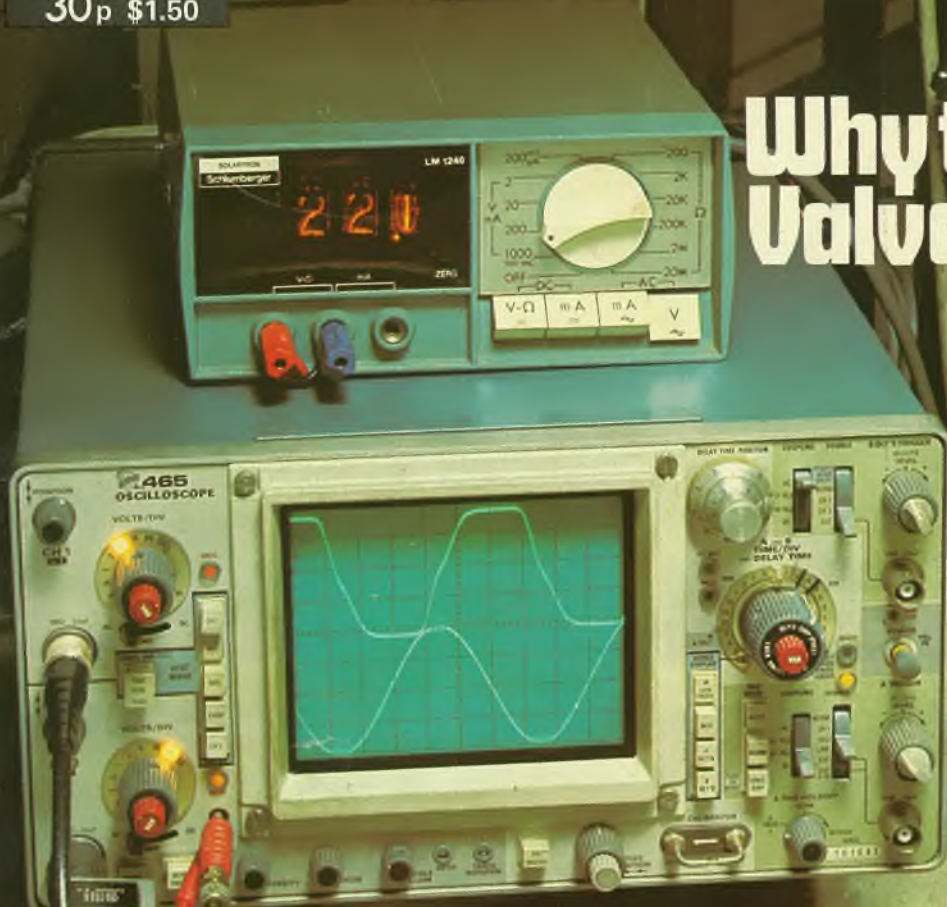


INTERNATIONAL MUSICIAN AND RECORDING WORLD

80200

JULY 1976
30p \$1.50

Why the Valve Sound?



**Ian Hunter
Gallagher & Lyle**

**Tests: Roland JC120 Combo
Custom Sound PA Amp
Godwin Portable Organ
Beverley Drums
Guild D40C Acoustic
Antoria Twin Neck**

Voice Box Explained · PA Acoustics ·
Recording At The Château · Roland Market Report



Wakeman plays Godwin
need we say more!

OPENING SOON

KEY/LAN SOUNDS INCORPORATED LTD + OPENING NEW SHOP +
FULL RANGE OF MUSICAL INSTRUMENTS+ DISCO EQUIPMENT+
PA EQUIPMENT+ COMPLETE SERVICE FOR ALL MUSICIANS+
WILL BE MAIN NORTH LONDON AGENT FOR NOLAN PROFESSIONAL
EQUIPMENT+ADDRESS: 177 KILBURN HIGH ROAD, LONDON+
OPENING SOON+ OPENING SOON+OPENING SOON+OPENING SOON+



NOLAN & SHERGOLD - A GREAT COMBINATION

Shergold (Woodcrafts) Ltd.

Avenue Industrial Estate, Gallows Corner,
Romford, Essex
Tel: 01-457 0721

NB Amplification,

17 Perryvale, Forest Hill, London S.E.23
Tel: 01-699 5019

chingford group gear

FOR IMMEDIATE DELIVERY
ANYWHERE IN THE UK OR EUROPE
FREE!



Gem Intercontinental
+ Solton £1285 £1145



X-5

Hammond X5 + Solton £1720 £1495



X-2

Hammond X2 + Solton £1030 £ 895



ELKA X55

Elka X55 + Solton £1285 £1145
Elka X55P + Solton £1350 £1195



Haven 61 + Solton £1690 £1495



SOLTON
*2Speed Rotary
Speaker System
with brake
has an amazing output
of 130/160 watts and
has two inputs for jack
plug connections to any
organ, guitar, electric
piano, etc. Solton is
rugged, powerful,
portable and is avail-
able from C.O.S. with
free delivery anywhere
in the U.K.
£495 (Including VAT)
Hire purchase and part
exchange welcome*

10% Deposit - Up To 4 Years To Pay
Post and Packing Free

All prices inclusive of V.A.T. Mail Order Specialists



Chingford Group Gear
242 Chingford Mount Road, Chingford. E.4
Telephone 01-524 1446

WHERE SERVICE REALLY COUNTS

TASCO

**WE WOULD LIKE TO THANK
DICK HAYES & BOB PRIDDEN
FOR THEIR ABILITY TO MIX AT
CHARLTON, GLASGOW & SWANSEA**

WHO

CONTENTS

JULY 1976

EDITOR
Ray Hammond
ADVERTISMENT DIRECTOR
Richard Cameron
PROMOTIONS DIRECTOR
Malcolm Cross
ART DIRECTOR
Mervyn King
CHIEF SUB-EDITOR
Carroll Moore
ART ASSISTANT
Alison McAlpine
FEATURE WRITERS
Eamonn Percival
Tony Bacon
ADVERTISMENT CO-ORDINATOR
Rosemarie Willis
TYPE COMPOSITOR
Hermin Smith
U.S. EDITORS
Jon Tiven
Gary Graifman
DRUM CONSULTANT
Bob Henrit
KEYBOARD CONSULTANT
Rod Argent
TECHNICAL CONSULTANT
Mark Sawicki, M.Sc. (Engineering)
GUITAR CONSULTANT
Stephen Delph, M.J.M.U.T.
PRODUCTION
Ramsay Gillies

International Musician & Recording World is published monthly by Cover Publications Ltd., 17 Tavistock Sq., London WC2E 7PA. Tel: 01-435 5624. Contributed in Great Britain by Independent Magazines Ltd., Bridge House, 100 Brook Green, London W6 0LJ. Tel: 01-899 6900. International Musician & Recording World is a trademark of Cover Publications, Ltd. All rights reserved. © Cover Publications Ltd., 1976. Whilst every care is taken in the preparation of this magazine, the publishers accept no responsibility for errors or omissions. The copyright in this magazine is held by Cover Publications Ltd. Printed in Great Britain by the Printers, 100 Brook Green, London W6 0LJ. Tel: 01-899 6900.

We're sorry, British readers, that the cover price has gone up to 30 pence. Since we started 18 months ago, the magazine has been 25p and despite great pressure from 20% inflation, we have resisted lifting the price as we feel that 35 or 40p for a musician is a lot for a musician to afford — we've all been (and some of us still are) musicians.

We ought to point out in our defence that our first issue in March 1975 contained 88 pages and our last issue had 192 pages and it's important to realise that the editorial content has also nearly doubled — the extra ads subsidise the cover price.

But the price of print and other charges (would you believe it costs more to post an issue of this magazine than it does to buy it?) have become crippling and despite the fact that we've become the most successful music monthly in the world (thanks to you), we're still forced to pay our bills and as our success grows, so do the bills.

You'll notice from now on that we're cramming a lot onto every page. We want to provide a real 30p's worth and if American readers are wondering why they haven't suffered, the pound closed at \$1.77 as we went to press.

- 10 Letters
- 12 Why the valve sound? I.M.'s cool heads Mark Sawicki and Ray Hammond prevail as the tube-transistor debate rages
- 18 Soundcheck Two amps get the twice-over from our experts
- 26 Keyboard Check Rod Argent reviews a Godwin electric piano
- 30 Drum Check
- 34 Guitar Check
- 38 Ian Hunter



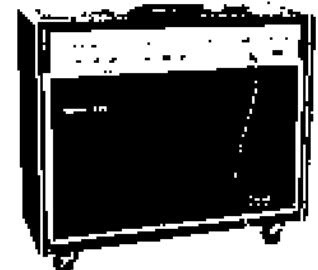
Eamonn Percival sorts out the bad boy of British rock

- 43 Albums
- 46 Gallagher & Lyle Tony Bacon talks to two of Ayrshire's finest exports
- 49 Home Recording Ray Hammond on getting the best sound out of the worst room — and on tape
- 51 A French Letter Bob Henrit reports from the funkier Chateau in France
- 58 Buzz: Glasgow and Edinburgh
- 65 Dealer of The Month Percussion Sounds, Nottingham's answer to a drummer's heaven
- 69 Dealer News
- 72 Synthesizers Unravelled In the first of a series, Graham Hinton wages a one man war on the mythology surrounding synthesizers
- 79 Studio Diary
- 83 Voice Box Eamonn Percival finds out how Peter Frampton gets that fantastic sound.

- 87 Big Back Yard The first in an occasional series of looks at regional bands
- 91 Mixing Lofgren with Europa A look at the sound behind Nils Lofgren



- 96 Room Acoustics and their effect on P.A. sound Ken Dibble reveals all
- 101 Music News
- 107 Miking the Back Line



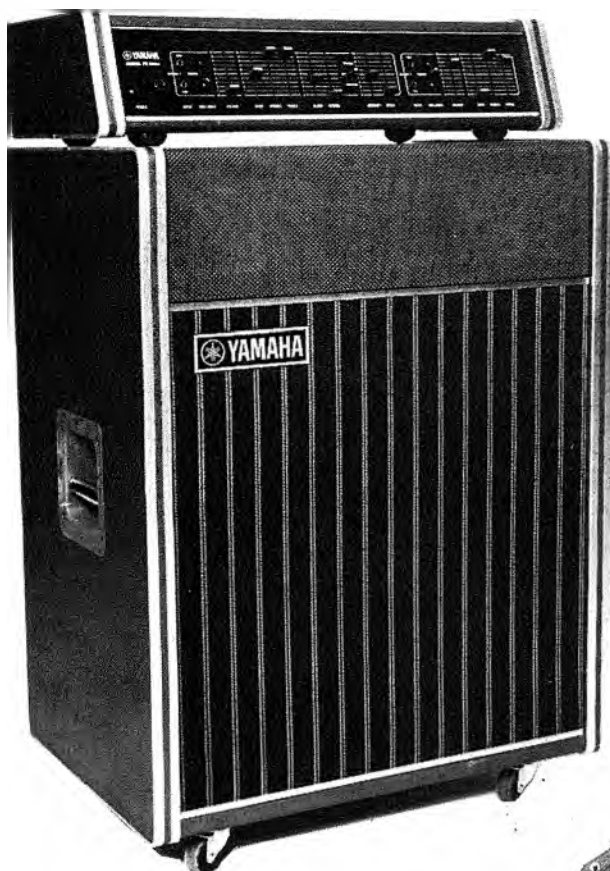
Ray Hammond reveals all

- 110 Back Line Amplification: What the Bands Are Using Eight top bands reveal all
- 113 Back Line Amplification Tony Bacon reveals what the best bets are in Britain
- 122 Market Report: Roland Keyboards What a revelation! 41 dealers tell the naked truth!!
- 137 Price Scanner
- 144 Dealer Guide
- 145 Studio Guide
- 146 Hire Guide
- 148 Classified
- 150 Reader Service



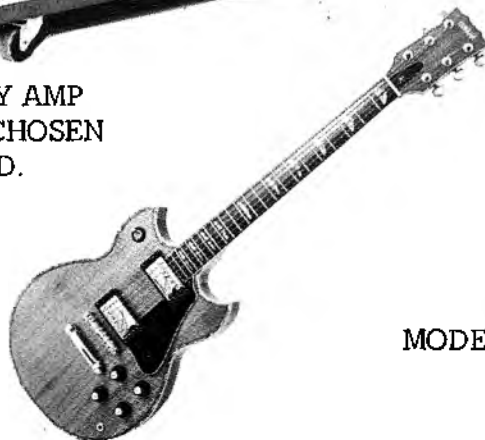
YAMAHA

SOMETHING From Pink Floyd



RA200 ROTARY AMP
+ PE 200A. AS CHOSEN
BY PINK FLOYD.

For many years a trade secret of the master guitarists, the soft acoustic phasing and Doppler Shift of a true Rotary Action speaker adds a soft velvety texture that cannot be matched by any mere electronic effect.



MODEL 175



MODEL 90



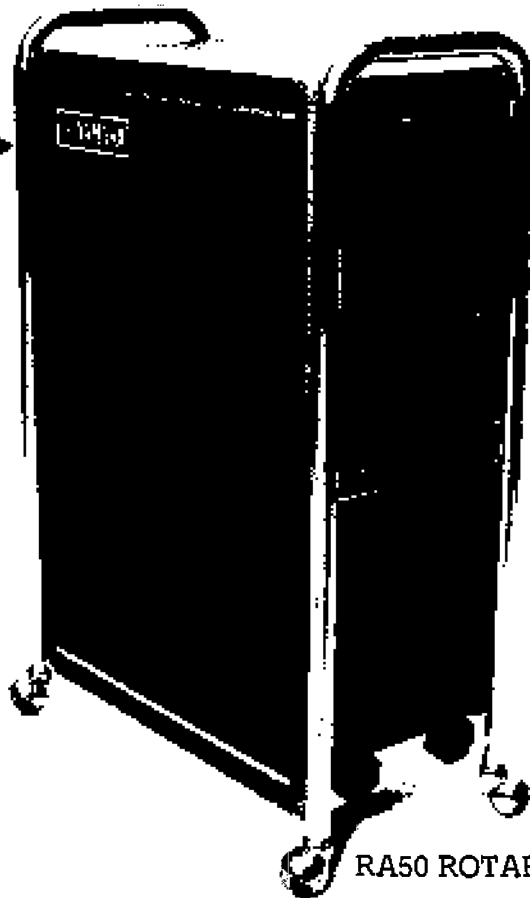
YAMAHA

AHA

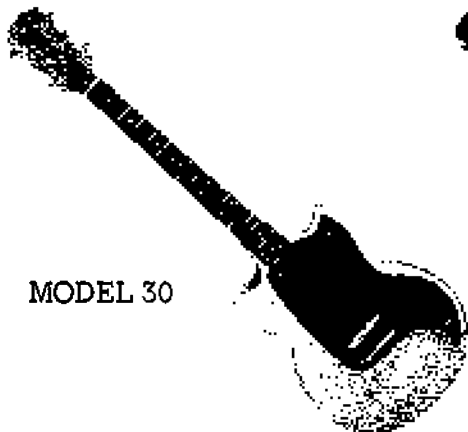
FOR EVERYONE

to You

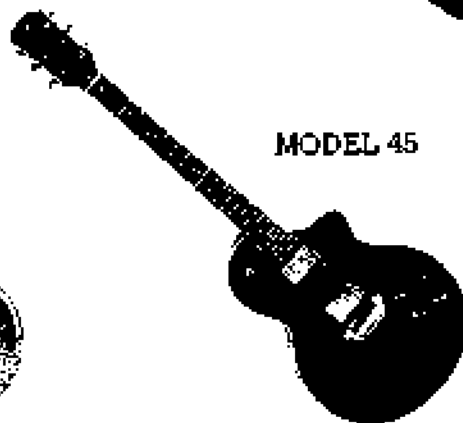
Until you have heard your own instrument – for preference one of the fine instruments illustrated here – enhanced by an RA system, you will never believe the depth and texture possible with Rotary Action speakers.



RA50 ROTARY AMP



MODEL 30



MODEL 45

**Sole U.K. Distributors-Kemble Yamaha,
Mount Avenue, Bletchley, Milton Keynes, Bucks.
Tel Milton Keynes 71771**

**YAMAHA MONTH
SEE YOUR DEALER
FOR DETAILS
OF SPECIAL
OFFERS**



10th Montreux

SUISSE/SCHWEIZ SWITZERLAND

**International Festival
1976**

Sound by

BOSE

FOR FURTHER INFORMATION AND PRICES OF BOSE
P.A. EQUIPMENT PLEASE CONTACT:
BOSE U.K. LIMITED, MILTON REGIS, SITTINGBOURNE, KENT
TEL: 0795 - 75341

**You bought the best AXE...
NOW...**

Get the best string!



BASS STRINGS

FLAT WOUND

First .054
Second .072
Third .092
Fourth .108

ROUND WOUND

First .050
Second .070
Third .085
Fourth .102

GUITAR STRINGS

ORANGE

light 9's
.009 to .042

RED

regular 10's
.010 to .046

BLUE

heavy 9's
.009 to .046

GREEN

heavy 10's
.010 to .052

BEIGE

extra lt. 8's
.008 to .038

GUITAR LAB, Inc.

165 West 48th Street
New York City, N. Y. 10036
U.S.A. 212-765-7738



as used by Eric Clapton

as used by
Rick Derringer

The Alex-Axe!

A PRODUCT OF GUITAR LAB INC. ®

- Guitars built to custom specifications
- Super chiefster neck
- Super hot Alex pick-ups built by us
on our premises
- Custom contour body
- Single or double neck
- Custom electronic designs accepted

Guaranteed against defects to original
purchaser

ALEX MUSICAL INSTRUMENTS
165 West 48 St., New York, N.Y. 10036
Telephone: (212) 765-7738 U.S.A.



The Rick Derringer Model



The Chiefster Model



LETTERS

Edited by
Eamonn Percival

Sir:

I have been reading your very interesting article on P.A. systems by Ken Dibble, and wondered if you could give me any information. I am a bass player and my guitar is a Fender Precision which I use with a Hiwatt 100 amp and a 200 watt 18" Gauss speaker in a folded horn cab. The manufacturer of the speaker cabinet recommends that the unit is used in conjunction with a high/mid range horn and I don't know whether the horn would just emphasise the treble on all the notes right down to bottom "E" or whether it would give clearer definition of high notes even with a bass tone on them. Could you please explain this to me? Also, you give the wavelength on "E" two octaves above middle "C" as approximately the same as that of the effective diameter of a 12" speaker.

Could you tell me the same information for an 18" speaker? With these two questions answered, I can decide on whether to buy a horn or not. I would also like to know what you think of using a horn or not. I hope you can answer my questions and thank you in anticipation.

Graham Ansbridge
Harlow.

KEN DIBBLE WRITES: The thing to remember is that although the fundamental frequency of a note from a bass guitar is relatively low, each note has a set of harmonics that extend up to the treble region. A large loudspeaker just cannot reproduce these upper harmonics and the use of a horn in your system will certainly solve the problem. Whether it is worthwhile or not depends on the bass sound you prefer. If you normally run your amp with the treble or presence controls turned right down, producing a muddy, heavy bass sound, then a horn is unlikely to make any real difference. If a sharp, clean crisp sound is desired, then the addition of a horn is necessary. The criteria given in the P.A. series referred to in your letter is essentially applicable only to P.A. speakers where feedback and sound distribution problems exist, and need not concern you for an instrument speaker. The simplest way to add your horn is to purchase the larger of the University Sound "Hi-Freak Kits" which are marketed in this country by Theatre Projects Ltd., as these kits contain the horn, the crossover and an attenuator control to enable you to balance up the sound from the bass and treble units. To your last point, the effective cone diameter of an 18" speaker is about 400mm, and this corresponds to a wavelength in the order of 850Hz. The musical equivalent is approximately the "A" above middle "C" on the piano keyboard.

Sir:

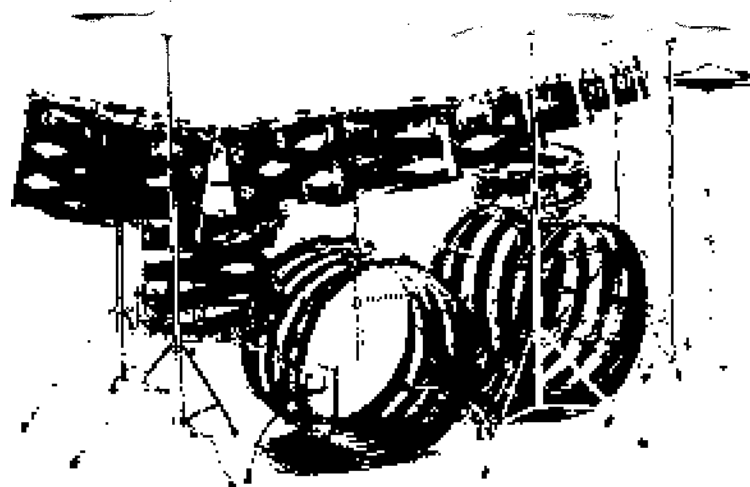
I have followed Ken Dibble's series on P.A. with great interest. I am at present building a P.A. from scratch, and wonder if you could recommend a reasonably detailed and technical (but straight forward) book to further my education. It is also very difficult to select a 15" speaker of high quality, without having to pay customs on foreign speakers. Is there an English-made speaker at a competitive price that fits this description? Malcolm Lane,
Balham, SW12.

KEN DIBBLE WRITES: Unfortunately, there is very little published dealing specifically with P.A. as applied to the music business. There are numerous books dealing with general commercial and industrial P.A. but these would be of little help as there is a world of difference between the two types. One particularly good book on loudspeakers is "How To Build Speaker Enclosures" by Badmaieff & Davis, published by Howard W. Sams Inc. of Indianapolis, USA. It was published in the U.K. by W. Foulsham Ltd. of Slough in 1967, but we suspect it is now out of print. However, you should be able to obtain a copy through your local library and it is well worth the bother.

Regarding your query on 15" speakers, Vitavox make a very good 15" speaker, although it is priced at almost £100. The Italian-made RCF range of speakers represent good value for money and they do a range of 15" drive units at prices between £49 and £79. Their U.K. distributors are Covemain Ltd., at Rugby.

longer being made from the same material as before but this is a criticism which could be levelled at almost every manufacturer since the very best seasoned wood is no longer available to the makers at a reasonable price. Therefore they have to use less superior wood to keep their prices within reasonable bounds. It is because of this factor that a brand new drum kit will sound different (although not necessarily inferior) to a ten years old, ostensibly identical model. The only drums which sound better these days than they did a few years ago are the Japanese sets which were abysmal before and are now at least as good as any of their competition.

My advice is to buy a Ludwig kit and don't worry too much that it doesn't sound quite the same as they did ten years ago, because in 1986, exactly the same situation will exist and your treasured Ludwigs will sound great (to you) and the new ones will sound inferior. The business of choosing a new drum set should not pose any real



Ludwig drums: new kits sound different, but age gracefully

Dear Bob Henrit:

Having only become a regular reader of International Musician in the past couple of months, I was amazed and delighted at the depth of review that goes on in Drumcheck, and also your articles like the Remo Factory and Frankfurt. With so many makes on the market, and without "demo" kits which seem to be in existence down South but not up here, choosing a new kit is, it seems, a matter of luck plus going by the manufacturers' specification. I had intended getting a new Ludwig, but have since heard they are no longer giving the sound they once did (due to the wood they use or the interior finish of the drums?).

Any information on this would be most welcome, or perhaps a past test sheet on Ludwig, which I might have missed. I would not like to spend money on a kit that did not live up to expectations, and would have to be changed after a couple of months. As I have said, I think your Drumcheck reviews are the best I have read and give anything I wish to know about drums and their accessories, and of course any information on Ludwig will be most appreciated.

Scott Brown,
Renfrewshire.

BOB HENRIT REPLIES: You are probably right about Ludwig drums no

problems, especially since you seem to be set on a Ludwig — one set will sound roughly the same as an identical set from the same manufacturer. The problem only becomes acute when you are indecisive in which make of drums you want, since obviously no two manufacturers' drums sound the same. It's not quite like selecting a violin or acoustic guitar where from several identical examples, by and large, the only sound variables are inherent within the instrument itself and the strings are almost always at the same pitch and tension so it's usually reasonably obvious which particular instruments have the best sound especially since beauty is in the eye (or ear) of the beholder.

However, with drums, since there are so many variables as in shell composition and thickness, head tension and thickness, plastic covering plus the relative pitch between the top and the bottom heads, this selection isn't quite so critical since the overall timbre isn't all important.

I don't think the South is any different from The North as far as demonstration kits are concerned. It's up to the proprietor of the shop but I'm sure you will find most specialist shops with good reputations will (or should) let you try out a kit, especially when you explain that you want to buy a new set and just

need to play one to know for sure. All things being equal, it might well be that what you actually need is a second-hand Ludwig kit in new condition which shouldn't be that difficult to find. An advert from your end in the "Drums Wanted" column in one of the music weeklies might work.

Sir:
Thanks very much for your excellent Musician's Union article which has made me wonder why I'd never joined before. The point about discos depriving bands of work I'm sure voices many musician's thoughts and I'd be interested to see I.M. taking it further. Secondly, I wondered if you could tell me anything about a Gibson SB 400 bass guitar. The serial number is 680863. I bought it second-hand two years ago, but nobody seems to have heard of an SB bass. How old is it and how much did it cost when new?
Tony Clarke,
Hackney.

Your Gibson SB 400 was one of a batch made between July 1971 and July 1972. According to Selmers, your particular one entered the country in January 1972 and is, in fact, one of only 38 imported to England. Retail price in 1972 was £170.

Sir:
I read with great interest your feature on the M.U. and would like to thank you for enlightening me on a part of the art I knew little about. The comments on discos are obviously true and reflect my own thoughts to some degree. I am certain that discos are far more popular

with the creatures who promote them than they are with the people who attend them. Even a local band costs a lot more than a D.J. with his few bits and pieces. Sometimes I feel like the Luddites must have felt — we have to help ourselves. However, I do feel I.M. could do something e.g. stop advertising for firms who cater solely for D.J.'s and appear to be nothing to do with live music. In fact, don't advertise anything for D.J.'s at all and let's see I.M. doing something to stamp it out, before there aren't any living musicians left to buy this excellent magazine.

Ian Shore,
Stockport.

Sounds as though you feel as strongly as we do on the subject. In fact, we have several more follow-up features planned on the M.U., discos and the fight for live music, which will appear in the near future.

Sir:
I wonder whether you could give me any advice on our P.A. system. At the moment, we have a 12-channel Stereo mixer, two 100 watt transistorised slaves and a horn/bin set-up. We wish to use larger bins, and we are thinking of two bins with one 15" 150 watt Gauss in each, together with two Vitavox horn units. Would it be an advantage in a system of this size to use two extra 100 watt slaves and electronic crossovers between the mixer and the slaves or would just two slaves and passive crossovers be sufficient, bearing in mind we will be miking up through the P.A.? Many thanks for any information.
T.E. Knight
Peterborough.

Your query regarding the use of active crossovers is, in fact, answered in part 3 of Ken Dibble's P.A. series (page 48: January issue of I.M.) and we would advise the use of this technique in preference to the usual passive networks. Regarding the Vitavox horns, we would recommend the type CN 157 radial horn with the S3 pressure unit, but would strongly suggest you hold fire for a few weeks as Vitavox are currently working on an improved version.

Dear Sir:

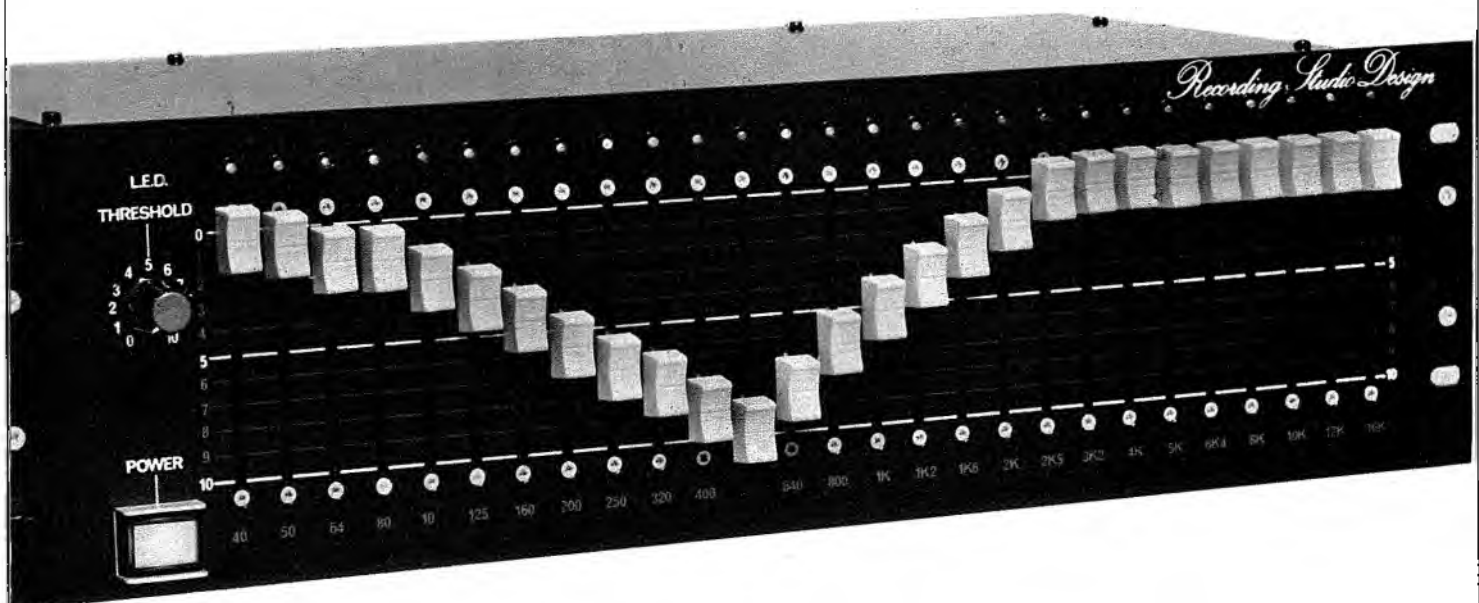
Having read practically all write-ups on both Cliff's single "Miss You Nights" and his current chart success "I'm Nearly Famous," I find it rather irritating to read in each case that credits for the vocal arrangements to the aforementioned single go to Tony Rivers, when in fact the entire arrangement (both orchestra and vocal) are identical to mine (from an album, as yet unreleased) — a fact which Cliff himself freely admits in a recent Record Mirror article. Having said that, may I compliment Cliff, Bruce and Tony on a first class album. I hope that no offence or bad feeling will be caused through my writing, but my vocals on "Miss You Nights" are something I am particularly proud of and, after all, I hope to be "nearly famous" myself one day.
Dave Townshend,
Bridgewater.

Sorry for any misleading information, but the album sleeve only credits Tony Rivers for vocal arrangements. Thanks for putting the record straight, congratulations on a fine song and we look forward to hearing from your own album.

ARE YOU AWARE?

This Graphic Equaliser, with LED's above each of its 27 faders, indicates the precise frequencies at which feedback occurs, and allows the

attenuation of those frequencies by up to 30dB resulting in an enormous increase in the volume of monitoring or P.A. systems.



Practical demonstrations & technical details for the trade and musicians are available

Recording Studio Design

CESHUNT HERTS WALTHAM CROSS 25682

Valves vs. Transistors

By the end of the 'fifties transistors were beginning to take over. Developed in the late 'forties (at least in a commercial context), transistors had replaced valves in most domestic equipment by 1965, but for some reason all the early guitar amplification, Fender, Vox, Selmer was based around valve systems.

Valves amplify a signal. They don't do it very efficiently and because it's almost an electro-mechanical process rather than a pure electrical one, the signal they work on is changed in the process of amplification. The end result of this is that the sound coming out of the early Fender, Vox and Marshall amps was not a true reproduction of the sound the guitars were making. But, despite being incorrect, the sound the amps produced was very pleasing. A pick-up stuck to an old acoustic with a Phillips screw through the soundboard still managed to sound good (for the time) and the market at which these electrical appliances were aimed (the teenage market) had neither the knowledge or experience to distinguish between good and bad (in the electrical sense, not the acoustic).

Guitarists became superstars and their followers believed that by choosing the same guitars and amps as their idols, they would automatically qualify for success.

The burgeoning rock music market caught up with the amp makers and their growth curve was phenomenal. Articles appeared in the *Sunday Times* financial section (more about this later) outlining the almost unbelievable growth of companies like Vox and Marshall. Their turnover was doubling and quadrupling each year and as many no doubt realised, matched almost exactly the arrival of the post war babies into their teenage years.

Much has been written about the effect the population bulge has had on the music scene. The vast birth rate that occurred between 1944 and 1953-54 was entirely due to the cessation of world hostilities and the return home of the fighting men who were, naturally, glad to see their wives. In the late 'fifties and early 'sixties, the result of their home-comings carved out their own music: Rock 'n' Roll.

It was the first time a young generation had controlled popular music, or popular anything. But then it was the first time that a generation with an eight or nine year age span had enjoyed a 30 per cent above average population statistic. By 1964, it meant that there were more teenagers than ever before (or ever will be again, because of the meaning of war in the future and the acceptance of birth control in the western world). These teenagers had a common language - music. The Beatles voiced the thoughts of a unique generation and in retrospect

- despite the criticisms levelled at the time - it is quite remarkable that so powerful a force should have had its energies channeled so peacefully.

These teenagers used amplifiers and guitars to express themselves. Those who made guitar amplifiers found themselves in an unprecedented market place - a whole generation of ill-educated (think how many there were to a class), affluent rock crazy kids wanted to play guitar and the boom was on. Some makers have never recovered from those "golden" years.

"If you want it to sound like valves, why not use valves?"

Because the best amps became household names to the generation almost overnight, there was little incentive to the makers to change their designs. TVs, stereo systems and radios sold to a wider, more selective market and as technology developed, so did the products. By 1965, the "transistor radio" was a common accoutrement for

teenagers listening to the pirate radio stations - one of the strongest pointers to the power the generation wielded.

But with one or two glaring exceptions, the transistor amps did not appear. Triumph and Johnson were two makers in the middle 'sixties who produced guitar amps around a transistor design, but by that time the guitarists of the generation were conditioned and busy aping the antics of the successful, who had made it on valve amps. No one thought "valves"; rather, "If he's got a Marshall, then I want one".

I still remember visiting a club in Feltham, Middlesex as a reporter for a local paper. I asked the bass player in the band (I can't remember their name) about the strange amp he was using. He told me it was a Triumph and said it was no good, as it didn't produce a good sound. I remember that the amp looked very flashy, with a control panel that was lit up.

He had been playing valve amps for a few years by then and without realising it, had come to expect his bass guitar (and all guitars) to sound a certain way. The way was the valve way. When he plugged into a transistor amp, it didn't distort, it reproduced a more accurate sound, but he didn't like it, neither did the rest of the band.



The "New" valve sound is captured by the HH V-S Range...

Ray Hammond discusses the 20 year argument.

I recall that around that time, Vox produced a bass amp called the Foundation that was a transistor amp and that was very successful, but it was alone in a sea of valves.

The rock generation grew up and after the death throes of Flower Power and that summer of '67, gave up the ghost to those that came after. But the musicians continued and have gone on to dominate the subsequent generation of music listeners, as have their tastes in amplifiers.

The company that cracked the nutshell was HH. They launched in 1971-2 when Marshall was still the market leader and transistors were the dirty word. Their amp was small, light, cheap - and it was reliable. The sound was transistor, but with sufficient colouration to induce the guitarists, who had been using the same sounds for 15 years, to give it a try. The result was that the HH sound was born. After a while, session guitarists could offer an arranger either a valve or HH amp (or one of the many copies that sprang up overnight) and it was regarded as two different sounds. HH scored a great success, and the amp took over on top of the tree. In suggesting that HH cracked it, we are not suggesting they were the first, or necessarily the best, only that they were the ones who made the breakthrough.

It could well be argued that they were lucky to succeed where many had been trying before and their success was only a matter of timing. At around the time they hit the market, the guitarists were being offered compact effects for the first time. The Fuzz and wah-wah pedals had been around commercially since 1967, but it wasn't until the early seventies that a whole range of transistor effects hit the market and offered every guitarist a chance to modify the amplifier sound to his heart's content.

Because the presenters of HH had been guitarists themselves, they realised the importance of making the electronics sympathetic to the nuances of a musical instrument - two things that seem diametrically opposite and another major barrier that had previously stood between the musician and transistors.

By 1976, HH had dragged the amp market into the 'seventies - no mean feat, as the technology had previously been firmly stuck in 1956. But here the story starts to go wrong. What would seem to be a happy ending, with most makers going over to transistors a few years ago (Carlsbro, Marshall etc.) took a left turn three months ago, when HH called a major press conference to announce the new range of HH amps, the VS-Musician - the VS standing for valve sound.

So after years of success with an amp that sounded significantly different to a standard Marshall or Hiwatt, HH have seemed to capitulate and step backwards towards the second harmonic distortion that is so typical of a valve sound. HH amps are, of course, still transistor from end to end and HH boss Mike Harrison has made a lot of fuss about a secret circuit HH are incorporating into the VS system to make transistors sound valve-like.

A reasonable man might be expected to ask "If you want it to sound like valves, why not use valves?", and the two answers offered are reliability and weight. It's undoubtedly true that solid-state equipment is more reliable than valve stuff, but if you're prepared to carry a spare set of valves around there is little difference in practice. Transistor gear is a lot lighter.

So why has HH taken so much trouble to make their solid-state amp indistinguishable from the valve stuff? It ought to be said that Jim Marshall launched his transistor stuff 18 months ago on the premise that it exactly reproduced the valve stuff.

It's unlikely that HH have been stampeded into launching a valve sound transistor amp because of the success of other amp makers. The front page of the *Sunday Times Business News* a few weeks ago carried a congratulatory article about HH and they certainly gained an almost unassailable position on the British market - they have not tried their luck in the Americas.

Mike Harrison, HH boss, has gone on record as saying he believes that musicians want the valve sound after he has proved that they are prepared to accept a very different type of sound. Obviously, he felt there was a large section of the market HH was missing because they weren't sounding like valve amps. The new HH amp offers both the traditional "clean" HH sound and the valve sound and so he's obviously hoping to kill the two birds with one stone.

The conclusion to be drawn is that many musicians cling to their preferences, or prejudices, in the face of change. The rules of rock were laid down in the intensity of the 'sixties and, perhaps, it's the newer musician who's prepared to accept a change in sound.

The answer is that it's perfectly possible today to exactly reproduce a valve sound with transistors - even outside of the HH range - and the long term future for musical instrument amps must lie with solid-state equipment, if only for the slow drying up of valve components as fewer and fewer valves are used in equipment production. In the short term, the valve boys seem to have swung it back their way and proved that the music business is the craziest in the world.



While the "Old" valve sound of the early Marshall amps is still a favourite

The Technical Arguments

by Mark Sawicki, M.Sc. (Eng.)

Until recently, many professional musicians held the view that the sound produced by their old and very often ragged looking valve amps could not be duplicated by even the most expensive solid-state system. For this reason, the technology of solid-state was not, and still is not particularly popular amongst musicians preferring the traditional sound reproduction of the valve amp. On the other hand, Hi-Fi users hold the opposite view on this point: solid-state systems have completely overwhelmed the old valve system as far as they are concerned.

As far as the generation of musicians emerging in the 'fifties and 'sixties were concerned, they were not convinced by size, weight, efficiency, hum noise or any other hard fact. They could not always tell the difference, with even the most expensive solid-state systems.

As a result, the important merits of valve amps produced a tendency for professional musicians to retain this characteristic sound, which in turn nudged designers and manufacturers to evolve a solid-state system that would simulate the valve

amp sound and character of distortion. For people not *au courant* with the problem, it appears as a regression which, of course, is not true. In reality it is a direct result of the matching of musical tastes and development tendencies in the musical industry.

We know, now, that the majority of professional musicians, whatever instrument played or type of music produced, be it Country & Western or Heavy Rock, have signed the death warrant for the transistor amp.

Most rules of course, have their exceptions, and this case is no different; there are certain instruments, eg. Bass Guitar, where ordinary solid-state performs satisfactorily. The optimistic future of the valve sound in solid-state is without doubt assured, but in the final analysis the decision always remains the prerogative of the individual musicians and depends also on the instrument used.

Before discussing and trying to understand the problems of valve sound, we should first outline some of the basics of acoustics which will help in clarifying this. To examine the construction of sound, it is necessary to use a mathematical analysis of the tonal spectrum characteristics. The oldest historical model known was evolved by a German Physicist and Physiologist, Hermann Helmholtz, in 1863, although the most popular method presently used is the "Fourrier Array". According to Fourier's hypothesis, every periodical movement (sound) can be divided into sinusoidal harmonic components, or Fourier components, where the lowest Fourier component is equal to the fundamental frequency, and the others being: f , $2f$, $3f$, $4f$, etc.

Since the above analysis is quite complicated and requires a lot of calculation to obtain the results of the number of harmonic amp-

litudes in question, simpler methods were produced by various other scientists (Clifford, in 1873; Henrici, in 1892; and Drobner, in 1962). The most common methods now employed are those of the Hetrodyne/ Resonance Analysers, and Spectroscope filters. The analysis of an amplifier frequency spectrum range can be reproduced on the similar graphs of the harmonics, shown in *Figure 1*.

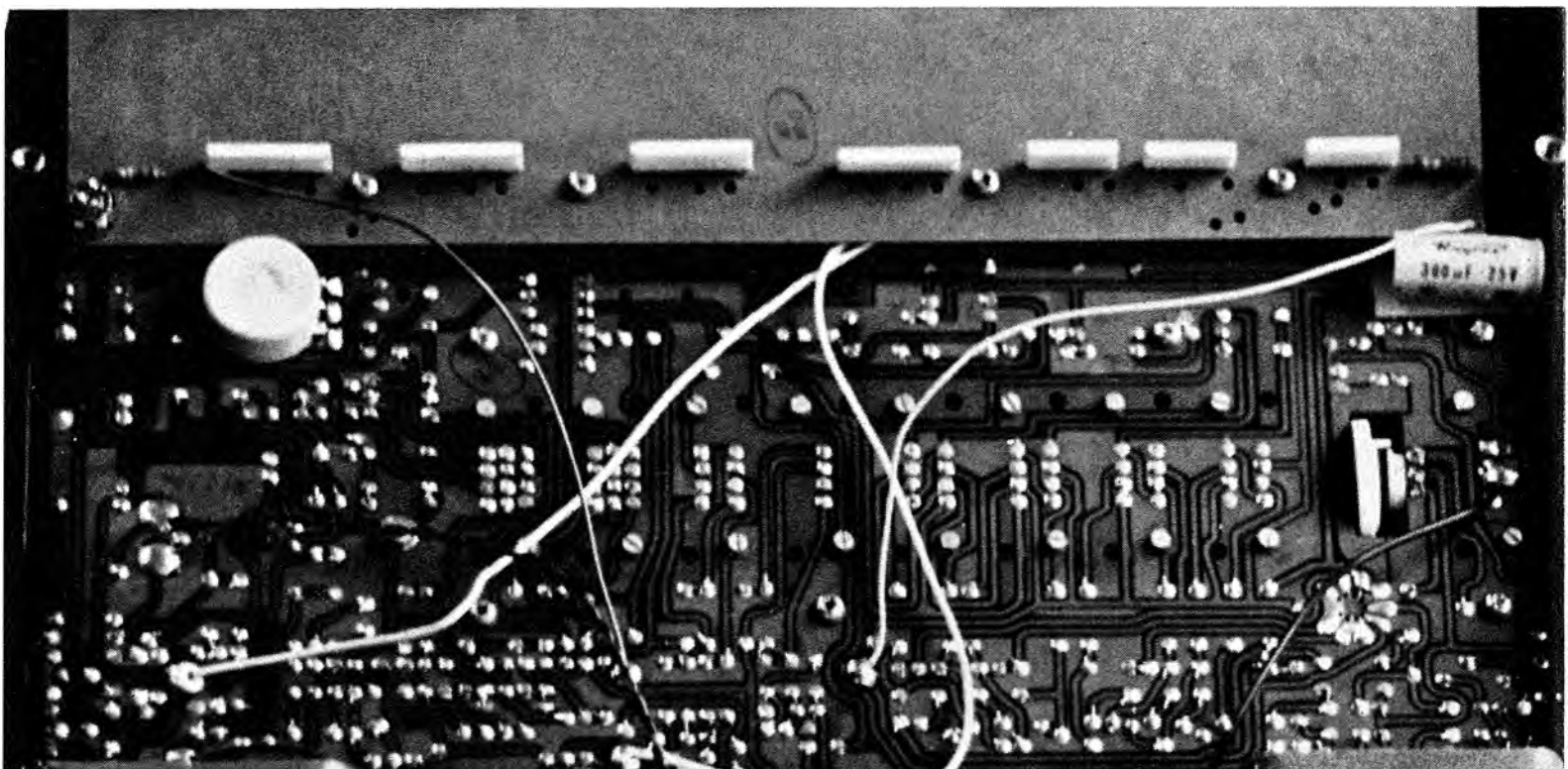
Naturally, the graphs can be obtained by an electronic oscilloscope, T.H.D. (Total Harmonic Distortion) meter and a Fourier Components Analyser.

Bearing in mind the typical non-linear amplifier (any real amp is non-linear to some degree), the harmonic distortion of the fundamental frequency, eg. 1KHz, produces subharmonics at the amp output of: 2KHz, 3KHz, 4KHz and so on. In acoustic research, Total Harmonic Distortion (THD) was intro-

Fig. 1



Simple distortion patterns obtained in an audio amp.



duced for accurate analysis and comparison checking of the various systems.

To throw more light on T.H.D. valve characteristics, it should be said that the output signal reaches maximum voltage value when the harmonic distortion attains a level of around 25% THD. The value of THD is expressed as a percentage value of the fundamental signal.

From the graphs in Fig 2, we can draw the following conclusion; apart from the fundamental frequency, the dominant value reaches 2f harmonic and the following being 3f, 5f, 7f. The amplitudes of the 4f, 6f, and 8f, attain only very low levels.

The transistor amp output is relatively distortion free and a typical THD figure would be about 0.15%. Of course, the figure of 0.005% is also realistic, even just prior to clipping.

The most important difference in performance between valve and transistor amps concerns the overload distortion characteristics of the output stage. Compare the value from the range of (0.005 to 0.15%) of the T.H.D. to the (10 to 25%) of the valve amp. It is easy to observe the difference and

understand the changes in specific characters of both types of sound.

In the field of acoustics at present, there are many theories on the influence of

harmonics on the characteristic of sound, e.g. a valve sound means clipping the third harmonic, which can create quite an unpleasant sound.

Of course unpleasant or pleasant is a question of personal taste and preference. A partial solution to the above problem depends in part on the physiological make-up of the created sound.

To construct a solid-state amp having a realistic valve sound, it is necessary to analyse those constructions on the market with the best valve performance and then obtain the valve sound through the following means of research:

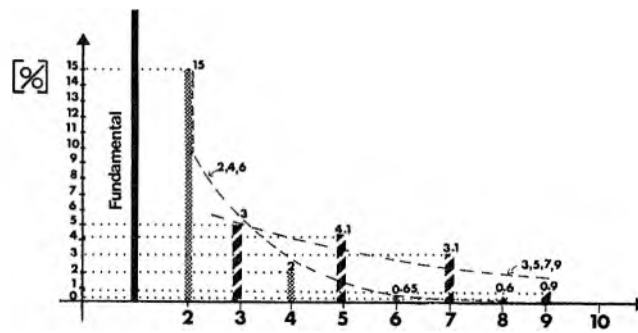
(a) Analyse the steady state characteristic of the amplifier using a mathematical model and analogue/digital technology.

(b) Identify and calculate contents of the Fourier components and obtain similar results in solid-state systems.

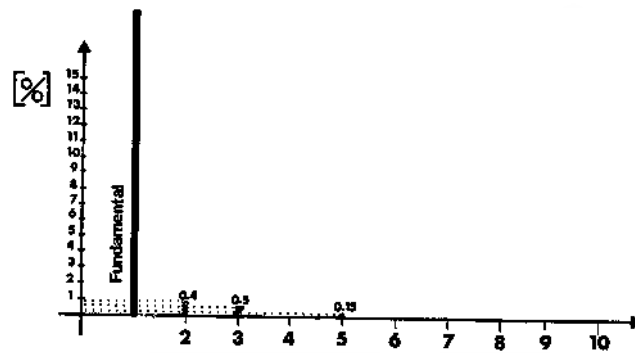
(c) Test the dynamic characteristics of the effect on clipping the level of distortion in both types of amplifiers.

I am pleased to say that a few valve sound amplifiers have recently appeared on the market incorporating the above points and their performance rates fairly well compared to the traditional systems.

Fig. 2



Spectrogram showing harmonic distortion ref. 1 KHz. In a standard pentode 100W output (push-pull system)



Spectrogram showing harmonic distortion ref. 1 KHz. in a standard transistor 100W output (push-pull system)



THE MUSICIANS: 60% prefer valves...



Muff Winwood

The valve versus transistor controversy just doesn't exist, according to producer Muff Winwood. In the 'sixties, Muff played bass guitar with The Spencer Davis Group and is now a producer (as well as Managing Director) at Basing Street Studios, so he has had plenty of experience from both sides. He has produced Sparks and The Sutherland Brothers and Quiver.

"There's absolutely no difference, as far as I'm concerned," he told us. "One doesn't go by whether the valve amp is better than the transistor amp. It's split 50-50 each way. I mean, I have two favourite amps — the HH and the Fender Twin. The HH is a transistor job and the Twin is valves, so I have no particular preference.

"It's really a case of experimenting with whatever sound a guitarist wants. We have both amps in the studio for basic tracks. There are so many variables that can affect the sound — the make of guitar, the speed of the number, even the key the number's in — they all affect the basic sound."

Bill Nelson

Be-Bop Deluxe's guitarist Bill Nelson is a man who knows what he wants — particularly when it comes to choosing between valve and transistor amplifiers.

"Ever since I've been playing guitar, I've always used valves. They give you a much more flexible sound and a very warm sound. If, like me, you like to use a fair amount of sustain, then valve amps give the best results. It's a much more natural sustain, much better than a fuzz box.

"It's true transistors are more rugged — they travel better, but I use three 100 watt Carlsbro amps which I've had modified. Valve amps can overheat and the valve bases can become loose, so I've had fans fitted to keep them cool and the bases are now sealed in epoxy resin, so I've had no problems.

"I've tried lots of transistor amps — even the new ones that are supposed to give a valve sound — but, although the technicians can show you on graphs that the characteristics can be the same, a decent musician will always be able to tell just from his ears that they are different."

Mick Green

Guitarist Mick Green has a wealth of experience to draw from. He first came to fame as guitarist with Johnny Kidd's Pirates and went on to play with Billy J. Kramer with the Dakotas, Cliff Bennett and Englebert Humperdink.

More recently, he has formed Shanghai with Cliff Bennett and still finds time to produce other artists.

"There's absolutely no contest as far as I'm concerned," Mick stated emphatically. "There is no way a transistor amp can compare with a valve amp. I don't mean just for distortion, I mean the whole sound of the amp. A valve amp sounds a lot more natural to me. A transistor amp always sounds like it's direct injected. I've tried a few transistor ones out, but I just couldn't get on with them."

At the moment, Mick uses a Marshall 100 watt valve amp with a Marshall 4 x 12 cabinet, and he sees no reason to change. "It's a really good amp. I think Marshall are well in front with the high power stuff, the same as Fender are in front with the smaller combos. I know a few companies are building transistor amps that are supposed to sound like valve amps, but I don't really see the point — why have transistors in the first place? Valves are a lot easier to replace or repair."

Rob Davies

Mud's lead guitarist Rob Davies swears by his Acoustic transistor amp, which he always uses onstage. "It's a great amp and it's very reliable. It's also one of the few transistor amps that gives a meaty sound. I've had it for about three years now, and it's never given me any trouble.

"Whether I prefer valve amps or transistor amps depends on what I'm doing. In the studio I either use a Vox or a Fender, both of which are valve amps. I still love the sound of the old Marshall amps as well, but the Acoustic is so reliable. It's got built-in distortion, which is great. It's a real natural sound — perhaps not quite as natural as valves but still pretty good. I always use a Strat onstage now because when I've used a Gibson with the Acoustic, it tends to sound a bit too metallic, but it really matches with the Strat."

Glenn Tipton

Judas Priest are a Birmingham-based band who have released two albums — "Rocka Rolla" and "Sad Wings Of Destiny." A powerhouse band, they feature two lead guitarists — Glenn Tipton and K.K. Downing. We spoke to Glenn to get his views on valve and transistor amplifiers.

"I much prefer valve amps," he informed us. "You just can't beat them for playing at high volume levels. Transistor amplifiers are usually used by musicians who play 'lighter' music. I must admit, there are a lot of transistor amps I haven't tried, so I can't comment on them all, but I've tried quite a few like HH, and I always seem to get a thin, trebly sound — a bit too tinny, even if you turn the treble and bass controls. They just don't have the gutsy sound of a valve amp. It's basically a difference in sound. Transistor amps are supposed to be more reliable, but I don't think that's the case. If you have a valve amp and treat it well, like keeping it in a flight case, it should be just as reliable."

Hank Marvin

One of the first British "guitar heroes," Hank Marvin still sticks to a Vox AC30 for the sound he's after.

"I usually use the AC30, or sometimes a small Fender Deluxe, which are both valve amps. In about '67, we tried a Jennings transistor amp, but we were never too happy with them. We had been using AC30's and it wasn't quite the same.

I've never really gone into it too deeply. Early on, we tried a small Burns transistor combo. I think it was about 20 watts, but that was one of the first transistorised guitar amps, so it was still in the infancy stage. It was quite nice but a bit noisy. Of course, that was in the days before people started winding the volume up. If you got distortion, people thought there was something wrong.

"I must admit, I've never really tried any transistor amps since then, but I still like the sound of the Vox."



miles amplification

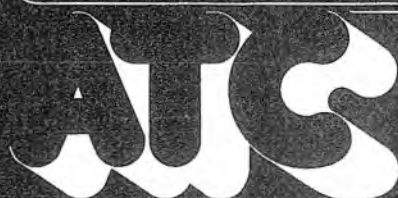
Modular system consoles built to no compromise recording and broadcast standards.

54-56 Stanhope Street, Euston, London NW1 3EX Telephone 01-387-7679
Louis De Polsto, ARC, SPRL, Rue Th. Decuyper, 134, 1200 Brussels, BELGIUM. Tel. 7-71-30-63

MARTIN AUDIO LTD.

Sophisticated loudspeaker systems

54-56 Stanhope Street, Euston, London NW1 3EX 01-388-7162.



Acoustic Transducer Co. Ltd. (Acoustic engineers)

Pier House Laundry, Strand on the Green, Chiswick, London W4, Great Britain. Tel. 01-995 3654

Louis De Polsto, ARC, SPRL, Rue Th. Decuyper, 134, 1200 Brussels, Belgium. Tel. 7-71-30-63



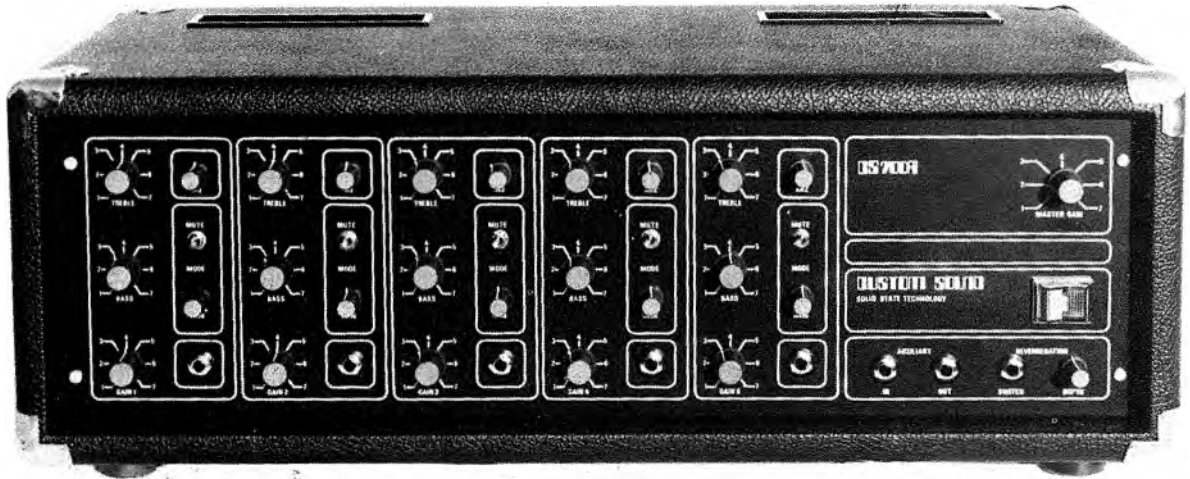
SOUND CHECK

TEST ON: CS 700A P.A. AMP

DATE: June 1976

PRICE: £160.50 Ex VAT

TEST BY: Mark Sawicki M.Sc. (Eng.)



INTRODUCTION

Custom Sound produce a "700 series" of amplifiers, a range of professional sound equipment which includes:

P.A. amplifier/mixer, musical instruments amplifier, combination amplifier, bass instrument amplifier and Power (Slave) amplifier.

The CS 700A P.A. Amplifier tested here is the sort of equipment you might consider for a straight forward budget system. It's a reasonably good and thoroughly straightforward design that gives out 150 watts r.m.s. and achieves everything in a quite conventional manner. It is perhaps unusual to find a professional class five channel mixer, with reverb system, auxiliary send/return circuits with mute/mode selection and many more facilities in a budget system. With a price of about £32.00 per

channel, it certainly makes life sweeter.

The front panel of the CS 700A carries each channel's controls, gain, bass/treble, anti-feedback compensation KHz control, mute/mode selector switch, reverb gain control, auxiliary in/out sockets, reverb footswitch socket, reverb depth control and an illuminated rocker on/off power switch.

On the rear panel, there are output terminals for 4 or 8 ohms speaker systems, a line socket providing 100 mV. at 47Kohm signal output, tape recorder (150 mV. at 100Kohm) socket, power amplifier (775 mV. at 600 ohms) output to inject the final signal to a slave amplifier, headset monitoring output, output 5 amps/mains 3 amps quick blow fuses and main power input socket.

CONSTRUCTION

The amplifier chassis which contains all of the electronics slides into a black vinyl coated wooden cabinet measuring 61.5 x 22.5 x 31cm. deep. The case is protected by nickel plated corner pieces. Each channel's electronics are carried by separate P.C.B's and contain all the rotary controls plus an input jack socket with specially gold plated contacts.

