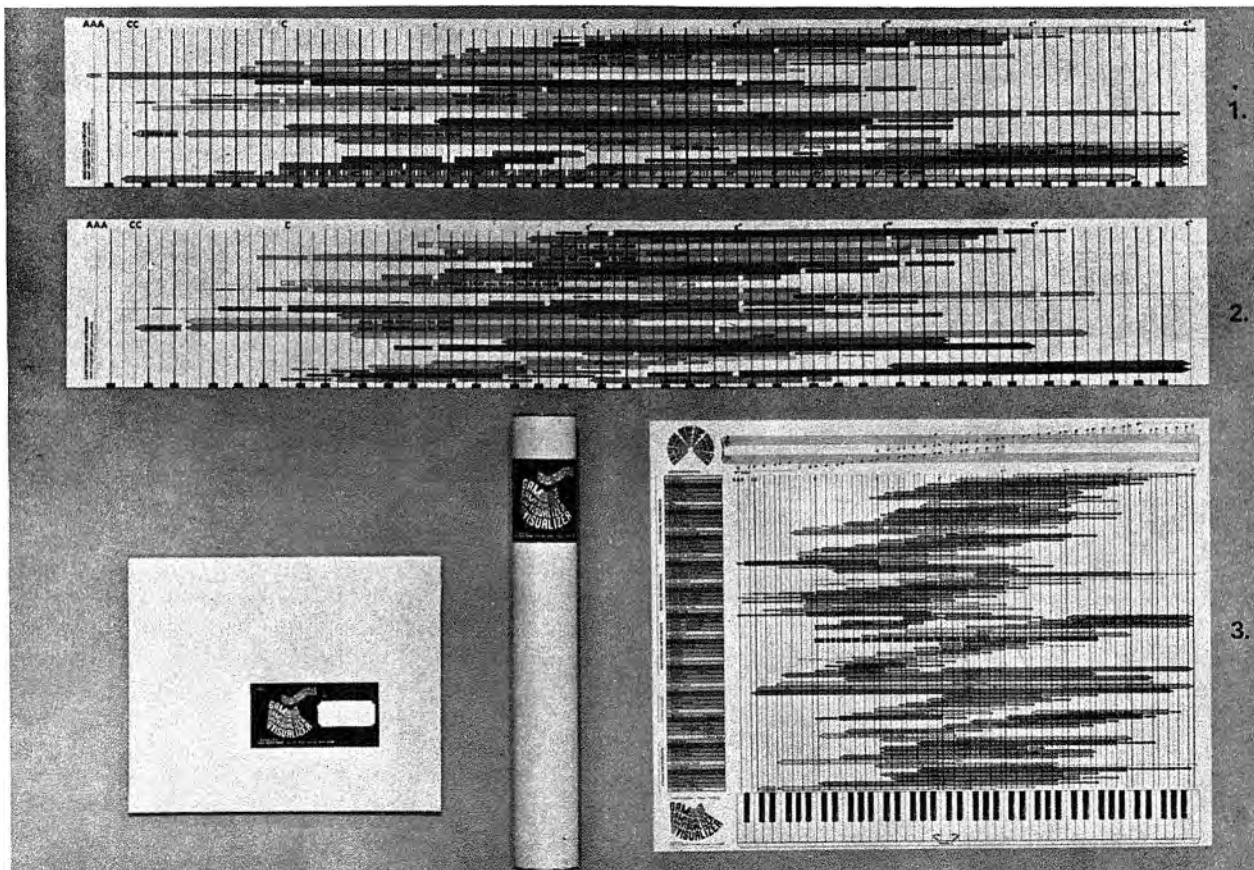
This is the first U.S. edition exclusively prepared for the American market. Response from both American readers and advertisers has been phenomenal and we would like to think that this U.S. issue will be the first of many.

We need to know more about our American readers. We would like to hear about your career or band and we will hopefully be able to include this type of information in future U.S. issues. The address to contact on any subject is:

*Julius Graifman  
U.S. General Manager  
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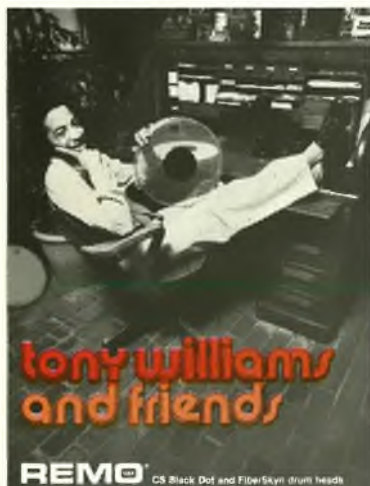
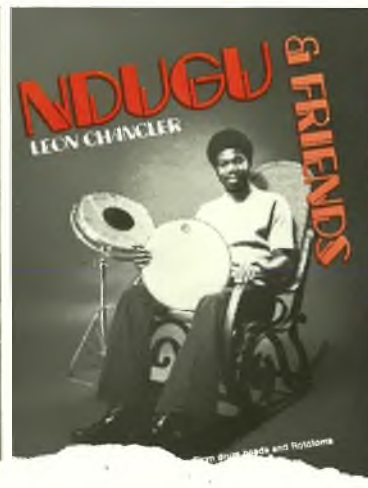
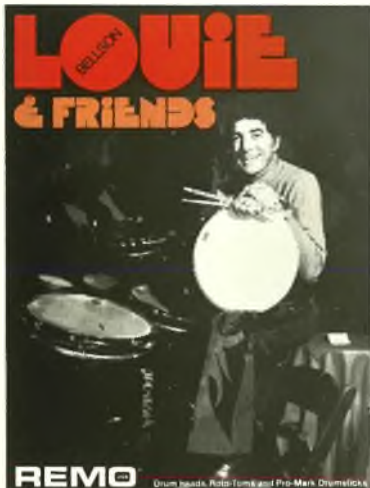
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## Tips From The Top

Dear Stephen Delft: By way of introduction, I'm the head of research and development for Ibanez guitars and electronics and contributor to Tama guitar design, etc. With that out of the way, let me say that I enjoy reading your Guitarchecks and find them thorough, knowledgeable and thought-provoking. I just wish we had some of the same thoroughness in some of our U.S. reporting.

Now that you've reviewed one of each of the guitars I'm involved with, I suppose I should check in with you and let you know I'm alive and offer any information that I may have for any of your future reviews. Someone's made off with the review of the Ibanez Bob Weir model that you ran several months ago, so I'll have to recount from memory. But I will say that you gave me and my micrometer quite a workout and, frankly, left me scratching my head. But before I get down to details, let me give you some background.

Elger Company is the U.S. marketing organization for Ibanez and Tama. As such, most of the design, development and specifications originate here and are of course, put into production in Japan. We also do most of the artist service here which involves custom design for professionals and development of signature models like the Bob Weir Model and George Benson Model. Our research shop designs pickups and electronics like the new AD230 delay line (which will probably debut in the UK later this year), or early '78.

Since we are very active in research and design and since we are trying to be "aggressive" in the US market, we do change specs and details quite often. As we come up with an improvement, we try to work it into the line. The result is that many of the suggestions that you mention in your reviews are already being carried out in production. But it's good to see we're thinking along the same lines. We're most responsive to constructive criticism and try to be open-minded about suggestions, since most other manufacturers are not — but that's their mistake.

So, while we enjoy being raised to the heavens, we don't mind being chastised if we can get some benefit from the criticism. In the end, we'll benefit and so will the guitar buying public. After all, they're the ultimate judge.

I don't remember too much about the Ibanez review except that you had an intonation problem and thought the inlay job was a bit less than satisfactory. We find that most of our guitars are better than most in the intonation department and are off no more than a few cents on any given note when properly set-up. As you well know, perfect intonation is enjoyed by synthesizer players and few others. The poor guitarist is left with, at best, a compromise. As you note, most intonation problems (or at least, ours) are most noticeable in the first few positions. When we set up guitars here, we usually leave the nut a shade higher than the optimum to allow the buyer to adjust it to his preference. It's a hell of a lot easier to lower the nut than to raise it. Because of a more than normal string deflection when fretting the lower frets, there is a slight tendency for them to go a

little sharp. Or if you tune to, say, a bar-G chord, the open notes will come off a little flat. Aside from a mistake in manufacture, that's what comes to my mind. I checked several guitars of that model here and found them to be well within tolerance.

Getting on to the Tama review (which I do have in front of me) I can see a few minor clarifications. First off, the "American music magazine" that you refer to is Guitar Player if I'm not mistaken. Bob Baxter is a dealer who sells Tama and, by the way, one of the consultants on the Tama TG project. Stephen, we really did do what he said, poked our noses in on anyone who'd give us a few pointers. I don't think anyone can lay claim to knowing "all there is to know", so why should we? As you know, you can't come up with ideas in a vacuum — you've got to find out what's on the peoples' minds.

The reference to our thinner lacquer is half right — it's surely thinner, but not lacquer. It's an acoustic finish developed by M. Kohno for his classic guitars. It's a derivative of the tasty cashew nut, of all things, and provides a beautiful and acoustically superior finish.

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I'm glad that you have an overall favorable impression of the guitar and hope that we can continue to impress you with its development. We're currently experimenting with some scalloped bracing on these models and have several out in the market in the US. We're trying to keep track of them through some of our consulting dealers and if their stability and structural integrity prove out, we'll be making those changes shortly. I wish you could hear one. They're about 30% louder with better depth and balance.

It's really difficult to source real good, aged black ebony these days. Some of what we get has reddish brown streaks in it, so on those numbers we use a dye to make it as black as it should be, but it is truly ebony.

That's about it as far as I can see. I'd like to keep in touch with you, and if you're ever in the States, do look me up. We're located near Philadelphia, but only about an hour or so from New York.

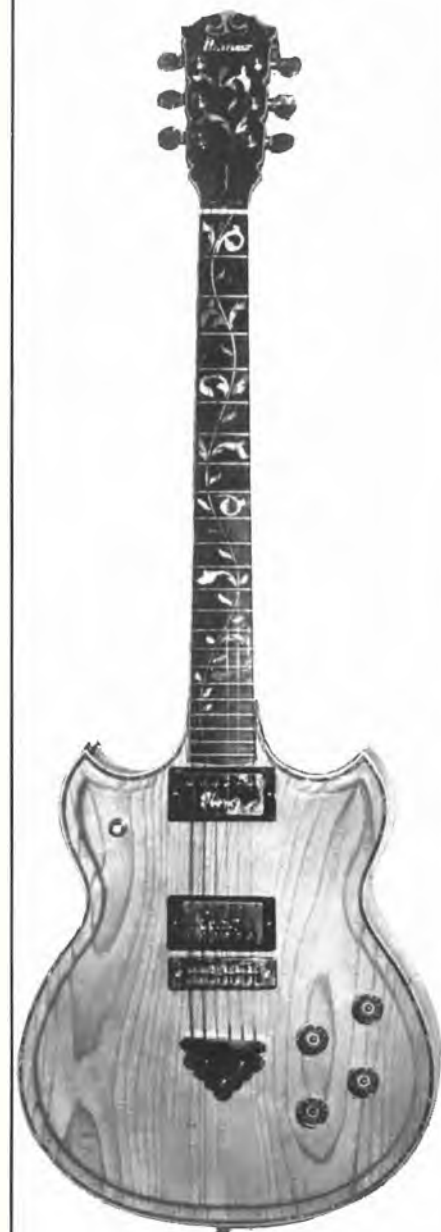
If you're planning another Ibanez or Tama review in the future, feel free to contact me for any information you might need and I'll reply as quickly as possible. We've got several very new things happening on the electric guitar front and I'd be happy to fill you in on them when all the prototypes are done.

Again congratulations on your well-written columns and thanks for the ideas.

Jeff Hasselberger  
 Elger Company,  
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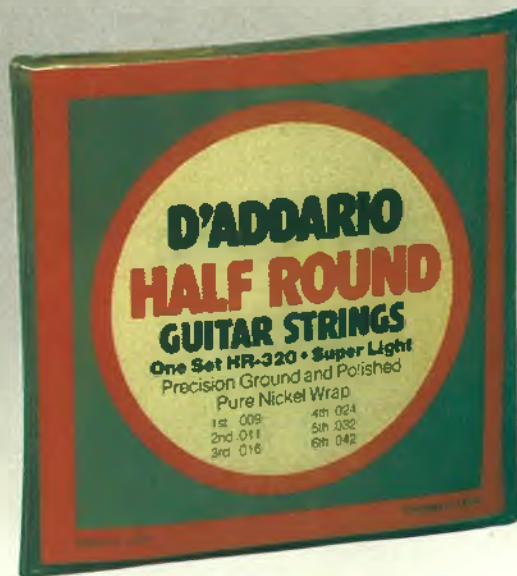
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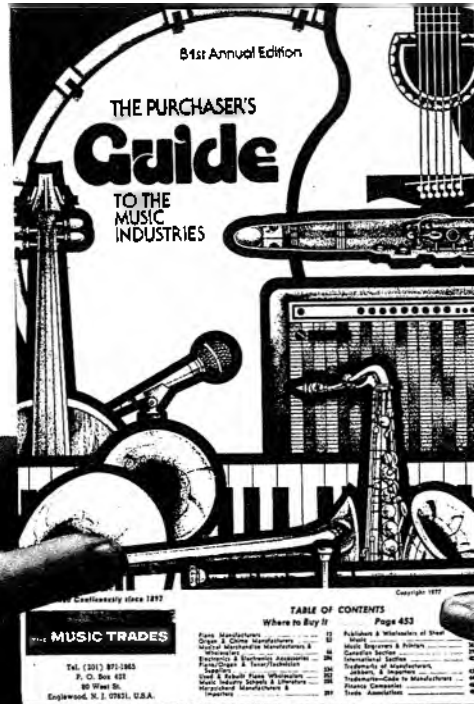
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# ELLIOTT RANDALL

by Steve Rosen

## 'A young Jewish kid growing up in New York'

While studio players are always professional, they often sacrifice emotion for technique. But not so in the case of New Yorker Elliott Randall. His style embodies the most creative elements of jazz, classical and rock to make him one of the most asked for sessionmen in the business. And his credentials prove it. He's played with everybody from Frankie Valli to Disco Tex and the Sex-o-lettas; from Steely Dan to music co-ordinator for the immensely popular television show *Saturday Night*. In his own words it's the story of a "young Jewish kid growing up in New York" but it's so much more. And the tale begins here.

### Give us a little bit of your background.

I started piano when I was five but due to a bad teacher I lost interest quickly. The next step at nine was going for guitar lessons. I think that there must have been a guitar in the house because I did get pretty enthusiastic about it very quickly. I was taking lessons from a guy called Bill Suyker who in the 50's was a studio musician in New York. Then I moved to Manhattan from Queens and started taking lessons from a second teacher whose name was Roy Smeck. I studied with him until I was about 15 or so. I then went on to Sal Salvador who was a jazz guitarist of some repute. Between the three teachers I feel I was lucky enough to get technique, training and enthusiasm.

I remember my first two or three guitars were the Stella guitars, the \$12.95 jobs and the strings were an inch off the fretboard and you'd end up bloodying your clothes after practicing.

### Did you play in high school bands?

I went to the High School of Music and Art which was a specialty school for people aspiring to be musicians or painters. At that time anything that was not really classical was not accepted as music. The guitar was not a legitimate instrument according to faculty. The first thing they did was thrust a violin in my hands and say, 'OK, this is your instrument now'. Through enough manipulation I managed to get in a dance band which was taught by Donald Byrd and we were doing all the hip charts from the 50's, Miles Davis stuff and big band charts. By the third year at that school I was work-

ing about every night in lounges, the Peppermint Lounge and the Wagon Wheel and all those twist clubs. There was a conflict working until 4.30 in the morning and being at school by 8. At one point I knew that I wanted to be a guitarist as a profession I didn't need a diploma to do what I was doing. I quit high school to work with a bunch of bands, club bands, cabaret bands.

### What kind of guitar were you using through this period?

About '50 or '60 I got a Harmony Meteor which was my first electric. In '63 I graduated to a Guild Starfire III called an Emerald Starfire; you could almost see the green through the wood. In '65 I got the Strat that I've been using ever since. My one year with Sha Na Na I used a Jazzmaster. Objections were raised about the Stratocaster that it sounded too clean and could I get something that sounded really tinny. So I went out and bought a Fender Jazzmaster and paid twice as much to have the finish done in gold metalflake and funnily enough after using that guitar for a year it really had a good neck on it. I've learned how to use that too and it's become one of my favourites.

### What was your first recording date?

That was in '62. I had a little group, two guitars, drums, and a vocalist and some hotshot producer took us into Bell Sound Studios in New York and we cut a demo. Then during the next couple of years I was hired a lot to do demo sessions which could be any amount of hours for \$15. Usually on somebody's two-track or four-track machine.

### When did you start doing real sessions?

I was in Ohio, mid-66 to mid-67 as a music teacher. At a certain point in '66 when the band I had broke up I was asked by a man who was just starting a very large operation in Lima, Ohio, to come out and teach. I called up a bass player and drummer friend of mine from New York and we played about every night in clubs. We went back to New York to cut a single which became a regional hit. The single was called 'It Hurts Me Too' and the name of the band was called The Climax. In '67 I came back to New York and there was a group out of Columbia University called the Druids of Stonehenge and they were the

first acid rock group experience I ever had. I was starving and went with Tim Rose who had just come off a successful European tour with 'Hey Joe'. A friend of mine named George Andrews who was an arranger was starting to get into the recording scene and he was recording with already has-been groups like The Shirelles and that type of thing. I then started to really get my feet into the studio.

I then spent the year of '68 working for Music Core Records, a small label at that time which had Gene Pitney and The Platters and George Jones. And there was a producer there named Bob Schwartz and he had me on staff as a guitarist and then I became a staff producer for them. I went down to Jackson, Mississippi, to record and play and made a lot of friends down there.

In '69 I was still sort of kicking around and went back into playing nightclubs. In mid-69 I was given a choice. Wilson Pickett asked me to go down to Muscle Shoals to record with him and I was approached by Seatrain to join them which entailed moving out to San Francisco. I moved out to California, got ripped off terribly by management and got a statement from A&M Records at the end of the year that they had paid me \$6,700 for recording and I had never seen a penny.

I went back to New York and by this time I was married and confused. Eric Mercury whom I had made friends with about a year-and-a-half earlier was putting together a group and really saved my ass. He was managed by the Stigwood organization and I went out on the road with Eric for nine months and did his album as well. It was produced by Gary Katz and had me and Rick Derringer on guitar and Harvey Brooks on bass and Billy Williams on drums who was the drummer I got for Seatrain.

From that I got a deal with Polydor and made an album called *Randall's Island* and put a group together of the same name. And went out and toured. I was also not ready to be a leader yet. I said to the boys "let's keep this a co-operative group and keep the name *Randall's Island* because I formed it but now it's everybody's show". We did a second album which got very little if

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any play and distribution and that was called *Rock and Roll City*.

I was offered musical directorship of *Jesus Christ Superstar* but turned it down though I had a lot to do with the musical direction of the first two legal roadshows. I lasted for a year doing that.

I started doing commercials; the first one I did was Goodyear tyres.

**And you were still using your Stratocaster all this time?**

Yeah. In New York all the studios have amps, usually half-broken down Ampeg amps from the 60's. There used to be something called a guitar club in which most of the studio guitarists chipped in x dollars and made sure there was an amp at every studio.

At the beginning of '72 was when things started getting really crazy. My marriage broke up and I came out to L.A. and in the summer of '72 at the invitation of Gary Katz and all the Steely Dan people ended up doing the first album and was invited to become a member of the group. And I was pretty hot on it. It was fun, it was good music. I came back to New York to pack and ended up staying. I 'guested' on three of the Steely Dan records and if I was in the same town as them I'd play with them.

'72 through '74 I was heavy into the studio; I was doing a couple of jingles a day as well as record dates. In April of '74 I joined Sha Na Na for a year which was a really great experience on a number of levels. It was a great entertaining show and I'd always fancied myself an entertainer.

I then did a bunch of Bob Crewe records and he offered to produce me. We did a single together in L.A. on a handshake and when we got to L.A. the contract was so bad I passed. In the meantime I had been friendly for a couple of years with The Tokens and at one point we decided to go into the studio on spec in the summer of '75. The band was myself, Will Lee on bass, Steve Gadd on drums, Jeff Miranov on second guitar, Rubens Bassini on percussion, and in two cuts we did what turned out to be the first tune on the second side of the album ("I Only Wanna Make You Feel Like A Woman").

**Talk a bit about your guitar.**

Well, it's a '65 and within the first three

months of my owning the guitar I broke the neck. I got another neck immediately which was still a '65 neck and I sort of played it stock and let it wear itself down through 1969. I was in L.A. touring with Eric Mercury and ran into Dominic Troiano and we became a little friendly. And he said I should take it to a place called the Barney Kessel guitar shop because the thing was practically unplayable. He suggested that wide frets be put in and I had that done to it, had a humbucker put in, and voila, better than new. I was really pleased. The humbucker gave it ten times the balls that it ever had before. I don't feel a Humbucking defeats the purpose of a Strat because a number of years ago Jeff Baxter came in and did some kind of funny wiring job in which I can get just one of the two halves of the Humbucker. Which gives me almost a front Fender sound but it's just a little bit different. Also I do a lot of stuff with electronics. A huge amount of the work I do with guitar is with the guitar going through various effects and the Humbucker has a much stronger signal. If you want any kind of envelope following device like a Doctor Q or a Mutron III or any of those the fact that you have more power to play around with in the signal, you can make the thing work for you better. I've found the same to be true of fuzztones; the Humbucker gets a sound out of a fuzztone that the Fender pickups can't get.

**What is the exact setup you have?**

Well, for live performance I'm using the same Super Reverb I've used since 1969. It's gone through all sorts of changes. Now there's four JBL's in it, I've got an extra power tube and an extra transformer. It's got about the power of a Dual Showman. I wouldn't want any more power. It's also got a master volume. I think 50 or 60 watts is enough; stick your ear up to it and you're deaf. It's also a good studio amp, too; if I turn the master volume down and use control via the regular channel I can really make it work hard and distort a little bit. That's what I used on the album (*Elliott Randall's New York*) as well as a Twin Reverb.

Also another point about the pickups when you get into using graphic equalisation you can really make the

guitar sound like almost anything. You can really make the sound anywhere from a screechy Telecaster to a really mellow L-5. Providing your strings are fresh unless you want a dead Telecaster string sound. What makes guitar sounds different from one another is their frequency responses. That's why I strongly believe in a graphic.

I worked with two companies, the Musitronics and the Electro Harmonix corporation, doing consulting work for them. I was one of the first people to use the Mutron Bi-phase, I was one of the people who developed the idea for it also. There was originally something in a different kind of cabinetry that was supposed to be like a guitar synthesizer. And I got into using that on a lot of recordings early on. On *The Royal Scam* album if you listen to the end of 'Green Earrings' you'll hear all this bubbling and fizzing and that's the Bi-phase.

I've also got into using flanging devices; there's one on the market called the Electric Mistress which is also a filter matrix control. You can pull out certain frequencies and make them really resonant.

I use a 10-band MXR equaliser which goes from 32.5 cycles which you cannot hear on the guitar up through I believe 16,000 cycles. I have this case in New York which is filled with virtually every guitar device made and a small amplifier and another Strat which I just got a few months ago. I had it redesigned to the one I have now so it's really a twin to it. And I have an Epiphone acoustic.

**Do you use all these devices live?**

These devices give you a lot more buzz and hum and somehow I've got to find an electronic genius who can put all this stuff together so it doesn't cause all that buzz. I use a compressor a lot now; I use the Dan Armstrong Orange Squeezer which plugs into the guitar or if you change the wires around plugs into the amp. It's a great sound and it's also very ballsy. On the album on 'High On Love' I used that compressor; on 'Just A Thought' I was using the Bi-phase; on 'Samantha' I used the Bi-phase very subtly in the background. 'It's Gonna Be Great' was straight, 'I Give Up' was straight. 'When You Got the Music' was

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THERE ARE A FEW PEOPLE I'VE RUN INTO IN THE BUSINESS,  
JEFF BECK BEING ONE OF THEM. I REMEMBER JAMMING WITH HIM AT THE SPEAKEASY IN 1970  
AND IT WAS TWO GUYS I HAD GROWN UP WITH,  
CARMINE APPICE AND TIMMY (BOGERT) AND IT WAS LIKE GUNFIGHTERS.  
IT HAD NOTHING TO DO WITH MUSIC AT ALL; IT WAS LIKE,  
'HEY, I'M GONNA BLOW YOU OFF THE STAGE'.

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pretty well chock full of effects. At the very end you'll hear the guitar go up an octave. The way that's done is through use of a Foxx tone machine which is a certain kind of fuzztone that pickups up the octave harmonic very very strong. So by stepping on the pedal on and off on tempo you can do that.

I've also recently got a synthesizer called a Cat made by Octave Electronics in New York and I've learned so much about my guitar through playing with the synthesizer.

**Are there specific settings you use on the amp and guitar?**

Absolutely; I use a very stock Fender amp setting, which is treble between 6 and 8, no brightness and no bass at all. A lot of times on overdubs what I ask to have done is to have a mike opened up 360° to take in the room sound; the room resonance really has a lot to do with the bassy sounds anyway. I don't think I've had bass on an amp for 12 years. I do that live also. One thing I must stress about playing live is I can't stand having stacks of amps. Anything that comes above the waist is, as far as I'm concerned, dangerous. Really the idea of mounting the amp on a chair because you've got the speaker so close to you . . . you can hear yourself real loud but what about the other instruments?

If it's a mellow thing I could set the volume at 2½ or all the way up to 10. It really has to do with the intensity one wants to hear the amp putting out. It's hard to play direct into the board too which is something I wouldn't have said 2 years ago.

**What about settings on the guitar?**

Solos generally I have the volume up full and the tone up full. When I'm doing a solo if it's on a vocal tune I generally like to get the feeling of what's being said.

**What kinds of picks and strings do you use?**

I use Fender heavy picks; actually called Manny's heavy picks because I buy them at Manny's (New York) but they're the same thing. In '63 I got turned on to using a banjo string for my high E string and ever since then I've been hooked on having something light, pliable, and flexible. What I've been using consistently is Fender 150's; the E, A, and D are regular and then I use a .009 for the high E, 14/USA

and then I take their E which is a .010 and use it for the B, and take their B which is a .013 and use it for the G. It's a very light set of strings and I've gone from using just plain heavy frets on the guitar to having bass frets. In order to counteract the lightness of the strings I use very heavy frets so it gives me something meaty there. I can bend up all the strings practically a 5th and the reason for that is because there's something for me to sink my fingers into. If it was simply loose strings and the thin frets that Fender puts on I think I'd be in a lot of trouble. The guitar doesn't go out of tune at all; the only thing that will send it out of tune would be weather and temperature changes. The life-span of strings is really only a couple of days before changing them again. Ideally if you're going for a real crisp sound one should change them every day.

**You don't use a vibrato arm on the guitar?**

The only thing that I would think of using the vibrato arm for aside from vibrato which I prefer to attain manually is that really super low bend. Which you can do one of two ways: you can either bend the entire neck or do it electronically. I've never really had call or desire to use that.

**How would you describe your picking style?**

When it comes down to real super quick stuff that's where I'd have to thank Sal Salvador for teaching me jazz technique having to do with up and down picking. There's nothing you can't do with up and down picking in terms of speed. With enough practice you can go from string to string and there are exercises. Johnny Smith's Aid To Technique is the book that gave me the key to that.

**What special techniques do you use?**

I try to be cute a lot; banjo-esque sorts of things. There are certain things from that technique one can use. Folk technique a la Travis picking that if you use soft and gentle and slow can give you nice full voicings. I try to get into electronic trickery as well. I'd like to think what a lot of my playing is about is the subtleties as opposed to the things that knock you on the head. Flash is flash; almost anybody who works hard enough can get to play real fast and play the right notes. A lot of it is the stuff you

leave out, what you don't play, where you put in one note as opposed to 10.

**Do you use any de-tunings?**

I'll tune the low E down to a D sometimes. Or sometimes for a slide thing I'll tune the entire guitar to a chord.

**As an accompanist on sessions, what types of things do you try to do?**

There's a couple of things; one, is listening more than anything else. It's tuning in on the artist and the producer. You're being hired to do what's best for that person. It's the vibes and I believe vibes go on record.

**On your record you play with other guitarists; do you like not being the only guitarist in a given situation?**

Like with Jeff Baxter (Steely Dan) we've had a very friendly thing going for like 15 years now. There is a slight competitive edge but it's not a bad competitive edge. It's like if you play something that blows me out I just get blown out and I better do something too. And we really get off on each other's instrumental abilities. There are a few people I've run into in the business, Jeff Beck being one of them. I remember jamming with him at the Speakeasy in 1970 and it was with two guys I had grown up with, Carmine Appice and Timmy (Bogert) and it was like gunfighters. It had nothing to do with music at all; it was like, 'Hey, I'm gonna blow you off the stage'. That was the attitude and the sounds that came off the stage echoed that. It sounded like pure shit. If you can't play with each other then you shouldn't play at all. But I'd like to get together with him — it could be minimally interesting.

**There are still a lot of places for you to go on guitar?**

It never stops. I've been very interested in working in classical (orchestral) and Latin, salsa, particularly. I worked with a lot of the Fania All-Stars people. I also guested with the Rochester Philharmonic, the American Symphony Orchestra out of New York. I've done a few jazz things, Sonny Stitt, Grady Tate, Ramsey Lewis. I want to do a city symphony, something based on the pulse of New York City. Carmen Moore, the conductor, has written a piece for electric guitar and orchestra for me. So where does it stop? It never stops.



# Kramer Guitars

Kramer solid body electric guitars and basses represent a breakthrough in design that allows you to break-through to the ultimate in your performance. It's something totally new that leaves all the others behind and makes conventional guitar necks obsolete.

Only Kramer features

- EBONOL FINGERBOARDS that won't crack, warp, chip or shift.
- "CENTER-TOUCH" Petillo fret wire design (patent applied for) that provides perfect fret-to-fret intonation and finger positioning.
- POWER FORGED aluminum "T Neck" (patent pending) that offers absolute rigidity in all models guaranteeing no warping or twisting.

And that's not all! Kramer also provides unusual sustaining qualities, custom tooled aluminum and stainless steel hardware and select wood inlays in back of the "T Neck".

IT'S SIMPLE, KRAMER IS AHEAD BY A NECK — IT'S A WINNER!



BRODR JORGENSEN (UK) LTD.,  
Unit 6,  
Great West Trading Estate,  
983 Great West Road,  
Brentford, Middlesex.  
Tel: 01-568 4578

# The Kramer Philosophy



At Kramer we have one purpose, one goal. "To offer the serious musician a quality crafted instrument, far surpassing those on the market, with a reasonable price." No other fretted instrument manufactured has the playability, the versatility of sound, the quality of electronics, the precise intonation, the amazing sustain, and a clean functional design as Kramer has.

The necks are made of the highest grade Kaiser forged aluminium, milled, turned, then buffed, and inlaid with exotic hardwoods. This produces our exclusive "T neck" design which offers absolute rigidity (no warping or twisting) with the warmth and feel of wood. Each guitar and bass goes through numerous inspections at every stage of manufacturing. The last inspection being a trained professional musician playing each piece to check out every little detail before it leaves the plant.

Machines never replace people. At Kramer each instrument is virtually hand-made with the pride of old world Luthiers and the technology and advances of today. Feel proud to sell Kramer, for it's not just another guitar, but a hard worked dream of many people to achieve the ultimate in guitar manufacturing.

"At Kramer quality is not just a word, it's a must."

## BODIES

250 models are hard maple painted with a high gloss white or black enamel, or natural wood.

350 models are made from book matched exotic imported Shedua and African hardwood.

450 models are also book matched Shedua with 5/8" strips or figured maple laminated lengthwise through the body.

650 models are made from fancy grade burl American black walnut and birdseye maples, laminated not only for artistic beauty, but also

acoustic reasoning. The models feature Kramer's new crown inlays in the neck.

## PICKUPS

All models have a new design in their pickups which have an extremely strong magnetic field to achieve excellent response with low distortion, low noise and great sustain. Along with our tonal network, it is possible to get the sound of virtually any other guitar or Kramer's own great sound.

## NECK

Power forged aluminium "T neck" (patent pending) that offers absolute rigidity in all models guaranteeing no warping or twisting. Each neck is laminated with hardwood strips to give the warmth and feel of a wood neck but the strength of forged aluminium.

## FINGERBOARD

Each fingerboard is made out of Ebonol, a Kramer innovation, which looks and feels like Ebony but will never crack, warp, or shift and wear far longer.

## INLAYS

250, 350, and 450 models have aluminium dot inlays. 650 models have custom-designed pearl inlays. All models have aluminium side markers.

## FRET WIRE AND POSITIONING

All Kramers have "centre-touch" fret wire (patent pending) that provides perfect fret-to-fret intonation and finger positioning. The necks are cut with a new process which achieves perfect fret positioning.

## HARDWARE

Custom tooling aluminium and stainless steel used for all hardware, nuts, bridges, and cover plates.

## FINISH

Our "new finish" is a polyester developed by Lilly Chemical Company for the guitar market to eliminate the use of a pickguard for protection, and enhance the beauty of the guitar. Kramer uses three coats of "poly" where other manufacturers using "poly" put on only one or two coats. Each coat is hand rubbed.





# Tuning Problems

All guitar players experience tuning problems unless they are tone deaf. This is true of all guitarists because of the very nature of all fretted instruments. Those who remember that "my old such-and-such guitar played in tune" are kidding themselves, or don't understand the compromises of a fretted instrument. These problems and their compromises can be separated into two specific areas: mechanical problems, and intonation problems. Mechanical problems are those which affect the pitch of an open string, while problems of intonation affect both chords and fretted notes. At Kramer we have tried to solve the majority of these problems so that an artist may play to the peak of his or her ability. We will analyze these problems and deal with each separately with our solution for each.

**Mechanical Problems:** The pitch of a string is directly related to its diameter, length and tension. (The diameter relationship changes between steel and nylon strings). The diameter remains constant, while the tension is changed to tune the open string. The

length is changed by fretting to get different notes.

A new string undergoes "creep", which is stretching under prolonged tension. This will disappear when the string is hardened by "cold-working", (molecules rubbing against each other to temper the string's metal). Open string tuning problems after one day at pitch or an hour's playing time are due to excess slack somewhere between the tuning machine button and the other end of the string where it is anchored. The guitarist should visually check any point where the string crosses a part such as the topnut, or bridge saddle to determine if the string or the part could shift or slip due to playing the guitar. We cannot do anything about these problems.

The usual weak link in the tuning of a guitar is the tuning machines. Cheap machines result in excessive backlash or clearance between the gears and rough gears. Our machines are machined to close tolerance and have spring washers to allow adjustment of the gears, which

solves this problem. The way to deal with worn or loose gears, (a good habit in all cases), is to tune up, never down. If it is necessary to flatten a note, tune down below it and come back up to proper pitch. This brings the gears into tight mesh and eliminates the loosening of the strings due to backlash.

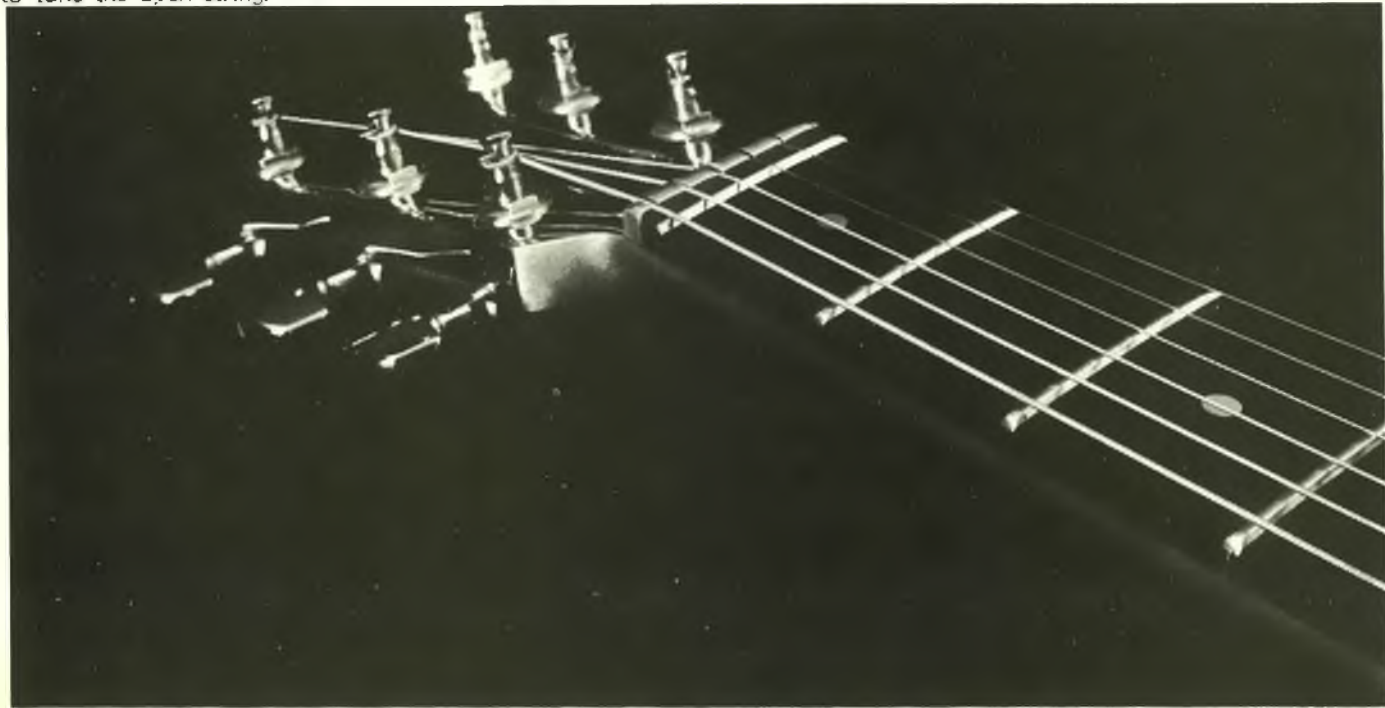
Check the bridge for loose saddles, rocking bridge, or tight notches in the saddle which can catch the windings of the strings and cause jerky tuning or loss of tension after playing awhile. The same goes for the notches in the topnut; they must not bind the string in any way. Our topnut is cut to fit any gauge string.

Another problem area is the manner of connecting the strings to the tuning posts. This will be particularly important on the smaller diameter (unwound) strings. At Kramer we wind the strings in the proper method on the posts, but if you have a tuning problem, always check this area.

Anything which is involved in holding the string under tension, must not be loose or movable or the

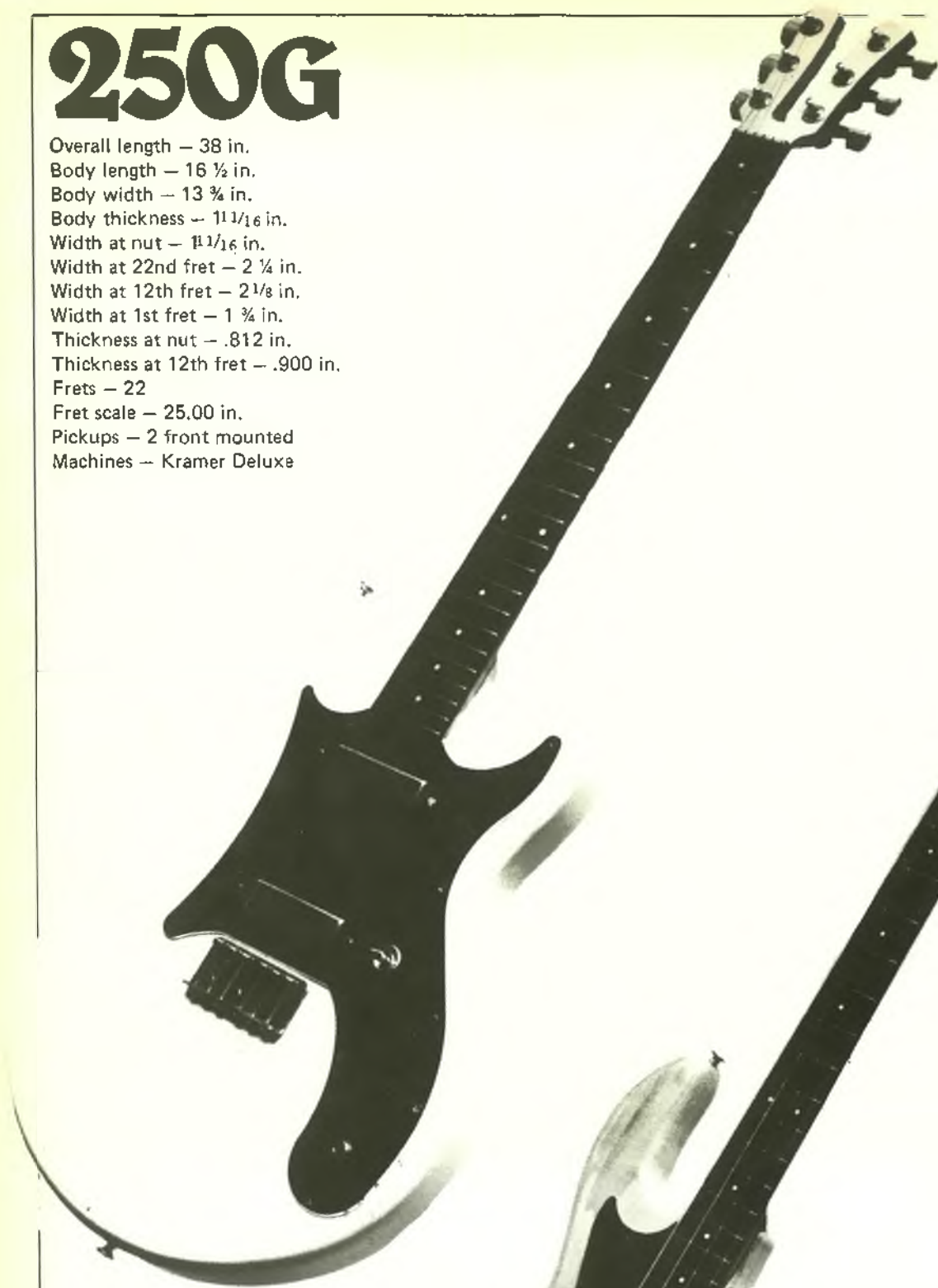
instrument will be hard to keep in tune. A removable or bolted-on neck can be the cause of tuning problems unless it is tight and the design holds it in proper alignment at all times. At Kramer we have designed the neck this way. Our bolts go through big washers secured in the body, then screwed into the aluminium part of the back of the neck. The bolts can never wear the neck mounting holes larger in this aluminium section as they could in an all wooden neck. Humidity or temperature changes can cause the neck to have different shape or tension, and may affect tuning. With our Kramer "T neck" aluminium design we have eliminated this major problem.

**Intonation Problems:** As mentioned earlier, all fretted instruments involve necessary compromises. The position of the bridge and its saddles, and the shape of common frets is the main problem with intonation. With our Centre-Touch fret wire and our precise formula for positioning of our bridge, we have eliminated the compromises.



# 250G

Overall length — 38 in.  
Body length — 16 ½ in.  
Body width — 13 ¾ in.  
Body thickness — 1 11/16 in.  
Width at nut — 1 11/16 in.  
Width at 22nd fret — 2 ¼ in.  
Width at 12th fret — 2 1/8 in.  
Width at 1st fret — 1 ¾ in.  
Thickness at nut — .812 in.  
Thickness at 12th fret — .900 in.  
Frets — 22  
Fret scale — 25.00 in.  
Pickups — 2 front mounted  
Machines — Kramer Deluxe



# 250B

Overall length — 37 in.  
Body length — 17 in.  
Body width — 13 in.  
Body thickness — 1 11/16 in.  
Width at nut — 1 7/8 in.  
Width at 22nd fret — 2 ¼ in.  
Width at 12th fret — 2 1/16 in.  
Width at 1st fret — 1 5/8 in.  
Thickness at nut — .850 in.  
Thickness at 12th fret — 1.000 in.  
Frets — 20  
Fret scale — 33.750 in.  
Pickups — 1 front mounted  
Machines — Kramer Deluxe

# 350G

Overall length — 37 in.  
Body length — 16 ½ in.  
Body width — 13 ¾ in.  
Body thickness — 1 11/16 in.  
Width at nut — 1 11/16 in.  
Width at 22nd fret — 2 ¼ in.  
Width at 12th fret — 2 1/8 in.  
Width at 1st fret — 1 ¾ in.  
Thickness at nut — .812 in.  
Thickness at 12th fret — .900 in.  
Frets — 22  
Fret scale — 25.000 in.  
Pickups — 2 rear adjustable  
Machines — Schaller M-6

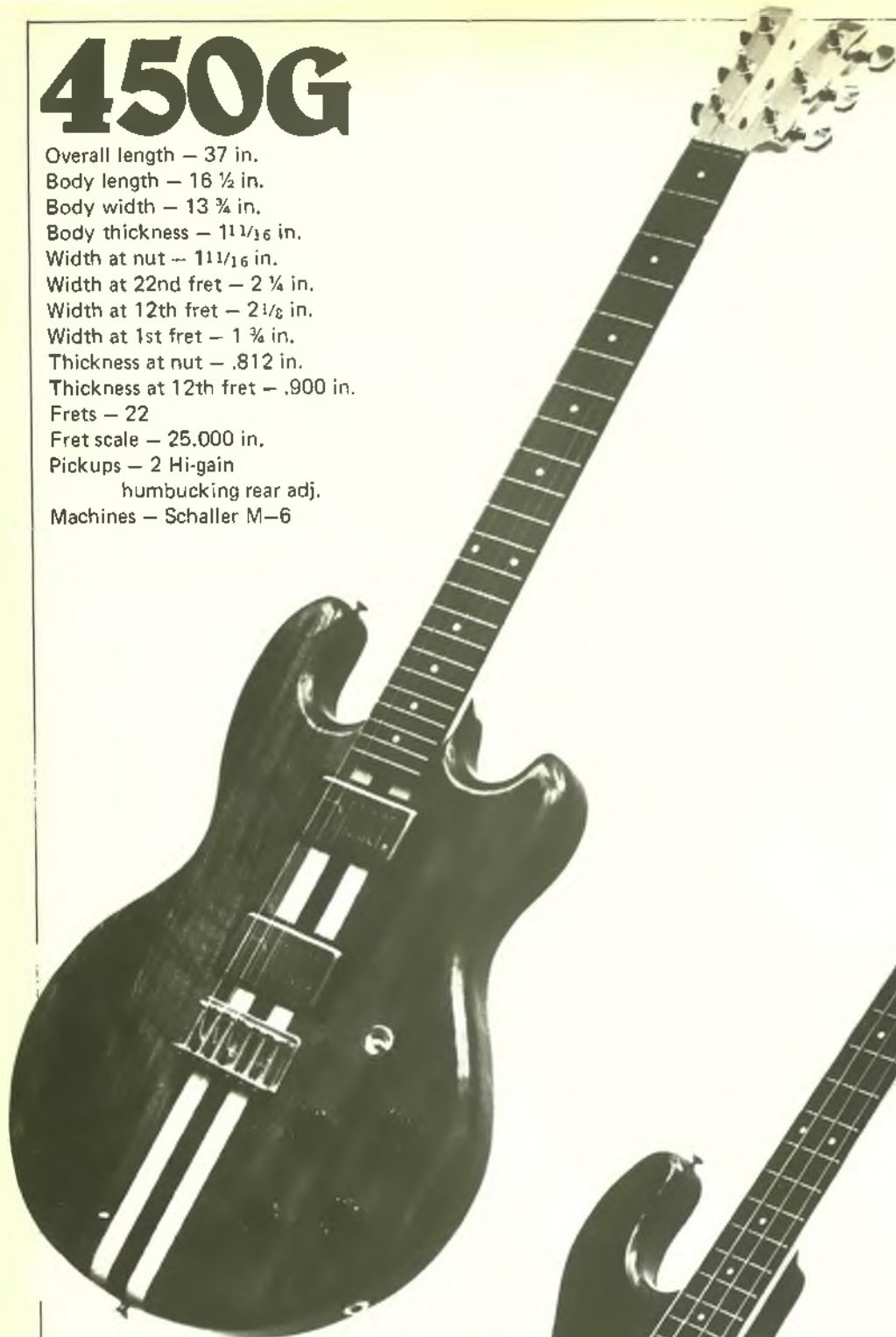


# 350B

Overall length — 42 in.  
Body length — 17 in.  
Body width — 13 in.  
Body thickness — 1 11/16 in.  
Width at nut — 1 5/8 in.  
Width at 22nd fret — 2 ¼ in.  
Width at 12th fret — 2 1/16 in.  
Width at 1st fret — 1 5/8 in.  
Thickness at nut — .850 in.  
Thickness at 12th fret — 1.000 in.  
Frets — 20  
Fret scale — 33.750 in.  
Pickups — 1 rear adjustable  
Machines — Schaller M-4

# 450G

Overall length — 37 in.  
Body length — 16 ½ in.  
Body width — 13 ¾ in.  
Body thickness — 1 11/16 in.  
Width at nut — 1 11/16 in.  
Width at 22nd fret — 2 ¼ in.  
Width at 12th fret — 2 1/8 in.  
Width at 1st fret — 1 ¾ in.  
Thickness at nut — .812 in.  
Thickness at 12th fret — .900 in.  
Frets — 22  
Fret scale — 25.000 in.  
Pickups — 2 Hi-gain  
          humbucking rear adj.  
Machines — Schaller M-6

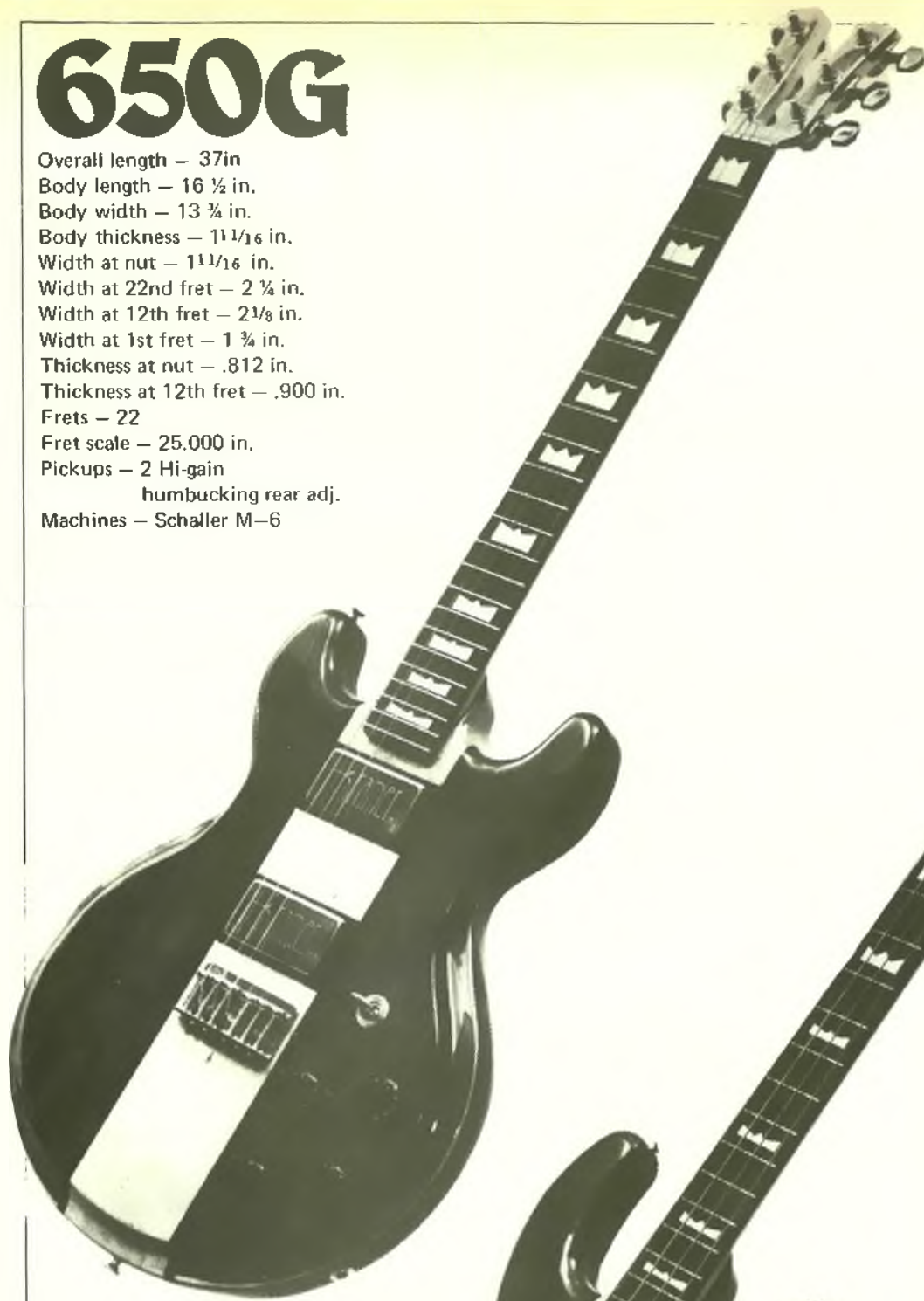


# 450B

Overall length — 42 in.  
Body length — 17 in.  
Body width — 13 in.  
Body thickness — 1 11/16 in.  
Width at nut — 1 5/8 in.  
Width at 22nd fret — 2 ¼ in.  
Width at 12th fret — 2 1/16 in.  
Width at 1st fret — 1 5/8 in.  
Thickness at nut — .850 in.  
Thickness at 12th fret — 1.000 in.  
Frets — 20  
Fret scale — 33,750 in.  
Pickups — 2 rear adjustable  
Machines — Schaller M-4

# 650G

Overall length – 37in  
Body length – 16 ½ in.  
Body width – 13 ¾ in.  
Body thickness – 1 11/16 in.  
Width at nut – 1 11/16 in.  
Width at 22nd fret – 2 ¼ in.  
Width at 12th fret – 2 1/8 in.  
Width at 1st fret – 1 ¾ in.  
Thickness at nut – .812 in.  
Thickness at 12th fret – .900 in.  
Frets – 22  
Fret scale – 25.000 in.  
Pickups – 2 Hi-gain  
                  humbucking rear adj.  
Machines – Schaller M-6



# 650B

Overall length – 42 in.  
Body length – 17 in.  
Body width – 13 in.  
Body thickness – 1 11/16 in.  
Width at nut – 1 5/8 in.  
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Width at 12th fret – 2 1/16 in.  
Width at 1st fret – 1 5/8 in.  
Thickness at nut – .850 in.  
Thickness at 12th fret – 1.000 in.  
Frets – 20  
Fret scale – 33.750 in.  
Pickups – 2 rear adjustable  
Machines – Schaller M-4

# Kramer Plays Easy

**easy** \ 'ē-zē \ *adj*-1. causing or involving little difficulty or discomfort 2. marked by peace and comfort 3. freedom from labor 4. freedom from embarrassment 5. fitting comfortably <an-flowing style> 6. freedom from care.

Most dictionaries define "easy" in many words. We define "easy" with one word; KRAMER! No other fretted instrument manufactured has the playability, versatility of sound, quality of electronics, precise intonation, amazing sustain and a clean, functional design as does KRAMER. We have combined the solid tradition of fine guitar-making with innovations in design and materials that allow you to attain the ultimate in your performance.

A power-forged aluminum "T-neck" (pat. pending) and ebonol fingerboard put an end to warping, twisting and shifting. Selected hardwoods are used in the back of our neck for playing ease, comfort and for the warmth only wood can give.

KRAMER pickups have an extremely strong magnetic

field and are designed to achieve excellent response with very low distortion and noise while giving sustain that surpasses most other professional guitars and basses.

KRAMER'S fret-positioning allows any artist to achieve perfect intonation with both single notes and chords.

All hardware is custom-tooled from aluminum and stainless steel. The precision contoured body is crafted from exotic hardwoods.

At KRAMER we have only one purpose; one goal; to offer the serious musician a quality-crafted instrument, far surpassing those on the market, at a reasonable price—and that makes KRAMER easy!

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## Kramer Distributors

### AUSTRALIA

Australis Instruments, Pty., Ltd.,  
18 Sydenham Road,  
Brookvale, N.S.W. 2100  
Australia.

### AUSTRIA

Weiss & Kadlec  
1232 Wien, Triester  
Strasse 261, Austria.

### BENELUX

International Music Service  
Energineuw 36-37  
Vlaardingen (Nederland) Holland

### COSTA RICA

Ciudad Musical Ltda.  
Avandi Calle 9Y11  
San Jose, Costa Rica.

### DENMARK

Super Sound Wholesale Aps  
Bygmarken 1, DK-3520  
Farum, Denmark.

### ENGLAND

Brodr-Jorgensen, U.K.  
983 Great West Road,  
Brentford, Middlesex  
TW89DN England.

### FRANCE

Musik Engro  
14 Rue Des Tuileries  
69009 Lyon, France.

### GERMANY

International Music Service  
Deutschland GmbH  
4190 Kleve  
Kanalstrasse, Germany.

### SWEDEN

Musikalen  
Tegelbacken 111 52  
Stockholm, Sweden.

### SWITZERLAND

Isler Musiq  
  
Stampfen Bachstrasse 110  
8006 Zurich Ch, Switzerland

### THAILAND

Capital School of Music  
127/40 St. Louis 3  
South Sathorn, Yanawa  
Bangkok, Thailand.

### UNITED STATES & CANADA

BKL International Distributing Corp.  
1111 Green Grove Road,  
Neptune, New Jersey 07753

### ICELAND

Birgir Hrafnsson  
Laufasvegi 22  
Reykjavik, Iceland.

### GREECE

Andreades & Co., Inc.  
2 Phidliou St.,  
Athens 142, Greece.

### ITALY

G.I.S.C.O. S.P.A.  
62017 Porto Recanati  
Italy.

### JAPAN

Kanda Shokai Co., Ltd.  
Kanda Toyo Bldg. 3-4-2  
Kandakaji-Cho, Chiyoda-Ku  
Tokyo 101, Japan.

### NEW ZEALAND

Beverley Bruce & Goldie Ltd.,  
14 Akepiro St.  
Mt. Eden P.O. Box 37056  
Parnell, Auckland 1,  
New Zealand.

### PUERTO RICO

The Villa Piano Organization  
1853 Ponce de Leon Avenue  
Santurce, P.R. 00909

### SOUTH AFRICA

Polliack/Topco Music (Pty) Ltd.  
56151 Pinetown 2123  
Johannesburg, South Africa.

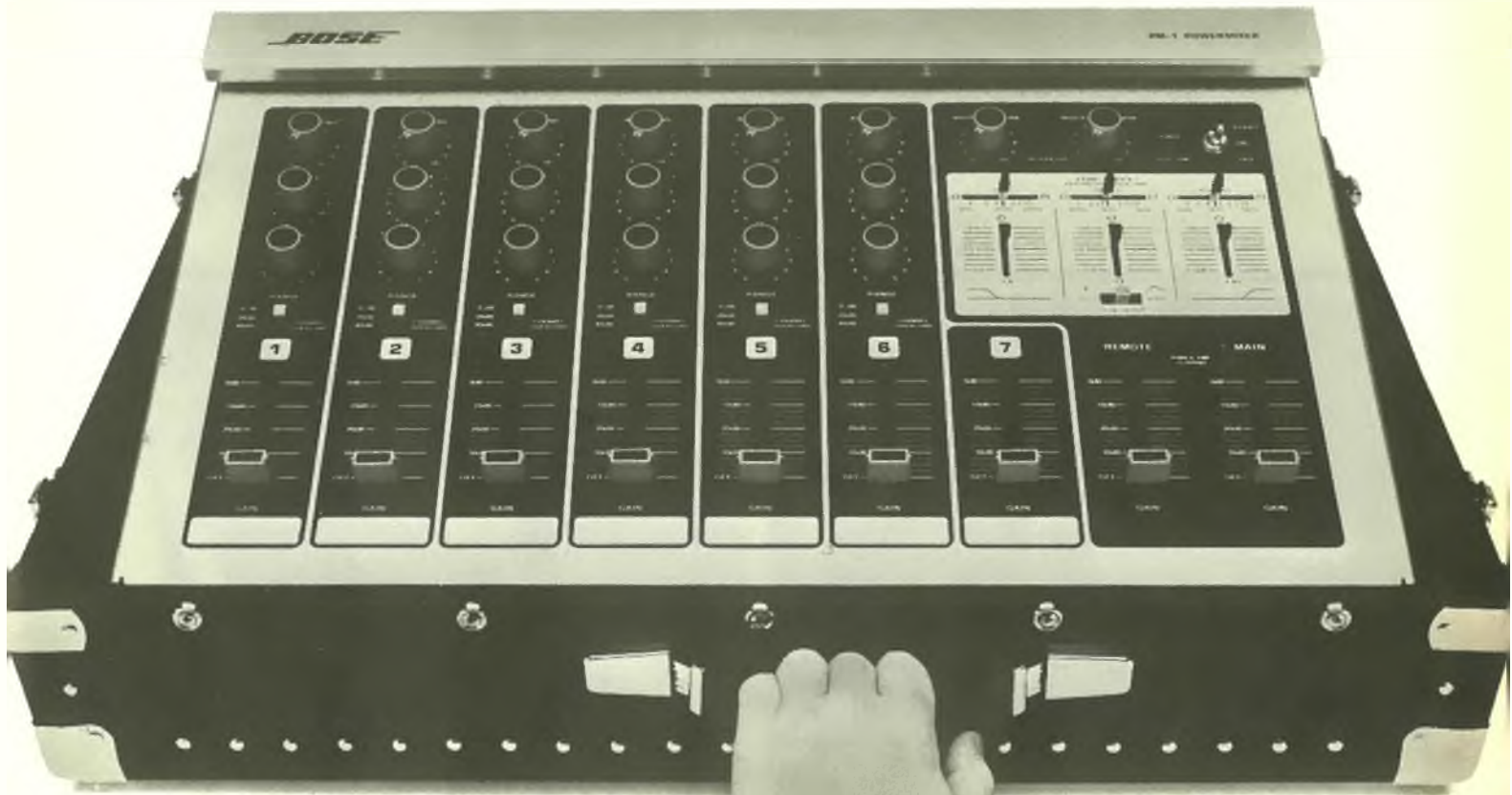
### SINGAPORE

Amadeus Music Agency Ltd.,  
Shop //3-20 (3rd Floor)  
Peninsula Shopping Complex  
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# IM Visits the Kramer Factory

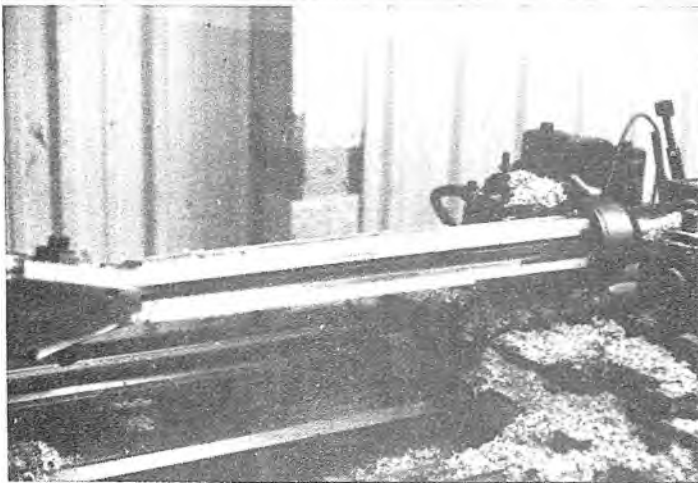
Kramer guitars are something of a phenomenon in the cut-throat market place of the guitar industry. The company is barely two years old yet has forged out a relatively large share of the market through its guitars which have unique neck designs which are a radical departure from the conventional wooden neck strengthened by truss-rod.

The Kramer story began when a neck piece was given to the originator of the Kramer design, Peter La Placa. It was not a finished neck but with it finished to La Placas design, orders of \$500,000 for guitars with the new neck were filled.

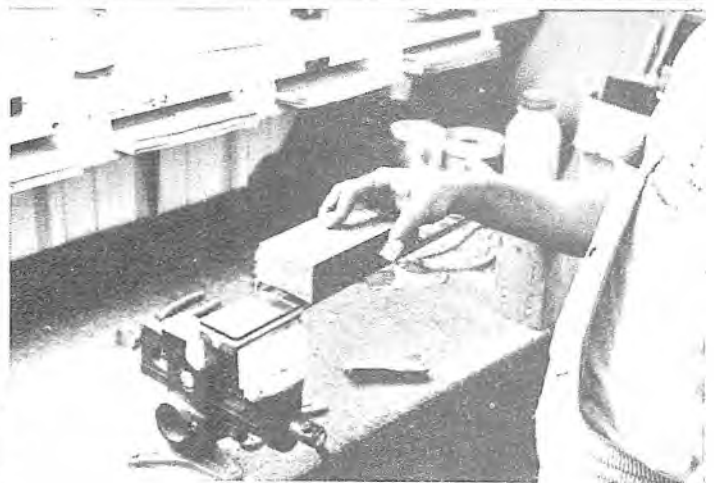
Kramer guitars were first introduced at the Chicago NAMM show in June 1976 and advance orders of \$600,000 poured

in. The Kramer factory opened in July of that year and by November the first production-line Kramer guitars were available. A new range of Kramer models was shown at the January NAMM Western show in Anaheim and now 40 people are working full-time at the Kramer guitar factory to handle demand.

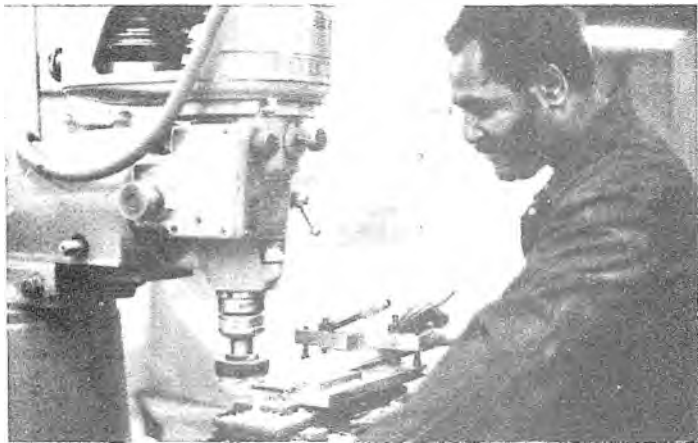
Kramer guitars boast several "firsts" such as a power-forged aluminium "T-neck" with an Ebonol fingerboard which is said to eliminate warping, twisting, and shifting. The pickups used on Kramer axes are said to have sustain and low distortion which improves on that given by most other professional guitars and basses.



*This is called a "true trace profiler" which cuts the exact shape of the entire neck in one operation.*



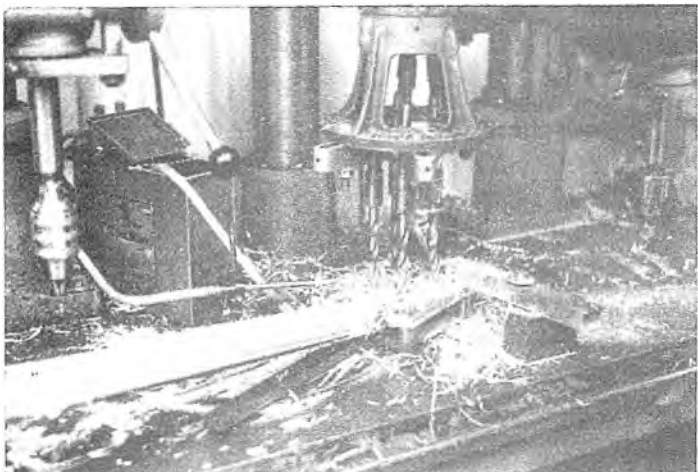
*Completing the radius polishing of the fingerboard, by hand with special hand blocks.*



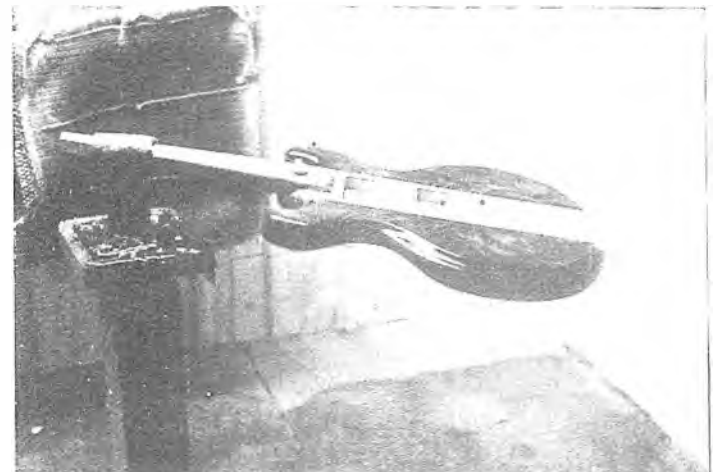
*This machine reduces the 'heel' of the neck.*



*Matching a body and a neck. . .*

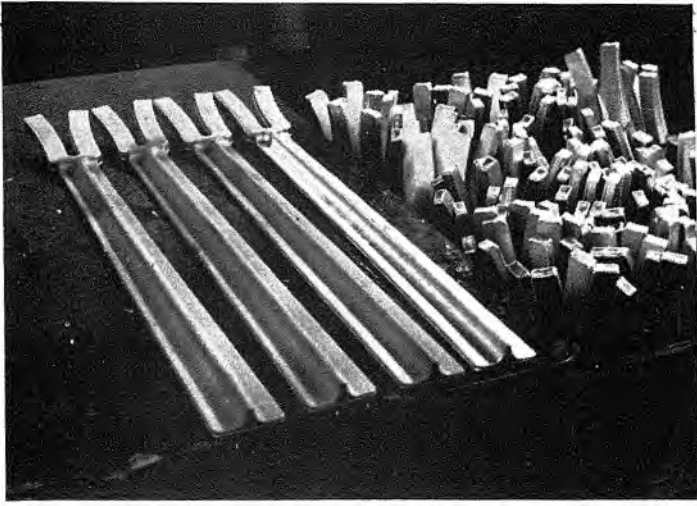


*Drilling the holes to mount the machine heads.*

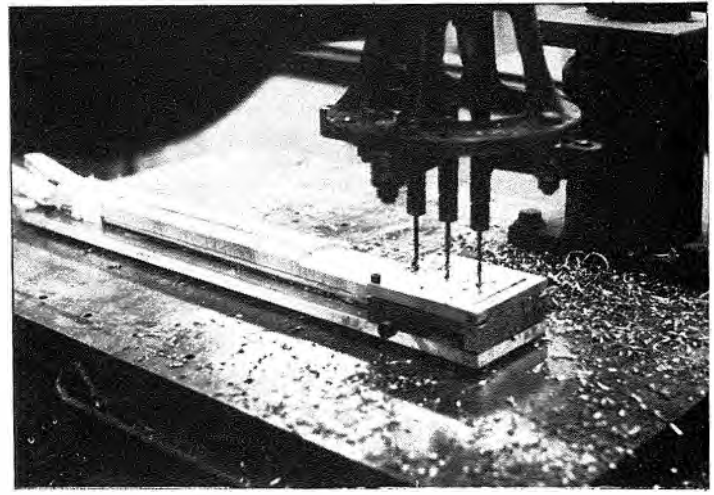


*Body attached to holder after spraying*

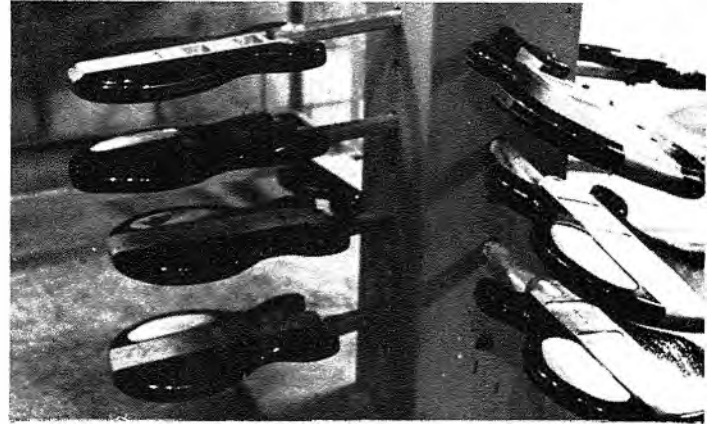
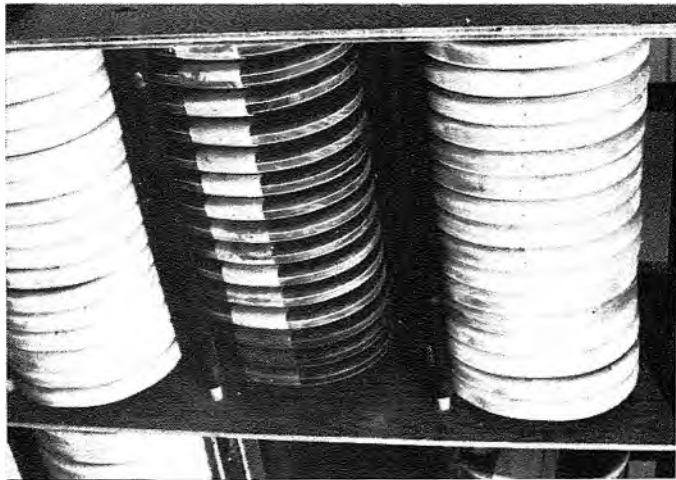




The neck on the right shows the condition of the metal neck as it comes right from the casting operation (shiny). The three necks on the left show the surface after it is sandblasted to give a matt finish to the metal. This is done in order to ensure a perfect bond between the maple wood inserts and the aluminium neck. Since the first day of manufacture there has never been a report of the wood becoming unbonded from the aluminium.

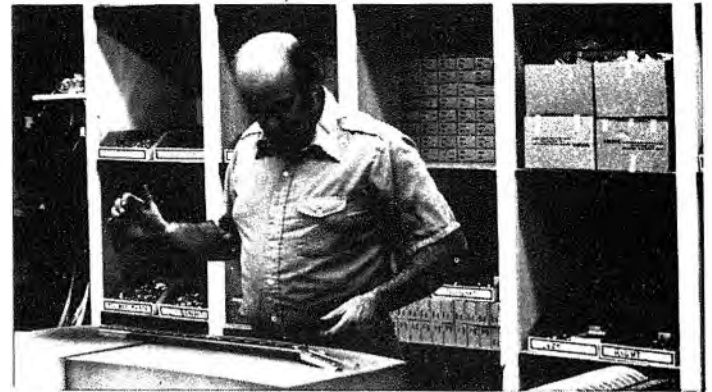


Drilling the connecting holes in order to mount the neck to the body. This is drilled right into the aluminium to ensure the most rigidity in the construction.