The gain/treble/bass controls are calibrated 1 to 7 whilst "Flat," for the tone controls, a setting of 4 is necessary and gives an exceptionally wide range

of cut and lift to lower/higher frequencies. The KHz control enables sound characteristics to be varied with particular reference to frequencies in the mid and upper range and may be used to reduce feedback. The manufacturer has been ambitious enough to try and create his own individual P.A. sound by including a rarely found tone control circuit, which affects the spectrum characteristics slightly but is still very rich in tonal qualities and harmonics.

In the power amplifier section, we find a very

useful innovation. In case of any fault the power stage can be easily replaced in a minute because the manufacturer incorporates a special multi-pin plug which saves time — and expensive labour charges!

The power stage contains six 2N 3773 silicone power transistors fully protected from faulty speaker leads or speakers (open/short circuit) by a 5 amps quick blow fuse system. For thermal protection, the 700A amplifier/mixer has been designed with special 4 ventilation ducts.

The electro-mechanical spring type reverberation

system can be fully controlled by reverb gain/depth controls. Only one small point to make about the present reverb system: it would be an idea to incorporate an extra on/off mechanical reverb lock switch for safer transportation of this delicate device.

To obtain a full scale 10 channel mixing system, the manufacturer suggests the use of two CS 700 A's, giving two independent outputs with high facilities and a very comprehensive range.

PERFORMANCE

	RESULT	TEST CONDITION	COMMENT
Specific Power Output	189.2W r.m.s. 104.4W r.m.s.	@ onset of clipping at 4.0 ohm load @ onset of clipping at 8.0 ohm load	Rated at 150W r.m.s. at 4 ohm—(recommended)
Total Harmonic Distortion	1.99% 1.50% 1.03% 0.63% 0.28% 0.02%	150W. r.m.s. 120W. r.m.s. 80W. r.m.s. at 40W. r.m.s. 1KHz. 10W. r.m.s. into 4.0 ohm 1W. r.m.s.	Mainly second harmonic distortion. Quite high level for solid-state technology
Sensitivity	30 mV.	@ 47 Kohm.	
Multi Input Priority	Satisfactory on actual experiments	5-channel test + variations	Very good
Signal to Noise Ratio	68dB.		Good
Tone Controls	+13dB. / -16dB. +18.5dB. / -20dB.	Treble at 7.0KHz. Bass at 100Hz.	Very good
KHz Limiter Control (Anti-feedback system)	+12dB. +17dB.	@ 2.0KHz. @ 3.0KHz.	Almost identical to the manufacturer's specification
Tape Unit O.P. Signal	150 mV.	@ 100 Kohm.	
Line Output Signal	100 mV.	@ 47 Kohm.	
Slave Output Signal	0.775V.	@ 600 ohm.	
Open Circuit Stability Test	OK	Master, gain controls — max tone controls — mid position dummy load removed.	Good stability margin
Capacitive Load Test	OK	10KHz. square signal	
Short Circuit Test	OK	1 min short circuit	No ill effects
Headphone Output Signal	0.5W. r.m.s. mono	@ 8 ohms.	Plenty of power

CONCLUSION

The Custom Sound C.S. 700 A mixer/amplifier is a well designed P.A. system and meets up to the manufacturer's specification of adequate power for the popular vocal speaker system. The general quality of components and workmanship is good, the performance is of an acceptable standard and the CS 700 A is a really good looking system.

I agree with the logic of having the handle on the cabinet end, but would suggest that in order to

protect the opposite end from wear and tear, extra protection should be added in the form of 4 rubber feet. At a V.A.T. exclusive price of £160.50, the CS 700 A represents a sample of a very good investment.

(The amplifier is supplied with an informative instructional booklet, mains lead, spare fuses and comes with a full two year guarantee).

It took me twelve years to realise what I couldn't do with my drums.

“Playing with Yes demands a lot of technique.

Believe me, once you've accepted rhythms like 19/8 and 11/8 as the norm, 4/4 sounds rather strange.

But that's just one way in which Yes has allowed me to develop.

My playing has extended. And so has my kit.

I still have my same basic Ludwig kit – two 9 x 13's, two 16 x 16's, the speed king pedal, the 400 snare, and the 14 x 22 bass drums – but now I make it do a lot of different things.

For instance, I've added a moog drum that I use through a keyboard. And I've had an air pump built that inflates the drum and alters the tone of the kit.

But, for all that, one thing hasn't changed. My playing still has the same earthy feel that it had 12 years ago.

And the reason for that is I'm still using the same Ludwig kit. You can hear that kit on a lot of albums I've been a part of over the past few years. Lennon's *Imagine*, *All Things Must Pass* by Harrison, a lot of Joe Cocker's records, my own solo album *Ramshackled*, and all the Yes material since *Close To The Edge*.

That kit is the second kit I ever had. It's been around the world three times and it's stood up to a lot. I've always used it, on stage and in the studio, and I always will continue to use it. Because that dry powerful sound is basically where I'm at.

In fact, that's my advice to anyone starting out. Get into the best gear straight away. Because then you grow up to it. And if you have any prospects at all, the tools of your trade are the most important thing.

And with a new Ludwig kit you're flying.”

Alan White has played extensively as a session musician, as drummer with Joe Cocker, and most recently with Yes.

Please send me information about Ludwig. Please send me details of other Rose-Morris products.

Name _____

Address _____

Rose-Morris & Co. Ltd., 32 Gordon House Road, London NW5 1NE. 01 776





TEST ON: Roland JC 120 Guitar Combo Amp

DATE: June 1976

PRICE: £350.76 Ex VAT

TEST BY: Bruce Gibbs B.Sc.



INTRODUCTION

The Roland range of electronic musical equipment is very large and has been expanding at a remarkable rate. The unusual feature of the new products is their degree of sophistication. Almost every item is very much "state of the art" and little or nothing could be referred to as a basic bread and butter line. The experience Roland have gained from their synthesizers, sound effects and their "Revo" sound system is cumulative and shows in the design of the JC120 guitar amplifier.

The JC120 is a two channel 120 watt com-

ination amplifier. The "JC" stands for "jazz chorus" which refers to a built-in chorus/vibrato sound effect. This is a very close relation to a phasing effect and not unlike the "Revo sound system" sound. Two other effects are also fitted. These are a distortion unit and a very clean sounding reverberation effect. The result is an amplifier which is significantly different to the monotonous lines of ordinary 120 watt combos which at present grace the market place.

CONSTRUCTION

The electronics are mounted on four printed circuit boards. Two of these are identical input and output amplifier boards and the others are the effects board and the power supply board. The quality of the components is good. The jack sockets look of particularly nice quality. Workmanship is of a very high order, with neat wiring and well soldered joints.

The power transistors are mounted on an aluminium sub-chassis which acts as a heat sink. An American-made triple spring folded line reverb unit is also mounted on this sub chassis.

The amplifier comes complete with a water resistant plastic cover.

The outward appearance is in no way unusual. The case is built of plywood about one inch in thickness and covered in rexline. All the edges are protected with fibre board strips which, though not very attractive, are very practical. Metal protective caps have been used on all the corners and good size castors have been fitted. There is only a single carrying handle which is surprising on a unit of this size and weight.

The lower part of the cabinet is an open backed speaker enclosure which houses two standard Roland twelve inch speakers. The amplifier chassis is mounted in the top of the case with the controls along the front edge. Each input channel has

separate low and high sensitivity sockets, volume, bass, middle and treble controls. The main channel also has a reverb level, a distortion effect control, a vibrato speed, vibrato depth control and a switch which selects "chorus", off or vibrato. The front panel also carries an on/off switch and pilot light. On the rear panel there are sockets for foot switches (not provided) to switch off and on the reverb and the chorus/vibrato effect.

The speaker system is arranged so that the full rated power is normally fed into the two internal speakers; but if two external 8 ohm speakers are plugged into the two rear panel sockets, half the

rated power will be fed to the internal speakers and half to the external pair.

There are two other outputs provided. One is a line output to drive a studio console or slave amplifier and the other is an auxiliary mains output (American flat pin plug) to power auxiliary equipment.

One unusual feature is that the 120 watts rated output is achieved from two separate 60 watt amplifiers which run from the same power supply and drive one speaker each. This means that the external output sockets must never be connected in parallel.

PERFORMANCE

	RESULT	TEST CONDITION	COMMENTS
Power Output	75 + 75 Watts	@ clipping 1KHz. sinewave 4 ohms load (2 off)	Rated OP is 60 + 60 watts
	72 + 72 Watts	@ clipping into 8 + 8 ohms 1KHz. sinewave	
Distortion (T.H.D.)	2.5%	@ 60 + 60 watts into 4 + 4 ohms	Mainly 3rd harmonic
	0.43%	@ 6W + 6Watts into 4 + 4 ohms.	
	0.55%	@ 0.6 + 0.6 Watts into 4 + 4 ohms.	Mainly noise
	5.5%	@ 60 + 60 Watts into 8 + 8 ohms.	Mainly 3rd harmonic
	0.5%	@ 6 + 6 Watts into 8 + 8 ohms.	
	0.6%	@ 0.6 + 0.6 Watts into 8 + 8 ohms.	Mainly noise
Tone Control Range	37.5dB. 24.6dB. 42dB.	Bass @ 100Hz. remaining Mid @ 1KHz. controls Treble @ 15KHz. at zero	Mid range control has very broad band i.e. too low a 'Q'
Distortion Effect	Good		Works with signals above 16 mV.: interesting sound
Echo Effect	Good sound		
Chorus/Vibrato Effect	Very good sound		
Capacitive Load Test	Very good	2 uF and 8 ohms load	No detectable overshoot on square wave
Short Circuit Output	Good	2 min. short circuit	Worked when short was removed
Background Noise	-80dB. -74dB. -70.3dB. -69dB.	Both volumes @ min. 10Hz. to 20KHz. band Channel 1 @ max. tone controls central Channel 2 @ max. no input. Both volumes @ max. Levels referred to rated output	Good
Sensitivity	9.5 mV. 29.5 mV. 9.5 mV. 30 mV.	Channel 1 high Channel 1 low all Channel 2 high tone Channel 2 low controls max.	For 60 + 60 watts output into 8 ohms.

CONCLUSION

After spending several happy hours playing my guitar through the JC120, my impression is of a very satisfactory piece of equipment.

The sound effect unit is exceptionally good. It gives bright, clear bell-like sounds rather than the raucous rock and roll sounds which most amplifier "built-in" effects give.

The distortion effect is gentle compared with most: this I find pleasing.

The speakers successfully handled all the power I could feed into them and the amplifiers performance on subjective tests was faultless.

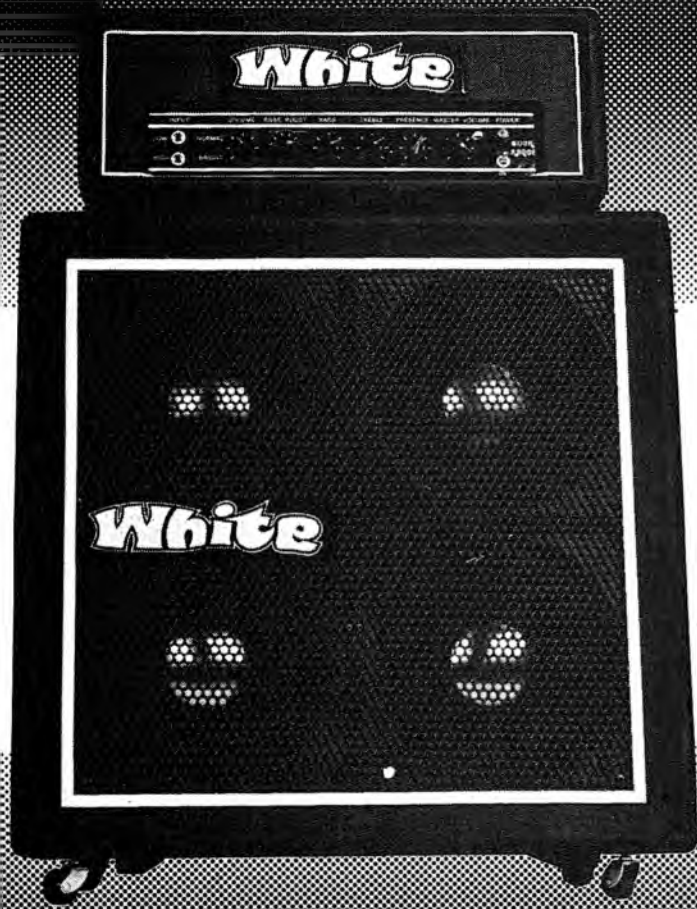
The measured performance is also good and

confirms the subjective results. The mid range tone control, however, is too broad in its action and tends to spill into the bass and treble ranges. Even so, the tone controls are effective.

One minor point I noticed is that if all the castors happen to end up pointing inwards the amplifier can very easily be knocked over, which could cause a great deal of distress if this occurred in the middle of a show.

This one point aside, however, there can be little doubt that the JC120 will find a number of admirers.

White



LW 100 GUITAR/BASS/KEYBOARDS

Guitar amplification at its ultimate. The LW 100 gives high volume performance with that unique tube sound.

Tremendous volume and sustain with vast tonal colouration ranging from biting treble to driving mid range punch are easily achieved.

* A six position bass boost enables the guitarist to highlight notes in the lower register.

* Clean deep ring with clear string separation, gives the modern day bassist endless tonal possibilities.

* Resulting from the musicians demand for an amplifier which will produce sustain with minimum fall off at both high and low levels, we have now introduced a master volume control, this allows the player to overdrive the pre-amp, producing the same sustained tones at both large and small gigs.

A200 GUITAR, BASS, KEYBOARDS ENCLOSURE

Guitar, Keyboards *Rec. Retail £158.55*
This superb cabinet has been designed to increase sensitivity in guitar and bass frequencies, the configuration of the enclosure allowing the lead range to drive through with increased presence and bite.

The four front loaded White 842 drivers housed in a tuned enclosure with central port and baffling, provides a tight rear loading speaker action giving tremendous punch and loudness.

TOUR RANGE *Rec. Retail £157.68*

The White Tour range of stage and P.A. equipment has been designed to combine the best of both tube and solid state amplification that can be used with an infinite variety of speaker enclosures allowing maximum flexibility to the performer.

WHITE AMPLIFICATION

3 ALBION PLACE, SUNDERLAND
TYNE & WEAR Tel: (STD0783) 78058

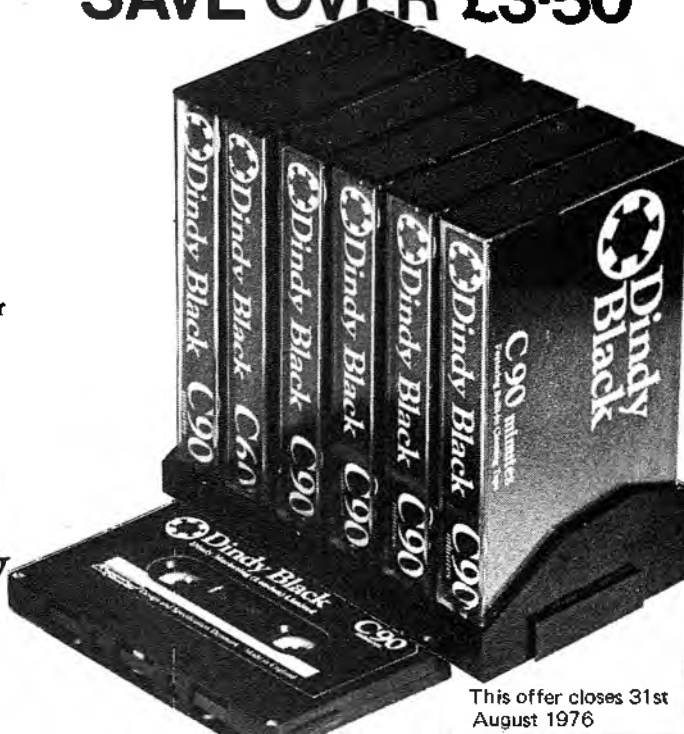
SPECIAL OFFER TO ^{INTERNATIONAL} MUSICIAN READERS AND RECORDING WORLD

TOP QUALITY CASSETTE RECORDING TAPE SAVE OVER £3.50

Dindy tapes are manufactured to the highest standards, offering superb performance and reliability.

Each cassette features a quality screw-type body, and flanged rollers for accurate track tracking PLUS head cleaning leaders that will clean and maintain the heads of your recorder, every time you play.

DINDY BLACK 6 x C.90s
Our Price £3.59
DINDY BLACK 6 x C.60s
Our Price £2.99



International Musician can save you over £3.50 on a set of six C.60 or C.90 cassette tapes PLUS you receive a free cassette holder. All you have to do is cut out the coupon and send it with your cheque payable to Cover Publications, 17 Tavistock St., London WC2E 7PA

This Offer includes a FREE cassette holder, post, and packing!!

I enclose £2.99 for Six C.60's
I enclose £3.59 for Six C.90's
(Please tick which is applicable)

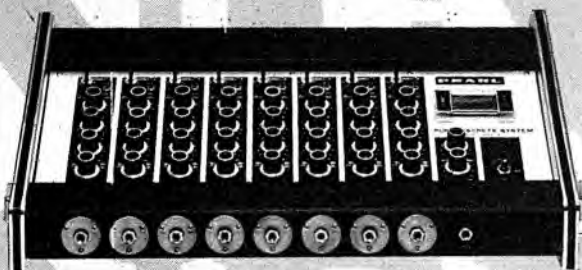
Name _____

Address _____

This offer closes 31st August 1976

NEXUS

BM HOUSE, LONDON WC1V 6XX



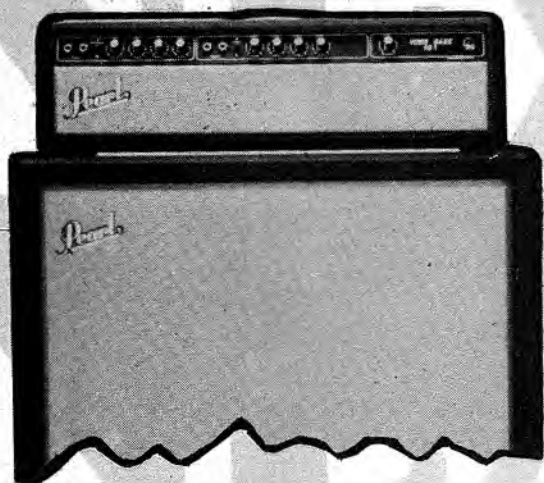
P.D.S.8A

A eight channel mixer incorporating twin V.U. meter, master gain control, 8 individual channel faders, treble, bass controls. Fully comprehensive input selector. High grade American switchcraft input connectors. Outputs from the rear through choice of normal line jack or switchcraft connectors. The PDA8A also incorporates full echo facilities on all individual channels. Rec. retail including V.A.T. £273.56



THE T.C.10 TUNE CONDUCTOR

The Pearl Tune Conductor gives precise electronic tuning for the first time at a realistic price. Suitable for keyboards, synthesizer, and guitar. A must for the band in a rush, that needs a last minute back stage tune up. The T.C.10 tunes electronically either by the visual sweep of the indicator needle, or by the audible emission of each note of the scale. Rec. retail including V.A.T. £49.95



101A (shown on 101S Bass Cabinet)

The Pearl 101A 100 watt head designed primarily for bass guitar is another Pearl value for money item. A twin channel amp with volume/treble/middle/bass controls and overriding master volume. Retail including V.A.T. £120.40



1200 COMBO

A twin channel reverb amp with volume/treble/middle/bass shift with master control for both channels. The 1200 has two 12" heavy duty drivers with power handling more than adequate to handle the 100 watts R.M.S. output. Rec. retail including V.A.T. £252.00

NOTE FOR RETAILERS Pearl amplifiers are sold on a franchise agency basis. Agencies in some areas still available. PHONE 01-589-4200

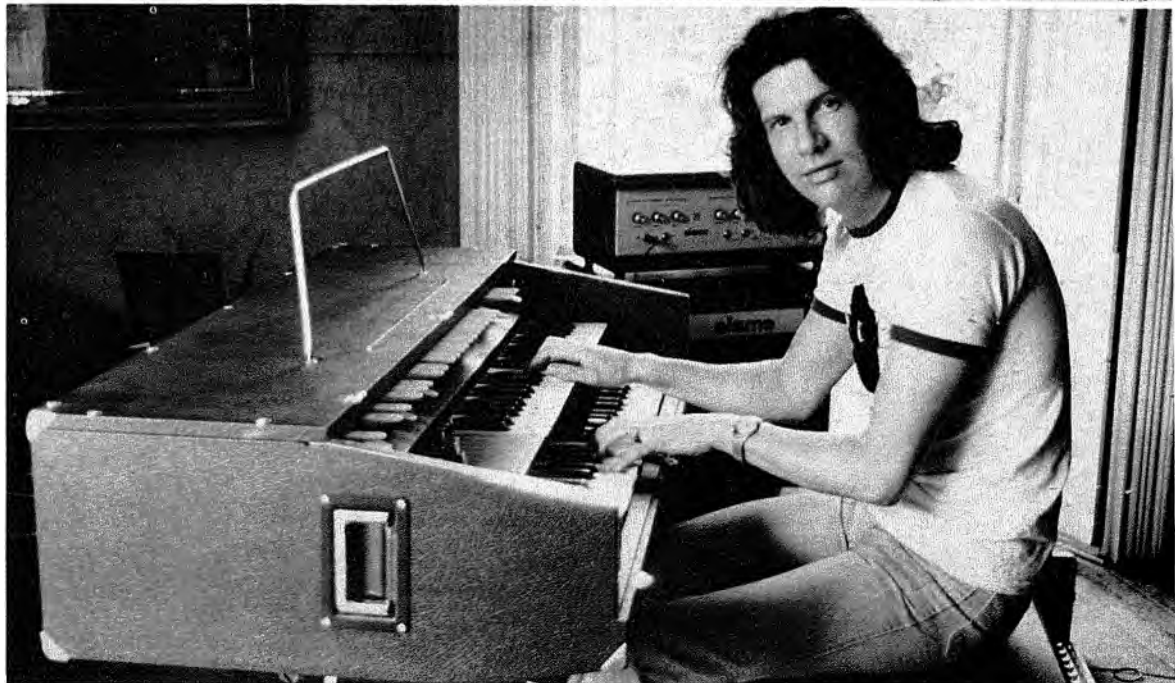
KEYBOARDCHECK

TEST ON: Godwin S.C. 444 P. Electric Organ.

DATE: June 1976

PRICE: £1,275 Ex VAT

TEST BY: Rod Argent.



There was a time when a group organist had one of two choices. He could choose one of the expensive console or spinet models, wrapped in elegant, polished woodwork in a variety of traditional cabinet styles, and with their inherent problems of weight and awkwardness. The sound of course was excellent, but those solid instruments designed specifically for the home required one to either take weight lifting courses or pay extra to have the cabinet split.

I've usually had the good fortune to have a couple of roadies to lift my C3, but when I have had to lend a hand, the weight of the thing has stiffened my forearms so much I've hardly been able to play it afterwards.

The alternative was to select one of the cheaper models which were designed for rock. The Farfisa

Compact and the Vox Continental were two such models: cheaper, much more portable and easily amplified. They had these advantages, but they lacked the guts and the quality of sound of the heavier models.

Things have changed. Several organ companies now produce mid-priced instruments suited to the needs of the modern musician. Portable, rugged, and attractive, they also have a good sound.

Sisco is a case in point. Based in Manchester, the company was formed to distribute Sisme and Godwin organs and to provide the sort of back-up service needed by the musician on the road. The S.C. 444P is designed specifically for the demands of the modern musician and the rigours of the road.

Upper Manual

The upper manual consists of a 49 note keyboard with a single contact bar underneath, rather than a busbar for each tone. Diodes and active filters select the pitches, and this should mean that the contact problems are kept to a minimum. There are eight upper keyboard drawbars, voiced at 16', 8', 5 1/3', 4', 2 2/3', 1 3/5', and 1'. The sounds are good, although I found the higher harmonics less pleasing than the lower. The overtones were slightly too nasal for my tastes.

The presets are in tab form, and consist of viola, clarinet, oboe, and violin. Again, I was a little unhappy with the "stringier" overtones. The clarinet and oboe tabs are the most pleasing but the viola and violin settings have a slight buzz to them which (to my ears) seemed a bit unmusical.

There is a master drawbar located to the left of the lower keyboard which controls the overall volume of the upper manual drawbars. In fact, each function of the instrument — upper manual, lower manual, preset, percussion sustain and percussion repeat — is controlled by a separate master drawbar.

I particularly liked this idea, which gives the player instant control over the balance of the functions without destroying, for example, the tonal settings of the drawbars.

Upper Manual Percussion

It seems that a lot of attention is given to percussion on organs today. This is a good thing, and there are eight percussion voicings on the 444P: 16', 8', 5 1/3', 4', 2 2/3', 2', 1 3/5' and in addition, there is a repeat facility which enables the player to reiterate the percussion on any note at a rate and volume controlled by a drawbar set to the right of the lower manual.

The percussion is particularly effective when used in conjunction with the sustain tab, which on the upper manual comes with the choice of a long or short fade. The harmonics can be used singly or in conjunction, and should you require a really thick percussive sound, you could even use all eight at once.

Effects

As the organ is, in Sisco's words, built "for the pro on the road", it's not loaded down with a lot of expensive gimmicks that will never be used, and the effects incorporated are the usual ones of reverb, sustain and vibrato. As I've stated before, I'm not personally in love with organ vibrato, but the two speeds and two degrees provided here are perfectly adequate, and the delayed vibrato that I really do like is available (the effect is added after

about a quarter of a second of "straight" tone). I think in this case it would be even more effective if the delay were slightly longer, but that's a personal preference. My only regret in this sphere is that the lower manual is keyed by the upper manual delayed vibrato, and while the sound can be very evocative, it would be nice to have the choice of a straight accompaniment. Reverb is controlled by a knob as well as a tab — a good idea, because you can obtain any blend from nothing to full instead of just two fixed settings.

Lower Manual

The 49 note lower keyboard is operated by five drawbars voiced at 16', 8', 5 1/3' and 4' and enjoys a sustain tab of its own — one degree only.

Pedals

A lot of attention has been paid to the pedals on this model, and the unit boasts quite a few extra features. There are four extra notes added to the standard 13 note octave usually provided on this type of instrument. This is useful if the player is interested in constructing a good bass line with his feet rather than just providing a note for each chord. The registration is also interesting, adding a 32' stop to the usual 16' and 8' voicings. There is a pedal sustain provided, which is controlled in degrees by a drawbar, and an effect which utilises the stop as a percussive rather than a continuous tone.

Conclusion

The S.C. 444P is a practical, sturdy and pleasing instrument designed successfully for the needs of the stage and road. The layout of the instrument is particularly good — the master drawbar feature which allows overall control of a number of elements is an excellent idea.

The organ is highly portable, quickly assembled and dismantled and attractive, and the purchase price includes a leather carrying case. The effects provided are functional and efficient, and the overall tuning of the organ can be altered by means of a simple adjustment. This could be particularly useful in recording, where one often finds one keyboard pitched slightly differently to another.

My only complaint about the instrument is with the very electronic, somewhat thin characteristic of its upper harmonic drawbars which, when first heard without reverb, gixrato, sustain and percussion, I found rather unpleasant. The more I played the instrument, however, the more I valued the sum of its parts. When the effects were used as an integral part of the instrument, I liked it very much indeed.

MACARI'S REPRESENTS

ROLAND



THE ULTIMATE IN GUITAR AMPS WITH "CHORUS EFFECT" FROM ROLAND.

What is "Chorus Effect"? Well if you've ever listened to a 12 string Guitar you have some idea what chorus effect is all about.

Unlike conventional guitar amplifiers the J.C.60 and 120 are equipped with controllable vibrato system which modulates the actual frequency (pitch) of the sound from the electric guitar or organ.

The unit produces a sound exactly the same as a rotator unit.

*We invite
test run to
amplifiers
worlds
manufa*

**it's
at ma**

102 CHARING CROSS
122 CHARING CROSS
20 DENMARK STREET,
TELEPHONE: 836 2856

ACOUSTIC



Amplifiers with graphic equalisers and top quality speakers.

Truly professional amplification for the ambitious Amateur or the cream of Musicians.

ALTEC



Altec are one of the World's top quality sound systems equipment means unexcelled and perfo

THE TOP NAMES IN THE BUSINESS!

See you to these fine from the leading manufacturers

Macari's

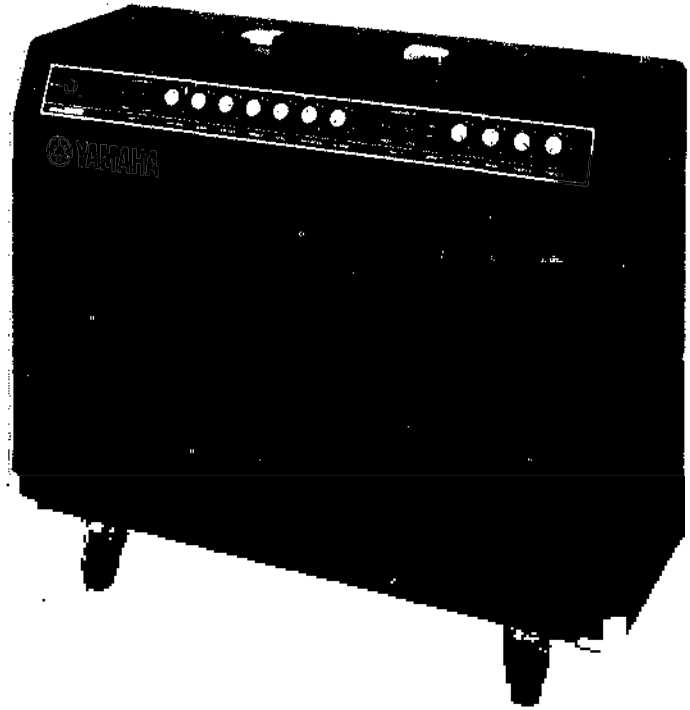
100 ROAD LONDON WC2
100 ROAD LONDON W.C.2.
100 LONDON W.C.2.

YAMAHA

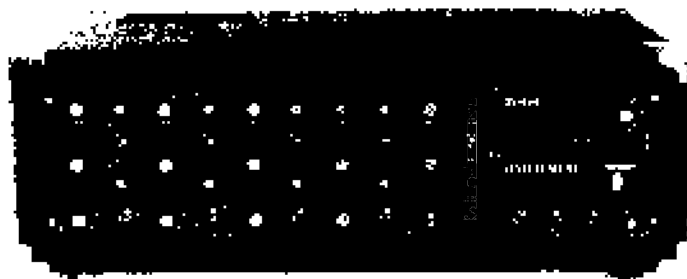
BEST SELLING COMBO FROM YAMAHA

G 100B 212 is ideal for lead and rhythm a hefty 100 watt R.M.S. Power Amplifier with twin 12" speakers gives this amplifier a highly refined tonal character.

In the Studio or on Stage the G.100-B212 is hard to beat.



CUSTOM



CUSTOM SOUND 700 A

A quality 150 watt low noise P.A. Amplifier. The 700 A has 5 channels with separate controls for reverb on each channel and also has echo send and return sockets.

With a 2 year warranty this amplifier is real value for money. (See the other incredible Custom Sound systems at Macari's)

largest Manufacturers of The name Altec on sound quality, craftsmanship excellence.

DRUMCHECK

TEST ON: *Beverley Galaxy 18*

DATE: *June 1976*

PRICE: *£224.75 Ex VAT*

TEST BY: *Bob Henrit*



Boosey & Hawkes at Edgware was the first drum factory I ever visited. In those days, they were producing Rogers, Ajax (which were at one time THE British set) and also a cheaper line called Edgware. Unfortunately, they no longer manufacture drums, but instead act as the wholesalers for Beverley. I mention all this because I needed to return to Boosey's factory to examine and evaluate the new Beverley kit.

Beverley drums have been built in England since 1904, when the company started in Beverley, Yorkshire and subsequently moved to Leicester where they are still built. The factory, founded by one C.S. Deans, had been famous for making and bending metal tubes for all sorts of applications. No one seems to know why they got into

making complete drum outfits but one could hazard a guess that they graduated, logically or illogically, from making stands and fittings to making drums.

They have until recently been considered a somewhat second rate or economy set, but within the past few years their old image has been updated and streamlined and they are now definitely a first division drum set.

The set in question is the Galaxy 18 which has a small bass drum and a single mounted tom-tom which in my considered opinion is not enough for today's music. The company do, however, make double mounted tom-tom outfits with their larger bass drum sizes and of course for a little extra you could always treat yourself to a 13 x 9 drum to improve this one.

Bass Drum:

The 18" bass drum has a five ply shell with solid mahogany glue rings. Like all the drums, it is exceptionally well finished inside with plates behind all the nutboxes and fittings. The interiors are not treated with anything obvious and the result is a bright yet warm sound. The bass drum has 16 nutboxes, which I don't actually care for. They're just a little too ornate and fussy, but then beauty is in the eye of the beholder and I'm sure they work adequately. I'm not crazy about the tympan-type tuners either, which have cast "T" pieces joined to the ubiquitous 7/32" Whitworth threads and didn't look at all strong.

This bass drum has a strong, round sound which, in

common with most 18" drums of whatever make, belted its size. It is supplied with two strip dampers, Everplay Extra heads and wooden counterhoops inlaid with plastic. Better heads would definitely improve the sound of all the drums and later this year, Everplay Plus heads will be fitted as standard. New style non-disappearing spur holder blocks are fitted and are unusual in three ways: they are silver anodised, not chrome; they take extra long, slightly thicker spurs; and they have a very substantial securing system with a long wing nut which works by pulling against the rod instead of pushing it.

Tom-Toms:

Galaxy 18 has 12 x 8 and 14 x 14 tom-toms which are the only realistic combination for this small bass drum, but Beverley do produce 13 x 9, 14 x 10 and of course 16 x 16 drums for their other sets. The 12 x 8 has 12 nut boxes and the 14 x 14 has 16 and they both have bright sounding triple flange hoops and an adjustable spring-steel damper working on their batter heads. One of the spur blocks doubles as a tom-tom holder attachment which fixes the small drum to its brand new holder, but more of this later.

The floor tom-tom does not, as you would expect, use these blocks for leg holders; because of their wing bolts, they would add at least two inches to the size of the drum. Some slightly smaller blocks are fitted to take the bent, wide-spread legs and enable it to fit a normal size case.

Like the bass drum, the tom-toms have a full sound which will, as I said, be even better when the new heads are fitted.

Snare Drum:

The snare drum has by far the best sound of the whole outfit. I played one some years ago and was impressed then and I am still impressed. The "twenty-one" is made from 16 gauge alloy and this lightish shell gives the drum its characteristic brittle sound. It's a little different to other modern drums in that its inverse flange has an actual snare bed. (It's about four inches wide and an eighth of an inch or so deep). These days, shells graduate in and then out very gently for about six inches at the snare fixing points. The metal shell drum is currently only available with a five inch shell but you can specify either a wood or metal shell.

The triple flange hoops undoubtedly contribute to the good sound of the drum which has ten nutboxes for more positive tuning and an unfussy, adjustable cam action snare strainer attached to a twenty strand snare. It's a very nice

drum which, if fitted with better quality heads, would be difficult to distinguish from its more expensive Chicago built competitor.

The set I inspected was in a brand new finish called "Pewter." It's a metal impregnated cloth finish and Beverley had to find a completely new way of attaching it to the drum. The finish is not stuck to the drum but electrically shrunk to it after its inside edges have been "lap" joined together. This means that (arguably) the drum's sound is not affected by its covering, but it actually means that if you become tired of the covering, you can just cut through the lap joint and the material will fall off. If the drum has been built properly, you'll probably find a nice clean wooden finish underneath, since no glue will have marred it.

Accessories:

The snare drum stand has wide spreading tripod legs and a slightly updated cradle-style holding system. Instead of one movable and two fixed arms to clamp the drum, this one has an arm hinged to the centre which can be moved in a vertical arc on to the drum with a wing bolt. It's ingenious but I don't think it would take anything but a 14" drum, so you couldn't mount a small tom-tom on it. These arms are bent at their ends into a radius to grip the rims of the drum which are sheathed in rubber. It has a unique playing angle adjustment which works on a friction clutch with two rubber washers inside which mesh when the new style wing bolt is adjusted. There are three reasonably large wing bolts to adjust the height of the stand and one can tailor the spread of the tripod legs to the playing requirements. The stand works well, looks like it would last for ever (almost) and is very competitively priced at £11.70 including V.A.T.

The executive hi-hat has a side pull, nylon sheathed action with a non-adjustable expansion spring. It has a strengthened two piece cast footplate with rubber non-slip inserts and a sharp spur adjustable on a screw thread. Like all the other stands, it has rubber tipped tripod legs which ought to keep it on an even keel. It has a jubilee-type clip fitted above the height adjustment screw which doesn't seem to be substantial enough to make it secure for a really heavy drummer but I'm sure it would be adequate for most players.

The bottom cymbal sits on a plastic cup which would benefit from being larger, as would the top cymbal clutch, which is a little bit fiddly. The whole unit was high enough and felt quite smooth in operation, although a side pull could never be as smooth as a centre pull.

The tripod base on the cymbal stand is slightly more shallow than on other stands and is therefore not quite so substantial. It goes quite high but the higher it goes, the less trustworthy it seems, especially if one is trusting an expensive Avedis Zildjian to its tender care. It has a cast, spring-loaded ratchet tilter which can be adjusted with a screwdriver-type key. Underneath its felt, it has a very small metal washer which, for safety's sake, should be replaced with something more substantial.

The Galaxy 18, since it only has a single mounted tom-tom, has a cymbal arm fitted to the bass drum with a new style block which boasts not one but two locking screws (one drum key operated) on either side and staggered to lock the arm really securely. This arm, like the

cymbal floor stand, has the case tilter at the top.

The Executive foot pedal for the bass drum is something like the "Fleetfoot" pedal which was revolutionary over 20 years ago. This in no way makes the pedal obsolete (the Ludwig Speed King has been around much longer than this) and it works well, within its limitations.

The unique "pivot-frame" of the pedal is made from solid, substantial rod bent into a "U" shape with its bottom clamped to the bass drum hoop. It has a single adjustable cam. This spring works just a little differently and pulls the cam down to return the beater with a strange radial action. The two-piece cast footplate is strengthened with ribs underneath (like the hi-hats) and it has three positions relative to the head: dead centre, slightly left and slightly right (for double bass drum players.)

The strap is made from plasticised industrial fibre and doesn't look particularly strong although of course this may be deliberate to make sure the easily replaceable strap is the weakest link. The model I tested was fitted with a wooden beater which I disliked, since I know it will eventually wear the plastic head away. However, the catalogue photograph shows one made of lamb's wool, so apparently there is an alternative. A pair of key operated spurs are built into the pedal to stop the drum from creeping and I'm sure they would work better if set at a slightly more acute angle. Mind you, I didn't play the drum on many different floor surfaces, so I can't really criticise it.

I don't think the manufacturers have seriously aimed the pedal at the professional and I found it a little unresponsive, but at the price, £12.80 including V.A.T., it competes very well with "standard" no-nonsense pedals.

Beverley now have a new disappearing single or double tom-tom holder which uses a large anodised pressed steel plate with an oval shaped hole in which it is attached to the bass drum. Into this locates a non-twist oval tube whose vertical position can be adjusted and fixed strongly and securely with two substantial wing bolts. At the top of this tube is a cast spring-loaded ratchet which changes the angle both vertically and horizontally to the slightly thicker than usual "L" shaped bar which locates and fixes the tom-tom to its holder via its spur/leg holder block.

It's very substantial and seems to work very well, although some sort of jubilee clip would be handy to ensure the tom-tom was always at the same height.

Conclusion:

There are apparently only five different standard finishes available, as well as the aforementioned Pewter (although Boosey & Hawkes have said that additional finishes are available to order) and to my jaundiced eye they do not all look professional. However, this criticism holds true for all manufacturers. I think the solid colours are very good and somehow more up to date. The blue badges on the drums look really old-fashioned and somehow a little cheap, which doesn't help Beverley's image at all. The metal signature type badge on the snare drum is much nicer and would look much better on all the drums.

I have no reservations at all about the sound of the drums, but I fear some of the fittings, although perfectly

adequate when the set was launched, have been somewhat superseded by the mammoth stands built by the Americans and Japanese which have evolved out of necessity to cater for the modern heavier and more technologically demanding music.

Be that as it may, the Beverley drums are happily endorsed by a diverse and discerning gang of drummers which says much for their suitability for all styles and volumes of music at all ability levels. Whether you realised it or not, the drums played every Thursday night on Top Of The Pops (by the orchestra, that is) are not American, not German, not Japanese, not French, nor Italian — but British and Beverley.

pop ~ mixer

16 CHANNEL STEREO PA MIXER

INPUT CHANNEL:

Gain control, treble middle bass, monitor 1 and 2, echo, pan, solo, slider fader.

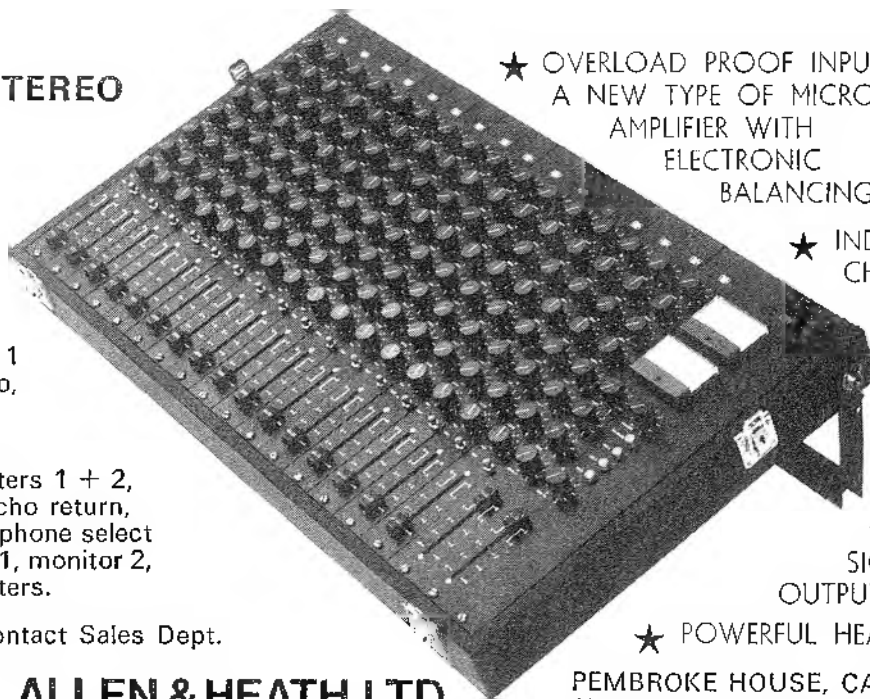
OUTPUT CHANNEL:

Stage monitors, masters 1 + 2, echo master send, echo return, headphone gain, headphone select to talk back, monitor 1, monitor 2, solo, stereo, VU meters.

For further details contact Sales Dept.



ALLEN & HEATH LTD



★ OVERLOAD PROOF INPUTS FEATURING A NEW TYPE OF MICROPHONE AMPLIFIER WITH ELECTRONIC BALANCING

★ INDIVIDUAL CHANNEL MONITORING AND METERING

★ TWO SEPARATE CUE OR STAGE MONITOR CIRCUITS

★ HIGH LEVEL SIGNAL ON ALL OUTPUTS

★ POWERFUL HEADPHONE AMP

PEMBROKE HOUSE, CAMPSBOURNE ROAD, HORNSEY, LONDON, N.8. Tel. No. 340-3291.

TELECOMMS

SOUTH COAST
P.A. & DISCO CENTRE



Complete range always in stock. Bring your instruments and try it.

P.A. EQUIPMENT

Complete P.A. systems from 50 to 2,000 watts. Mixing Desks — PA Bins — Amplifiers — cabinets Microphones — Stands

Main agents for:- Bose, H/H, Carlsbro.

Large selection of good quality second-hand P.A. too!

DISCO EQUIPMENT

Complete range of disco consoles and effects. Agents for:- Soundout D.J. Electronics, etc. etc.

SO WHY NOT CONTACT US FOR YOUR REQUIREMENTS.
73, TWYFORD AVE., STAMSHAW, PORTSMOUTH Tel Ports 60036.

ELECTRIFY YOUR GUTS!

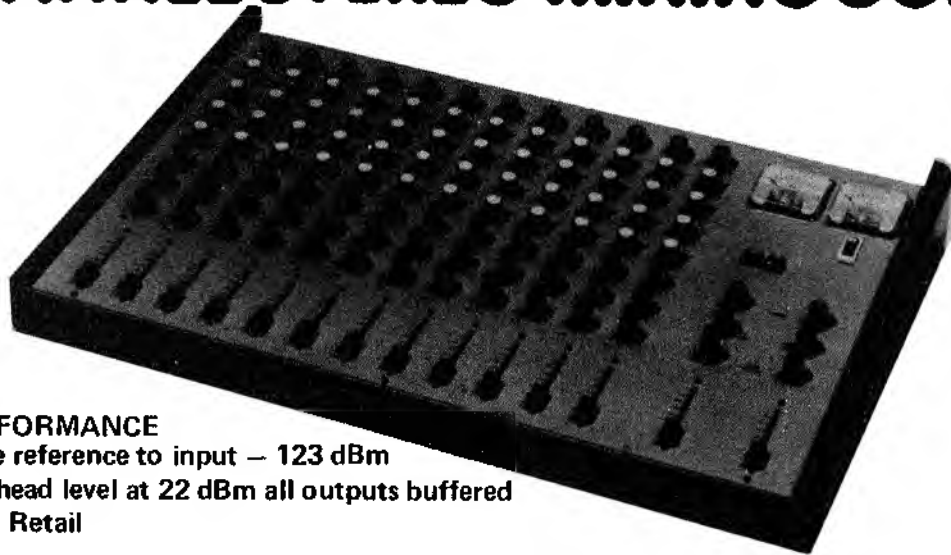
New Triad inertial transducer brings you direct electronic output from any nylon or gut-stringed instrument

- Durable, rugged construction
- Reduces feedback
- High output — needs no pre-amp
- Easy attachment to any stringed instrument — without harming finish
- Can be built-in for extra convenience — just plug in a curly cord when required

With the Triad inertial transducer, you've got the best of both worlds — that great, mellow, "acoustic" sound and all the advantages of electrification. It's not just for guitars either. The Triad transducer gives the same powerful, great-sounding response from banjo, violin, double bass or almost any other stringed instrument. And versions for drums and harmonica will be available soon. You'll appreciate the Triad's practicality in the studio. You get a clean, isolated feed without the restrictions of mike stands and screens.

The Triad inertial transducer puts a whole new sound at your fingertips — for only £37.50 (RRP). It's available from the leading specialists, or direct (including P & P) from C. Admans, 34 Belmont Road, Maidenhead, Berks SL6 6LQ.

12 CHANNEL STEREO MIXING CONSOLE



PERFORMANCE

Noise reference to input – 123 dBm

Overhead level at 22 dBm all outputs buffered

£250 Retail

**12 Channel Export Model
16 Channel Mixing Console
8 Channel Stereo Mixer
12 into 4 Mixing Console**

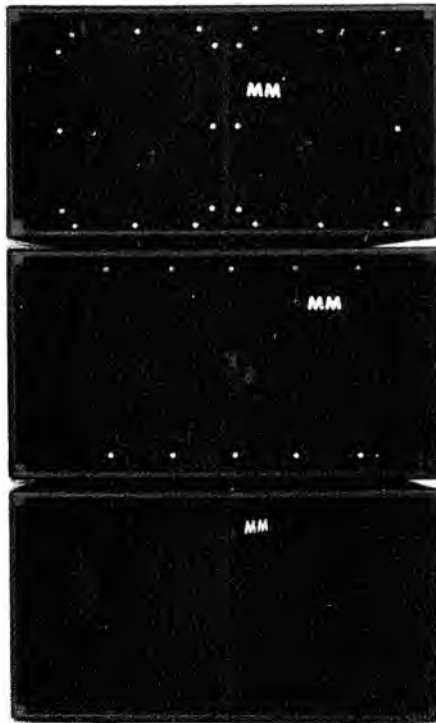
****20 into 4 to be announced shortly****

MM ELECTRONICS

For further details contact TONY GIPP
(0223) 66559.

French's Mill, French's Road, Cambridge (0223) 66559

MM PA STACKS



The stack consists of three cabinets: a folded horn and a rear loaded horn, each containing one 125 watt 15" Powercel driver (specially wound for MM Electronics). The third cabinet is a mid-range high-frequency unit containing two 10" drivers, two radial horns and six high frequency horns.

Each cabinet has an impedance of 12-16 ohms and will handle the full output of an MM PA150 slave. It is recommended that a two-way electronic crossover (1000 Hz) is used but passive crossover components are built in to each cabinet as standard.

Jack sockets are fitted as standard. Cannons are available at an additional cost of £50 per stack. Each stack of three cabinets retails at £450 and will be available from August



Illustration shows two complete stacks

GUITARCHECK

Stephen Delfo

Antoria Twin-Neck 2407

£200.88 ex. VAT

It is often difficult to fairly assess instruments having a "bolted-on" neck construction, whilst otherwise following the style of a guitar such as the Les Paul Gibson, with its differently arranged "Glued-in" neck. Imposing one style upon another often produces a clumsy and inefficient neck joint, and the consequent instability and poor sustain which are only too well known. While I still feel that a "glued-in" neck (or better still, an integral neck,) is the better proposition, I would accept that the bolted or screwed-on construction can be satisfactory, *provided that the instrument was originally designed with this in mind, and is made from the materials which the designer intended.*

It is also vital that any later copies of the design should be made to the same accuracy as the best examples of the original, or an otherwise reliable design may become an engineering disaster.

This twin neck is a case in point. It has been made well, from appropriate materials, and works properly. There are quite a few points of fine detail about which one could niggler, but overall it appears to offer excellent value for money, particularly when compared with other twin-necks at the lower end of the price range. The maker has wisely decided to remain within a style of instrument making which is appropriate to large scale production — even if he has produced a "copy" of something which possibly never existed as a twin-neck in the original!

While appearing to be a fusion of both, this instrument does not reproduce exactly the features of a Strat, nor those of a Fender Bass, but the differences are few and most of them are either insignificant, or represent minor mechanical improvements.

The rosewood fingerboards of both necks appear at first glance to be ebony — they have been finished with some sort of black filler/stain. I am not convinced of the innocence of the manufacturers in this respect, but in case they should require me to spell it out for them, it is my belief, that in the absence of my comments, a significant number of persons would consider the "value" (in its widest sense) of these fingerboards to be greater because they are the same colour as the fingerboards of some very good and expensive instruments. It is not reasonable to expect ebony fingerboards on an instrument of this price, and I would certainly prefer good rosewood to poor ebony at any price. The fingerboards on this instrument are good rosewood and have no need of a disguise.

This problem is common to most of the better Japanese guitars on sale, and I know in this case, that the importers are attempting to improve the situation. Rosewood does often darken through long use, and there is a preparation which will assist this colour change without disguising the nature of the wood. In an effort to be constructive, I would be willing to make some of this preparation available to interested parties.

I was at first a little confused by the operation of the tone and volume controls, until I realised that the knob nearest to the six-string bridge controls the volume of the bass section, the middle knob controls the volume of the guitar section and the end knob is a tone control for both. I think it would be useful to reverse the two volume controls so that the one controlling the guitar section is adjacent to the guitar bridge and convenient for "violining."

It would be particularly valuable in this case, as the controls have an unusually smooth range of operation and "violining" is easily accomplished. The tone control also has a smooth and useful range. I find it inconvenient that it is shared between bass and guitar, but I suspect that providing a separate tone control for the bass would be expensive. I would prefer to fit a "stereo" jack socket myself, and take the bass section out to a separate channel on the amp. There is a conventional three-way switch for the two bass pick-ups and a similar switch, selecting bass, guitar, or both sections, but the selector switch for the three guitar pick-ups is unusual and should please many guitarists.

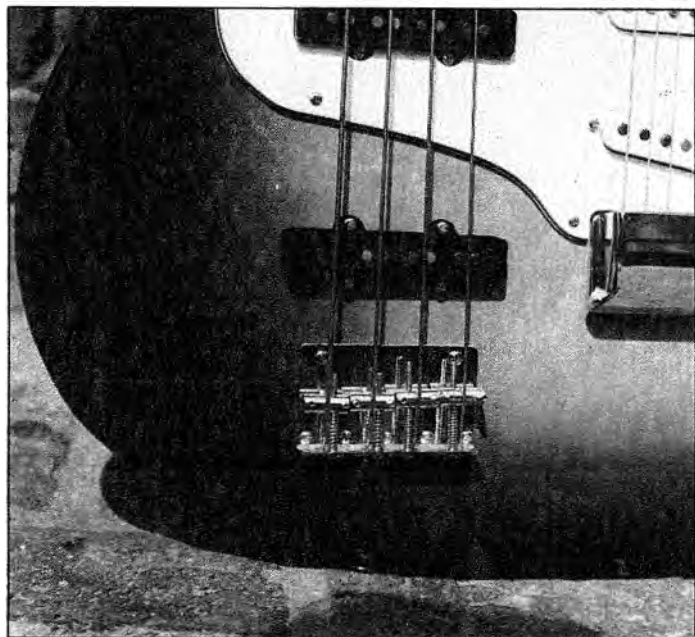
It is similar to the usual "Strat" switch, but in addition to the usual three positions, it has both "In between" positions clearly indexed, giving five "feelable" positions, which can be selected without fuss. To my knowledge, guitarists have been asking for this for years. If the same feature appears on other Japanese "Strats," C.B.S. will have to do something about it, (I suspect Leo Fender already has!).

Neither neck is absolutely straight, but they are at least as good as the average of the Fender necks I see, and a couple of hours work on the frets would produce a very playable instrument.

I would be reluctant to say that either the bass or the guitar section sounded exactly the same as similar looking Fender instruments but there is a close similarity, into a variety of amps, and both halves are responsive and pleasing to play. The pick-ups are adjusted to reduce the second-string imbalance on the guitar section; unfortunately, this increases the tendency of the top string to "die" when bent considerably, but there is a simple modification which is inexpensive and helps this problem.

The case which is available for £42 inc. V.A.T., may seem expensive, but any case to fit a twin-neck is going to cost at least this much, and it does actually support both necks properly at the same time.

I would be happy to examine, and comment on, its competitors, but so far this is the best value in lower-priced twin-necks which I have met. It is also better made than one of the more expensive models. While it is possible that my review sample is a little better than average, its quality is consistent



with improved standards in recent deliveries of the better Japanese guitars. The relevant measurements are as follows:

Guitar Section: Scale Length, 650 mm; String spacing at bridge, 51 mm; String spacing at nut, 31 mm; Fingerboard width at nut, 41 mm; Action as supplied, 1.5 mm bass/1.2 mm treble (after adjusting truss rod a little).

Lowest standard conditions' action: I would not advise an action much lower than this, but the nut slots are a little too high and lowering these would make the instrument "feel" better while having little effect on the measured action at the 12th fret.

Bass Section: Scale length, 850 mm; String spacing at bridge, 58 mm; String spacing at nut, 31 mm; Fingerboard width at nut, 41 mm; Action as supplied, 3.8 mm. bass/3 mm treble. (After adjusting truss rod slightly); Lowest action under standard conditions; assuming the neck is reasonably straight and the frets filed level, acceptable bass guitar action seems to depend more on the player than on the instrument. It is very difficult to define standard conditions for a "lowest possible action" on a bass, and I am not entirely sure that such an action is desirable. I find strings and action satisfactory as supplied, but it would be possible to lower the action a little if required.

Guild D40 C-NT Cutaway

£307.15 ex. VAT

It is my belief that where workmanship and quality control in particular are concerned, Guild probably have the edge over the other big American makers of steel-string acoustics. It is also my belief that this edge is not due to the use of more skilled hand-work, but to the fact that Guild came into the guitar business later than the others, and finding it more difficult to obtain suitably skilled craftsmen, used more machines. At one time, Guild was considered rather the Cinderella of American makers, but by now, everyone finds it difficult to obtain suitable craftsmen, and Guild have a good head-start over the others in using machines sensibly.

I think the discrepancy between hand operations and jigged operations is illustrated clearly in this sample of the cutaway D.40. Where the body outline coincides with the normal D.40, the interior kerfed linings are acceptable, although they aren't up to Guild's usual standards. The linings inside the upper curves on each side of the neck are, however, badly finished and clumsily fastened in place, and would raise a few eyebrows if found in one of the better Japanese guitars.

Neither finish nor assembly are up to Guild's usual standards and

I have played better made and better sounding D25's (although that is possibly because Guild consistently turn out such good D25's). I must say that the review guitar has been borrowed from the stock of a retailer and it would be inappropriate to criticise the state of the outside surfaces, but after allowing for this, the finish under the lacquer could be better, and I think the presence of a cutaway requires a few more bits of binding. The cutaway side of the neck looks a bit bald where it joins the body, and how long is the lacquer going to last on the sharp edge of the cutaway?

The tone is similar to what one expects from a D.40, with the slight flavour of a pre-war rhythm guitar, but it is neither fish nor fowl and it doesn't do much for me.

Sensing that I might be biased in this respect, I obtained the opinions of two very competent Jazz players and they said that it didn't do much for them, either.

I am usually delighted with just about anything Guild put in front of me for review, but I am afraid that on this occasion I think there is something hasty about certain aspects of the instrument and perhaps a re-think would be appropriate. (In contrast, their other recent hybrid of a 12-string and a dreadnought body is wildly successful.)

The machine heads are a sort of Japanese compound of Kolb and Grover, and while I am not crazy about the shape of the buttons, I do like the feel of the gears. The nut is finely adjusted, which makes playing in the lower positions very comfortable, but there is a tendency for the third string to "stick" during tuning. The neck is not entirely straight, as evidenced by the considerable amount of fret-filing which has been applied at some time. Some of the frets could not be taken much lower without disappearing and they are too flat across the top for my taste. Although the bridge is well made from nice rosewood, either the



saddle slot is too wide or the saddle is too thin, because it is loose in its slot and tips forward.

The action as supplied is a little high and lowering the saddle to correct this would certainly reduce its tendency to tip forwards.

I don't think this guitar should have been let out of the factory. I am sorry about this one folks, because I usually like Guilds. If it is any consolation, both Martin and Gibson have produced Jumbos with cutaways and they appear to have sunk without a trace, but I think the idea is still worth another try, perhaps with more attention paid to the quality of the treble in the area made accessible by the cutaway.