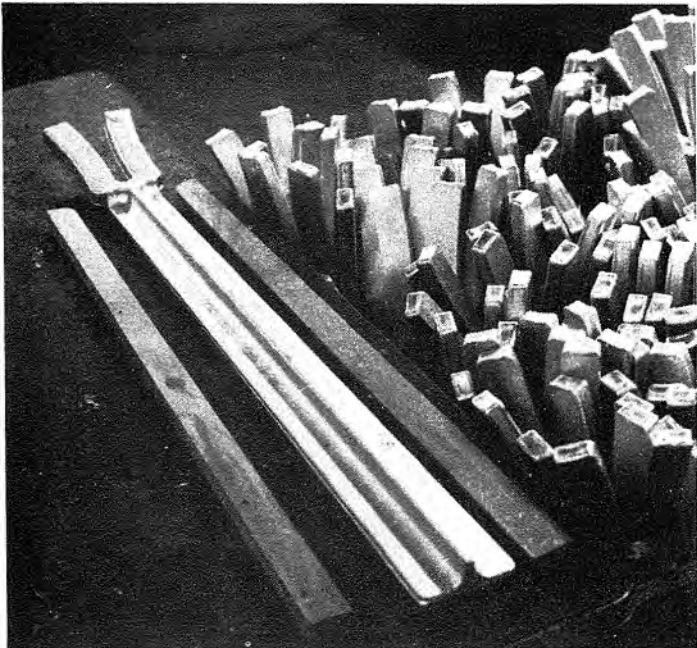


Stacks of "bodies" ready for finishing. (Bodies are made in a separate plant which our photographer was not allowed to photograph)

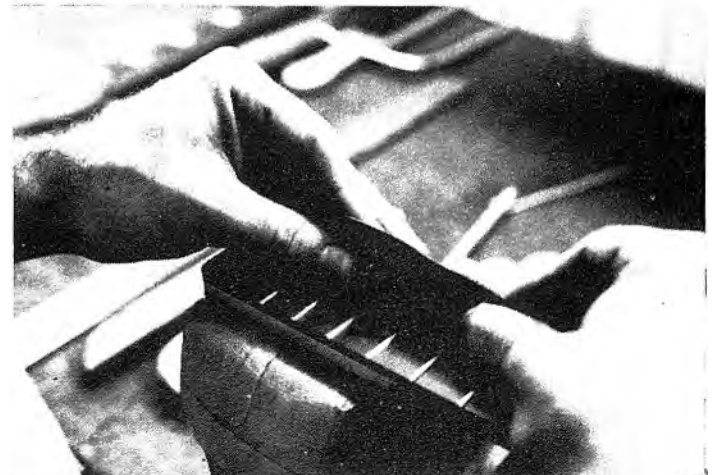
Bodies ready for spraying in one of the paint booths. Polyester finish - gives a glass like almost impervious to everything hardness. Necks go through a series of finishing operations before mounting to bodies.



Necks are in final cleaning and checking area before mounting to bodies.



Unusual shape of Kramer aluminium neck that gives the guitar its rigid characteristic and great sustain qualities. There is no absorption of sound.



Hand polishing the frets.

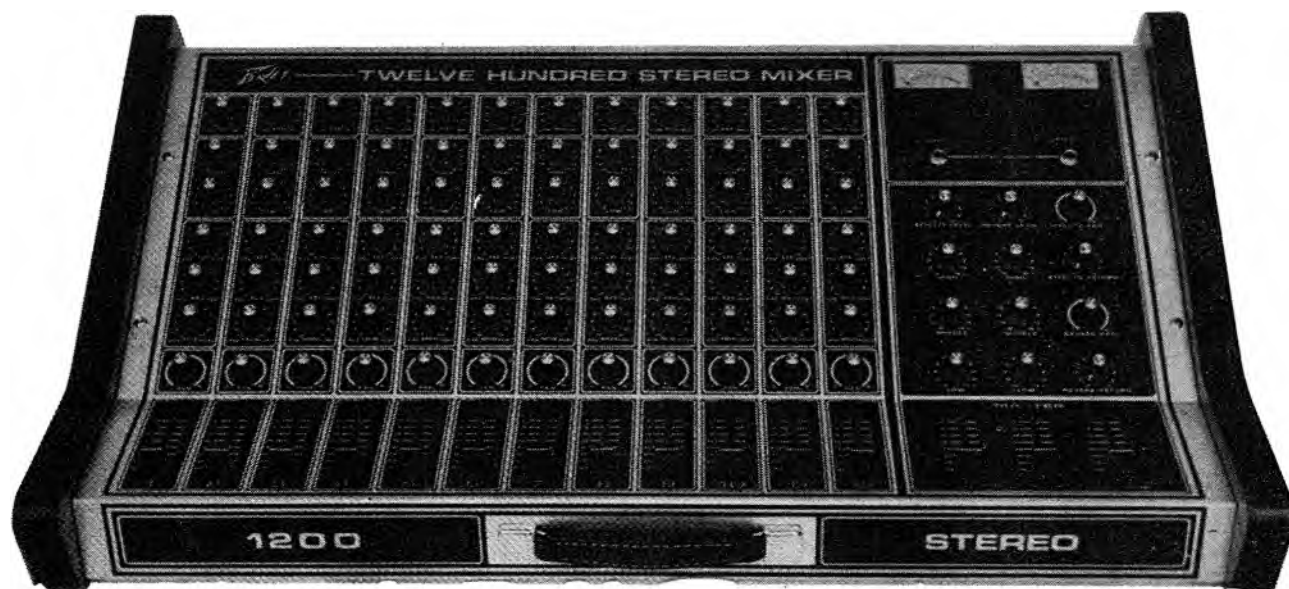
# Soundcheck Soundcheck

Reprinted from *International Musician*, January, 1976

TEST ON *Peavey 1200 Model Stereo Mixer*

DATE *December 1976.*

TEST BY *Mark A. Sawicki, M.Sc. (Eng.) Assoc M.I.E.E.*



## INTRODUCTION

Peavey Electronics, Corp. have a range of amplification products that are very much part of the establishment in the United States and are becoming more established in the U.K. now due to the effort of Peavey Electronics (U.K.) Ltd. The 1200 stereo mixing console was recently introduced to the U.K. market as a compact 12 channel portable design, suitable for all professional sound reinforcement applications.

Each of the twelve stereo channels consists of full solid-state circuitry and have their own individual controls: 73mm slide fader potentiometer, rotary stereo pan potentiometer for effective (L/R) balance control, rotary monitor send control with pre/post capability, rotary reverb/effects send control, rotary low/high frequency equalizer and, at the top of each channel, — mic/line selector as well as input attenuator (Pad) which possesses all the modern facilities, allowing operators to pad (attenuate) the input signal to any relevant level, without overloading the input of the pre-amplifier.

The master area of the 1200 mixer

locates all the master controls as well as the final output controls for the five mixing busses: left/right/monitor master — 73mm slide fader potentiometer, separate channel low/middle/high frequency equalisation, reverb/effects return control, reverb/effects pan potentiometers and reverb/effects level control.

The 1200 Peavey console has two professional class VU meters for L/R channels respectively, scaled -20, 0, +3dB in accordance with Bell specifications. The rear panel of the 1200 features the following facilities for each channel: a transformer balanced low impedance input (jacks), a family of five AUX inputs (left/right/monitor/effects/reverb), a line output section containing unbalanced (left/right/monitor) and balanced 600 ohms (Cannon XLR — male).

A special stereo tape output jack socket is provided for recording from the 1200 mixer during a performance when all the other outputs are being used. The 1200 Mixer has an On/Off/On reverse polarity power switch which is an integral part of American audio tradition, as it minimises the hum level by proper polarization of the power mains

connection.

The outside dimensions are 850mm (L), 600mm (W) and 245mm (H) and the mixer comes with a professionally edited Owner's Manual and 2.7 metres of heavy-duty mains cable.

## CONSTRUCTION

The basic construction of the 1200 Peavey mixing console consists of a large wooden frame covered with Spanish oak formica and an aluminium front and rear panel section which acts as the mixer chassis, housing twelve by seven rotary potentiometers and twelve slide carbon controls in the channel section, plus twelve rotary and three sliders in the main master area. The aluminium hardware is mounted on the wooden frame using twelve pozidrive screws and the unit is finished with four rubber steps a plastic type carrying handle.

Design features include the wide use of good quality printed circuit 'mother board' constructions and a separate power supply section. The reverberation unit located in the 'floor' of the wooden area is magnetically screened and

mounted with special hardware elements providing shockproofing and suspension.

Access to the electronics is difficult, and the protection fuse system is awkwardly placed — this could create problems in hot situations. The quality of material and elements represent normal commercial standards, and the design is clear and communicative. Workmanship and quality of soldered joints is quite

high and the outside appearance is good. The front panel, painted in standard black matt, has professionally marked black moulded knobs with a turned silver finish and trim discs.

The 1200 mixer has two meter set controls which enable the VU meters to be adjusted to the proper indications with any power slave amplifier, or other equipment driven by the mixer.

It might be a good idea to incorporate a magnetic screen on the floor of the console, as this would provide a high immunity to RF pick-up which so often is encountered in remote operations. Peavey Electronics Corporation guarantees their mixing console for a period of one year, from date of purchase, excepting the VU meters which only carry a 90 day warranty.

## PERFORMANCE

	RESULT	TEST CONDITION	COMMENT
Maximum Gain	71.0dB.	Single channel, gain continuously variable from 0dB. to -∞ (line as well as mike)	Very good — more than adequate for normal purposes.
Total Harmonic Distortion T.H.D. (%)	Less than 0.1% (0.089% — typically)	@ 1.KHz.	Reasonable
Input Impedance	(a) 150 — 600 ohms. (b) 50 K.ohms.	Balanced (microphones) Unbalanced (line inputs or high impedance microphones)	Balanced (symmetrical) inputs are very useful in practice. Very good.
Frequency Response	20Hz — 20,000Hz.	+ 1.2dB. @ 8.0dBm. output signal	Acceptable
Tone Controls	(a) + 15.2dB to - 15.0dB. + 15.3dB. to - 14.8dB. (b) + 13.8dB. to - 15.0dB. + 14.9dB. to - 15.6dB. + 15.0dB. to - 15.1dB.	Bass at 50Hz. channels Treble at 10KHz. Bass at 50Hz. Middle at 800Hz. masters Treble at 10KHz.	Good, almost identical to the manufacturer's specification.
Maximum Output Signal	(a) Left/Right/Monitor 4.0 V. r.m.s. 3.0 V. r.m.s.	@ 2 K.ohms — unbalanced 600 ohms — balanced	Very good
(b) Effects/Reverb	2.0 V. r.m.s.	@ 10 K.ohms. — unbalanced	
(c) CUE — system	2.0 V. r.m.s.	@ 10 K.ohms. — stereo output	
Crosstalk	- 60dB. typically	@ 1KHz.	Good
Noise Referred To Input	- 130dBm. typically	@ 1KHz.	Good
Multi Input Priority	Satisfactory on actual experiments	Twelve — stereo channels test + variations	Very good

## CONCLUSION

Assuming the aforementioned points (such as the problematic access to the internal area of the 1200 mixer, and the awkwardly placed fuse protection circuit)

can be changed, then this mixing console represents a good investment. On reading the Owner's Manual I found many practical tips for prospective users and

this booklet, I'm pleased to say is an excellent source of professional information.



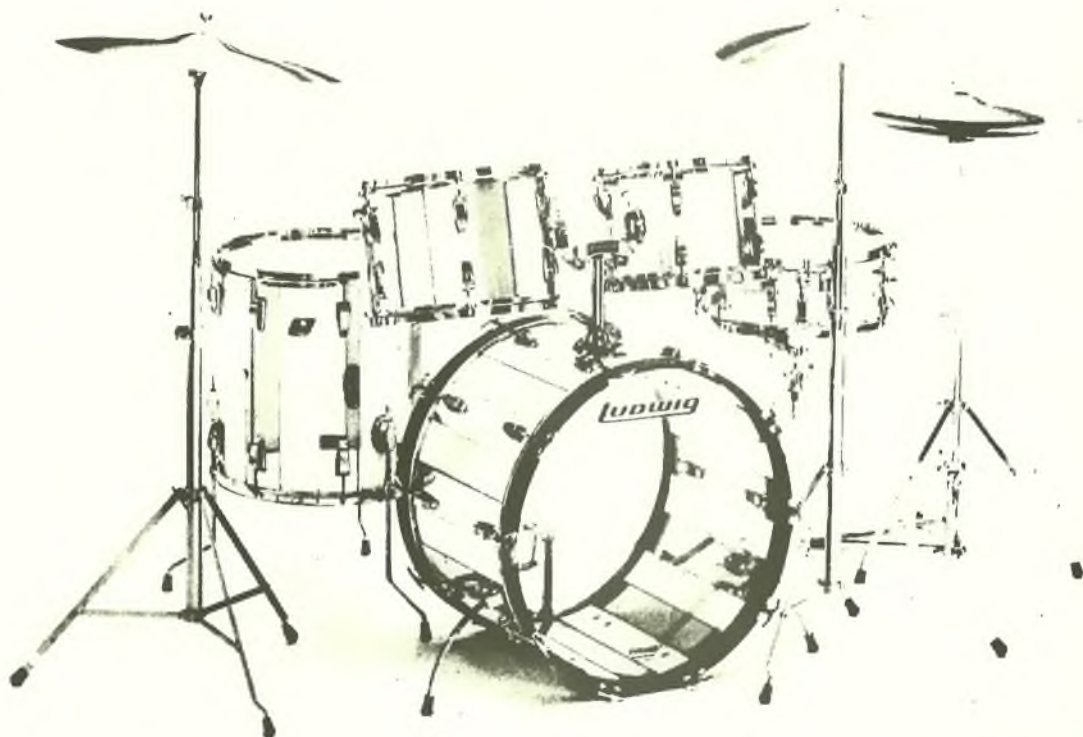
# DRUMCHECK

TEST ON: *Ludwig Rainbow Vistalite Big Beat Outfit*

DATE *October 1975*

PRICE

TEST BY *Bob Henrit*



## INTRODUCTION

Ludwig are arguably the most famous of all the American drum manufacturers, and as far as England is concerned were the first drums from the States to be brought legally into the country once the tariffs were lifted in the fifties. Up until then the only way to be the proud and unique owner of a Ludwig kit was via a friendly drummer who was fortunate enough to be working on one of the trans-atlantic boats. On arrival, this friend would buy the drums at Lew Adler's now defunct New York shop at 48th and Broadway. This method meant having a Ludwig set with Premier, Carlton or John Grey badges on it in an attempt to deceive H.M.'s Customs. At that time the drums weren't called Ludwig but instead by the founder's initials W.F.L.

The Company in darker days had been forced along with Leedy to sell their name to C.G. Conn the horn company from Elkhart, Indiana. Prior to this the company had been called "Ludwig and Ludwig" and owned by the late Bill Ludwig and his brother Theobald. The brothers started out making bass-drum foot pedals for drummers who until then had no need of them since they only played snare-drum, cymbal and assorted other traps. Our modern "Speed King" pedal originated in the thirties and, judging from the example in the Ludwig's Chicago museum, has changed very little since then.

I can still remember the thrill I got in the fifties when I saw my first Ludwig kit. Buddy Holly's drummer Gerry Allison had this magnificent white pearl super classic kit which, I am not ashamed to say, I coveted. Absolutely all of the American drummers with the fifties rockers like Fats Domino, Little Richard, Jerry Lee Lewis, Gene Vincent et al, were using Ludwig. So

the company have always had a reputation for turning out good quality drums even at the height of the sixties beat boom when Ringo was playing them and production increased from a hundred sets a week to a thousand. I have found Ludwig's recent pre-occupation with plastic shells vaguely off-putting since they seem to be concentrating far more on these than on their traditional wooden outfits. However, their new concessionaires, Rose-Morris, assure me that they are bringing in fifty per cent plastic and fifty per cent wood-shell drums. Rose-Morris also say they are importing absolutely everything that's in the Ludwig catalogue so at last we should be able to get all the extraneous bits and pieces which were unavailable before. The wholesalers are very conscious of the spare parts problem and promise to move Heaven and Earth to not only supply these important items but also to sell them at a realistic price.

I feel I should say right from the start that the new striped acrylic finishes are not my cup of tea. Although after looking at them and playing and examining them for quite some time I had a sneaking feeling that I was beginning to like them. However, my wife thought they were the most exiting new drum development ever. So who are you going to believe? Obviously these rainbow striped instruments were designed to look really breathtaking under stage lights but as yet I don't know anyone who has a kit and therefore can't really comment on their visual effectiveness. Anyway, the see-through drums can be supplied in any Ludwig size in six different pattern combinations and six different opaque colours plus solid black and solid white. The set I examined was a red and clear spiral mixture.

## CONSTRUCTION

**Bass Drum** 22" x 14" with wooden counterhoops inlaid with plastic. It's curved retracting spurs are reasonably new and the same idea as Camco's originals with a square section and a fixed circumference. This bass drum had a big solid sound with little need for dampening except for the one strip supplied for the batter head. Twenty classic nut boxes and 'T' shaped tuning handles with claws complete the hardware on the bass drum. N.B.: Ludwig say - If you want to have the single headed drum sound you must cut a large diameter hole in the front head instead of removing it completely. Evidently you could have shell strength problems if you don't follow their advice.

**Tom-Toms** The big beat outfit has 12 in. x 8 in, 13 in x 9 in and 16 in. x 16 in. tom-toms which are small by today's standards but I understand the larger more modern sizes are available in other sets. The tom-toms were all beautifully finished and equipped with opaque medium strength general purpose heads and a strong sensible damper acting on their batter sides. The holder and leg mountings on these drums are surely well known by now; cast blocks with a threaded eyering inside to ensure non-slip control. The tone was very good from these drums but to my mind it's a somewhat plastic sound. Still, if see-through plexiglass is good enough for Billy Cobham . . . . what I am trying to say is it's a question of personal taste and these plexiglass drums are definitely ideal for most sorts of modern music.

**Snare Drum** The set comes with either a vialite or a 5/8 in. metal shell four hundred. My test model was the 400 which was very good indeed. Apart from the new stronger snare mechanism and see-through heads the drum doesn't seem to have changed since I bought my first one fifteen years ago. The 400 was introduced in the sixties and so was the super sensitive but, believe it or don't, Ludwig have been making a tenlug metal shell snare drum since 1911. Everything is very purposeful and functional on this well accepted drum with, to my mind, the definitive rock and roll sound. One criticism, there used to be lots of holes on the cast snare strainer to thread the snare string through but nowadays there are only two which makes it much more difficult to replace the snares especially in an emergency.

**Accessories** Ludwig's bass drum mounted double tom-tom holder has been around for years now and must have been tried and tested by thousands of drummers around the world. In common with most other manufacturers holders unless moved and mounted nearer to the front of the bass drum, it doesn't allow the drums to be very close together unless they are too near to the player. This can be uncomfortable and restricting. I haven't ever heard of any weakness in the design and my only criticism would be that the holder can be fiddly to adjust especially the first time when it arrives direct from the factory. However, once the angles have been set there should be no need to touch it. The Atlas snare-drum stand has also been with us for a long time and my own example seems to have lasted for several years without any problems except for some wear in the rivets which now need tightening. It's a Buck Rogers tripod type basket stand with a new refinement - the angle adjustment now has two sensible locking screws for extra strength, and a very heavy duty height adjustment wing bolt and clip for extra security.

The Speed King foot pedal has been fashionable for almost as long as I can remember and it doesn't appear to have changed at all. For those of you who don't know this pedal it's an adjustable twin-compression spring model with a reversible one or two piece foot plate and a beautiful feel. Eventually the pedal begins to squeak at its foot plate hinge and causes real problems for recording engineers. The foot plate is prone to cracking at its thinnest point, the saddle too cracks where the beater rod enters it and the foot where the unit meets the bass drum hoop often breaks off. Oh, and if you're really clever you can bend the beater rod. Over the past ten years I calculate I have cheerfully bought and happily used thirty five or so of these pedals. Despite its imperfections, I personally would use no other.

The hi-hat pedal supplied with the kit is a centre-pull adjustable spring Atlas model. It really looked strange to me because it just doesn't look as substantial as its competitors, although for many years we have all managed perfectly well with this particular model. Bill Ludwig Junior assured me at the trade show that they were working on a much more substantial, larger tubed model which should be released in the very near future. I have had very little trouble with Ludwig's hi-hats over the years and, now that they make the strap between the foot plate and centre rod of nylon, there shouldn't be any trouble. However, I did once manage to make the whole centre-pull mechanism fall out of its tube when I got carried away in my solo; but then my drums are sometimes sorely used. But that's my problem!

Two cymbal stands come with the Big Beat kit with very substantial wide spread legs and a larger diameter top section than before. The new style cymbal tilter seems reasonably fool-proof and the height adjustment is well taken care of with very large and heavy wing bolts and clips. Ludwig also do a boom stand but so far it isn't on the market in this country. I saw one at the trade fair and it looks pretty good. Unlike the other stands, it's made completely from tubular steel and, very soon, all of Ludwig's stands will be available in this much stronger material. It's the end of an era because instead of rubber feet all the new stands will be fitted with something called a self-levelling floor glide. Ludwig claim to be the inventors, in the late fifties, of the plastic drum head. The discovery came about because of the success of plastic, waterproof saxophone and clarinet pads. Bill Ludwig Senior put a lot of research and development into plastic heads and, nowadays, they can supply us with six different grades of Thermolene heads. These range from .003 mil to .014 mil, as well as their centre dot varieties. All Ludwig sets still come with a drum key, a box spanner, a pair of wire brushes and a pair of unfamiliar looking Joe Morello Ha Hickory Sticks.

Here is a drum set which is very well made and has an awful lot of development behind it. It's too soon to say whether the joins on the shells where the stripes meet will stand up to general wear and tear. However, the Ludwig people claim that all of the strength and resilience problems have been sorted out. It's the first outfit that Ludwig have made specifically for rock and roll music and, as such, it has a really good modern sound.

In short, if you want a different looking, see-through, acrylic kit, with a unique inherent sound, with sixty years experience behind its manufacture and can afford the price of £550 plus, you have no alternative but to choose Ludwig.

## Conclusion

# simmons' SYNTHESIZER CHECK

Dave Simmons is an expert on synthesizers. He understands them both musically and technically and his background has made him uniquely qualified to be I.M.'s Synthesizer Consultant.

Dave's a musician and a technician. He studied classical piano and organ as a child later developing into synthesizer and rock. His musical achievements include playing the massive synthesizer part in David Bedford's "Odyssey" and his technical background included a thorough training in practical and theoretical electronics. For two and a half years he was UK Service Manager for ARP Synthesizers and today he's a partner in a highly specialised company called Music Aid in St. Albans, Hertfordshire where he undertakes all types of synthesizer modification and servicing.

## Introduction

I have been looking forward to playing the Roland GR500 Guitar Synthesizer for many months now after seeing Adrian from Roland demonstrate it at various Trade Shows, producing 'walls of sound' and in fact one of the first things you notice when you start playing the instrument is the many and varied sounds that it can produce.

## Sections

The synthesizer itself has five sections: Guitar, Polyensemble, Bass, Solo Melody and External Synthesizer, giving the player five layers of sound, each of which can be routed to one of three outputs and therefore to one of three amplifiers.

## Guitar

The first section deals with the guitar, so we should start by talking about the guitar itself. It is built along the classic Les Paul lines and has one Humbucker pick-up placed about half way between the neck and the bridge. The guitar is very well made with copy Grover heads and is manufactured in Japan by a subsidiary of Roland formed with the company which makes Ibanez guitars. This, I suppose will be the biggest thing which will put people off buying the Guitar Synthesizer (apart from the fact that it has about a thousand knobs on it) as I have found from experience that people are loathe to give up their Gibson/Fender/Winfield guitars but a guitarist friend of mine, after playing the guitar for a couple of hours, commented on what a good guitar it was and said he wouldn't mind having one.

## Controls

The controls for the guitar section on the synthesizer are marked Guitar Volume, Tone and the normal three position E.Q. switch. The guitar is connected to the main console by a multi-way cable.

The sound from the guitar pick-up goes to a single slider E.Q. used to accentuate the highs and lows, and from thence to an output selector and your favourite guitar amp. The only criticism I have of the guitar is the plastic bridge saddles which I am told might wear out and are not expected on a guitar of this quality. Another thing that occurs to me is that it would have been a good idea to put a jack socket on the guitar, for normal guitar sound in case the multi-way cable

gets lost by the roadies, squashed etc., so that at least the guitarist can still play something.

Moving on to the real 'meat' of this instrument which is of course the synthesizer itself, and the first section, Polyensemble.

## Polyensemble

The polyensemble is fully polyphonic in as far as it has one tone generator and one envelope generator for each string although the envelope generator controls are common for all six strings. These controls are Attack, Decay and Sustain. The Attack time is variable from instant to around 1 second. I would have liked to have seen this extended to 3 or 4 seconds but this is only a small point as the other envelope generators on the synthesizer seem to have a very slow maximum attack time.

The Decay time is variable from almost instant decay, giving a 'banjo-like' decay characteristic to about 8 seconds. The Sustain is variable from zero to infinite, and this really means infinite as the guitar has a very interesting little device on it, rather like the E-Bow, called a String Energiser which means that while you are using the synthesizer section the strings of the guitar do not actually stop vibrating unless you damp them, so you can in fact hold a chord indefinitely.

The waveforms produced by the

Polyensemble sound to me like pulse waves, the width of the pulse being varied by the envelope shape (if that means anything to you) but to describe the sounds, if you have the envelope set up with a sharp attack and a fairly slow decay it sounds like a fuzz guitar, using a slower attack gives a sound similar to a saxophone.

The sound produced is fed through the polyensemble voicing — which is a four band E.Q. marked FLMH (presumably fundamental, low, medium, high or something of that sort) which gives a mellower or brighter sound. The polyensemble sound can then be routed out through one of three outputs and from there to its own amplifier, the guitar amplifier, or via echo chambers etc. to an amplifier.

## Bass

The next section on the synthesizer is Bass and is exactly what it says, a bass synthesizer which works on either all six strings or on the bottom two strings, or on the bottom three strings.

It has its own envelope generator marked Attack, Decay and Sustain. This is a monophonic synthesizer section and it sounds the last note you play, in other words, last note priority. This has advantages and disadvantages over the other method used on some synthesizers which is lowest note priority where the bass



will play the lowest note of the chord.

With last note priority, if you play a chord from the sixth string upwards the bass will follow the last note played. There are three bass voicings, Percussion, Soft and Hard. Percussion is a very percussive bass sound and is not affected by the settings on the envelope generator, there is a switch under the percussion slider marked long or short which changes the length of the decay on the percussion.

The bass voicings are very nice, Soft being a rounded deep sound and Hard producing a sound similar to a tuba. The Soft and Hard voicings are shaped by the envelope generator so you can set up a bass attack and decay to give a sound similar to a normal bass guitar, or with a slower attack, sounds similar to tubas or cellos.

There is also a switch for touch sensitivity on this section and the next two sections of the synthesizer. It is marked Off, 1, and 2. In the off position the level of sound is the same no matter how hard you hit the strings whereas in the other two positions the harder you hit the string, the louder the sound, position 2 being the most sensitive. The output from the bass section can again be routed to one of three output jacks and from there to an amp. I would advise anyone using the synthesizer to route the output from the bass section through a separate Bass amp, because of the nature of the sound produced.

### Solo Melody

The next section, Solo Melody, is the most complicated part of the synthesizer and probably the hardest to understand for anyone not familiar with synthesizers. It has a voltage controlled filter (VCF) with two controls marked Frequency and Resonance, Frequency being the frequency at which the filter cuts off (the filter being low pass) and Resonance just accentuates the cut-off point, if desired. The sounds fed into the filter are marked 16' pulse, 8' pulse, 8' sawtooth and Polyensemble through the VCF thus increasing the sounds available from the Polyensemble.

The 16' and 8' pulse width can be modified by a Low Frequency Oscillator (LFO) (The speed of which is controlled by a slider) or manually by a pulse width slider which is marked 50 per cent to minimum, or by yet another envelope generator with its three controls Attack, Decay and Sustain. The 16' and 8' waveform generator works on the last note priority principle as with the Bass section. The VCF can be opened either manually or with the frequency slider, or by the voltage produced by the envelope generator, or by an external pedal, or from a control voltage produced by the guitar, again on the last note priority, which when used with the filter in the self oscillating position (i.e. with the resonance fully up) allows you to play the filter.

The sound from the filter is then routed through a Voltage controlled amplifier (VCA) which can be opened either by the envelope generator or by a manual control marked Initial Gain. The sound produced by the Solo Melody is then routed to one of three outputs.

This section of the synthesizer is similar to most single oscillator keyboard synthesizers and can produce most of the 'classic' single-note synthesizer sounds that I'm sure you are familiar with. In this case however, the sound is more expressive being controlled by a guitar (rather than it's keyboard counterpart) because of the ease of adding vibrato, bending notes and other variations which can be achieved with a guitar.

### External Synthesizer

The final section on the console is External Synthesizer and it is really the control panel for an additional synthesizer and just contains a touch sensitivity switch, a transpose switch, which goes from 32' to 1' through 3rds and 5ths, and a portamento slider. Portamento (i.e. glissando between notes) is only available when using an external synthesizer, because it is the only section of the synthesizer which produces a control voltage.

Other sounds on the synthesizer are derived by 'Pitch extraction' from the vibrating guitar strings (so Roland tell me). This is very useful as it does away with any tuning problems on the synthesizer. The only way the synthesizer can be out of tune is if the guitar is out of tune. Any make of additional synthesizer is compatible with the guitar synth whether it be ARP, Moog, EMS, Roland etc. as both positive and negative gates are provided on the back of the console.

I can hear everyone saying "How can the guitarist walking about on stage control all these sounds?". Well I must admit this will be a problem but Roland have done their best to overcome it by supplying an ON/OFF switch and a volume control on the guitar body, for each of the section on the console. Also on the console there is a light emitting diode (LED) indicator which glows when that particular section is switched on from the guitar. The LED becomes brighter when the volume knob is turned up, so it is possible to have a visual display of what kind of levels are produced from the synthesizer.

The guitar also has a master volume which turns down everything and this can be very useful, allowing you to fade in Bass, Solo Melody, Polyensemble, Guitar and however many external synthesizers you have connected to the console. There is also a switch on the guitar marked Guitar/Dual/Synthesizer. In the first position the guitar sound only is heard, in the second position both guitar and synthesizer are heard and in the third position, synthesizer only.

At first sight, the guitar is a little frightening, with myriad knobs and switches, but they are very logically placed, and within a couple of days it is possible to know where everything is. The problem of balancing the different sounds is something that keyboard players have had to learn to live with, and if guitarists want to produce these sounds as well, they will have to learn to do it too!

### Playing

Playing the synthesizer section does take some practice, there is a control on the console marked Threshold, which

is there to set the triggering of the synthesizer to your individual style of playing. Set too low, you will miss notes on fast 'licks' and set too high, the synthesizer will sound if you so much as blink at the guitar.

You do need a different technique to play this guitar, because, as soon as you lift your finger from the fretboard the envelope generators stop and the sound stops. You have to be rather positive and very accurate in playing technique. The instrument really comes into it's own on chordal work, using sounds with a slow attack like strings and brass. Lighting 'licks' tend to sound untidy unless you have the sound from the guitar overriding the synthesizer, and use the synthesizer as a backing to the guitar, then the guitar makes up for lost or blurred synthesizer notes.

The raw sounds produced by the synthesizer can be quite nasty and 'stylophonish' as with most synthesizers, and you do have to be careful with the sounds you use, but the facility of being able to route various sections of the synthesizer through different amplifiers and effects means that the basic unit can be expanded considerably. It is possible in fact to sound like the whole of Genesis and of course it will amaze your friends when you, produce a fat brassy sound from the Polyensemble, bring in an 8' pulse on the Solo Melody for a lead guitar sound, add, on the External synthesizer, a high female voice, punch up a 16' Bass for a lot of bottom, bring in the guitar sound itself and the rest of the band can go home.

But there is more to come! Roland tell me that they are working on an interface system which will give six control voltages, one for each string, so in the future, depending on your pocket, you will be able to have a synthesizer for each string of the guitar. I for one, am waiting with bated breath to hear what that sounds like.

The unit really comes into its own in a band situation. I took it along to a band I play with and we plugged it in to as many amplifiers as we could for a full spread of sound - Bass from one amplifier, Polyensemble going through a flanger and echo chamber (to produce strings) from another amplifier, Solo Melody producing brass and top lines from yet another amplifier.

Really this has to be heard to be believed that one six-stringed instrument can produce such a full, rich sound. Tuning an external synthesizer at a fifth above the note played on the guitar and feeding both through a flanger, sounds just like Jean Luc Ponty and John McLoughlin playing one of their lightning solos. Need I say more!

### Conclusion

The price? well it's £1,500 retail which sounds like a lot of money and it is a lot of money, but when you consider that the sounds produced by this instrument can replace a keyboard player, and considering the amount of gear a keyboard player carries around nowadays, it's not expensive, and you are getting an excellent synthesizer and an excellent guitar for your money.



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delft's

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

# GUITARCHECK

TEST ON: Gibson Les Paul Pro Deluxe

DATE: December 1977 PRICE: £595 (ex VAT)

TEST

Nice one Norlin! This is not going to be a very long review, because the review sample is nearly perfect. With the exception of a couple of stray wires, one would be put to considerable trouble to find anything seriously wrong with it.

I have been told that this Les Paul Pro is a re-issue of an earlier instrument. Regrettably, I cannot judge whether it has been reproduced accurately, because its original must be one of the few models of Gibson which has not been through my workshop at some time. However it appears to be as well made and finished as many of the treasured old Gibsons. Frankly, it is better made than some of them. Before anyone is carried away on a wave of excitement, that does not necessarily mean that it sounds the same as some of the treasured old Gibsons. As I said, I have not seen the original of this model.

However, I have seen examined and played many Gold Tops, and even one Gold Top which had been fitted with a Micromatic bridge and a separate tail-piece (Shame on those responsible). This unfortunate instrument would seem to be quite similar to the present review guitar. Unless my memory is deceiving me it sounded both warmer and brighter than the Pro model under review, which is of course almost the same thing as saying that the older guitar has a bit less in the middle. Which way you see it, and which you prefer, will probably depend on your own prejudices about what a Gibson should sound like. No, I am not going to say which I prefer - make up your own minds. However, I think it is fair to say that this re-issue guitar has a slightly different sound from similar old Gibsons which have similar fittings and pickups. It is quite possible that the small difference in sound is intentional: it is consistent with the general increase in sound levels since the design of the original Les Paul models.

To save a lot of unnecessary words, on this sample, the neck, fingerboard, frets, inlays, nut, body, trimmings and lacquer are all decently finished and have no apparent faults or blemishes. Some of the slots in the nut are a bit high, and the third string seems to stick in its slot when tuning. The button on the first string machine head seems to be a little oversized on its shaft, and makes tuning that string a little uncertain.

The volume controls on this guitar work like a dream but, for some inexplicable reason, neither tone control seems to do anything between 3 and 10. Virtually all the control range is compressed between 1 and 3. Doesn't anyone try these controls before they go out, or

do they just like them that way?

All the internal wiring is well-screened against interference, and the control and switch cavities are lined with sheet metal pressings. This is a very thorough method of screening. I think the earthing wire from the bridge is intended to be soldered in place, but in this sample it is just resting against the screening shell. As the wire has some lacquer on it, at the moment there is no electrical connection. Also there is a loop of wire and a bit of screening foil from the cable floating about in the switch cavity. They could cause trouble if the guitar is bumped around a bit in travelling. It represents less than a minute's work to

trim off the foil, push the wire loop to one side and connect the bridge wire. I am surprised that these small points have not been noticed at some stage. It is not enough merely to check whether a guitar works at the time of checking; one should also look for anything which is likely to cause problems in the near future.

I see little point in describing this guitar in detail. You must surely all know what a black Gibson Les Paul looks and feels like. The main difference with this one, is that it is fitted with two single-coil pickups similar to the ones which used to be fitted to the Gold Top Les Paul models. Also it has Schaller machine heads and the bridge is slightly different from that fitted to the more common Les Paul models of the last few years. The really significant point is that, if this sample is representative, Gibson are really working hard on their guitars.

Incidentally, before anyone says to himself that this guitar was perhaps specially selected, Norlin U.K. don't even know it is being reviewed at the time of writing this review.

Before ending the review, I must mention the case supplied with this guitar. It is difficult to describe clearly, except for the fact that it is heavy, very strong, made entirely of black plastic - including the clasps - and has a shaped and padded lining. It also has a very comfortable handle and looks a little like something left over from an Apollo mission. If this case is as strong as it looks, it offers an interesting alternative to the metal-bound 'square' cases which are popular with travelling musicians. I don't think it is likely to be really airport-proof but it should survive most other circumstances.

The plastic clasps and the special hinges used on this case seem to be at least as robust as the metal fittings used on most conventional cases. However case fittings do become damaged in transit, and occasionally need replacing. One can usually obtain spare fittings for guitar cases from specialist shops which sell suitcase and cabinet fittings, however they are unlikely to have anything to fit this case. It would be nice to hear that Norlin U.K. intend to keep a few spare clasps and hinges in stock in England in case anyone should need them.