The relevant measurements are as follows: Scale length, 650 mm; String spacing at bridge, 55 mm; String spacing at nut, 36.5 mm; Fingerboard width at nut, 43 mm; Action as supplied, 2.9 bass/2.2 treble; (Estimated) lowest action under standard conditions, 2.4 bass/2.0 treble.

Ashworth Guitar Transducer

£20.19 ex. VAT

Last month I mentioned briefly a new guitar "Bug." It is now available, and costs £21.79 (inc. V.A.T.) with a choice of straight or curly leads at £1.38 or £2.10. The problem of pick-ups for acoustic guitars has been around for some time and it is unlikely that any reasonably priced unit will solve everyone's problems, but it does appear that correctly using a "bug" for one particular application, one can achieve quite acceptable performance without too much expense or gadgetry. The Ashworth transducer is intended for use with acoustic guitars, and will work into most amplifiers without the need for a pre-amp box. It performs best with steel-string folk, and blues guitars, when connected to amplifiers with wide range tone controls and an input impedance greater than 250 Kohms. The most successful amplifiers tried so far are the Peavey Vintage, Fender Twin Reverb and a variety of nameless old valve amps. There is some loss of bass with most transistor amps, but the HH P.A. Amp, for example, would have enough bass boost available to compensate for this. When used as described, I would rate both sound quality and freedom from feedback troubles, as better than a Barcus Berry, and less good than Hot Dots or a Frap pick-up. The comparison is based on using the Barcus Berry, Hot Dots and Frap with their respective pre-amp boxes, and the Ashworth pick-up straight into the amp. It is pleasing to find a British-made product which can compete successfully with better known American ones, and the price difference is going to interest a lot of musicians.



There are certain limitations on the use of this "bug." First, it works on a different principle from most others and the lead must not touch anything for four or preferably five inches after it leaves the bug, after which any surplus must be firmly attached to the instrument. This is most easily achieved by giving the lead a gentle half-turn before taping down the surplus, so that it hangs away from the guitar top. Transparent tape could be used, but I suspect electrical P.V.C. tape is less likely to damage the varnish.

The second limitation is that while this bug works happily on the bridge of most steel-string acoustics (Guilds, Gibsons, Hondo, Welson) with high mechanical impedance, it is less successful with classical guitars, mandolines, and violin family instruments. Fortunately, there is another (Japanese) Bug available which does not use a pre-amp and which seems to be at its best on classical guitars. I see no reason why both products should not co-exist happily. The Ashworth transducer also works well on piano soundboards and on small harps. One unit, near the lowest strings on the soundboard of my Morley Minstrel harp, covered the entire range, and if you have looked at the price of an American Harp transducer set, you may have been rather shaken — Messrs. Stivell, Salvi, and friends, please note. (There are also models designed specifically for piano and double bass, which I have not tested).

It is possible to amplify a dulcimer successfully, generally by placing the bug on the top or side at the narrowest part of the waist, and the result sounds pleasing and fairly realistic.

The third limitation in use is that the free-hanging part of the lead will produce noises like a rock crushing machine if touched, and any attempt to remove or adjust the bug by pulling or twisting the lead is likely to destroy it. It is important to protect the bug from the effects of someone tripping over the lead to the amp. The transducer is supplied with a self-adhesive jack socket which may be attached to a convenient (flat) part of the guitar body. For those who distrust miniature jack plugs on leads, a high quality Switchcraft lead will be available. Alternatively, permanent installation with a special, but standard-sized jack socket is possible.

This bug is well made, very good value for money, and for certain applications sounds a little clearer than the standard Barcus Berry model. It is not recommended for rough usage, unless permanently installed inside the instrument.

**TONY
IOMMI**

has always
bought

picato
the only strings he'll play.



picato
strings-sounds

sensational in
Black Sabbath

Available from
your dealer now.



General Music Strings,
Treforest, Mid-Glamorgan.

CASHWORTH TRANSDUCER

SOLE DISTRIBUTOR · MICK JOHNSON · 4 ENNERDALE GDNS · WEMBLEY · 01-904 2905

Showing to the trade at the Morton Hotel · Russell Square · 22-26 Aug · Also showing · Hiwatt · MM · ATC · Hamiltons · Shergold

Jeavons
for
**MUSICAL
INSTRUMENTS
and
accessories...**



The North East's
Finest Instrument
Showrooms

Serving the North East

AMPLIFICATION EQUIPMENT
from 5watts to 500watts
AGENTS for H/H, WEM and CARLSBRO

GUITARS - Electric, Acoustic and Folk
ORGANS · ACCORDIONS · MANDOLINS
BANJOS · VIOLIN OUTFITS · BRASS
WOODWIND · DRUM KITS · MELODICAS
RECORDERS · JAZZ BAND EQUIPMENT
Mouth Organs etc. etc. and all accessories.



Electronic Repairs and Service Department
Same day credit facilities available

Sole area agents for
WURLITZER ORGANS

JEAVONS MUSICAL ENTERPRISES LTD

33-35, PERCY STREET · NEWCASTLE UPON TYNE · Telephone: 20895



Sonny Payne

U.S.A. drum star of Harry James' orchestra and one of America's ranking percussionists, about his Sonor drums. Sonny's remarkable rapport with his instruments is shown in this action picture.



Tommy Aldridge

relies on Sonor drums and accessories for consistent performance in the recording studio and on tour. Listen to Tommy and Black Oak Arkansas, and hear the quality of Sonor drums.



Frank Gant

whose performance with Ahmad Jamal ranks him among outstanding contemporary drummers, insists on Sonor drums and accessories to deliver his unique sounds.



Jack De Johnette

is known to his many fans as "The Wizard" because of the exciting music he creates. His choice of drums is Sonor, an instrument versatile enough to respond perfectly to the vibrant, original sounds. "The Wizard" is famous for.



Bernard "Pretty" Purdie

whose featured performance with Aretha Franklin and other stars in person and on records make him one of the most talked-about percussionists of the day, delivers his message on Sonor drums.



Bobby Gien

Ronnie Scott Band



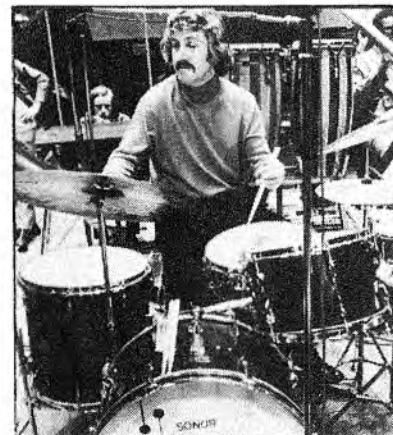
Tony Mann

Humphrey Lytelton Band



Jackie Liebezeit

"The Can"



Ronnie Stephenson

West German Radio/T.V. big band.

When only the best is good enough

 **SONOR**

Sole U.K. distributors: **M. Hohner Ltd.**, 39-45 Coldharbour Lane,

London SE5 9NR Tel. No. 01-733 4411

Telex No. 24224 Mono Ref 884



IAN HUNTER

by Eamonn Percival

In 1969, Ian Hunter joined the newly-formed Mott The Hoople. They released four albums on the Island label — "Mott The Hoople," "Mad Shadows," "Wild Life" and "Brain Capers" — but record sales didn't keep pace with the success of the band's live shows. In early 1972, they split but were persuaded to re-form soon after by David Bowie. Bowie's influence upon the band was all too evident — he produced "All The Young Dudes," from which the title track was taken, giving Mott The Hoople their first hit single. They had now signed to CBS, and subsequent albums "Mott," "The Hoople," and "Mott The Hoople Live" all went into the charts, as did singles like "Honolulu Boogie," "All The Way From Memphis," "Roll Away The Stone," "The Golden Age Of Rock 'n' Roll" and "Saturday Gigs."

Original Mott guitarist Mick Ralphs had, by this time, left to form Bad Company and his replacement, Ariel Bender, left just before "Saturday Gigs" was released. Former Bowie sideman Mick Ronson was drafted to replace Bender but this line-up was short-lived. Ian Hunter collapsed in America in late 1974, and Mott were unable to recover. They split into two distinct camps — Hunter and Ronson former the Hunter Ronson Band — while remaining members of Mott The Hoople formed Mott, a band which continues to thrive. In March 1975, Ian's first solo album "Ian Hunter" was released. Although it was officially a Hunter solo outing, Ronson was heavily featured on the album. Just released, Hunter's "All American Alien Boy" was recorded in Electric Lady Studios and featured among his back-up musicians Aynsley Dunbar (drums), Chris Stainton (keyboards), Jaco Pastorius (bass) and David Sanborn (sax). Hunter flew into London recently for a fortnight and I.M. spoke to him about his renaissance.

Why is the new album so different from the first Ian Hunter solo album and the previous Mott albums?

It was a combination of a lot of things — different musicians and a different studio. It was the first time I've ever worked with a bass player who devotes his whole life to playing the bass. That was a big kick, working with Jaco Pastorius. Of course, Aynsley's great as well, and Chris Stainton is a really sympathetic player. The fusion of them as personalities was amazing. There were no session attitudes — nobody was looking at the clock. Was it the first time you worked in Electric Lady Studios?

Yeah, I just took a chance. I knew Dave Palmer anyway, because he'd just done Jaco's album and I liked the bass and drum sound on it. So I used Dave Palmer, who also helped to build Electric Lady so he knew it like the back of his hand. He used to be the drummer with the Amboy Dukes, so he knows a good drum sound. He and Aynsley just messed around for ten minutes and that was it. We did two tracks the first day we were in there. The whole album only took three weeks, according to the sleeve. Do you always work as fast as that?

No, the last album took two months and that was about the average time for a Mott album as well. But this one was completed in 26 days, including the mixing. The calibre of the musicians was such that nobody even made any mistakes. The songs were fresh to them; they didn't make any mistakes, and they weren't getting tired because they were on their 50th take or anything like that. Are all your songs arranged before you go into the studio?

No, hardly ever. I write a lot of songs during the course of a year and the ones that stick in my head, I tend to work more on. If you don't remember it, it can't be any good, right? It seems to be once a year I get round to having enough songs to do an album. This year I had twelve, although we only used eight on the album. I just slowly work them out over a period of time. Before, I never used to work on the lyrics until I was in the studio because I used to take a cassette of the backing track home and then work on the lyrics. Like "All The Way To Memphis" — everything was finished and I hadn't got a lyric or even a title for it!

This time round I was well-prepared and it's a good job I was because they work so hard. You know the combination of instruments you want, so you're half-prepared in that sense. I knew I wanted David Sanborn for the album and there's a track called "You Nearly Did Me In" — the one with Queen on it — and I deliberately left two gaps because

I knew that's where Sanborn's bit would be. Again, it all depends who's doing it. I only have the song — the embryo — and it's up to enhance it. I was every happy with the people that were involved.

Did you spend a lot of time on the mix?

Well, you have to. It's hard because you've got to follow it right down to the end. You go into the mastering, you get the mastering right and then the test pressings are all fucked up, so you go back on the test pressings. I went back four times — I had to go to Los Angeles in the end. Different plants give you varying results. The New Jersey plant is terrible — I found the best plant was Santa Maria. I was running all over the States trying to get my record better than the tapes.

Very often, what happens is that it'll sound great on the tape and then the album comes out and it's popping and farting and the level is bad and the needle starts jumping. I don't like hissing and popping because a lot of people listen to albums on very good equipment or on cans and that's when it shows up. The album can be fucked up right at the end of a very long process. You can go through all of that and then the test pressing will be bad. That's why you have to stick with it to the end. I'm really pleased with the way it turned out. It's really clean and I have very good equipment at home, it's Pioneer and I can play it really loud. If it's that loud and I'm not hearing anything in the complete silences, then that's great.

How did the musicians on the album come together?

I just thought 'I'm in America now. I'm free, so why not go for the best?' I rang Aynsley and Chris and they said 'Yes' and I knew Jaco because I played with him last summer and he already knew the songs. I really liked Sanborn on "Young Americans" so I went to see him and he knocked me out. I'm in a lucky position now because Jaco and Sanborn are really starting to happen and it means a lot of people will want to play on our albums.

I know Queen's first tour was as a support act to Mott The Hoople, but it was a bit of a surprise to see them on your album. How did they get involved?

Well, Queen used to pick up a lot from Mott — not so much music but the organisational thing. Mott were a very well-organised band and they used to watch us a lot on stage, so I've known them for a long time. They just sort of happened along — I was in the studio and the phone rang and the engineer told me some guys from Queen were outside and could they come in?

They came in and they didn't want to get in the way. They were dead quiet and polite and Roger says 'Is there anything you want doing?' and I thought of the track called 'You Nearly Did Me In' which needed harmonies — three hours later, it was all done. They're really good. I always liked them, even when they were getting a lot of slugging off. I think they should be a really huge band in the States as well as in England.

You were quoted recently as saying America was much healthier for you in terms of song-writing. How different is it from England?

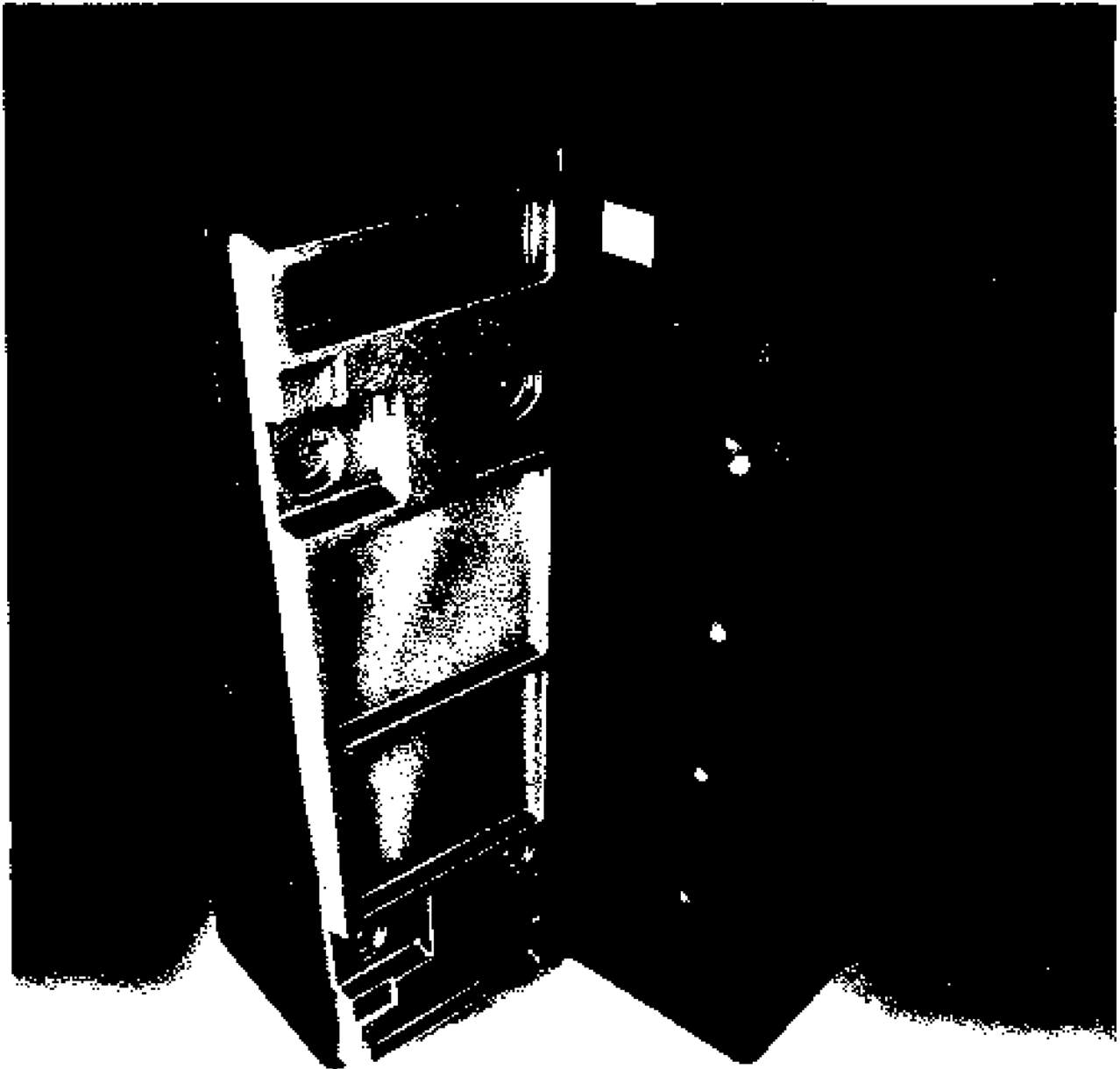
It's speedy, much faster. People have got different metabolisms — I just suit New York. A lot of English people like L.A. but I really like New York. The music in New York is the best — much better than the West Coast or even England. There are people playing in bars over there that would wipe you off the face of the earth. You get amazing musicians playing for nothing in bars. I'm sure it's much the same in England — there must be lots of kids playing in pubs and things for nothing. Pubs can't charge a lot for people to get in, so they can't afford to pay the bands a lot.

A lot of bands are being put out of business by mobile discos in Britain.

Yeah, but that comes and goes. Everytime there's a void in music, every time the music gets a bit crap, that's when soul comes back. It's happened before. If it comes together again, the disco scene will disappear. I've never liked discos anyway. I never went to them when I was 18. I think they're pointless. It's OK for having a drink and pulling a chick . . . but the music's wallpaper.

Are you going to go out on the road to promote the album?

Well, I'm promoting it by being here and talking, which is the next best thing. I'll have to wait and see what happens — I don't know how strong I am over here. If the album doesn't sell, then I won't be able to go out on the road. If it's a hit album or if I get a hit single, then there's a distinct possibility. I'm working with some people at Woodstock who have got a band and if we did it, then they would go on and do their own set and then I'd come on and do mine. They're called The Fabulous Rhinestones — it's Harvey Brooks' band — but it's early days yet. I don't really know what's going to happen. Do you still like being on the road or are you becoming more studio-orientated?



Introducing The Strongbox.

JBL took its K series loudspeakers and put them in an airfreight-proof, weather-proof, idiot-proof thermoplastic case.

No more crating. No more uncrating. The enclosure is the crate. (It even has built-in carrying handles and suspension holes.) Four fasteners on an optional, removable thermoplastic cover are all that's between you and the music.

The Strongbox comes with two different line arrays:

The 4681. Four JBL K-110 10-inch extended range musical instrument loudspeakers.

The 4682. Four K-110's plus two 2402 high frequency ring radiators and a dividing network.

Both will take all the 300 watts RMS you want to give them.

Save the family jewels! Get a Strongbox.

Please send me information on the Strongbox.

Name

Address

C. E. Hammond & Co. Ltd., 111 Chertsey Road,
Byfleet, Surrey KT14 7LA.

JBL



IAN HUNTER

from page 39

I think it's fairly equal. I love gigging and I like working in the studio. The only thing about a band is that, for instance, Mott's overheads were £1000 a week, so they had to work. Otherwise they get into a lot of debt very quickly. I don't like being part of something that has to work all the year round because the albums suffer. If you don't take time off you don't have any experience other than a hotel room or a gig. It's as boring as working in a factory — there's no difference. What I would like to do is to have a ready made group and go out and gig when I want. They'd be self-sufficient and do their own gigs and I'd ring up twice a year and do a couple of tours with them, so I'd get three or four months off, three or four on the road and the rest doing an album. *When you are on the road, have you still got a craze on looking for guitars in pawn shops?*

No, I settled on a Les Paul Standard. The High Commissioner of India's son gave it to me and it was incredible, so I just use that. I've got an old Strat and a Martin and that's it. There's the grand piano of course as well, but that's all I need because I'm no great musician — I'm a writer really.

As a player your role is very much that of a rhythm guitarist. Have you ever had any aspirations to play lead?

I like chordy rhythm. I like Keith Richard and I like Ron Wood — I don't think they should be in the same group because that's a bit stupid — but that's the style I like. I like the power behind a chord. I can't play lead — I'm useless. I know what I want to hear but I can't do it. Ronson used to laugh at me. I used to try and it came out sounding like . . . in 1956 when these jazz players were trying to grapple with this new form of music and didn't know how to approach it. {laughs}

Really, it sounds revolting. Pete Watts used to go fuckin' helpless with laughter if I tried to play a lead break. {laughs} But rhythmically, I could piss over any guitarist I've ever played with. I'm much better than Ronson or Ralphs, but rhythm guitar doesn't seem to be considered. I'm very good because I've got the rhythm and I know what I want. I can really push it.

Do you write most on guitar or piano?

More on piano.

What about the more rocky numbers?

'Roll Away The Stone,' 'All The Way From Memphis' — all those were written on piano. I think every hit I've written was conceived on piano.

At the time you joined Mott, you said you bluffed your way into it and you couldn't play piano. How did you learn from there?

Well, I only knew C, F and G then. I can't learn anything. I have to do it the hard way. It was just a case of having to. I'm a pretty good piano player now — I'm thinking of playing piano next time I go out on the road. I didn't before because I just couldn't get the hang of sitting behind a grand about ten miles from the group. I didn't like it and at that time you couldn't get Helpinstalls and things like that. I've got a baby grand now so I think I'd be able to do it. I'd feel a lot more confident now. Before, I just used to play chords and it would be within the general melee of that wall of sound that the early Mott used to have.

Do you find you can improvise on the piano now?

Yeah, I'm a big fan of Leon Russell. He's a big influence on me — not only his piano playing but his general sound and his use of girls. I'm more of a fan of his than anyone else's, actually. I get all this Dylan stuff thrown at me but I really like Leon.

Lyrics, too, are obviously very important to you. Do you spend a long time on lyrics?

If I get an idea, it's like a cat with a mouse — I can't let go. One thing leads to another and I am exceptionally good at lyrics — that's my big number. It's almost perverse. I mean, most people in rock can't write words to save their lives. If I get an idea, I'll play with it and play with it until I'm totally knocked out with it. On the last album, I was into doing everything pretty simple, but this time I really had a go. I thought the songs were simple and I really had to deliver on the words.

That was one of the reasons why I moved out to the States — I hadn't got any words. Apathy had set in. When you go over there, it's like being born again. On tour, it's just the same as England, but on a living level — you just go into a supermarket and it's totally different.

They live totally differently. Their problems are totally different. Their government is totally different. You've only got to watch the news and it's screaming out at you. And I like recent history — I've read a lot of American history and my head is full of lyrics. They don't come easy all the time — that's the problem. There's an aggravating

period when you've got a million things going on in your head and you get a kind of block and you think you can't write anymore. You've got it all, but you can't say it. I mean, that's my art — I can say it whereas a lot of other people can't.

You mentioned earlier that you felt as though you were starting out again. Do you foresee any problems this time round?

Oh, yeah. I mean you take a dive for a start. I don't sell the same amount of albums that Mott The Hoople did . . . and neither does Mott. We all suffered from it. But I've got a good start. It's a new career for me and I've got a very good start. The last album went silver over here. It did about 150,000 in America — that was a dive from Mott The Hoople albums which were like 400,000 — but what a great way to start a solo career, you know? It's a lot better than starting with nothing.

There was some animosity between you and Mainman at one time. Have you any regrets about the past?

No, I was never signed to them. I was too crafty for the fuckers all the way down the line. It's just self-preservation. I know some nice guys in rock and they're in a terrible mess because they can't look after themselves. It's not so much business — it's like you go for your wages in a factory on a Friday and if you don't get them, you kick up a fuck. It's as basic as that. It can happen in rock and roll — you can get screwed. If I'm not getting paid for writing my songs, then who is?

To that extent, I get involved in business. I won't sign anything — I'm not signed to my manager and I was never signed to Tony (Defries). Not only was I never signed to Tony, but I kept everybody else's contract under the bed in case anything happened. I'm lucky because my manager (Fred Heller) is a millionaire anyway and he's got no need to screw me because he just gets a buzz out of getting me good deals. I've been lucky that way. I've never been screwed. Tony never screwed me and Island never screwed me, although that was only a small operation anyway. Like, we were on 3½% and Guy (Stephens, one of Mott's former manager/mentors) was on 3½% and that was it — 7 per cent. But it was a case of they give you the bit of paper and you signed it. People used to say 'Get a lawyer' — I used to think if we got a lawyer, they'd kick us out!

Do you feel you have a good relationship with the press?

Yeah. I think it's a good relationship both here and in the

States. I mean, we've had our run-ins and various things have gone down in the past, but really I'm lucky. They give me a lot of credibility and that's what I have to have. I'd hate it if they thought I was some kind of joke, because I'm not — I'm very serious about music. I don't like those joke-type articles but I don't really get a lot of that.

If you want to go back to the Mott days, that's a different story. It used to drive us nuts. I used to write reviews before the real reviews would come out because I knew what they were going to be like and I knew the reason why. I knew the press were going to be totally dumb and think we were going to be instant fags. I was watching people be instant fags all over the place and it was absurd. You just can't be an instant fag — it's something that happens to you from childhood. I remember Bowie telling me when he got married his mum said 'I expect you'll change now' — {laughs} She really thought it would change things. I mean, he was into anything that moves and that was it. But that was it — we were involved with Bowie and everyone thought we were instant fags.

Do you ever envisage yourself as part of a band in the future?

I don't think so because I've done all that. I haven't got the unselfishness that you have first time round. I'm terribly selfish. I can't ever envisage being in a band and like, doing three of my numbers and three of his numbers and a couple of his numbers. I always like mine better than theirs {laughs}.

It causes trouble, you know. They always like theirs better than yours and you go along and you pretend a bit just to keep things together because you respect them. But to me, I just think, well . . . oh fuck it. I just feel I'm a singer — songwriter. In Mott, I used the right songs for me and it just coincided that they happened to like them so we would use them.

How do you envisage the future? Are you a 'I'll go where the music takes me' sort of person?

Yeah. I haven't a clue what I'll be doing in the future. The whole thing with music is that you don't know where you're going. If you know where you're going, you must be in a format and if you're in a format you might as well be in a factory. I like the freedom of music. You get lonely. I mean you don't have your mates around you if you're not in a band but you have to put music before all that. It's one thing having good mates, but if your whole life is bound up in music, then that must come first.

DRUMMERS

LEARN A NEW FOUR-LETTER WORD!



At a price you can afford — a professional kit. Woodshells, heavy duty chunky hardware and accessories.
Kent offer a choice of three kits in five colours.

Prices range from £139 (R.R.P.inc. VAT) — £265 (R.R.P.inc. VAT)
These prices include cymbal stands, bass drum pedal, hi-hat stand and cymbals.

Illustrated, the Kent Superstar kit, featuring 22" Bass drum, 16" x 18"
Tom-tom, 13" x 9" and 12" x 8" Tom-toms and 14" x 5" Snare drum.
Metallic finish with Remo Soundmaster heads. Send for full details and specs.
on the Kent Superstar, Apollo IV and Apollo V.

**FLETCHER
COPPOCK
& NEWMAN LTD**

Morley Road, Tonbridge Kent.

To: Fletcher Coppock & Newman, Morley Road, Tonbridge, Kent.
Please send full details of Kent Drums
NAME
ADDRESS

ALBUMS

Ian Matthews: Go For Broke CBS 81316

Ian Matthews has made quite a fistful of solo albums in his time, in between brief outings with such "real" bands as Fairport Convention, Matthews Southern Comfort and Plainsong. He's always given the impression of never being able to settle down and the solo albums tend to reflect this feeling; usually a hotch-potch of favourite songs by respected songwriters and some new songs of his own. This new offering is no exception and has much of the feel of the last album, "Some days you eat the bear and some days the bear eats you" on Elektra (1974), which features four original tracks out of the ten on the record, the other six included the usual excellent selection of songs; Becker and Fagen's "Dirty Work," Tom Waits' "Ol' 55," Danny Whitten's "I don't wanna talk about it," Jesse Winchester's "Biloxi" — that sort of level. This new album, "Go For Broke," has an equally impressive set of songs and is produced by a well-known "Nashviller" Norbert Putnam (check out Area Code 615 and Barefoot Jerry) and Glen Spreen, who also handles the string arrangements. The album opens with "Darkness Darkness" by Jesse Colin Young, which first appeared on the Youngbloods' "Elephant Mountain" LP and has since been covered by Mott The Hoople. Ian gives the song a fairly electronic treatment with a fine soaring string synthesiser, but his voice sounds just a little bit too "nice" for the somewhat evil undertones contained in the song. Next up is "I'll Be Gone," a typically well sorted out Ian Matthews song with beautifully arranged vocal overdubs. The intro is very reminiscent of "Pretty Flamingo," but that's no criticism — we certainly need more melodically orientated rock songs. The Muscle Shoals Horns are resident on the album and are much in evidence on this track, with a fairly orthodox solo from Harvey Thompson. "Brown Eyed Girl" is up next, and it's likely you've heard this as it's been getting a lot of airplay as a single recently — it's the well known Van Morrison song which is difficult to comment on objectively as the original is so good, but a definite high on Ian's version is the almost Byrds-like guitar break. I like it. Ian Matthews' "Rhythm Of The West" follows, written in combination with Jay Lacy, and starts with a really pleasing twelve-string intro, leading to Ian singing about falling out of favour and "sitting and wondering why, to the rhythm of the west." There's a pleasant string arrangement by Glen Spreen and a fine understated Moog solo by Shane Kiester with a sort of horn sound on the synth. Finishing the side is "Groovin'," the old Young Rascals number, and as such is one of the least successful "versions" on the record. I mean, it's such a well known tune and it doesn't really offer anything new, although in its favour, the electric rhythm guitar is really well handled and the straightahead drumming really suits the feel of the song. Side Two opens with "Lonely Hunter," a reasonably up-tempo Ian Matthews song with typically good vocal arrangements and a well stated theme on guitar plus integrated harmonica fill (or "harp",

should I say?) from Joel Tepp. This is followed by yet another Matthews song, "Steamboat," the intro of which sounds like a speeded-up "These Days" (Jackson Browne's song which does in fact appear on Ian Matthews' "Valley Hi" album, the one before last on Elektra, beautifully produced by the multi-talented Michael Nesmith) and quickly leads into the currently popular semi-reggae rhythm which keeps re-appearing; the song includes a lyrically pointless chorus and a neat, rather strange guitar solo which includes some distorted dirty-sounding chords. Then comes "A Fool Like You," a song by Tim Moore which is certainly one of the best songs on the album — a slow love song with further nice harp from Joel Tepp and a pretty normal string arrangement. The Hollies' "Just One Look" done reggae? Matthews actually tries it, and it doesn't work, it sounds laboured. Closing Side Two and the album is Darryl Hall and John Oates' "When The Morning Comes" and this again has a sort of Caribbean feel, though it's actually directed towards the feel of the song and so comes off a bit better, but overall the arrangement doesn't offer anything that the excellent original hadn't — I suppose the value of this track is to bring attention to Darryl Hall and John Oates' superlative songs. On balance, the album comes across rather low-key, although it definitely makes good listening and outlines Ian Matthews' good taste in songs (other peoples) and inconsistency (in his own). Recorded at Quadrafonic Sound Studio, Nashville Tennessee, remixed at Kendun Recorders Burbank, California. Produced by Norbert Putnam and Glen Spreen. Engineered by Marty Lewis.

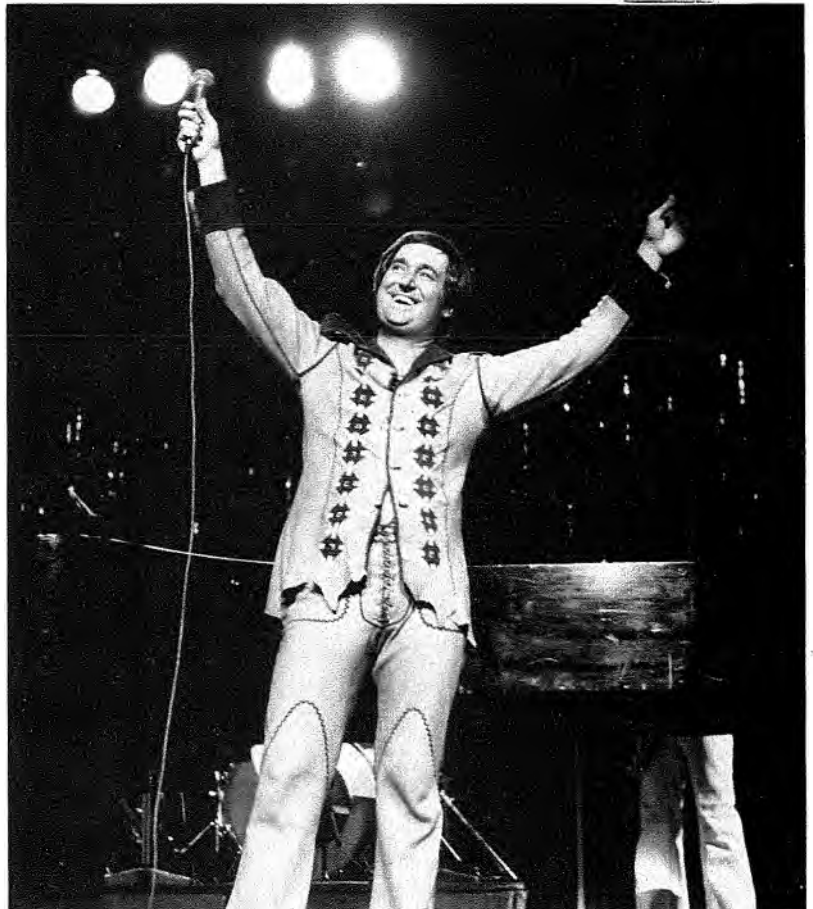
Tony Bacon.

Neil Sedaka: Laughter And Tears. The best of Neil Sedaka today. Polydor Super 2383-399

In the golden days of rock'n' roll, Neil Sedaka was right up front with Presley, Holly, Vee and all the rest. His popularity lasted from about 1959 to 1963 with hits like "I Go Ape," "Oh Carol," "The Diary" and "Breaking Up Is Hard To Do," written by Sedaka and lyricist Howie Greenfield. Sedaka was almost unique in those days, in that he wrote his own material. With the emergence of The Beatles etc., Sedaka's popularity dropped and he only returned to recording five years ago with the upsurge of the singer/songwriter cult. Since then, he has released some great albums and a long line of hit singles. The fact that 10cc recorded the "Tra La Days Are Over" album with him shows the respect he has of fellow musicians. This album, then, chronicles his career over the last five years. Most of his singles and some of the better album tracks are included on this excellent value for money compilation — no less than 18 cuts are featured. From the ballad "Solitaire" (recorded live at the Royal Festival Hall) to the rockier "A Little Lovin'." Sedaka shows he is a master of many facets of music. Other album tracks include "Brighton," "Betty Grable" and the very excellent "Cardboard California." Regardless of his image, Sedaka is an excellent writer and musician, and this album says it all.

Recorded at various studios. Production credits vary between Sedaka/Robert Appere, Sedaka/Malcolm Jones and Sedaka/10cc. Eamonn Percival

continued on page 45



Neil Sedaka



LIST OF AGENTS IN
ENGLAND FOR
DYNACORD

Musical Instruments Ltd.
19, Union Street
BRISTOL
Phone: 0272 25897

SOUND CENTRE
Musical Instruments and
Sound Equipment
9, St. John's Square
CARDIFF
Phone 0222 34018 / 396279

SOUND PAD
Music Centre
64, London Road
LEICESTER
Phone 0533 20760

MUSIC JUNCTION LTD.
Peter Younger
21, Dalston Lane,
LONDON, E8
Phone: 01-254 3744

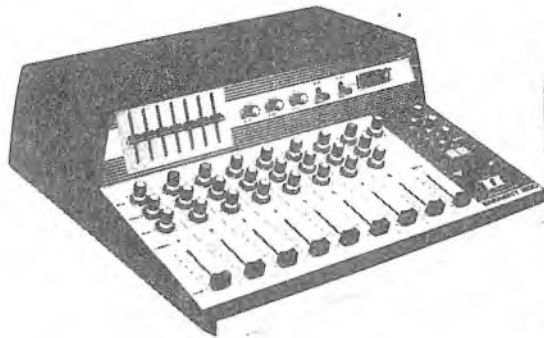
MACARIS LIMITED
20, Denmark Street
LONDON WC2H 8NA
Phone: 01-836 2856

B.L. PAGE & SON
10, Wood Street,
DONCASTER, YORKSHIRE
DN1 3LH
Phone: 302 69707

S.M.I. Selmer
142, Charing Cross Road,
LONDON WC2
Phone: 01-240 3386

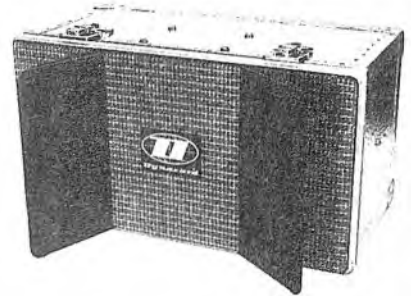


SYMBOL OF BETTER SOUND

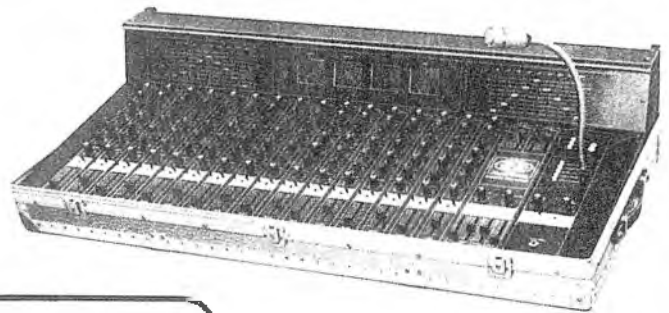


EMINENT 200
Self-powered, 220/150 watts;
multi-head echo/reverb unit;
8-channel mixer; 7-stage equalizer;
20 watts monitor amplifier.

MOSQUITO®-BOX
120/80 watts PA cabinet, two adjust-
able flaps allow sound waves to
be channelled in every direction,
compact aluminum flight case (DBGM).



ECHOCORD-MINI
Echo/reverb unit with
slide control for professional
and amateur use.



MC1640
16-channel mixer for microphones; 4 outputs:
right, left, mono and monitor; 4 VU-meters;
2 equalizers in master channels; built in micro-
phone to stage; connector for multi-core
control cable; mounted in aluminum flight case.

DC 200 R
Organ cabinet with
space sound effect and
160 watts (2 x 80 watt RMS).
Built in reverb.



THE GREATEST P.A. SYSTEMS

ALBUMS

from page 43

Richard Thompson: (guitar, vocal) Island ICDS

On the back of this album is a very Victorian looking photo of our Richard, you know, brown tint and that sort of thing, captured at the Cambridge Folk Festival last summer. And he's thinking, "I'm not famous, I could be famous, I don't wanna be famous . . ." or words to that effect. Someone who could, should he desire, be a "guitar-hero" has to be put in a certain context to enable you to understand their standpoint; in Richard's case, it's a musical point of view, and this record does just that. Taking the record on the strength of a compilation and disregarding the music for a few seconds, the work that has gone into it is totally commendable; credits on the sleeve for "compilation and production" go to Thompson, John Wood (his engineer and producer since the beginning of time) and Richard Williams (A & R man at Island), so now we know where that particular credit lies. The listings on the middle of the double sleeve that holds the two record set are as detailed as you could possibly want a compilation of this kind to be; the music falls into two rough periods: Fairport Convention, and after. Fairport Convention appears in a few of its many combinations; two previously available but nonetheless hard to come by tracks, "Time Will Show The Wiser" from the first Fairport album (Polydor) recorded in true 1967-style four track. This is followed by "Throwaway Street Puzzle," the flip of the "Meet On The Ledge" single, written by the bass player, now with the Albion Dance Band, Ashley Hutchings and Richard the T. There follows the remaining four Convention tracks, three of which are unreleased in the form that they appear here: "Mr. Lacey," a live version from a BBC recording (which makes you wonder what other gems the Beeb have rotting away in a cupboard), "The Ballad Of Easy Rider," the well known Rog McGuinn song, which was, apparently, an out-take from the "Liege And Lief" sessions, and "Sweet Little Rock'n' Roller," "Poor Willy and the Hangman," a Fairport rhythm track which Richard and Linda have overdubbed vocals onto, was in fact released in that state on the previous Island/Transatlantic compilation "The Electric Muse." The second side opens with a real gem — Fairport (Thompson, Simon Nicol, Dave Swarbrick, Dave Pegg, Dave Mattacks 1970 model) live at the L.A. Troubadour playing Chuck Berry's aforementioned "Sweet Little Rock'n' Roller," a real joy to wrap yer ear'oles round, like. From guts to class at a stroke — an alternative take of Richard and Linda Thompson's "A Heart Needs A Home" and; I think, the definitive version with tons of echo on Linda's vocals. A live version of "The Dark End Of The Street" follows, taped at London's Queen Elizabeth Hall last April, and sounds a little hollow, inevitably, as it was taped straight from the mixer, but still capturing the charm and togetherness and warmth of Richard and Linda singing live. I remember that as a good gig, but even better, on the strength of the recordings here, was the November date at Oxford Poly: Two long tracks on either sides of the second

record, "Night Comes In" and "Calvary Cross" from the last albums, are given a lengthy, gloriously indulgent treatment, a real indication of how well Richard can play in the right setting. Also on the second record, we are treated to the only new tracks, the lighter (in volume only) side of Richard's playing; on side one, a traditional tune "Flee As A Bird" with Richard on solo acoustic, proving his ability and feel in this area; on side two "The Pitfall/The Excursion," original tunes with Richard overdubbing acoustic, dulcimer and mandoline to give us a medley of two expertly controlled tunes. Buy this and you'll have a record of one of Britain's more brilliant guitarists at his best.

Various original studios. Remixing engineer John Wood. Produced by Richard Thompson, John Wood and Richard Williams.
Tony Bacon.

Poco: Rose Of Cimarron. ABC 5166

Poco must surely be the next country-rock (for want of a better label) band to make it big in England. Like The Eagles, they have taken the feel and essence of country music and adapted it within the context of their own material, with commercial viability as the end result. That's not to say it isn't good. The songs, playing and arrangements are excellent. My own preferences are for the Rusty Young songs, although Paul Cotton and Timothy Schmit also write a mean tune. The title track opens the album. A Rusty Young song, it features an intriguing string arrangement by Tom Sellers and those excellent Poco harmonies. Towards the end of the song, a nice guitar solo appears before sweeping strings take over completely. A particularly nice touch occurs on the fade-out, when Young's bluegrass banjo accompanies a full string section. "Steal-away" follows — an uptempo number written by Young, featuring smooth, three-part harmonies on the chorus and fading out on a gutsy guitar solo courtesy of Paul Cotton. One of the best moments occurs at the end of the first side on "Company's Comin'/Slow Poke." It's a good time country song with banjo well to the fore in the mix. Handclaps on the off-beat and whoops and hollers permeate this track, which eventually turns into a furious hoe-down with banjo, dobro, fiddle, guitar and pedal steel each taking verses. Other standout tracks — Paul Cotton's "Too Many Nights Too Long" complete with one verse sung in Spanish over a mandoline and 12-string backing and "Starin' At The Sky," written by Schmit and featuring an amazing sax solo from Al Garth.

Produced by Poco and Mark Harman. Recorded at The Record Plant, Los Angeles.
Eamonn Percival.

Jaco Pastorius: Jaco Pastorius. Epic PE 33949.

If I were a bass player, I would seriously consider giving up after listening to this album. I tend not to go overboard on bass players' solo albums — they are usually self-indulgent to the point of obscenity. Jaco, however, is amazing. He's got an

outstanding amount of imagination, skill and technique, but he keeps himself in check throughout. The tunes are melodic and Jaco never overdoes it. The opener — Charlie Parker's "Donna Lee" — features just Jaco with Don Alias on congas. After listening to this track, you think you've heard it all until you get to "Portrait Of Tracy." This has Jaco playing completely unaccompanied — intricate bass lines AND chords form the basis of this track while the melody is played completely in harmonics — sometimes three at a time! Jaco also has quite a line-up of talent beside him on this album. Herbie Hancock (keyboards), David Sanborn (alto), Michael Brecker (tenor) and Randy Brecker (trumpet) are all featured on "Come On, Come Over," together with Sam and Dave on vocals. This track features an excellent horn arrangement by Jaco and also displays his sense of economics regarding bass



Poco: OH YES!!!

playing. While he lets go in the choruses, the bass line in the verses is kept very simple. This, I feel, is the mark of a good bass player — not so much what you put in, but what you leave out. Jaco also experiments with the actual sound of the bass. On "Continuum," a slow, jazzy number, his bass sounds like a slowed-down trombone. Jaco's heart is obviously in music. In fact he doesn't even appear on the last track, "Forgotten Love." Jaco wrote it, but only Herbie Hancock and a seven-piece string section are featured; conducted and arranged by Michael Gibbs; it's a beautiful slow, melodic tune. Jaco is now with Weather Report. Hopefully, we'll see him on these shores soon.
Produced by Bobby Colomby. Recorded (we suspect) at Electric Lady, New York.

Eamonn Percival.



GALLAGHER & LYLE

by Tony Bacon

If you've been anywhere near a radio recently, it's unlikely you haven't noticed the upsurge in popularity of songs by two Scots called Benny Gallagher and Graham Lyle. Their last album, "Breakaway," has spawned no less than three hit singles, "I Want To Stay With You," the title track "Breakaway" and "Heart On Your Sleeve." "Breakaway" has also had the honour of being covered by Art Garfunkel. Benny and Graham have drawn on a wide experience of playing and writing to achieve this success; speaking to them makes you even more aware of how hard they've worked to be where they are now. When we met at their record company's offices, they'd just returned from two days in Holland recording a TV show along with Janis Ian, which was the culmination of five months' touring in America and Britain. The overall air was one of relief and, inevitably, fatigue coupled with a stimulating enthusiasm for what was to happen next.

Both Benny and Graham were born in Largs, Northern Ayr, which is about 25 miles from Glasgow, and they started to play in local bands around that area.

"Everybody was into Chuck Berry, Link Wray, that sort of thing," explains Benny. "It just evolved from that really, we were playing around in various bands and just started writing. Graham had a studio up there, but we realised we were going to have to move to London if we wanted to be serious about it all. So we did that eventually in about 66 or 67, and that's when we got involved with Apple. We were contract writers there and mainly worked for Paul McCartney, writing for Mary Hopkin and the like. She put quite a few of our songs on an album, and we even entered one for the Eurovision thing, but it didn't have a simple enough beat or something. It was good at Apple, McCartney involved us a lot and was generally okay, he'd show us round the studio if anything of ours was being recorded and we'd either play on it or listen in - he'd ask if there was anything we thought was wrong or had been left out, quite a constructive thing really."

Apple, unfortunately, didn't last too long with its rather lofty artistic ideals coupled with some rather curious financial arrangements. Fortunately for Benny and Graham, their contract expired at around the time of Apple's demise and along came the next project, McGuinness Flint.

"The thing that excited us with that band was the type of musicians in it who'd done and could do all kinds of things, jazz, folk, blues - Hughie (Flint) used to play with Clapton and Mayall, that sort of level."

Tom McGuinness and Hughie Flint did indeed bring years of experience with some varied British blues and rock bands to their new group. Tom, who played guitar, bass and accordion, had seen time with Manfred Mann, a well respected boss amongst musicians and Hughie, on drums, had played with John Mayall and also with Alexis Korner's Free at last, Savoy Brown and Chicken Shack. Fifth member was Denis Coulson on piano and accordion.

"We primarily joined that band," continued Benny, "when a friend of ours rang up and said they wanted a bass player, but we were song-writers and that was our main thing. We talked about it a lot and eventually ended up doing what was, I suppose, an audition, playing through a stack of our songs. It felt good that first day and we just carried on, with the band becoming McGuinness Flint. It really was a good band that, but we just weren't ready for the success."

Success came along in the shape of two 1971 hit singles, "When I'm Dead And Gone" and "Malt And Barley Blues," "Dead And Gone" being taken from the debut album on which Benny and Graham wrote nine of eleven tracks. This success seemed to jolt the band rather uncomfortably into a position which they found very hard to accept. To state the obvious, they just wanted to play.

"McGuinness Flint was founded with the idea of just playing to people and having a good time," Benny went on. "We were playing all kinds of daft instruments like accordion and mandoline, which at the time, gave us a wee twist in the sound which people were really interested in seeing and hearing. The success was too much, though, we wanted to start slower than that, the halls began to get bigger and bigger, things began to get out of hand and you'd lose that communication. Everybody lost confidence because it wasn't what we set out to

do, which was to be a band that could play and communicate with people."

So McGuinness Flint ended, as far as Gallagher and Lyle were concerned, and Benny and Graham started playing together as a duo, acoustic guitars and no more. A bit of a change, as Graham pointed out.

"It was a bit weird for us, because we'd never played just the two of us, it'd always been within a group structure. I found it particularly strange having all that responsibility on your shoulders, you take a lot of stick in that situation. We did a lot of difficult gigs, particularly when people weren't in the right mood for what we were trying to put over. I'm of the opinion that everything in the end is good and I think that stage was good because it made us write stronger constructed songs, making us aware of what playing on stage really meant."

Benny agreed; "I remember reading Burt Bacharach say how he'd heard a great song murdered by the arrangement, and a lousy song doctored to sound good. I never really sussed that at the time, but he's so right, I can see that now. Arrangement and projection are so important."

Over the years Gallagher and Lyle have built up a new band around them who combine these two attributes, along with good friendship, and have regularly produced what amounts to a fine set of albums, including two albums in 1972, both titled "Gallagher and Lyle," the first on Capitol, the second on A & M, "Willie And The Lapdog" in 1973, "Seeds" in 1974, "The Last Cowboy" in 1975 and the magnificent "Break-away" this year. Graham explained his affinites to a group.

"I've always preferred being in a group and over the years we've built it up. You know, we got a drummer in, then a bass player to take over from Benny, a horn player and so on. And through all these stages we've tried to write for the vehicle we're playing in, with the seven piece we have at the moment, I find it ideal, I wouldn't want to add anything. I like a tight-band. I mean, we've been on the road last year with a whole orchestra which was a great experience but doesn't beat a band, no chance. We like a band that gets on socially and musically, and don't much like this session-guy thing."

The Gallagher and Lyle band is indeed a tight unit if the gigs on the recently finished British tour are anything to go by, getting a very full sound from Jimmy Jewell on saxophone, John Mumford playing trombone and euphonium, keyboard player Ian Rae, Alan Hornall on bass guitar and Ray Duffy playing drums, with a fair amount of instrument swapping going on in the keyboard/guitar department.

I asked how they found studio-work, trying to reproduce their energetic, live sound.

"I don't like studios," Benny told me, simply enough. "I find them a pure substitute for playing, it's a definite contrived thing trying all the time to get the energy up to playing level the way you would at a gig. There's no control on what you're hearing and all the energy just goes. About the most you can do is get off on one another's playing, but that's all, no feedback, playing inside yourself instead of throwing it out. We've often toyed with the idea of a live album to overcome this, or even putting out "The reason I believe" as a live single; it's one I always think shouldn't have been missed out on. I really hope we can do that in the future, maybe after the next album."

Graham agreed with Benny about this basic

recording problem, although records are inevitable with the financial and commercial pressures that exist in the popular music industry. Benny summed up their problem: "What's wrong with the studio is basically that the most important link between the musicians, the actual contact with an audience, is the weakest, or non-existent, in the studio."

The Gallagher and Lyle band, then, are obviously one of a long tradition of British bands whose prime objective, and one from which they won't be swayed, is communicating with their audience and having a good time in the process.

I asked how they found their recent British tour.

"It was great," said Benny, "even better than the last, partly, I suppose, because the album and the singles have been a success. It was like coming back and playing to say thanks which was so good - we'd been through everything in America."

"Glasgow was the homecoming, that was tremendous," Graham continued. "Billy Connolly came on with pints of beer and roses in them, the whole thing was just great. Oh, we did get two guitars stolen though! During a soundcheck! We got one back, a Martin 12 string, so that was O.K. but the other one, a John Bailey which was made for me, that's gone. It used to be my favourite guitar, but when we took it to Canada it got a big split up the back so I suppose it's not too much of a loss. I use the Martin 12, and a Fender Tele with a Gibson pick-up on stage now, and also we've got two Gibson Hummingbirds which we've had about six years now, a Harmony mandoline, Benny uses a Fender bass and Alan a Rickenbacker or a Fender."

The piece de resistance in guitars, however, was a new acquisition bought in the States. It's an old Gibson semi-acoustic in lovely nick which they couldn't resist at \$1,100.

"The moment I picked it up I wanted it," said Graham, "it's just so beautiful, a collectors' piece really. There's a lot of guitars to be had over there but it's a bit pricey 'cos everyone's cottoned on to the fact you can make some money. I mean, you've got to have an old guitar if you want a good one. Mind you, John Weider, a friend of ours, he's a knockout guitarist, and he'd heard all this 'new guitar equals rubbish' bit and he bought a brand new Strat and Telecaster and they were both great."

Benny took him up. "I don't like the new Fender basses, I've got a 64 model and it's a fair bass, that one. The new wood's not so good and the fretting, I mean the fret spacing, is different now. I suppose it depends what sort of music you're playing, though, I mean the new Fender basses have got that slappy, funky, 'Sly' sound which is great if you want it."

They're now starting a new batch of songs, building up to the next album, and have several ideas to start on; they tend to do their song-writing in blocks and this is the position they're entering now. "If we've got ideas," explains Benny, "we'll work on them almost nine-to-five; if we haven't got ideas we'll separate, go off for a bit, and then come together when we've got some. We've got some older stuff which we might try to re-work, but it's only really new songs that really get the energy going - it's best when we're bouncing all sorts of ideas off each other."

So Benny and Graham are very happy with the way things are going, the band goes from strength to strength and the recent tours were very successful and have won the Gallagher and Lyle band many new friends on both sides of the Atlantic. The next album could be the one to put them in the top-class bracket.

It's all in your hands now.

These essential music-making tools let you get in, around, and behind your music. One part, one track at a time. Then when all the elements are the best they can be, you blend them together and generate the finished product. A process that involves your innermost sensitivities and perceptions. A personal statement.

The 3340 has undoubtedly helped more people make more demos and masters than any other tape recorder. Our new model, A-3340S, has extended high end frequency response in the sync mode, plus manual cueing. The Model 2 is about the best value going in small mixers - 6-in, 4-out with full panning and multiple patch points. Plug in a few high quality TEAC ME-Series electret condenser mics, and you could be quite literally in business.

When you have the right tools, the work is more productive.

TEAC

The leader. Always has been.

For further details write to:

TELEDYNE
ACOUSTIC RESEARCH
HIGH STREET, HOUGHTON REGIS,
DUNSTABLE, BEDFORDSHIRE, LU5 5QJ,
ENGLAND
TELEPHONE: DUNSTABLE (0582) 603151
TELEX: ARUKINT DBLE 825467
CABLES: ARUKINT DBLE



Home Recording: Altering your room

Originally, the studio was the single most important part of recording. For 30 years a Decca recording against an EMI recording was judged against the background of the labels' studios — and the "studios" meant the rooms prepared for recording.

Because the musician recording at home has limitations similar to the pioneers — his are caused by lack of finances, theirs by lack of technology — the studio or room in which the recording takes place once again becomes more important than the equipment used.

The usual frustration felt by home recordists is the lack of the next few quid to form the deposit on the new mike, or new echo unit. Only at the end of the chain do musicians start to think about the acoustics in which they are recording. Obvious signal processors like EQ systems, echo producers and so on adjust lacks in acoustic conditions, but at the bottom end of the equipment scale, which is where most musicians start, they haven't got these controls. Mistakenly, they fight to get them as their main priority and in fact there is an excellent case to be made for adjusting acoustics, so that the control items are not so necessary and thus they slip down the priority list and make room for more creative items in the recording chain — like multi-channel or mixers.

Usually, a musician is lucky if he can find enough peace to record in any room of his home. Few of us have facilities to find peace, let alone put a room by for recording. So any adjustments you are planning to make to the studio have to be temporary and quickly erected and removed.

There are two main considerations in acoustic control: background noise and sound quality.

The extent to which you

need to control background noise depends on the type of programme material you intend to record and the quality you expect to get. Obviously, a second rate machine used to record a rock band will have inherent sound levels sufficient to allow slight hums from ventilators, fridges and the like to go on during recording. But the recording of guitar and voice on a good quality machine needs a really still, vibration free state in which to record. There's no answer if you live in a high rise flat beside the M6; the point is that a sound you are used to in your home can become a sound that completely ruins your enjoyment of a recording. Listen carefully.

If you're trying to kill a sound that's persistent and you can't switch it off or stamp it out — like a main road — use a sound absorber as effectively as you can. If it's from outside, close the curtains and tack up as many blankets as you can spare over the window. Throw a rug up behind the door if sound comes from the hall. The reduction to your ears might be slight but it's important on tape.

Acoustic quality is a matter of taste. You will get better recordings the "deader" your studio is. Most living rooms have quite a few hard reflective surfaces. These produce reverberation and interfere with the clarity of recording. Stand in the centre of the room and clap your hands. The speed with which the sound dies away is a rough indication of the degree of "dead" or "alive" acoustics in the room. Ideally, you want to get a room in which your ears hear the direct sound of the handclap and then hear almost no sustain (to describe it as a musician might).

That means that during recording, musicians may feel unhappy that their instruments "sound wrong," but in

fact on playback, the sound which, when played over speakers (presumably finally in an acoustically average room), reflections will be re-introduced. Endless arguments against this strict theory of recording have been raised but, for low-budget home recordings, there is no better way of getting professional sounds than getting the studio really "dead."

Drag carpets in from other rooms, cover all reflective surfaces and if necessary get a large clothes-horse, tack a

blanket over it and open it up opposite the mike into which you are recording. This is a makeshift version of a proper separation screen used in pro studios and although it will no doubt be ugly, it should work just as well.

Make it as dead as you can, absorb as much sound as you can with carpets, rugs, mattresses, and so forth and keep the background sounds down. That work is worth the money you might spend on a lot of gear.

BOOK REVIEW

"Sound Recording Practice" — Compiled by the Association Of Professional Studios, Edited by John Borwick. Published by the Oxford University Press. Price £16.

At £16, many home recordists may consider that extra second-hand microphone or a new soldering iron might be a better use for that kind of money. It would however, be £16 well spent, as this is the definitive book on sound recording published in the U.K.

The luminaries of recording have been gathered together by Editor John Borwick — himself well known in the industry — and they have each contributed chapters dealing with the specifics of sound recording. The book is equally suitable for the novice and the expert, usually an impossible compromise, but in this case, the coverage of each area is so comprehensive that as well as discussing all the rudiments, fine detail and theory is also covered.