Measurements on Gibson Les Paul Pro. Ser. 06112969

Scale length	624mm
String Spacing at bridge	51.5mm
String spacing at nut	35.5mm
Fingerboard width at nut	42mm
Action as supplied	1.4mm treble/ 1.8mm bass
Lowest 'standard conditions' action	1mm treble/1.7mm bass

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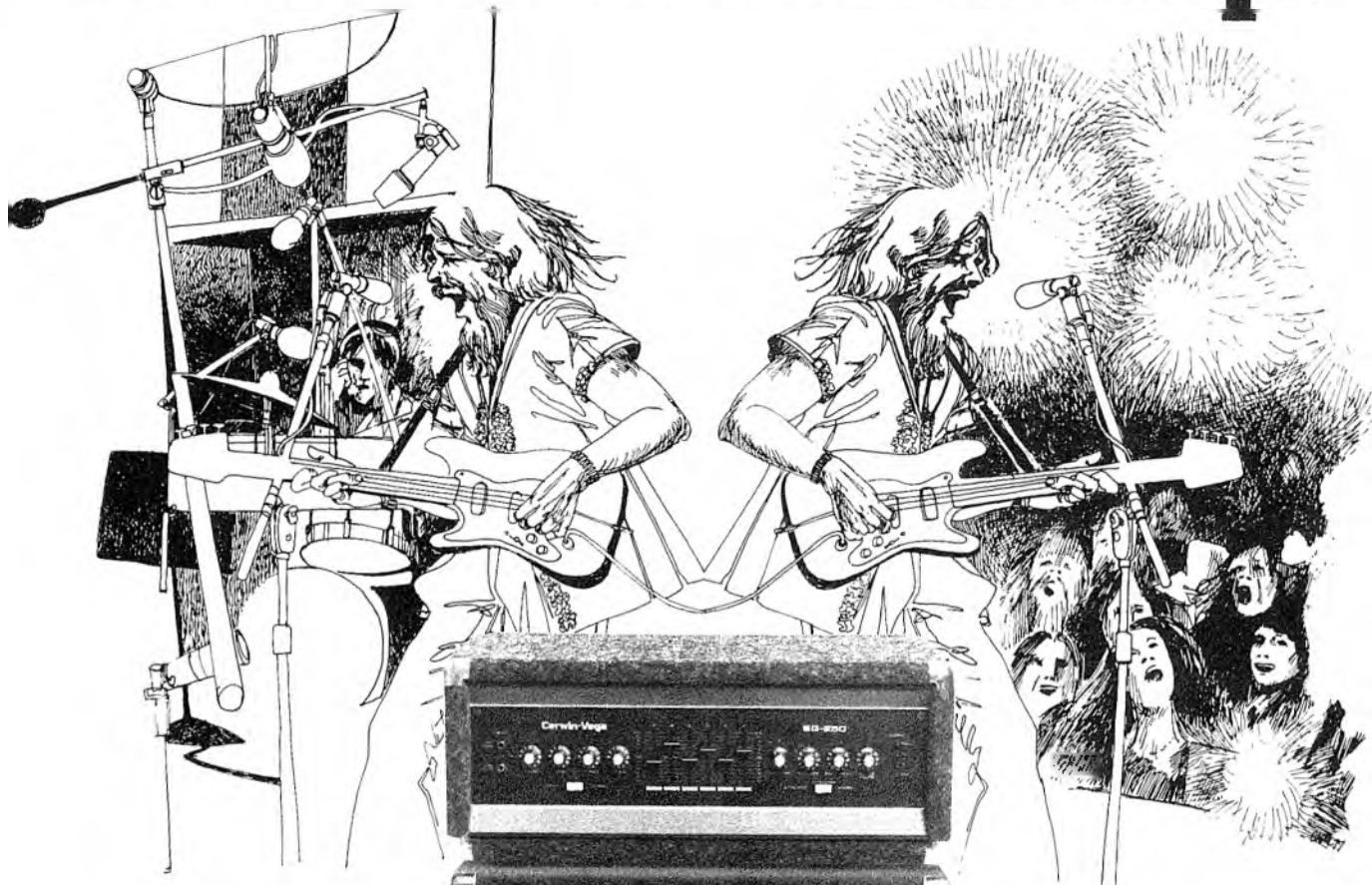
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# FRANKFURT '78

## Baldwin Piano & Organ Co., Cincinnati, Ohio 45202

Baldwin, an American company who have long been associated with keyboard instruments, will be exhibiting their entire range of electronic organs and pianos at the Frankfurt Fair. This includes the famous Baldwin Fun Machine, the Cabaret and the Interlude as well as the stylish 950 and 967 pianos.

Two new models, the E115 piano and the Bravura 123 electronic organ, will be introduced. The Bravura is a two-manual, 17-voice organ with a Fun Machine rhythm unit, automatic key selectors and a Touch Rhythm feature.

Die amerikanische Gesellschaft Baldwin, die seit langer Zeit für ihre Tastaturinstrumente bekannt ist, stellt auf der Frankfurter Messe ihren gesamten Bereich an elektronischen Orgeln und Klavieren aus. Hierzu gehören die berühmte Baldwin Fun Machine, Cabaret und Interlude als auch die eleganten Klaviere 950 und 967.

Die Firma wird zwei neue Modelle vorstellen, das Klavier E115 und elektronische Orgel Bravura 123. Hierbei handelt es sich um eine Zwermanualorgel mit 17 Stimmen und einer Fun Machine Rhythmus-einheit, automatischen Tonselektoren und einer Touch Rhythm Einheit.

La Baldwin, una compagnia americana che da lungo tempo si interessa di strumenti a tastiera, esporrà alla Fiera di Francoforte tutto il proprio campionario di organi elettronici e pianoforti. Fra essi la famosa Baldwin Fun Machine, il Cabaret e l'Interlude, oltre ai magnifici pianoforti 950 e 967.

I nuovi modelli, il piano B115 e l'organo elettronico Bravura 123, saranno presentati per la prima volta. Il Bravura è un organo bimanuale a 17 voci con unità di ritmo Fun Machine, selettori automatici dei tasti e caratteristica Touch Rhythm...

Baldwin, société américaine associée depuis longtemps déjà avec les instruments à clavier va exposer toute la gamme de ses orgues électroniques et pianos à la Foire de Francfort. Entre autres, le fameux Baldwin Fun Machine, le Cabaret et l'Interlude, ainsi que les pianos 950 et 967 fort élégants.

Deux nouveaux modèles, le piano E115 et l'orgue électronique Bravura 123 seront intro-

duits. La Bravura est un orgue 17-voix et deux claviers avec Fun Machine, sélecteurs automatiques de claviers et Touch Rhythm incorporés

キイボード楽器との長年の関係をどうつづけるか、会社は、フルタイムに、Frankfurt展示会で、その宝庫の電子オルガンとピアノを展示します。その中には有名なモデルの950型と967型のピアノも含まれています。

二つの新しいモデル、E115型ピアノとブラヴラ123型電子オルガンが紹介されます。ブラヴラは2・マニアル、17声の電子オルガンで、17・リズムマシン、自動的キーセレクター、タッチリズムなどの特徴をもっています。

## Cerwin Vega, c/o Neilson/Anklam, 13450 Ventura Blvd., Sherman Oaks, California 91423.

Cerwin-Vega is one of the most important West Coast amplification companies. This organisation produces some of the really heavy-weight PA equipment as well as producing their own loudspeakers.

In Britain Cerwin-Vega is represented by Don Purkiss and visitors to the trade fair will undoubtedly get the chance to discover what's new with C-V for '78.

Cerwin-Vega ist eine der wichtigsten Verstärkungsfirmen an der Westküste. Diese Organisation produziert einige wirklich schwere Beschallungseinrichtungen als auch ihre eigenen Lautsprecher.

Cerwin-Vega wird in Großbritannien durch Don Purkiss vertreten, und die Besucher der Handelsmesse haben weißflos eine Chance, die von C-V für 1978 gebotenen Neuigkeiten selbst zu entdecken.

Cerwin-Vega è una delle principali compagnie della West Coast nel campo dell'amplificazione sonora. L'organizzazione produce attrezzature PA di grosso calibro, oltre alla propria gamma di altoparlanti.

In Gran Bretagna la Cerwin-Vega è rappresentata da Don Purkiss e i visitatori alla Fiera avranno l'opportunità di scoprire tutte le novità 1978.

Cerwin-Vega est une des sociétés d'amplification les plus importantes sur la Côte Occidentale. Cette organisation fabrique des haut-parleurs et du matériel robuste pour sonorisation extérieure.

En Grande Bretagne Cerwin-Vega est représentée par Don Purkiss et sans doute les visiteurs se rendant à la Foire Commerciale auront l'occasion de découvrir ce qu'il y a de nouveau chez C-V pour 1978.

サーウィン・ベガは西海岸の域で最も重要な増幅器メーカーのの一つです。この会社は重量増幅器のPA装置やラウドスピーカーを生産します。英国のサーウィン・ベガは、トロンボーンやサックスのC-V新製品を展示されることを確信しています。

## Di Marzio Musical Instrument Pickups Inc., 643 Bay Street, Staten Island, New York 10304. Tel: (212) 981-9286

DiMarzio are still a relatively new company, but in the space of only a couple of years their products have become a by-word among electric guitarists. The reason is the very high-output pick ups that DiMarzio have produced. Even the most famous brands of guitars are now boasting that their pick-up output equals a DiMarzio and the pick-ups have certainly set a standard.

It will be interesting to see if the company is ready to branch out from pick-ups and into other products.

DiMarzio ist noch eine relativ junge Gesellschaft, obwohl sich ihre Produkte in nur zwei Jahren bereits einen hohen Ruf unter Spielern von elektrischen Gitarren erworben haben. Der Grund hierfür sind die von DiMarzio produzierten erstklassigen Hochleistungs-Tonabnehmer. Sogar die berühmtesten Gitarrenmarken prözen heute, daß sie genauso gute Tonabnehmer haben wie DiMarzio, deren Produkt ohne Zweifel eine neue Norm darstellt. Man erwartet mit Interesse die Nachricht, ob diese Gesellschaft jetzt bereit ist, neben Tonabnehmern noch andere Produkte herzustellen.

La DiMarzio è tuttora una compagnia relativamente nuova, ma in appena un paio d'anni i suoi prodotti sono divenuti famosi fra i suonatori di chitarra elettrica. La ragione è data dai pick-up ad altissima produzione messi in commercio dalla Demarzio. Perfino le marche più famose di chitarre vantano ora che la produzione dei loro pick-up è uguale a quella di un DiMarzio, e questi hanno certamente dato un esempio.

Sarà interessante vedere se la compagnia è pronta a passare dai pick-up ad altri prodotti.

DiMarzio est encore une société relativement récente, mais en l'espace d'à peine deux ans les produits DiMarzio sont devenus très connus par les joueurs de la guitare électrique. Ceci vient de la qualité des pick-ups de DiMarzio. Les noms de marque les plus connus revendiquent maintenant que leurs pick-ups pour guitare sont aussi bons que des pick-ups DiMarzio. Il sera intéressant de voir si la société est à même de se diversifier avec des produits autres que des pick-ups

DiMarzio ist eine relativ neue Gesellschaft, aber in nur wenigen Jahren sind ihre Produkte zu einem Schlagwort unter den elektrischen Gitarristen geworden. Der Grund dafür sind die von DiMarzio produzierten Hochleistungs-Tonabnehmer. Selbst die berühmtesten Gitarrenmarken rühmen sich heute, dass ihre Pick-up-Produktion der von DiMarzio entspricht und die Pick-ups haben sicherlich einen Standard gesetzt. Es wird interessant zu sein, ob die Firma bereit ist, sich von Pick-ups in andere Produkte zu diversifizieren.

## Electro-Harmonix, 27 West 23rd Street, New York, N.Y. 10010. Tel: (212) 741-1770

Electro-Harmonix, designers, manufacturers and distributors of electronic musical equipment, will again be exhibiting at the Frankfurt Spring Fair.

The company's top dozen newest products will be exhibited. These are the Deluxe Memory Man solid state echo/analog delay line, the Deluxe Electric Mistress flanger, the Deluxe Big Muff Pi, the Deluxe Octave Multiplexer, the Clone Theory, the Echo-flanger, the Talking Pedal speech synthesizer, the Mike Matthews Dirt Road Special amplifier, the Slap-Back echo, the Volume and Pan pedals, the Golden Throat mouth tube with Amp, the Hot Foot univrsal pedal, the Ten Band Graphic Equalizer, and the Electro-Harmonix Work Band demonstration record album.

Company president Mike Matthews will be on the stand, with Ken Richardson and Larry DiMarco, to demonstrate their state-of-the-art products.

Electro-Harmonix unternimmt den Entwurf, die Herstellung und den Vertrieb von elektronischen Musikanlagen und beteiligt sich auch dieses Jahr wieder an der Frankfurter Frühlingmesse.

Die Firma stellt das obere Dutzend ihrer neuesten Produkte aus. Hierbei handelt es sich um die Deluxe Memory Man Festkörper-Echo/Analog-Verzögerungsleitung, den Deluxe Electric Mistress Flanger, den Deluxe Big Muff Pi, den Deluxe Octave-Multiplexer, Clone Theory, Echoflanger, Talking Pedal Sprachsynthesizer, Mike Matthews Dirt Road Special Verstärker, Slap-Back Echo, Volumen- und Schwenk-Pedalen, Golden Throat Mundrohr mit Verstärker, Hot Foot Universalpedal, Ten Band grafischer Entzerrer, und die Electro-Harmonix Work Band Demonstrationssplattencassette.

Auf dem Stand werden Mike Matthews, Präsident, Ken Richardson und Larry DiMarco ihre kunstvollen Produkte vorführen



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# FRANKFURT 78 ★

Alla Fiera di Primavera di Francoforte sarà ancora presente la ditta Electro-Harmonix, specializzata nella progettazione, la produzione e la distribuzione di attrezzature musicali elettroniche.

Verà presentata una dozzina dei principali nuovi prodotti della compagnia, e cioè il Deluxe Memory Man, amplificatore a stato solido ad eco ritardata, il flanger Deluxe Electric Mistress; il Deluxe Big Muff Pi, il Deluxe Octave Multipler; la consolle Clone, l'Echoflanger; il sintetizzatore di discorso a pedale Talking Pedal; l'amplificatore Mike Matthews Dirt Road Special, l'eco elettronica Slap-Back; i pedali per volume ed effetti; il microfono con amplificatore Golden Throat; il pedale universale Hot Foot, l'equalizzatore grafico Ten Band; e l'album discografico per scopi dimostrativi Electro-Harmonix Works Band.

Sarà presente nello Stand il Presidente della Compagnia Mike Matthews, assieme a Ken Richardson e a Larry Di Marco, tutti e tre saranno lieti di dimostrare la nuova gamma dei loro prodotti.

Electro-Harmonix, dessinateurs, fabricants et distributeurs de matériel musical électronique vont exposer à nouveau à la Foire du Printemps de Francfort.

Les douze produits les plus nouveaux de la société seront exposés. Soit - et ici les noms anglais sont donnés seulement: le Deluxe Memory Man solid state echo/analog delay line, le Deluxe Electric Mistress flanger, le Deluxe Big Muff Pi, le Deluxe Octave Multipler, le Clone Theory, l'Echoflanger, le Talking Pedal speech synthesizer, le Mike Matthews Dirt Road Special amplifier, le Slap-back Echo, le Volume et Pan pedals, le Golden Throat mouth tube avec amp, le Hot Foot universal pedal, le Ten Band Graphic Equalizer et le Electro-Harmonix Work Band demonstration record album.

Le Président de la société, M. Mike Matthews sera présent avec Ken Richardson et Larry DiMarco qui pourront démontrer les produits.

Electro-Harmonix is the electronic musical instrument designer-developer and distributor. The following are the new products to be shown at the Frankfurt Fair.

The following are the new products to be shown at the Frankfurt Fair: the Deluxe Memory Man solid state echo/analog delay line, the Deluxe Electric Mistress flanger, the Deluxe Big Muff Pi, the Deluxe Octave Multipler, the Clone Theory, the Echoflanger, the Talking Pedal speech synthesizer, the Mike Matthews Dirt Road Special amplifier, the Slap-back Echo, the Volume and Pan pedals, the Golden Throat mouth tube with amp, the Hot Foot universal pedal, the Ten Band Graphic Equalizer and the Electro-Harmonix Work Band demonstration record album.

The President of the company, Mike Matthews, will be present with Ken Richardson and Larry DiMarco who will be able to demonstrate the new range of products.

## Guild Guitars, 225 West Grand Street, Elizabeth, New Jersey 07202

New guitars to be shown by Guild will be the S-60 solid body guitar with single Guild Humbucker, also available with a pair of DiMarzio SDS-1 pick-ups (Model S-60D); the S-300 solid body electric guitar, available with choice of pick-ups; a Florentine Cutaway version of the F-212, one of Guild's most popular 12-string flat-tops (Model F-212C); and a double pick-up version, Model B-302, of the B-301 electric bass.

Besides a new body shape, the S-300 has a 24-fret neck with two full octaves of wide frets on a curved ebony fingerboard. Other features include Schaller machines, Adjusto-Matic bridge, solid brass tailpiece, a phase switch, and ready accessibility of wiring through the back panel. On the S-300D, DiMarzio PAF and Super Distortion Humbuckers are standard. Guild Double Humbucking Pick-ups are available on the S-300.

Zu den von Guild neu vorgestellten Gitarren gehören die Festkörpergitarre S-60 mit einfachem Guild Humbucker, die auch mit einem Paar von DiMarzio SDS-1 Tonabnehmern (Modell S-60D) geboten wird, die elektrische Festkörpergitarre S-300 mit einer Auswahl an Tonabnehmern, eine Florentine Cutaway Ausführung der F-212 - eine der populärsten Flachausführungen mit 12 Saiten der Firma Guild (Modell F-212C), und das Modell B-302 mit doppeltem Tonabnehmer aus der B-301 Serie mit elektrischem Bass.

Abgesehen von einer neuen Körpergestaltung weist das Modell S-300 einen Hals von 24 Bündeln, d.h. zwei volle Oktaven auf breiten Bündeln auf einem gewölbten Ebenholz-Griffbrett, auf Andere Merkmale sind Schaller-Maschinen, Adjusto-Matic Steg, Saitenhalter aus solidem Messing, Phasenschalter und unkomplizierter Zugriff zu den Drahtsaiten durch die Rückwand. Bei dem S-300D Modell gehören DiMarzio PAF und Super Distortion Humbuckers zur Normalausrüstung. Guild Double Humbucking Tonabnehmer werden auch für das Modell S-300 geboten.

Nuove chitarre che saranno esposte dalla Guild saranno quella a corpo solido S-60 con Humbucker della Guild singolo, disponibile anche con un paio di

pick-up DiMarzio SBS-1 (Modello S-60D), una chitarra elettrica a corpo solido S-300, disponibile con una scelta di pick-up; una versione Florentine Cutaway della F-212, una delle più vendute chitarre della Guild a 12 corde con parte superiore piatta (Modello F-212C); ed una versione a doppio pick-up, il Modello B-302, del basso elettrico B-301.

Oltre ad una nuova forma del corpo, la S-300 ha un collo a 24 tasti con due ottave complete e tasti larghi su una tastiera curva di ebano. Ci sono inoltre altre caratteristiche quali macchine Schaller, ponte Adjusto-Matic, pezzo di coda in ottone massiccio, un interruttore di fase, e la facile accessibilità ai fili mediante un pannello sul retro. Sulla S-300D sono in dotazione normale il PAF Di Marzio e gli Humbucker Super Distortion. I pick-up a doppio humbucking della Guild sono disponibili sulla S-300.

Les nouvelles guitares que Guild va exposer seront la guitare S-60 à corps solide avec Guild Humbucker unique, disponible également avec deux pick-ups DiMarzio SDS-1 (Modèle S-60D); la guitare électrique à corps solide S-300, avec choix de pick-ups; le modèle Florentine Cutaway de la guitare B-212, un des modèles 12 cordes les plus populaires de Guild (Modèle B-212C) et un modèle à pick-up double, le B-302, de la bass électrique B-301.

Le S-300 a non seulement une forme nouvelle, mais aussi une manche avec 24 touches dominant deux octaves complets sur un clavier en ébène incurvé. D'autres caractéristiques sont: machines Schaller, pont Adjusto-Matic, queue en laiton solide, commutateur de phase et accès facile des fils à travers le panneau arrière. Sur le S-300D, le DiMarzio PAF et les Super Distortion Humbuckers sont pièces standards. Les Pick-ups Guild Double Humbucking sont aussi disponibles sur le S-300.

Il nuovo modello è disponibile dai magazzini della Kay in Canada, Regno Unito, Germania Federale, Giappone e U.S.A. LA compagnia cerca agenti per altri paesi.

Il nuovo modello è disponibile dai magazzini della Kay in Canada, Regno Unito, Germania Federale, Giappone e U.S.A. LA compagnia cerca agenti per altri paesi.

## Kay Instrument Sales Corporation, 3057 North Rockwell, Chicago, Illinois 60618. Tel: 312/267-2318

A new guitar from Kay, described as "the guitar of the 1980s", is made from a combination of fine woods, glass fibres and polymeric resins.

The wooden top has been designed as a mellow toned sounding board while the acoustically shaped glass and resin body is said to project sound with more volume and clarity than their previous models. New production techniques have been introduced by Kay to keep costs down.

The new line is available from Kay warehouses in Canada, UK, West Germany, Japan and the USA. The company are looking for agents for other countries.

Die neue Kay-Gitarre, die als die "Gitarre für die nächste Dekade" beschrieben wird, wird aus einer Kombination von feinen Hölzern, Glasfaser und Polymerharzen angefertigt.

Die Oberfläche aus Holz dient als Schallbrett mit einem sanften Klang, während der akustisch geformte Glas- und Harzkörper angeblich stärkere und klarere Töne als die vorherigen Modelle produziert. Zur Kostensenkung hat Kay neue Produktionsverfahren eingeführt.

Die neue Linie wird von Kay-Warenhäusern in Kanada, England, Westdeutschland, Japan und in den USA geboten. Die Firma benötigt Vertretungen für andere Länder.

Una nuova chitarra della Kay, che viene definita "la chitarra degli anni 80", è fatta di una combinazione di ottimi legni, di fibre di vetro e di resine polimeriche.

La parte superiore in legno è stata messa a punto come asse di risonanza a toni dolci, mentre il corpo a forma acustica in vetro e resina proietta, a quanto si afferma, il suono con più volume e chiarezza dei modelli precedenti. La Kay ha adottato nuove tecniche di produzione per tenere basso il costo.

Il nuovo modello è disponibile dai magazzini della Kay in Canada, Regno Unito, Germania Federale, Giappone e U.S.A. LA compagnia cerca agenti per altri paesi.

Une nouvelle guitare de chez Kay, dite "la guitare de la décade '80", réalisée en une combinaison de bois de qualité, de fibre de verre et de résine polymérique

# To get a Perfectly Balanced Sound, you need "Perfectly Balanced Strings."

Attila Zolier, the famous guitarist, had a concept for a set of strings that were unlike any other on the market. A set of strings that were in balance with each other. In order for this concept to materialize, he needed the expertise and resources that La Bella could give him. Initially, we worked with Attila in producing a few sets of "perfectly balanced strings" for the acoustic and electric guitars, under his own brand.

After testing the Zolier strings, we realized the unique quality of these new sets and asked him if he would be interested in joining us to produce a full line of "perfectly balanced" strings for every instrument from the acoustic and electric guitars to the upright and electric basses to the banjo and the dulcimer.

The thought of participating in the development of such an innovative line of strings that would be the best available on the market, was too exciting for him to refuse. And, now that complete line is available to you.

#### What we mean by Perfectly Balanced Sets of Strings

In order to have "perfectly balanced strings", we first have to

find, for the first wound string, the right combination of metal alloys, and the ideal ratio between the core and winding to get the best possible sound for that particular pitch. The rest of the strings are matched to the same sound, the same tension and the same flexibility.

#### The Advantages of perfectly balanced strings.

When a chord is played with strings that are perfectly balanced, vibration on all strings will remain for the exact length of time, with no notes dropping out before the others.

Perfectly balanced strings produce a full chord because one string plays no louder than the other. All strings are heard equally.

With perfectly balanced strings you will get the same sound character in every register, for the complete range of the neck.

Finger pressure can now be the same on all strings when they are perfectly balanced.

Perfectly balanced strings improve tone quality by avoiding metallic sound and undesired overtones.

## La Bella: Perfectly Balanced Sets. An Innovation In Musical Strings.







# FRANKFURT 78

Le dessus en bois a été conçu comme une planche vibrante à ton fondant tandis que le corps en verre et résine acoustiquement formé est réputé projeter le son avec un volume et une clarté plus grands qu'avec les modèles antérieurs. De nouvelles techniques de production ont été introduites par Kay pour empêcher les prix de monter trop.

Ces nouveaux modèles sont disponibles dans les entrepôts de Kay au Canada, au Royaume-Uni, en Allemagne de l'Ouest, au Japon et aux Etats-Unis. La société recherche des agents pour d'autres pays.

「1980年代のギター」と多岐にわたる「ゲイ」の新しいギターは、高層木材とグラス繊維とエポキシ樹脂の結合からつくられたものである。

木製のトップは、熟した音色と高音響性とマサチューセッツ、マサチューセッツに形成されたグラスと樹脂の木材には、古いモデルのものよりもっとボリュームと明確な音色を再現させるために、特別な方法を考案して取り入れた。これは新しい生産技術を導入した。

この新製品はカナダ、英国、西独、日本、および米国のゲイ楽器から入手することが出来る。この会社の他の諸国に代理店をもっている。

## Kharma Bodies, Post Office Box 82, West Hempstead, New York 11552. Tel: 516 489-2038

Kharma Bodies, who have three generations of woodworking craftsmanship behind them, combined with 20 years of guitar and bass playing, specialised in making guitar replacement bodies for the guitar builder and enthusiast.

Their replacement guitar bodies are crafted from select hardwoods of Ash and Walnut, the woods being thoroughly scrutinised for grain compatibility before joining. The bodies are made of two pieces of wood, 1 3/4" thick, joined with adhesives designed for permanent bonding and sealed with a special sealer and shipped ready for any finish. Each body is built by the same craftsman from start to finish.

All the guitar bodies, Strat-style, Tele-style and P-bass style, will accept the original and most replacement parts without modification.

Kharma Bodies verfügt über Holzverarbeitungsfachkenntnisse von drei Generationen in Kombination mit einer 20 jährigen Erfahrung mit Gitarren und Bass. Die Firma spezialisiert sich auf die Herstellung von Ersatzkörpern für Gitarren für den Gitarrenbauer und Liebhaber.

Diese Ersatzkörper werden aus gewählten Harthölzern, d.h. Esche und Nußbaum, sorgfältig angefertigt, wobei das Holz vor dem Zusammenbau genau auf passende Maserung untersucht wird.

Die Körper werden aus zwei Holzteilen mit einer Stärke von ca. 4,5 cm angefertigt, mit permanenten Klebstoffen gebunden, mit einem Spezialporenschleißer gesiegtelt, woraufhin die Endverarbeitung erfolgen kann. Jeder Körper wird von dem gleichen Handwerker von Anfang bis Ende bearbeitet.

Alle Gitarrenkörper, Strat-, Tele- und P-Bass-Stil, Können ohne Änderungen mit den ursprünglichen und den meisten Ersatzteilen versehen werden.

La ditta Kharma Bodies, che ha alle spalle tre generazioni di artigiani competenti nella lavorazione del legno, oltre ad un'esperienza di vent'anni nella fabbricazione di chitarre e bassi, si specializza nella produzione di casse armoniche di ricambio per l'entusiasta costruttore di chitarre.

Queste casse armoniche sono confezionate in legni scelti di frassino o di noce, accuratamente selezionati prima della lavorazione per compatibilità di venature. Le casse sono composte di due pezzi di due pezzi di legno, dello spessore di cm.4, attaccati con adesivi di particolare resistenza e sigillati con uno speciale fissatore; vengono spedite pronte per qualsiasi tipo di rifinitura. Alla costruzione di ciascuna cassa si dedica, dal principio alla fine, un solo artigiano.

Tutte le casse armoniche per chitarra Strat-style, Tele-style e P-bass-style sono adatte ad accogliere, senza alcuna modifica, le parti originali e quasi tutte le parti di ricambio.

Kharma Bodies, après trois générations d'artisanat de travail du bois et vingt années passées à jouer de la guitare et de la basse, se spécialisent dans les remplacements de corps de guitare pour l'enthousiaste et le fabricant de guitares.

Ces corps de remplacement de guitares sont réalisés dans des bois durs soigneusement choisis, frêne et noyer, la compatibilité du grain étant examinée de près avant d'effectuer toute jointure. Les corps sont formés de deux morceaux de bois, de 44,45mm d'épaisseur, reliés avec des adhésifs conçus pour donner un liant permanent et scellés avec un produit de scellement spécial, le tout étant expédié pour la finition. Chaque corps est réalisé par le même ouvrier qualifié du début à la fin.

Tous les corps de guitare, style-Strat, style-Tele et style P-bass, acceptent les corps original et la plupart des pièces de remplacement sans modifications.

カラム ギターズは、米国の職人の道に造り込まれた現代、その上、ギターズとベースの両方を20年間につづけてきた人達で、ギターズとベースの両方で有名なカラム ギターズが、ギターズとベースの両方とも、特殊な材料と最新の技術でつくられたものである。

カラム ギターズは、よく知られたカラムの型を、新しい材料のボディの構造を、精密に複製してつくります。カラムは、合板でつくられたボディの厚さには、木製のボディからつくられた、カラムの永久不變のボディの厚さを複製してつくります。特殊の下地材の塗料を、カラムのボディから取り去り、同じ職人が塗ります。

Strat、Tele、P-Bass、Kramer、Green、Grove、Road、Neptune、New Jersey、07753、USA。Tel: (201) 922-8600

Despite difficulties in distribution in the UK (now solved), Kramer Guitar from the USA have managed to achieve a status that many companies, much longer established, envy.

Kramer Guitars feature one piece steel necks and offer guitars this feature at a very economical price.

New models may be expected to be on show during this trade fair and "Mr. Kramer", Peter La Placa will be in attendance.

Trotz Vertriebschwierigkeiten im Vereinigten Königreich, die mittlerweile beseitigt worden sind, hat Kramer Guitar aus den USA eine Stellung errungen, die viele ältere Firmen beneiden.

Kramer Gitarren zeichnen sich durch einteilige Stahlhälse aus und können Gitarristen dieses Vorteil zu äußerst günstigen Preis bieten.

Es wird erwartet, daß auf der diesjährigen Handelsmesse neue Modelle gezeigt werden. Anwesend ist "Mr. Kramer", Peter La Placa.

Nonostante difficoltà (ora risolte) riscontratesi in Gran Bretagna nel settore della distribuzione, la ditta statunitense Kramer Guitar è riuscita a raggiungere una posizione invidiata da molte ditte assai più antiche.

Le chitarre Kramer sono disponibili con collo in monoblocco d'acciaio e offrono tale caratteristica a prezzo moderato. Durante la Fiera di Francoforte è previsto il lancio di nuovi modelli e "Mr. Kramer" sarà presente nella persona di Peter La Placa.

En dépit des difficultés rencontrées concernant la distribution au Royaume-Uni (difficultés maintenant résolues), Kramer Guitars des Etats-Unis ont réussi à obtenir une reconnaissance que nombre d'autres sociétés établies depuis beaucoup plus longtemps peuvent envier.

Kramer Guitars offrent aux guitaristes des manches en acier

d'un seul tenant pour un prix très avantageux.

De nouveaux modèles seront exposés à la Foire et "Mr. Kramer" Peter La Place sera présent.

イギリスで、カラム ギターズに難航したにもかかわらず（現在その問題は解決済）、アメリカからのカラム ギターズは、長年経営している会社が、長年経営している会社と同等の地位を確保しました。

カラム ギターズの特殊な、ワンピースの鋼製ネックは、非常に安い値段で提供することです。この機会に、新しいモデルが発表されるので、"Mr. Kramer"であるピーター・ラプラカが会場に立ちます。

## Mighty Mite, 1707 Cloverfield Boulevard, Santa Monica, California 90404. Tel: (805) 484-3274

Mighty Mite are one of the new generation American companies offering improved "goodies" for souping up your guitar. Their hot pick-ups have proved popular in the last year following Randy Sacute's visit to the Spring Fair last year with his sample case.

You may expect to see Mighty Mite with several new products at this year's show.

Mighty Mite ist eine der amerikanischen Gesellschaften der neuen Generation, die erstklassige "Goodies" zur Leistungssteigerung von Gitarren bieten. Im Anschluß an Randy Sacutes Besuch der Frühlingsmesse im letzten Jahr mit seinem Musterkoffer wurden ihre heißen Tonabnehmer außerordentlich populär.

Es wird erwartet, daß sich Mighty Mite etlichen neuen Produkten an dieser Messe beteiligen wird.

Mighty Mite è una delle nuove compagnie americane che offrono accessori per chitarre. Particolarmente popolare si è dimostrato in quest'ultimo anno il pick-up presentato in campionario da Randy Sacute durante la Fiera di Primavera dell'anno scorso.

Alla mostra di quest'anno si può essere certi che verranno presentati numerosi nuovi prodotti della Mighty Mite.

Mighty Mite est parmi les sociétés américaines de la nouvelle génération offrant nombre d'accessoires améliorés pour vous aider à faire valoir votre guitare. Depuis la visite de Randy Sacute à la Foire du Printemps 1977 avec ses échantillons, les pick-ups Mighty Mike ont eu un gros succès et la société présentera plusieurs produits nouveaux lors de l'exposition cette année.

マイティ・ミイトは、新世代のアメリカの会社の一つで、音の良いギターを演奏出来るようにしたものの「グッド」を提供します。この会社のホット・ピックアップは、去年の「スプリング・フェア」で、その展示会に見学をした方々から、大評判を博しました。

今年のショーで、マイティ・ミイトは、いくつかの新しい製品を展示することになると思えます。

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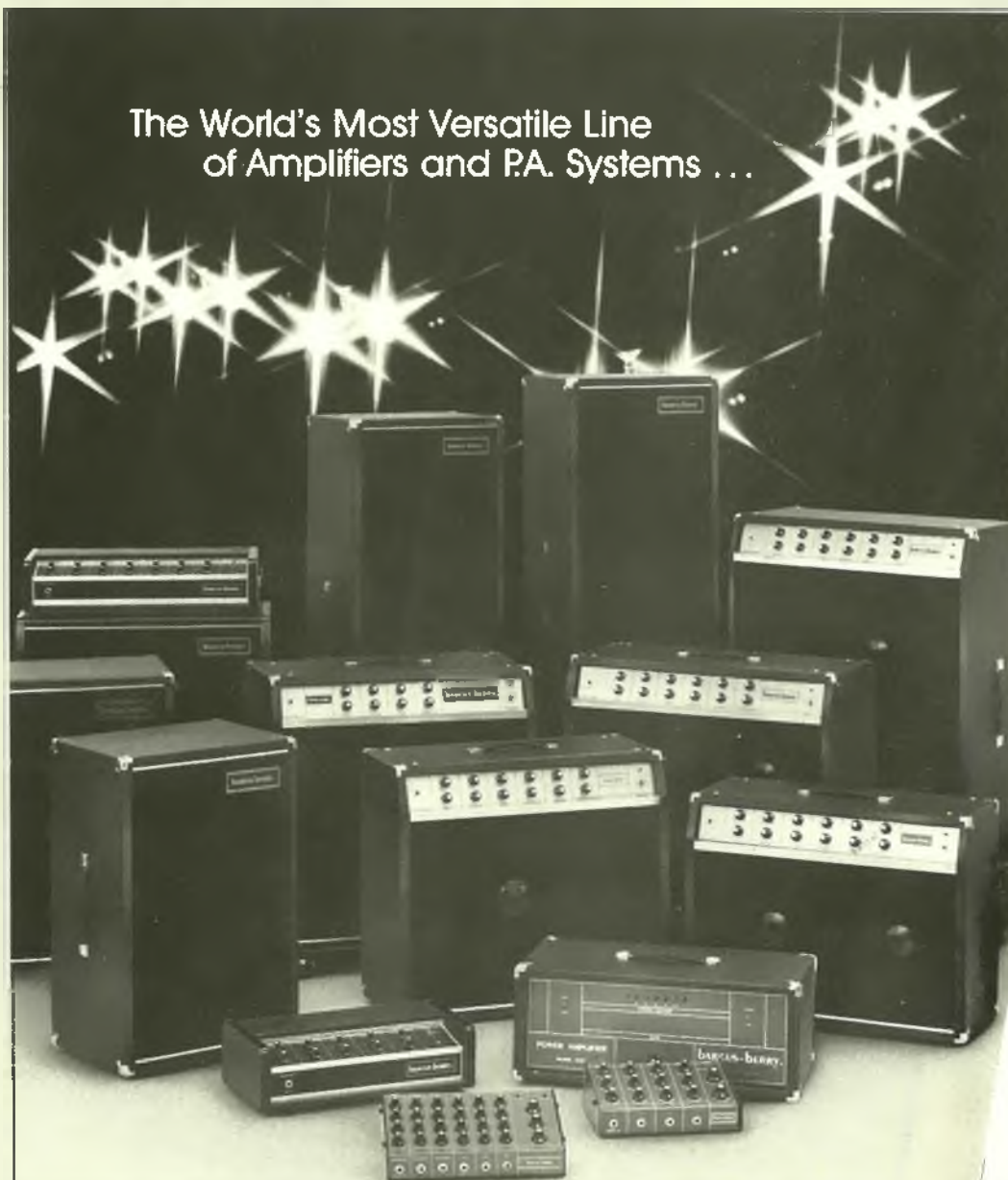
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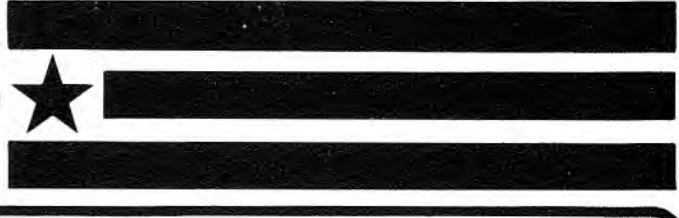
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# FRANKFURT 78



**Music Man Inc., P.O. Box 4589, 1338 State College Park Way, Anaheim, California 92803. Tel: (714) 956-9220**

Music Man are carving a very definite niche for themselves. Under the international direction of the lovely Uschi Eastman, Music Man has become "professional" equipment played by some of the world's biggest names including Eric Clapton and IOCC.

Despite being relatively expensive, the guitars and equipment are proving popular in most parts of Europe and the range has been deliberately kept small.

It would be a surprise to see any major introduction in the Music Man range at this Spring Fair.

Music Man belegt momentan einen ganz besonderen Standort. Unter der internationalen Leitung der lieblichen Uschi Eastman hat Music Man Profianlagen entwickelt, die von den berühmtesten Namen der Welt, wie Eric Clapton und IOCC, gespielt werden.

Obwohl die Gitarren und Anlagen relativ kostspielig sind, hat es sich herausgestellt, daß sie in den meisten Teilen Europas sehr beliebt sind, und die Serie ist bewußt klein gehalten worden.

Es war eine Überraschung, wenn Music Man das Programm auf dieser Frühlingmesse durch neue und wichtige Einführungen erweitern würde.

La ditta Music Man sta affermandosi sempre più validamente sulla scena internazionale. Sotto la direzione di Uschi Eastman, "Music Man" è divenuta sinonimo di strumenti elettronici "professionali" suonati da alcuni dei più grandi nomi del mondo, tra cui Eric Clapton e gli IOCC.

Nonostante il costo relativamente alto, le sue chitarre ed altre attrezzature si sono dimostrate estremamente popolari in quasi tutta l'Europa e la loro gamma è stata deliberatamente mantenuta ristretta. Sarebbe una sorpresa se alla Fiera di Primavera la "Music Man" introducesse novità di grande rilievo.

Music Man est une société qui commence à s'imposer. Sous la direction internationale de Uschi Eastman, Music Man détient maintenant du matériel "professionnel" que les grandes vedettes emploient, entre autres Eric Clapton et IOCC.

Bien qu'assez coûteux, les guitares et autres instruments sont fort populaires dans nombre

de pays d'Europe et la gamme est maintenue délibérément restreinte.

Aucune introduction nouvelle importante n'est prévue pour la gamme Music Man au moment de la Foire du Printemps

ミュージックマンは非常に優秀な楽器を創り出している会社です。美しいウシエスタマンの国際的指導の下に、ミュージックマンはエレクトリックギターやIOCCのような世界的に有名な大連が用いた「職業的」な楽器の家族を創り出しました。比較的高価な楽器ですが、その品質の高さ、音の美しさ、そして演奏の楽しさから、世界中の音楽家から愛用されています。この春の音楽会「ミュージックマン」の開催の主要な新製品と見られるものは、まだないと思われています。

## **MXR Innovations, Rochester, N.Y.**

MXR Innovations of Rochester, N.Y., are now accepted as being among the world's leading makers of effects units. Their tiny, but beautiful, boxes have transformed many ordinary guitar sounds into exciting patterns and each year it is interesting to see how much further the company has diversified.

The company are beginning to get into the semi-professional end of the hi-fi market with high-quality domestic items like graphic equalisers but at the same time they are developing items like the MXR Digital Delay which is designed for studio use but at a price way below the nearest competition.

The energetic, effervescent Ron Wilkerson will be in attendance during the fair.

MXR Innovations aus Rochester, N.Y., genießt jetzt allgemeine Anerkennung als der Spitzenfabrikant von Effektgeräten der Welt. Ihre winzigen, aber schönen Kästen haben die Wirkung, gewöhnlichen Gitarrentönen einen ungewöhnlichen Klang zu geben, und jedes Jahr kann man mit großem Interesse eine weitere Diversifikation der Gesellschaft beobachten.

Die Gesellschaft bestrebt momentan, einen Teil des berufsmäßigen Hi-Fi-Markts und Semi-profimarkts durch erstklassige Produkte wie grafische Heimentzerrer zu gewinnen, obwohl sie gleichzeitig andere Produkte, wie das MXR Digital-Verzögerungssystem, entwickelt, die für Studienzwecke bestimmt sind, aber einen viel günstigeren Preis als Konkurrenzprodukte haben.

Ron Wilkerson, bekannt für seine enrgische Tatkraft, nimmt persönlich an der Messe teil.

La MXR Innovations di Rochester, N.Y. è ora accettata come una delle più importanti fabbriche del mondo di apparecchiature per effetti. Le sue scatole piccole ma bellissime hanno trasformato

molti suoni ordinari di chitarra in modelli interessantissimi, ed è sempre più interessante vedere come ogni anno la compagnia si diversifica sempre più.

La compagnia comincia ad addentrarsi nel campo semi-professionale del mercato hi-fi, con articoli domestici di alta qualità quali gli equalizzatori grafici, ma al tempo stesso sviluppa articoli quali il Digital Delay MXR messo a punto per lavoro di studio, ma ad un prezzo molto più basso di quello di qualunque concorrente

Sarà presente alla fiera l'energico ed effervescente Sig Ron Wilkerson

MXR Innovations of Rochester, New York, sont reconnus maintenant parmi les principaux fabricants d'effets. Les boîtiers, petits, élégants, ont transformés bien des sons ordinaires en quelque chose d'excitant; il est intéressant de voir année par année combien la société continue à se diversifier.

La société pénètre maintenant dans le marché semi-professionnel de la haute fidélité avec des articles domestiques de haute qualité tels que des correcteurs de distorsion graphiques et en même temps elle développe des articles tels que le Délat Numérique MXR conçu pour servir dans les studios mais à un prix qui défie toute concurrence

L'énergique et effervescent Ron Wilkerson sera présent pendant la durée de la Foire

ニューヨーク、ロchesterのMXRイノベーションスは現在では世界をリードする音響効果ユニットメーカーの中に数えられるようになってきました。その製品のつくろい、そして美しいボックスは普通のギター音を驚くほど面白いパターンに変え、毎年この会社が今後どのように新しい分野を開拓して行くかを見るのが興味深いことです。

この会社はグラフィックイコライザーのより多様な製品を提供してハイファイ市場の半職業的部門の方面に深く入り始めると同時にまた非常に安い値段でスタジオ用はデジタル遅延MXRデジタルディレイのよう製品を開発しています。

エネルギッシュで活発な小柄なロンウィルカーソンが会場でご案内申し上げます。

## **Octave Electronics, New York, USA.**

Octave Electronics of New York are the producers of the Cat range of synthesizers. These instruments are unique as low price, non-pre set units and the basic "Cat" model has now been joined by The Kitten and the Cat SRM.

These synthesizers have become very popular in the year or so they have been internationally available and their distribution in Great Britain is handled by a new company called Professional Keyboard Products.

In attendance at the show will be Ken Lorio of Octave.

Octave Electronics von New York sind Hersteller der Cat-Serie von Synthesizern. Diese Instrumente sind einzigartig angesichts ihrer niedrigen Preisliste, nicht vorabgestimmten Einheiten, und das Cat-Grundmodell hat jetzt zwei Nachfolger The Kitten und Cat SRM.

Diese Synthesizer genießen seit ihrer internationalen Einführung vor ungefähr einem Jahr großen Erfolg, und ihr Vertrieb in Großbritannien ist in den Händen einer neuen Gesellschaft mit der Bezeichnung Professional Keyboard Products.

An der Messe beteiligt sich Ken Lorio von Octave.

La ditta Octave Electronics di New York fabbrica sintetizzatori della gamma Cat. Si tratta di strumenti a basso prezzo, costituiti da unità non preabilitate; all'originale modello "Cat" si sono ora aggiunti i tipi "Kitten" e "Cat SRM".

Questi sintetizzatori si sono affermati su vasta scala in quest'ultimo anno, da quando sono disponibili sui mercati internazionali. In Gran Bretagna, la distribuzione è affidata ad una nuova compagnia, la Professional Keyboard Products.

Sarà preente alla Fiera Ken Lorio, della Octave Electronics.

Octave Electronics of New York sont les fabricants des synthétiseurs de la gamme Cat. Ces instruments sont uniques en leur genre étant peu coûteux et non pré-réglés. Le modèle original "Cat" a été rejoint par le modèle "Kitten" et le "Cat SRM".

Ces synthétiseurs sont très populaires depuis qu'ils ont été disponibles internationalement. Une nouvelle société, Professional Keyboard Products, s'occupe de la distribution en Grande Bretagne.

Ken Lorio de Octave Electronics sera présent à la Foire.

ニューヨークのオクターブエレクトロニクスはキャット式シンセサイザーのメーカーです。このシンセサイザーは値段と音の両面でユニークな低価格のユニットとして、ユニークなものですが、基本的な「キャット」モデルは現在では「キティン」と「キャットSRM」が加わりました。

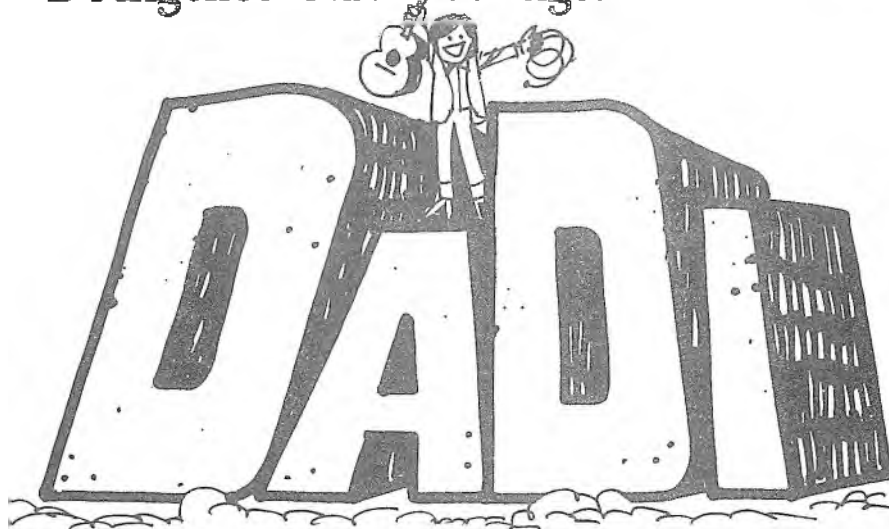
このシンセサイザーは、ここ一年に非常に人気を博し、国際的にも入手可能となり、英国での販売はプロフェッショナルキーボードプロダクツという新しい会社が取り扱っております。

展示会ではオクターブのケンロリオがご案内申し上げます。

## **Peavey Electronics Corp., 711 A Street, Meridian, Mississippi 39301, USA.**

The mighty Peavey organisation always has a very crowded stand during the Frankfurt show and this year will not be an exception.

# Marcel Dadi picks with the best of 'em: D'Angelico Guitar Strings.



There's only one Number One. And professionals like France's Number One country guitarist won't settle for anything less. That's why Marcel Dadi insists on D'Angelico Guitar Strings. He

knows there is a difference and D'Angelico makes it. Next time, don't settle for second best. Select Number One and pick with the best of 'em:

See us at the FRANKFURT-78 music show at the ISO booth-N51311 and the CAMAC booth-F50650.

*D'Angelico*  
NEW YORK

The ultimate in Strings, none finer...perfect for pickin'.  
D'Merle Guitars, Inc., PO Box 153, Huntington Station, N.Y. 11746.  
D'Merle, successor to D'Angelico, New York.

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THE ORIGINAL  
"PICK-POCKET"  
GUITAR STRAPS

A NEW DIMENSION  
in Utility, Support, Comfort and Style!

The Most Complete Line of EARTHY and CONTEMPORARY, DESIGNS to choose from in the World.

ALSO AVAILABLE AT YOUR MUSIC STORE!

- The "CRADLE" Banjo Straps
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Send 25c for COLOR CATALOG on all our Guitar, Bass & Banjo Straps or ask for them at your music store.

SILVER-EAGLE DESIGNS  
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Van Nuys, Calif. 91411  
(213) 786-8696

# FRANKFURT 78

We can expect to see several new products unveiled and distributors around the world will be getting ready for the big push as the new range of Peavey electric guitars comes on stream.

In the last few years Peavey has been seen to be diversifying into the high-power sound reinforcement market and some very special power amps have emerged. We should certainly expect to see something new in this area. There is also a chance of new guitar amps, but no pre-show announcement has been made.

Personnel attending will undoubtedly include Hartley Peavey, Chip Todd, Pete Wood and (from Peavey UK) Ken Achard.

Die mächtige Peavey-Organisation hat immer einen sehr besuchten Stand während der Frankfurter Messe, und es wird dieses Jahr keine Ausnahme geben.

Man erwartet, etliche neue Produkte besichtigen zu können, und Vertriebsfirmen aus aller Welt werden sich auf den großen Andrang vorbereiten, der mit der Einführung von neuen elektrischen Gitarren von Peavey verbunden ist.

In den letzten Jahren unternahm Peavey eine Diversifikation in den Markt für hochleistungs-fähige Schallverstärkungseinheiten, wodurch sich einige ganz besondere Großverstärker ergaben. Wir können unbedingt ziemlich neue Sachen auf diesem Gebiet erwarten. Es besteht ebenfalls eine Chance von neuen Gitarrenverstärkern, obwohl bis jetzt noch keine Ankündigung erfolgte.

Zu dem teilnehmenden Personal gehören zweifellos Hartley Peavey, Chip Todd, Pete Wood und (von Peavey UK) Ken Achard.

Alla Fiera di Francoforte, l'importante organizzazione Peavey presenta sempre uno stand ben fornito, e quest'anno non sarà un'eccezione.

Possiamo anticipare che verranno rivelati numerosi nuovi prodotti e in tutto il mondo i distributori stanno preparandosi a immettere sul mercato i nuovi modelli di chitarre elettriche Peavey, ora in fase di produzione.

In questi ultimi anni la Peavey ha diversificato le proprie attività nel mercato del potenziamento sonoro, e sono apparsi alcuni eccezionali amplificatori. Ci saranno certamente delle novità in questo settore. Non è da escludere la comparsa di nuove chitarre con amplificatore, benché non sia stato fatto alcun annuncio in merito.

Tra i presenti sullo stand, Hartley Peavey, Chip Todd, Pete Wood e Ken Achard (della Peavey UK).

Le stand de l'importante organisation Peavey a toujours été fort encombré lors de la Foire de Francoforte et cette année ne sera pas une exception.

Nous prévoyons que plusieurs produits nouveaux vont être révélés et les distributeurs se préparent dans maints pays du monde pour le lancement d'une nouvelle gamme de guitares électriques Peavey.

Depuis quelques années Peavey se diversifie pour pénétrer sur le marché renfort des sons haute puissance et des amplis très spéciaux sont sortis. Nous pensons qu'il va y avoir du nouveau dans ce domaine. Il se pourrait aussi qu'il y ait de nouveaux amplificateurs pour guitares, mais aucune annonce à cet effet n'a été faite encore.

Sans doute Hartley Peavey, Chip Todd, Pete Wood et Ken Achard (de Peavey UK) seront présents.

有名人ビーク-会社組織は、いつもフランクフルトショーで大勢の客をスタンドに集めます。今年もその例外ははらわしくありません。

いくつかの新製品が目立ち、世界中のリスナーは、このショーで最新のビーク-エレクトリックギターが、出ると噂を聞き、販売促進にのびます。また、過去に三本の角ビーク-は、高音管強化のマーケットにも争うほどの力を注いで来たように、その強力な非常に特殊なビーク-管が、期待されています。この方面の新型の管は、手に持たれるほどの重さがあります。また新しいビーク-管の管は、手に持たれるほどの重さがあると思われ、このショー以前の発表は、何れもありません。

会場での客の中には、ハートリー・ピーヴイ、チップ・トッド、ピート・ウッドと、ケン・アチャードの出席を望むものも見られます。

## Pollard Industries, 9014 Lindblade St., Culver City, California 90230.

Pollard Industries are the manufacturers of the Syndrum — a device that synthesizes drum sounds.

This product will be on full display at the Frankfurt Spring Fair and Pollard will be anxious to arrange distribution around the world for the products.

Joe Pollard and President Don Stone will be in attendance.

Pollard Industries ist der Hersteller von Syndrum — ein Gerät, mit dem Trommeltöne synthetisiert werden.

Dieses Produkt wird auf der Frankfurter Frühlingmesse ausgestellt werden, und Pollard hat großes Interesse daran, weltweite Vertriebsanordnungen für die Produkte zu treffen.

Anwesend sind Joe Pollard und Don Stone, Präsident der Gesellschaft.

La ditta Pollard Industries fabbrica il Syndrum — un dispositivo che sintetizza il suono dei tamburi. L'apparecchio sarà esposto alla Fiera di Primavera di Francoforte e la Pollard sarà lieta di prendere disposizioni per la distribuzione dei propri prodotti in tutto il mondo.

Saranno presenti a Francoforte Joe Pollard e il Presidente della compagnia, Don Stone.

Pollard Industries sont les fabricants du Syndrum — un dispositif qui synthétise le son du tambour.

Ce produit sera exposé à la Foire de Printemps de Francoforte et Pollard veut prendre des dispositions pour la distribution pour leurs produits dans le monde.

Joe Pollard et Don Stone, le Président, seront présents.

ボラード・インダストリーズは、シンドラムのメーカーで、シンドラムとはドラム管をシンセサイザーで演奏のことで、この製品は、フランクフルトの展示会で発表され、ボラード社は、世界的にこの製品のテスト・レビューの取組を決めることも望んであります。ショー・ボラードと社長のドン・ストーンは、会場に申し込めます。

## Randall Instruments Inc., P.O. Box 10936, Santa Ana, California 92711. Tel: (714) 556-1030

The fantastically comprehensive range of Randall amplification will be on very prominent display at the Fair this year. Don Randall and Chuck Widener will be on hand to meet visitors and naturally both Don and Chuck will be keen to show the new products that are expected from the company.

Der fantastisch weitläufige Bereich an Randall Verstärkern wird auf der Messe dieses Jahr äußerst prominent vorgestellt. Don Randall und Chuck Widener sind da, um Besucher zu empfangen, und offensichtlich gern bereit, die neuen Produkte zu zeigen, die von der Firma erwartet werden.

Una gamma eccezionalmente vasta di amplificatori Randall sarà quest'anno esposta alla Fiera di Francoforte. Don Randall e Chuck Widener saranno sul posto a ricevere i visitatori e saranno naturalmente lieti di dare dimostrazioni dei nuovi prodotti della compagnia.

La gamme d'amplification Randall incroyablement complète sera bien en évidence cette année à la Foire. Don Randall et Chuck Widener seront là pour rencontrer les visiteurs et bien entendu ils seront tous les deux désireux de faire valoir les nouveaux produits que la société va apporter.

今年の展示会には、すばらしい総合的な多種多様のサウンド・増幅器を大きくスタンドに発表します。ドン・ランドールとチャック・ウィドナーが買客の応対をいたします。ドンとチャックは、この会場から買客に買られる新製品を目にすることがたいにほびきです。

## Road Electronics (Griffin Music Inc.), 11631 W. Exposition Blvd., Los Angeles, CA 90064. Tel: (213) 473-6751

Expanded plant facilities have enabled Road to increase production to meet the demand for their new line of self-contained amplifiers as well as the 220 and 440 series. Features of the new amplifiers include variable compression ratio circuitry, line-out with full effects, isolated inputs, variable input attenuation, die cast speaker mounting rings, and heavy steel mesh speaker coverings. The new line is rated at 110 watts RMS at 1% THD. A number of feature options, such as graphic equalisers and special speakers, are available.

Erweiterte Werkseinrichtungen versetzen Road in die Lage, die Produktion zu steigern, um die erhöhte Nachfrage nach ihrer neuen Serie an abgeschlossenen Verstärkern und der 220er und 440er Serie zu erfüllen. Zu den Merkmalen der neuen Verstärker gehören veränderlicher Kompressionsverhältnis-Schaltungsaufbau, Zeilenablenkung mit vollem Effekt, isolierte Eingänge, Spritzguß-Lautsprecher-Montageringe und starke Stahlgewebe-Lautsprecher-abdeckungen. Die neue Linie hat eine Nennleistung von 110 Watt bei 1% Gesamtklirrfaktor. Geboten werden ebenfalls eine Anzahl verschiedener Sonderbauteile, wie grafische Entzerrer und Sonderlautsprecher.

L'ampliamento dei propri stabilimenti ha permesso alla ditta Road di aumentare la produzione, onde soddisfare la richiesta per il nuovo tipo di amplificatori autonomi, oltre che di quelli delle serie 220 e 440. Tra le caratteristiche dei nuovi amplificatori figura un sistema di circuiti con rapporto a compressione variabile, punti di inserimento isolati, attenuazione a inserimento variabile, anelli di montaggio dell'altoparlante ad alta precisione e rivestimento di copertura dell'altoparlante in rete d'acciaio. Il nuovo tipo è calibrato a 110 watts RMS a 1% THD. Sono disponibili anche modelli speciali, forniti per esempio di compensatori grafici e di altoparlanti particolari.

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Grâce à un développement de l'usine, Road a pu augmenter sa production pour faire face à la demande pour la nouvelle série d'amplificateurs autonomes ainsi que pour les séries 220 et 440. Entre autres caractéristiques de ces nouveaux amplificateurs on peut mentionner un circuit avec rapport de compression variable, effets complets, entrées isolées, atténuation variable de l'entrée, anneaux de monture des enceintes coulés sous pression et housses des enceintes en treillis d'acier robuste. Cette nouvelle série est d'une puissance nominale de 110 watts efficace pour 1% THD. Nombre d'accessoires tels que correcteur de distorsion graphique et haut-parleurs spéciaux sont disponibles comme suppléments facultatifs.

プラント建設と拡大したため、ロードは本年稼働からの要求に必ずしも新しいセルコンチント増幅器や220wの440wシリーズなどを生産し得ることができた。新しい増幅器の特性としては多段可変の圧縮比回路、完全効果をもつインプット、分離型インプット、可変のインプット減衰、ダイナミックエンベロープカッティング、及び重負荷メッシュ、スロウカー、カバレッジなどがある。この新しい増幅器は1%のTHDで110ワットのRMSが可能である。その他、グラフィックイコライザーや特殊スピーカーなども出品される。

## Shure Brothers Inc., 222 Hartley Avenue, Evanston, Illinois, USA.

Shure Electronics are an American based International Company famous for their range of microphones for popular music use. The company also makes a wide range of amplifiers, public address systems and sound modifiers and they produce a considerable amount of equipment designed for professional studio equipment use.

Their "Vocal Master" range of Public Address equipment has proved particularly popular and modifications are always a possibility. It is rare for Shure to let a major trade fair such as the Frankfurt Spring Fair pass without introducing a new microphone and we can certainly expect to hear this news from the Shure stand.

Shure Electronics ist eine amerikanische Gesellschaft mit internationaler Reichweite, die für ihre Mikrophone für Volksmusikzwecke berühmt ist. Die Firma stellt ebenfalls eine große Auswahl von Verstärkern, Beschallungssystemen, Tonmodifizieranlagen und weitläufige Einrichtungen für beruflichen Studioeinsatz her.

Ihr "Vocal Master" Programm an Beschallungseinrichtungen ist besonders beliebt, und Modifikationen bleiben stets eine Möglichkeit. Es wäre rar, daß Shure so

eine wichtige Handelsmesse wie Frankfurt verpassen würde, ohne ein neues Mikrophon vorzustellen, und wir erwarten derartige Nachrichten zuversichtlich vom Shure-Stand.

Shure Electronics è una compagnia internazionale, di base in America, che produce una vasta gamma di microfoni particolarmente adatti per musica popolare. La compagnia fabbrica anche amplificatori, sistemi di diffusione sonora e modificatori del suono, e produce numerose attrezzature per studi di registrazione professionali. Il suo sistema di diffusione sonora "Vocal Master" si è dimostrato estremamente popolare, ed è facilmente modificabile secondo le esigenze del cliente. Raramente la Shure Electronics perde l'occasione di una Fiera quale quella di Francoforte senza presentare un nuovo tipo di microfono. Siamo certi che anche questa volta sullo Stand della Shure apparirà qualche novità.

Shure Electronics est une société internationale basée aux Etats-Unis connue pour ses microphones pour la musique populaire. La société fabrique aussi une gamme étendue d'amplificateurs, de systèmes pour sonorisation extérieure et des modificateurs de sons; elle fournit aussi beaucoup de matériel conçu pour servir dans les studios professionnels.

La gamme "Vocal Master" de matériel pour sonorisation extérieure s'est avérée particulièrement populaire et des modifications sont toujours possibles. Shure ne laisse pas ouvent passer une foire commerciale importante comme la Foire de Frankfurt au printemps sans introduire un microphone nouveau et nous pouvons certainement prévoir que une nouvelle de ce genre nous parviendront du stand Shure.

シュア エレクトロニクスは アメリカにベースをもち国際的の全米で、大衆音楽のための多様な種類のマイクロフォンで有名です。この会社はまた多種の増幅器、パブリックアドレス システム及び音響修飾器などとして、世界的なスタジオ環境のためにデザインされた大量の装置も生産しています。

その "ヴォーカル マスター" 式のパブリック アドレス 装置は 常に 人気を かつた 装置で、その 修正 装置の 出展の 可能性は 大いに あり ます。 フランクフルト 春の 展示会 の ような 主要 展示会 に シュア が 新型 の マイクロフォン を 紹介 しない という ことは あり 得 ない こと で、 シュア の スタンド から 大いに その ニュース を 期待 して います。

## Sound Sales Inc., Sherman, Connecticut 06784, USA. Tel: (203) 354-9395

The Mellotron has had something of a stormy career through the world of rock music and it is good

news to learn that it is now in production in the USA. A company called Sound Sales are now manufacturing two models and both will be on display in Frankfurt.

Bill Eberline will be in attendance.

Das Mellotron hatte eine etwas stürmische Karriere in der Rockmusikwelt, und man vernimmt daher gerne, daß es jetzt in den Vereinigten Staaten produziert wird. Die Firma Sound Sales unternimmt jetzt die Herstellung von zwei Modellen, die beide in Frankfurt gezeigt werden.

Auf dem Stand befindet sich Bill Eberline.

Il Mellotron ha avuto una carriera piuttosto burrascosa nel mondo della musica rock e fa piacere apprendere che l'apparecchio è ora in produzione negli Stati Uniti. Due modelli che saranno esposti a Francoforte sono messi a punto dalla ditta Sound Sales.

Sarà presente alla Fiera Bill Eberline.

Le Mellotron a passé quelques mauvais moments pour se faire une place dans le monde de la musique rock et il est bon d'apprendre qu'il est maintenant en production aux Etats-Unis. Une société, Sound Sales, fabrique maintenant deux modèles qui seront exposés tous les deux à Francfort.

Bill Eberline sera présent.

ロックミュージック界でメロトロンは 苦しい時期を 送つてきたが、現在では アメリカで 生産中だ という よい ニュース が うれし い こと です。 フランクフルト セールス という 名 の 会社 で、 現在 二つの モデル を 完成 し、 その 両者 を フランクフルト で 展示 されます。 ビル エーライン が 会場 中 介 します。

## Thomas Organ Co., 7310 North Lehigh Avenue, Chicago, Illinois 60648, USA.

In addition to their exciting range of electronic organs, Thomas are planning to show four organs in their Playmate Series. These are the 1130, the 1230, the 1330 and the 1320.

Also on display will be the four automatic units that can be added to any one of the organs in the Playmate series. These are the Fancy Voice, Arpeggio, Orchestral Presence and the Music Scanner

Zusätzlich zu dem gegenwärtigen Angebot an elektronischen Orgeln plant die Firma Thomas, vier Orgeln ihrer Playmate-Serie auszustellen, die Modelle 1130, 1230, 1330 und 1320.

# STOP PRESS

**STOP PRESS:** Kay Instrument Sales Corporation has just announced that their president, Barry Hornstein, and vice-president, Syl Weindling, will be attending the Fair.

## Vinci

Mr. Thomas Vinci is always prominent at trade shows and never more so than at Frankfurt. He's part of the Vinci family, famous as the makers of Vinci strings for many years. Almost certainly the irrepressible Tommy will have new products to show.

## Mari

E.O. Mari are the makers of La Bella strings in the USA and Ricard Mari (both Snr. and Jr.) and Mrs. Elizabetha Mari will be visiting Frankfurt.

## D'Merle

D'Merle strings have rapidly become well-known across the USA and Mr. Jerry Barberini ("a beautiful guy") will once again be seen in the aisles of Frankfurt ensuring greater performance for his company.

## Amanita Sound Inc., 40 Maine Avenue, Easthampton, MA 01027, USA. Tel: 1-413-527-6910

Amanita protective loudspeaker and equipment enclosures are constructed of rugged low density polyethylene which has been rotationally moulded to exacting specifications. What makes Aman-



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its enclosures unusual is a special shock-absorbing component assembly (patent pending) which protects the components from outside impact by greatly reducing the G-forces received by the delicate components inside. Low density polyethylene was chosen for its durability and practicality as well as its interesting acoustic properties, which enable it to breathe with every note and prevent it from resonating more at one note than another. In addition, the breathing principle also helps in letting out sound that is, with other designs, lost inside the enclosure. The result, say Amanita, is the first, totally passive, radiator enclosure.

The easily removable cover has a tongue and groove edge which mates with the rest of the unit. Specially designed stainless-steel spring tension clasps fasten this lid securely to the enclosure in transit protecting the contents from moisture, dust, air pressure and other harmful conditions. Handles and clasps are completely recessed, there are no sharp corners and no cumbersome case to store backstage.

**Barcus-Berry, 15461 Springdale Street, Huntington Beach, California 92649, USA. Tel: (714) 898-9211**

Barcus-Berry will be showing a complete line of acoustic instrument transducers, portable mixers, PA systems and musical instrument amplifiers at the Frankfurt Fair.

New portable four and six channel mixers recently introduced by Barcus-Berry have been designed for use with high quality PA systems and are especially suitable for use with acoustic instruments and high impedance microphones. Regular features of these new models include high impedance input channels, main and monitor outputs, wide-range treble and bass controls, individual channel level controls plus master and monitor levels, LED battery monitor and overload indicators and coupling jacks for multi-mixer operation.

A new series of stage amplifiers designed for all acoustic and electric instruments will be unveiled. Special consideration has been given in the design to the production of models of compact physical size that are also light in weight and rugged in construction.

The company will also be

showing a new series of PA systems featuring the revolutionary Audioplate glass speaker as an integral component.

**Fretted Industries, 1234 Sherman Avenue, Evanston, Illinois 60202, USA. Tel: 312-491-0600**

Jethro Burns, internationally famous performer and RCA recording artist of Homer and Jethro, has chosen Washburn's new Artist mandolin for both performing and recording. The newly designed Washburn instruments feature professional quality flat-top guitars, banjos and mandolins. The Artist series "Jethro Burns Model" Florentine Style mandolin features a hand carved, solid spruce top, fiddle-back maple sides and back, with an antique design sunburst or wine red finish.

**GAM Productions, P.O. Box 4553, Chicago, Illinois 60680**

The new Gam Visualizer is a piece of visual aid equipment designed to help composers, arrangers, teachers and students to write easily for any instrument. It illustrates the musical ranges of all modern instruments, with vertical lines pointing directly to each key while horizontal bands of colour reach out to illustrate, as sounded, the musical ranges of the instruments.

Three versions are available. Models 1 and 2 are designed to fit between the back of the keyboard and the fallboard on any piano and are available in 26 orchestral instruments or 23 contemporary instruments versions.

The universal desk-top visualizer, model 3, combines instrumentation from both keyboard visualizers plus other instruments, totalling 77. A keyboard instrument is illustrated with vertical screened lines, showing how natural tones are written. Transposing instruments indicate how transitions are to be written. A coloured instrumentation index is provided for easy viewing of instruments.

**International Sales Associates, P.O. Box 9783, North Hollywood, California 91609, USA. Tel: (213) 782-3202**

International Sales Associates handle the exclusive world distri-

bution of Schecter Guitar Research, a new, creative manufacturing company who have entered the music scene with a different approach on parts and accessories for guitars.

Schecter offer a catalogue with a complete line to choose from, featuring original copies as well as custom replacement parts for Fender and Gibson guitars.

With their own famous name pickups and assemblies already available, Schecter are continuing their product growth by introducing beautiful exotic wood bodies and necks. The combination of all these parts, of course, enable the individual to design and build his own custom instruments.

**The Ken Schaffer Group Inc., 10 East 49th Street, New York 10017, USA. Tel: (212) 371-2335**

There's now no need for a cord between your instrument and its amp with the new cordless instruments from the Ken Schaffer Group. Schaffer-Vega Diversity systems for all instruments and hand-held mics guarantee a minimum 100 yard performing range, give complete protection against electric shock and make no compromise in your sound.

**Morley - Division of Tel-Ray Electronics Manufacturing Co. Inc., 1811 W. Magnolia Blvd., Burbank, CA 91506 USA. Tel: (213) 843-7122**

Founded 25 years ago by Raymond and Marvin Lubow, the company pioneered sound modification pedals that include 14 single and multi-purpose pedals plus a cabinet model electrostatic delay line.

Innovative and painstaking electronic engineering coupled with a rigorous testing programme in which pedals are subjected to 33 on-line inspections with every unit being individually tested before packing have earned the company a reputation for quality.

As long as 15 years ago, the company pioneered sound modification devices with its introduction of a patented electrostatic memory disc that eliminated the use of tape.

To accommodate rapidly accelerating growth, the company will shortly move into a newly-built 15,000 square foot manufacturing facility at 6855

Vineland Avenue, North Hollywood, Ca. 91605.

**Rickenbacker, 201 East Stevens Street, P.O. Box 2275, Santa Ana, California 92707. Tel: 545-5574**

The newest development from Rickenbacker is the model 4002 limited edition bass guitar.

Constructed of birdseye or curly maple, with the same basic body style as the model 4001, it features two super high gain humbucking pickups, Schaller keys, an ebony fingerboard, a custom pick-guard and chequered binding. In addition to the basic stereo and mono output jacks, the model 4002 also features a low impedance jack which may be plugged directly into the control board. What is unique about this jack is that the circuitry of the instrument is such that while the instrument is plugged into the control board the performer may also use one of the other jacks to plug into his amplifier. He may then adjust the volume and tone of his amplifier independently of any adjustments which are being made by his control board engineer.

**Sound Workshop Professional Audio Products Inc. 1040 Northern Boulevard Roslyn, New York 11576. Tel: (516) 621-6710**

Sound Workshop has created a high-performance automation-ready audio mixing console available in several mainframe sizes, all fully expandable to a maximum configuration of 36 x 32. Known as the Series 1600, it is described by the company as representing a new philosophy of console design that directs itself not only to the performance and function of the console itself, but also to an intelligent studio design plan that fulfills the needs of producers and engineers today while considering the economic factors necessary to keep up with the state of the art tomorrow.

A new range of amps called Stage will be on show on the Unichord stand at Frankfurt this year. Another new range - Beverley guitars will also be shown and visitors will be able to renew their friendship with Unichord's Bob Harrison.

# MASTER RECORDING COMPETITION WINNERS

Back in July 1977 we offered a "Master Recording" to the winners of our competition. We were overwhelmed by the enthusiastic response from you all which made it very difficult for us to pick the winner as the standard throughout was so high.

Eventually we decided on three bands who will now have the chance to have their gigs recorded by the Teac/Tascam mobile studio who will hand over to the band a professionally-recorded master tape.

One of the winners is *HGV* who were formed in 1976. Their line-up is Gary Beager on Lead guitar, Bob Lane on Rhythm guitar, and Steve Beager on Bass, the drummer Mike Dowling is a recent addition and joined the band just before Christmas '77. *HGV's* lead vocalist has recently left and, except for Mike they all sing harmonies. They are now looking for a new lead singer and interested parties should contact Bob Lane on (0268) 285125.

The band's music consists mainly of "sophisticated, original, rock", which is delivered with a light show. They have a

two year publishing contract with EMI.

The second of the winning entries came from *High Altitude* who were formed in September 1973 and are semi-pros.

They have had their present line-up since May last year and won Kent's best band competition in October sponsored by Carlsbro, Kent Newspapers and The Marlowe Theatre company. They play their own Instrumental Jazz/rock compositions, and their line-up is: Robert Michael on keyboards, Adrian Acket on guitar, Phil Gebbett on Sax, Steve Skinner on Bass and their drummer is Shaun King.

The third and last band is "*Isis*" which was originally formed a long time ago at Blackpool Grammar School. The present line-up was formed in 1976 and they are a semi-pro band who play their own Melodic Rock compositions. They have a big following in the Yorks/Lancs area. Their line-up is Sandy Leigh (female) vocalist, Nigel Foster on Keyboards, on lead guitar is Chris Whalley, bass guitarist is Brian Howarth and their drummer is Jon Blacow.

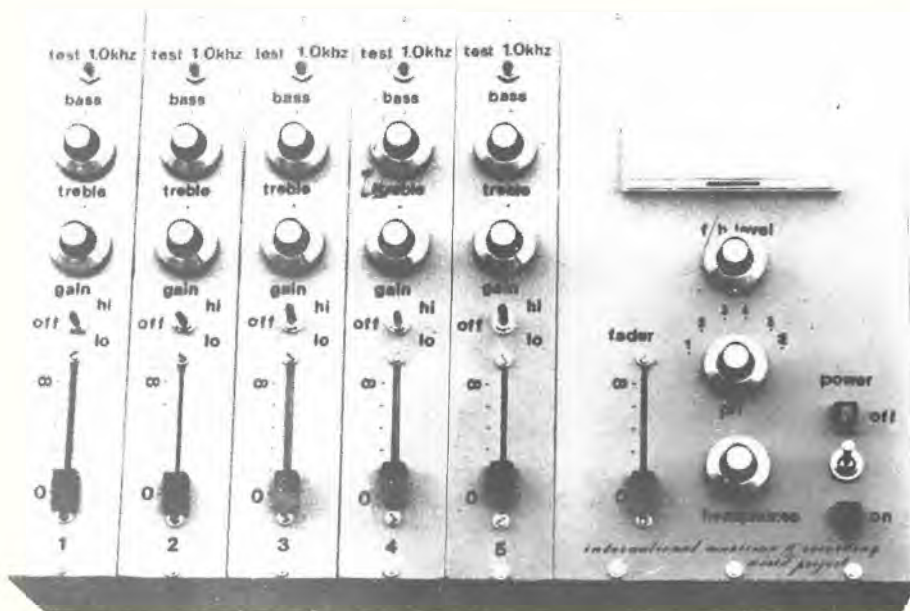
ADVERTISERS ANNOUNCEMENT

## SPECIAL ANNOUNCEMENT TO READERS

# YOU CAN NOW BUY THE MARK SAWICKI BUILD A MIXER PROJECT IN COMPLETE KIT FORM

Mark Sawicki's 'Build a Mixer' project for I.M. is now up to Part 5, and is creating a tremendous amount of interest with readers. Many of you may want to build the mixer, but have no idea of the cost involved or where you can buy the components or obtain the metalwork.