The chapters sensibly deal with the problems of sound recording in their logical order. Chapter one, for example, deals with the pro-

gramme chain and covers the stages from initial recording to domestic playback. There is a discussion of quality criteria within the chapter such as frequency response, crosstalk and wow and flutter. Chapter headings include Acoustics, Microphone Circuits, Communication Circuits, Mixing Console, Extra Facilities, Monitoring Systems, Tape, Tape Machines, Mobile Control Rooms, Equipment Alignment, Maintenance, Speech and Drama, Classical Music, Synthesized Music, Location Recording, The Role Of The Producer, Popular Music, Disc Cutting, Disc Manufacture, and various other related subjects.

Because the book is sponsored by the Association of Professional Recording Studios, the contributors read like a Who's Who of the recording industry. John Borwick, Alex Burd (of Sandy Brown Associates), Ted Fletcher, Dick Swettenham, Michael Belville, Stephen Court, Angus McKenzie, Robert Auger, Pete Tattershall and John Keating (apologies to the many omitted). A superb book with well over 400 pages.

ANDERTONS

MUSIC SUPERSTORE

Prices Smashed

Drummers

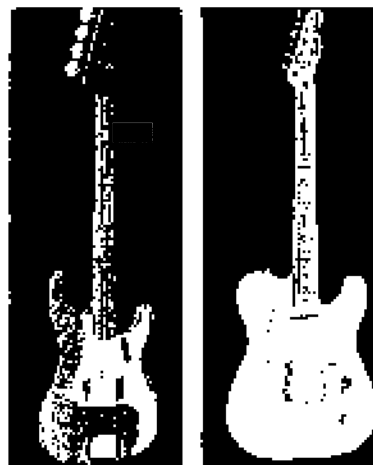
We are the complete percussion service, with everything from wing nuts to the SUPER PEARL OUTFIT ILLUSTRATED. Stock at presstime includes PREMIER VIBES, NATAL CONGAS, LUDWIG BIG BEATS, PREMIER 717's, PEARL FULL DIMENSIONS, ANDERTONS CUSTOM ROCK KIT by premier and many more new and used kits. We have large stocks of cymbals by PAISTE, AVEDIS, SUPER ZYN, TOSCO ETC. cases by SPAULDING/RUSSELL/PREMIER ETC, and the two new SUPERPEDALS, the PREMIER 252 and the ROGER'S SUPREME. Our PERSONAL MAIL ORDER AND CREDIT SERVICE is available on everything. Ring us for a quote, whatever your requirements, you'll find our PRICES MOST COMPETITIVE.



Rogers Premier Pearl Ludwig PAISTE
AND MANY OTHER TOP BRANDS

Guitarists

Now is the time for some SUPERAMAZING DEALS ON ELECTRICS AND ACOUSTICS. Cash buys, trade-in and credit purchases. The PRICES ARE RIGHT, and SO IS THE QUALITY. You won't get palmed-off with excuses like "they don't make them like they used to." We make sure we get the good ones. Top American, Japanese and English guitars are just waiting for you. LOOK AT THE LIST OF BRANDS BELOW and phone for a quote, our PERSONAL MAIL ORDER AND CREDIT SERVICE will take care of the rest. We can offer the best REFINISHING and CUSTOMIZING SERVICE in the U.K. Come and try us.



Fender Ovation Yamaha Rickenbacker
Guild TAMA CS. Martin & Co. BREISCH
AND MANY OTHER TOP BRANDS

Sound Equipment

We are the major SOUTH OF ENGLAND STOCKIST of H/H AMPLIFICATION and have the complete range of this superb product, including the NEW U.S. SERIES. We are offering superb savings on all major brands with TOP PART EXCHANGE ALLOWANCES. Don't forget WE BUY GOOD GEAR FOR CASH - phone for a quote. Effects units are here by the hundred, from humble subtle little treble boosts to GRAPHIC EQUALIZERS and GUITAR SYNTHESIZERS our PERSONAL MAIL ORDER AND CREDIT SERVICE is available to sort out your problems (soundwise that is) PHONE US FOR SOME SOUND ADVICE.



H/H Fibson VOX Yamaha
Marshall Shure
AND MANY OTHER TOP BRANDS

Keyboard Players

The biggest selection of add-on ELECTRONIC KEYBOARDS AND SYNTHESIZERS in the South. Plus ORGANS and ELECTRIC PIANOS and a huge range of AMPS to try them with. MANY SUPER MONEY SAVING BARGAINS AND SPECIAL OFFERS PLUS BIG CASH DISCOUNTS. Just one example - FENDER RHODES PIANO - WE'RE KNOCKING £219 OFF - now that's a saving !! Come along and select the RIGHT keyboard for your needs. No hassle. Plenty of room and time to try. Some great bargains to be had this month on Korg synths - you can save £ £ £'s. Come and compare the makes at your leisure. PERSONAL CREDIT/MAIL ORDER AVAILABLE ON EVERYTHING.



Fender VOX Roland KORG HAVEN
WURLITZER MOHNER LOGAR
AND MANY OTHER TOP BRANDS

DONT FORGET LATE NIGHT TO 7 P.M. EVERY THURSDAY
CLOSED MONDAYS.
ANDERTONS PERSONAL MAIL ORDER SERVICE
ANDERTONS EASY CREDIT ON ALL GEAR





A French Letter

Bob Henrit reports from the Chateau D'Herouville

Some weeks ago, Dave Courtnay, who I knew from my work on Leo Sayer's, Roger Daltrey's and Adam Faith's albums, asked me if I knew anywhere outside this country good for recording. (If one produces an album outside this country, one only pays tax on 75% of the royalties earned. All in all a considerable saving if the record is successful). I reeled off the names of the reputable studios like Mountain Sound in Montreaux, Musicland in Munich, RCA in Rome, EMI in Paris and as far as I was concerned, that was that.

Two days later Dave phoned me back to inform me that he'd booked the Chateau and could I make it in mid May for ten days. It threw me a little since we were in the middle of recording our new album but when he explained he planned to use Jim Rodford and John Verity too, it all seemed to make much more sense. An added incentive was the fact that Geoff Emerick whom I have always admired and who had been involved with Argent in the beginning, would be producing. Working with Dave Courtnay is especially good fun, never too demanding, but interesting, and the results are always pleasing.

Le Chateau, D'Herouville is situated about an hour from the centre of Paris to the North and to all intents and purposes offers all the amenities you could possibly want, both recording and personal. It's an extremely large country house which at one time belonged to Chopin and has seen such illustrious house guests as George Sand and Colette. It was rebuilt in the 17th century in traditional provincial French style after being sacked in some long forgotten war. (The Chateaux in France operated in roughly the same way as our castles, where a feudal system built a village and a farming community around them.) The Chateau now has two wings surrounded by a large

courtyard but in earlier times the two large wings were joined by an even larger living area. One of these wings was badly damaged by fire five years ago but has been rebuilt as accommodation for the musicians and producers and at the moment even more ultra-modern rooms are being built above the existing ones. This wing has accommodation for up to twenty people in various stages of luxury ranging from the palatial room reserved for the star down through ten steps to the austere, which are comfortable nonetheless in a provincial French hotel style. All these rooms have wardrobes and telephones and the beds are comfortable if you don't mind bolsters, made every morning except Sundays and their sheets changed frequently. Two or three of the rooms have bathrooms *au suite* and the rest have a large communal bath/shower-room.

There is a very large courtyard with a pond and a stable block which houses the original studios which we used for rehearsals for a couple of days before moving into the new studio which is on the whole top floor of the Chateau's east wing. It's rather high, extending up into the gables but has been very well sound-proofed. (Slightly over square about 40' by 60'). There are several completely enclosed booths for bass, and guitar and of course vocals, but the drums are recorded in the open on a low carpeted rostrum made from extremely thick blockboard which gave the drums a lot of depth. The drums are needless to say surrounded by screens. Strangeley enough, the old obsolete studio is much more interestingly designed with deep permanent booths built of cement and covered in carpet to make interesting Odeon cinema type shapes at floor level which would take reasonably snugly a large bass amplifier and cabinet, and various other guitar or keyboard

amplification set-ups. The grand piano and drum positions were on top of the amplifier booths and so would not leak onto the drums or piano and vice versa.

The Chateau has a resident staff of about a dozen. Pierre is the Commercial Manager who sees to the day to day running of the studio and Jean Claude is the administration manager who looks after the whole venture. The musicians' wants within the studio are taken care of by an equitable young lady from Paris called Chantal who stays up until the studio is cleared, whatever the time, and provides refreshment etc. The resident engineer and co-owner is Laurent, Magma's ex bass player who we didn't see since we had Peter Henderson and Nigel Walters from Air London with us. The desk and machines are looked after by a laconic character called Renny who I'm afraid we misjudged a little at the start of the sessions and who turned out to be a really nice person.

There's a girl called Brigitte who runs the office and another who is Pierre's assistant; in addition there are several wives, husbands and things and even a couple of children. Laurent's wife Jacqueline is also an owner of the Chateau and, I understand, a distinguished musician. There doesn't seem to be anybody over mid 30 working within the organisation and everybody is extremely enthusiastic about the Chateau project.

All the food is produced by Pierre's brother Patrice who was Cordon Bleu at l'Ecole de Cuisine in Lausanne, Switzerland and so it's naturally of a high standard, although funnily enough his Quiche Lorraine was not as good as EMI's in their canteen at Abbey Road; mind you his Coguilles St. Jacques and his Moules made up for any discrepancies formidable. The management insist in their contract that the Chateau

is neither a hotel nor a restaurant but these facilities are provided to help the musicians in their work.

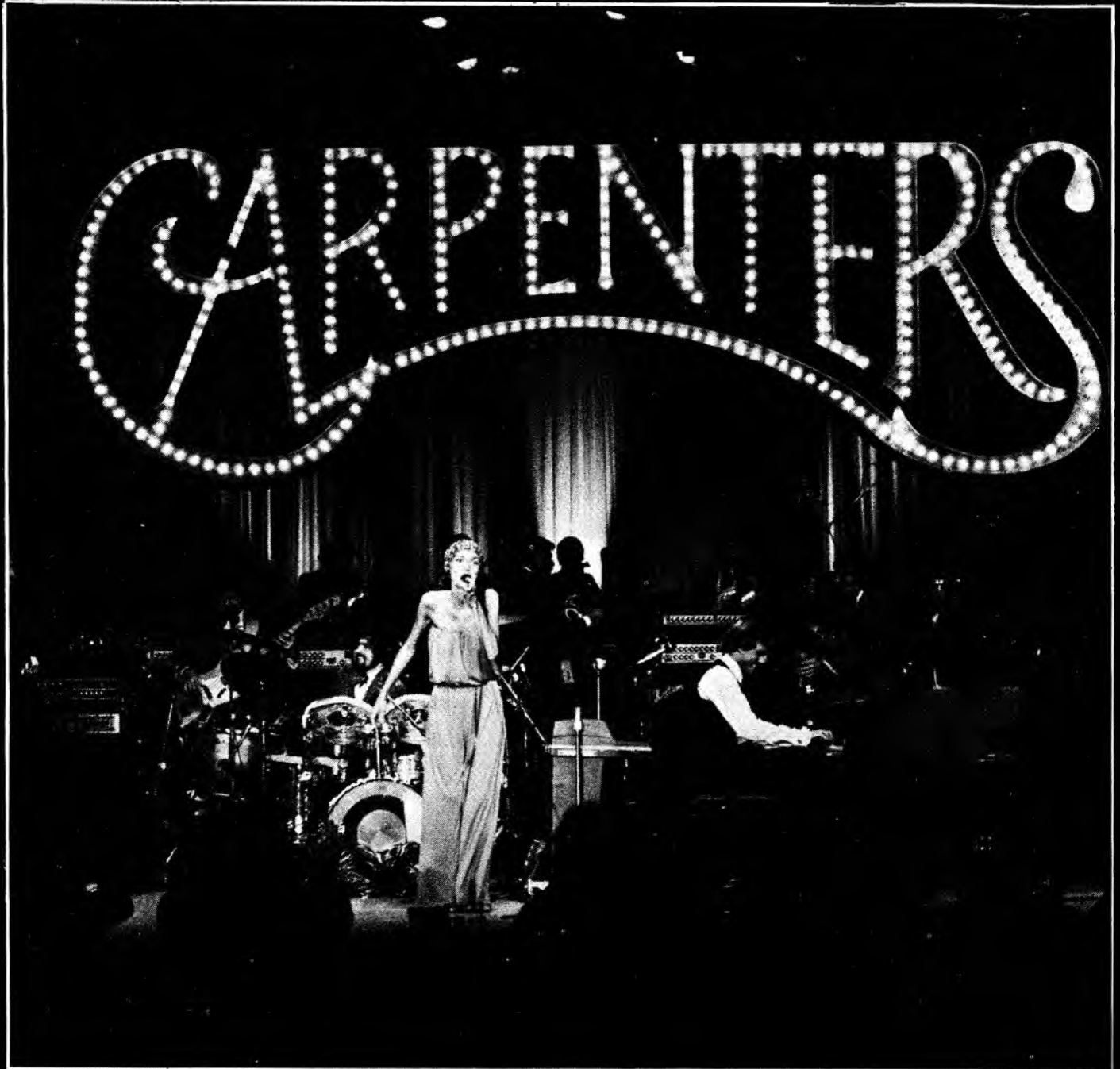
The studio is extensively and expensively equipped by Westlake Audio with all sorts of electronic gadgetry. They have a reasonably new automated processes desk linked to a brand new 24 track Studer recording machine which we were the first to use. More of this later. There are two M.C.I. stereo machines used for mastering or in our case tape echo. There are four Urei limiters and an Audio Design Vocal Stresser. They have an Eventide Instant Flanger which is the latest fashionable machine to take over from the Eventide phaser. There's a Teknik Dual Graphic Equaliser and monitors designed by Westlake with 2 x 15 Altec drivers to take care of bass and low middle, Altec horns for upper mid and high, and a dome pressure unit for extra high frequencies.

All of this equipment is powered by several Amcron DC300A amplifiers. The monitors are very bright and certainly built to go really loud. I remember when we first heard them thinking they were painfully loud but when I got used to them in a surprisingly short time, I liked them no end. I'm sure my neighbours were really painfully surprised at the volume I played my stereo at when I first returned home.

Although the Chateau's living accommodation is mainly for the artists recording there and their road crews, one can go for anything to rest or escape from the pressures of life. Providing they have room for you it will cost 150 francs per day full board. Someone who was taking advantage of this facility for a day or two while we were there was one David Bowie. He had been doing a gig in Paris and the reporters of the world had been tipped off by an

continued on page 53

Kustom® When sound is everything . . .
Chanute, Kansas



Barratts Manchester
Bedford Music Industries
Buzz of Leamington
Chingford Group Gear
Cleveland Music Middlesborough
Dawsons Warrington
" Wigston
" Preston
" Chester
" Stockport
Farnsworth Nottingham
F.D.L.H. Music Central London
Guitar Inn Leicester
Hessy's Liverpool

Huddersfield Music
Jones & Crossland Birmingham
Kitchen's Leeds
Luton Music Centre
" Langdon Music Wolverhampton
Live Music Edinburgh
Midland Sound Rugby
Power Drive Stoke-on-Trent
Peter Gray Northampton
Sound Centre Cardiff
John Savage King's Lynn
Worcester Music
Wing Bromley Kent

SOLE U.K. DISTRIBUTORS, D.B. WHOLESALE, 233 MELTON ROAD, LEICESTER
TELEPHONE: 0533-63830



Producer Geoff Emerick

American journalist about his whereabouts. He had fled the hotel with Iggy Pop and sought asylum at the Chateau. He is no stranger to the place, having recorded "Pin Ups" with the Spiders there some years before.

We had several long and interesting conversations with Bowie (who to me looked very like Peter O'Toole in "What's New Pussycat" in his improbable flat cap and overcoat) before he got on his way back to Switzerland where he now lives. We talked avidly about how to keep your share of the money, once you've made it and how to pay the tax on it. The most interesting topic was whether or not in this day and age it's possible for a band or solo artist to manage themselves with just a lawyer retained to do business deals. Bowie thinks it is and now works that way and so, it seems, do an increasing number of our disillusioned rock stars. We discussed a number of other things as well and I mentioned how we were working as a three piece and enjoying the challenge and Bowie surprised me by revealing how his already much smaller backing band would be reduced to a three piece too. Like us, he likes the flexibility of a trio and feels it's somehow a more valid musical direction. Patti Smith visited the studios too with some friends but unfortunately I didn't get a chance to say anything to her other than hello. Perhaps she plans to do an album there too. Iggy Pop turned out to be an interesting character although anyone who got up to the masochistic antics he did with the Stooges would have to be at least interesting.

I promised you that I'd tell you about the Studer 24 track. In England a Studer machine costs around £17,000; in France it costs £25,000 which is curious since it's only made in Germany. To add insult to injury, the remote control module costs more than £3000 pounds; to add even more insult or more injury the Studer wasn't working properly whilst we were there. Track 2 had a fault on its synchronisation circuit card which was an inconvenience to us but definitely grounds for the Chateau to complain to the manufacturers. Then track six locked itself into record so of course

A French Letter from page 51

couldn't be used, and towards the end of our stay 22 and 24 gave up the ghost. The Chateau were justifiably irate about it. When we left the Studer, people were coming to sort the machine out, once and for all. It must have been put together very late one Friday afternoon!

We also had the added and unappreciated bonus of clicks in the monitor system which in one instance transferred themselves to the tape on the bass channel. This was laboriously tracked down (I think, although nobody is for sure) to a newly installed piece of equipment which we weren't using. A well-known producer of my acquaintance (who prefers to remain anonymous) told me that Caribou, which is run on roughly the same lines, also suffers from these same inadequacies. It appears that British studios have the best technical staff in the world, and even though studios outside of England have the equipment, they don't all have the staff to cope with it. This is not a direct criticism of the Chateau because any and all of our studios could experience teething problems with newly installed equipment.

I don't think I mentioned the amenities yet, did I? The Chateau has a very large dining room-come-games room which has a football machine, a full size table tennis table, a dart board, a broken juke box, a grand piano and a bar where most people congregate, when they're not working. (Used when the weather is too cold for dining *al fresco*).

Outside there's a heated swimming pool, and a tennis court much used by Elton John and John McLaughlin but not at the same time. There are extensive grounds with shrubs and mature fruit trees and at the bottom, a round two storey tower building with a moat which looks romantically like a 17th century prison, although I suspect it was actually an anti-aircraft gun emplacement used by the Boche, who commandeered the Chateau during WWII. Anyway, this turret is now the scene of some nude sun bathing by one of the young ladies who shall remain nameless but is the one who looks after the musicians in the studio.

The tennis court was where four of us conceived a game of "football tennis" where the ball could still only bounce once but could stay on your side of the net until you decided to shoot for a point. I'm sure if we could just get Elton John interested it could be the scourge of the U.S.A. The dining room was the scene of a pitched battle at bedtime on our penultimate day, when out of boredom, one of us (the drummer I think) introduced a large piece of French bread into the game of table tennis which was for the

doubles championship of the Universe (and the best of eleven). Before you could say Merde! the room was a mass of missiles.

It was then we discovered that French cheese makes the deadliest of weapons, especially the Camembert which has the added advantage of sticking to its target. It has to be seen to be believed: what happens when it comes into contact with a large expanse of glass. Instinctively knowing when to retreat, I then retired to bed while the rest of our drunken sots, not knowing when to quit, went on to achieve even greater heights of lunacy and could be heard for the next two or three hours cleaning windows, washing floors, Hoovering and generally making things much worse than they already were. The next morning I came down first as is my wont to a scene of devastation (not difficult, this, since I went to bed three or four hours earlier than everyone else) and was immediately the scape goat for everybody. I protested my innocence and the management took the incident in their stride with particular Gallic indifference. They hated it!

There is also a T.V. lounge available to the musicians and I couldn't understand why none of the French ever watched it. Until one evening I was superfluous when John Verity was doing a guitar overdub and wandered down to watch. It's ten years since I last saw French television and it's still as bad. I watched a chat show for ten minutes and in that time a man appeared behind the presenter carrying a piece of scenery and the presenter managed to knock his microphone over not once but three times.

One day whilst talking to Pierre, I discovered that we're the first hired musicians, at least from England, to use the Chateau. Normally it's used by groups who mostly have lots of time to spare or waste and whose bills are inevitably picked up by some record company. This was the same day that we experienced a power cut, so were unable to start work until 6 p.m. When I worked in France with Richard Anthony a few years ago we often had power cuts, in some cases as we were actually performing. Normally the French accept these things as inevitable, but to be honest the staff at the Chateau did rush about to try to help and even suggested using a generator. We refused it because it always causes tuning problems with the organ unless the voltage is absolutely stable, and in extreme cases it can produce clicks on the tape. So we had an afternoon off, unfortunately not on a day when the sun was beating down.

Towards the end of our stay a friend of Dave Courtney's

arrived to take photographs for the album cover. He's Grahame Hughes and I've really admired his work over the years, not only his excellent album covers but also his very interesting and modern fashion photographs. He was responsible for creating Leo Sayer's Pierrot image and also for Roger Daltrey's "Ride A Rock Horse" which won him the award last year for best album concept, photography and design. He really has started a whole new way of thinking. He was so interested in taking pictures at the Chateau that he brought 400 rolls of film with him.

It only remains for me to tell you how much it all costs. Unlike studios in England, the Chateau supply you with a contract beforehand which you have to peruse and return to them signed. This entitles and binds you to a specific number of days there for a specific number of people and a specific number of hours in the studio, i.e. 10 hours per day actual recording, plus board and lodging for up to 10 people will cost you 5600 francs. (Slightly less than £70 per hour).

Overtime is charged at 600 francs per hour. These prices are slightly offset because no taxes (VAT) are payable if the tapes are exported from France. So one pays 20% less than the prices quoted. Tapes are not cheap in France and 2" Ampex for the 24 track costs 700 francs, about £80 (in England it's roughly half the price).

Some instruments are available to hire in the studio but are not cheap. However, if you wanted them there's a Hammond 133, Fender Piano, harpsichord, xylophone and various Latin percussion instruments.

The rehearsal studio is available under a different deal and will cost 1000 francs per day, but according to the contract your 10 musicians will have to pay 150 francs per rehearsal day for board and lodging which means you actually pay £300 per day.

We all enjoyed our stay at the Chateau and despite our technical problems managed to finish the album in time and just about within budget. We would definitely go again and are contemplating the prospect now but due to the unfortunate hire charges (of necessity it costs more to hire in France since musical instruments cost roughly twice the price there). I would definitely take our own equipment and handlers, although the steps up to the studio would daunt the most enthusiastic of road managers.

Anyway if you fancy the idea of a high class Butlin's, with the recording facilities of Trident or Air London:

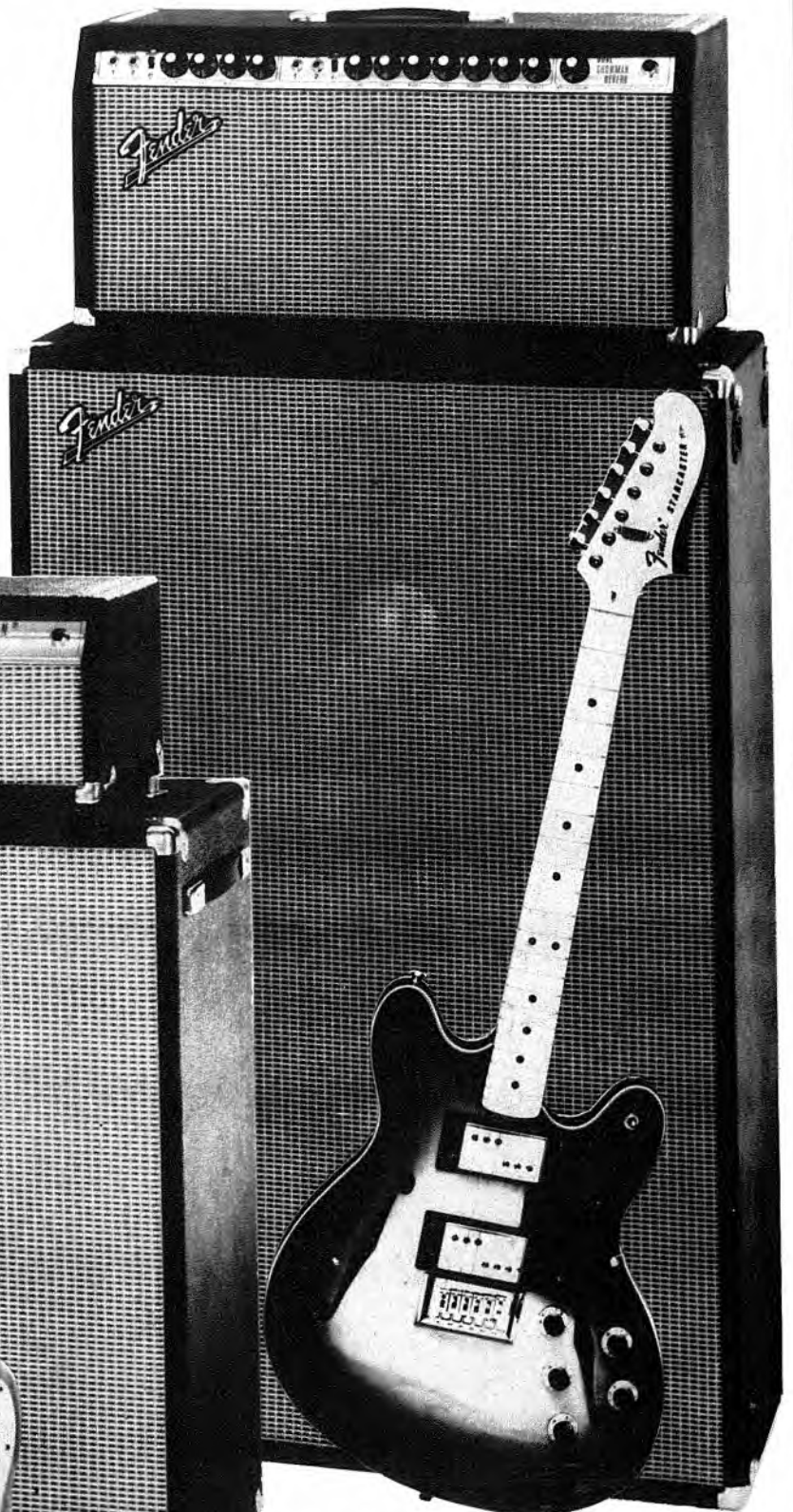
Allez au Chateau D'Herouville, le funky chateau.

9 out of 10 pick a *Fender*

Ask a musician to name the top name in amplifiers. He'll come up with Fender. For almost a quarter of a century Fender have been the most popular amplifier used by amateur, semi-pro and professional alike. The Fender sound is unique!



BASSMAN 50 (shown here with Fender Precision Bass)
50 watts RMS power with 110 watts peak power. Two heavy duty 15" speakers in specially designed enclosure for true tone reproduction. Dual channels, with separate controls on each.



DUAL SHOWMAN REVERB
(shown with Starcaster)
100 watts RMS with 220 watts peak power. Two 15" JBL speakers. Authentic built-in reverb and vibrato. Master Volume control allows variable control of distortion, harmonics and overall sound level.

Be a Dual Showman with Starcaster

Be a bigger bassman with *Fender*

CBS/ARBITER LTD
67-87 HAMPSTEAD ROAD LONDON NW1

TRY IT, BEFORE YOU BUY IT!

for the first time, a comprehensive
range of complete PA Systems from
100 to 1000 watts set up & ready for use.

You don't have to be a 20,000 watt Rock
& Roll band to need a good P.A. System.

Come along to our demonstration
warehouse off Mile End Road London,
to see and hear each P.A. Rig.

Bring your band – plug in and compare
for yourselves !

soundwave pa

01 981 1695

FOR FURTHER INFORMATION & PRICE DETAILS

Road®

The great artists, musicians, poets and writers throughout history were inspired by their creative imagination.

Imagination backed with 15 years of experience has created for you, the musician, a product that will set the standard for years to come.

The following information will give you an idea of the effort expended in the development of Road. A product for the traveling musician.

440 Power Pack into 2.7 ohm Load:
 275 watts Sine wave at 1% THD
 375 watts RMS Continuous power with full effects
 550 watts Peak power

220 Power Pack into 8 ohm Load:
 110 watts Sine wave at 1% THD
 160 watts RMS Continuous power with full effects
 220 watts Peak power

Specifications at 1KHz, 120 VAC, 60Hz Line.

Variable compression ratio effects circuit gives 14dB of sustain along with considerably increased harmonic power output.

Footswitch controlled input circuit allows noise-free switching between channels.

5 Band Graphic Equalizer with 12dB of boost and cut. Variable-Q gyrator circuit gives high reliability along with low noise. Centre Line Frequencies (Hz).

	A	B	C	D	E
Bass	40	80	160	320	640
Lead	160	320	640	1300	4000

600 ohm line out, for driving another amplifier, mixing direct into a sound system or tape recorder.

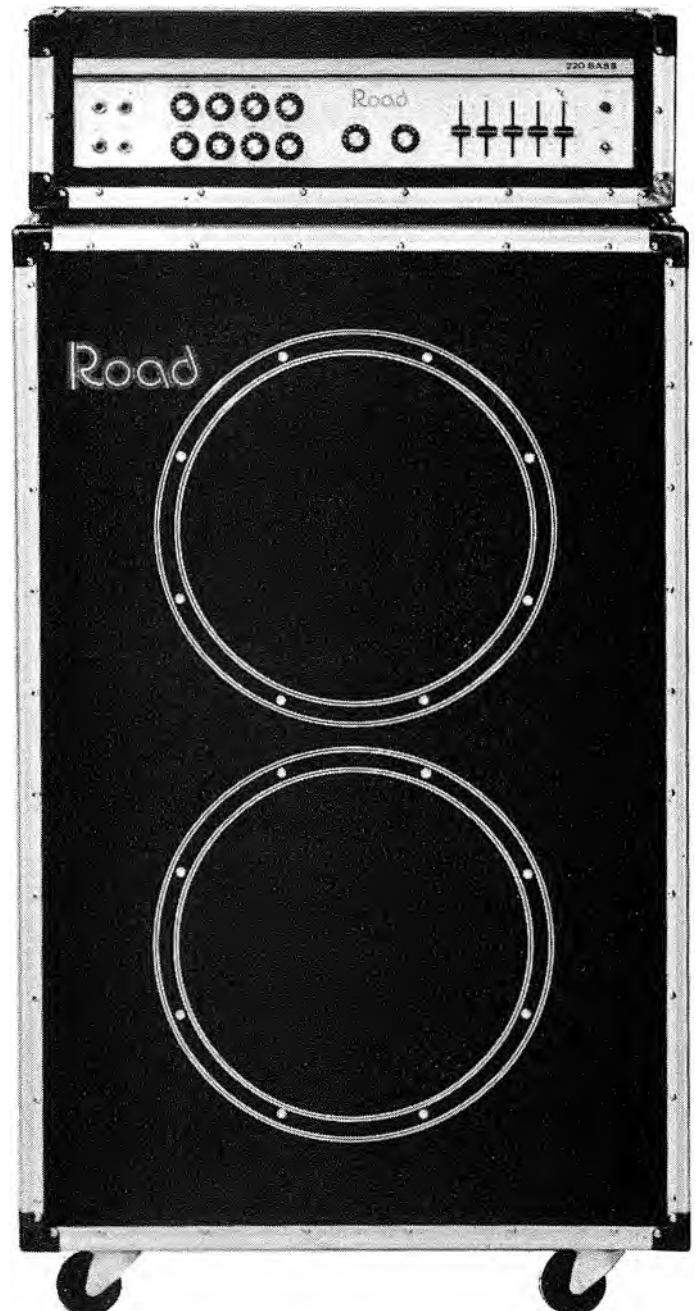
2 Channels – very low noise. Normal Input – volume, bass, middle and treble controls. EQ effects Input – volume, bass, middle, treble, 5 band graphic equalizer, effects and level controls. Switchable input – for switching between channels.

Black-anodized heat sink is thermally joined with chassis, thereby utilizing the entire amplifier for heat dissipation, (patent pending). Suppression circuit that eliminates the loud pop normally heard when amp is turned on or off.

Massive power supply assures you that all advertised watts will be delivered. R.C.A. (2N3773-type) Home-taxial-Base 30 amp power transistors.

FOR MORE INFORMATION ON THIS RANGE
Sole Distributors for the U.K.

KNELLER MUSICAL INSTRUMENTS LTD.
BRISTOL, ENGLAND





10CC. Only play **VINCI STRINGS**

A TOP BRITISH BAND THAT ONLY PLAYS AND EXPECTS THE BEST.

STRINGS FOR ALL FRETED INSTRUMENTS **Vinci**



FRANK EVANS

VOTED BY GUITAR PLAYER ONE OF THE WORLDS
TOP JAZZ GUITARISTS.

Sole Distributors for the U.K.
KNELLER MUSICAL INSTRUMENTS LTD.

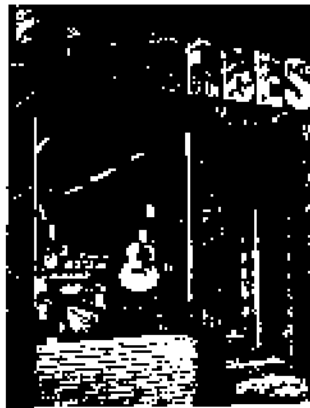


John Sebastian

TOP AMERICAN GUITARIST, SINGER/SONGWRITER,
CONSIDERS THAT THESE ARE THE FINEST STRINGS
AVAILABLE



Sauchiehall street on a good day.



J.T. Forbes have been established on the Scottish musical scene for well over 30 years and from their head office in Dundee, they run a wholesale and retail operation that is very important to Scottish musicians. This shop is in the Centre of Glasgow and the variety of instruments – an autoharp to an HH combo, with a set of bagpipes slung casually on the right side on the shop window – available indicates the wide musical spectrum demanded by Forbes' customers.



McCormacks is without doubt the biggest music shop in Scotland and musicians flock to it from all over Scotland as well as from Glasgow itself. It's a family business started in 1936 by band leader Neil McCormack who began hiring out orchestrations to the big bands of the day – something similar to P.A. hire today. Business flourished and the shop continued growing until the guitar boom of the fifties lifted things to the present busy level.

Manager of the Glasgow branch of Forbes is Bob Lillie who is an accomplished accordionist and is well known on the Glasgow accordion band scene. For that reason – as well as for demand and tradition – the shop has the most fantastic stock of accordions including Farfisa, Hohner and Paramount models, while at the same time the other side of the shop is lined with HH amps, electric guitars and effects



BUZZ: EDINBURGH & GLASGOW

Music booms in Scotland – that's the conclusion of our first Scottish Buzz. The Romans never knew what they missed! Their unwillingness to conquer the Scots left a gigantic gap in the knowledge of the Latin world and today the difference can still be measured when the humble Sassenach crosses Gretna or Berwick.

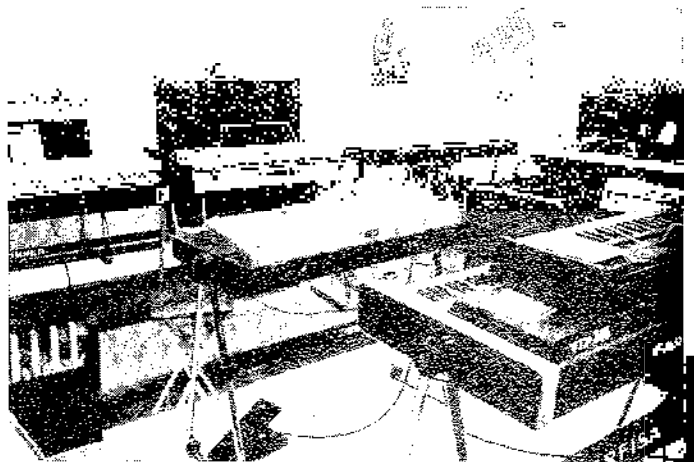
Glasgow is Rod Stewart's favourite place: it's not blood on the streets and grime in your hair, it's really funny people making good music and producing certainly one of the most lively music scenes – in all types of music – on the British mainland.

If Glasgow is musically active, then its posh neighbour on the East coast is fermenting. I'm told there are 17 music shops in the Windy City at the last count and they're still opening. On this Buzz we just talked to some of them as we buzzed through, tried to get some idea of the music and again found a variety of musical styles living in a harmony that wouldn't happen elsewhere.

Without doubt, the Celts are far more musical than the Saxons. Wales, Scotland and Ireland have music scenes far healthier than England and if you need a root cause, the spontaneity with which the Celt bursts into song is your answer.



This is a selection of the McCormack staff, ready to greet visitors on one of the four floors in Bath St. On the right is Maurice Brennan, manager of the keyboard section, a vital part of McCormack's operation. In addition to the department store on the south side of the street, the organisation also boasts showroom space on the opposite side of the street for Hi-fi and home organs.



The basement of McCormacks is one of the largest in the city, and of which this is just a small selection. Brands names included include Farfisa, Moog and Hammond with electronic organs well represented by Rhodes and Wuritzer.



The first floor is really the amp and guitar centre at McCormacks. All the usual Fender and Gibson guitars are stocked and alongside the copies there are some very good second-hand instruments. There's a good selection of second-hand amps available because McCormack's do some renovation themselves and they're scattered among a host of new amps, including a HH and Carlsbro. HH is undoubtedly the biggest selling amp in the shop; percussion is kept on the ground and drum lines include Premier, Pearl and Sakai - a line which is doing particularly well at the moment.



Clydesdale music shop in Sauchiehall St, Glasgow, is part of a large chain of stores that offers everything from Hi-Fi and washing machines to HH amplifiers and Gibson guitars and has a particularly very large range of musical instruments for Glasgow musicians.

Bradleys Music are another old-established instrument shop in West Regent Street, Glasgow. In business since 1933, they now stock a vast range of guitars, amplification, brass and woodwind, although percussion is their speciality.



One of the musical instrument departments is Tom Jackson. He stocks a vast range of amps including HH, Orange, Carlsbro, Peavey, Fender and Marshall and also guitars. He plays with a local rock band called Croppa. They are currently looking for a London recording deal. Particularly interesting among Clydesdale's guitars is a selection of Ovation's that Tom Jackson has the best guitar currently available. Other names include Fender, Guild, Mickenbiter, Gibson and Ibanez.

continued on page 61

The Castle skyline in Edinburgh, site of the Tattoo

McCormacks

33 BATH STREET GLASGOW G2 1H

Come in and see our
extensive range of
electronic organs
keyboards, guitars,
drums, amplification,
etc,etc,



041-332 6644

The new
MAXIMIN range-
exciting amplification
that makes
Sound Sense from **Mi**



- * 15" BINS
- * 15" BASS BINS
- * 12" BINS
- * 12" MONITOR CABINETS
- * 6 CHANNEL MIXERS
- * 30 WATT COMBO

Designed and built
to last with superb
blue vinyl finish.
Send a 10p stamp
for brochure.

More Sound Experience from



CLEARTONE MUSICAL INSTRUMENTS LTD.,
27 Legge Lane, Birmingham, B1 3LD.
Tel: 021-236 6100.

Bradley's

DRUMS

by the leading makers for beginners and experts
The famous Bradley sticks

GUITARS

Bradleys have the complete range

AMPLIFIERS

Highest quality equipment

CONSULT THE EXPERTS—

BRADLEY'S (MUSIC) LTD

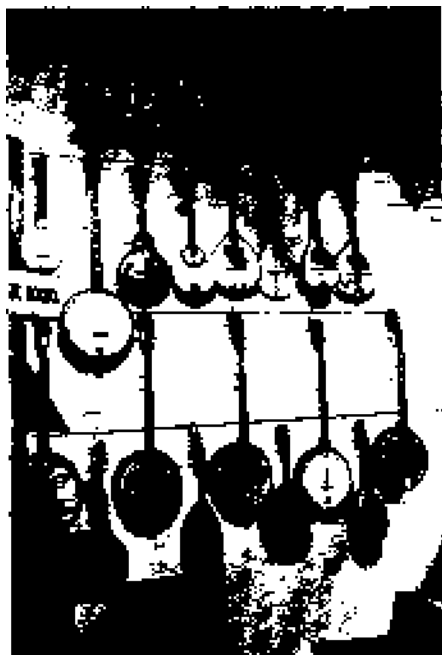
69a West Regent St. Glasgow G2 2AF
Tel: 041-332 1830



This giant Tama outfit is just one of many drum kits in Bradleys. They have been Premier agents for years, and also stock Pearl, Ludwig, Fibes, Beverley, and Olympic drums. To assist budding Buddy Rich's, they also hold a daily drum tuition class.



Gordon Simpson's over in Edinburgh enjoys a particularly fine Adam facade. The shop's been in Edinburgh since 1937 – originally selling band instruments – and today is very much an all-round shop, selling a quite remarkable range of instruments. In the shop window a cello and a Les Paul rub shoulders.



A particular feature in the Gordon Simpson shop is a range of small fretted instruments. These include mandolins, ukeleles, mandolas and banjos and Clifford Simpson, who runs the shop today, thinks that it's a good policy to carry as wide a range of instruments as possible. Just to illustrate the variety of stock, names to be found include Wem, Yamaha, Carlsbro, Arpolds, B & H, MXR and a really good range of brass and woodwind.



The Music Shop is one of the oldest established instrument shops in Edinburgh lying just south of the Castle. It really started in 1917-18, but there was an associated shop selling pianos in 1910. Today the shop is run by a partnership of Stephen Pagano, Geoffrey Johnson and Mrs. E. Glen and as Stephen and Geoffery are both trained electronics engineers, they are naturally very competent in this field. Geoff Johnson was responsible for the range of Johnson transistor amplification



Music City is a new shop in the Toll Cross area of Edinburgh open for just a couple of months. It's part of the Top Gear wholesale and retail operation and joins a city's music scene that many believe is overcrowded.

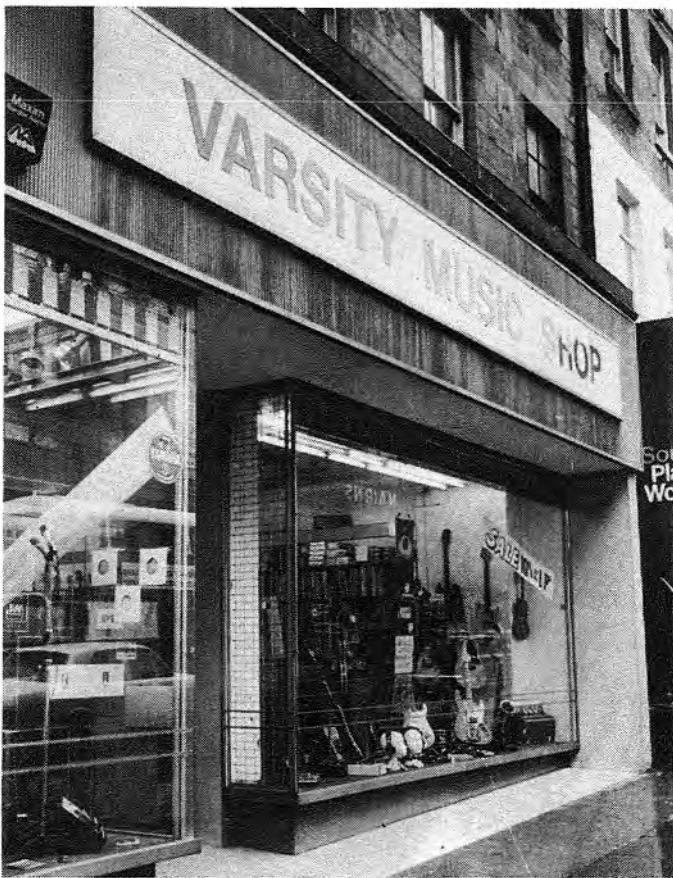


Manager Glen Wall is determined that Music City will be highly successful and the shop was certainly packed when we visited. Because of the Top Gear connection, there's a breathtaking display of Peavy equipment and Rickenbacker guitars, Ernie Ball strings and other exotic items are in evidence. By now, the shop should have opened a large basement showroom area in addition to the ground floor.



The Edinburgh Organ Studio caters principally for the home organist but there's a neat section set aside from the professional and the group member. Yamaha organs are a principal point of the keyboard display and the shop's been serving Edinburgh for just over eight years. Owner is Bill McIntosh and Manager is Gerry Stuart. A great deal of emphasis is placed upon the organ society attached to the shop and tuition is another particular important area for the Studio.

Continued on page 62



An important music shop on the Edinburgh scene is Varsity Music on "The Bridges". This has been around for ten years and has moved to large spacious premises in recent years. Records and cassettes are sold alongside grand pianos and electric guitars and amps are perhaps the most dominant part of the ground floor showroom.




The owner of Varsity is Stuart Hepburn. As well as looking after Varsity, he's also secretary of the new Scottish Musical Instrument Retailers Association and is very actively involved in ensuring that the tradition of quality and service inherent in Scottish instrument retailers is retained.



Concert pianist to heavy lead player - it's all at Varsity. Here's a Herzel grand, stocked side by side with a row of Fenders, Gibsons and their copies.

TOUGH SOUND



That's what you get with Sharma Organ speakers. A really strong punchy sound from a really tough, strong stylish cabinet. Designed for hard work, with all the features that real professionals demand. In a range of four sizes from the compact 500 professional through the 650 and 2,000 to the 5,000 professional to suit every venue.

Send for the **SHARMA** catalogue today
 To Keith Hitchcock & Company, 1379 Lincoln Road, Peterborough.
 Please send me the **Sharma** catalogue and address of my local dealer.

Name

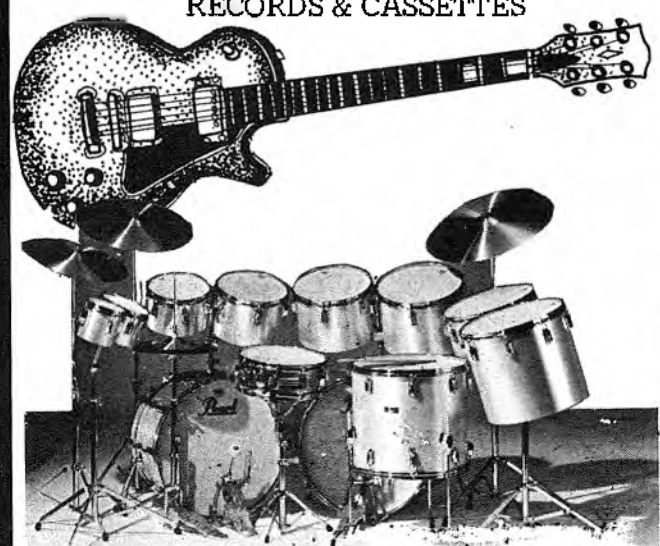
Address

.....

IM 7.76

VARSITY MUSIC SHOP

We have a full range of musical instruments.
YOU NAME IT WE'VE GOT IT!!!
 Also PIANO and ORGAN specialists'
RECORDS & CASSETTES



10 NICHOLSON STREET EDINBURGH
 TELEPHONE 031-556 3223



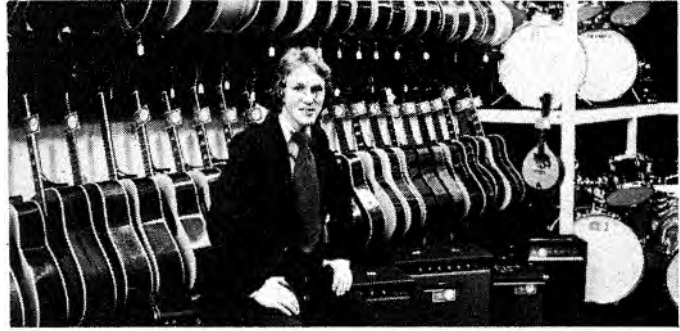
Live Music has only moved into Central Edinburgh recently. Previously in Albert Place, towards the docklands of Leith, the shop's done so well, it's been able to move into an area where passing trade plays a part, as well as their standard "meat", in search of something special.



Live Music - as it's title suggests - is very much a group shop. No trumpets, just gear and guitars. The proprietor is Dave Ramsey and he's assisted by Mick Park who, I'm told, is a neat guitar player in his own right. As you can see from the picture, there's a lot of really good second-hand gear available at Live and this is only one reason for the popularity. They're also exclusive Edinburgh stockists of Kustom.



Jimmy Grant's shop is fairly new to Edinburgh. It opened in the Toll Cross area just one year ago. But for several reasons, it has rapidly become one of the most successful. Reason one: Jimmy knows the business, and working for years for major musical instrument companies like Selmer's, he's gathered both first and second-hand experience in retailing in nearly all parts of the British Isles. Reason two: he's a highly successful importer and distributor of musical instruments in his own right, and Grant guitars are fast becoming one of the major copy lines in the north.



Manager of the shop is George Giles, and he and Jimmy showed me a very interesting acoustic and classical guitar range called Sada Yairi, which is very successful with Grant customers. Traynor is a very important word in the Grant vocabulary and these fine, but under-exposed amplifiers, do extremely well in Edinburgh. A full range of instruments is stocked and models on view include White, Wem, Carlsbro, Fibes, Maxwin, Pearl, Latin Percussion which is hugely successful and the usual Fender and Gibson. A really well stocked shop.

Incredible effects from our outstanding little boxes

WF8 FUZZ WAH	£21
ME7 MULTIPLE EFFECTS PEDAL	£21
WT1 WAH WAH PEDAL	£15
FY2 FUZZBOX	£10
FY6 SUPER FUZZBOX	£16
RM29 RESLIE MACHINE (Sounds like a leslie speaker)	£48
OB28 OCTIVE BOX	£24

Edinburgh Glasgow Dundee
62 South Clerk Street 122 West Nile Street 89 Nethergate

J.T. Forbes

Gordon Simpson

6 Safford Street Edinburgh,



Full range of musical instruments
including keyboards, percussion, brass,
woodwind, amplification, guitars, and a
tremendous range of effects pedals!!

A QUICK AND EFFICIENT REPAIR SERVICE

031-225 6305

PERCUSSION SOUNDS



The Drummer's Paradise

For a complete range of percussion instruments come along to see us at PERCUSSION SOUNDS NOW.

H.P. Terms, Cash Discount, and Part Exchange. Always a huge stock of new and used percussion instruments.

If you can't manage to come along and see us write or phone for information on our mail order facilities.

THE LOCAL SHOP FOR THE WHOLE OF THE BRITISH ISLES.

PERCUSSION SOUNDS

405 DAVID WALK, DAVID LANE, BASFORD,
NOTTINGHAM, Telephone (0602) 701054





MIKE JACKSON PERCUSSION SOUND

Mike Jackson is a drummer. That fairly normal statement is the key to the extraordinary success story Nottingham has to tell. Percussion Sounds is a percussionist's paradise. Opened only 18 months ago, Mike has built up the shop rapidly to a successful position which brings enquiries flooding in from all over the world and visiting musicians from all parts of the U.K.

There's nothing particularly clever about a drum shop, of course. It's only in the last few years that specialist shops catering for percussionists have opened but Percussion Sounds has gone one step further. Apart from a concern for percussion and percussion only, Mike claims that he can supply almost anything a drummer requires. Once again, there's nothing particularly clever about claiming that kind of service — the clever thing is that he follows it through.

It's because you can get a single Slingerland bass drum spur or a new snare for a drum made in 1933 just by calling in at Percussion Sounds that the shop is always busy. It's been an amazing growth and even Mike and his charming wife Pauline — who helps in the shop and knows as much about the "bits" as any drummer — are a little surprised at the speed with which things have taken off.

The story of Percussion Sounds really started when Mike took up the drums. That was when he was 13 and from then up until his early twenties, Mike played with groups in and around Nottingham, his home town. He stayed with one particular group for quite a few years and despite changing their names several times — tags

included The Nerve and Love-In — the band has some considerable success, particularly with one single called "Magic Spectacles."

The pits and distrust of the business took its toll of Mike as it does on every sensitive musician who steps on the merry-go-round. A particularly bad deal that offered overnight stardom and actually handed out yet another lump of shit fouled up the few illusions Mike still held about the business and he went into a kind of premature retirement, concentrating on teaching drums to others rather than traipsing the country looking for the crock of gold.

It was during the years spent teaching that Mike added to his store of knowledge of drums and the mechanics of the instrument. One particular student realised Mike's abilities and because he was keen on investing in and around Nottingham, suggested that Mike might like to go into partnership running a very specialised drum shop. That student was Dave Townshend and today he's the other part of Percussion Sounds.

"The original idea in opening the shop was to provide a service that couldn't be got anywhere else," Mike explained. "Drummers in this part of the country have really had a bad deal over the years and drums have always been something pushed into one corner of a shop selling recorders, classical guitars and a few amplifiers. I wanted to open a real specialist shop, a shop which a drummer knows will always be able to get him the part he needs or undertake the repair he wants."

It's an impossible dream to think that even a large and

continued on page 67

DEALER OF THE MONTH



Stones' Rolling Studio



A complete recording studio in a van? For Mick Jagger, it is almost a necessity. Mick and the Stones can be inspired to produce their next hit anytime, but when they're on tour or on vacation, the best recording studios aren't always around the corner. The Stones rely on their Shure-equipped mobile studio for the unmatched recording perfection they insist upon, for these moments of midnight inspiration. Whether in a recording session or on stage, the Stones' SM7, SM58, SM82, SM53 and SM56 microphones are their assurance of consistent quality and natural sound.

**Shure Electronics Limited
Eccleston Road, Maidstone ME15 6AU
Telephone: Maidstone (0622) 59881**



PERCUSSION SOUNDS

from page 65

really well stocked shop — as Percussion Sounds most certainly is — can stock everything and Mike, Dave and Pauline don't pretend that's the case. But they have gone out of their way to build stocks of spare parts far beyond most retailers that I've visited and Mike has something of the air of the collector about him, with an almost insatiable habit of hoarding rare and seldom required percussion items.

As its name suggests Percussion Sounds stock far more than drums. Tuned percussion takes up considerable space and most tuned percussion items are on show. Marimba, vibes, xylophones, tympani and the whole tuned family are in stock, as are the more unusual effects instruments like Pakistan tree bells and glockenspiels.

It's certainly the best selection of tuned percussion in the Midlands and Mike is probably right in claiming it to be the best outside London.

The shop's reputation has spread rapidly and because it's in an easy-to-find position — just two left turns from Junction 23 of the M1 — lots of touring bands stop by on their way North or South and allow their excited drummers loose in the shop for an hour.

Main lines in the drum section of the shop are Pearl, Ludwig, Beverley and Olympic, although most of the slightly more exotic lines like Sonor and Rogers are also stocked. A particularly good selling line at the cheaper end of the market is the Maxwin kit and Mike is a firm believer in the Pearl percussion family, to which Maxwin belong.

Percussion Sounds is situated — delightfully — next to the local dole office and in the beginning, quite a few local musicians discovered the

shop by visiting next door. Today the shop is giving heart to weary musos and has already carved itself a place in percussionists' consciousness.



The International Microphone



For over 40 years Beyer Dynamic microphones and headphones have served the needs of professional 'Sound Men' throughout the world.

The M500 (illustrated) is only one of a range of microphones now serving thousands of users who still demand high quality performance and reliability. Send for full colour brochure showing the full range of microphones, headphones and accessories.

BEYER DYNAMIC

BEYER DYNAMIC (GB) LTD

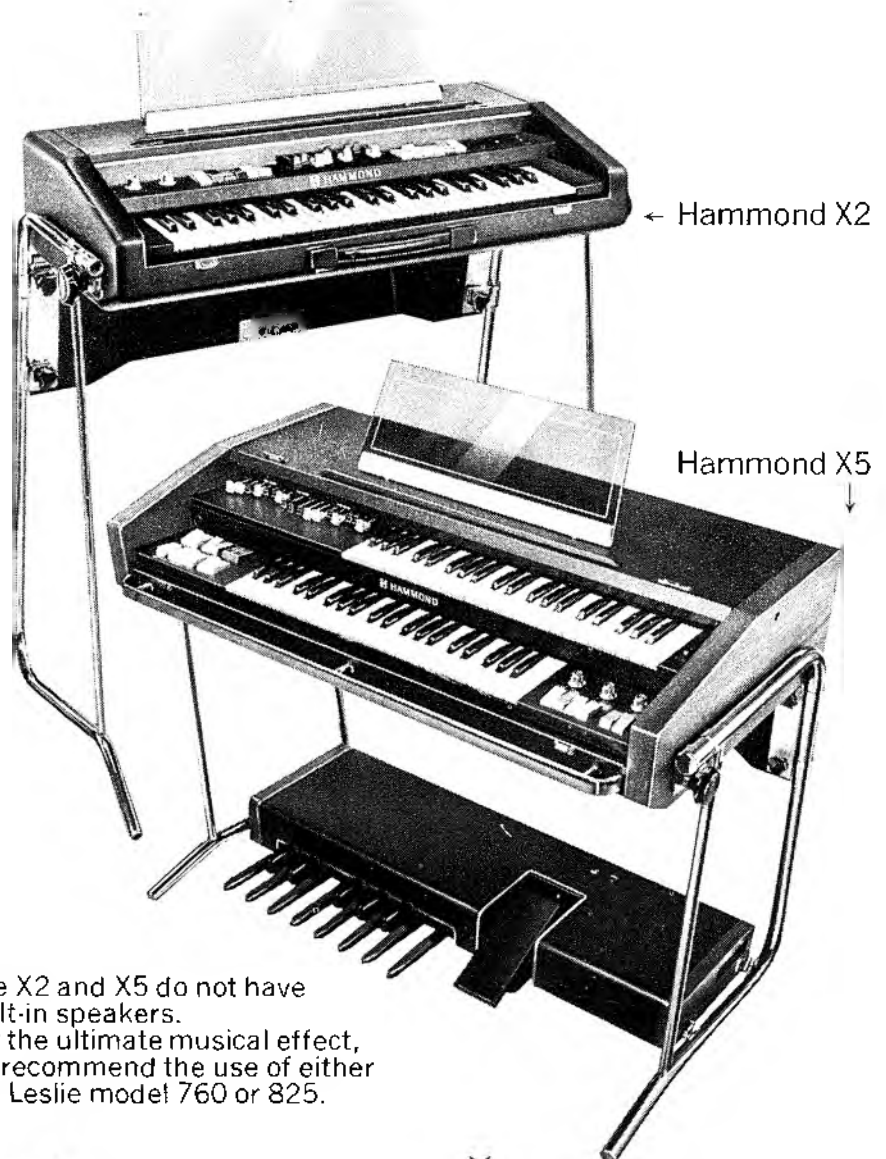
1 Clair Road, Haywards Heath, Sussex. Tel: 51003

Hammond portables movable assets

No more need to put up with 'Second best'. Here are two portable organs with genuine 'Hammond Sound' which means good news for the organist 'on-the-move'.