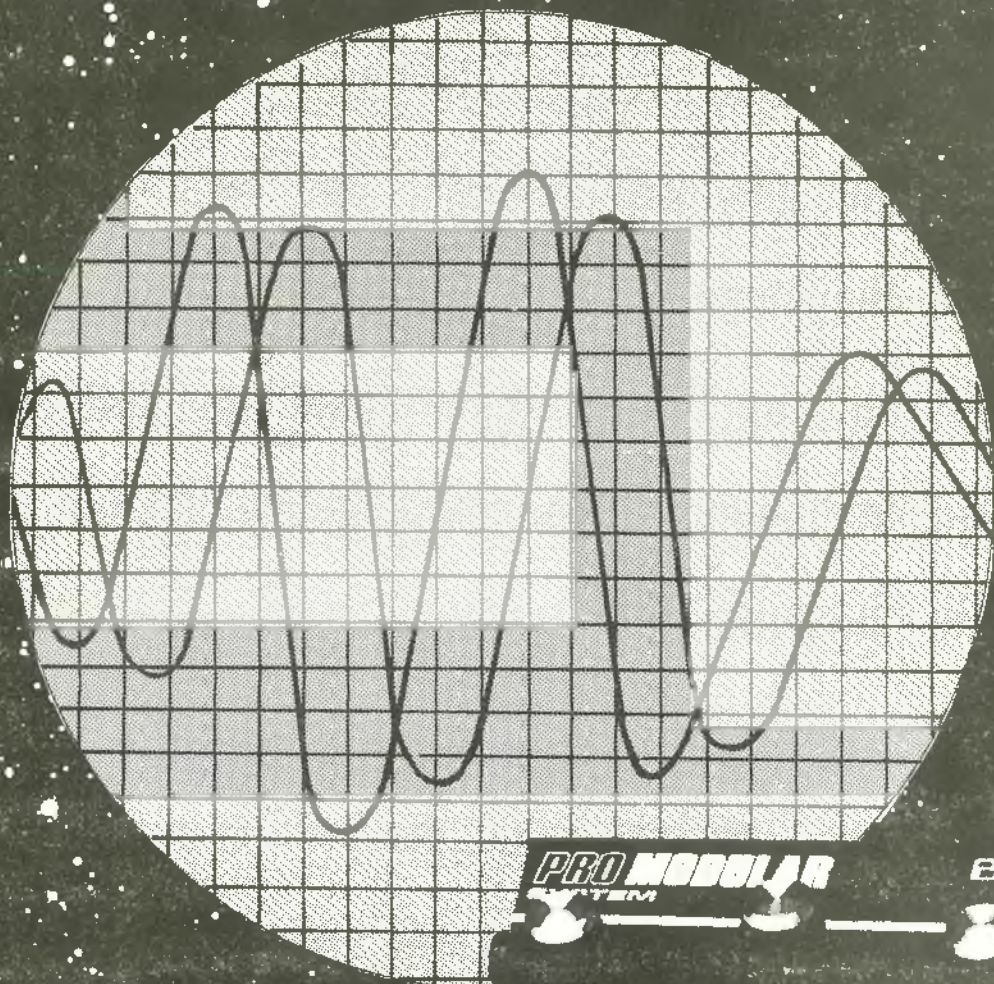
We have now taken the problems away by arranging for I.M. readers to obtain a *complete mixer kit* complete with an easy assembly instructional booklet. All you will need is some solder, a soldering iron and a screwdriver. The kits will be well under £100. Look out for our next ad in the March issue.





# Eurotec News

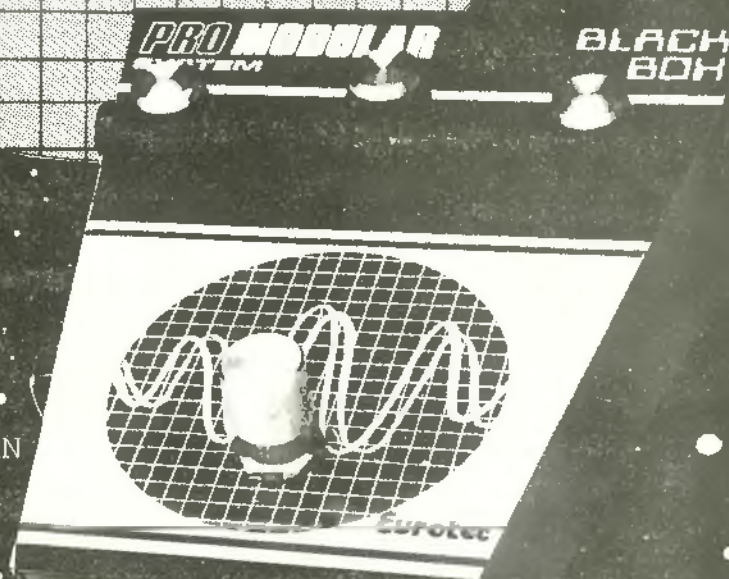
Eurotec Discover a New System... Stop



SPECIALLY DESIGNED FOR PROFESSIONAL MUSICIANS . . . STOP

NEW PRO MODULAR SYSTEM COMPRISING MODULES FOR FLANGER, OCTAVIDER, WAH SWELL, PHAZER AND GRAPHIC EQUALIZER . . . STOP

MODULES INTERCONNECT TO MAKE AN ARC AROUND THE FOOT FOR EASIER PLAYING . . . STOP



# Eurotec PRO MODULAR System

This new Pro Modular System will, without doubt, be a boon to many guitarists and solve some of the problems presented by using effects units on stage.

With the introduction of effects pedals and units, rock musicians have had to develop an ability to use their feet as well as their hands to make music.

Since the fuzz box and wah pedal were first introduced in the mid-Sixties, there has been a deluge of effects units which has threatened to swamp the poor musician. Although companies happily churn out more and more sophisticated units, few have thought about the practical difficulties involved in their use.

However, Eurotec are one company who are ever alert to the needs of the modern musician, and are constantly looking for ways to improve their units

while concentrating on the practical aspect.

One of the major problems for guitarists and keyboard players who use a variety of effects on stage is to set them up so they can use them quickly and effectively while playing. After all, what is the point of acquiring the latest pedals if you cannot distinguish one from the other because they are scattered around the stage amid a sea of leads that look like a plate of spaghetti.

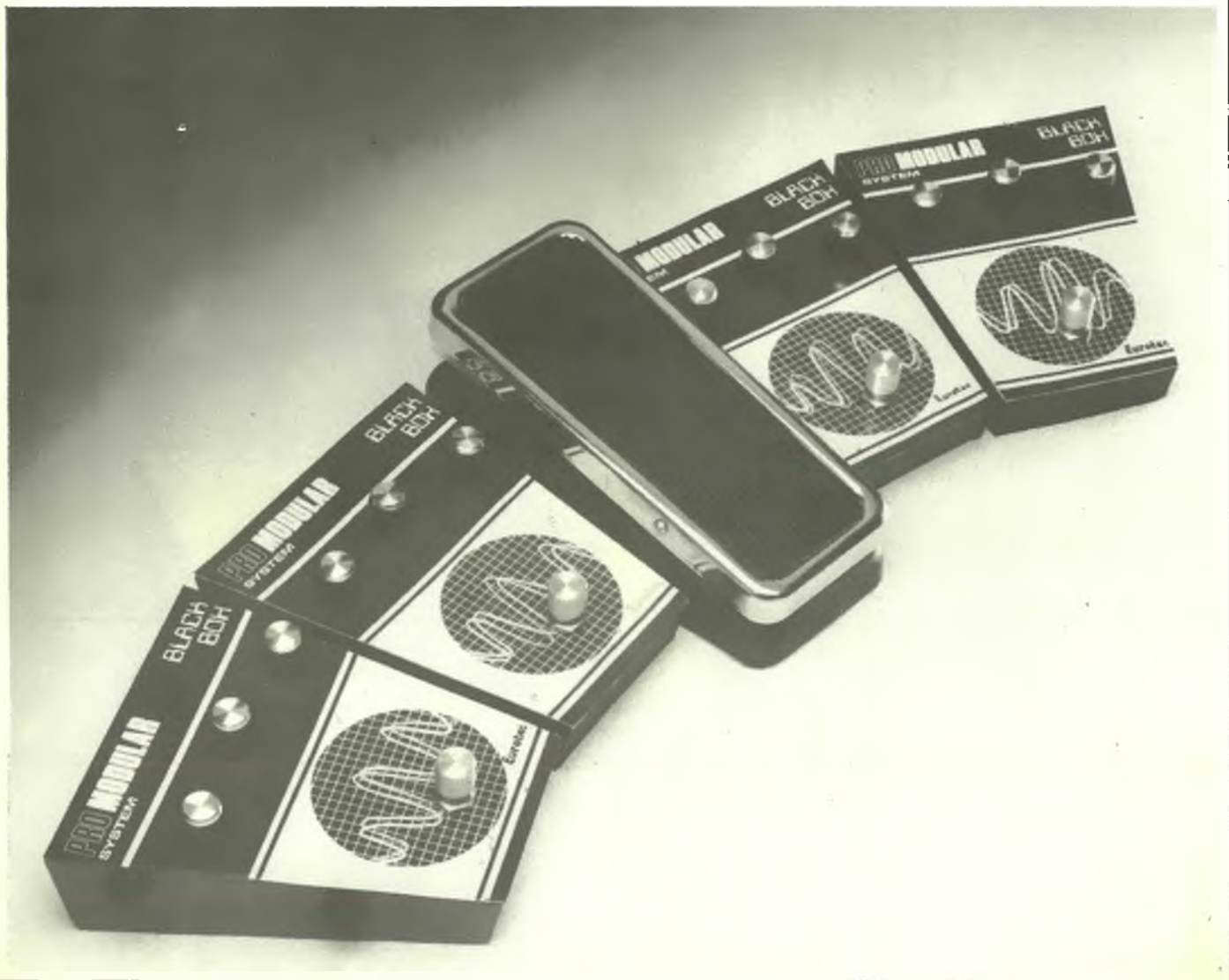
Now Eurotec have come to the rescue with their new Pro Modular System. Several of the top musicians have solved this problem by having their own pedal boards made, which means all the units can be lumped together and used accordingly.

Eurotec have gone one better by introducing a system which allows several units to be linked together in a semi circle

around the player's foot. They have designed several of the Black Box effects modules which can be interconnected. The units are also specially shaped so that when fitted together, they form an arc.

The advantages of these new foot-operated units are obvious. With such a compact system, the effects can be lined up and operated with the minimum amount of effort.

The units already designed for the system are the Flanger, VCF, new Octivider and a Wah-Swell pedal. All are battery-operated and can be used singly, but the new system does allow for the fitting of a special mains unit. This can be clipped to the modules and switches them to mains power thus eliminating the need for batteries and all the inconveniences they entail.



by Eurotec

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A single module, battery operated — the first step towards a system



Up to four modules, mains operated, may be used separately or any combined mix, at the tap of a button



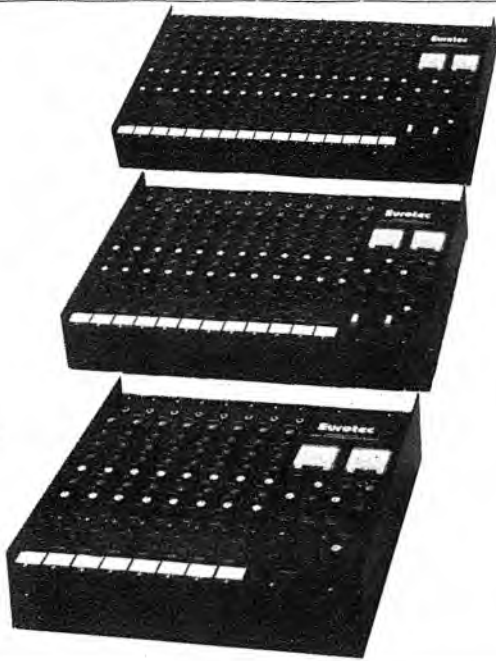
Slot in a wah-wah or swell pedal for extra variable effects

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to your dealer, call 01-836 2856

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Tel: 01-836 2856

**BLACK BOX**

# Eurotec Mixers



A few years ago, the idea of a modular stage mixer which could even approach the performance of a studio mixer would have been considered pie-in-the-sky.

Now, thanks to companies like Eurotec, such mixers are readily available in the quality and price range to suit most bands and sound hire companies.

At Frankfurt, one of the highlights of the Eurotec range will be their eight, 12 and 16-channel modular mixers. Because all the consoles are modular, each channel can be removed quickly and simply.

This means that if a particular channel develops a fault, it can be taken out and either sent back to the factory for

repair or replaced on the spot. The relatively low price of the modules means that most bands can afford to keep a spare in their roadie's box.

Of special interest in this range, is Eurotec's Plus Eight mixer for bands on a tight budget. This is basically a 12-channel unit which has just eight inputs, the other four can be added at a later date if and when required.

Eurotec use British design and technology to produce mixers which are neat and attractive while being rugged and functional. All the consoles are finished in sheet steel with black anodised aluminium panels and demonstrate the usual Eurotec top quality and value for money.

## Traveller Amp

New to the amplifier range is the Eurotec Traveller. This compact little seven-watt unit packs quite a punch and can be either mains or battery operated.

It measures just 6" by 14" by 9" and includes an eight inch speaker. This amp has been modi-

fied to run off U2 batteries which can be found in most shops, and shows Eurotec's concern for the practical aspects of making music.

Once again, this is a rugged piece of Eurotec equipment ideal for practising and yet giving amazing power for its compact size.

## Transit Amp

The Eurotec Transit amplifier is a rugged 45-watt transistor combo designed to give the much sought after "valve" sound. This sturdy piece of equipment has two channels, four inputs going into a 12" driver unit.

Bass range is 50Hz, 36dB swing, while the treble is 10Hz, 25dB. A special overdrive con-

trol is incorporated into the amp to enable the player to overload the system and so create a valve sound.

The top edges of the combo have metal corners as an added protection against wear and the whole unit is a fine example of Eurotec craftsmanship and value for money.

## Electric Piano

One of the basic problems arising from the development of the electric piano has been that it is not touch sensitive. On an acoustic piano, the amount of pressure put on the keys determine how loud or soft the notes will be.

This made the acoustic piano a much more expressive instrument, for the electric models could not match this sensitivity. Now Eurotec have come up with an electric piano that is touch sensitive.

This instrument can be played loudly or softly by merely varying the amount of pressure

exerted on the keys, which means there is no need to fiddle about with volume controls or pedals.

The piano has a new American integrated circuit which cuts down on the amount of wiring used. The instrument has three basic sounds to choose from, which can be selected at the touch of a switch.

Apart from the straightforward piano sound, there is also honky tonk and clavichord.

The pianos can also be used in teaching work, for it is possible to link together more than one instrument in a "language laboratory" type set up.

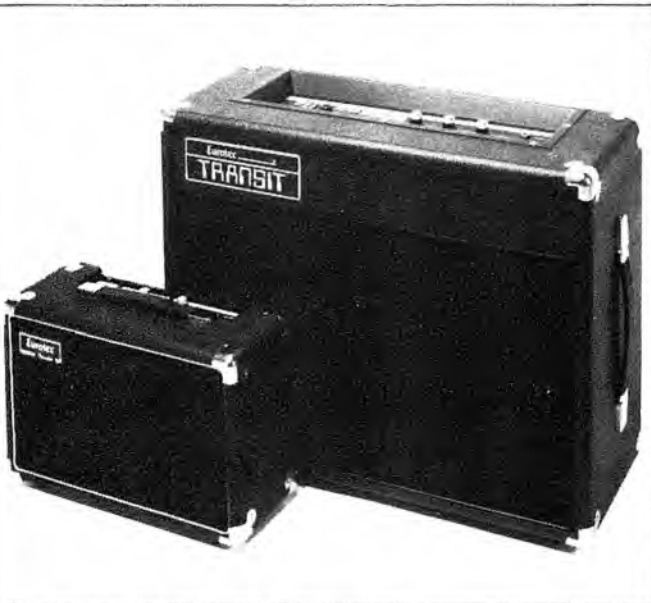
## Graphic Equaliser

The latest development by Eurotec is a graphic equaliser now in a Black Box module. Six band equalisation using integrated circuitry offers a wide control and variation of all frequencies.

The unit is designed for use with either guitar, bass or keyboard. An octave range is

covered by each control which can boost the sound up to 18dB.

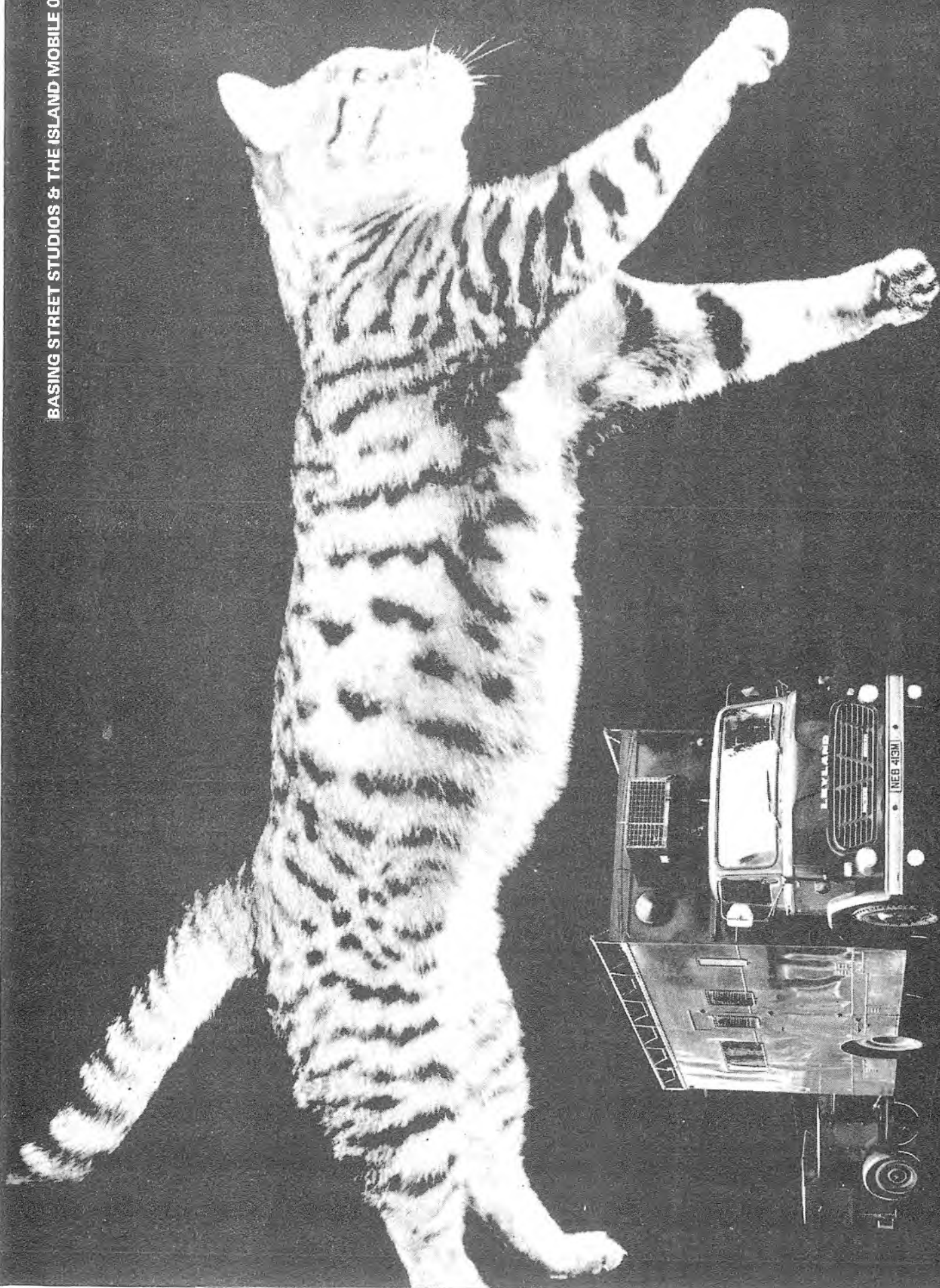
Flat frequency response is obtained with all controls in the "0" position. The module is battery operated and current consumption ensures long battery life of one year with normal use.



# Eurotec

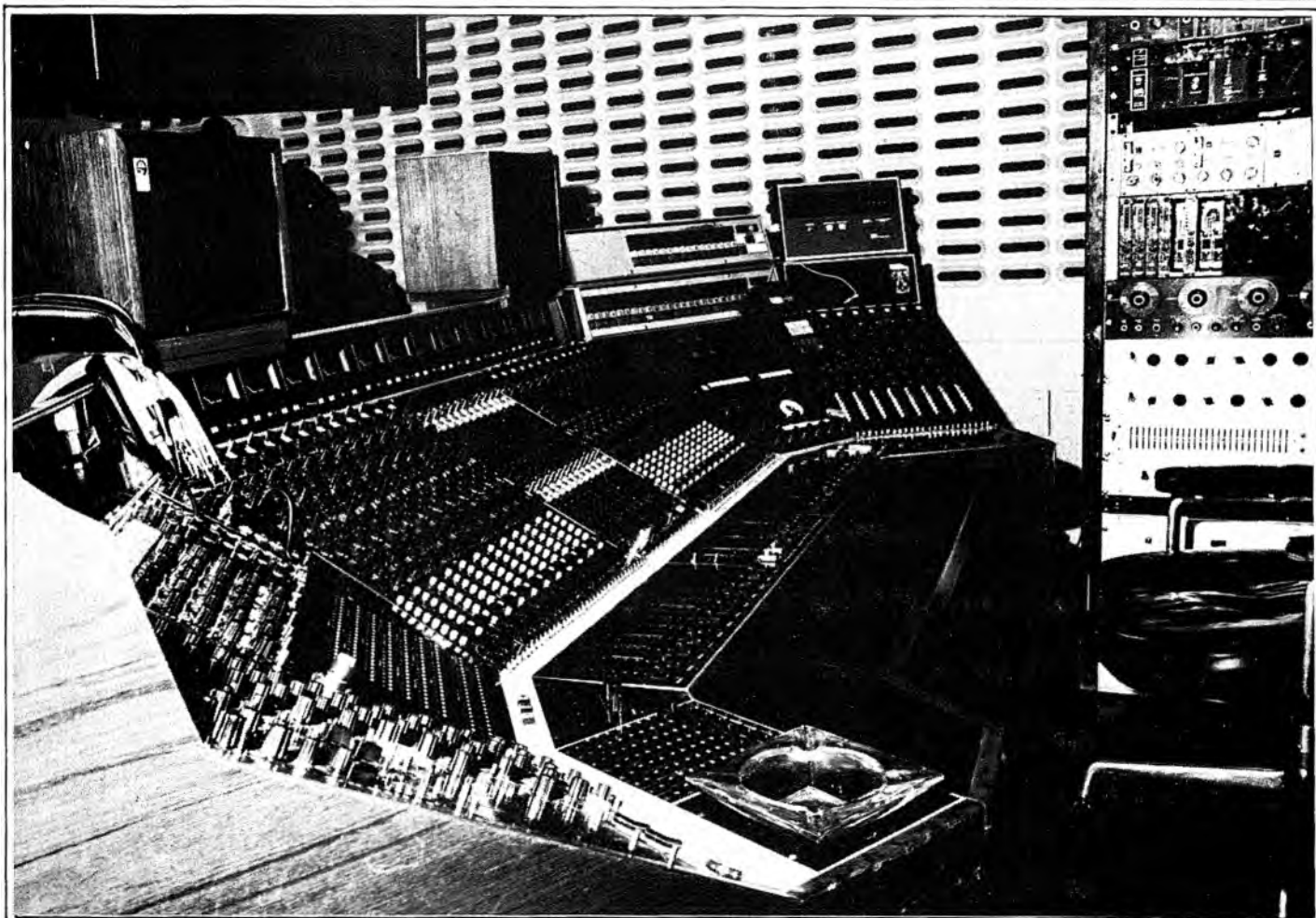
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BASING STREET STUDIOS & THE ISLAND MOBILE 01-229 1229



MEMBER OF THE MEDICIANS UNION

# BASING STREET Studios & THE ISLAND MOBILE



They have an interesting device at London's Basing Street studios for forecasting whether a recording session is going to lead to a hit. The device is Mr. Maurice Dolbie, the recently-promoted studio manager at Basing Street who, when he is not supervising recording, is usually to be found sleeping or catching mice.

Maurice Dolbie is a cat and is as much a part of Basing Street studios as the desks and recorders. Maurice is something of a legend at the studios. Just about everyone has recorded at Basing Street and if Maurice stays in the studio for the duration of the session everything is OK. Once Maurice decides to walk out that's it — the session is going to be a failure.

Basing Street boss Muff Winwood swears that famous and respected musicians have actually packed up when Maurice has walked out. Muff, who is Stevie Winwood's brother (as if you didn't know) found fame in the early

Sixties with the Spencer Davis Group before going on to become head of A&R at Chris Blackwell's new Island label eight years ago.

Island's offices and studios were at Basing Street until 1974 when the label moved to Hammersmith leaving the studios and Island Mobile under the control of Muff. Since then, Basing Street has produced hit records by hundreds of artists, including: Sparks, Bob Marley, Led Zeppelin, John Denver, Cat Stevens, Genesis, Roxy Music, Marvin Gaye, and the Eagles among many others.

Although it is part of the Island organisation, Basing Street operates as an independent operation and even charges Island if they want to use the studio for their own artists. The Island Mobile, which will cost you just £400 to record a gig is an important part of the Basing Street operation and has been a major force in live recording in Britain.

Apart from Muff himself, four engineers work together at Basing Street's

two studios and the Island Mobile (so-called because 'Basing Street Mobile' didn't sound as good!). Chief engineer at Basing Street is Ragtt Davis. Working with him are Howard Kilgour, Guy Bidmead, Robert Ash and Frank Owen (the longest-serving member of the team).

Basing Street, started as a 16-track studio and the control rooms have been equipped with Helios desks right from the beginning. The two studios were re-equipped in 1975 and now Muff reckons that they have more 3M multi-track machines than any other studio in the country: with one 24-track, a 16-track, an 8-track in each studio, and two 24-track machines in the Mobile. "And they (3M) didn't even send us a Christmas present" Muff joked.

Basing Street will be re-equipping itself in 1979 although Muff isn't sure at this stage as to what up-grading will be done. "There is a lot happening with new desks and machines at the moment and we don't want to get something which

# BASING STREET Studios & THE ISLAND MOBILE

STUDIO OF THE MONTH

will soon be obsolete", he told IM.

"Over the last five years there has not been a great deal of change in recording equipment. The stuff that came out in 1970-71 has been standard. Now all of a sudden there is a lot going on with computerised desks and digital machines. You have to make the right choice first time and it's not easy to experiment with equipment in a studio. You can fool around with gimmicks like flanging and phasing but you can't be too experimental with your basic equipment because people come in from all over the world with stuff they want to overdub or mix and you've got to record at the same levels as the original.

"There also has to be a common standard among studios. There is no point having a studio so specialised that you can't go somewhere else with a tape that was originally made at one place".

Most London studios have earned themselves reputations for producing a certain "sound" of their own and Basing Street is no different. Muff claims Basing Street has a reputation for producing good Rock and says it is a studio that is always being used by groups rather than for film tracks or TV commercials although these occasionally come in.

Muff said this is possibly because of the area that Basing Street is in, the depths of Ladbroke Grove which has its fair share of London's social and racial problems which possibly reflects the activity that goes on in the studios.

The technical specs of Basing Street are as impressive as you'll find anywhere. Studio One has a capacity for 80 musicians and is controlled by a Helios 32-input 24-output console monitored with JBL 4350 speakers. Studio One also has an Eventide Digital Delay, Harmonizer and Phaser, Keepex Expanders, Urei Graphic Equalisers, Urei Limiters, EMT Delay and Pultecs and 3M 24, 16, and 8-track machines to two Studer A80 2-track.

Studio Two is much smaller and compact and is where most of the Rock bands tend to record. The console is also a 32 input 24 output Helios monitored with Tannoy Reds in Lockwood Monitoring Loudspeakers with similar ancilliary equipment to that in Studio One.

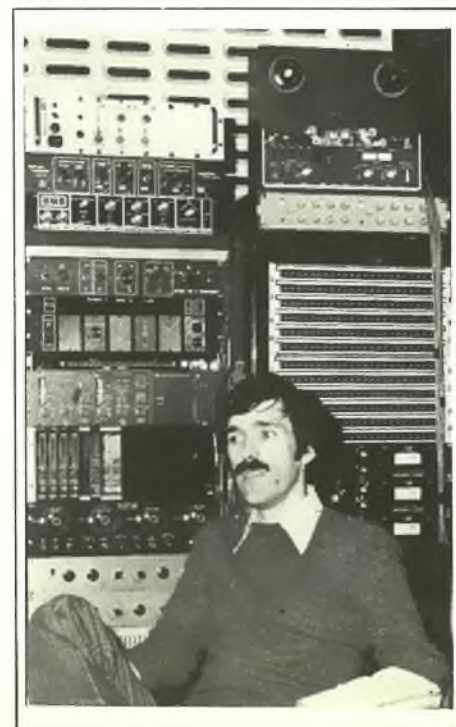
The Island Mobile is just about the most lavishly equipped studio on wheels



*Maurice and Muff (above)*

*(left) Muff Winwood*

*Studio 2 Control Room (opposite)*



you'll find anywhere. The Helios console as has inputs and 24 outputs monitored through twin JBL 4311's with the same additional devices that the Basing Street studios have. The main difference with the Mobile is that it has two 24 track machines which means it is never necessary to stop recording for reel changes. The studio communicates with the "outside world" with TV and sound communication from truck to stage. The Mobile can handle any recording situation from an album to a gig at Earls Court or the local pub and Muff says that if a band is any good on stage, using the Mobile is a "fantastic" way of recording. And there is no threat of Maurice walking out on any of your sessions.

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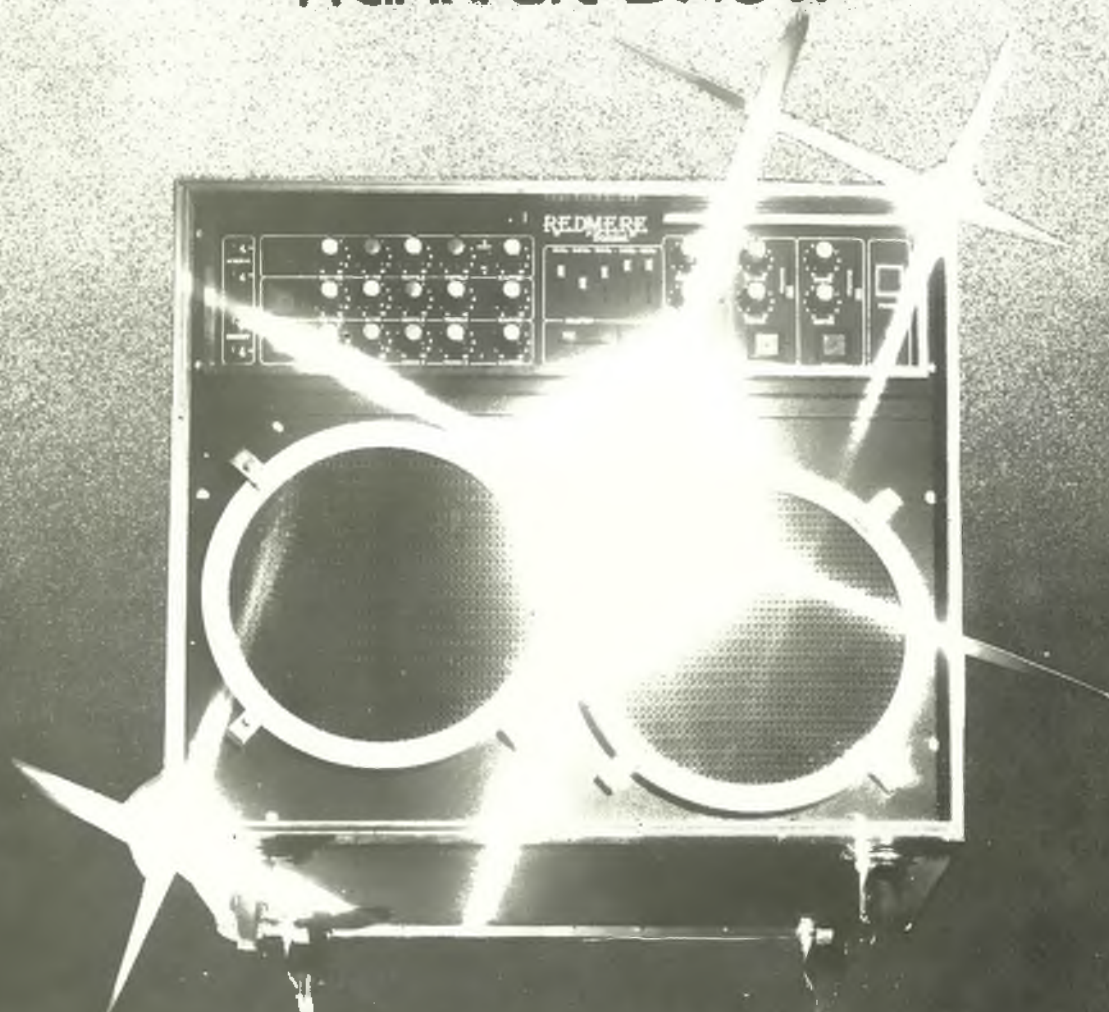
If you have any ideas about what you would like us to feature in I.M. write to  
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# REDMERE

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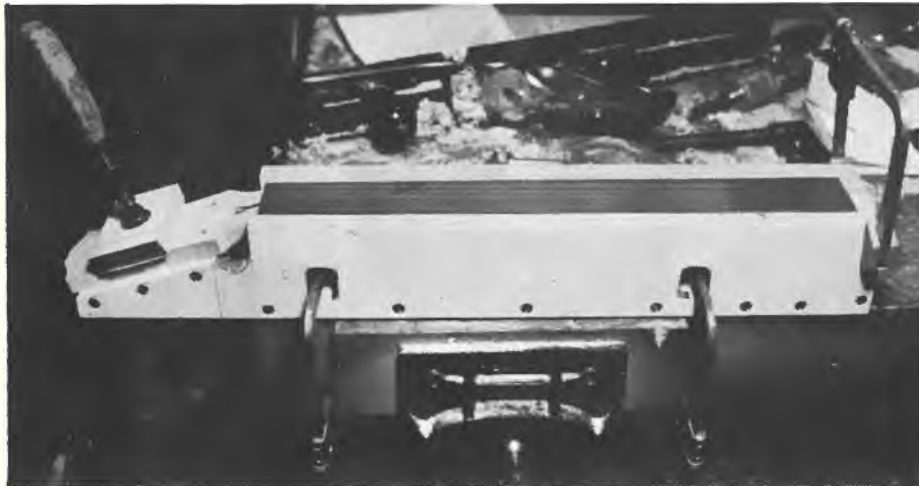
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# MAKING A SOLID GUITAR

PART 14 BY STEPHEN DELFT

## Cutting the frets



Fretting jig

Firstly, I must apologise to those of you who were confused by last Month's chapter being described as 'Part 10'. As you are probably aware, part 10 appeared in the October U.K./November Overseas issue. Last month's chapter was, of course, part 13.

I left you last month to calculate fret distances for a scale of 620mm. To check on your results, and for those who can't or won't do the work themselves, here is my table of results. The two last lines refer to frets 23 and 24. They do not appear on this guitar, but may be useful to you in the future. The

To bridge.	To nut.	Compensated.
620-	0	(unchanged- 0)
585.2	34.8	34.3
552.4	67.6	67.1
521.4	98.6	98.1
492.1	127.9	127.4
464.5	155.5	155-
438.4	181.6	181.1
413.8	206.2	205.7
390.6	229.4	228.9
368.7	251.3	250.8
348-	272-	271.5
328.4	291.6	291.1
310-	310-	309.5
292.6	327.4	326.9
276.2	343.6	343.3
260.7	359.3	358.8
246-	374-	373.5
232.2	387.8	387.3
219.2	400.8	400.3
206.9	413.1	412.6
195.3	424.7	424.2
184.3	435.7	435.2
174-	446-	445.5
164.2	455.8	455.3
155-	465-	464.5

first column refers to distances from each fret to the (theoretical) position of the bridge. The second column represents 620mm minus the first column figures, giving the distances from each fret to the (theoretical) position of the nut. If you have read last month's chapter, you may appreciate that the theoretical positions of nut or bridge are not necessarily the most useful positions. The third column gives nut to fret distances including my 'rule of thumb' nut compensation of 0.5mm.

I suggest you use the third column of figures, as it represents a useful working compromise, and any differing amount of compensation at the nut can easily be arranged by adjusting the position of the neck and fingerboard in the fret-cutting jig.

What fret-cutting jig, you may ask — and quite reasonably so, as this is the first you will have heard of it. The fret-cutting jig is the strange object shown in the two photographs at the top of the page. It will hold the neck and fingerboard assembly firmly while you plane the front of the fingerboard and cut the slots for the frets. Although these are not shown in the photographs, when it is complete, it will also have two rows of slots to guide the saw to the correct positions for the fret slots. The jig is basically a long plywood box, with brackets inside one end to fit the tenon at the body-end of the neck, and with a sloping shelf at the other end, matching the angle of the back of the head.

Except for two small pieces, it is made from 17mm plywood, and in my case, was made entirely from scrap timber. You may not have as interesting a scrap pile as mine; I make many jigs, and rarely throw away pieces of good plywood, but many do-it-yourself shops have similar long narrow offcuts. You will be very unlucky if you have to pay full price for the timber for this jig. You could use chipboard or thinner ply, but the jig will not be as good and you may need to adjust some dimensions.

To make things easier, I have given the *inside* width of the box. The two inserts, which grip the neck joint, are made from a scrap of 10mm ply. Most dimensions are given in the photo. The upper straight edges are about 480mm long — that is, a little longer than the fingerboard plus the thickness of the end wall of the jig. The height of the thin end of the head shelf, and the exact angle of the shelf will depend on your own guitar neck.