Both the X2 and X5 offer the 'big organ' performance benefits of Hammond tonebars and touch response percussion yet can be easily dismantled for transportation.

Whether you are just starting out 'on-the-road' or already topping the charts, here are the models tailor-made for you.



The X2 and X5 do not have built-in speakers. For the ultimate musical effect, we recommend the use of either the Leslie model 760 or 825.

**HAMMOND
ORGAN**

★ For illustrated brochure and address of your nearest Appointed Dealer, write to:
Hammond Organ (UK) Limited,
Deansbrook Road, Edgware,
Middlesex HA8 9BB.

DEALER NEWS

ASSEMBLY, Bath

Pedro were in for a range of equipment; guitarist Patch had one of two SG's after his Arbiter Flying V was unfortunately stolen — the band also had a Gibson Ripper bass and some Tama Stageking stands . . . Pop-cabaret band Silver Birch bought some Traynor 6 x 10 columns . . . Assembly have a large range of drumkits in at the moment including Premier, Sonor and Tama kits . . . Brian Streitcher of local country and western band Harlem County had an Ibanez mandoline copy . . . Cabaret and dance band Robins' Keith Wheeler popped in for a complete Traynor P.A. system including columns and monitors . . .

CHARNLEY MUSIC, Wishaw

Bass player Fred Smith of the Memphis Showband has built up a powerful bass system, all of which has come from Charnley at one time or another, including a Fender Jazz Bass and a Fender Bassman set-up . . . The lead guitarist with Country Friend has had a white custom Les Paul, a Carlsbro combo amp and some Marshall monitor units . . . Local country band Branded also had a couple of the Marshall monitors . . . Axle's drummer Alan Montgomery had a Ludwig Custom drum kit and guitarist Alan Mundell has had a Gibson SG . . .

BILL GREENHALGH'S, Exeter

The Vic Palmer Combo recently re-equipped themselves completely with HH gear and the Sid Gatley Showband had a complete HH P.A. system . . . Second-hand Fenders have been selling well of late and the new HH VS Musician amps are in stock and ready for sale . . . A jazz club has started at Caesar's restaurant on the quay at Exeter and pro and semi-pro musicians are invited every first and third Monday of the month at 8.30pm . . . Local Mecca band the Peter Smart 4 had various keyboards, a couple of second-hand Fender amps and a Pearl Fulldimension kit . . . A lot of bands are beginning to take residence at the holiday camps and other seasonal venues in Exeter and the surrounding area, and Bill Greenhalgh's would remind musicians of their careful and complete service . . .

HUDSONS, Chesterfield

Gary Swift of Lexington bought four bins custom made by Hudsons . . . John O'Brien, bass player with Sugarbeet came in for a new Fender Precision bass guitar . . . HH equipment and Gauss speakers have been selling well lately . . . A band called Ace had some bins and horns . . . Scottish band Three's Company purchased some Fender amplification and Hudson custom built P.A. speakers . . .

LEWIS MUSIC, Jarrow

Barry Black, drummer with the John Miles Band, came in recently



John Miles et al: drummer Barry Black called in at Lewis of Jarrow

and bought three Ludwig pedals . . . Knocking Opportunists Sunshine called in for some odd drums and timbales . . . Local band Raw Spirit's drummer Graham Mattherson had a Gretsch kit . . . Lewis have been supplying quite a few Junior Jazz Bands with equipment as the season is just beginning.



Gentle Giant, regulars at Telecomms of Portsmouth

LUTON MUSIC CENTRE, Luton

LMC recently supplied Caesar's Palace with new HH equipment . . . Kentucky Country purchased some Hayman drums and HH sound equipment . . . Local band Sounds Familiar also had some Hayman drums . . . Luton Music Centre supply all the schools in Luton with musical instruments, including Premier and Olympic drums, Crumar synthesizers and Premier and Sonor vibraphones . . . Wishful Thinking realised their dreams and added some HH equipment to their line-up . . . The Heidelberg Youth Orchestra were supplied recently with some sheet music and bagpipes . . . Silver City, a band just returned from gigging in Germany, bought some HH and Carlsbro sound equipment . . . Ray Duffy, drummer for the Gallagher and Lyle band, popped in for various spares and accessories . . .

TELECOMMS, Portsmouth

Gentle Giant have been coming in fairly regularly for a while now, mainly before and after their recent tour, to have a lot of their back-line and P.A. equipment overhauled . . . Eyes, who have just finished a tour of Europe and are just about to commence one in England, purchased an MM 12 channel mixer and some MM bins . . . Decca artists High Society bought some Bose equipment, including the 800 speaker system and the 1800 amplifier . . . Threshold are soon to have a record released and celebrated by buying a new Davoli 12 channel mixer, meanwhile, Telecomms are busy getting a P.A. system together for them . . . Local band Arms and Legs are releasing a single soon and have been hiring various pieces of equipment from Telecomms; they are currently sorting out a P.A. system best suited to their style of music . . .

TRY PLUCKING ONE



MEMPHIS VINE
2660



BLACK EAGLE
2409B



NATURAL X
2458

Antoria

GUITARS

Distributed by



JAMES T COPPOCK (LEEDS) LTD Royds Lane Leeds LS12 6LJ

Please send me more info' on	Name _____
<i>Antoria</i> guitar(s) no(s)	Address _____



EMITAPE

professional
recording
tapes

The Master Sound

Ask master sound recordists why they use EMITAPE and they'll single out the high level of magnetic remanence, good dynamic range and excellent signal-to-print ratio combined with low head wear. This probably explains why more than half of all U.K. record releases are mastered on EMITAPE. And why new EMITAPE 152 cassette duplicating tape has raised the sound quality of production musicassettes to rival the record.

That's a very high standard indeed.

The facts speak for themselves. For mastering or playback, EMITAPE products have no master.

EMI **EMITAPE**

EMI TAPE LIMITED,
Tape House, Dawley Road, Hayes, Middlesex UB3 1BT, England.
A member of the EMI Group of Companies.
International leaders in music, electronics and leisure.

SYNTHESIZERS UNRAVELLED

Part 1 *by Graham Hinton*



This is the first in a series of articles intended to help the musician who has, or plans to use, an analog synthesizer and wishes to employ it within the framework of a contemporary band at a level beyond the normal "mini sitting on top of the keyboard." Each component device, or module of a synthesizer system will be examined in turn and its operation, terminology and techniques explained in detail.

Contrary to popular opinion, you don't have to be either an electronic genius or a keyboard wizard to be able to play a synthesizer; while a basic knowledge of physical acoustics, (and a little craziness) certainly helps, an inquisitive mind is more essential.

First, what is a synthesizer and how has it come about? The present day machines have evolved as a result of musicians' constant demands for new

tones and means of expression. The technology may be new, but the concept of moulding sounds from basic raw material with control over each individual property of a musical note dates back four hundred years. This is what the first organ designers set out to do; they failed owing to the lack of a suitable method and organs have come to represent something different.

It was not until the discovery that sounds could be converted to electrical signals and back again and that the signals could be manipulated in various ways that any progress was made. Combine the processes developed for analog computation with modern electronic circuitry and the result is a range of devices that can create and process signals representing sounds. Arrange these devices systematically and add loudspeakers and sound synthesis becomes a

reality. The versatility of modern synthesizers stems from the ability of each device to be controlled by the voltages generated by another device, which can then in turn be controlled by another device, and so on. This process of voltage control permits the techniques of modulation and programming which are the fundamental methods of operating a synthesizer.

The main properties of a musical note are pitch, timbre, loudness and duration which can be controlled by the four principal modules of a synthesizer: VCOs, VCFs, VCAs and Envelope Generators respectively. Pitched tones are made by waveform generators, often termed VCOs for Voltage Controlled Oscillators. This means that the pitch may be programmed by a voltage fed into the device. Each different waveshape has a different timbre. The basic timbres may be

extended by the use of VCFs (Voltage Controlled Filters) and VCAs (Voltage Controlled Amplifiers/Attenuators) and modulation techniques. Loudness is controlled simply by a VCA, and duration — loudness variation over a period of time — is set by an Envelope Generator controlling a VCA.

Once a note is generated, it may be processed further by more conventional effects units like the "Ring" or Balanced Modulator (RM or BM), echo, reverb and equalisation, although these additional devices may also be voltage controlled. To enable manual control of all these modules, there are special keyboards, pedals and joysticks which provide voltages corresponding to their movement or position.

How powerful a synthesizer is as a sound creating instrument depends upon the number of each type of module and their ratios, and the means by which they may be interconnected. Mini-synthesizers usually have two or three VCOs, a Noise Generator (for unpitched sounds), a VCF, a VCA, one or two Envelope Generators, and sometimes a Ring Modulator and Reverberation, all pre-wired with switchable connections in a keyboard format.

This makes them ideal for stage use, as they are reliable and easy to set up. Although they are somewhat limited compared to larger systems (to which they may be connected for expansion), they are still highly versatile and expressive instruments. The "maxi" synthesizers have more of everything, but never enough it would seem, and a much more comprehensive and flexible means of patching together the different modules, which are often connected in complex chain and loop arrangements to achieve particular sounds. This degree of complexity and the time taken to set them up makes stage use fairly prohibitive and although this has been done, with mixed success, they really come into their own in a studio.

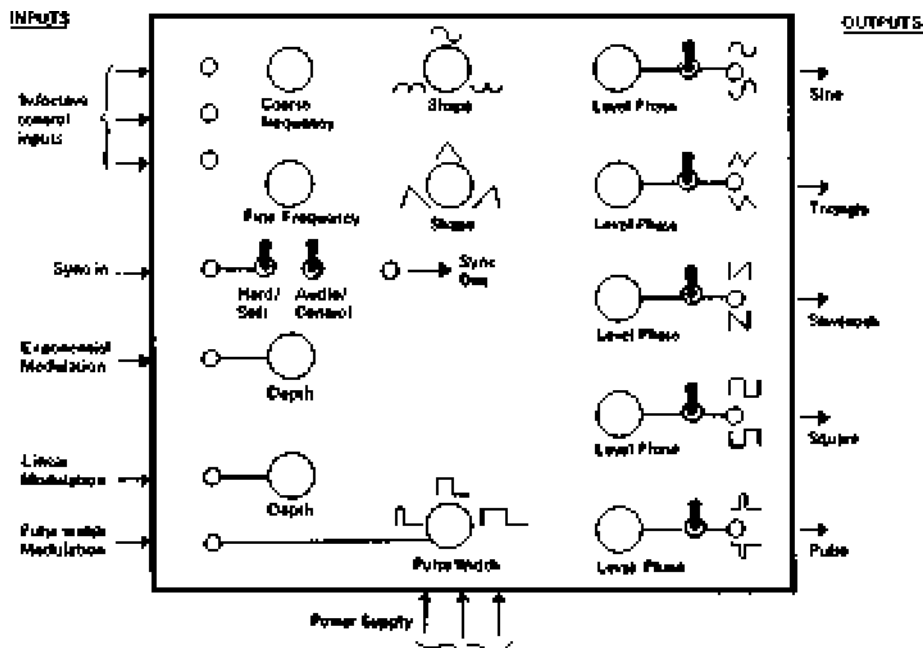
Having briefly outlined the structure of a synthesizer, let's take a closer look at the primary source of pitch: the VCO. Fig. 1 depicts a VCO which is a hybrid of all available types; it does not exist as such, but illustrates nearly every feature that is likely to be met in normal practice. A VCO should be capable of generating several different waveshapes simultaneously over the whole range of human hearing (16Hz to 16KHz) which is about ten octaves. It is also useful to have sub-audio frequencies for controlling other devices periodically and a low frequency switch is often provided to make the VCO operate in this range.

To be musically usable and versatile, the VCO should have an Exponential characteristic — this means that the device behaves according to a natural law and it is orientated in terms of pitch rather than frequency. A constant change of control voltage will change the pitch

Table 1: VCO Specifications

Audio frequency range	16Hz to 16kHz
Exponential Sensitivity	1 volt/octave + 1mv
Temperature stability	100 ppm/C
Short term stability	+ 0.01% (Wow & Flutter)
Long term stability	+ 5 cents/hour max. drift
Amplitude stability	0.1%
Control input range	10v = 10 octaves
Output level	10vpk-pk

Figure 1.A Generalised VCO



by a corresponding interval at any point over the range, the standard adopted by most manufacturers being 1 volt/octave: an increase in control voltage of one volt will raise the pitch by one octave and a decrease will lower it by one octave. In this way, a group of VCOs may be tuned to a chord and a common control voltage will transpose the chord to any desired register; if a keyboard set to 1/12 volt between keys is used for the control, then the VCOs may be played in equal temperament, providing that they are accurately calibrated so that they will "track" each other.

An unfortunate side-effect of having an exponential stage is that the VCO circuitry becomes temperature sensitive and additional components have to be incorporated to balance and compensate. The degree of perfection here determines the quality of the VCO (and also its price). To test stability, two VCOs may be tuned to a unison so that there is a slow beat; changes in the beat rate indicate that one or both of the frequencies are drifting. Short term instability will show as audible fluctuations in the beat rate, an effect like wow and flutter in a hi-fi which would be undesirable when performing. Long term instability will show as a gradual change in the beat rate over a period of hours and requires returning to be carried out

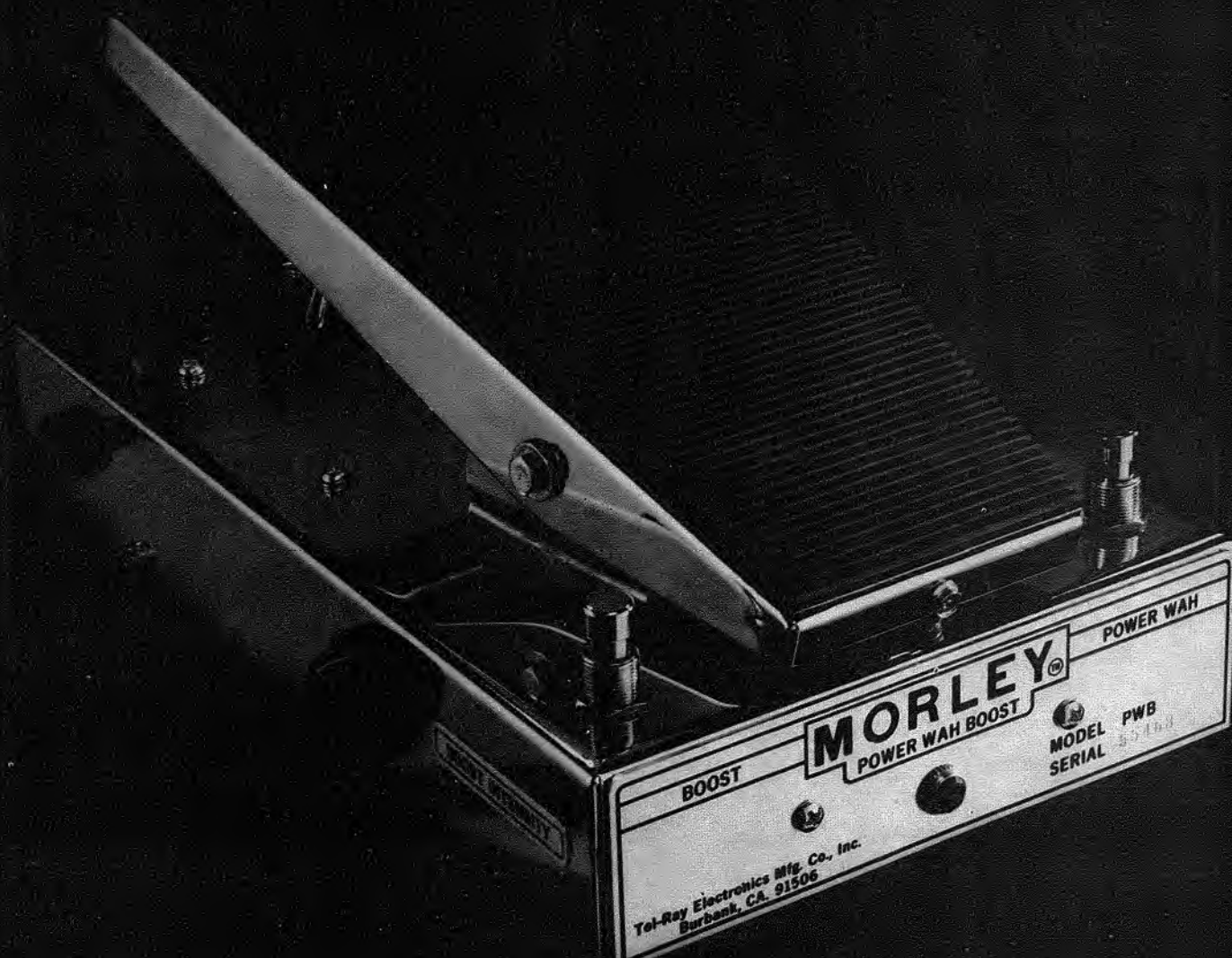
when the drift is beyond acceptable limits.

All VCOs have one or more voltage control inputs and a combination of knobs and switches to set the pitch, the actual pitch is determined by the algebraic sum of all these controls — an input of +3v and another of -2v has the same effect as one of +1v. There may also be Frequency Modulation (FM) inputs with a knob to set the amount of modulation. (Fig 2a)

Modulation is the important technique of altering the variable property of a device (in this case the frequency), by means of a changing signal, to alter the harmonic structure of a tone. When an exponential VCO is frequency modulated, a rise in pitch occurs in addition to the tonal change which can be a hinderance to keyboard playing and to prevent this, a linear modulation input is provided on the better modern VCOs. A small amount of modulation by a low frequency signal (1-10Hz) will create a vibrato effect, whereas a larger depth of an audio frequency signal will make a sound rather like those heard when tuning a radio between stations — this is one of the problems in trying to describe the operations of a synthesizer: an adequate subjective language does not exist.

continued on page 75

CAN YOU AFFORD THE COST OF FAILURE?

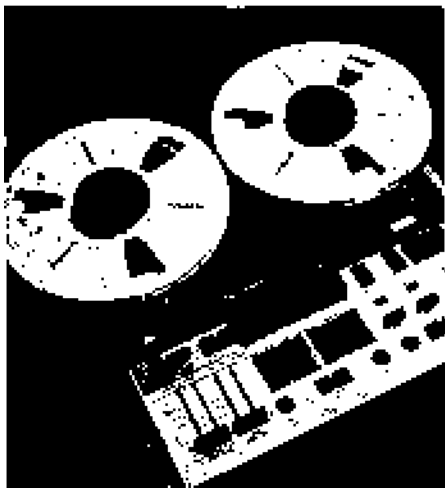


If the answer is no, consider the Morley Line of special effects pedals. The Morley pedal should be viewed as an investment in quality to enhance your present and future skills. The Morley PWB Pedal is simply the finest Wah Pedal in the world. It is also the world's finest Volume Pedal as well as one of the most powerful Boost Preamps. All this in a noise-free pedal with 2½ the high to low range of the average pedal. The Morley Echo/Volume Pedal is also noise-free and provides studio quality echo performance without the use of magnetic tape. All Morley Pedals are chrome plated steel, mains powered, photo-electric cell operated, all of which eliminates batteries, pots and gears. There are nine different Morley Pedals available, each with exciting features that place it far above it's nearest competitors. Visit your music dealer and ask him to demonstrate the full line of Morley Professional Products. Or, write us directly for your free catalogue.

MORLEY DIVISION
2301 West Victory Boulevard
Burbank, California 91506 U.S.A.
Telephone: (213) 843-7122

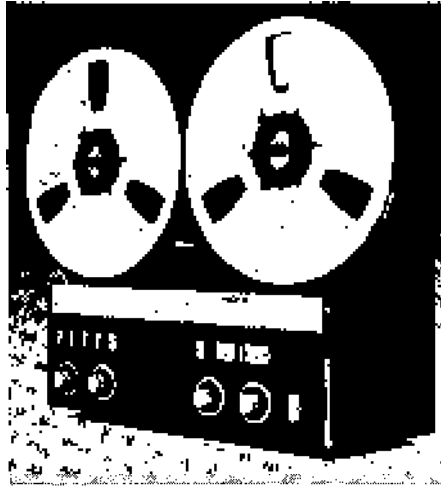


Professional Tape Recorders for Mini-Studio use



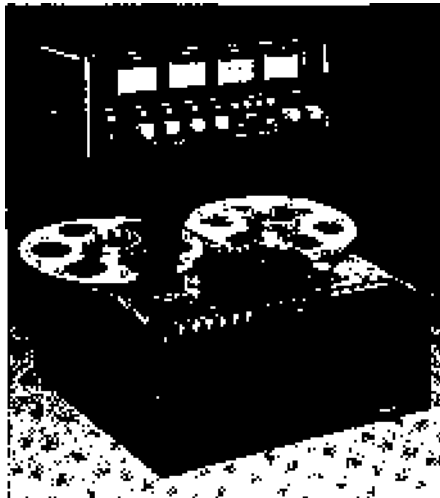
TANDBERG 10XD

Superb results from a machine of this price. Logic controlled transport, 3 speeds, $3\frac{3}{4}/7\frac{1}{2}$ and 15 ips, mic/line mixing, Dolby at all three speeds and the Crossfield head system providing astounding signal to noise results.



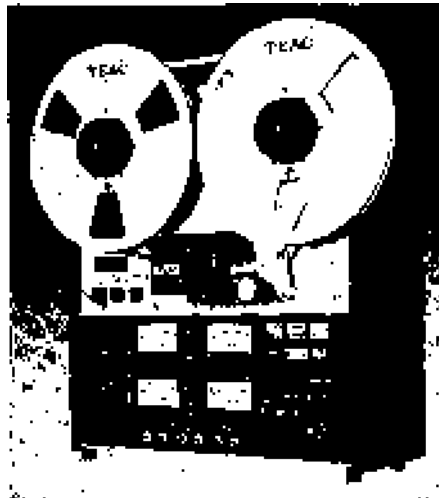
REVOX A77

A machine with a great reputation used by many professionals and semi-professionals. Available in many versions including Varispeed and Sel sync. We have the best prices; come and see us for a quote.



DOKORDER 1140

Ultimate 4-channel versatility is provided on this machine. Bias adjustment for any tape, motion sensing transport, Auto locate via dual index counters, 4 large Vu's and $10\frac{1}{2}$ " spool capacity. Sync mode switches automatically in record and replay.



TEAC A3340S

Renowned for its outstanding performance. Sync output almost identical to replay, running at 15 and $7\frac{1}{2}$ ips, using $10\frac{1}{2}$ " spools, mic/line mixing and cue lever.

REW offer the largest range at the best prices!

SEND FOR FREE PRICE LIST AND CATALOGUE.



Buy your equipment from REW, the professionals. Full range in stock including Echo Units. Full technical service available for P.A. applications.



Completely re-fitted showroom now open

REW Professional Audio, 146 Charing Cross Rd., London WC2. Tel: 01-240 3064/5

Mail Orders and Overseas Enquiries to: REW House, 10-12 High Street, Colliers Wood, London SW19. Tel. 01-540 9684/5/6.

MANTIS-ECHO

Eliminate...

...those old echo unit problems! Tape breaking stretching, replacements, wow and flutter. Eliminate noisy machinery constantly needing regular servicing of heads, motors and bearings. Who needs the old fashioned tape and disc echo machines? NOW HERE IS THE MANTIS!



CARLSBRO

**ELECTRONICS
OF THE 80s**

CARLSBRO SOUND EQUIPMENT
Cross Drive, Lowmoor Road Industrial Estate, Kirkby-In-Ashfield,
Nottinghamshire, England.
Telephone: Mansfield (Std 0623) 753902

OF THE FUTURE

An electronic unit using

analogue delay lines—an off-

shoot of digital technology.

The new Mantis Electronic

Echo features 240 different

push-button selections

of echo, delay and swell.

Slider controls for echo, swell and

echo tone, input and output levels.

Illuminated Footswitch shows when

effects are on or off.

Switching for sweep-through

sound, plus echo, or just echo.

PLUS ROTAVIBE—a totally new

effect, creating a rotary speaker sound.

The MANTIS is small, lightweight,

portable and maintenance free!

The MANTIS uses the latest developing silicon

gate technology to fabricate a chain of

M.O.S. transistors and storage capacitors

into a bucket brigade charge transfer device.

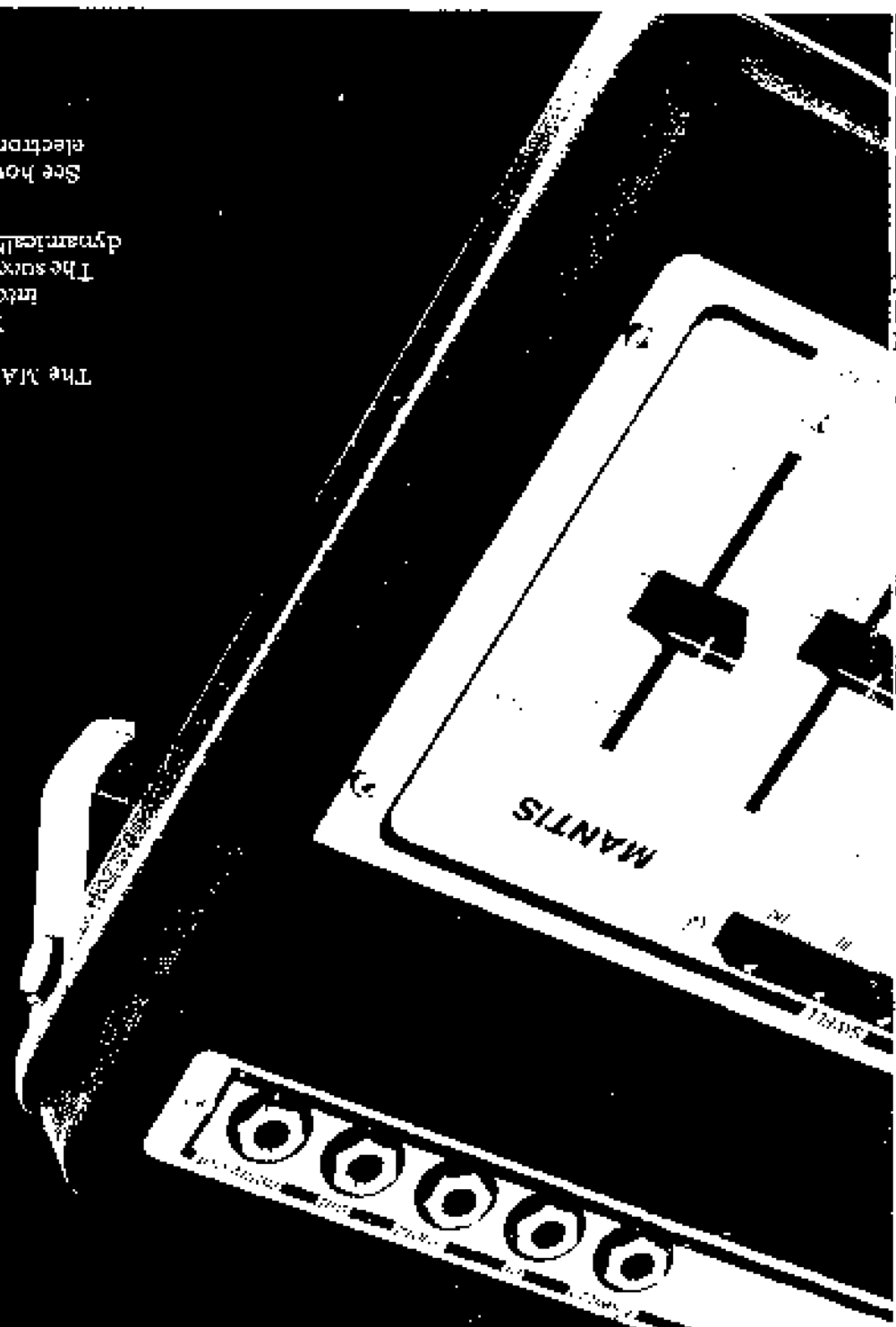
The successive samples of the analogue signal are

dynamically stored and transferred from cell to cell.

See how easy it is to use this revolutionary new

electronic echo unit by Cartrons — at your local

dealer now.



from page 73

Each VCO generates a set of waveforms that normally include Sine, Triangle, Square, Sawtooth and Pulse; the names come from the shape of the wave seen on an oscilloscope. Each has its own distinctive timbre: a sine-wave is pure and thin like a tuning fork and a triangle-wave is more like a flute; the others have a much brighter quality as they contain more harmonics and are similar to the soundwaves generated by reed, string and brass instruments. The actual waveshape does not have to conform rigidly to the ideal when used as a pitch source, as a different shape will just result in a new timbre. Some VCOs have controls to alter the shape of sine-, triangle- or pulse-waves which is a very useful feature if it is also voltage controlled, as the timbre may be changed during the duration of a note (Dynamic Modulation). At low frequencies when the VCO is being used to control another module, the waveshape is quite important; any small irregularities or "glitches" will produce noticeable jumps in the controlled module's operation. In modular systems there is a level or amplitude knob associated with each output and sometimes a switch to invert the waveform, but in pre-patched systems this control may often be found at the inputs of the modules to which the signal is being fed.

The amplitude stability of each output is important when it is being used to control or modulate the frequency of another device as any fluctuations cause mistuning. A problem that occurred in early VCOs and the cheaper models is high frequency "droop" where there is a rise in amplitude and a reduction in the control sensitivity causing the pitch to be flat at the top of the range. As pitch relationships are somewhat uncertain in the top registers, the seriousness of this fault depends on the application in which the VCO is used.

Each waveform in a VCO has a constant phase relationship with the others so that they may be mixed together or used to voltage control themselves to extend the range of timbres. At low frequencies different waveshapes may control different devices in synchronism, e.g., a squarewave could control a VCO while a triangle-wave controls a VCF which is filtering the output of the VCO, resulting in an upward and a downward sweep of filter (like wah-wah) as each note changes in a two note sequence. (Fig 2b)

The waveforms from two different VCOs will not have a constant phase relationship even when tuned together unless measures are taken to synchronise them. When two VCOs are free-running, but tuned harmonically, there will be a slow beat or phasing effect which,



Figure 2a Frequency modulation

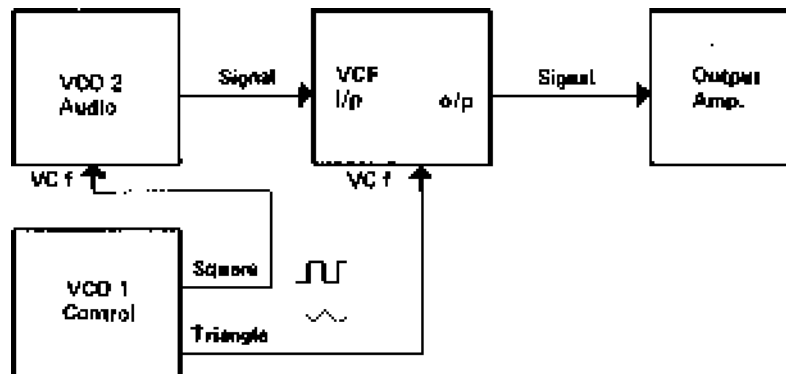


Figure 2b. Example of synchronous control

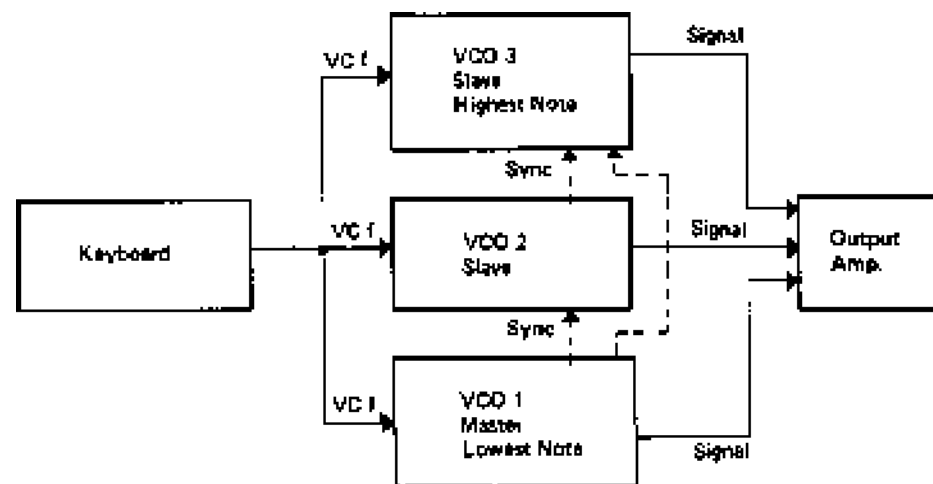


Figure 2c. Synchronisation of a chord

although a useful expressive device in its own right, will normally be undesirable when playing long chords. There are several methods of overcoming this: some modern VCOs have a built-in system, but synchronisation can also be achieved over a limited range using voltage control. In the hardware system, each VCO generates a Sync-pulse at a particular point in the wavecycle and the Sync Output of the master VCO (generating the lowest note) is connected to the Sync Input of other VCOs which then become slaved. (Fig 2c)

This arrangement causes the slave VCOs to get in step with the master whenever it sends out a sync-pulse and is known as Hard Sync. Because this method can cause odd timbre changes when playing certain chords, another system, known as Soft Sync, was developed which only corrects the slave VCOs when they are nearly in phase with the master. The voltage control techniques for synchronisation include setting up a patch for a "phase locked

loop" which tends to use up a lot of modules or using a pulse-wave from the master VCO to control the slaves, but neither of these methods work over the full pitch range and are tricky to set up.

Every module in a synthesizer system is joined together by the power supply and so has to be adequately decoupled to prevent interference through this route. There is no excuse for an unregulated power supply and bad distribution of the power rails, but in the unfortunate case of having to use a synthesizer with this defect, unused VCOs should not be left operating at low frequencies, as this will cause other VCOs and filters to jump at the same rate.

Table 1 summarises the specifications that would be expected of a good quality VCO. Patches using VCOs will be dealt with in a later article after other basic modules have been described. The next article will deal with filters.

STUDIO DIARY

AMAZON STUDIO (Liverpool) ... The Vince Earl Attraction, local cabaret band, were in doing an album with Berlew Productions and engineer Mike Bersin ... The Jo and Alex Sander Band were in laying down more demo tapes for Green Dream Ltd. publishers, in conjunction with Tony Hall of Fresh Air Music ... A band called Kashmir recorded some demos, hopefully to gain them a recording contract ... Comedian Mike Donohoe did an EP, with Trevor from Stag Records producing ... Country and Western band Kellie recorded some more tracks for an album ... The Chimes finished an EP with Berlew Productions ... Rick Rock and the Rockers continued work on a single, "Long Hot Summer," for Berlew Productions ...

CENTRAL ... Miki Anthony was in laying down various tracks with engineer Simaen Skofield ... David Riley and Tony Bygraves were recording for a proposed musical with David and Tony producing themselves ... Roger Greenaway did some 16 track demos ... Barry Blue recorded some songs, producing himself with some help from Miki Anthony and engineer Simaen Skofield ... Armada Orchestra were in doing some work for Contempo Records produced by John Abbey and Gerry Shury ... Brotherhood of Man were in for a week, laying down a variety of tracks including a follow-up to their last hit single with engineer Simaen Skofield and producer Tony Hill ...

ELECTRIC LADY STUDIOS (New York) ... Ian Hunter completed his new album with David Palmer producing ... Tommy Bolin recorded various tracks with Dennis Mackay producing ... Stanley Clarke recorded tracks for his next album with Ken Scott producing and engineering ...

GROSVENOR ... The Brighthouse and Rustick Band made an "up-tempo" single for Transatlantic with producer Ivor Raymond and engineer John Taylor ... Grosvenor were hosts recently for a reception held by EMI to launch Cliff Richard's I'm Nearly Famous album ... Brian Sharpe recorded an album for the Grosvenor label with John Taylor producing and engineering the session ... The Coventry Salvation Army band recorded an LP to take to Holland with them when they visit there later this month, their bandleader Charles King produced the session with John Taylor engineering ...

IBC STUDIO ... Rod Stewart's latest recording was being remixed with engineers Mike Claydon and Keith Bessy and producer Tom Dowd ... Anouska Hempel was in to record a few new tracks produced by Steven Komolsy and engineered by Hugh Jones ... Bill Landers produced a new album for The Reflections engineered by Mike Claydon ... Japanese artist K. Kase recorded an album with producer Keith Potger and engineer Hugh Jones ... Barry Ryan was produced by Bill Landers when he recorded some new material recently ...

MAJESTIC ... The Two Ronnies were in recording an album, with John Worth producing and Roger Wilkinson engineering ... Some strings were laid on the new Shabby Tiger album, with producer Ben Findon and engineer Derek Chandler in attendance ... Jigsaw

were in recording with producer Chas Peate and engineer Roger Wilkinson ... The all girl pop group Baby Face were in with producers Steve Ellison and Keith Rossiter and engineer Derek Chandler ...

MARQUEE ... Chris Andrews, of "Yesterday Man" fame, was in producing himself recording some new album material ... Elton John's new LP was being mixed with engineer Phil Dunne and producer Gus Dudgeon ... Mud were in doing some mixing with engineer John Eden ... John Baldry was working on overdubs and mixing with producer Jimmy Horowitz on material mainly recorded in the States ...

PATHWAY STUDIO (Stoke Newington) ... has been in existence for about five years as an 8-track studio, although it started life as a two track demo studio for the two people who began it, Mike Finesilver and Peter Ker ... Custom has really built up over the years and has been steadily increased by the number of friends who use it and have been coming back regularly ... The gear includes a 16 into 8 desk built by engineer Barry Farmer and various friends, a Brenell 8-track recorder, numerous Revoxes for mix-down, a stereo phase unit plus the usual range of gadgets ... Mikes are the usual mixture of Beyer, Shure and Neumanns and there's an upright piano in residence. Pathway have kept their rates down to £8 an hour for the last four years counting on steady work to ensure the cash flow ... Recent visitors have included Dave Edmunds and Nick Lowe, Pete Brown, The J.A.L.N. Band, Hungry Horse and Richard Digance.

RAMPART ... Roy Martin did a session for Track Records ... Moon were in recording a new album for CBS which is being mixed in Los Angeles, producer at the session was Stewart Levine and engineer Cyrano ... Kokomo recorded a couple of tracks with Chris Kimsey engineering and producing ...

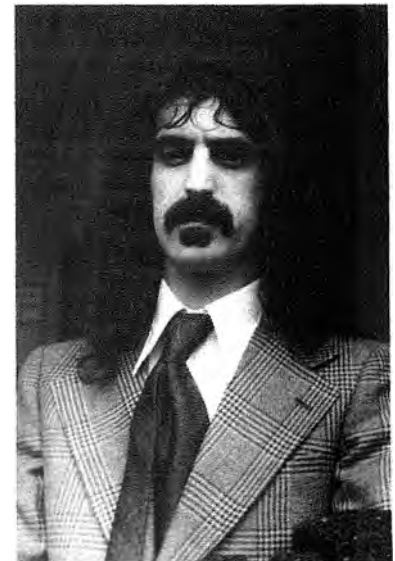
RECORD PLANT (Los Angeles) ... Flo and Eddie have been in recording a new album with Skip Taylor producing and Brian Neversen engineering ... Frank Zappa was producing Grand Funk with engineer Michael Bronstein ... Bonnie Kolac was in laying down tracks for an album with Arthur Gerson producing and Gary Lodinsky engineering ... Richard Supa recorded various tracks with John Stronach producing ... The Eagles were in, they recorded a variety of pieces with producer Bill Szymczyk and engineer Bruce Henning ... Dominic Fronziere produced some new tracks, recorded by Gladys Knight and engineered by Gary Kettgren ... Detectives were in produced by Jimmy Robinson ...

ROCKFIELD ... Gypsy recorded a few tracks with Pat Moran handling production and engineering ... Ex-Man, Iceberg and Flying Ace person Martin Ace was in recording what will possibly result as a single with Dave Charles overseeing operations ... Van der Graaf Generator continued work with Pat Moran on album material ... Sassafra laid down tracks for a new album with producer Pete Gage and engineer Ted Sharp ... City Boys recorded some songs with producer Mutt Langer and Dave Charles engineering ...

STRAWBERRY (Stockport) ... Noel Redding had just finished a new album with producer Dave Rohl ... Paper Lace recorded a single with Pete Tattersall engineering ... Mike McGear recorded a fine new single called "Do Nothing All Day" with Pete Wingfield producing ... Dave Rohl's band Mandala continued work on album material ... Two chaps called Lol and Kevin from a combo entitled 10CC came in for a few days experimenting on a track which will probably materialise in one form or another on the next album ... Lots of TV commercials were completed and some work for TV's Arrows ... Ex-Pirate Mick Green was producing a Liverpoolian band called Champagne ... All-girl band the Ivy Benson Band recorded album material with Pete Tattersall engineering ... Leonard Cohen turned up at midnight recently and took till 8 in the morning to complete a single which had been started in Germany and will probably be mixed in Switzerland ...

THEATRE PROJECTS ... The studio is usually fairly busy with work for theatre companies and conferences, but they do have some bands recording who tend to come back again and again; recent work in this field included a session with Ian Page who was recording some material which may be going to the States, engineered, as is all Theatre Projects work in this area, by Mike Moore ... The Settlers recorded a possible new single with producer Mike Jones ... Martin Cook did some demos for Chrysalis ...

WESSEX ... Liverpool Express recorded some tracks with producer Pete Swettenham from Warner Brothers and engineered by Gary Edwards ... UFO were in mixing tracks which they had recorded live at the Roundhouse, producer was Ex-Ten Years After man Leo Lyons and engineer Tim Friese-Greene ... Supercharge were in for a couple of days with producer Mutt Langer and engineer Gary Edwards ... Tom Allen produced a single for Jack The Lad with engineer Bill Price ... Lulu was recording a single and other tracks produced by Phil Wainman, with Bill Price engineering ... Steeleye Span recorded their new album which was produced by Mike Batt and engineered by Mike Thompson ...



Frank Zappa was producing Grand Funk at the Record Plant in Los Angeles

DOWN UNDER

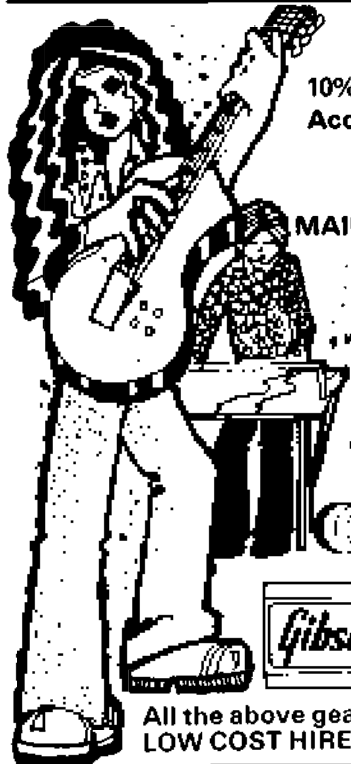
Keyboard

Keyboard Harmony Ltd
82 High Street Bath II
Sundry RH 13G

Telephone
Redhill

68821

Speedy Mail Order Service
to your door



Amps Drums Guitars

10% deposit · Up to 36 months
Access or Barclaycard

Mus's · Repairs · Keyboards

MAIN AGENTS FOR TRAYNOR

- CARLSBRO
- COLUMBUS
- ANTORIA
- YAMAHA
- PREMIER & HH
- MAXWIN by Pearl



All the above gear is available on our
LOW COST HIRE nightly - weekly - monthly

NASHVILLE

A NEW
RANGE TO SATISFY
EVERY REQUIREMENT



6 STRING GUITAR STRINGS — Electrolytic Wire Wound (4 gauges) £1.99. 80/20 Brass Wound (4 gauges) £1.99. Silver Plated Wound (2 gauges) £1.41. Nylon Classic 80/20 Brass also Silver Plated Wound £1.39. **NYLON FOLK** £1.61. **12 STRING GUITAR STRINGS E TUNING** — 80/20 Brass Wound £3.38. Silver Plated Wound £2.56 **BASS GUITAR**: Electrolytic Wire Wound (Long & Med. Scale) £7.57. **MANDOLIN** £1.80. **BANJO** 88p. **TENOR** 83p. **UKELELE** 50p.

FROM ALL GOOD MUSIC SHOPS
NASHVILLE MUSIC STRINGS LTD.
PENTRE, MID-GLAM,
WALES

2 STRINGS 2



John Paul Jones
LED ZEPPELIN

Professional Users
of ROTOSOUND
"SWING" BASS
STRINGS Include

- TONY BOWERS.....ALBERTO Y FLOST
- TRIGOS PALANCOAS
- NEIL BEEVER.....BRITD
- JOHN CAMP.....RENAISSANCE
- CHAS CLOCK.....STARWARS
- PETER CROWTHER...MR. TIG
- STEVE CURRY.....T.R.E.X
- JOHN DEACON.....QUEEN
- STEVE EMERY.....SIRENCA
- JOHN ENFICHTLE.....THE WHO
- HILLARY HATTLER...ERIAN
- COLIN HODGKINSON...BANKROB
- DEREK HUNT.....OLYMPIAN TIGER BAND
- RICKY JAMES HOYT...SABBATHAN
- GI TAYLOR.....DEEP PURPLE
- GREG LAKE.....E. L. P.
- DANNY LIMA.....SLADE
- PHIL LYMOND.....STY LIZZY
- DEREK MOORE.....NEKTAR
- ROGER NOWELL.....RICK WAKEMAN'S
- ENGLISH ROCK
- ENGLISH
- DAVE SHELLY.....BUENO
- RAY SHERMAN.....GENTLE GIANT
- CHRIS SMITH.....YEP
- CHARLES TUNJATAI...DR. ROY BECKER
- OVEREND WATTS.....MOTT
- MIKE WOODWARD...BARAVAN
- JOHN WYTON.....CRUISE

**GROUP & GAUGE CHART FOLDERS
PLUS ALL YOUR ROTOSOUND
PRODUCTS AVAILABLE ONLY THROUGH
YOUR LOCAL MUSIC STORE**

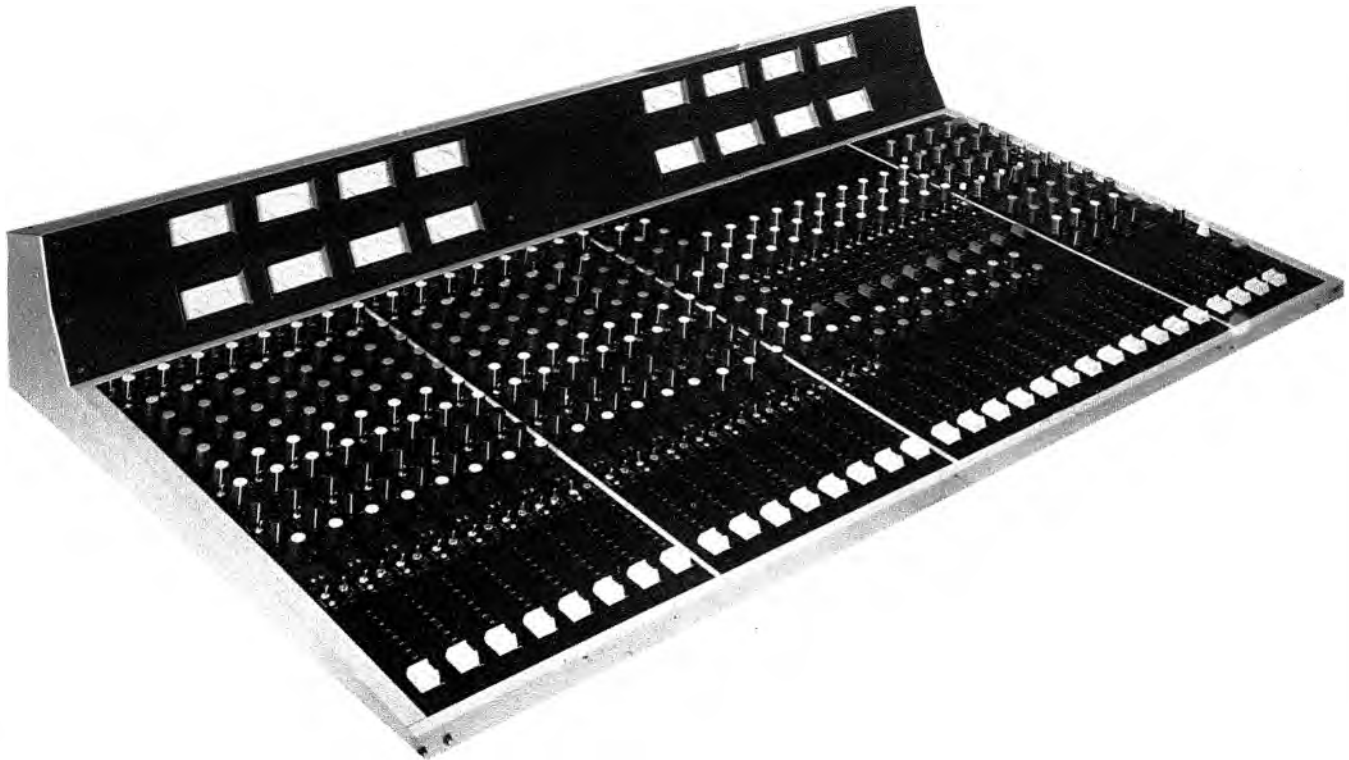
The Real String



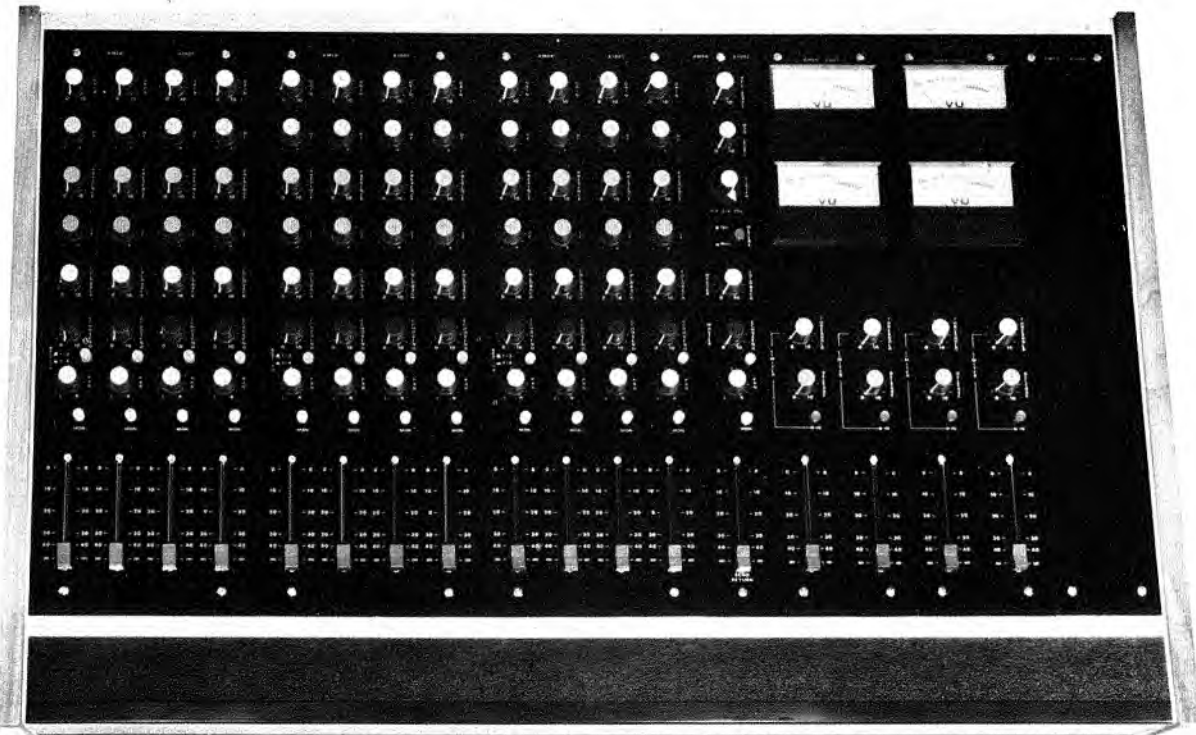
Sole Manufacturers
JAMES FLOW
Industries Limited
20 Upland Road
Bexleyheath Kent
Tel: 01-304-4711

AMEK

MIXERS FOR RECORDING, SOUND REINFORCEMENT, HIRING &
MONITORING; & ELECTRONIC CROSSOVERS; TEAC
and other brand-name equipment



SIM series for multitrack recording and concert systems; to satisfy most requirements.....



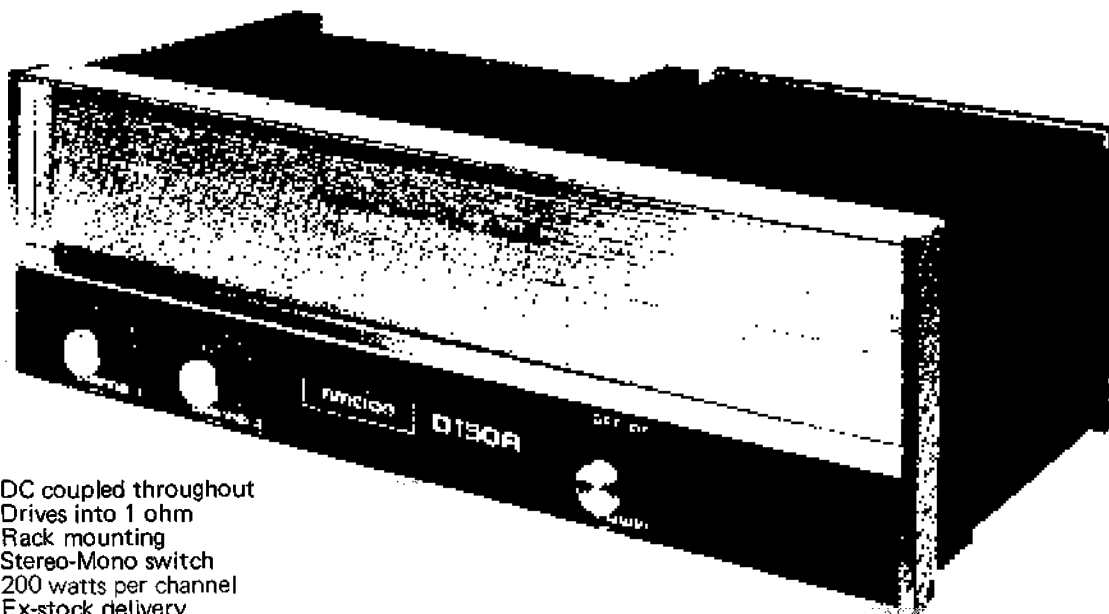
X series: up to 20 or more in, 2 or 4 out, subgroup and other options available.....

*London agent for AMEK p.a. equipment: IAN JONES, 16 Wallasey Crescent, Ickenham, Uxbridge, Middx.
tel Ruislip (71) 73271*

otherwise contact Nick Franks and Graham Langley on 061-834 6747

**AMEK SYSTEMS & CONTROLS LIMITED, 2nd floor Islington Mill James Street Salford Lancs. M35 HW
ENGLAND**

NOW AMCRON INTRODUCE THE D150A!



- * DC coupled throughout
- * Drives into 1 ohm
- * Rack mounting
- * Stereo-Mono switch
- * 200 watts per channel
- * Ex-stock delivery

As a logical follow-up to the world-beating DC300A, AMCRON have introduced the D150A power amplifier to replace the old D150. This superb new amplifier will operate into load, down to 1 ohm, is DC coupled throughout, provides up to 200 watts rms from one channel, and has newly designed heatsinks to handle the extra power. Other features include level controls on the front panel as well as a mains power switch, and mains warning lamp. On the rear of the D150A is a switch which allows the user to select either a Mono or Stereo operating mode. As a monitoring, or PA amplifier, the D150A is really a delight, and is said to be a 'Baby' DC300A! Certainly where the higher power of the DC300A is not required, the D150A is the obvious choice.

Our London stockists for all AMCRON equipment are REW (Audio Visual) Ltd., 146 Charing Cross Road, London WC2. Tel. 01-240 3064, and also at 10-12 High Street, Colliers Wood, London SW19. Tel 01-540 9684, and K.J. Leisure Sound, 48 Wigmore Street, London W1. Telephone 01-486 8263.



MACINNES LABORATORIES LTD.

MACINNES HOUSE, DANLTON PARK INDUSTRIAL ESTATE,
SAXMUNDHAM, SUFFOLK IP17 2NL TEL: (0728) 2262 2615

MACINNES FRANCE S.A.R.L.
45 RUE FESSART,
PARIS 19e
Tel. 203.30.01

Many years ago, a record called "Sparky's Magic Piano" featured a device called a Sonovox. The basic idea behind the record's tale was a young boy with a talking piano. To simulate a "talking" piano, the sound of the piano was fed into two speakers which were strapped to the actor's neck. The sound of the piano was transmitted through the throat, and as he spoke the words, came out of his mouth and into a microphone, giving a "talking Piano" effect.

It was basically a children's record and, as such, was considered a bit of a gimmick. Nothing much happened with this idea until the release of Stevie Wonder's "Music Of My Mind" album six years ago. The album marked a new direction for Stevie Wonder. He wrote, sang and played all the numbers on the album, a couple of tracks of which featured a device called the voice bag. One track in particular — "Love Having You Around" — featured this effect to tremendous advantage. The relation between the old Sonovox device and the newer voice bag is obvious. Their common aim: to obtain "speech" from musical instruments.

Over the past five years, the voice bag has enjoyed a rapid growth in popularity. Wishbone Ash, Jeff Beck, Rufus, Joe Walsh, Peter Frampton and the Doobie Brothers are among many who have helped make the unit so popular. On Beck's "Blow By Blow" album, he does an instrumental version of The Beatles' "She's A Woman." The voice bag is used for the "she's a woman who understands, she's a woman who loves her man" part, when Beck's guitar literally "sings" these lyrics.

There are two major manufacturers of voice bags in America — Kustom and Heil. While the Kustom unit is a "voice bag," the Heil is a "voice box." The only major difference is that the bag slings over your shoulder and the box sits on the floor. In England, there are again only two types manufactured — the Avon Supavoice and the Jimmy Bean Voice Box. Both work on the same principle — the signal is fed into a horn driver and then travels up a plastic tube into the mouth and then into the P.A. The main difference is that the Avon model has a thicker tube and also incorporates a fuse to prevent overload. Messrs. Rose-Morris kindly lent I.M. a Supavoice unit to have a look at.