First, make up the jig *without* the head shelf and *without* the hole and slot in the opposite end of the jig. Note also that the bottom of the jig leaves a gap at each end. Cut the head end of the sides to roughly the shape shown, but leave a few millimetres

of spare wood on the edges where the head will rest. Glue the two small inserts inside the jig. If necessary, place glued veneer or paper shims between the inserts and the jig on each side, so that the neck joint just slides in stiffly. If you plan to make only one guitar with this jig, you can put slightly different widths each side so that the end of the fingerboard appears to be central in the jig. If you plan to use the jig several times, it may be more sensible to make the jig the same each side, and accept any small inaccuracy in the fingerboard. (Try to cut the next neck tenon more accurately on the neck centre-line). Next, cut the hole and slot in the end wall of the jig.

There is a photograph showing the position of hole, slot and inserts. The inserts should fit right into the corners, and are only glued to the sides of the jig. The shape and position of the hole and slot are not critical, but there should be about 15mm between the edge of the hole and the bottom of the jig. Try to avoid drilling through the ends of assembly screws. When the slot has been cut, the end of the jig should have enough 'give' to allow clamping the inserts against the sides of the neck joint. If you have already glued the neck to the body, a similar arrangement, with shaped inserts of softer wood, can be made to grip each side of the neck/body joint, but such a jig will have no end wall, and will be less stable and less easy to use.

When the glue holding the inserts is set, scrape away any surplus beads or smears which could affect the fitting of the neck. Try the neck in place, and by trial and error, rasp down the sides of the jig underneath the head until the fingerboard lies parallel to the top surface of the jig and just below it.

Check that the neck-joint is seated down firmly on the inserts at both sides. If you find that the two sides of the head are at slightly different heights, it has probably twisted slightly since the neck was made. If you are satisfied with the shaping of the head, and the inequality is not caused by a different head thickness on each edge, leave the head alone and file the jig to fit it. The neck must fit the jig at each end without any stress, so that it does not change its shape when clamped into

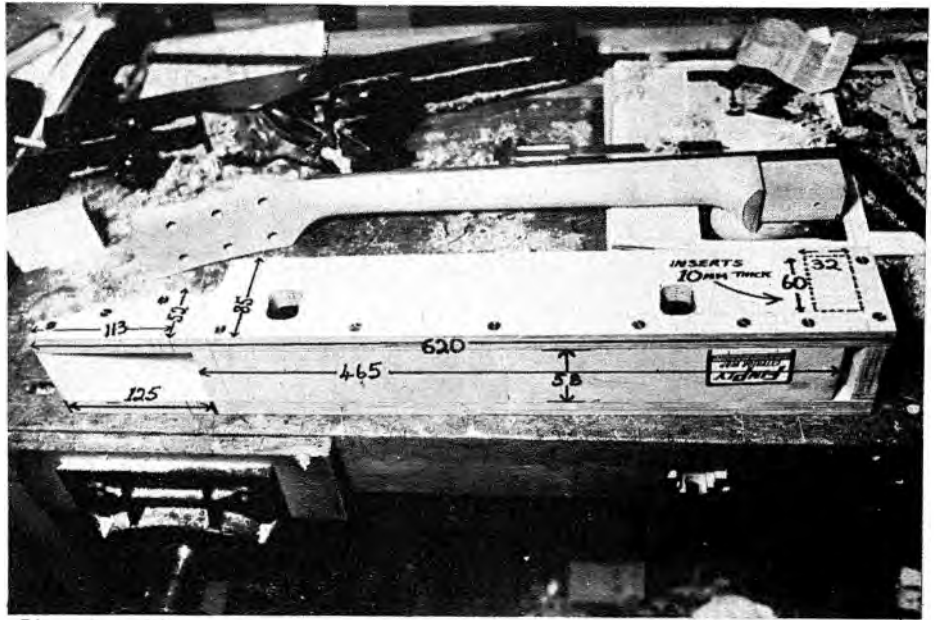
the jig. When the jig fits the head, and the fingerboard is in the right position below the top of the jig, you can remove the neck and fit the head support shelf so that it is level with the edges you have just filed.

The underside of this shelf gives a purchase for the clamp which holds the head in place. You will need to keep a small piece of ply to protect front of the head from this clamp. I have not given any detailed hints for the construction of a jig such as this, because all the techniques required can be found in any good book on Carpentry or general woodwork.

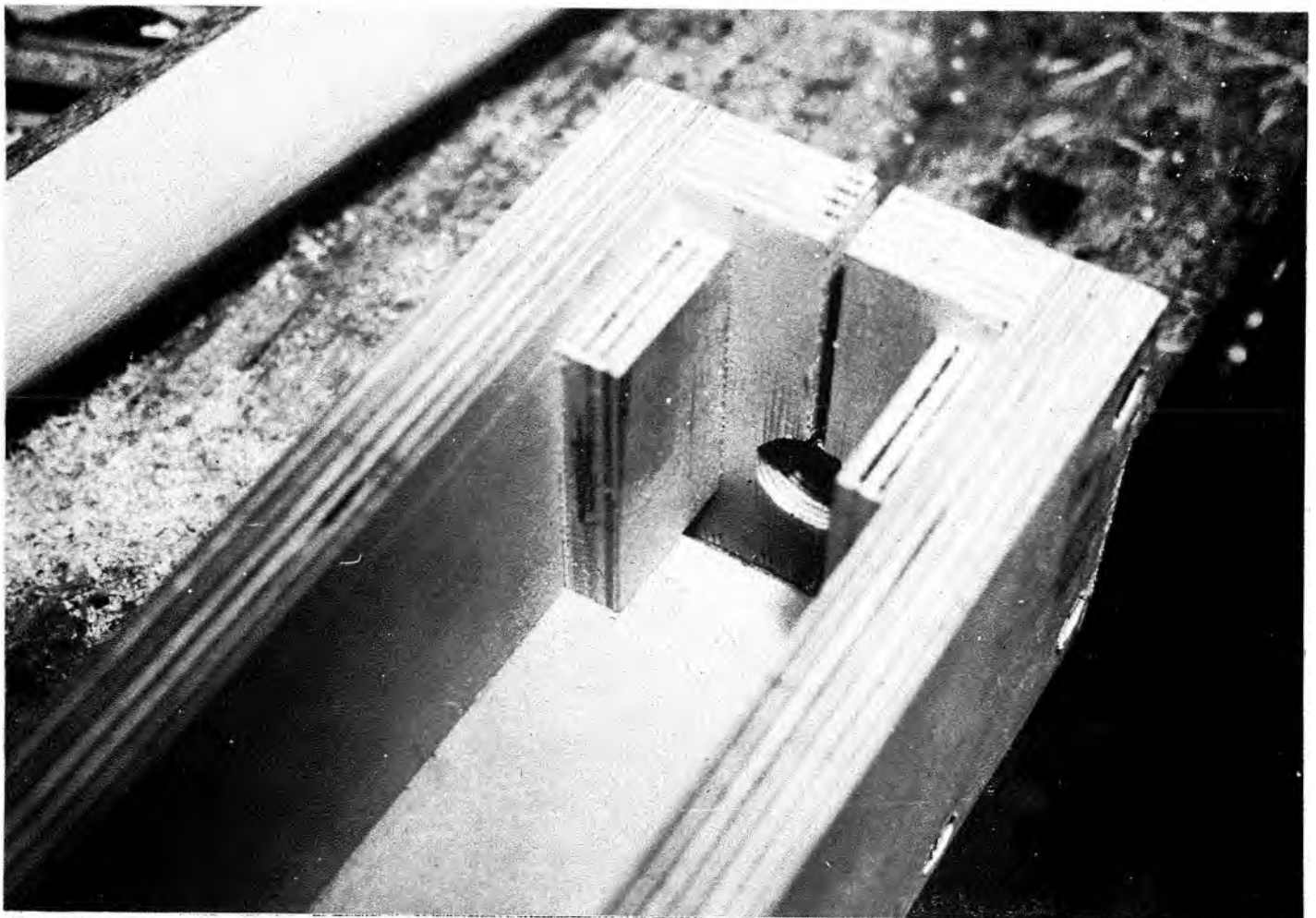
Most of the jig could be assembled with glue and dowels if you prefer to work this way. The two holes in the side of the jig are to enable you to clamp the whole assembly to a workbench.

You will notice that I have said nothing about the fret-position slots. How this is arranged will depend on whether I can find a supplier for my favourite fret-slotting saw. I shall let you know next month, and complete the jig at that time.

Meanwhile, there is still some work to do on the body.



*Dimensions of jig*



*End wall of jig*

1. Check that you can get 2 pieces of screen wire through tunnel B.
2. You may need to make the back recess deeper where the selector switch is fitted. Mine needed a mounting-panel thickness of 5 to 5.5mm.

Hold the switch in place and decide which way you want the lever to move. Check whether this is possible without the switch fouling other components inside the guitar. Draw round the switch chassis, and only remove wood where it is necessary to clear the switch frame and its connecting tags. I also found it necessary to remove a little wood from the *side* of the back recess to give better access to the switch tags. Some switches may not need this. The recess is quite near to the bridge at this point, so don't take out more wood than necessary.

The next photo shows the back of the body, with a back plate and the transparent template from which it is cut. First, lay a piece of Perspex about 2 to 4mm thick over the recess and trace the recess outline with a 'waterproof' marker. Round this outline, draw a suitable shape for a back plate allowing a margin of 5 to 15mm which may occasionally reduce to about 3mm over small distances.

Choose suitable positions for mounting screws: these will usually be in the centres of the bulges left between the control mounting holes, and at the narrow ends of the plate. The photo should explain what is required. The screws should not come near the edge of the plate — you may have to trim it after the guitar is lacquered, and they should not come too near the inside edge of the back recess, or they may split the wood and break out. Some commercial guitars show a touching faith in the ability of a screw to grip in half a hole.

Make the template by cutting round the plate outline, and cleaning up the edges. Drill small holes where the screws are to go. Lay the template on the guitar back, line up the tracing of the recess, check that the outline shape for the plate makes sense, and *lightly* prick through the positions of the mounting screws, with a scribe, or a sharp hard pencil. Do not draw round the template.

The back plate can be almost anything hard and flat. Many people like to use aluminium, or plastic lined with aluminium foil or thin sheet. I like to use Black Acetate sheet in what used to be called 3/32 inch thickness. I have found it difficult to get further supplies of this material in reasonable quantities, and you may prefer to use black perspex in the same thickness. Instructions for working perspex appeared in an earlier chapter dealing with templates for the neck and head. It seems to be less brittle if stored between 20 and 25 degrees C. Plastics warehouses and garden sheds are usually colder than this.

Clamp the template and a piece of back plate material down onto a piece of scrap wood and drill through the mounting holes. Make sure you have the template the right way up. Put in about three screws for alignment, and scribe round the template onto the sheet below. Remove the clamps, enlarge and countersink the holes to fit a number 2 or 3 woodscrew, and saw and trim the outline. If you use black perspex, a yellow wax crayon will make the scribed line more visible. Now this plate may not be *exactly* the same as the template, by the time the edges are smooth, but it is of no importance, as long as the errors are small. Lay the plate on the guitar back and line up the mounting holes with the points marked on the body. This places

the plate correctly over the back recess which you cannot now see.

Check that all the holes line up, and re-mark the screw positions more firmly. Remove the plate, drill pilot holes for the screws about 5mm deeper than would seem necessary, and fasten the plate to the guitar back using all the screws. Mark round the plate with a sharp hard pencil. It is less likely to break, if cut to a chisel point about 1/2mm by 1mm.

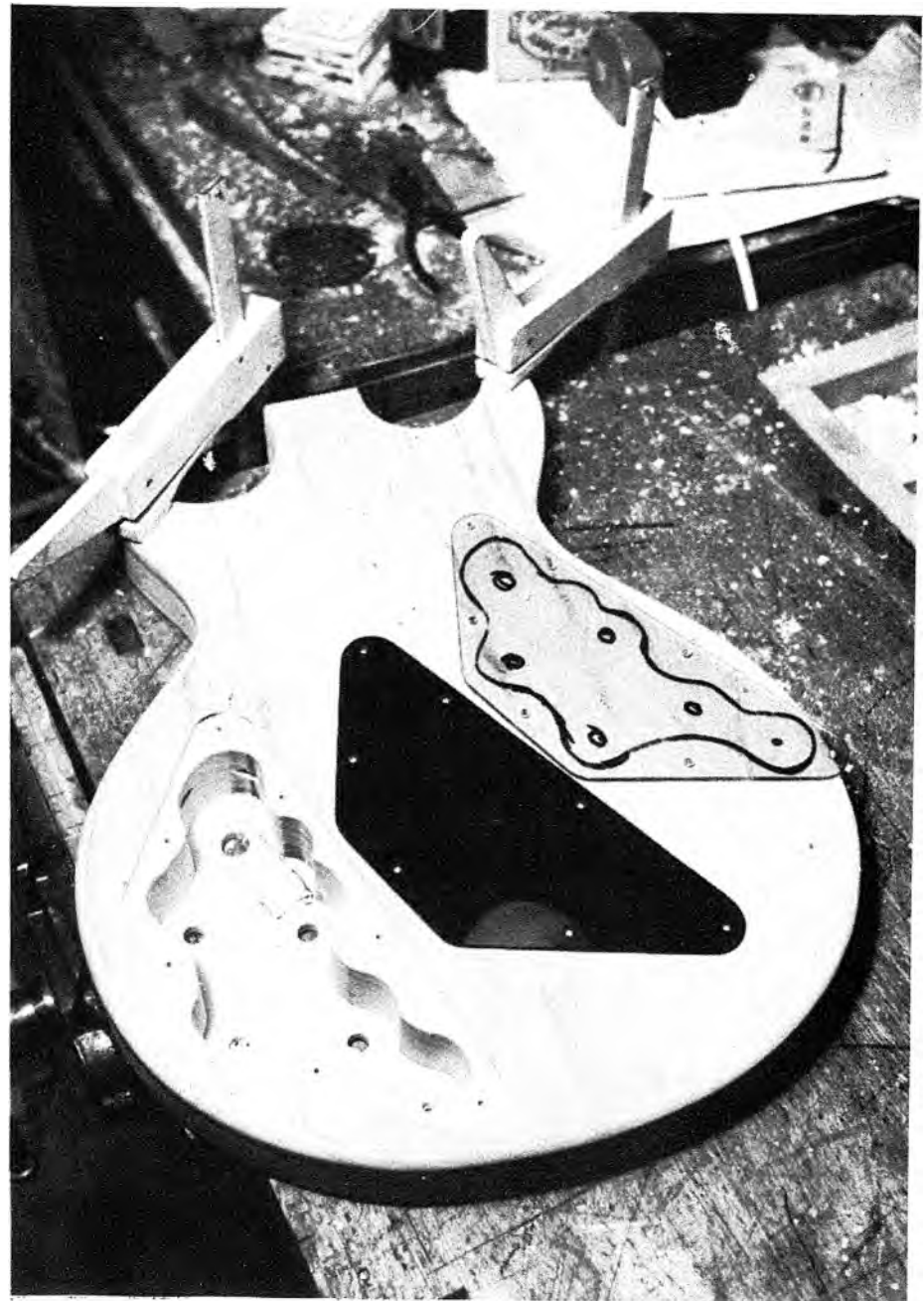
Used edgewise, this gives a uniform narrow line. Remove the plate and cut away the back within the marked line to a depth of 1mm more than the plate thickness. A good router with a large diameter cutter is one way if you have steady hands. A better way is to make a template for the router and arrange for everything to fit with that, but this consumes a lot of time if you only intend to make one or two guitars.

It should be quite possible to do the job freehand using a portable router, and this is by far the quickest and least demanding method for a one-off job. I have not tried it myself, but the cheap Black and Decker router which

looks like an electric drill fitted to a simple round base, should be adequate.

Any portable router will be more stable on this job, if fitted with a strong false base sufficiently large that it always rests on both sides of the hole, and the router is prevented from leaning inwards. If you make a large base, remember to leave plenty of clearance around the cutter, so you can see where you are cutting. There is a trick to cutting accurately to a curved line with a portable router. Cut nearly to the line, and finish the job with razor-sharp knives, chisels and gouges. That way the router does most of the work and you control the final accuracy of the cut. If you can't arrange the use of a router, it is possible to make the rebate for the back panel by cutting round the edge and carefully chiselling out the waste. It's not a very pleasant job.

Make sure you have not left any screws on the bench top. Small screws are easily overlooked, and they can make large scars in the back of a guitar. Amongst other things, for next month, you will need a small piece of soap.



Guitar body showing finished back recess, back plate and template.

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**Norlin**

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The current trend seems to call for multi-channel recording studios to be built in barns, old churches, trailers, boats, aeroplanes or any other place with four walls including basements. Since more people own basements than boats or churches, basement studios are springing up like mushrooms after the rain. It hardly seems sensible to write about yet another one — although when the studio is RBY of Roslyn, Long Island, New York, we have to revise our opinion. RBY is a unique combination of professional expertise, slow, steady, thoughtful growth and the product that results when the creator of the studio is personally involved in each session.

Owner, manager, maintenance man, chief recording engineer, Jack Jones, started building RBY in the playroom and basement of his suburban home fifteen years ago. It started, of course, with two tracks — soon expanded to four and, as of three years ago, went 16. The *reason* for the studio is that Jones is in the jingle business and he wanted to be able to control his product directly and avoid the high costs of recording in New York City studios.

His partner in the advertising work, Ron Eisenberg, a New York-based composer and studio musician, was particularly anxious to have a studio where he could have complete creative freedom. As the Eisenberg-Jones business grew to include doing sound tracks for industrial and educational films, it became apparent that the musicians on some of these dates wanted desperately to work in the studio on their own music.

One thing led to another and before they knew it they were offering studio time during the periods when the equipment was not in use for their own work. The studio's reputation has grown through word-of-mouth. It is very private, (as a matter of fact, it is probably the only recording studio in the world with an unlisted phone number) very much a home, unbelievably low-priced and most important — superior in results.

In creating his studio, Jones felt that the actual size of the room was relatively unimportant as long as he was able to keep proper isolation between drums, bass, and the other instruments. So in an area approximately 25' x 17' the first order of business was to create a drum booth consisting of fibreglass and wood gobos and a huge beach umbrella stuffed with fibreglass hanging over.

The umbrella acts as a parabolic reflector and contains most of the drum sounds within that area. The fibreglass batting absorbs some of the excess overtones. The drums are miked with Shure SM 53 dynamics on the toms and Sony 37's on the cymbals and an Electrovoice 666 on the kick drum. The snare drum is

miked according to the instrument used — wood or metal. Jones usually uses a noise gate on the snare to get as tight a sound as possible.

A Yamaha studio upright was selected for the acoustic piano and that is placed on the opposite side of the room from the drum booth. It is miked with two Sony condensers (a C22 and a C37) placed behind the piano. The piano is located three feet out from a wall covered with the sound absorbing material Sound-A-Sote. Miking the piano from behind serves two purposes — it enables one to obtain the tones directly off the sounding board of the instrument and it helps with isolation. Jones is concerned only about these two instruments in laying down basic tracks since the bass is taken directly through the console he achieves very tight, isolated tracks.

A vocal booth was made up of 7' x 4' gobos that were placed approximately in the middle of the studio. This enables the vocalist to do a reference vocal without bleeding onto the other tracks. Jones feels that this procedure eliminates almost all concerns about outside noise coming in.

Overdubbing is done in various ways according to the desires of the producer.

In most cases, two violins or horns play three or four tracks which, when combined with a careful arrangement and remixing with a MXR digital delay, gives a very fat sound.

The control room is an area 15' x 17' which contains an Ampex MM 1000 16-track machine (purchased used but in mint condition, from a long-defunct studio in New York) and all the outboard equipment such as a Pultec equaliser, Lang equaliser, Kepex noise gates, Urie LA-3 limiter and Electrodyne compressor. The only other thing necessary to make the jump from 4-track to 16 was a board.

Jones realised that the cost of most of the professional quality boards was beyond his budget, so he put his electronic knowledge to work. He purchased two Tascam Model 5 boards, coupled them together and took the 8 outputs into Sescam line amplifiers, allowing for a 600 ohm plus 8-balanced output. All the outputs and patch points were brought into a 240 point patch bay. This permits Jones to take 8-tracks at once with good signal to noise and to patch in any of the outboard equipment giving extreme flexibility and superb quality.



16-track Ampex MM1000

He also designed an additional 16-track mixer which is used as a separate cue system or for fast mixdowns. This enables him to take special effects, such as flanging and digital delay and by using the sub 16-channel mixer feed it back into a spare input module on the big board. This gives the Model 5's a greatly expanded potential.

The sound is so good that Jones found he was attracting clients such as RCA Sunbury/Dunbar, Columbia Screen Gems, Laurel Canyon Publishing, Bolt Records, Artemis Records, Ltd., performer-composer Otis Blackwell and countless advertising agencies. After all,

they are not adverse to paying less than a quarter what they would have to pay at most other studios. Besides, there is something about the setting which seems to bring out the best in musicians.

Maybe it's the entrance to the studio through a greenhouse full of orchids. Or it might be looking out the window and seeing a family of Canada geese crossing the lawn. I'm sure it has to do with the fact that Jack Jones is a musician himself (trumpet and guitar) and has a real feeling for the problems of musicians. Producers send their new talent to RBY to get used to multi-track recording and to develop studio technique. Very often,

they never leave and do the entire album right there.

The future plans for RBY include a 24 in 16 out console, DBX noise reduction on all 16-channels and 30 ips on the MM 1000. Since expansion is impossible in the present location, the studio will soon move to south-western Connecticut. Prices will remain low, the personal attention and warm atmosphere will be unchanged, the greatly enlarged studio will still be part of a home, but as a concession to popularity — the phone number will be listed.



*The greatly modified Tascam board*



*A view of the studio*

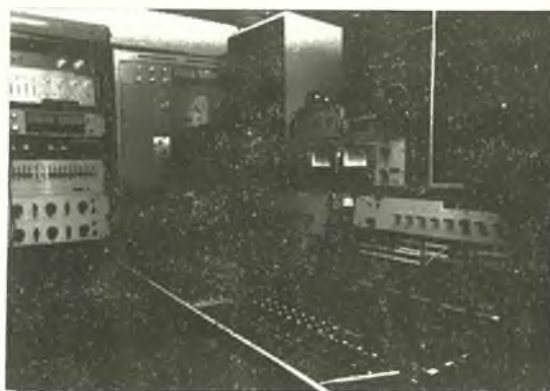
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Some of our clients are Screen Gems, Columbia, Laurel Canyon Publishing, B and G Music, Studio 43, R.C.A., Artemis Records, Bolt Records, Stillman Advertising, Beacon Advertising, Walter Cameron Advertising and many others.

RBY is conveniently located three minutes from exit 39N of the Long Island Expressway or forty minutes by train from Penn Station. (Trains are met on request).



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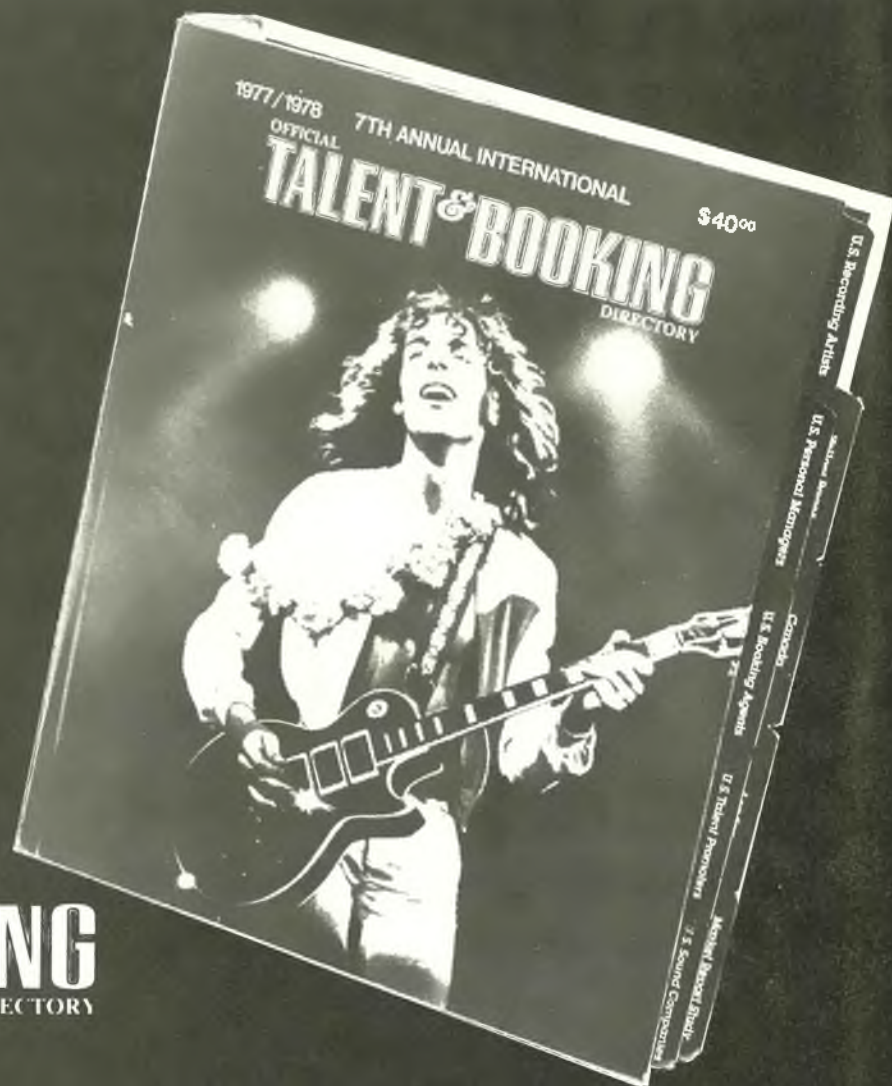
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# So you want to make a solo album

So you've decided. You've paid your dues, there are a couple of people out there and your mother and aunt who will buy it, a record company will advance you some readies, there are stars in your eyes, and you can't wait to put on sale in a public place an aural representation of your character complete with musical fantasies, insecurities, and courage, or lack of it. This is called making a record, and you've decided to do it for the first time on your own.

Really it's an entirely different game, making an album on your own as opposed to in a firm, secure, democratic group. For a start, the finances of recording a shared-responsibility type of group, assuming you have a record deal, are not too much of a problem. Because no one person is responsible for the time taken in the studio, the feeling prevails that it's not really "your" money, it's the record company's money. In the solo situation, you're more conscious of events because you don't want to lumber everyone and yourself with a poorly-selling and costly white elephant, thereby minimising your chances of a second album.

Again, in a group there is the comfort and security of being able to bounce ideas off each other in rehearsal, avoiding the possibility that the first reaction to your musical effort after several weeks in a studio be gales of laughter from friends and lovers alike — "call that music?" et. etc. Risks can be run, experiments tried and proved to succeed or fail, all before the studio is reached. The musician who aspires to a solo record usually cannot avoid the fact that the music must be written, or at least organised, in his own head first, and then shown to the other musicians who will carry out the ideas on record. You are supposed to know what it is that you want even though you may not yet have heard it — speedy decision making is of the essence, and delays lead to bored musicians who play badly and take a lot of expensive time when the red light is on.

To start with, you have somehow to write or organise enough music to warrant calling a rehearsal with the musicians you want to play on the album. You have of course checked that they at least like each other, or even respect each other, and that they are



by Bill Bruford

**BILL BRUFORD IS ONE OF THE MOST RESPECTED DRUMMERS IN ROCK MUSIC TODAY. HE BEGAN HIS CAREER WITH YES IN 1968 AND HELPED THEM BECOME ONE OF THE BIGGEST BANDS OF THE SEVENTIES BEFORE LEAVING TO TEAM UP WITH ROBERT FRIPP IN KING CRIMSON. AN EXCELLENT MUSICIAN WHO IS CONSTANTLY SETTING HIMSELF NEW CHALLENGES HIS MORE RECENT WORK HAS BEEN WITH NATIONAL HEALTH.**

all available at the time you booked the studio. Most studios get well booked up in advance, and since most require a deposit, you are going to have to commit yourself to the project at an early stage, probably even before you've heard the music played by "real" musicians. Writing the music is a love/hate kind of chore that can be frustrating and exciting, sometimes slow and boring, and yet also very rewarding — usually all at the same time. I don't think I know anyone who feels very differently about it. I find composition difficult and lonely but at the end of this isolated work the back of the problem, as I see it, is broken, and things become more fun.

In the rehearsal room, hearing the ideas elaborated on and brought to life by the players is exciting. But don't get heady here; exercise maximum and ruthless censorship and discrimination at all times in order that only the best ideas survive. Involving the other players and listening to their points of view is essential, because you probably want four or five other personalities on the record rather than

just robots. Some ideas will fail, some will have to be rewritten in different meters or over different chords, and melodies may sound disjointed after the isolated period when you've probably been unable to stand back and regard things objectively. So it's back to the drawing board and perhaps some final rehearsals — not forgetting to leave some ideas open ended and deliberately vague because the studio environment itself will suggest things impossible to envisage at home or in rehearsal.

Finally you arrive at your pre-booked recording time — anything from an afternoon to six months depending on the budget — and now all the prepared work has to go onto tape with maximum effectiveness. The producer, if there is one, will be working very much to satisfy your criteria and your taste, and so apart from worrying about your own performance you have also to make snap decisions about quality of sound, length of solos, possible retakes, and so on.

Time-consuming red herrings, too, may rear their ugly little heads — an idea from an

engineer or musician may look good on paper but add minimally to the proceedings, and remember, at £40-50 an hour for a good London studio, it's ultimately your money they are spending. Conversely, keep your ears open for that moment when the studio seems to be saying "this sound or idea is excellent, dwell a little longer, get further mileage". Those moments in recording when perhaps the bass player, completely unexpectedly, is doodling before a take and it's just what you wanted the guitarist to do all along but you didn't know how to say it, or the engineer has concocted some magic combination of knobs which is just what the track requires — these are the things that make the difference between the slavish reproduction of some pre-arranged music and an inspired and creative piece of work.

But at last the tunes are all recorded and overdubbed, the musicians have departed, and the cleaner is sweeping the studio floor. Now it's down to reducing the 24-tracks to the stereo pair that the record buyer hears. This can be a lengthy and creative time which the engineer is certain to enjoy, for at this time, his technical expertise will enable him to hang a myriad of sonic effects and textures before you, the customers, over widening ears, and you can sit back and choose those that seem to enhance your music.

Finally, there may be a playback of your months of effort to managers, record company people, friends, and any other interested parties. By this time you will probably, if you are a coward like the author of this article, have played rough mixes of your efforts to fellow musicians to ensure that you shouldn't be trying some alternative career altogether, and so you can probably rest assured that you've done your best and just hope somebody out there enjoys the music. Making your own recorded statement is definitely not for the faint-hearted, the indecisive, or those with a large overdraft. But for anyone who can squeeze a record contract out of a company, it's the most complete and intensive all round course of all aspects of music making that I can think of. Now all you have to do is sell a few copies of the damn thing, and write enough tunes for the next one.

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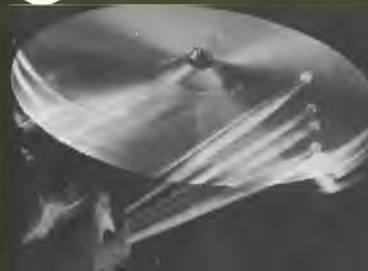
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# ★ DEALER OF THE MONTH ★

## Alex Music

...JUST OFF TIMES SQUARE, NEW YORK CITY

by our New York correspondent, John Farris

Spanish, Portuguese, Italian and English are all spoken faultlessly at Alex Music, in the new location just a chord change from Times Square in New York City. But the most vibrant language inside 164 West 48th Street is music. Classical, Latin, jazz, with the heaviest emphasis by far on rock.

And why not? Owner Alex Carozza has advised, helped, and recommended instruments to international rock's elite. Eric Clapton, Kiss, Rick Derringer and George Benson, among others, have bought tons of guitars, amplifiers, keyboards and drums from him. He's also the designer and inventor of the Alex Axe, a hand-crafted line of guitars and basses that has only one drawback: production can't keep up with demand. The Axe works is just across the street from Alex Music at 165 West 48th Street in the Guitar Lab.

The new home of Alex Music was once the digs of TV star, Merv Griffin and his production company. When marvellous Merv split to the coast, Alex kept his eye on the building, and through his lawyer (who is also Griffin's), rented and finally bought the four-storey structure. The result of extensive refurbishing is a clean, well-designed, well-lit ideal music store. Naturally, all the big names are here . . . Roland, Fender, Gibson, Taylor, Korg, Slingerland, Moog, Oberheim, Rhodes, Yamaha, Pearl. That's to be expected.

But there are other refreshing factors that make Alex Music distinctive. All of the sales people are musicians, and good ones. They all know their stock, and most importantly, as Alex puts it: "We want our salesmen to be salesmen, of course, but we want them to be gentlemen, too". This means taking time with each customer, whether he has a lot of money to spend or none. Sergio Goffan, the keyboard and P.A. expert, was once a customer, and now helps musicians choose between MXR, Electro Harmonix or other phasers. "We try to create a good atmosphere", he says. "We want the customer to feel good when he comes in, and one way we do this is let him try out anything in the store. Anything from a \$20 item and up".

The good vibrations have attracted increasingly good business, which is no surprise to anyone who's ever been high-pressured to death or treated like a slice of stale bread. Alex actually waited on Eric Clapton without recognising him,



Alex (right) with Ed Rothchild of Rothchild Musical Instruments.

and Clapton walked out with a \$5,200 Explorer.

Jazz-rock (or rock-jazz) giant, George Benson, was also treated as an unknown by Alex, although not by design. Benson needed a special part for his guitar, and when Alex couldn't find a new one, he gave Benson a used part — free. After almost having a seizure, Benson thanked Alex and has subsequently purchased four fine guitars from Alex, including a very rare Angelico, which has not been produced for ten years.

Although Alex Carozza hails originally from Chieti, Italy (about half way up "the boot", on the opposite coast from Rome), he spent 35 years as a musician and music store owner in Argentina. His shop was one of the biggest and finest in South America, and if he had not visited New York in 1959, he and it would probably be still down there. But the politics and the inflation rate were not very comfortable, so when he was offered a position at Accordionorama in New York, designing and selling, he took it.

Later, he spent two years repairing and re-building instruments at the Sam Ash Music Store, also in the Big Apple, where he was dubbed simply: "The genius". During this time he also made films. He filmed interviews with Gina Lollobrigida, Dustin Hoffman, and Jack Lemmon for the Pipo Mancera Show, Argentina's answer to top talk show host, Johnny Carson. He also (are you ready for this?) filmed, edited and directed a documentary concerning the building, testing and launching of the Apollo Eleven Moon Shot.

In 1972, Alex moved into his own business, helping to service and repair "problem" instruments that couldn't seem to be fixed by anyone else. Today he guarantees any instrument that is

sold for one year, whether it's new or used. He also checks every instrument before it is sold. His policy of servicing on the spot is popular with customers who dread the words: "Oh, gee, I'm afraid this will have to go back to the factory." At the same time Alex makes the point that: "People like Fender and Gibson trust me because I'm not sending their instruments back to them".

With his multi-lingual fluency, Alex understandably does a huge overseas business, 70% of it in South America. "They have nothing there", he explains. "I'm proud to sell U.S. merchandise there, because I don't think there is any competition with Gibson, Fender, Rickenbacker and other American lines. And they need guitars, amps, keyboards, everything they can get. Brazil is actually a bigger country than the United States. There are 170 million people there, and it's the fourth richest in the world. And, with all that population, they have only about 1,000 pianos in the whole country. They need one million".

Alex must have the right idea about South America, because the Kustom Sound people flew him to Argentina and gave him a special award for his work last November 11th.

There's no guarantee that you'll see and hear Rick Derringer, Bucky Pizzarelli or Tony Mattola trying out a new axe when you visit Alex Music (and there's no guarantee you *won't* see them) but you're very apt to see Pasquale Ficosecco, the resident master of all repairs or Alan Becker, the drum man. And if you see an intense trim guy jamming on accordion, organ or piano, wait for him to finish and then say: "Helló, Alex". He probably won't recognise you, but it's almost a sure bet he'll have exactly what you're looking for.