Unlike other accessories such as wah-wah pedals or fuzz boxes, the Supavoice fits between the amplifier and loudspeaker, and connecting up is normally a simple matter of unplugging the speaker plug at the back of the amplifier and plugging it into the

VOICE BOX

Eamonn Percival wraps his lips around some tasty technology



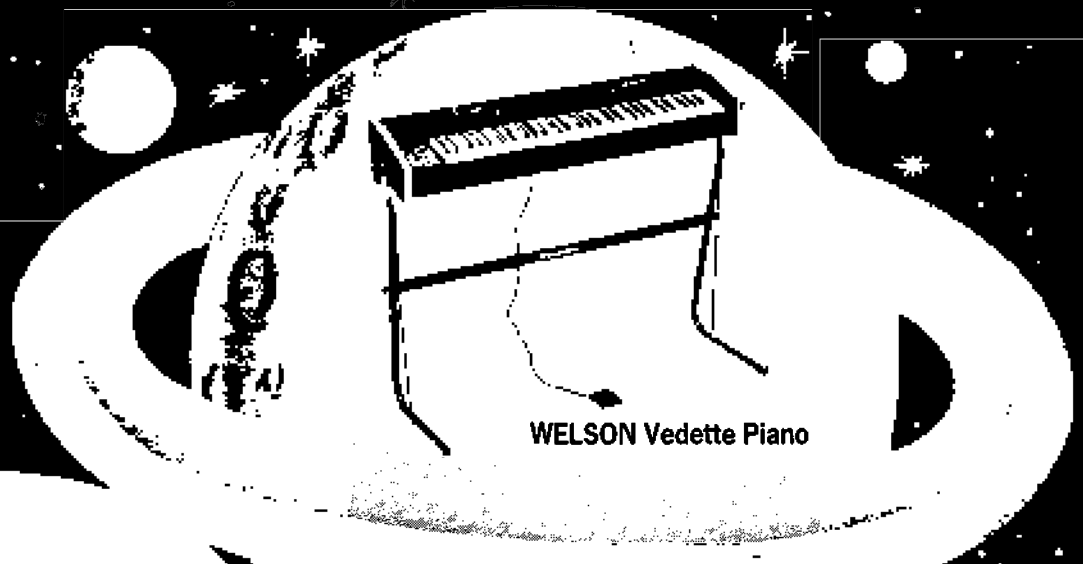
The Avon Supavoice



Joe Walsh with a voice box

continued on page 85

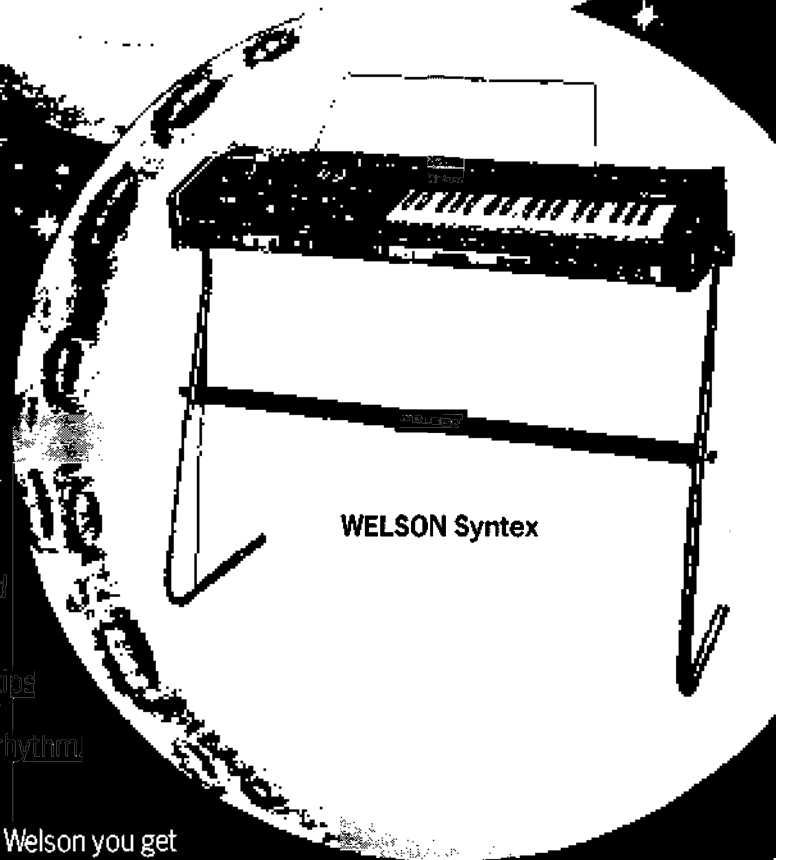
Welson. A galaxy of organs at down to Earth prices your customers can afford.



WELSON Vedette Piano



WELSON K.O.
Key Orchestra



WELSON Syntex

There are 40 organs in the Welson range—and all of them stars.

Welson space-age electronics give you tones as pure as crystal—and the scope of the sounds at your fingertips (and toetips!) is phenomenal. You name it, a Welson reproduces it—with full backing percussion rhythm!

And full modulatory controls give you all sorts of freedom to vary your sounds.

Welson make the famous Syntex synthesiser too. So from Welson you get a range of sounds as endless as space itself.

And at what value! When you weigh up the quality, scope and the price of a Welson you'll see what we mean.

Cost for cost Welsons are probably the finest value for money organs available.

Go to your local dealer and play one—his price is below.

(If you'd like details write to us. We'll send you some literature and the address of your nearest stockist.)

Welson. Fine organs from

WOODS & BOLTON

WELSON ORGANS

from page 83

"speaker" socket on the Supavoice. Another jack lead is then required to connect the speaker socket on the amp to the "amplifier output" socket on the Supavoice. Most combo amps have a standard jack connection from the speakers to the amp, but the lead isn't usually long enough to reach the Supavoice on the floor. A jack extension lead from the speaker to the Supavoice is therefore needed, in addition to a standard jack lead from the Supavoice to the amp.

The footswitch on the unit will either send the signal from the amplifier to the voice tube (On) or, unaltered, to the loudspeaker (Off). In other words, you have the choice between the guitar going straight to the speakers or straight to the tube. The sound through the tube does not mix readily with the direct sounds from the speakers, so a facility for this is not provided. Any stage monitoring of an instrument when it is going through the Supavoice is best done after being picked up from the microphone. The rest of the band will gain little by hearing the instrument before it goes through the Supavoice as the sound generated after going through the unit is so totally different. Self-monitoring is surprisingly simple. The fact that the signal travels up the tube and into your mouth makes it easy to hear. The horn driver is a 15 watt RCF unit, so there is a more than adequate level audible. The Supavoice has been designed to give limited volume to the mouth because more control is possible at low volume and high levels of sound into the mouth, if prolonged, can cause vomiting.

When first practising with a unit like this, it isn't necessary to have a microphone set up, nor is it necessary to have a loudspeaker connected BUT, with valve amps, it is advisable to have a load on the output at all times. If no speaker is connected as an alternative load, the unit must be in the "on" position.

The built-in "failsafe" circuit is particularly praiseworthy. As a rough guide, when more than 30 watts at 4 ohms is fed into the box, the fuse is liable to blow. No damage should occur when this happens as the failsafe circuit is brought into operation. In the case of rock bands with lively stage acts, this situation can easily happen. The trick is: keep the volume down when using a voice box. If the fuse does blow, the Supavoice will cope with amplifiers at higher settings, and the sound will be considerably attenuated before travelling up the tube, so the player will not find himself without any sound in the tube. The amplifier, too, will be protected as it will automatically be faced with a load

condition.

To obtain "speech" via the voice box, you simply hold the tube in your mouth and mime words. The sound adapts to the shape of your mouth and the "words" are transmitted through the microphone. With the Supavoice, clips are provided to hold the tube against the mike stand, although Gaffa tape, in fact, works better. The best position for the tube mouthpiece would seem to be about four inches in front of the mouthpiece of the microphone. The tube supplied with the Supavoice would seem to be made for 8 foot tall musicians, but it is a simple matter to cut the tube down to your own particular height. The Supavoice tube is also a little thicker than other makes, which means that it will deliver more bass.

Apart from "speech," many other effects are possible with the voice box. To obtain phasing, place the tube in the centre of your mouth and, leaving your mouth open, roll it around the tube. Fuzz, too, can be obtained by placing your tongue in the end of the tube and playing, again with your mouth open. A tremelo effect is also possible by simply flapping your tongue onto the end of the tube as you play. The possibilities really are endless. A single note lead line can be played, accompanied by singing a harmony line, producing a sound akin to two "voice-like" instruments in harmony.

Most people associate the voice box with guitarists, but it is equally effective when used with keyboards, particularly clavinses or string machines. When used with keyboards, it connects in exactly the same way and is used in the same way. All in all, the Supavoice is an extremely versatile unit and surprisingly simple to operate.

For anyone who hasn't heard a voice box, try listening to any of the following tracks:

- "Tell Me Something Good" – Rufus;*
- "Love Having You Around" – Stevie Wonder,*
- "Rocky Mountain Way" – Joe Walsh,*
- "She's Leaving Home" – Syreeta,*
- "She's A Woman" – Jeff Beck,*
- "Show Me The Way" – Peter Frampton,*
- "Single Bed" – Fox.*

VOICE BOX

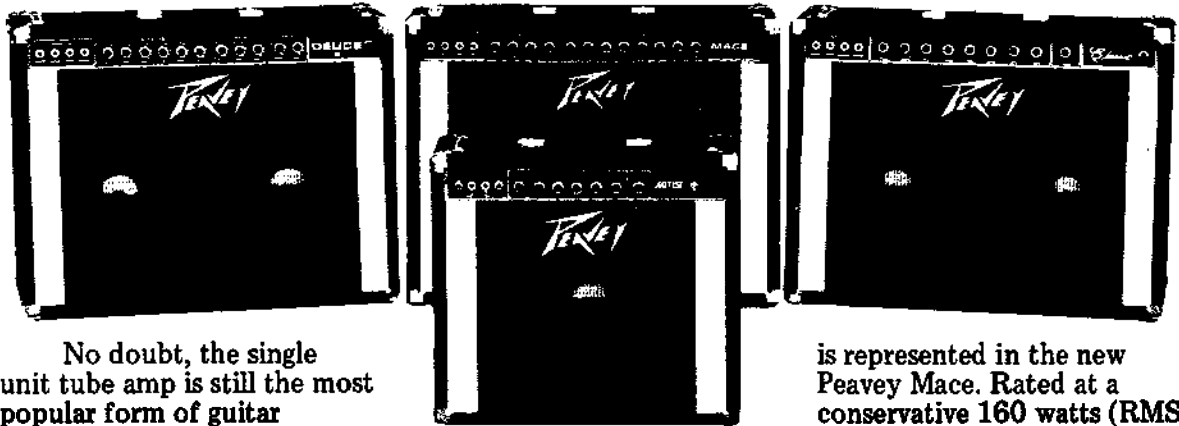


Peter Frampton



Stevie Wonder

The warm glow of power from Peavey



No doubt, the single unit tube amp is still the most popular form of guitar amplification. The reason for this, of course, is the tube amp's smooth, harmonic characteristics. And, as you know, a tube amp when overdriven produces sustain and gutty distortion that is unobtainable in most transistor units.

You should also know that Peavey offers you the most versatile line of tube amps going. This versatility is due to our new "Automix" feature that creates super sustain, tonal variations, and unlimited distortion by allowing the amp's two channels to be mixed, switched, and stacked with the Automixer footswitch. The Automix system is extremely functional since it permits both channels to be used to augment the tonal and distortion characteristics of the tube amp.

Big power in small packages is essential to the professional musician. That's why we've designed our versatile Automix feature into four single unit, tube models that afford the guitarist maximum compactness and portability.

The Classic:

A 50 watt (RMS @ 5% THD) professional unit with

the advanced circuitry and features to compete with, or better the performance of, amps selling for more than twice its price, the Classic features controls for equalization, master volume reverb, and tremolo and is available in two models: with 2 - 12" speakers or 4 - 10" speakers

The Artist

Size for size the Artist is the most powerful single unit tube amp commercially available. This super compact unit delivers 120 watts (RMS @ 5% THD); features equalization, master gain and reverb; and comes with a 12" super heavy duty professional grade speaker

The Deuce

The Deuce is powered by 4 rugged 6L6GC tubes in a push-pull paralleled circuit producing 120 watts (RMS @ 5% THD). Equalization, reverb, tremolo, and master gain controls are included in this fully professional amplifier.

The Mace

The ultimate in portable tube type guitar amplification

is represented in the new Peavey Mace. Rated at a conservative 160 watts (RMS @ 5% THD), the Mace features two channels with pre and post gain controls on each channel, equalization, tremolo and reverb.

We'll send you complete information about Automix and the exciting things it can do with the Classic, Artist, Deuce, and Mace if you write to:

Top Gear Musical Wholesale Co.,
Harbour Way, Shoreham-by-Sea,
Sussex, BN4 5HS

But you really must listen to appreciate the beauty of Automix.

After you do we think you'll be impressed.



**PEAVEY
ELECTRONICS
CORP.**

Peavey Electronics are distributed in the UK by:
TOP GEAR MUSICAL WHOLESALE CO., HARBOUR WAY, SHOREHAM-BY-SEA,
SUSSEX, BN4 5HS



BIG FRONT YARD

In the first of an occasional series, I.M. looks at a worthy local band

BIG FRONT YARD may turn out to one of the big discoveries of 1976, with an album in the charts by the end of the year and their distinctively tasty brand of rock music indelibly familiar to all of us, writes **Michael Gray**.

Those who wish them well in their endeavours should include not only the fans Big Front Yard already have in their home-base in Worcestershire, but also everyone worried by the sickness that has overtaken the rock scene since big business moved into it and inflation made every one more ruthless than ever before. Because Big Front Yard are very deliberately taking the hard road to fame: up through the grass-roots with no big-business backing, no HP payments, no overdrafts. At a time when a decent P.A. system costs thousands and pub-rock gigs pay an average of £15-£20; when it's hard to get even a college date, however good your music, because the big agencies have most of the college circuit tied up tight, and you can't get onto an agency's books unless you've already got a record deal — at a time like this, out in the grass-roots is a cold place to be.

But it would be good for everyone if that route to success could be made viable again: new talent

would find its way to audiences again; those audiences would get a wider choice of music; the charts could be unblocked so that not just the giants and the compilation-albums stood a chance.

Big Front Yard's four members think it could still happen. "But," warns Sam Sun, one of the band's two lead guitarists and an ex-member of Foresight, a doomed Warner Bros. band, "it's just a long, long impoverishing grind to get there. Big Front Yard is the most solid, integrated, purposeful band I've ever encountered and yet there have still been times when we almost split — just through lack of gigs, lack of money, low morale. None of us has any money, yet we've had to acquire a P.A. system that competes with established bands' stuff; and we've had to do it by paying ourselves nothing at all for 18 months.

"I wouldn't recommend it to anyone — yet what else can you do if you're a musician? Get in hock to some sharpie businessman so that you never see any money till you've had three hit albums? That's today's way of doing it but it isn't our idea of good sense. We're not going to pay a top act for the privilege of supporting them on tour; we're not going to make a loss on the road in

order to promote an album we don't see any royalties from because of how much we owe the record company or a management. We've proved indestructible, and now we're going to prove a viable unit in ourselves. We're coming up through the grass-roots, paying our own way. Every member of this band is unstoppable."

But of course, Big Front Yard's main weapon has to be its music — and that is astonishingly good. Robin Valk, BRMB Radio's rock DJ, found himself introducing the band at a Birmingham club recently and was appalled to be told before their set that it might last as long as 1½ hours. And it did — but instead of finding it self-indulgent and extremely tedious, Valk found himself almost rooted to the spot, attentive throughout, and effusive afterwards.

Another convert, England and Warwickshire cricketer Bob Willis, saw Big Front Yard at that same club gig and expressed himself more simply: "You know," he said, "they really are fucking good."

The rest of the line-up is Mike Dolan on lead guitar and vocals, his brother Steve on bass guitar and harmony vocals, and Rob Mason on drums, vocals and percussion. The Dolans you just might

remember from Warner Bros. band Hard Meat, which made two albums and two American tours in 1970, while Steve Dolan has also played bass for Tim Rose on U.K. tour-dates, and contributed to the Pete Sinfield solo album of 1973. Drummer Rob Mason is ex-Rubber Duck, Headband and a hard-working unit called Pabana, which was also based in Worcestershire but used to work a fair amount around the London scene.

Meanwhile, as Big Front Yard, they still have a very tough road ahead of them, and right now they almost certainly have less money in their pockets than you do. If you know anybody with a venue that pays more than an insulting amount, be it a club or pub or college, why not persuade them to book this most deserving of new bands?

INTERNATIONAL MUSICIAN readers are welcome to send features on local bands which they feel deserve attention. Features should be accompanied by a photograph of professional quality and a self-addressed, stamped envelope. While every attempt to return unused manuscripts will be made, the publishers can accept no responsibility for their return.

Ralph Johnson and Freddie White know...
TAMA gives what they put out and more.



EARTH WIND & FIRE



Sound begins
with a beat.
Earth Wind and Fire's
"Top Rock/Blues"
...award winning
sound begins
with the basics and goes
beyond the shining stars

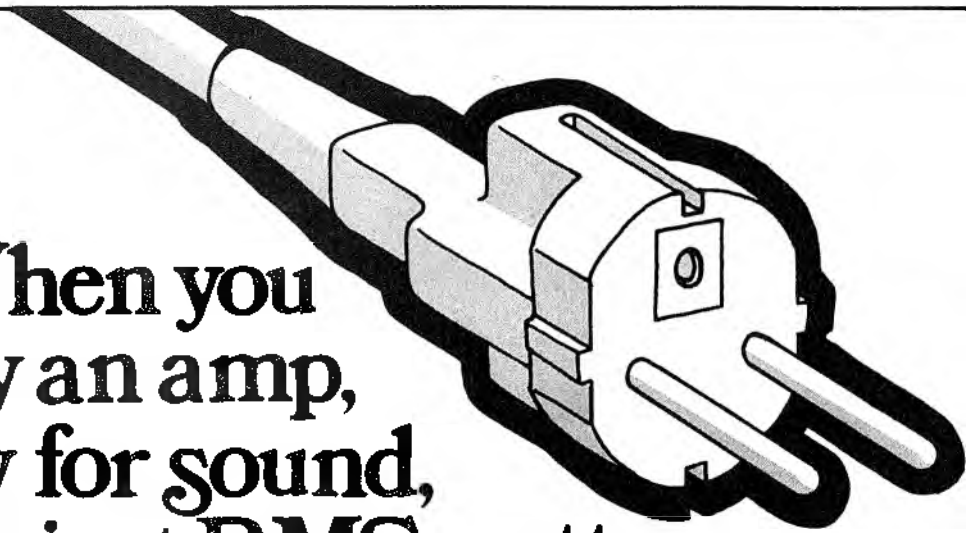
...for the subtlety of
a summer breeze...
cutting power of a
blade of fire and down-
to-earth soul-stirring
sound... your
drummer should
choose

TAMA drums
and TAMA TITAN
hardware.



TAMA

The Strongest New Name in Drums



When you
buy an amp,
pay for sound,
not just RMS wattage.

Marlboro Amplifiers & Sound Systems.



Marlboro manufactures a complete line of amplifiers and sound systems built to deliver *high acoustic output*, not just a lot of RMS wattage. Because when you're on stage, your audience doesn't want to hear your wattage — they want to hear your sound.

Simply put, you don't hear electrical wattage. You hear acoustic wattage. And a lot of electrical wattage doesn't guarantee a *high acoustic output* and a good clean sound. We make Marlboro amplifiers and sound systems to give you *high acoustic output plus great sound quality*.

If you want to know more about this new way of looking at sound, we've written a booklet for you. It's about the relationship of RMS electrical power to efficient, true sounding *acoustic output*, and about rating systems by *acoustic power* rather than just RMS wattage. Send in the coupon and it's yours, free, along with our latest catalog and a list of distributors/dealers who handle Marlboro products.

One last point. Marlboro amplifiers and sound systems are surprisingly low priced. And that's got a great sound to it, too!

Marlboro

SOUND WORKS

A division of
MUSICAL INSTRUMENT CORPORATION of AMERICA
170 Eileen Way, Syosset, New York 11791 (516) 921-9070

Yes, please send me your free sound booklet.

IM-6

Name _____

Address _____

All Marlboro amplifiers are American made from the finest components and are U.L. listed. Marlboro products are also distributed in 21 foreign countries.

EUROPA CONCERT SYSTEMS

DIVISION OF SOUNDCRAFT ELECTRONICS LTD.



Our 1976 Clients include

Nils Lofgren

Emmylou Harris

The Drifters

The Miracles

The Three Degrees at the London Palladium

Tony Bennett & Lena Horne LP

Neil Sedaka

The Hollies

Hot Chocolate

Janis Ian

SOUNDCRAFT
ELECTRONICS LIMITED

5-8 Gt Sutton Street London EC1V 0BX Tel: 01-251 3631/2/3 Telegrams: Soundcraft LDN EC1



Mixing Lofgren with Europa

by Tony Bacon

By definition, enigmas come in all shapes and sizes and on his recent London visit Nils Lofgren was determined to add his image to that category. Not only did he shun the press and others who would have liked to get a little closer to this highly rated guitarist, he also made things more than a little difficult for those he had employed to work with him.

Being on the road with Nils Lofgren is a hard and arduous thing and Phil Dudderidge, Captain of the Soundcraft team who sculptured his P.A. sound at the New Victoria Theatre, London, suffered as much as anybody. It's not that Soundcraft (and Phil, of course) aren't used to it. They — like Lofgren in his field — have come up the hard way and the P.A. company, which works under the name Europa Concert Systems, have done enough and seen enough to be able to handle the odd awkward situation.

Lofgren's "Supercool" attitude is also demonstrated in his set and the art of drinking a glass of water whilst

keeping a guitar and piano line going is all a little too much. To discover the background to Europa Concert Systems, I talked with the man at the helm, Phil Dudderidge. "Soundcraft is a specialist manufacturer of mixing consoles and we build mixers for the recording studio industry and for professional P.A. systems. The P.A. rental side of things was brought in about November 1974 and we promote under the title of Europa Concert Systems to distinguish it from Soundcraft, the manufacturing company."

Europa started business with a four bin system and, via tours and single gigs with a wide range of artists including Ray Conniff, Frank Zappa, Tony Bennett, Emmylou Harris, and Neil Sedaka, now have one top class system with no expense spared: a 16 bin 5000 watt RMS system. Phil explained: "The concept of Europa isn't to have multiple systems on the road at the same time but to have one touring as much of the time as possible. To

facilitate that, and also to enable us to do some of the larger venues like Earls Court or the Empire Pool, we've got two eight bin systems put together to make one 16 bin rig."

Not only have Europa worked with many artists, they've also, naturally enough, been involved with many venues. Roger Lindsey, Europa's mainman on the road told me a bit about the problems he'd come across when working at British venues: "At the Albert Hall, once the level from the P.A. gets above a certain threshold, the sound starts swirling round the hall and you begin to get all kinds of strange phase cancellations — the whole thing just becomes inaudible. We successfully worked with the Hollies there, and for that we did virtually a natural acoustic mix, using the acoustics of the hall to actually carry the sound. Working with a loud band, however, is very difficult indeed; for example, when we worked with John Mayall there the level from the back line amplification

was at such a high level anyway there was very little you could do to control it through the P.A."

We went on to discuss several other acoustically bad venues, Birmingham Town Hall, Cambridge Corn Exchange and the like. Roger and Phil decided that the best place they'd worked in terms of natural acoustics was the Southport Theatre. "The place is so dead acoustically," added Roger, "that you can control the whole thing and actually get what you set — Southport Theatre is probably the nearest thing you can get to a studio environment in a concert hall."

The New Victoria seems to have taken over half of the major gigs now that the Rainbow has closed. Roger told me about the system Europa were using on the two nights. The main system consisted of eight 1 x 18" Gauss driven front-loaded bass horns designed, as are all Europa's speaker systems, by Stephen Court. On top of these were eight JBL 2482 horn drivers, four of which were linked to JBL long-throw radial horns,

PHOTOGRAPH BY GARY O'NEILL

MSL RUGBY

NEW EQUIPMENT INC VAT

Kustom 111L Lead Amp	£335
Kustom 111L Lead Cab	£290
HH Value Sound Amp from	£134
HH P.A. Amps from	£128
Sound City Combos	£ 97
Fender Strat M/N + Case	£340
Giannini 12 String	£ 62
Eko Ranger 6	£ 42
Fender F25	£ 54

S/H GOODS INC VAT

Gibson SG Type II	£190
Simms Watt 100 Amp	£ 90
Simms Watt Tritone	£ 95
HH IC100 Combo	£180

MIDLAND SOUND LTD FOR:—
*Kustom, HH, Fender, Gibson
 Shure, AKG, Carlsbro, Eko, Martin,
 Sound City, Giannini*

AT 57 Albert St., Rugby, Warks.
 Phone Rugby 71419 (0788)

john savages's

Music Centre

HHH

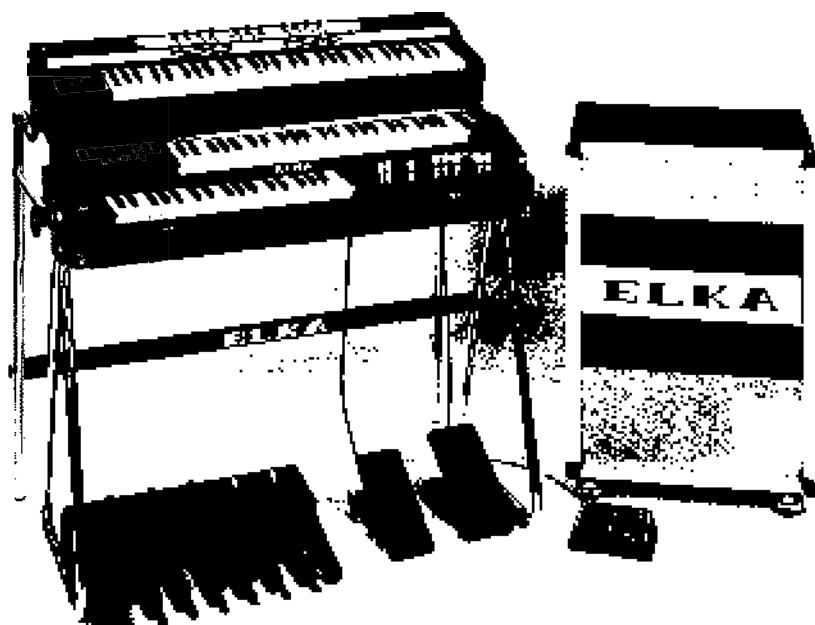


62 Norfolk St., King's Lynn, Norfolk
 Tel 4026 (open most evenings).

P.A. HIRE SERVICE ALSO AVAILABLE.

ELKA-ORLA

19, Bluebridge Industrial Estate, Halstead, Essex. Tel. Halstead 5325/6



ELKA X55, RHAPSODY 610, and ELKATONE 610 PR
a combination that breaks all sound barriers



from page 91

and then 16 JBL 075 HF drivers. This main P.A. system was tri-amplified by four Crown DC300A amplifiers. The monitor system consists of a 1 x 18" front-loaded bin, the same as the out-front P.A. horns, with a mid-range lens unit incorporating 2 x 075's one each side of the stage, and four foot monitors with a 15" JBL and mid-range lens in each. These foot monitors fill in holes in the sound that are left by the side stage speakers, which tend to flood the stage with sound anyway. The monitor

mixer was a Soundcraft 16 into 2, and three separate mixes are taken from this to enable each member of the band to have his own desired mix on stage. The main mixing console is a Soundcraft Modular Mixer with 20 inputs, eight sub-groups and two main outputs.

Nils Lofgren played a superb set that night and the sound system certainly did the fine music more than justice. The whole set gelled beautifully, especially on numbers like "Back It Up" and "Keith Don't Go" from the first solo album and title track "Cry Tough" from the second outing, plus Crazy Horse oldies like "Beggar's Day."

Soundcraft, then, are in a very unique position when it comes to "demonstrating" to a potential customer. "It's very difficult when a client comes in and has heard about someone's mixers, and would really like to check one out. Normally a mixer manufacturer would have to arrange a demonstration and it's never in ideal circumstances. It's far easier when

Mixing Lofgren with Europa

a customer comes in to us and makes an enquiry about a console and we can say to him, "well, we've got one on the road with so-and-so at such and such a venue," and they can go along to the concert and actually hear the mixer in ideal working conditions."



PERCUSSION SOUNDS

PROUDLY PRESENT

An All Star *Pearl* Sunday Drum Day

27th. June Nottingham Palais

12noon - 11pm

****FEATURING****

Martin Drew, Bill Lesage Andy White Tony Crombie,
Richard Burgess, Barry Ford, Bill Eyden, Art Morgan and Clem Cattini

****EVENING CONCERT****

Jubiaba, Landscape, and Dilly Archer

THE WHOLE DAY AND EVENING CONCERT
WILL BE COMPERED BY COMEDY
IMPRESSIONIST DRUMMER MAXTON G.
BEESLEY OF T.V.'S WHO DO YOU DO FAME
FULL CATERING FACILITIES AVAILABLE,
BAR SNACKS ETC.

Please send to Percussion Sounds 405 David Walk, David Lane,
Basford, Nottingham.

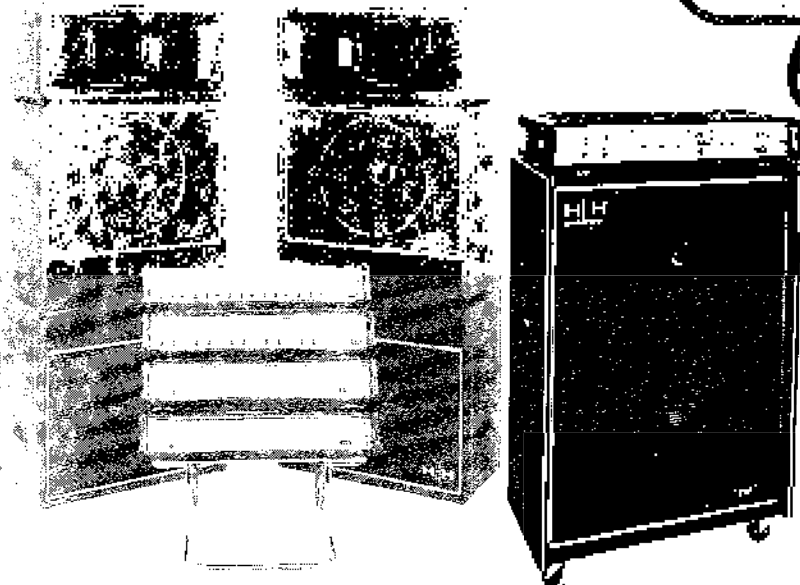
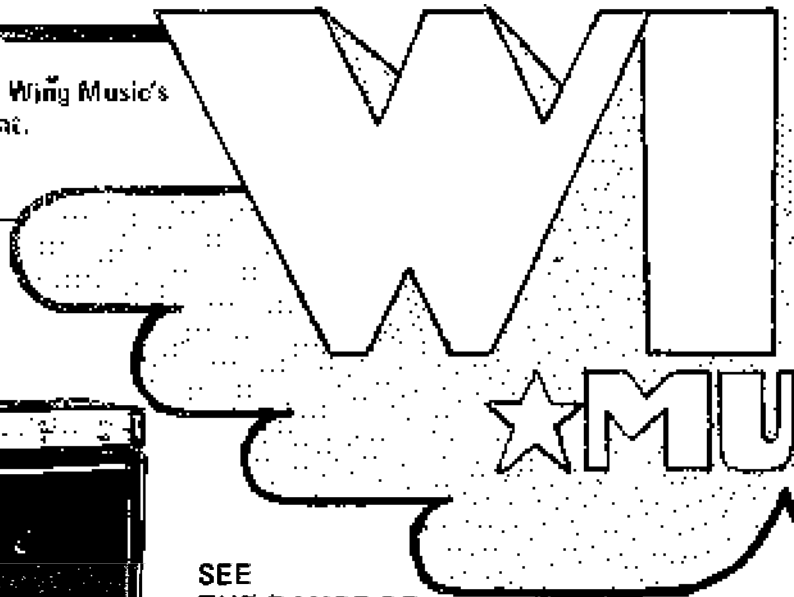
Ticket price £1 for the day (75p for the evening concert)

Please send me..... tickets, I enclose £..... Cheque- Postal Order

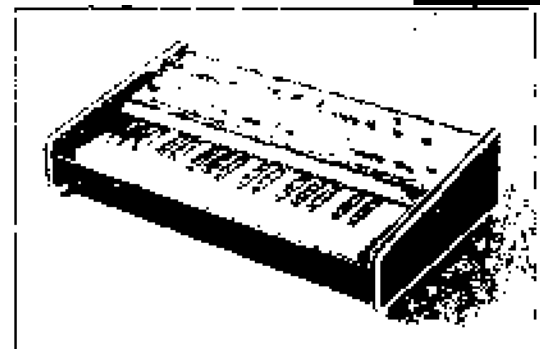
Name

Address

Opening soon at 15/15a London Rd BROMLEY. Wing Music's
 Huge new shop. 1,500 sq. ft. of bargain equipment.
 The best. All under one roof!
 Tel. 460 9080



SEE
 THE RANGE OF
 SYNTHESIZERS & EFFECT
 PEDALS.

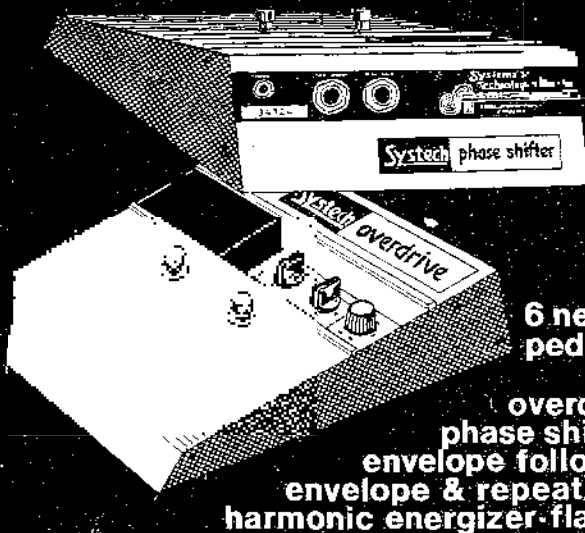


STOCKISTS OF THE
 U.S. MUSICIANS RANGE OF
 AMPLIFIERS



System
 NEW FROM AMERICA

used by Rick Wakeman Joe Walsh
 Greg Lake Stevie Wonder etc.



6 new
 pedals

overdrive-
 phase shifter-
 envelope follower-
 envelope & repeater-
 harmonic energizer-flanger-

available from (Wing Music) in Bromley
 and all good music shops.

hornby skewes

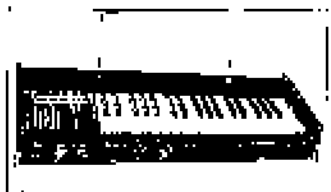
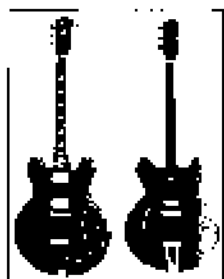
UK TRADE
 DISTRIBUTORS



Pearl
Maxwin

Area stockist of Pearl & Maxwin
 Drums & accessories.

SUPERB GIBSON
 GUITARS



The Hohner range of key-
 boards & Korg synthesisers.



MUSIC

Credit terms — 10% dep. up to 3 years to pay. Mail order and Export service Rental department, service dept. drum dept guitar dept. Keyboard Dept. Amp and P.A. dept. Accessory dept.

TAMA

IBANEZ GUITARS



Ibanez & C.S.L. guitars always in stock

FULL RANGE OF MXR PROFESSIONAL EFFECTS.

CMI Guitars



Premier area agents full range of sticks & accessories always stocked.

C.M.I. guitars & effects in stock

Premier

Antoria

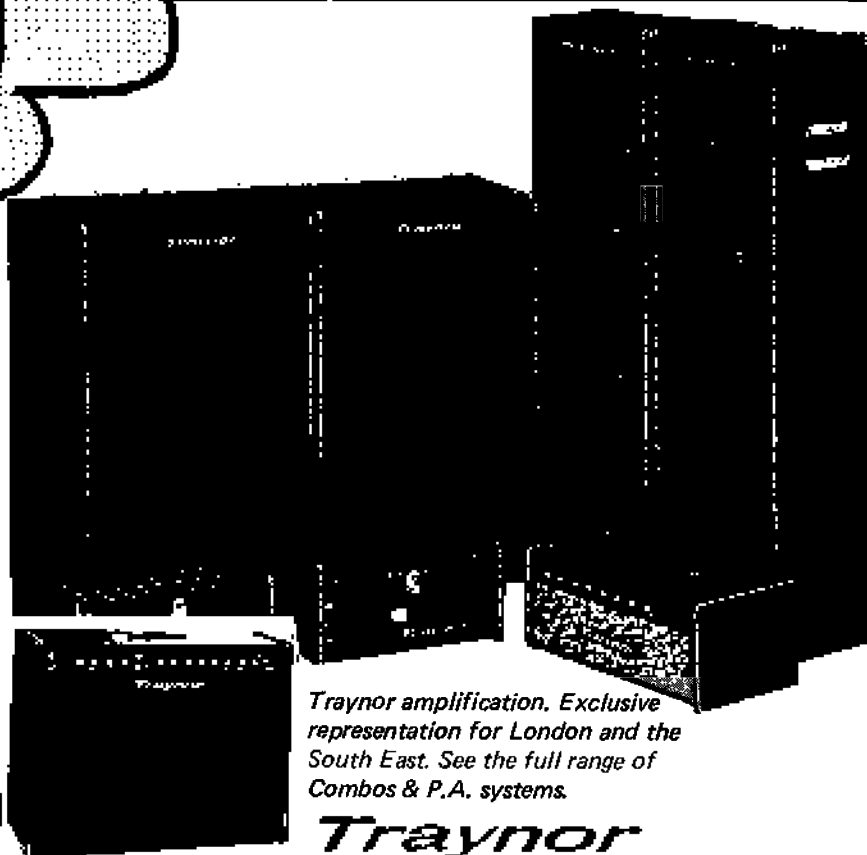


Main stockists for Antoria & Cimar guitars



ERNIE BALL STRINGS

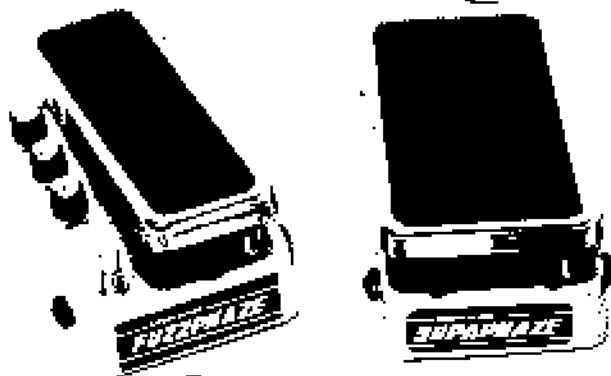
STOCKISTS OF GUILD AND RICKENBACKER GUITARS



Traynor amplification. Exclusive representation for London and the South East. See the full range of Combos & P.A. systems.

Traynor

COLORSOUND JUMBOS



We stock the whole range of pedals for the GREATEST EFFECT!

Step into tomorrow's world with the latest from the house of electronics ideas!

It is only on rare occasions that a P.A. system is heard in its natural state, as the output from the loudspeakers must first pass through a volume of air contained within the walls of a room before it reaches the ears of the listener. In so doing, the quality and texture of the sound is changed—often extensively—in accordance with certain laws of physics that relate to the propagation of sound waves in a given environment.

The velocity of sound waves has a finite value in a given medium, and for air at 60°F it is 340m/s (metres per second). This velocity will increase by approximately 0.03% per degree F increase in temperature and the temperature gradient of air is responsible for many apparently inexplicable peculiarities in concert halls. Usually, the air temperature at the balcony and gallery levels in a concert hall is considerably higher than at the stalls for example, and the overall effect at this temperature gradient is to bend sound waves downwards. Small combo type amplifiers are to be seen at almost any concert hall platform angled upwards, and although one reason for this might be obvious in that an attempt is being made to project the sound upwards to cover the balcony, the not so obvious justification for the exercise is so that the sound waves will be bent downwards to cover the rear of the auditorium as well.

As a further example of this, consider the situation often encountered in the early hours of the morning, particularly after a hot day, when sounds that are known to originate several miles away appear to be coming from a point much nearer: sounds from a motorway or industrial site, for example. This is due to the fact that overnight, the temperature of the

earth's surface has cooled, while the temperature of the layers of air 30 metres or so up has been warmed by the air rising from the earth's surface throughout the night. Sound is carried by the warm air much faster than it is by air on the surface, and then at some point, is deflected back onto the surface again, giving the illusion of a sound source only a few hundred yards away. This is an important factor to take into account when loudspeaker placement is considered.

The fact that the velocity of sound in air is finite gives rise to several further complications. The effects on reproduced sound of natural (ie, not electronically produced and intentionally added for effect purposes) echo and reverberation are due to the time taken for a given sound wave to travel a certain distance, be reflected by the walls or some other hard surface several times and eventually, with its energy spent, to decay to a level at which it is no longer audible. In its travels, the sound wave will have passed the listener several times, and will therefore have been heard several times, with each hearing separated by the time the wave has taken to continue its way to the hard surface and be reflected back. The time difference is usually in the order of milli-seconds and is heard as echo or reverberation, depending on the distance involved and the amount of energy absorbed at each reflection.

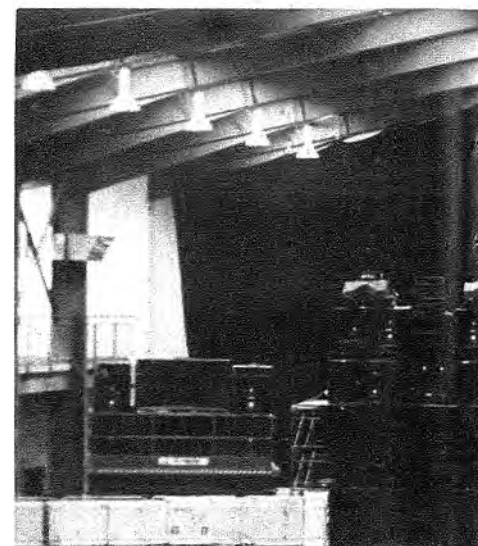
The time a sound wave takes to decay to a specified level of inaudibility is known as the reverberation time, or RT, of a given room or hall, and for varying types of use, various ideal RT figures are recommended. In a hall to be used only for speech for example, an RT of about 0.75 seconds is considered desirable, while for music, the

RT should be in the region of 1.5 to 2 seconds. Unfortunately, most halls have an RT considerably at variance with these figures, and RT's in the order of five seconds are not uncommon, and an RT as long as eight seconds sometimes has to be tolerated.

At a certain distance from the source of sound, in this case the loudspeaker system, a point exists in any auditorium where the reverberant energy within the room is equal to the direct energy from the loudspeakers up front, and this is known as the "critical distance". Within this critical distance, the sound from the loudspeakers will be clearly audible, but as this point is passed, it will become increasingly difficult to distinguish words or phrases, until eventually, the sound will degenerate into an incomprehensible mush. This critical distance is determined, among other contributing factors, by the RT of the room itself and no amount of increased volume from the P.A. can improve the situation, as more volume excites more reverberation, resulting quite simply in an even louder mush! The only real solution to this problem is to distribute loudspeakers down the length of the auditorium spaced so that the time delay between loudspeakers is less than the critical distance, and the distance between the front and rear-most loudspeaker is less than the distance covered by a sound wave in 0.15 seconds (ie., about 60 metres). Even so, in a highly reverberant room, or if it were considered essential to preserve a front source image, it would also be necessary to introduce delay lines between loudspeakers so spaced, and the whole thing becomes impracticable for use on the road. In fact, this is the basis of the sound re-enforcement systems used in some of our large cathedrals like Westminster

Room Acoustics and their effect on P.A. Sound Quality

by Ken Dibble



Abbey and St. Pauls, where the RT exceeds 11 seconds! In such situations, the reproduction of music is considered impracticable, and the frequency response of the system is restricted to 250-6KHz in order to render the spoken word intelligible.

There is, however, one thing going for us, in that the level of reverberant sound excited in a room is not the same at all frequencies, and the greatest problems will be caused at frequencies having the longest RT. In other words, we can say that a room has a frequency response of its own, and an obvious way to at least relieve the situation is to reduce the level of particularly troublesome frequencies, or remove them from the spectrum altogether. If the room is resonant at the low or high frequency end, careful use of the tone controls may help, but "Murphy's Law" dictates that this will not be the case. A bass control usually operates at around 100Hz, and a treble control at around 10KHz, and even if a middle control at about 4KHz is also provided, the aforementioned law will require a control that operates at 1KHz, or 6.3KHz, or any other frequency that is not catered for by a normal complement of tone controls. A graphic equaliser consists of a series of tone controls operated by sliders giving simultaneous control at anything up to 12 different frequencies across the audio spectrum. When connected into the input feed to the power amplifiers it will permit the response of the entire P.A. system to be "tuned" to the precise reverberation characteristics of the hall, having a low output level at frequencies where RT is long, and higher output where reverberation is not troublesome, thereby equalising the response of the P.A. system to that of the room. Once equalised, the gain of the system can

be considerably increased before the direct to reverberant energy ratio is unity at the critical distance point.

It should be mentioned that the setting up of a graphic equaliser is not child's play, and considerable experience will be necessary before any measure of success can be achieved. Once set up however, not only are reverberation problems reduced, but also the sound quality will be greatly enhanced, and the problems associated with microphone feedback reduced considerably. Whilst best results will be obtained with the more sophisticated Graphics, costing two or three hundred pounds, the more basic items advertised in this and other magazines at around £30-£40 will be found highly effective if used properly, and may quite simply be plugged directly into the echo send/echo return sockets filled to most P.A. amplifiers with little or no fuss. In my opinion, these are a very worthwhile addition to a basic P.A. set-up and money well spent.

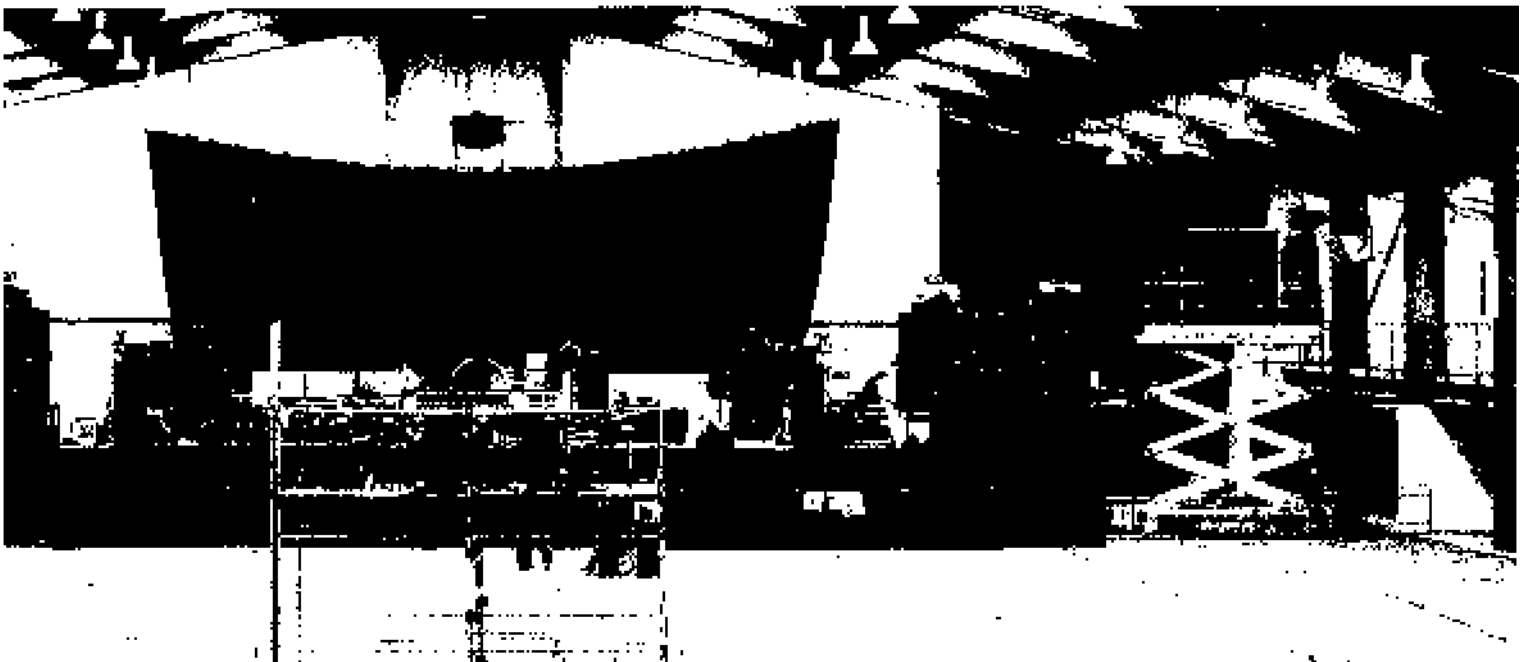
The placement of loudspeakers is another factor that can have considerable effect on the overall performance of a P.A. system, and there are several common sense do's and don'ts. The low frequency response and directional characteristics of any open back or rear ported cabinet will change considerably when the cabinet is placed against a wall, and to avoid unpredictable performance from this type of loudspeaker, it is better to place it on the open part of the stage or platform.

Valuable decibels of sound level will be lost through absorption if the loudspeakers are placed such that the audience thronging around the stage to get a better view of the band can block the direct path of sound, especially from the mid and treble

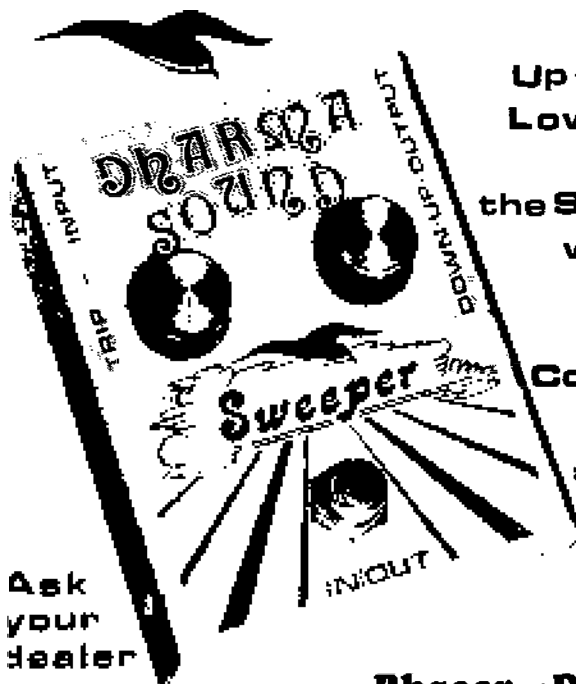
horns. It is better to elevate the cabinets above head height so that this problem does not develop, and also to project the hearing of the unwitting audience who would gladly put their ears right up the mouth of the horns if given half the chance!

Whilst on the subject of audience protection, it is pertinent here to mention the damage to hearing that can result from the indiscriminate use of really high power P.A. systems. A system with an input power much in excess of 2KW should be capable of generating a sound pressure level in excess of 120db in a reasonably large auditorium, and this is getting really dangerous. Even if permanent hearing damage is avoided, a temporary threshold shift will certainly result after prolonged exposure to sound levels of this magnitude. Also, the hypnotic effects of live music at these levels can lead to all manner of unpredictable behaviour by some audiences, and the responsible musician and sound engineer will not allow such a situation to develop, but will slowly drop the sound level and ease the developing frenzy of the music before danger levels are reached. Those who do not comprehend the electric music business and view our activities with considerable scepticism will at least tolerate our activities if it can be seen that the industry as a whole is behaving in a responsible manner, with due consideration for the well being and safety of its customers—the concert goer.

Fortunately, from the writer's experience, most professional bands and their road crews are aware of this responsibility and behave accordingly, and once our own house is in order, extroverts like Leeds City Council, with their absurd limits on sound levels in public places, will have little basis for such restrictions.



'The right sound'



Up & Down
Low & High
In & Out
the Sweeper
will do all
& more
at your
Command

R.R.P.
£29.95
inc. v.a.t.

Ask
your
dealer
or
direct

Also
Phaser - Distorter
Sustainer - Eliminator

DHARMA SOUND

05 Bellegrave Rd, Welling, Kent. 01-304-4274

Kitchens

THE MUSIC PEOPLE

— This month we offer some 1 off bargains
at clearance prices! —

e.g. Guitars	
Rickenbacker 480 —	£175
Rickenbacker 450 —	£165
Ibanez Rickenbacker copy	£ 95
Kimbara S.G. copy	£ 60
CSL LP copy	£ 80
Ibanez flying V copy	£100
Little Buddy Pedal Steel	£150

Amps	
Yamaha 30W stereo mixer P.A. complete	£140
WEM ER40 and PA40 Amps	£ 60
Simms-Watts AP50 Amps	£ 70
S/S Fender Bassman 10	£220
Gibson S.G. Lead Amp, 1 only	£275
Gibson S.G. Bass Amp, 1 only	£200
Fender 100W P.A. complete, 1 only	£400
Yamaha 100W stack PE200 + 100W speaker amp + Yamaha horn unit complete	£275

Keyboards	
2 only Crumar Stringmen	£375
1 only S/S Moog Satellite	£225
1 only new ARP Axe Synth	£400

All above are new unless stated — all prices include V.A.T.

STOP PRESS —

NOW OPEN OUR NEW SUPER DISCO LIGHT SHOW.

Kitchens Electric Shop, 26 Queen Victoria Street,
LEEDS 1 Tel. 446341

All above bargains and all new equipment available on mail order

CARLSBRO SOUND CENTRES

182 — 184 CHESTERFIELD ROAD NORTH MANSFIELD 26976 — 26199 NOTTINGHAMSHIRE

Premier Main Agents

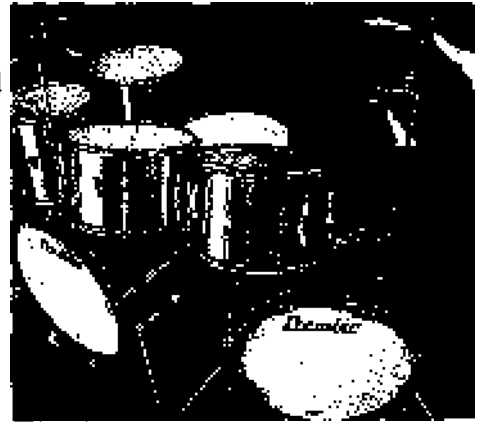


SPECIAL SUMMER OFFERS DURING
JUNE/JULY

With every new PREMIER kit purchased
during the above months
we will be giving away
A FREE SET OF
SPALDING RUSSELL DRUM CASES

Many other kits in stock also
stockists of Ludwig, Pearl
Olympic, Rogers,
Slingerland, Gretsch etc.

ALSO THE MOST
GENEROUS OF P/X ALLOWANCES



SOME OF THE KITS IN STOCK

PREMIER D717	KIT IN BLACK	£519 inc.
PREMIER D717	KIT IN RED	£519 inc.
PREMIER B304	KIT IN POLY GOLD	£390 inc.
PREMIER D305	KIT IN WHITE	£429 inc.
PREMIER B204	KIT IN POLY BLUE	£399 inc.
PREMIER D303	KIT IN BLACK	£380 inc.

Please send me latest Premier catalogue. I enclose P.O.
for 25p to cover post and packing.

Name

Address

How to explain percussion to a Bank Manager.

First, make sure he understands that you're a drummer, and you will be, with or without his help.

Once he's got you branded as that kind of lunatic, there's not a lot more he can say.

He'll know there's a fair chance you want to make money out of music and that if you succeed you'll make a lot more than he does.

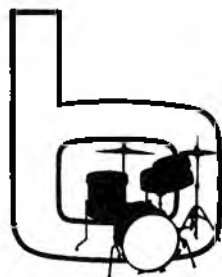
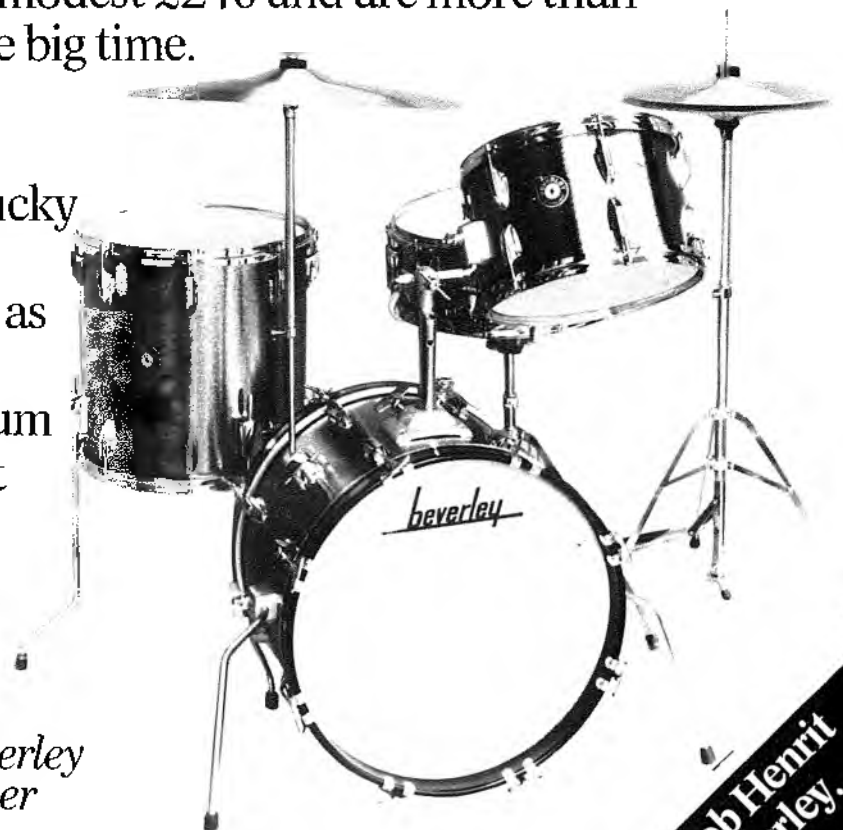
He'll also know that not all musicians start rich. (Maybe you are, maybe not — that's your business).

The simplest way to set his mind at rest is to explain that Beverley drum kits start at a modest £240 and are more than adequate to take you into the big time.

That's all he really needs to know about percussion.

Plus the fact that he's lucky you're not about to spend a Grand on your equipment — as you easily might.

Finally, sit back and drum your fingers for a while, to let him take it all in...



Cleverly Beverley gets it together

Boosey & Hawkes (Musical Instruments) Ltd
Deansbrook Road, Edgware, Middlesex HA8 9BB. Tel: 01-952 7711



**Hear Bob Henrit
on Beverley.
In this
issue**



designed for

ERIC CLAPTON

THE ERIC CLAPTON MODEL.

Set No. 3000

Ultra Light Gauge

1st	No. 3001	.0095
2nd	No. 3002	.012
3rd	No. 3003	.015
4th	No. 3004	.025
5th	No. 3005	.030
6th	No. 3006	.038

RECOMENDED BY ERIC CLAPTON.

Set No. SU3000

Super Ultra Light Gauge

1st	No. SU3001	.0085
2nd	No. SU3002	.0011
3rd	No. SU3003	.014
4th	No. SU3004	.024
5th	No. SU3005	.030
6th	No. SU3006	.038



Cardiff Music String Co. Ltd.

Pontywindy Industrial Estate Caerphilly, S. Wales.
TEL: 0222 883904/5

RECOMENDED BY ERIC CLAPTON

Set No. 4000

Extra Light Gauge

1st	No. 4001	.010
2nd	No. 4002	.013
3rd	No. 4003	.015
4th	No. 4004	.027
5th	No. 4005	.032
6th	No. 4006	.040

Set No. 5000

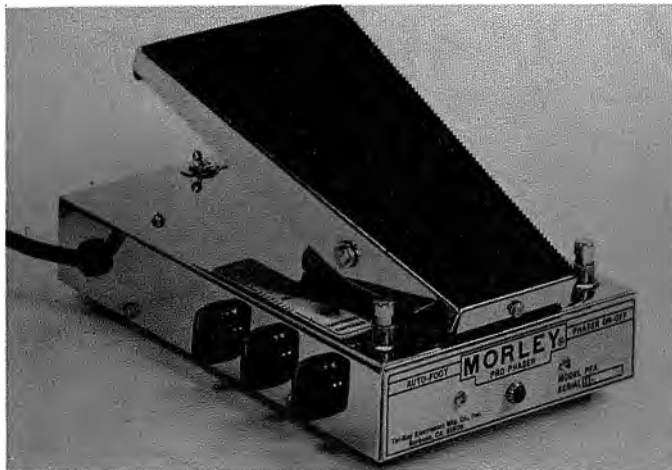
Light Gauge

1st	No. 5001	.011
2nd	No. 5002	.014
3rd	No. 5003	.017
4th	No. 5004	.028
5th	No. 5005	.035
6th	No. 5006	.043

RETAIL PRICE
£2-25

MUSIC NEWS

U.S. hits British Market



Morley's Pro Phaser Pedal

NEW INTO the U.K. market are the Morley range of effects pedals. Well known to our American readers, the pedals feature several advanced design advantages

The pedals have been filtering through to the British market for the past few months, but now Morley themselves are launching a direct marketing campaign aimed at British musicians.

All the pedals in the Morley range are made from chromium plated heavy-duty steel and unlike conventional pedals, they do not use rotary pots to control effect values. The pedals utilise a light source shining on a light-dependent resistor and the pedal itself controls a shutter which regulates the amount of light the LDR receives.

Another peculiar Morley feature is to be found in the Echo/Volume pedal. Instead of

an echo tape, a metal disc is used for recording and replay and Morley claim that the disc eliminates the usual problems of tape noise in echo units.

Another important American electronics line is making a marketing push into the U.K. over the next few months. Marlboro amps have been available here for two years but demand in the USA has severely restricted supplies in the Eastern Hemisphere. Now expansion has allowed the New York based company to consider expanding into the British market and the range will shortly be seen throughout the British Isles.

Marlboro amps range from a 5 watt practice amp to an 80 watt combo with a 15" speaker and the P.A. system utilises two 4 x 10 columns with horn, a six channel reverb mixer and a choice of 100 or 150 watt slaves.

Western Music Audio/Visual

LOU DEAN held an important new sales seminar at his Western Music headquarters in Hammersmith last month. The entire staff of the Western chain attended and they witnessed the first audio/visual sales conference the company has ever held.

During the course of the evening, in which full refreshments were served, Lou presented Gerald Ridley, manager of the Croydon shop, with a watch commemorating 10 years service.



Gerald Ridley and Lou Dean

STAR DEALERS FÊTED



Dean Kerr (left) and Dennis Holloway flank the Star Dealers

AT A luncheon at the Royal Angus Hotel, Birmingham, recently, the senior Musical Instrument Division personnel of Henri Selmer & Co. Ltd., played host to their top five Gibson Star Dealers. Managing Director Dean Kerr, addressing the Star Dealers, spoke of the unqualified success of the Gibson Star Dealer network.

The highlight of the day was the presentation to each top Star Dealer of a personalised copper

plaque, recording their outstanding sales achievements for the past year. Top dealers who received plaques were Frank Hesty & Co., represented by Bernard Michaelson, McCormacks of Glasgow, represented by Joe Finestone, Top Gear (Music) Ltd., represented by Ken Achard and Gwent Music represented by Peter Breeze. Unfortunately, due to a bout of influenza, Ron Vardy of Southampton was unable to attend.

Scottish retailers

MUSICAL INSTRUMENT shops in Scotland have banded together to form an Association called the Scottish Music Instrument Retailers Association. Over 90 per cent of Scottish dealers have already joined the organisation, which aims to promote a healthy Scottish retail industry.

On the agenda for future discussion and action are problems including V.A.T. and inflation.

The chairman is Colin Meiklem and the secretary is Stuart Hepburn.

REW Revamp

REW, THE West End (and indeed Europe's) largest suppliers of professional audio, studio and P.A. equipment, have recently refurnished their showroom at 146 Charing Cross Road.

Essentially an attempt to rationalise the design to utilise the existing ground floor space, REW have also added an extensive basement showroom which is devoted to HH sound equipment.

Thomas dealer junket

A PARTY of 43 leading European dealers were the guests of Thomas (UK) and Thomas (Holland) on an exclusive trip to the States recently. The visit commenced in Los Angeles with tours of the Thomas Factory, Disneyland and Tijuana, before continuing to Chicago for the NAMM show. Dealers from Germany, Holland, Austria and Switzerland, together with a strong U.K. contingent were among the party.

Thomas Musical Instruments Limited also recently announced the appointment of Andrew Piekielko as Company Accountant.

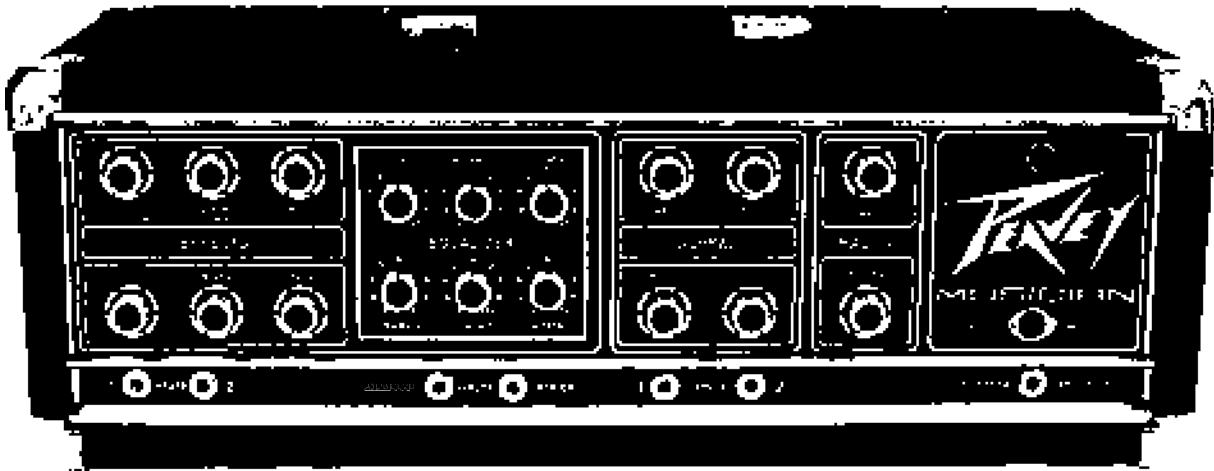
RE AN: On the rack

RE AN, the Dartford based accessory wholesaler, have announced that their new range of point of sale accessory racks are a success. 65 shops in the South East have taken delivery of the racks, and Minn's Music of Peterborough have been appointed distributors for the East of England.

continued on page 103

MUSICAL SOUNDS

**SHEFFIELDS MAIN STOCKISTS FOR PEAVEY
AMPLIFICATION. MOST MODELS AVAILABLE
FROM STOCK**



THE



**MUSICIAN
WITH AUTOMIX**

Combos	Price	Deposit	Weekly payment over 18 months		Price	Deposit	Weekly payment over 18 months
	£	£	£		£	£	£
<i>Pacer 45 watt</i>	135	19	2.31	P.A. Amps			
<i>T.N.T. 45 watt bass</i>	150	15	2.63	<i>P.A. 120 100 watt</i>	160	22	2.80
<i>Classic 50 watt 2 x 12</i>	175	29	2.96	<i>Standard 130 watt</i>	175	29	2.96
<i>Classic 50 watt 4 x 10</i>	212	29	3.63	<i>P.A. 400 200 watt</i>	235	27	4.12
<i>Deuce 120 watt 2 x 12</i>	265	31	4.61	<i>P.A. 600 200 watt</i>	430	50	7.75
<i>Vintage 120 watt 2 x 12</i>	295	36	4.11	<i>Professional Microphones</i>	40	7	
<i>Artist 120 watt 1 x 12</i>	265	31	4.61	<i>Rickenbacker 4001 Stereo Bass</i>	330	40	5.77
<i>Mace 160 watt 2 x 12</i>	250	46	6.10	<i>Rickenbacker 4000 Mono Bass</i>	295	46	4.94
Heads							
<i>Century 100 watt</i>	135	19	2.31				
<i>Standard 130 watt</i>	165	22	2.81				
<i>Bass 200 watt</i>	220	31	3.79				
<i>Musician 200 watt</i>	235	27	4.12				

For more details on sales/information on Peavey Amplifiers write or phone fill in this coupon.
Enquiries by post must have a 10p S.A.E.

Name _____

Address _____

Item _____



**MUSICAL
SOUNDS**

274 LONDON ROAD
SHEFFIELD S2 4NA
Tel: (0742) 50445
or 54381

EMI TAPE BOSE AT MONTREAUX



Spools of the new EMITAPE 830 EMI TAPE Ltd. have launched a new professional audio recording tape. Called the EMITAPE 830 series, three versions are available: 831 standard play; 832 standard play with matt backing; and 833 long play version.

BOSE U.K. have announced that Bose AG Swiss will supply the complete P.A. set-up for the 10th annual Jazz Festival in Montreaux this year.

The system will comprise 80 Bose 800 speakers and 20 Bose 1800 amplifiers. In addition, Bose will power free open air concerts employing two Bose 4401 pre-amps, fitted with CD4 demodulators in conjunction with Bose 1801 amps, a CD4 record player, a four channel tape deck and eight Bose 901 loudspeakers.

International Musician will be in attendance and the next issue of the magazine will carry a report of the Festival.

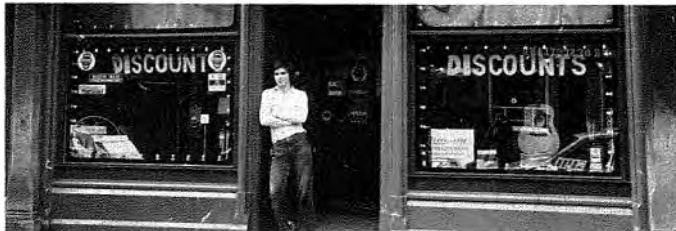
F is for Fender

CBS/ARBITER have announced that the Fender "F" Series is again in stock after an absence of three months. The series has been enhanced by three new models, The F-80-12 12 string, the F-115 and the Leo Banjo, a five-string banjo.

REWARD

GUITARIST TAFF Williams is offering a reward for the return of his stolen guitar. A Les Paul Special, it has double round cut-aways, two original white pick-ups and a scar at the base of the neck. Any information about the guitar would be welcomed by Dai Davies, Albion Management, 01-870-2166.

STAGE STOCKTAKE



STAGE, in the High Street of Bridge Of Allen, Stirlingshire, is a unique shop. Opened only recently, it has shot to a high position in the popularity charts with local musicians because of their willingness to bargain and their good range of stock.

The only problems are in getting the range of stock the expanding business needs. Musicians have voracious tastes

and boss Dick Garbur is keen to keep stock levels up to the necessary level.

Stage have been so successful that they have recently opened a shop in Edinburgh. It's in George Street, and is run by Frank Deer. The policy in Edinburgh is the same as in Bridge of Allen and good deals are the order of the day.

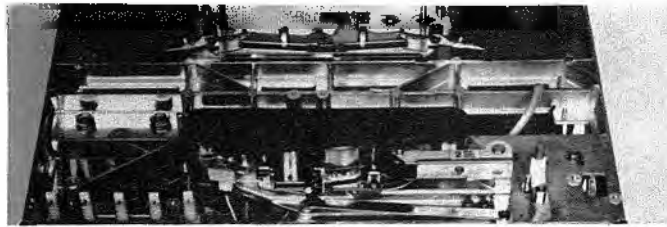
T.A.S.C.O. — volume of quality

WHO PUT The Boot in, the recent outdoor rock concert featuring the Who and a star studded supporting cast at London's Charlton Athletic Football ground, featured sound reinforcement by T.A.S.C.O. Inc. of New York. It was the first time

the setup was used in Britain.

Pushing out 40,000 watts via 60 Crown DC 300 A power amps, Mavis desks and Gauss and JBL speakers, the set-up cost in the region of £7,000 per day to hire and took a 30 man road crew three days to set up.

TAPE TRANSPORT



Inside the OEM tape transport

C.E. HAMMOND have released an OEM tape transport, complete with control electronics, in the U.K. Boasting the proven A77 components, the transport features full relay control and a

built in power supply and it can be interfaced to a computer, control equipment or a broadcast automation system via its integral remote control socket.

WINNER

JUSTIN CHUTER, 18, of Alton, Hants. was the winner in I.M.'s recent Sound City Strings competition. Justin came to Macari's on Charing Cross Road to receive his prize, 50 sets of Sound City Eric Clapton Ultra Light Gauge strings.

Justin plays in a four piece band, and in addition to the strings, was presented with a Mighty Atom practice amp by Larry Macari.



The manager of Macari's presents Justin with his prize as Larry Macari looks on

ERRATUM

In the article "A Case For Drums" in our May issue we mistakenly printed that Arbiter's 747 drum cases are made from resin-bonded paper by Henry Glass. We also suggested that the manufacture of these cases involved a lamination process, which by definition could be subject to de-lamination.

The cases in question are actually made by Gla-Rev Products Ltd. and the material used in a solid cellulose base resin impregnated press-board. We're sorry for the wrong information and obviously this type of material is not subject to any of the problems we suggested in "A Case For Drums."

In our June issue, a misprint at the end of the article on drum foot pedals by Bob Henrit stated that the new Premier 252 pedal was imported. This misprint should have read "when the pedal was first mooted" and not "imported." We offer our apologies to all concerned.

IN LAST month's APRS preview, I.M. inadvertently neglected to preview the BGW exhibit.

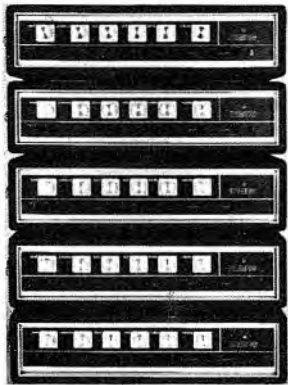
The proven line of BGW power amplifiers were on display. Manufactured in Beverley Hills, California, the BGW range includes the BGW 250B, the 500D and the 750A. BGW boast several commendable features. They can safely drive continuously into loads as low as two ohms, and highly reactive loads, like electrostatic loudspeakers, are not a problem. Safety problems are diminished by a crow bar circuit, which shuts the amp off in the case of a sustained short circuit, thereby eliminating the chance of damage to loudspeakers.

All three amplifiers are totally encased, including the heat sinks, and the 500D and 750A boast dual speed thermostatically controlled fans. BEYER DYNAMIC were also inadvertently excluded from last month's APRS Preview. As well as their full range of dynamic microphones, headphones and accessories, many recent Beyer products were shown for the first time.

Chief among these was the new Beyer Infra-Red Sound System. This is a new method of sound distribution in which the sound waves are carried by infra-red light. These have many applications, and are most valuable for domestic use, for leadless headphone listening.

It can be used with sound output from television and radio sets, record players, tape recorders and other sound systems.

maine



STANDARD 100W AMP: £124.00 + VAT
 Superb Tones. Natural Overload. DI Output. Great for Bass.

ARTIST 100W AMP: £150.35 + VAT

Standard Spec. Plus: Beautiful Reverb. Clean Sustain. Color Distortion

CABS + COMBOS TOO - ASK YOUR MAINE DEALER:

MAINE: LONDON + SOUTH

HAMMONDS, Watford + Aylesbury
 FD + H MUSIC, London WC2
 JOHN KING, Kingston
 CHRIS STEVENS, Southend
 WING, Bromley
 COOKES, Norwich
 SOUND CENTRE, Cardiff
 BOTTLENECK, Salisbury
 BROADWAY, Brighton + Worthing

RIPOFFS, London SW16
 ANDERTONS, Guildford
 KINGFISHER, Fleet
 JOHN BEEBY, London N8
 ABC MUSIC, Addlestone
 JOHN HAM, Swansea
 JIMZ, Christchurch
 SUN MUSIC, High Wycombe
 J. HOLMES, Bristol

MATTHEWS, Maidstone
 TOP GEAR, London WC2
 JOHN NORRIS, Colchester
 PLACQUETS, London W12
 ASSEMBLY MUSIC, Bath
 J. Holmes, Swindon + Chelt.
 BENNETTS, Portsmouth
 HASTINGS SOUND, Hastings

MAINE: NORTH + MIDLANDS

A1, Manchester
 SOUND PAD, Leicester
 FRANK HESSY, Liverpool
 JOHNSONS, Shiffeld
 CHATFIELDS, Stoke
 DAWSONS, Lincs
 DANDELION, Huddersfield

WISHERS, Derby
 COVENTRY MUSIC, Coventry
 YARDLEYS, Birmingham
 LUTON MUSIC, Luton
 RANGOR SOUND, N. Wales
 FUNKSHUN, Northampton
 CORNELLS, Hull

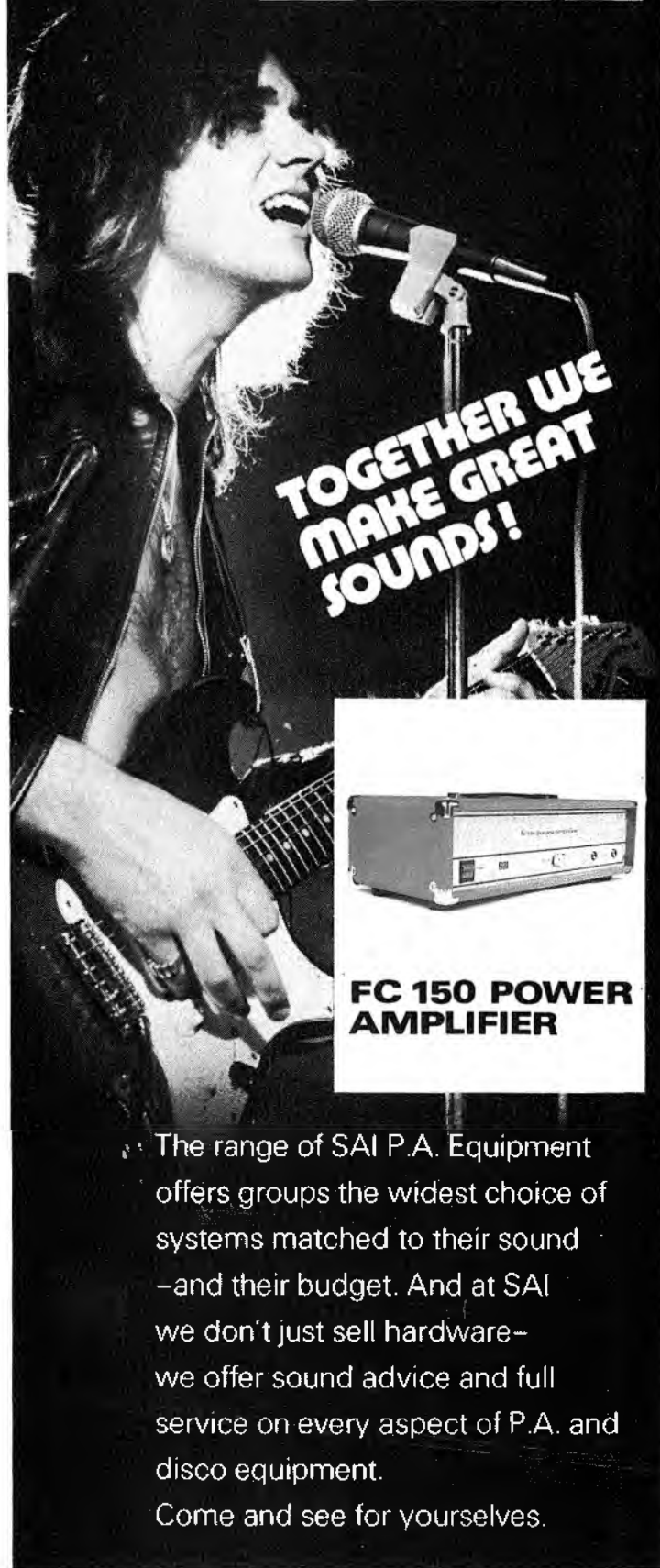
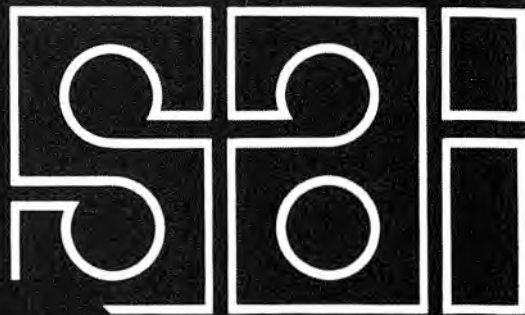
LANGDONS, W. Hampton
 KITCHENS, Leeds
 SALOP MUSIC, Shrewsbury
 HOBBS, Lancaster
 WHITE, Tyne + Wear
 CLEVELAND, Middlesbrough
 CARLSBRO, Mansfield

MAINE: SCOTLAND

CUTHBERTSONS, Glasgow
 WILKIES, Perth

PROBISHER, Dumfries
 McCORMACKS, Glasgow

BRUCE MILLAR, Aberdeen
 MUSIC CITY, Edinburgh



**TOGETHER WE
 MAKE GREAT
 SOUNDS!**



**FC 150 POWER
 AMPLIFIER**

**We can't promise you
 STARDOM !!!**

But we'll give you all the right connections



XLR PLUGS & SOCKETS 25
 TYPES of JACK
 PLUGS & SOCKETS
 14 TYPES of CABLES
 PLUGS TO FIT:
 SHURE-AKG -
 SENNIESER &
 BEYER MICS.
 CASTORS FEET
 HANDLES CORNER
 SPEAKER REPAIRS
 GAFFER TAPE IN
 6 COLOURS
 MAINS LEADS
 SPEAKER LEADS
 SIGNAL LEADS
 WE COULD GO ON!!

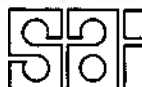
Musical and Audio
 Amplification Accessories
 No 1 Shaftesbury Road
 Edmonton, London N18
 Telephone: 01-807-9625



AT YOUR LOCAL MUSIC SHOP

The range of SAI P.A. Equipment offers groups the widest choice of systems matched to their sound -and their budget. And at SAI we don't just sell hardware - we offer sound advice and full service on every aspect of P.A. and disco equipment.

Come and see for yourselves.

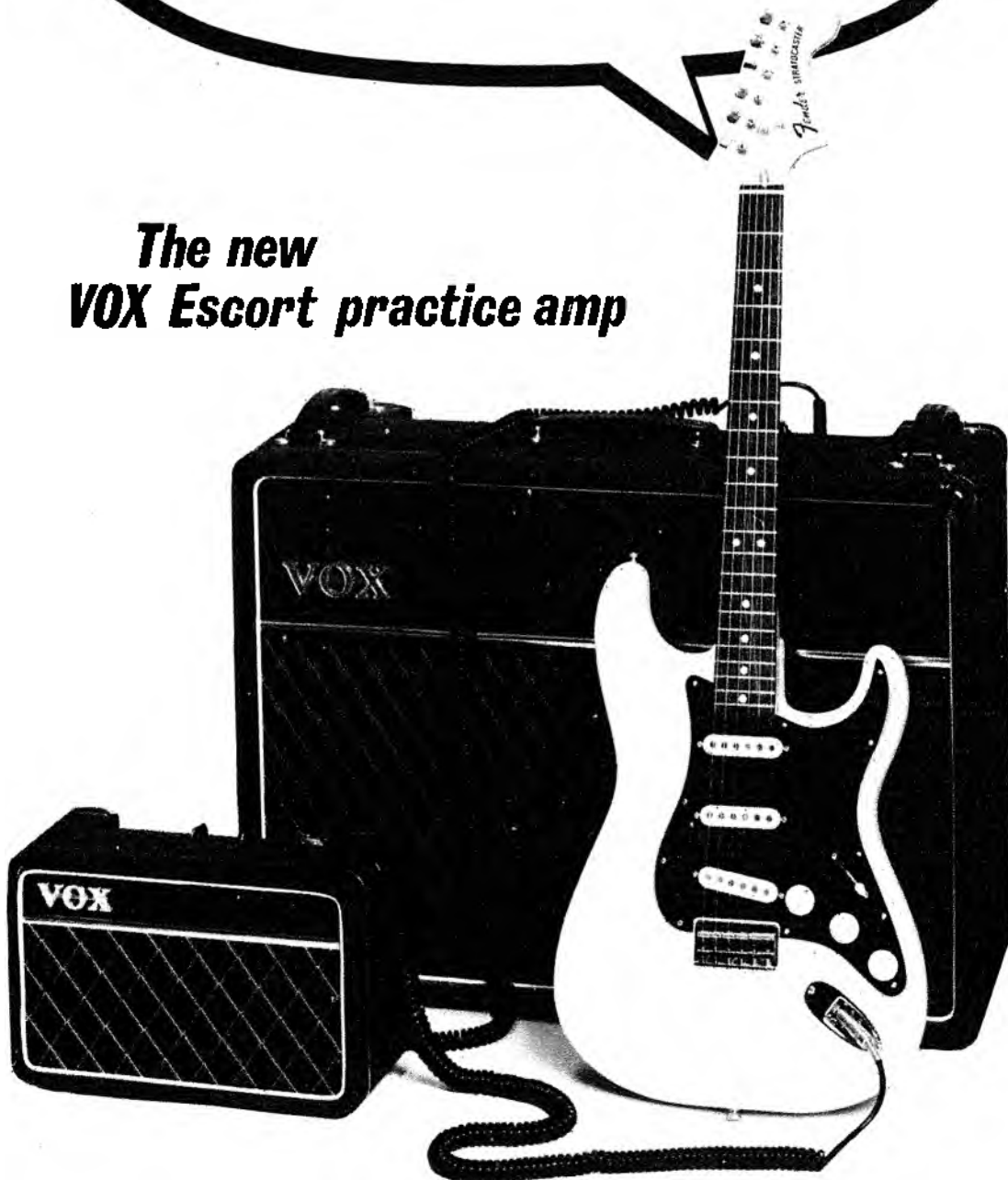


SOUND ADVICE INSTALLATIONS CO. LTD.

Regent Street Warehouse, Regent Street, Coppull,
 Chorley, Lancs. Tel: (0257) 791645

**...MUST BE
A CHIP OFF THE
THE OLD VOX!**

**The new
VOX Escort practice amp**



(ILLUSTRATED WITH AC30)

Available as Battery or Battery/Mains models. Two inputs, normal and brilliant. Separate volume and tone controls. Featuring an output socket . . . to feed signal into main amplifier.

Dimensions 12¾" x 5¼" x 8½" (32cms x 13cms x 21cms)

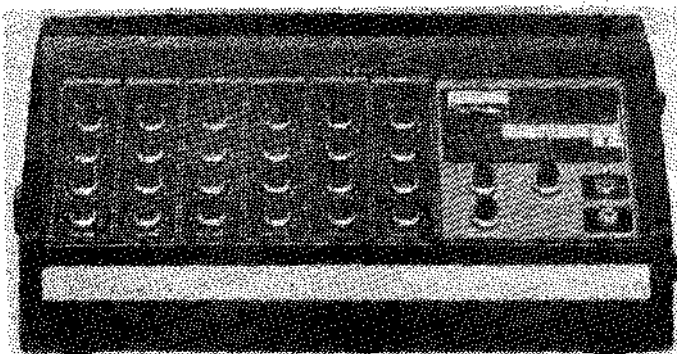
VOX Sound Ltd. 67-87 Hampstead Road, London NW1 2PR.



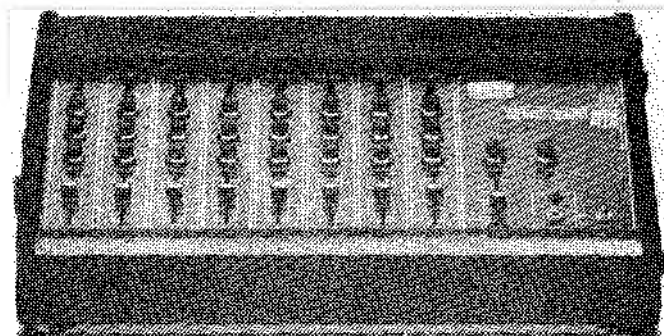
Not only: **PIANOS SYNTHESISERS**
EFFECTS PEDALS
SPACE ECHO REVO
SOUND SYSTEMS

but also:

AMPLIFICATION



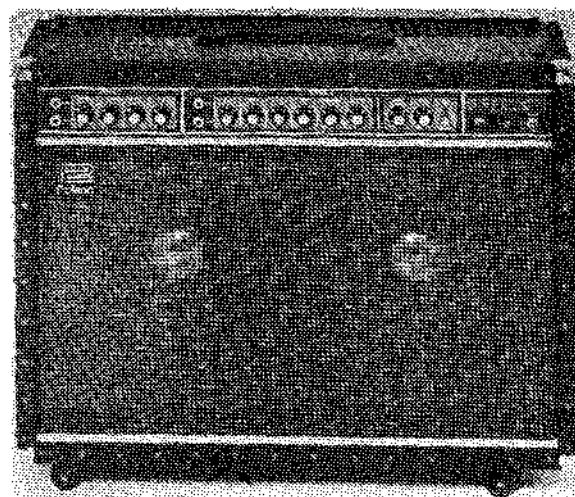
PA60 — 6 channel mixer desk type PA combined with 60 watt (RMS) amp c/w built in reverb. Independent channel control.



PA120 — 8 channel professional mixer desk type PA combined with 120 watt (RMS) amp c/w built in reverb. Independent channel control. Can double-up 2 units.



JC60 — Jazz chorus combo amp c/w reverb and chorus effect. 60 watt (RMS) single channel.



JC120 — Jazz chorus combo amp c/w reverb and chorus effect. 120 watt (RMS) twin channel.



BRODR JORGENSEN
(U.K.) LTD.,
Strand House, Gt. West Rd.,
Brentford, Middx.

Telex: 8811794 Phone: 01-568 4578
01-560 4191

BY APPOINTMENT TO
THE ROYAL DANISH COURT

Miking the Back Line

The big P.A. rig has brought big problems. The most common one is in the adoption period when a band steps up to the P.A. division and starts to mike up the back line for the first time. What usually happens is that, apart from mikes being placed in front of speaker cabinets the bands perform almost exactly the same as before and the questions in the dressing room afterwards revolve around why the £2,000 P.A. investment hasn't really improved the sound.

One of the main problems is that small bands learn by watching big bands work. But big bands, by their very nature, play big venues and the approach to miking is very different to the requirements of a smaller hall or club.

At the Rainbow or at an open air festival, the back line amps are situated a considerable distance from the P.A. and without major sound re-inforcement they wouldn't be nearly loud enough. The outcome of this situation is that the P.A. is the principal sound source heard by the audience and that is re-amplified; the individual sounds are produced by the separate back line amps.

Because of the size of the venue, the 100 or 200 watt outputs of the back line amps don't really have much effect on the final sound heard by the audience. But translate that into a small club and it's obvious that the sound levels the back line puts out is easily capable of disturbing and interfering with the P.A. sound.

There are several problems to deal with. Because the concept of a P.A. band is that the sound the audience hears should come almost totally from the P.A. and not from the back line, it seems that the back line gear has to be turned down to allow the P.A. to dominate the final sound if it's being used in a small venue. But as every guitarist knows, turning down an amplifier interferes with harmonic overtones and robs him of many acoustical effects - of which feedback is only the most basic and undeveloped - which are an important part of the electric guitar's range of sounds. Turning down is obviously not the answer.

Many bands have tried turning down the back line amps, putting the mikes close to the best speaker in the cabinet and trying to produce their usual instrument sounds on the P.A. desk. Usually this has turned out to be a dismal failure, because there is no way even the most sophisticated mixing desk can inject acoustic harmonics into a clean signal.

If the back line amps can't be turned down and they're still so loud that they completely mess up the finely mixed sound the P.A. sound engineer is trying to create, what's to be done?

The British compromise: that's the answer. Small amounts of compromise in separate areas can overcome the problem but

when you hear a P.A. band playing a small venue and getting a sparkling clean sound with a perfect mix, be sure they suffered many months of trial and error to get over this basic problem.

Realising the nature of the problem, amplifier manufacturers have started to produce amplifiers which they claim can produce volume effects at comparatively low levels. In recent months, both Marshall and HH have produced amplifiers that in one way or another produce the distorted sound that is often mistaken for the end result of volume. Obviously, distortion does creep in at high volume, but it's a physical acoustic effect of volume that really produces sustain and the other range of effects we consider important.

One excellent guitarist I know turns his HH 100 watt amp to the back wall of the stage to overcome this problem. He can then turn it up and get a high volume area on stage and at the same time manage to get some control over the amplifier's interference with the P.A. output. If ideal solutions were ever available, players would build little soundproof booths around their amps when they're working in small areas but that produces the problem of isolating the instrument from the volume and that rules out some of the interaction.

Here are some answers that have worked for some people. I can't pretend to have the answers for your band and even if I did, they would vary from venue to venue, only experience can teach you how to deal with different stages. Despite the fact that the big bands stand a long way in front of their back line (they have the big venue advantage) it helps if you get as near to your back line amp as possible. In the old days, before really high power was developed, you'd notice Pete Townsend working very close to the front of his stack to get the volume effects he wanted. So the closer you are to your amp the less overall volume you would need. Keep your personnel as far behind the dispersion line of the P.A. as possible and try any sound deflection or sound absorption techniques you can, providing they don't get in between your guitar and the way it reacts to the amp. Close miking isn't always the best bet, but if you play an instrument that doesn't rely too heavily on volume, close mike and keep the volume down. If you have to turn up, place the mike six inches or so away from the speaker so that some of the surrounding acoustics influence the sound.

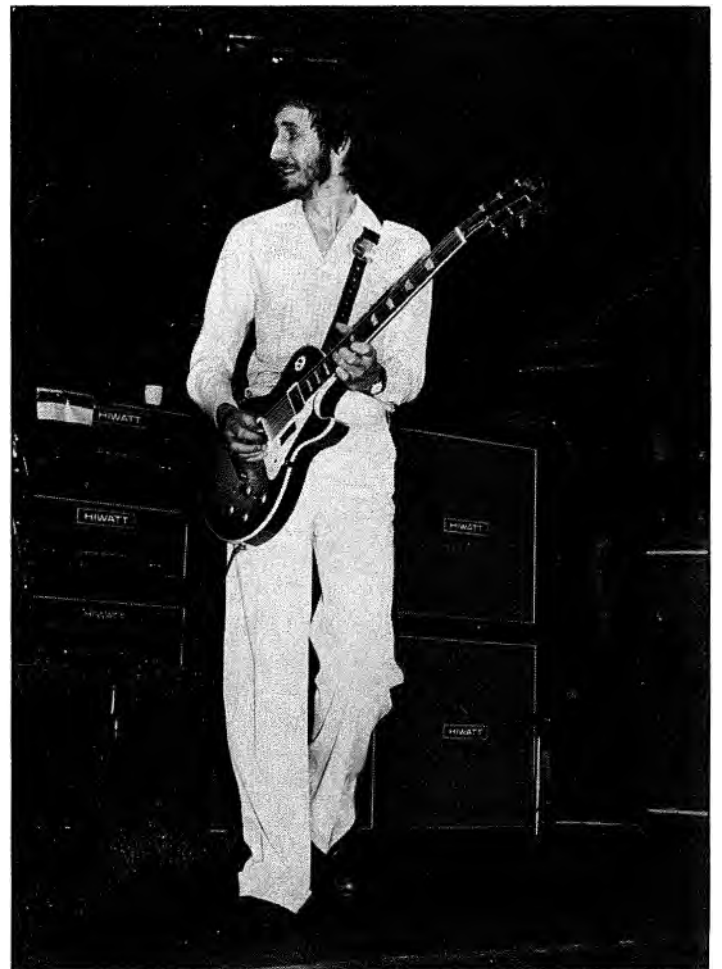
Do take the time to find out which is the best speaker in a cabinet. There's usually one speaker in four which is a little duff, so as long as you manage to eliminate that one you're winning.

If possible, get low floor stands for the mike and use speakers as close to the floor as possible. This

is for the practical reason that low mikes are far less likely to be knocked over and volume is more likely to be absorbed or reflected (depending on the floor surface).

If you're not a loud band and volume is not part of the repertoire, turn down, mike close and you'll have little trouble. If you are loud, be prepared to be a little less so, work towards controlling the throw of your back line and allow the P.A. to do the job you hired or bought it to do.

For a look at what eight bands are using, turn to page 110; a survey of the best back line bets in Britain begins on page 113.





A fantastic new amplifiers

STOP PRESS

A most important communication to musicians who play electric musical instruments.

WHY

H.H. Electronic have developed a totally new generation of instrument amplifiers 10 years ahead of their time, incorporating new controls, new techniques and producing new sounds. The signals from your musical instrument will be transformed into controllable super sounds.

HOW

FIRST. The new instrument amplifiers have the best calibrated tone control system ever built into any amplification – as good as many studio mixers.

SECOND. A new and unique feature called the "Voice" Control has the ability to change the basic sound character of the amplifier.



H.H. Electronic, Industrial Site, Cambridge Road,
Milton, Cambs. Tel. Cambridge 65945.
Please send me details of the V-S range and
other new products.
Name
Address

New generation of instrument V-S MUSICIAN & V-S BASSAMP

THIRD. The amplifiers can produce soft creamy valve distortion *at any volume level* not just at full output; alternatively the sound can be as clean as the clearest transistor amplifier. You have the choice and the control.

FOURTH. A truly vast range of sounds! The V-S Musician can be set to sound like a 5 watt practice amp, a 100 watt valve amp on full steam, a clean and tingly transistor amp or any other amp you may favour.

FIFTH. The Secret. A new unique, protected, Patented and fully encapsulated circuit module that will only ever be available on H.H. equipment.

SIXTH. H.H. amplifiers are made to the highest standards in the industry bar none!

Don't take our word for it - call in at your local H.H. dealer and experience the new V-S Range.

Afterwards your amplifier will simply have to be H.H.



Back Line Amplification:



The same perfection *Queen* employ in the recording studio is extended to their stage equipment. Bassist John Deacon uses three Acoustic 370 stacks with a spare 370 amp and a 100 watt Hiwatt driving two Sound City cabinets, each of which house four 12" Gauss speakers. Guitar ace Brian May still sticks to his famous bank of Vox AC30's — no less than nine are employed, with three spares. Two specially modified Echoplex's are also connected to give varying echo repeats. Freddie Mercury's piano is amplified via a Help-install connected to a specially modified Clare Brothers piano control box. This system is then fed through a stereo SAE amplifier driving two 2 x 15 monitor cabinets and two JBL 2440 horns.

Uriah Heep are, to say the least, a loud live band and their range of backline amplification tends to reflect this way of thinking. Guitarist Mick Box uses two Acoustic 270 amps with two 271 cabinets and, for added effects, an Echoplex and a Maestro phase shifter. Also on Mick's side of the stage, there's another Acoustic 270 stack which monitors Ken Hensley's keyboard sound. Ken, on his side of the stage, amplifies the organ with two Acoustic 270's driving two custom Leslie cabinets with 18" Vegas, and a pair of RCF drivers in each. The Moog is amplified by a 270 stack and when Kenny plays guitar, it's amplified by a Marshall 100 through two 4 x 12's.

Bassist John Wetton uses a Sunn Colliseum bass amp and two cabs, plus a Marshall 100 bass through a Marshall 4 x 12 bass cab and a 2 x 15 cab with a folded horn. When John takes his bass solo, he adds an extra Hiwatt 100 amp through a 4 x 12 with Electrovoice drivers.

Babe Ruth's guitarist Bernie Marsden plays through a standard double Marshall stack — two 100 watt amps and four 4 x 12 cabinets — while bassist Ray Knott has two Acoustic 301 cabinets driven by one 370 amp.

Steve Gurl's keyboard

complement consists of a Mini-Moog which has its own Acoustic 270 amp and 201 cabinet, while the Hammond goes through two 100 watt Leslies. The Clavinet and Wurlitzer are fed into a Wern Audiomaster mixer, driven by an Acoustic 270 amp and 201 cabinet.



Cockney Rebel are definitely Fender-men, according to road manager Mike Collins. Guitarist Jim Cregan plays through a Fender Twin Reverb and a Fender Deluxe, both of which house JBL speakers, while Steve Harley uses one Fender Twin, again with JBL's. Bassist George Ford has a Fender Bassman amplifier driving a 2 x 12 Fender cabinet plus two Hiwatt 4 x 12 cabs, which are

set up behind Jim for bass monitors. Keyboards man Duncan McKay has a total of seven keyboards which go through two custom-built monitors, each containing two 15" Gauss speakers.



What the Bands are using



John Miles and his backing band reflect the variety found in the back lines of many bands. Miles uses a double Orange stack, comprising two Orange 120 Graphic Amplifiers and two Orange 4 x 12 cabinets with JBL and Fane speakers. The joint lead guitarist Dave Wellbeloved uses an identical set-up. When Miles plays keyboard, he uses a Fender Twin Reverb amp.

Bass player Bob Marshall uses two Acoustic 371 stacks, and two 2 x 15 JBL cabinets on stage, and a Fender Bassman and 4 x 12 cab when recording.

Keyboard player Gary Mobeley uses four Fender Satellites.

Be-Bop Deluxe use a variety of sound reinforcement.

Guitarist/vocalist Bill Nelson plays through two 100 watt Carlsbro amplifiers feeding two 120 watt Carlsbro 4 x 12 cabinets. One of the amplifiers has been modified and now has KT88 valves (normally used in 200 watt units) and cooling fans. His effects pedalboard is fed into the modified amp and the other standard amp is used for a straight, clean sound.

Bassist Charlie Tumahai prefers a Peavey Musician 200

watt amplifier, which has been adopted for bass. He also uses a Peavey 400 bass amp and these are fed into two Peavey 2 x 15 bass cabinets.

Andrew Clarke plays a variety of keyboards including a Hammond B3, Fender Rhodes Stage 73 piano, Mini-Moog and Mellotron and these are amplified by a Leslie 124 cabinet (for the Hammond), three H/H IC100 amps, two custom-built 2 x 15 (Gauss) cabinets and a Marshall 4 x 12 cab.

Led Zeppelin, as befits their international status, use a multi-national range of amplification. Jimmy Page uses a stack of four Marshall 100 watt valve amplifiers, and a band of 4 x 12 cabinets, employing a single Orange 120 watt Graphic Amplifier

for use with his Theremin.

John Paul Jones used an Acoustic 370 amp until recently, but he has now switched to a GMT top (purchased from the Guitar Centre in Hollywood) and Cerwin Vega cabinets.



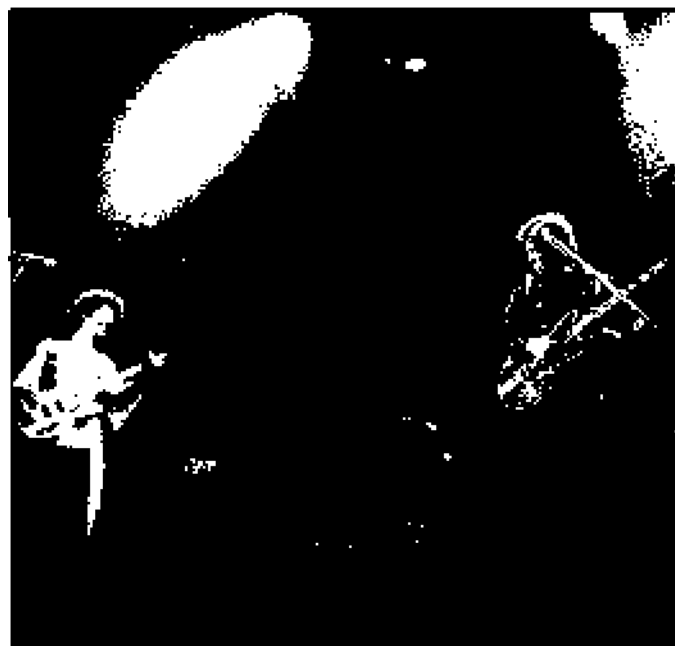
Hawkwind are basically using an HH system. Dave Brock and Simon King are using HH IC100 amps, and, according to tour manager Jonathan Smeeton, "HH is the stuff for Hawkwind."

The only exception to Hawkwind's rule is Paul Rudolph, who uses a 100 watt Hiwatt amp, complemented by a Hiwatt 4 x 12" cabinet. The bulk of

Hawkwind, however, use cabinets built for them by their sound "wizard," John Perrin.

Built from a specially designed cardboard, which, it is argued, is as strong as concrete, the cabs house four 12" Electrovoice speakers.

Paul Rudolph, in keeping with the rest of the band, is alleged to be considering an HH set-up as I.M. went to press.



New **SW** is PA plus

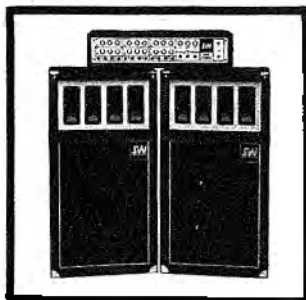
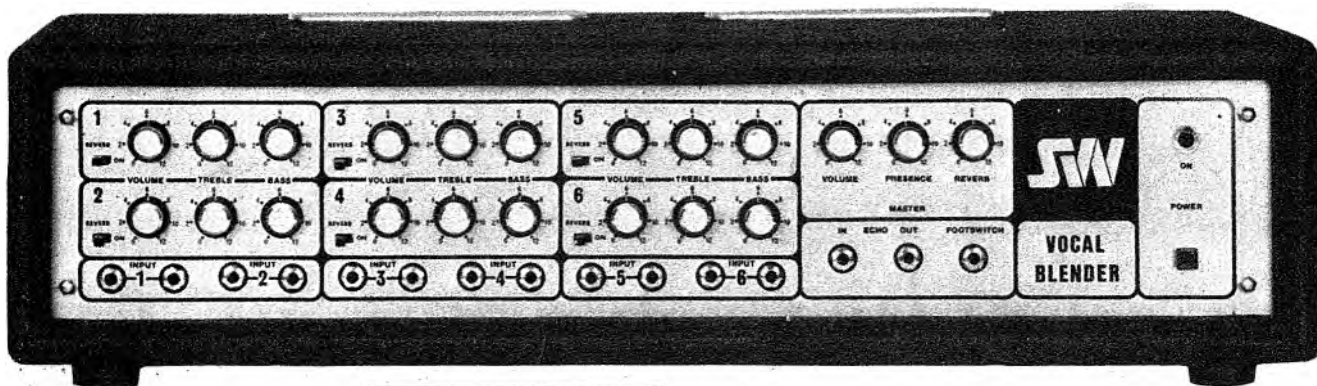


Because

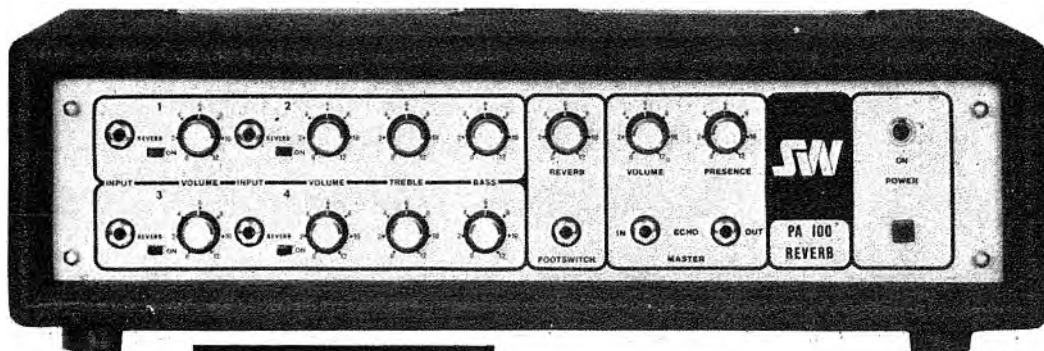
it is designed for utter reliability. with capacious heat sinks and built-in air vents. With light strength in chassis and cabinet. With thoughtful layout, tested components and new systems of construction. For example, the whole range of amplifiers springs from just three basic printed circuit boards. Each is easily replaceable, complete, in minutes. And spare PCBs are immediately available. And can be free, not just during warranty, but throughout the life of the amp.

Another because is the sound of SW. Crisp, clear, solid, big, beautiful, controllable sound. Sounding like amplification should: when you buy it and while you live.

A third because is the Rosetti back-up. They want no problems and make no fat promises. Which is why they offer you an illustrated leaflet and full specification sheet on all the amps, columns, cabinets and other gear in this new SW range. So you can sit and make up your own mind. So send the coupon. Be convinced.



Above: the new, compact 6 channel Vocal Blender (with Hammond Reverb) teams with two SW H100 Universal Cabinets. The VB gives you 150 watts into 4 ohms. From just 27 1/2" x 11 3/4" x 6 3/4", and costs £199.95. Full specification on request.



Above: the new SW PA100 Amplifier (with Hammond Reverb). With two 12054 Horn Columns makes a compact, powerful, reliable PA set-up of moderate cost and massive impact. There is a full range of other columns and cabinets, amplifiers and combos. Full details on request.

To SW Amplification, Rosetti, The House of Music, 138-140 Old Street, London EC1V 9BL

Please send me full details of all the new SW amplifiers, combos, columns and cabinets.

I enclose 6 1/2 p stamp to cover postage.

Name _____

Address _____

BACK LINE AMPLIFICATION

A survey of the best bets available in Britain

Ampeg

Bass guitar is a difficult instrument to amplify, but it is well served by the Ampeg V-4B amp set-up, consisting of a 100 watts RMS amp and tuned dual driver folded horn enclosure with two 15" Altec speakers. Guitar sounds good through the VT-22 combo, a 100 watt RMS amp and two 12" speakers with reverb and an input sensitivity switch. Keyboard instruments, especially electric piano, can be ably amplified by the G412 combo which gives 100 watts RMS power and features a selective midrange switch, a removeable power module and reverb and tremelo options.



Carlsbro's Stingray Super

Bear

The Novanex range of Bear amplifiers offers a fine 30 watt combo for guitarists, the U30 special, which has a 12" driver and features a line out socket, tremelo, a treble boost and a drive switch. Guitarists or keyboard players should take note of the G70 Wildcat unit, a 70 watt, 2 x 12 unit with treble boost and overdrive/sustain. A new bass combo, the B70, is rated at 70 watts and has a 2 x 12 driver unit and a pitch (i.e. tone) control.

Custom Sound

For bass guitar, the 700BM is a 150 watt twin channel amplifier with sustain on one of those channels and is at its best when used with the 7215B twin 15" ported cabinet. The guitar version of this set-up is the 700b plus the 7215 or 7412 cabinets.

A good combo for use with guitar is the 700D, a 75 watt unit with a single 15" speaker, including reverb and sustain facilities. There isn't a

set-up specifically for keyboard, but the 700BM and the 700D have both proven to be very popular with keyboard players and are recommended.

Carlsbro

The amp that's best suited to the guitar/keyboard area of amplification would probably be the Scorpion, while a fine all-round amp is the Stingray Super Combo, a twin channel combo with tremelo, reverb and sustain.

A more specialist keyboard set-up would be the Stingray twin channel amplifier plus two minibins. For bass guitarists, a pleasing combination would be the previously mentioned 100

watt Stingray amp plus the new 2 x 12 or 1 x 15 bass bin.

CBS/Arbiter

The Fender Bassman set-up has to be one of *the* amplification systems for bass guitar and is highly recommended. For keyboard, if you're lucky enough to own a Fender Rhodes piano, then the obvious choice is the

Super Satellite speaker system, rated at 100 watts each. Otherwise the Dual Showman with the D130F speakers is a good choice and works well with a variety of keyboard instruments. It includes high frequency 15" speakers and therefore gives an excellent range of sound. For guitar, the Twin Reverb is a most versatile amp although the Super Twin, delivering 180 watts, is also highly recommended and includes graphic equalisation.

Cerwin-Vega

For bass guitar a good idea is the B48MF, which is a 400 watt enclosure with an 18" driver in a folded horn plus a 12" front facing driver. Guitar is catered for by the Cerwin-Vega 35 unit. This consists of an 18" high frequency mid-range horn and two Pietro Electric super high frequency horns and also handles 400 watts. Keyboard players would be well served by the 33 unit too, but the 32 is also recommended, a 300 watt 2 x 12 front loaded system with a mid-range driver and two Pietro Electric high frequency horns.

Cleartone

Cleartone make an all purpose amplifier, the CMI 100 watt which is a twin channel amp, one lead

channel and one bass channel. These two channels can in fact be linked together to achieve an interesting combination of sounds.

J.T. Coppock

The Elgen range of amplifiers and speakers offers a good straightforward set-up for the guitarist with the 120 watt lead amp which includes reverb and built in sustain when used in conjunction with the normal 4 x 12 cabinet. The 120 watt bass amp is similar to the lead amp, but is a more simple concern without the effects, and is also recommended to be used in conjunction with a 4 x 12 cabinet. Keyboards need a wider range of sound, and Coppock's would suggest amplifying them with an Elgen P.A. amplifier playing through wide frequency P.A. bins and horns.

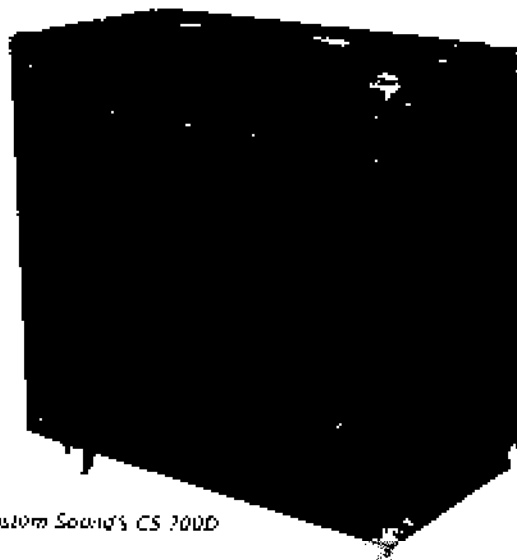
Davoli

Davoli produce two ranges of amplifiers which would ideally suit lead or bass, one range has the added facilities of tremelo and reverb and both are available in 50, 100 and 200 watt powers.

All the amplifiers have variable impedance, so they can be used with a variety of cabinets, including the Davoli range which includes speakers handling 50, 80, 100 and 200 watts.

Elka-Orla

Themselves manufacturers of keyboard instruments, Elka-Orla naturally specialise in keyboard amplification. Highly recommended is the Elkatone 610PR, which is 100 watts RMS and has a Leslie-type speaker system. For a straight keyboard sound, the obvious choice would be the new RM100 amplifier, which is rated at 100 watts and has a wide frequency 15" speaker. It includes two channels with a



Custom Sound's CS 700D

continued on page 115

sunn MAGNA 3800

POWER AMPLIFIER



The MAGNA 3800 is a 'dual-channel' power amplifier which offers 400watts RMS per channel into a 2 ohm load. What makes the MAGNA 3800 particularly unique is that it is specifically designed for commercial sound reinforcement with specifications that parallel the finest stereo equipment available. The MAGNA 3800 is built for the road! Each channel is totally independant of its twin ; power supply, transformer, transistors, etc. Only the A.C. cord and chassis are common to both channels.

This amplifier will operate indefinitely at rated output, without over-heating or shutting off. We've purposely over-built the 3800 to stand up to the most demanding professional requirements. As with all MAGNA products, our lab has been the concert stage. If ever there was a power amplifier that could be described as indestructible, it's the 3800! You're assured of trouble-free, continuous usage with this state-of-the-art sound reinforcement tool.

U.K. Distributor; B. PAGE & SON (Sound Equipment) Ltd.
10 Wood Street, Doncaster. Tel. 0302 69707

**BIGGEST MUSIC SHOP IN
BEDFORDSHIRE · FENDER
GIBSON, PREMIER, PEARL
PAISTE, LUDWIG, ROGERS
ZILDJIAN, CARLSBRO, H/H
ORANGE, KUSTOM AND
MAINE, 5 SHOWROOMS
1 SHOP FOR SHEET MUSIC
300 GUITARS
30 DRUM KITS
ALWAYS
IN STOCK**



LUTON MUSIC CENTRE

114 Leagrave Road, Luton, Beds. Tel. Luton 26826
Part Exchange, Credit and Cash!

Ltd.