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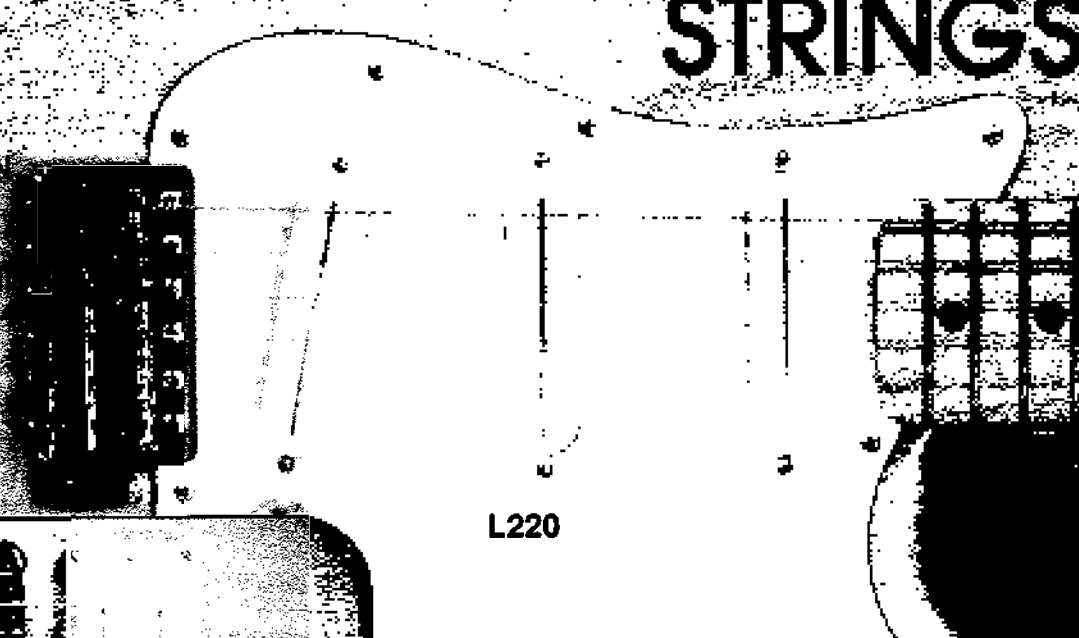
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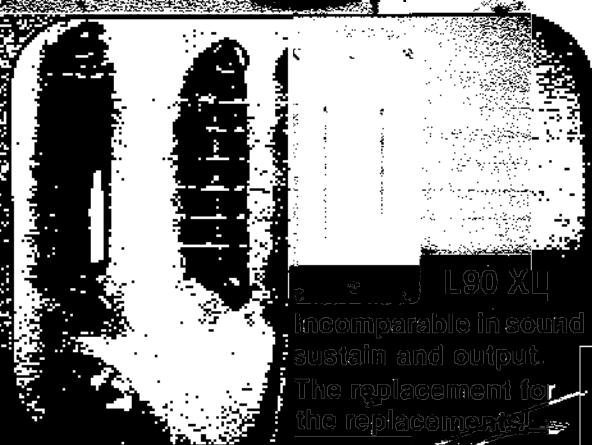
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# GUITAR MONARCH

by Steve Rosen

Michael Monarch was the original lead guitarist for Steppenwolf, a band responsible for such rock classics as "Born To Be Wild", "Magic Carpet Ride", "Jupiter's Child", "Sookie Sookie" and others. It was in fact John Kay who coined the term "heavy metal" in his song "Born To Be Wild" and for all intents and purposes Monarch could be considered as the original metal guitarist. But he's come a long way since then in creating a style which carries elements of jazz, rock, and classical. Jimmy Page is one admirer of his playing and was so impressed by Michael that Detective, Monarch's band, was signed to Zeppelin's label. Detective (Swan Song) carries a good sampling of what Monarch is about but to learn even more about his musical tastes the following should prove helpful.



*The first thing which comes to mind when talking about your guitar playing is Jeff Beck.*

Well, I think he's one of the most interesting guitar players. I would say he's the best guitarist playing today. Of that section of guitar playing — sort of rock jazz. But there are a lot of other guitar players I like. But I identify with Beck a lot although I've never met him.

*Your use of the vibrato arm is very similar to Beck's.*

Yeah? I've been doing that for a long time. I was doing that before I could get a finger vibrato together.

*You get a distinctive sound from your amplifiers.*

I know what I want to use as far as amplifiers go; I want to use Marshall tops but with different speakers in them because Marshall speakers are too dirty for my guitar. So I'm going to use some kind of cleaner speaker, maybe JBL's or Altecs or something, with a few Celestions. But Marshall tops are the best, they're the most powerful and have the most guts. The 100's. I do pre-amp them. I use a Twin Reverb to get some highs and lows that the Marshall doesn't have and also for the reverb. Fender reverb has the best reverb sound. But I don't have half the stuff I want to use. I have an octave divider and a wah-wah-pedal but I want to get an echo unit.

*Where do you place the settings on the Marshall?*

Well, it depends on the amp for one thing. We're using a lot of rental equipment right now but usually I take down

the treble but it depends where we're playing too. If I'm playing a smaller club I take down the treble and mid-range a bit and use a lot of the bass. Because my guitar can be very trebly. So I've got the treble down and the volume . . . I'll tell you, the Marshalls are kind of weird. You get them past around 3 or 4 and they're on but anything below that it's not even a Marshall. It's not linear the way the pot works. So it depends, sometimes I crank it all the way up, sometimes I have it down around 6.

*Do you channel the bass and treble inputs together?*

No, but I sort of do that by the way I set the tone controls. It's getting that same kind of sound; it's getting a bassy sound out of that treble setting. But I do plug one Marshall into a parallel series into another one and then out to the Twin.

*It's hard to get a good sound out of a Stratocaster.*

A Strat can get so many different sounds. Mine especially because I have a Humbucker on the treble pickup. One of the settings I really like is the middle pickup and the bass pickup because it's sort of like a phase setting. It's a very thin sound but very nice. A lot of the leads and stuff is done with the Humbucker. The Strat is old and the neck is one of the first Esquire necks ever made; I've had that guitar for about thirteen years. All the lacquer is worn off the neck so it's all wood and that I really like.

*How else has the guitar been changed?*

I put all different kinds of capacitors in it, I've tried all kinds of different ones. I basically did the wiring myself in the way the selector (toggle) switch works. I've got it so the treble setting is the Humbucker by itself and the middle setting is that sound I said I liked which is the bass and the middle pickup together and the bass setting is just the bass pickup. I moved the master volume control a bit, I moved it over so I could get to it easier.

*What gauge strings do you use?*

.008, .009, .012, .020, .030, and .038. Much lighter than extra Super Slinkys. Also I removed a couple of the strings from the back of the vibrato bar so I have three coils instead of five. This works better for me because it makes the vibrato arm move easier and I can do a lot of other things. It has a very nice touch to it. Amazingly enough I've played that guitar so much I know how to run it without it going out of tune. I have a '55 Les Paul and that thing goes out of tune a lot, that's a hard one to keep in tune.

*Were you listening to other guitar players in your early days?*

Especially back then but now I listen to a few guitar players. Like right now one of the things I listen to a lot is Ronnie



Laws, the saxophone player. I've got material of my own which really doesn't fit in to what we're (Detective) doing but some of it does and we're going to use some of it on our next album. This album is going to show off a lot more of the things that I want to do. Just getting into different times, I have one song that's in 9/8 and another one is in 7/4 and one in 5/4. And just more, not really jazzy especially but I love suspended chords and that type of thing. Rather than just the major chords, Chuck Berryish type of rocking out. Which is nice too, I'm certainly a rock and roll guitar player, but there's a lot of other things I'd like to do.

*When you play, your guitar is tuned to a chord isn't it?*

Yeah, and the way that came about when I first started playing was I used a regular tuning. I really got into Robert Johnson and he used a G tuning which is in a D in the bass, and then a G where the A string would be, and then another D for the D string, then a G which is the same, and the B is the same, and then the top is tuned to a D. Which means that the strings on top are even lighter because the strings are tuned down.

That was the Robert Johnson bottleneck tuning and I got into that when I was in Steppenwolf and in fact John Kay turned me on to that. For a while I was switching back and forth between two tunings but there's some guitar players who like to keep using different guitars. And with me when I've got a guitar I enjoy using I like to play that guitar.

Even if I break a string I like to put another string on that guitar and keep using it even though I've got the Les Paul. I do use that sometimes but I haven't had it for that long. I use it in the studio a lot but on stage you can do so much more with a Strat. So for a while I was switching back and forth between then but I started getting more and more into slide for one thing and I played a lot of things in that open tuning. After a while I learned how to play a regular kind of picking in that open tuning and I worked out just about anything you can do in regular tuning in that tuning. So for the last five or six years I've been doing nothing but using that tuning.

A lot of people, like Keith Richard, just use it in the obvious way. He hasn't worked out all the different kinds of scales but I've worked out everything in that kind of tuning. And when I write down pieces I write it in that tuning. The way it lays out the fretboard it's so much easier for me to see the shapes. It's kind of a cross between an open tuning and a regular tuning because you have the D, G and B strings still in regular tuning.

*Do you find any difference between maple and rosewood necks on Stratocasters?*

I can only use maple necks, they're so much better. Especially with mine because all the lacquer's gone when they used the lacquer. Now they use some kind of plastic, it was nice because for one thing it turned yellow and made your guitar look nicer and also it would wear down. Mine's almost all worn down to the wood and it's so much nicer to have contact directly with the wood and the metal strings compared to with plastic or lacquer or whatever is between you and the wood.

*Do you have a rosewood neck on the Les Paul?*

Yeah, but it's been customised quite a bit. For one thing I've had it contoured a bit so it feels a little more like a Strat. And I've had the bass pickup wired so you can cut out one of the coils and get a Strat sound out of it. And I've taken out the two volume controls and put in two tone controls where they were and I've got one master volume control right up by the bridge so you can get that violin effect.

So basically, what I'm doing is making it as much like a Strat as I can as far as playing. The neck is shaved down, a very thin neck. In fact it was shaved down so far that it's almost down to the truss rod. I use it as a spare on stage and used it on some parts of the album.

I also want to get a really nice Tele because there's things you can do on those that you can't do on others. A real biting kind of treble sound sort of like what Roy Buchanan gets. That chicken sort of muted sound.



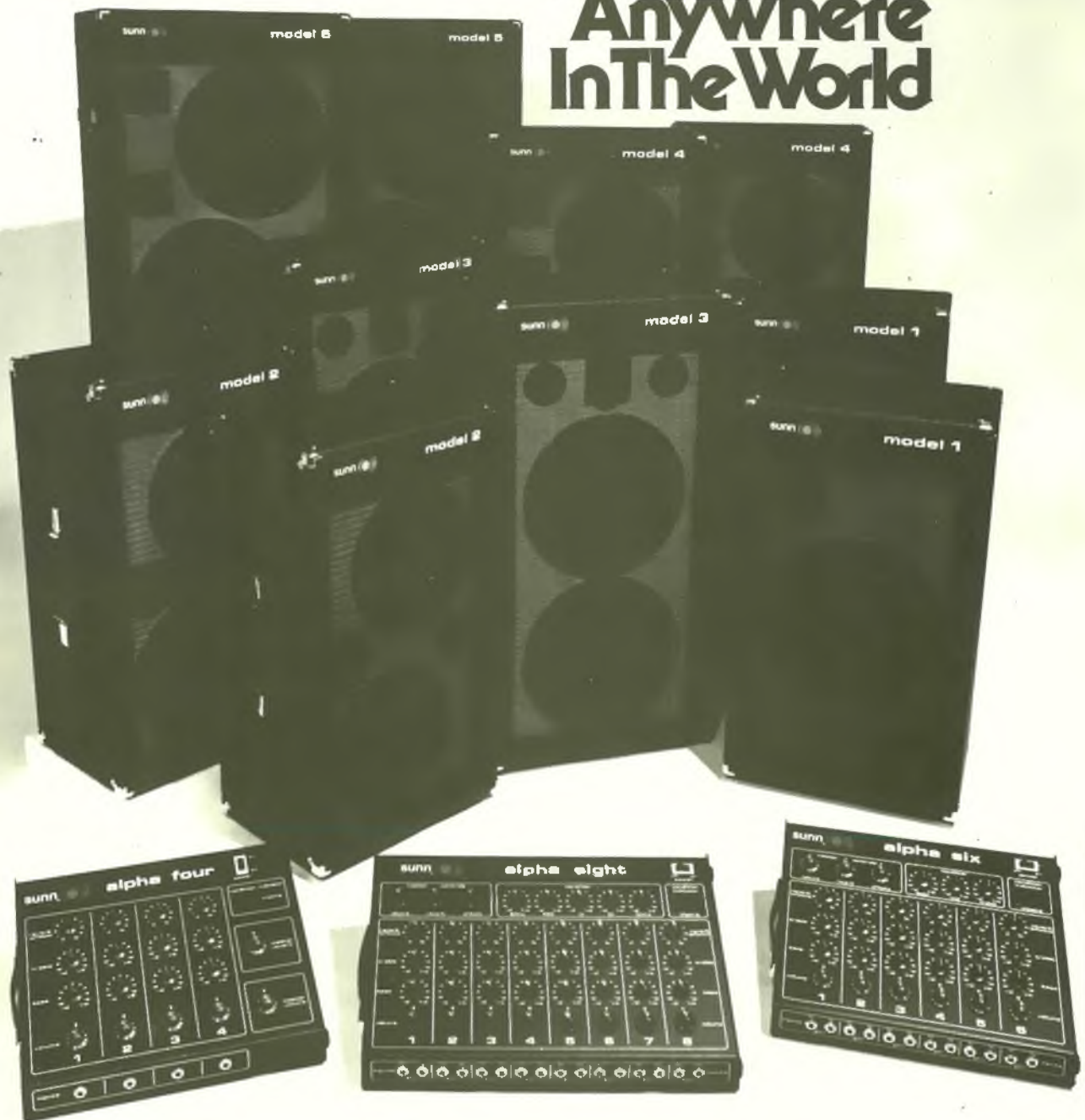
*Don't you find that the Marshall feeds back uncontrollably when you use the Stratocaster?*

There are all different kinds of Marshalls; they're never really all the same. I know that some have too much bottom, some have too much distortion, and you've got a problem in finding the right kind. Also if you use different speakers with them that helps a lot to clean up the sound. Because a Marshall top is so distorted and a Strat needs that kind of balls to make it beefier. A lot of guitar players use Marshall and don't get a good sound; in fact very few do. I also like Fender. I have a Fender Deluxe, a tweed and I put a Vox speaker in it and I had some work done on it and it's really loud. And I used that on a lot of things on the album. And I used an Ampeg on a couple of things.

*You play some acoustic guitar?*

Yeah, I don't even have an acoustic guitar right now. I just borrowed whatever was around. I want to get into more of that because I really love acoustic guitar. I have a classical guitar which I play a lot. I usually play that thing to exercise my fingers because you have to reach much farther with that and you really have to use a better position. The Strat, as far as that goes, is very easy to play especially with the Esquire neck on it because you can fit your fingers around so easily. I want to get a 6 and 12-string acoustic guitar. Jimmy's (Page) turned me on to a lot of that because he's really great on acoustic guitar.

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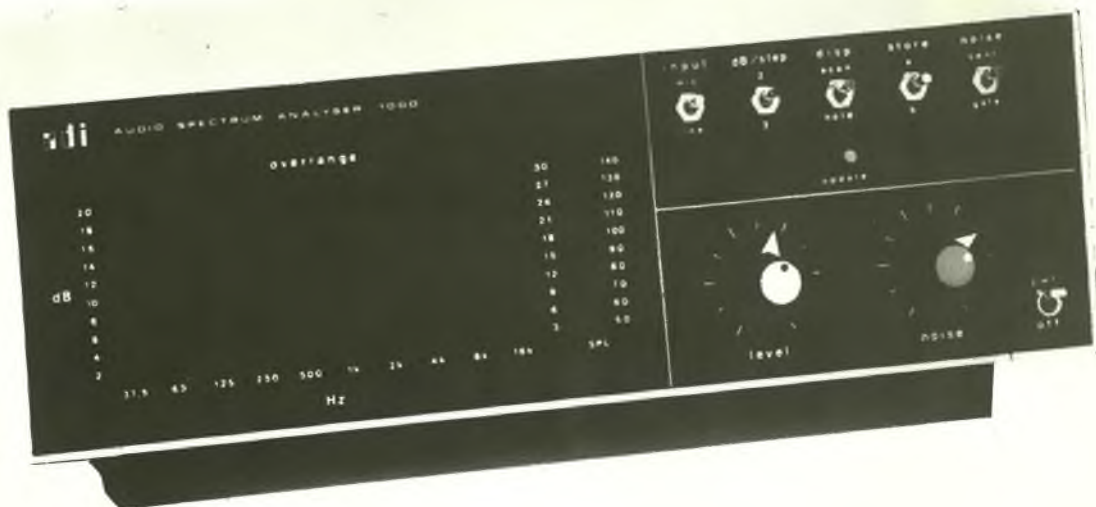
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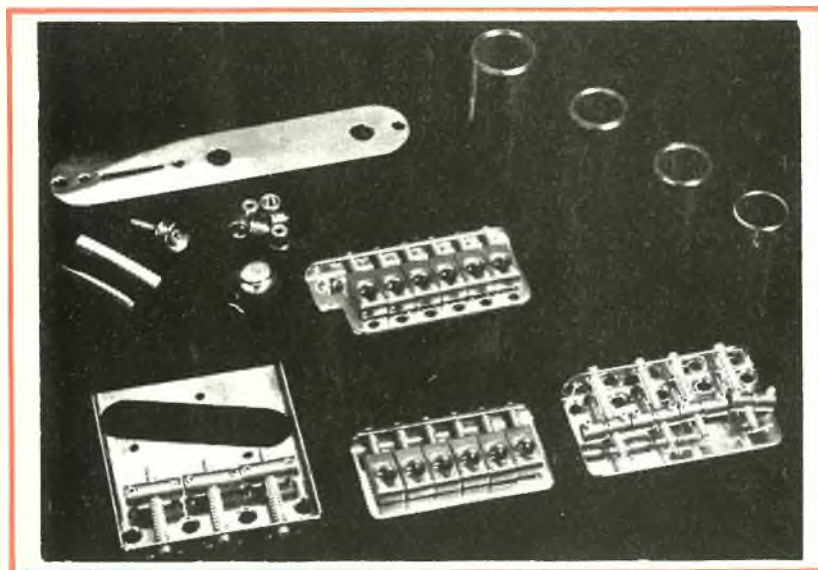
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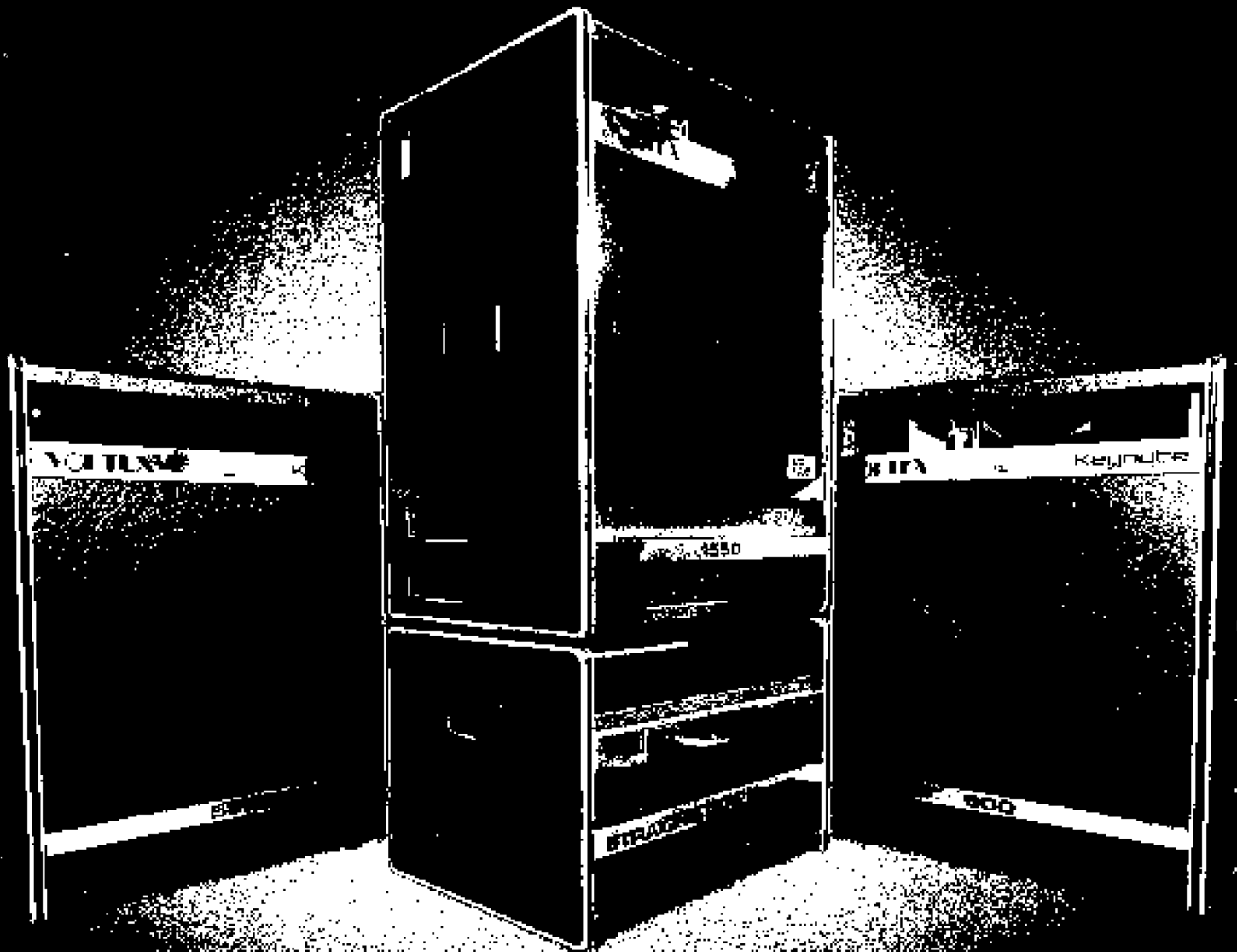
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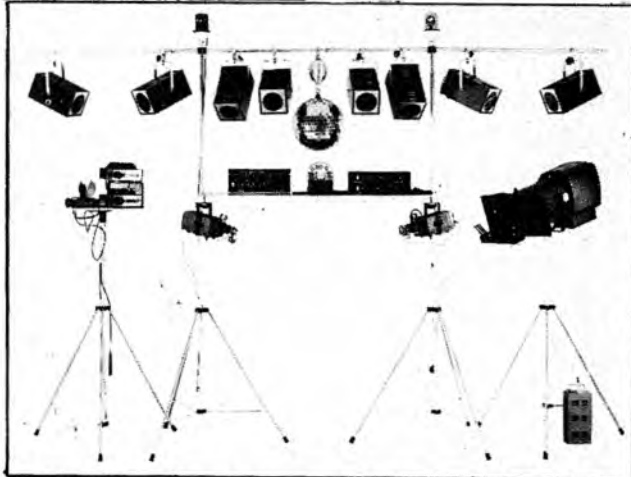
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# IN BRIEF

## Morley Pro Phaser.

Made by Tel-Ray Electronics of Burbank, California and distributed in the UK by Strings and Things, this phaser is undoubtedly in the upper league of effects pedals, both from a price and performance point of view.

The main area of departure in design between this pedal and most other pedal phasers that we are aware of is the fact that it operates by employing a light dependent resistor, not the normal gear mechanism. What happens more exactly is that when you depress the pedal a shutter inside closes over this resistor (or group of resistors by the look of it), gradually cutting it/them off from the light source. The advantage of this system over the traditional gear wheel-to-potentiometer arrangement should be fairly obvious to anyone who's had a traditional pedal literally wear out on them - with continued use the gears do (naturally enough) reach a point where they are too worn to function properly.

There are two conventional on/off switches on the pedal, situated at the base of the chassis, either side of the actual

pedal. In other words, you don't activate the unit in the more normal way of clicking the pedal down onto the on/off switch, not usually a good idea as this can often set a unit into action at precisely the wrong moment, by mistake. The two switches on the Morley operate phasing on or off (right hand side) and Automatic phase or foot pedal operated phase (on the left). What this means is that you can use the pedal "on" in the Automatic mode, and get the sort of sweeping phase sound that most phasers give, or you can have it in the "pedal" mode, and alter the amount and effect of phasing by your foot, in much the same way as a traditional wah-wah pedal works.

There are three controls on the left hand side of the chassis which alter the sound of the phase (in either mode) too. These are designated Phase Travel, Center and Harmonic Emphasis. As usual with controls of this sort, the words used to describe them are pretty subjective - you can never really describe to another musician what any particular effect actually sounds like. So, Phase Travel sounds to me like speed of phase, Center like intensity of phase, and Harmonic

Emphasis seems to act something like a tone control; you may feel differently.

Something else which needs to be made clear is that the pedal is mains powered - again anyone who's suffered battery leakage or battery failure at a gig will be only too pleased to have mains powered pedals. Do remember, though, when using a mains pedal to leave the earth un-connected at the socket end, otherwise you'll get a nasty loud hum through your amp. Certainly the most versatile phaser I've heard, and probably the most expensive too. It enters my top three phasers, along with Systech and MXR Phase 100.

**Tony Bacon**

## On Test: Eurotec Black Box Phase Module:

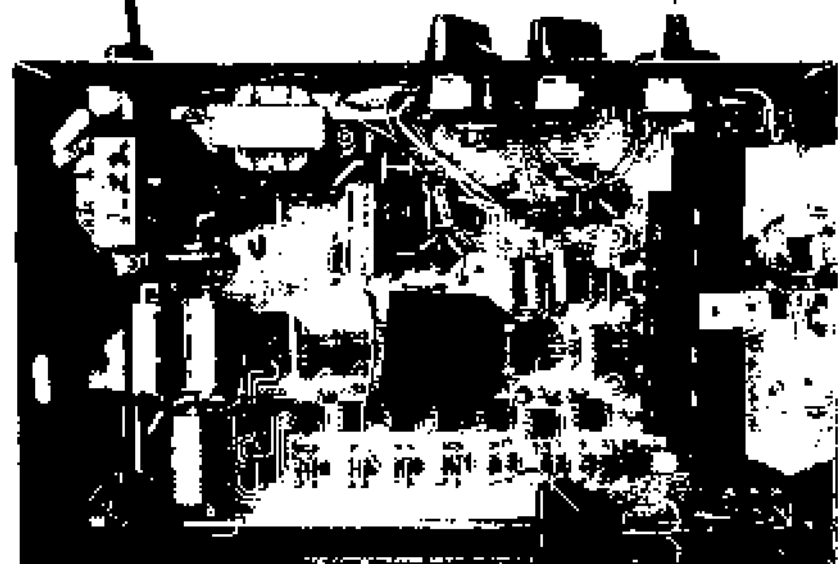
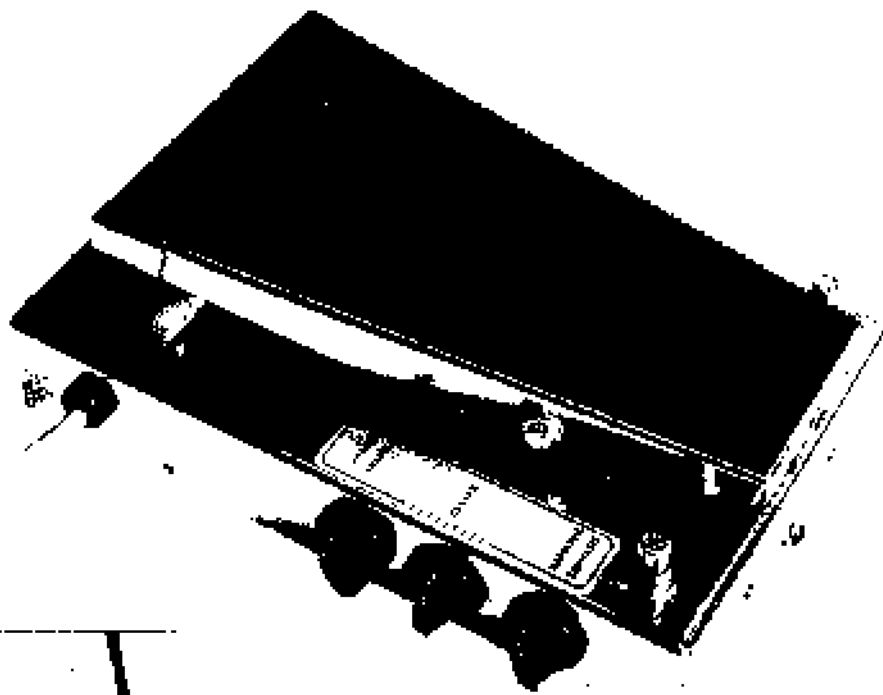
It is said that the "phaser" is currently the biggest selling effects unit and, judging by its use in almost every concert hall and on many records, I wouldn't argue. But phasers sold today are quite different from the early models that appeared at the end of the last decade. Today, IC's have given manufacturers the chance to produce phase convolutions unthinkable just a few years ago, and this Black Box can produce a very deep phase indeed.

It's a natural UK rival to some of the more expensive American-made units and it performs well and reliably, although the electronically knowledgeable might ask for a couple more facilities on the box, which could be added relatively cheaply to the existing circuitry. The degree of phase shift is infinitely variable, the most satisfying control combination being deep shift and slow phase speed. At higher speeds, phase shift does need to be reduced to avoid unsettling effects.

The unit is cleverly built to combine strength and economy - the top shell is in metal, the unstressed underneath in plastic - and replacing the internal PP9 battery is easy after removing the three Philips screws which hold the bottom plate on the unit.

My only working criticism was with the aluminium foot switch. The top part of this turns and, in one position, sticks and presents some resistance. I suspect this is a "new" fault that a few hours playing would work out.

**Ray Hammond**

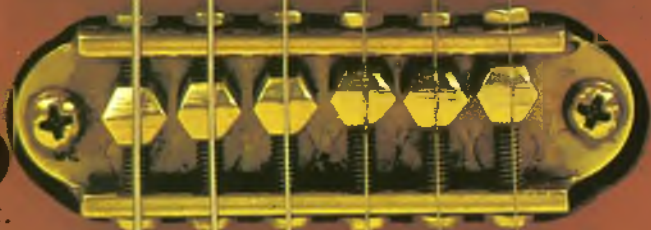




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The ADI automatic graphic equaliser 1500

## New Graphic from ADI

Audio Developments International recently introduced a historical event in professional equalisation: the Type 1500 Dual-Channel Automatic Graphic Equaliser. Accurate control of acoustics, elimination of feedback and adjustment for perfect response is now possible in seconds with the greatest of ease.

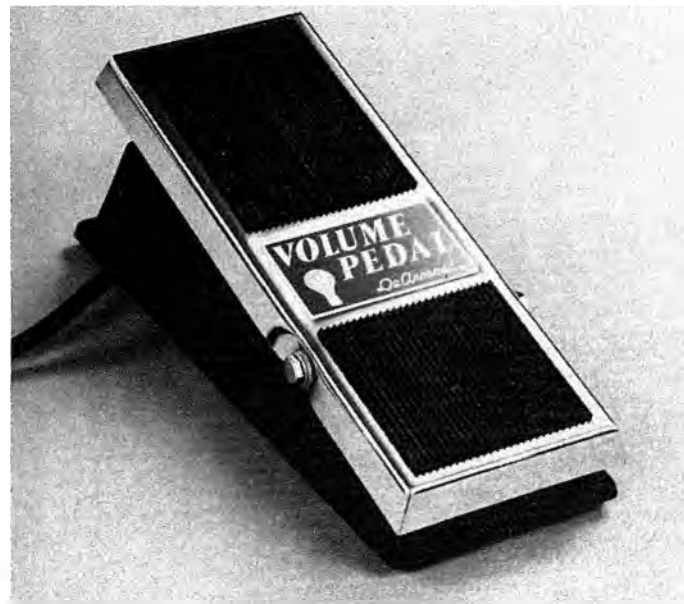
Included is a precision pink-noise alignment source, red and green LED's above each of twenty +12dB controls for perfect equalisation.

Ultra-Low Noise and Low Distortion Double-Pole Butterworth Active Bandpass IC Octave filters to ANSI standards are used along with Digital comparator circuits. The filters utilised are a generation ahead of older "gyrator" types. Rack mounting and 2 year limited warranty are standard.

## Optoelectric Pedal

The Model 1630, a new volume pedal from DeArmond, uses an optoelectric cell and AC powered light source for full range volume control. The light source used to activate the optoelectric cell is operated at only ¼ rated wattage to extend its life.

Use of optoelectrics elimin-



DeArmond's Optoelectric volume pedal

ates the need for pots, gears and batteries, resulting in a smooth, almost effortless pedal action. Volume control starts from absolute zero sound level with pedal up, reaches full volume at bottom of pedal travel. Life-testing of the pedal action indicates that the nylon treadle bushings will withstand over a million top-to-bottom movements without difficulty.

Compatible with all instruments, the versatile Model 1630 can also be used with synthesizers and PA's, or it can be used as a master volume control for mixing and recording equipment.

DeArmond has equipped the 1630 with a heavy duty power cord and encased the unit in a cast aluminum base. The low-profile design unit is basically black, highlighted by chrome treadle ribs.

## Inovonics Analyser

A completely self-contained, AC/battery-operated one-third octave sound level and reverberation time analyser has been introduced by Inovonics, Inc., of Campbell, California.

In the real-time mode, the Model 500 Acoustic Analyzer displays wideband or weighted sound pressure levels in each 1/3 octave from 25Hz to 20kHz on a 13 by 31 LED matrix dis-

play with either peak or selectable averaging response. The reference level, which is indicated on a digital readout, can be varied manually over a 100-dB range in 1-dB steps, or the unit will seek a proper reference level automatically. The range (resolution) of the matrix display can be set by the user.

In the RT60 mode, the unit displays reverberation time up to 10 seconds with 10ms resolution for either 15- or 30dB decay. The actual decay plot is graphed on the LED matrix, and reverberation time shown on the digital display.

The Model 500 is equipped with a built-in pink noise generator that produces broadband noise for response measurement or octave-band noise for reverberation analysis. Other features include a keyboard control panel for simplified data entry, two independent memories, data and oscilloscope outputs, and a choice of microphone or line input.

The unit can be used for response and reverberation analyses in recording studios and concert halls, for environmental noise studies, and for many other sound measurement applications.

The Model 500 Acoustic Analyzer lists for \$2750. Dealer inquiries are invited. For more information contact: Inovonics Inc., 503-B Vandell Way, Campbell, CA95008 (408) 374-8300

## Monitors from Electro-Voice

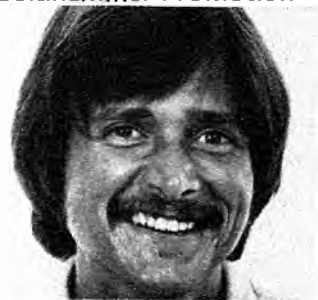
Electro-Voice has introduced two new high-accuracy stage monitor speakers. The FM12-2 two-way floor monitor and the FM12-3 three-way floor monitor are small, accurate monitor speaker systems that can be oriented in four different ways — two positions as a floor monitor, as a side monitor, or elevated on a stand. Both systems also incorporate new high-frequency auto limiting, as an electronic tweeter protection circuit.

The FM12-2 is designed primarily as a vocal monitor with response tailored to the most popular vocal microphones. The FM12-2 is capable of high SPL

(115 dB at 4½ feet), with a power handling capacity of 100 watts RMS. The frequency response is 85 to 16kHz (+5dB). Components are the EVM12L woofer and the T35 tweeter.

The FM12-3, three-way vocal monitor, incorporates the new Thiele-vented midrange speaker. It is said to combine the brilliance of a horn with the warmth of a cone speaker. In addition, the FM12-2 also uses the EVM12L woofer and the T35 tweeter. The frequency response covers 80 to 16kHz (+5dB) and also has a power handling capability of 100 watts RMS.

## Goldhammer Promotion



Rod Goldhammer

Rod Goldhammer has been appointed to the position of Engineering Manager at Sunn Musical Equipment Company, announced Larry Lyn, President.

A graduate of Oregon State University (BSEE), Rod joined Sunn's engineering staff in 1973 bringing with him a background in music and live sound reinforcement. He has applied his knowledge and experience in the area of user appreciation in regard to circuit design skills to the development of Sunn's Automated Sound — Generation II, Magna professional products, and the new Alpha and Beta Series product lines.

Under Goldhammer's supervision, Sunn is expanding research and development capabilities at Sunn along with increased in-house processing and testing facilities.

## Newman for NAMM



Richard J. Newman has been named Staff Vice President of the National Association of Music Merchants, with responsibility for trade shows and manufacturer liaison. He was formerly Midwest Sales Manager for the San Francisco Convention and Visitors Bureau.



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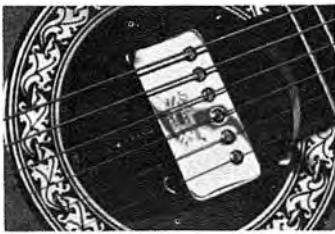


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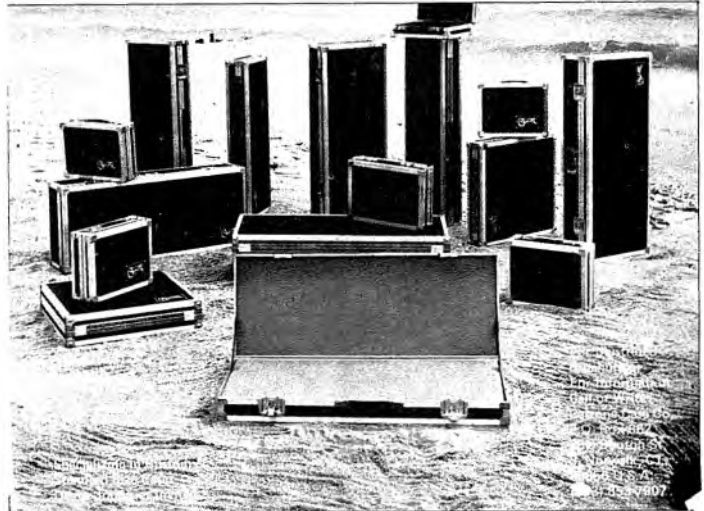


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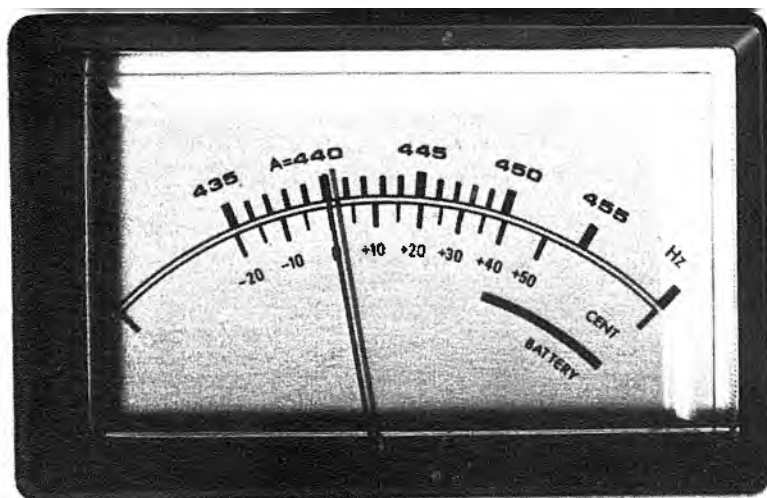
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