Assembly Music

25 CLAVERTON BUILDINGS, WIDCOMBE, BATH BA2 4LD
Telephone: Bath (0225) 22894

**the West Countries
leading music centre**

GUITARS

Gibson Les Paul 20th Anniversary	£495	Gibson S.G. with Trem	£320
Gibson Les Paul Deluxe	£405	Ibanez (Johnny Smith copy)	£290
Fender Strat Maple Neck & Trem	£360	Gibson Ripper	£314

AMPS

Carlsbro Mini Bins (pr)	£300	Traynor 100 watt PA complete	£297
Carlsbro 2 x 12 cols. (pr)	£150	Traynor Bass combos from	£128
Carlsbro Marlin PA Amp	£166	Maine 100 watt amps from	£133

DRUMS

Premier B304 kits from	£350	Tama Mars 8 kit	£675
Premier D717 kits from	£519	Tamra 13 drum outfit	£695
Premier D305 kits from	£432	Sonor XK925 outfit	£495

KEYBOARDS

Elgam Talisman 'S'	£650	Hohner H.I. Piano	£245
G.E.M. Intercontinental	£780	Snoopy Piano	£147
Hohner String Thing	£315	S/H Mellotron	£450

BRASS & WOODWIND

Reynolds Trumpets from	£115	Alto Saxes from	£119
Conn Trumpets from	£179	Tenor Saxes from	£127
Conn Trombones from	£185		



SPECIALISTS IN THE SALE SERVICE REPAIR OF ALL MUSICAL INSTRUMENTS

BACK LINE AMPLIFICATION

from page 113

high and low input on each, plus a small graphic equaliser-like section on each of the channels, featuring low-bass, high-bass, medium, low treble and high treble.

Funkshun

Funkshun do a range of speaker cabs, some of which would be of considerable interest to the musicians. Guitarists attention will be drawn to the 2 x 12 100 watt guitar cab or the Pro guitar version of the same cab. Bass players would do well to check out the Mini Bin, a unit rated at 100 watts and utilising a single 15" driver, or the Pro Bass Bin, also a 100 watt 1 x 15 unit. Keyboard players could put a combination of one of the previously mentioned bass bins plus an upper mid range horn unit to good use.

Hiwatt

Hiwatt amplifiers have a wide range and are useful in

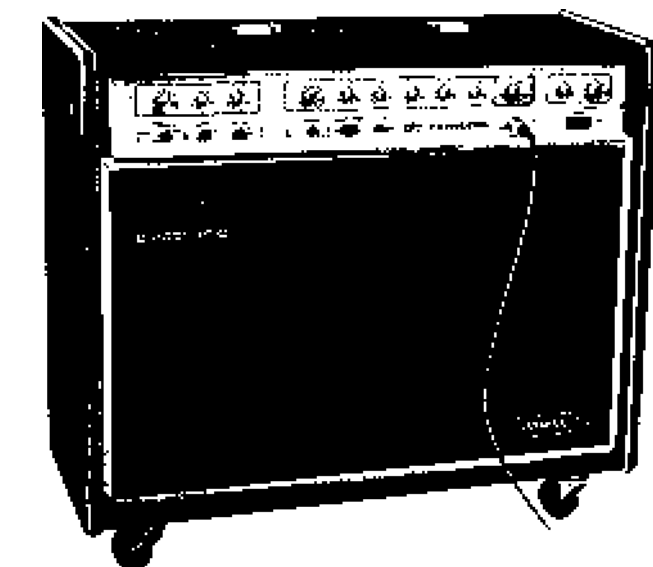


The Maine Standard

many applications. For bass guitar and guitar, the DR103 100 watt valve amp or the DR201 200 watt amplifier are suggested. Especially compatible with guitar, the NCA 108 transistor amplifier offers 200 watts into 4 ohms and features a graphic equaliser. Any of these amplifiers mentioned are also applicable to keyboard amplification.

HH

The new VS Musician range of amplifiers offers a wide variety of sounds to all musicians, for lead guitar HH would recommend the VS Musician reverb amp with the 4 x 12 412BL cabinet. Bass



HH's 212 combo

guitarists should check out the VS Bassamp in conjunction with the 215 BL 2 x 15 cabinet, and keyboard players would do well to consider the VS Musician combo unit which features two 12" drivers.

Maine

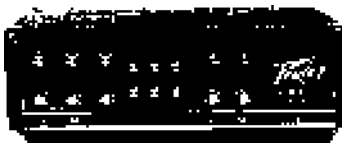
Maine amplifiers offer a high standard full range of amps and cabinets, including the Maine Standard, which is ideal for bass or keyboard. It's a 100 watt single channel unit with presence and a high and low input. Also included is a level attenuator which adjusts the input to suit the individual instrument. For guitar, Maine would recommend their 100 watt Artist amplifier which features reverb, colour distortion, overload, swell and presence controls. The Maine 4 x 12 or 2 x 12 cabinets are suitable for use with the Artist amp, while the Standard amp, when using

bass guitar, sounds best through the Maine 1 x 15 reflexed exponential horn with direct driver, either Altec or Celestion.

Marlboro

The American Marlboro amps are distributed in this country by Hohner, and the recommended set-ups are all combos of one description or another. For bass guitar, check out the GB015B which is rated by the American manufacturer at 50 watts and includes a 15" heavy duty speaker. Guitarists are referred to the G50R combo, rated at 40 (American) watts and housing two 10" speakers.

This unit also features the quadrasonic blender, which enables you to mix any of the reverb, tremelo, echo repeat and vibrato effects included. Best bet for keyboard players



Peavey's Musician, rated at 200 watts

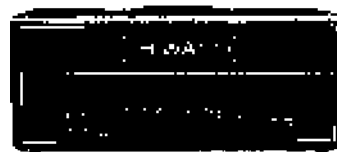
is the 1500B eighty watt piggyback amplifier which has a 15" heavy duty speaker and a bass and treble boost.

Matamp

Matamp offer a single 120 watt amplifier set-up which is ideal for bass guitar, lead guitar or keyboard applications and features a bass boost, presence and high and low inputs. Also included is a drive control which offers low power for studio use and high power for stage use.

Pearl

Bass guitarists' attention is directed at the 101A 100 watt bass amplifier top, which features two channels and a master volume control. For guitar, an ideal amp is the Pearl 1200 combo, rated at 100 watts and including two 12" copy B.L. drivers. Keyboard players are advised to try the Pearl 102 2 x 12 combo which features a built-in phaser effect and an overdriving circuit to give funky sustain effects.



The Hiwatt DR 103

Peavey

For bass guitar, Peavey suggest their 200 watt amp with automix and graphic equaliser. Guitar is probably best served by the Musician 200 watt amplifier which includes reverb and graphic equaliser. There are also a couple of Peavey combo amps that are fine for use with guitar: the Classic 212 50 watt and the Deuce 212 120 watt. For keyboard, the Session 212 combo has been found to be particularly effective with the Fender-Rhodes piano, and is rated at 200 watts RMS.

continued on page 117



DANDELION

EVERYTHING IS EVERYTHING AT DANDELION



New V.S. series in stock now !

We have been H/H franchised dealers for almost four years. In that time we have supplied hundreds of amplifiers to professionals, (Barclay James Harvest, Be-Bop De Luxe, Jeannie Denver, Whales, Turnstyle, Etc) semi-professionals, amateurs and recording studios. The price is reasonable, the quality excellent, and the service in our opinion, the best there is ! In Yorkshire Dandelion Of Huddersfield is number one for sales, stock, service and advice on H/H products:- amps, cabs, combos, unit PA, echos, and monitors. Available on finance, access, Barclaycard and cash !

97 KING STREET, HUDDERSFIELD (0484) 26657

Junkshun

AMPLIFICATION
152 WELLINGBOROUGH ROAD NORTHAMPTON
Telephone: Northampton 34100



ONLY
30"
HIGH

PRICE
£95
inc

The New Baby Bin

1 x 12" 50 watt all purpose	39.50 inc.
1 x 12" Pro 50 watt all purpose	45.50 inc.
2 x 12" 100 watt PA/Disco	69.50 inc.
2 x 12" Pro 100 watt PA/Disco	81.00 inc.
2 x 12" 100 watt Guitar	69.00 inc.
2 x 12" Pro 100 watt Guitar	81.00 inc.
Baby Bin 50 watt 1 x 12" PA/Disco with single 25 watt horn.	95.00 inc.
Mini Bin 100 watt 1 x 15" PA/Disco	86.50 inc.
Mini Bin 100 watt 1 x 15" Bass	109.00 inc.
Bass Bin 100 watt 1 x 15" PA/Disco	110.50 inc.
Pro Bass Bin 100 watt 1 x 15" Bass Guitar.	133.00 inc.
Horn Unit 2 x 25 watt Upper midrange.	52.30 inc.
RCF 100 watt midrange horn	121.00 inc.
Wedge Monitor 50 watt 1 x 12"	54.00 inc.

Write or phone for a catalogue.

Empty Cabs supplied - prices on application.

TRADE FACILITIES AVAILABLE

BACK LINE AMPLIFICATION

Roost

Roost suggest their SR22 100 watt amplifier for bass guitar, an all purpose two channel amplifier. This is equally useful for lead guitar work, although a twin channel amp, and has a combined tones facility on these channels. The SR22 can also be used on keyboard instruments, although a lot depends on the cabinet used.

Marshall

(Marketed in the U.K. by Rose-Morris). For bass guitar try a 100 watt bass top with two 2 x 12 horn loaded cabinets for plenty of punch. Guitarists would be well served by the 100 watt lead amplifier, plus two 120 watt 4 x 12 cabinets, or the big 8 x 10 cabinet. For keyboards, Rose-Morris would recommend trying one of their 100 watt combos.

Selmer

The Selmer 100 watt amplifier, in combination with one of their new range of bass speakers, is the suggested set-up for bass guitar amplification. The bass speaker recommended is the ported cab with a 15" driver — either Crescendo or Altec, depending on your taste and pocket.

Lead guitarists looking for amplification would be well advised to check out the 100 watt Selmer lead amp in combination with their 4 x 12 cabinet. Keyboards would probably be best served by the bass amplifier, linked up to two of Selmer's 2 x 12 plus horn cabinets.

Stag

Stag amplifiers are available through Frank Hessay's, and offer an all purpose 100 watt amplifier applicable to lead guitar, bass guitar and keyboard amplification. For bass guitar they suggest their 18" bass blaster, or the 15" or 18" bass bin. For guitar they suggest their ported 4 x 12 cabinets, either of

the last two cabinets are suitable for keyboard, although the 12" or 15" twin flare cabinets are ideally suited to keyboard amplification.

Sunn

Sunn amps, distributed in this country by B.L. Page, offer a wide range of top quality sounds to the musician. Their classic Model T tube (i.e. valve) amplifier is suitable for use with guitar or bass if you prefer the valve sound, although the Concert lead amplifier, rated at 200 watts RMS is fine for guitar in combination with the 412 LH or the 212 LH speaker cabinets. Bass guitar is recognised as Sunn's speciality — the company was started by two bass players — and a superlative set-up is the Concert Bass 200 watt amplifier with either the 215 BH or the 215 RH bass bins.

SW Amplification

SW think that their 12071 all purpose amplifier is compatible with bass guitar, guitar and keyboards. The amp is a two channel unit with built in fuzz on channel one. Master controls are treble, middle and bass, plus echo in and out sockets and a rear mounted slave outlet. The amplifier delivers 100 watts into 8 ohms and 120 watts into 4 ohms.

WEM

For guitar try the Dominator range of amplifiers, these are valve combo amps, the 30 watt version enclosing a 15" driver and the 50 watt, as used by Alvin Lee, housing two 12" drivers. Keyboard players attention is drawn to the twin-coned 2 x 12 version of the previously mentioned amplifier. Bass guitarists are recommended to try the GX 100

White

Guitarists would do well to check out the L100 amp, a straightforward twin

channel 100 watt amplifier, in conjunction with the A200 cabinet, a 4 x 12 unit. Keyboard players are also advised to use the L100 amp, plus a folded horn cab, the S150, which features a high frequency horn and a Gauss 15" driver. Bass players could also use this set-up.

Kemble-Yamaha

For lead, rhythm and steel guitar, the Yamaha G100B-212 combo is recommended, being a 100 watt unit with two 12" drivers and is ideal in the studio or on stage, including a high or low input on each channel. For bass guitar, try the B100-115 combo, a 100 watt unit housing a 15" driver in a rear loading reflex horn enclosure ensuring lack of boom.

The G100-410 is well suited to electric organ or piano.

Dynacord

Dynacord make some amps which are applicable to the instrument amplification side of things; for lead guitar and some keyboard work, an ideal unit is the Perfect combo, a twin channel amp with reverb and vibrato, rated at 60 watts.

Hornby Skewes

Hornby Skewes distribute Miles Plating amps, which offer a set-up equally useful for either bass, lead guitar and keyboard applications. It consists of the V100 100 watt amplifier, a twin channel amp with the normal range of controls, coupled with two of the V50S cabinets.

Nolan

For guitar, Nolan recommend their all purpose 100 watt amp plus their 4 x 12 120 watt heavy duty cabinet. For organ, the previously mentioned 100 watt amp plus a 2 x 12 or 4 x 12 cabinet is recommended. For bass guitar, the Nolan 100 watt amplifier is again applicable,

Roland

There are two solid-state combos which are equally applicable for guitar, bass and keyboard use. The JC60 is a 60 watt unit with a purpose built single 12" driver, reverb facility and the magic "chorus effect" — obtained by the addition of two extra side wavebands. The JC120 (JC means "Jazz-Chorus") is a 120 watt combo featuring two channels, two inputs on each, one high and one low, a distort control, separate vibrato speed and depth controls

Washburn

The new range of Washburn amps, available from August, offer a set-up ideal in each back line application. For lead guitar, check out the GT275R combo, a 75 watt unit with a twin channel amp featuring tremelo, reverb and overdrive plus a cutswitch together with two 12" speakers. For bass guitar, the CB275B combo is recommended, again, a 75 watt unit with a simplified secondary channel plus a single 15" driver front facing in a bin.

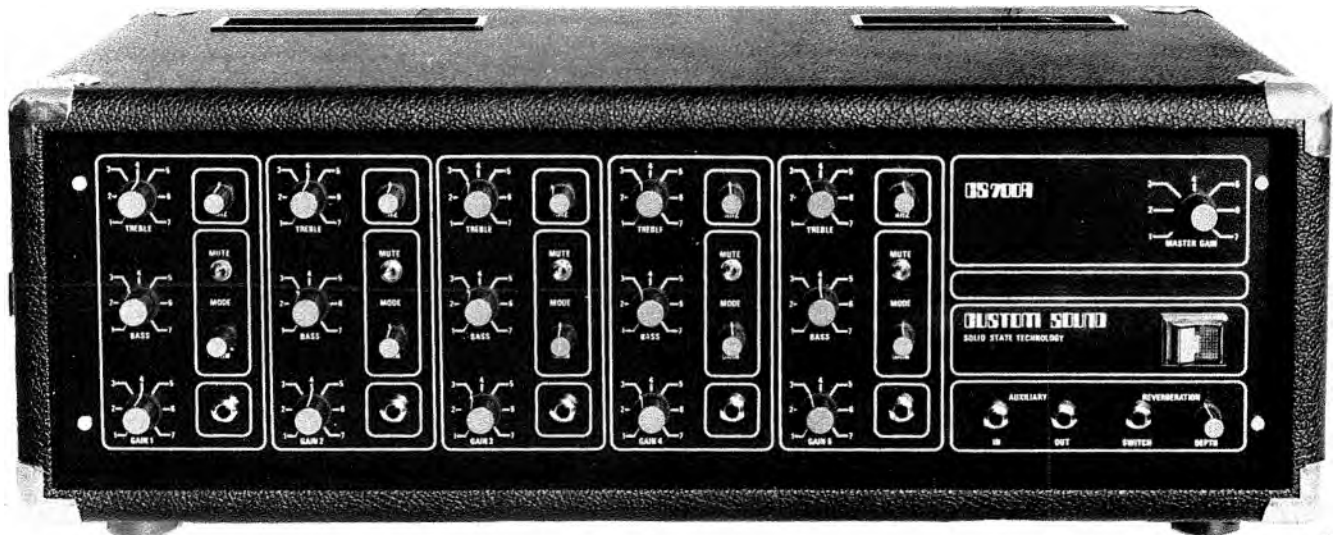
Laney

For lead guitar or keyboard, Laney suggest their A510R amplifier, a potential 160 watt unit featuring reverb, tremelo, top-switch and the "Klipp" footswitch-controlled sustain/distortion facility. This could be used in combination with one to four C400 cabinets. For bass, try the A500 amp, with top-switch and Klipp.

Road

Ideal for lead is the 212 Lead Combo, rated at 220 Watts RMS and housing two Road 12" speakers, front loaded and rear ported. Bass guitarists will seek the 115 115 Bass Combo, also at 220 RMS and boasting one 15" Electrovoice speaker. Keyboards work ably through the 220-412 set-up, comprising a 220 amp with Graphic Eq plus a 4 x 12 Road cabinet.

CUSTOM SOUND 700 SERIES



CS700A 150 WATT 5 CHANNEL PA MIXER AMPLIFIER

Custom Sound's CS700A mixer-amplifier is designed to give maximum control over the sound balance of a P.A. system. Being part of the established Custom Sound 700 Series, it has been developed to provide the exacting quality and versatility required for today.

The five channels all have a wide range of sensitivity, with individual channel gain controls. The tone networks on bass and treble are 'active' networks providing both cut and lift for the most critical tone control. Each channel incorporates the exclusive KHZ-control, which may be used to reduce feedback or to heighten the degree of penetration on that channel.

Reverberation may be individually selected and its gain set on each channel, the overall depth being set by a master control with the ability to remotely operate by foot switch. Echo, or other auxiliary circuits may also be used to selectively monitor channels.

These facilities, together with the comprehensive range of outputs makes the CS700A remarkably versatile yet the facility for linking two CS700A's, giving 10 channels into 2 independent

outputs, provides a most adaptable system, challenging a full scale mixer.

Though delivering up to 150 watts RMS, the CS700A is probably the quietest P.A. amp you will hear in operation, noise is virtually eliminated from the power stage and each channel pre-amp automatically shuts down when not in use. Reliability comes from a rugged mechanical construction, efficient cooling vents, and a power stage carrying six output transistors.

A logical end mounted handle for easy carrying and the supply of a heavy duty cover and mains lead are included with every CS700A. The case is covered with tough black grained vynide and protected by nickle plated corner pieces.

All 700 Series amplifiers are covered by a full 2 year warranty and a modular exchange scheme extending the life of the amplifier.

Custom Sound Professional Sound Equipment is stocked by the best dealers throughout the country, so go along now to see and try the finest amplifiers on the market.

SIX output transistors

2 year labour and parts warranty

Active tone networks

Tough black vynide covering

Nickle plated protective corner pieces

Five independant channels

Gain, Bass, Treble on each channel

Built in quality reverberation

Individually variable reverb level on each channel

Master output volume

150 watts RMS into 4 ohms

Tape, Slave, Headset and Studio Line Outputs

Exclusive KHZ-Control on each channel, anti-feed back facility

Modular Power Stage, Module Exchange Scheme

Rugged and reliable Construction

Linkable for 10 in, 2 out operation

Auxiliary may be used for selective monitoring

Very wide dynamic and tonal ranges

Echo/Aux selection on each channel

Negligible extraneous noise

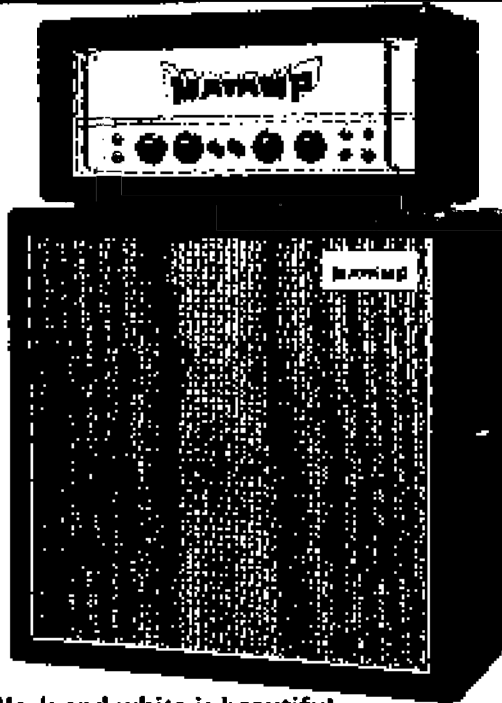
CUSTOM SOUND

PROFESSIONAL SOUND EQUIPMENT

CUSTOM SOUND (SST) LTD
Custom House, Arthur Street,
Oswestry, Salop, SY11 1JN, U.K.
Oswestry (0691) 59201/2

MATAMP[®]

SOUND SYSTEMS



Black and white is beautiful

DONT JUST TRY THEM . . . COMPARE THEM!

Guitar Amp

GT 100 120 watts R.M.S. all purpose valve amplifier for lead, bass and organ, High and low sensitivity input jack, bass boost control, drive control, bass control and treble control, presence control, volume control.

The drive control gives a choice of power output: Low for studio quality; High for full power, with Normal and Super Bright tone on each setting.

Manufactured by
Radio Craft (Hudds.) Ltd
 38 King St. Huddersfield
 HD1 2QP England
 Tel 0484 20049

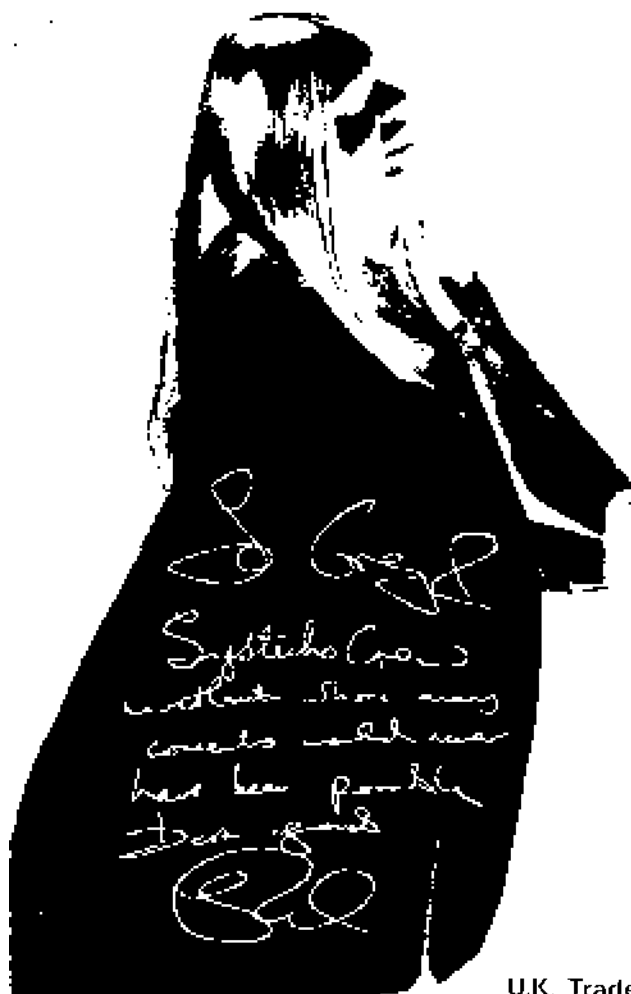
U.S.A. Distributors
Sky Music Inc
 1400 South Lamar
 Austin Texas 78704
 Tel (512) 441-7253 (Ken Avant)

Please send details of Matamp sound systems

Name

Address

Postal Code Tel No.



Rick Wakeman

Relies On Systech In Recording And On Tour

Phase Shifter
 Overdrive
 Flanger
 Envelope Follower
 Harmonic Energizer

U.K. Trade Distributors

hornby skewes

H||H~They've said it~we've got it...

Including the fabulous V.S.range—hear it and buy it at HESSY'S now with a deal that includes an extended warranty to 1980—that's service

£10
DEPOSIT
ON ANY
H||H ORDER
plus our
special offer

INSTRUMENT AMPLIFIERS	£	P.A. LOUDSPEAKERS & HORN	£
V.S. Musician Reverb- 100 watts	163	212 DC Dual Concentric-Slimline 2 x 12"	107
V.S. Musician - Valve Sound 100 watts	141	Speakers 100 watts	
V.S. Bassamp 100 watts	134	412 DC Dual Concentric-Slimline 4 x 12"	162
V.S. Footswitch.	14	Speakers 160 watts	67
MINI-HORN - Fibre Glass Built in Crossover 50 watts			
COMBINATION AMPLIFIERS		UNIT P.A. SYSTEM	
V.S. Musician Reverb Combo - 2 x 12" 100 watts	229	Radial Horn. Built-in Crossover Network 100 watts	119
V.S. Musician Combo - 2 x 12" 100 watts	212	115 Bass Compact 1 x 15" Reflex Enclosure 100 w	118
INSTRUMENT LOUDSPEAKERS		MONITOR SYSTEMS	
412 BL Lead Bass & Organ 4 x 12" 200 watts	171	Monitor Combo 12" Dual Concentric/Integral	148
215 BL Lead Bass & Organ, 2 x 15" 200 watts	186	75/100 watt Amplifier	82
P.A. AMPLIFIERS		Monitor Extension	
MA100 5 Channel P.A. with Reverb 100 watts	161	ECHO UNITS	
MA 100S 5 Channel P.A. 100 watts	149	Echo Unit	145
S.130 Slave 100 watts	97	Multi Echo	157

FREE
2 SHURE
MIKES WITH
EVERY H||H ORDER
OVER £200

Telephone NOW for immediate despatch C.O.D. or forward £10 deposit for any order with repayments over 2½ years. Free despatch to anywhere in the UK. Example of HP V.S. Musician Amp £229 £10 Deposit £10.54 monthly

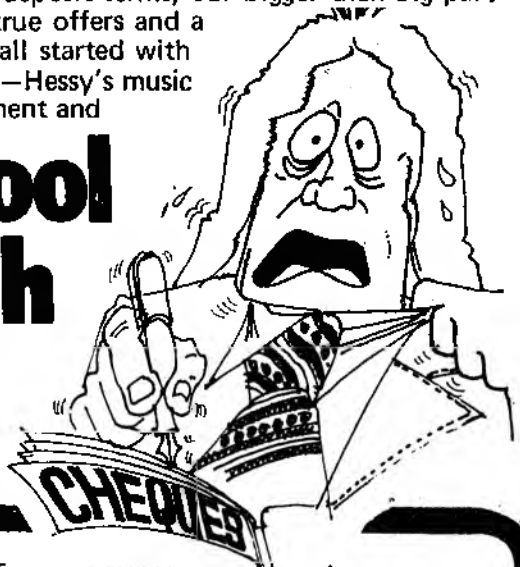
HESSY'S music centre

Save £££'s now on all your musical requirements 3 floors crammed with a range to be seen to be believed. Group Gear, Disco equipment, bands, educational, Electronic Organs etc. you name it and HESSY'S provide it at a price that's right

Take advantage of our no deposit terms, our bigger than big part exchange allowance, a host of true offers and a second to none after sales service. It all started with the Beatles who relied on—you've guessed it—HESSY'S music centre. You're musical, you want the best equipment and remember . . .

A day spent in Liverpool will cure all those high prices hang ups

Just a selection of our amazing low price offers



SECOND-HAND EQUIPMENT

Personal callers only: (subject to availability)

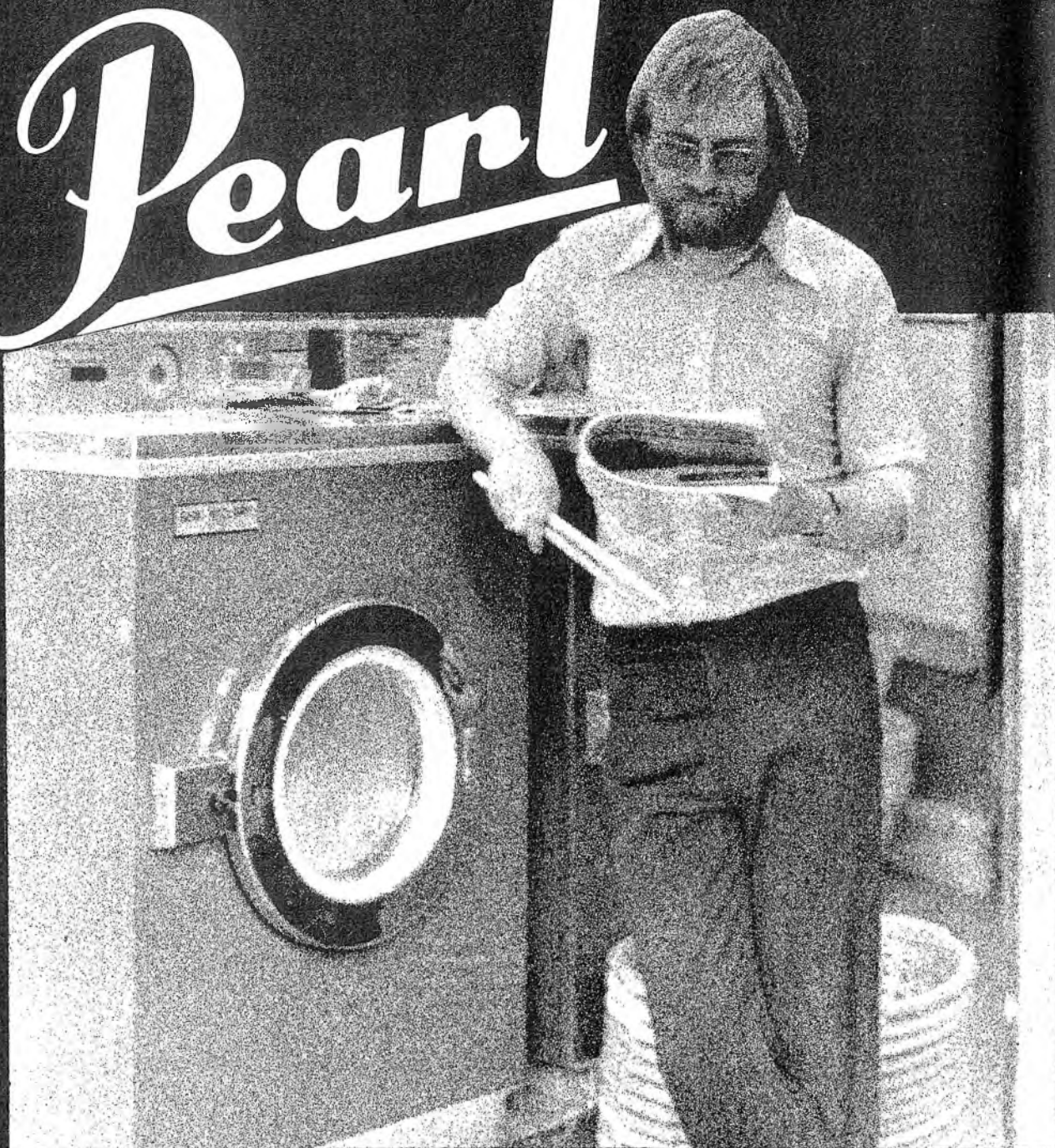
VOX AC30	£ 75
Carlsbro Bass Bin (choice of 2)	69
100w Sound City P/A system	145
Vox 2 manual portable organ	150
Yamaha Jumbo	38
Kay Jumbo	14
Marshall 100w P/A	199
Korg synthesiser	195
H&H Top	110
Fender 12 string	39
Marshall 4x12 Cols.	pr 140
SAI disco deck and cabs	150
Selmer T&B 50	45
120w Carlsbro Cols.	pr 50
40 assorted 40 to 100w Combo Amps.	from 40
60 assorted P/A systems 100w	from 125
Premier Drum Kits (choice of 2)	95

Electric pianos (choice of 5)	145
Fender Telecaster and Stratocaster (choice of 3)	185
Les Paul Copy	35
Strat Copy	39
Telecaster Copy	19
Precision Bass Copy	42
Assorted Shure microphones	14
Eko, Jumbo & Fender Jumbo guitars (choice of 20)	from 25
STAGG SOUND — How's this for value	
Complete 100w P/A system £175 reduced from £260	Rec Price £ 125 Our Price £ 85
100w P/A Cols. 2x12	135
100w 4x12 Sq. Cabs — Lead Bass	140
100w 18" Bass Blasters.	115
100w Combos	89

& FENDER COPIES	£	£
Les Paul Guitar (Black, Sunburst, Silver)	60	49
Les Paul (Gold)	65	52
Gibson SG Copy 2.P.U. (Trem)	60	45
Gibson SG Copy 2.P.U.	55	42
Gibson SG 1.P.U.	35	29
Gibson 2.P.U. Bass	60	45
Gibson 1.P.U. Bass	55	42
Les Paul Student	43	32
Les Paul Bass	58	44
Gibson Acoustic Electric	58	44
Telecaster Bass	56	40
Telecaster Deluxe	95	79
Telecaster	53	39
Stratocaster	65	49
Precision Bass	53	39
Jazz Bass	58	45
Student Bass	48	33
Violin Bass	56	42

HESSY'S — AGENTS FOR THE WORLD'S LEADING MAKERS — Rogers, Premier, Pearl, Ludwig, Paiste, Zildjian, Gretsch, Gibson, Selmer, Fender, Guild, Ovation, Tama, CSL, Yamaha, Martin, Rickenbacker, Antoria, H/H, Gibson, Vox, Marshall, Shure, Altec, JBL, Carlsbro, Roland, Wurlitzer, Crumar, Hohner, Korg, ARP, Logan, Haven, Keynote AND MANY MORE.

Pearl



FOR THAT CLEANER BRIGHTER SOUND

The largest selection of Shell types and sizes in the world.

CHECK THEM OUT AT YOUR NEAREST
PEARL PERCUSSION CENTRE

DISTRIBUTED EXCLUSIVELY IN UK BY

Selmer

Be successful with Pearl!

Pearl Musical Instrument Company, Tokyo, Japan.

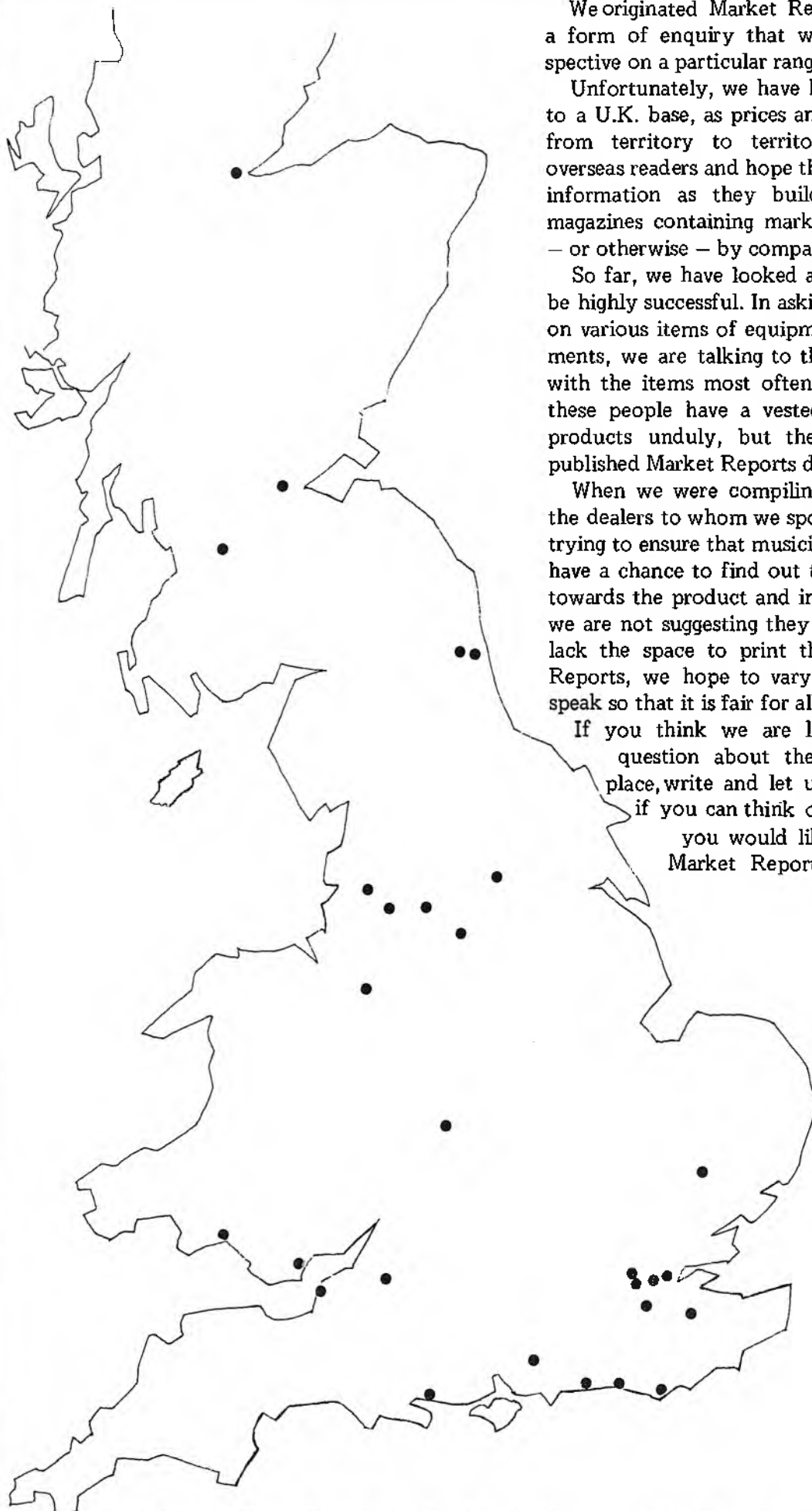
We originated Market Report three months ago as a form of enquiry that would offer readers a perspective on a particular range of products.

Unfortunately, we have had to restrict the Report to a U.K. base, as prices and trading conditions vary from territory to territory, so we apologise to overseas readers and hope they can gain some relevant information as they build up their collection of magazines containing market reports and see success – or otherwise – by comparison.

So far, we have looked at lines that are believed to be highly successful. In asking dealers their comments on various items of equipment or on ranges of instruments, we are talking to the people who are dealing with the items most often. It might be argued that these people have a vested interest in praising the products unduly, but the answers carried in our published Market Reports deny this idea.

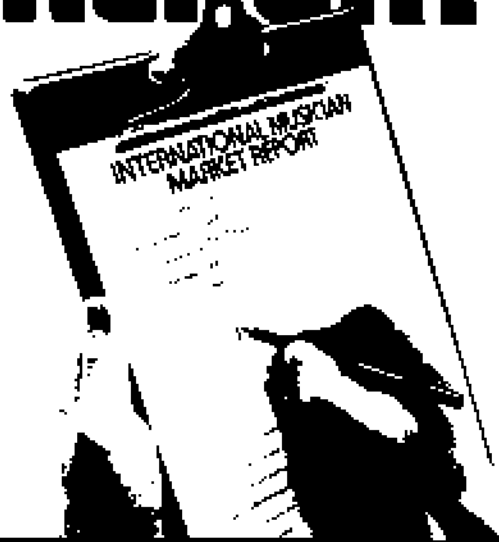
When we were compiling this report, we selected the dealers to whom we spoke on a geographical basis trying to ensure that musicians in all areas of the U.K. have a chance to find out their local dealer's attitude towards the product and in leaving some dealers out, we are not suggesting they shouldn't be included, we lack the space to print them all. In future Market Reports, we hope to vary the dealers to whom we speak so that it is fair for all.

If you think we are leaving aside any relevant question about the products in the market place, write and let us know. More important: if you can think of any particular products you would like to see us examine in Market Report – please don't hesitate to let us know.



Each dot on the map denotes the location of a Roland dealer contacted in the Market Survey, which begins on pages 126 & 127

MARKET REPORT



Roland

Roland's rise to prominence has been remarkable. In this series of market reports, we have deliberately picked on projects that have been phenomenally successful — HH and Pearl for example — and in picking on Roland, we have arrived at another Japanese product series that has shot to prominence from relative obscurity.

We have asked 41 dealers around the U.K. what they feel about Roland keyboards — the most important of Roland lines — and they have answered us honestly, criticising as well as praising, and we think that by this method our Market Report offers the most accurate face of how well Roland is doing without actually having access to Brodr Jorgensen's accounts books.

Brodr Jorgensen is the company specifically set up to import and market Roland in the U.K., Brodr Jorgensen is an entirely separate company from the parent company, Brodr Jorgensen of Denmark. Brodr Jorgensen in Copenhagen have the Roland distribution rights for Europe and the U.K. operation was a natural extension of the

Brodr Jorgensen marketing expansion, as well as a vehicle for Roland.

Brodr Jorgensen U.K. is one of seven European companies the parent has set up and the organisation has grown from a purely retail operation in Denmark.

If the Brodr Jorgensen story is unique, the Roland story is also surprising. Started four years ago by Kake Hashi — formerly with Ace Tones in Japan — it is totally dominated by his design and sales philosophy. He personally designs all the Roland products and their incredible success in all the Westernised countries in the world — Japan is implicitly included in that category — is largely due to his efforts. Today Roland is in two new factories in Osaka and the range of products streaming forth is multiplying monthly.

Brian Nunney is head of the U.K. Brodr Jorgensen operation. He's an old hand in the British musical industry and worked both in retail and wholesale before he started Brodr Jorgensen U.K. He's much travelled and the result is an accent that's mid-Atlantic and also mid-Austral-

asian.

"We've deliberately kept the operation down in size," said Brian. "Everything is personally supervised and if a dealer rings up for a spare it's packed and posted in the same day. — I make sure of that. Our one problem is that demand has been outstripping supply, but I think we're beating that now and we're beginning to get some really big shipments in to bite into the orders that are waiting."

Asked his views about the reason for Roland's success, Brian has a similar option to the dealers who sell it. "The high reliability factor is very important, plus the fact that the design is bang on. I think the design is always within six months of the state of the art."

The U.K. operation swings around four key names. Brian, who in addition to overall U.K. responsibility personally looks after the U.K. north of Birmingham, Fred Mead, who's got the rest, Pam O'Boyle who runs

the London office and Ken Stoddart, who handles the purse strings and directs financial matters.

As a company Brodr Jorgensen U.K. do not encourage discounting. On occasion, Roland keyboards have been on special offer — usually introductory — but as a general marketing policy, discounting is not encouraged by the company. They believe, quite rightly, that service should come first.

Within 12 months, Roland has become a first choice for keyboard players. It's important to realise that Roland is far more than just keyboards: it now includes combos and P.A. systems as well as foot pedals, echo and effects units — but it's the keyboards that have really done the business and paved the way for the name to become dominant in the future in these other fields.

Here we present our Market Report on Roland keyboards. What is kept in stock, and where, and what the trade, who have to live with them, really thinks.



Roland's SH 2000

ROL

SH2000

Available for the first time in Britain through Brodr Jorgensen U.K. Ltd. The SH 2000 is a high quality synthesiser with an astounding range of 30 presets such as *Wind Instruments'* Tuba, Trombone, French Horn, Trumpet, Saxophone, Bassoon, Oboe, Flute, Clarinet. *String:* Cello, Violin, Bass Guitar, Hawaiian Guitar, Banjo, Fuzz Guitar 1, Fuzz Guitar 2. *Percussion & Keyboard:* Piano, Harpsichord, Accordion, Vibraphone, Xylophone. *Particular Sound:* Singing Voice, Song Whistle, Popcorn, Space Reed, Planet, Frog Man, Funny Cat, Growl Wow, Wind. Also available through Brodr Jorgensen are other well known Roland Products including: The SH 1000, SH 3A, EP 20, EP 30.

Revo 30

The Revo- 30 was developed especially as a sound reproduction component for spinet type electronic organs with speaker.

The Revo- 30, just one in the Roland Revo Sound System Series, is designed for use at home, and together with the speaker of an electronic organ, will lift your spirit and fill your room with rich sounds.

SH1000

Easy to play preset tablets for 10 different musical instruments special effects at the touch of a finger.

Presets:

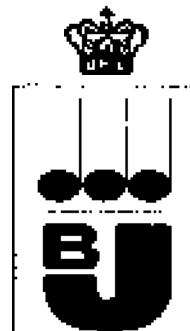
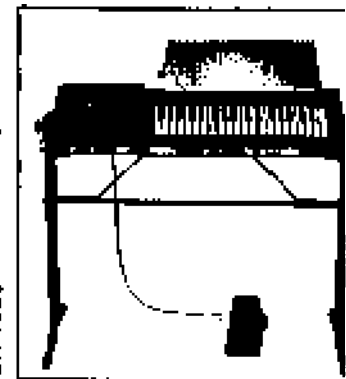
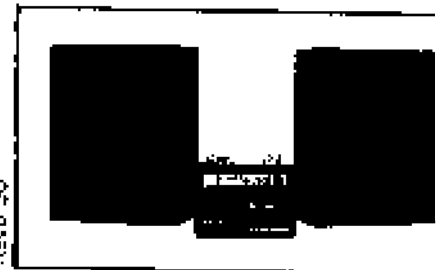
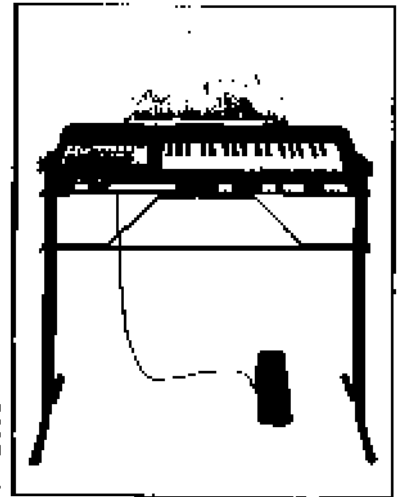
Tuba, Trumpet, Saxophone, Flute, Clarinet, Oboe, Violin, Bass guitar, Harpsichord, Piano.

RS101

Here's a portable instrument incorporating complete string and brass orchestral sections.

Now, rock and jazz combos can add depth and range to musical performances, and sound like a whole orchestra.

Two full string sections and a brass section give wide-range performance capability from delicate string melodies to voluminous orchestra-like accompaniment.



By appointment to the Royal Danish Court

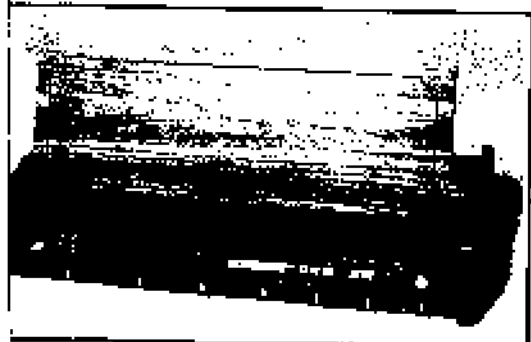
Contact Brian Nunney at BRØDR JØRGENSEN for details of your local distributor.

Brødr Jørgensen U.K. Ltd.,
Strand House,
Great West Rd.,
Brentford,
Tel: 01-560 4191 24 hr. service.
Telex : 934323

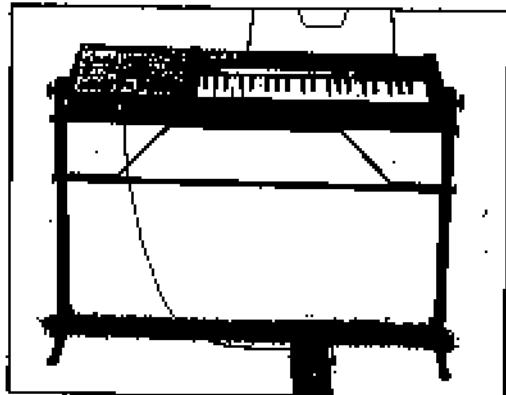
AND



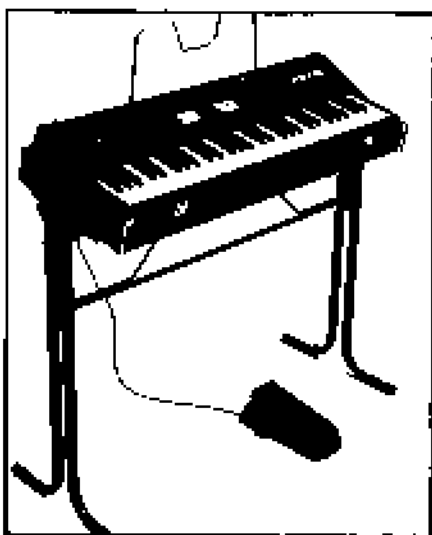
EP-20



TR-77



SH-3A



RS-101

EP20

The Roland Electronic Piano EP-20 is a combo-type piano combining simple design, practicality, and portability with body incorporated in the carrying case. Stable in pitch, complete with damper pedal, piano and harpischord effects which are multi-mixable, wah and vibra to effect.

The EP-20 generates various sounds with any combination of pedals or echo chamber. For any kind of performance funky or moody, the EP-20 holds any group together.

TR77

- * New touch start for instant Start or Stop without mechanical noise.
- * Up Tempo for instant double-time.
- * New fade-out feature (variable).
- * Diode indicator light flashes instantly in time with rhythm.
- * Built-in electronic metronome.
- * Thousands of rhythm patterns and variations.
- * Individual volume controls for the separate instrument sounds, so you can tailor the rhythm sounds to your own preference.
- * Latin Rhythm section is separate for quick visual selection.

SH3A

With the SH-3A maximum freedom of sound production is possible in a compact model, while all controls are logically and orderly arranged on the panel for ease of operation.

The SH-3A is designed for portability as well as for logical function; the main unit is assembled into a suit-case type casing which can very easily be carried about. Virtually no preparations are necessary before playing.

Slide controls are extensively adopted, making for smooth operation. Knobs installed on the ADSR and LFO, etc. have wide ranges of operation, allowing delicate working and diverse sound production.

Roland's new SH-3A synthesizer is designed for jazz, rock combo and as a keyboard accessory.

MARKET REPORT



Roland

from pages 122 & 123

	How Long Roland Dealer	MODELS IN STOCK				
		SH1000	SH2000	SH3A	EP20	EP30
A1 Music Centre, 68 Oxford St., Manchester	1 Year	1	1	-	1	1
Andertons, 5 Stokefields, Guildford	18 Months	2	2	2	2	2
K.S. Baddeley, 28 Leek Rd., Stoke-on-Trent	12 Months	-	1	1	1	-
Broadway Music, 9 The Broadway, Brighton Rd., Worthing, Sussex	1 Year	1	1	-	2	-
E.D. Brown Ltd., 131 Leeds Rd., Nelson, Lancs	2 Years	1	-	-	-	-
Carlsbro Sound Centre, 182-184 Chesterfield Rd., North, Mansfield, Notts	2 Years	-	1	1	1	1
Custom Amplification, Nantwich Rd, Crewe, Cheshire.	6 Months	1	1	1	-	-
Duckson & Pinker, Pulteney Bridge, Bath.	1 Year	1	1	-	-	-
E.S. Electronics, 2 Upper Fant Road, Maidstone	1 Year	-	-	4	-	-
Chas. Foulds, 5 Queen St., Derby	3 Years	1	1	1	-	-
Freedmans, 629 High Rd., Leytonstone	1 Year	3	6	-	1	-
Gamlins Pianos, 55 St. Marys St., Cardiff	1 Year	-	2	1	2	1
Bill Greenhalgh, 129 Fore Street, Exeter.	2 Years	1	1	1	1	1
Hamiltons of Teesside, 26 Newport Rd., Middlesbrough	6 Months	-	1	-	-	-
Hamlyns, 20 Oxford St., Dolphin Sq., Weston- Super-Mare	3 Years	2	2	1	1	1
Hammonds of Watford, 161 High St., Watford	2 Years	1	1	1	1	1
Frank Hesty, 62 Stanley St., Liverpool	1 Year	1	1	1	1	-
Kingfisher Music, 20 Kings Rd., Fleet, Hants	1 Year	1	1	1	1	1
Kitchens, Higham Hse., New Bridge St., Newcastle	2 Years	1	1	-	1	-
Kitchens, 22 King Edward St., Leeds	2 Years	4	1	-	2	-
Macaris, 102 Charing Cross Rd., WC2	From Beginning	1	2	4	1	1

RS 101	Items Sold Per Month	Service Personnel	Average Repair Time	Reliability	Delivery From Stock	Bands Supplied with Roland	Sales Service	Good Points	Weak Point
1	2-3	Staff	Same day	Good	1 week	—	Good	Display leaflets	None
2	6	Staff	24 Hours	Excellent	Varies	Asylum	Good	Excellent Products	None
—	2	Staff	Same Day	Excellent	Varies	Ivan Holmes	Good	Personal touch	—
—	1-2	Both	1 Hour	Good	2 Weeks	—	Good	Versatile	—
—	—	Staff	—	Excellent	10 Days	—	Good	—	Lack of availability
—	4	Staff	2 days at the most	Very Good	3-4 days	Mostly home + club organists	Good	Reliability	—
—	6	Both	Never happens	Good	2 Weeks	Cyril Dagworth Players	Good	Reliability	—
—	—	Staff	Negligible	Very Good	10 days	—	Good	Nice to deal with	—
—	Varies	Staff	—	100%	24 Hours	Lots	Very Good	Well finished	—
—	1	Staff	1-2 Days	Good	2 Weeks	—	Good	Well built	only 3½ octaves
—	5	Staff	Usually same day	Very reliable	Very Good	—	Good	No problems	—
—	—	Staff	Rare	Good	Varies	—	Indifferent	Reliability	—
1	3-4	2 Staff	Same day	Good	2 days	Peter Allen Trio	Exceptionally good	Good quality	—
—	2	Staff	1 Day	Good	3-4 days	Local bands	—	Reliability	—
1	Varies	Staff	Same Day	Excellent	1 Week	The J.P. Set	Excellent	Robust & attractive	Should have strips underneath
1	4	Both	Same Day	Very Good	7 days	Various bands	Good	EP20 robust & reliable	—
1	1	Staff	24 Hours	Very Good	Varies	—	Very Good	Reliability	Not all have cases
—	3-4	Staff	1-2 Days	Good	2 Days	Heartbreaker	Good	Value excellent	—
—	2-3	Freelance	2 Days	Very Good	1 Week	Local clubs + bands	Good	Good value	—
—	4	Staff	—	Good	10 Days	—	Good	Best selling	Should include cases
10	1	Staff	None	Good	Quick	Tomita	Good	Reliability	—

continued on pages 130 & 131

The ROLAND ELECTRIC PIANO from MINNS MUSIC, of course!

**YOU SAVE
£45**



The EP20 Electronic Piano, combining practicality and portability. ■ 61 keys (5 octaves F1-F6)
■ Tone: Piano Harpsicord ■ Piano mute control ■ Vibrato depth control
■ Pitch control ■ Accessories
Damper pedal (DPN-1) Connection cord 2.5m with pin-plug adaptor

List Price
£383
**MINNS PRICE
£338**

AVAILABLE AT MOST BRANCHES OF

MINNS MUSIC

BIRMINGHAM Birmingham Shopping Centre. BOURNEMOUTH Gervis Place. BRIGHTON North Street
EASTBOURNE Lismore Road. EXETER Paris Street. LONDON Brent Cross Shopping Centre.
NORTHAMPTON Grosvenor Centre. PLYMOUTH Cornwall Street. READING The Butts Centre.
SOUTHAMPTON Above Bar. SOUTHSEA Palmerston Road. TAUNTON The Bridge.
TORQUAY Union Street. TRURO Kenwyn Street. WEYMOUTH St. Mary Street. YEOVIL Glovers Walk.

Kitchens

THE MUSIC PEOPLE

Where you can see the most comprehensive range of ROLAND EQUIPMENT.



Now in stock the superb new Roland Jazz chorus Amps 120W/60W and the 120W 8 channel Roland P.A. mixer amp.

Plus Roland keyboards and foot pedals.

See the best of Roland at Kitchens new all electric shop now.

Kitchens - The music people

27/31 Queen Victoria St
Leeds 1 - 446341

26 North Parade
Bradford 23577

Higham House
New Bridge St
N/Castle 22965

33, Peel St
Barnsley 5867

ROLAND

KEYBOARD & RHYTHM UNITS



Amidst our vast stock of equipment we are always able to find room for a reliable + high quality range of add on units for your portable or console organ. These we have found in the ROLAND range of keyboards and rhythm units, with the added sound reproduction of the ROLAND amp and speaker systems.

ALL BRODR JORGENSEN equipment and catalogues are available for the WEST COUNTRY from

BILL GREENHALGH & CO.

Musical Instruments
125/7 Fore Street,
0392 58487

SNIFF THE SUBTLE AROMA OF SUCCESS WITH ROLAND!

SEE!

HEAR!

FEEL!

AHA!

SMELL!



THE
AMAZING
RANGE OF
ROLAND
EFFECTS &
SYNTHS
ALL AT:

KINGFISHER

MUSIC COMPANY

20 KINGS ROAD, FLEET, HANTS.
TEL: FLEET (02514) 21210

The West End Music Store in the Sticks

PLEASE NOTE : ROLAND SNIFFING
IS A CRIMINAL OFFENCE

hamlyn's



A complete range of all ROLAND,
Keyboards, Effects Pedals, and
Rythmn Units.

VISIT OUR SHOWROOMS AT . . .

200 OXFORD STREET
WESTON SUPER MARE
(0934) 23788

35/39 BRIDGE STREET
TAUNTON SOMERSET
(0823) 5153

91 CORNWALL STREET
PLYMOUTH DEVON
(0752) 25360

BROADWAY MUSIC

9, The Broadway
Worthing, Sussex
Tel: 202458

27, York Place,
Brighton, Sussex.
Tel:687430

MAIN AGENTS FOR

ROLAND

SYNTHESISERS AND KEYBOARDS

Plus all leading makes of
musical instruments
Part Exchange - Hire Purchase -
Access - Barclaycard

Roland



Corner

A1

Music Centre



AP2

PHASE II

&
JET PHASER



AP7

CALL IN NOW - DEMOS GLADLY GIVEN



FULL RANGE OF PIANOS AND SYNTHS
IN STOCK.



AMP'S, Latest addition
to the fantastic
Roland range.

Part exchange, Offers you can't refuse.

CASH DISCOUNT

88 Oxford Street Manchester

Tel:236 0340

Sole Agents for Manchester

WESTERN MUSIC

COMPANY RECOMMEND



PRODUCTS

Main stockists of a full range of
synthesizers, electronic pianos
rhythm units and effects pedals

Credit Terms available

Access, Barclaycard, Diners Club, American Express.

130/132, King Street, Hammersmith, W6 0QQ 01-748 5824 and 01-748 1446
53/59, High Street, Croydon, Surrey 01-6881248
50, The Broadway, Wimbledon, S.W.19 01-540 0494
14, Westow Hill, Upper Norwood, S.E.19 01-670 9289
28, Electric Avenue, Brixton, S.W.9 01-733 7326

MARKET REPORT



Roland

from pages 126 & 127

	How Long Roland Dealer	SH1000	MODELS IN STOCK			
			SH2000	SH3A	EP20	EP30
Macaris Musical Centre, 35 Boundary Rd., Hove	6 Months	-	1	1	-	-
Mead Organ Studios, 35 Eversley Rd., Sketty, Swansea	8 Months	-	1	-	-	1
Middletons Music, 105 Holborn St., Aberdeen	1 Year	-	-	1	1	1
Midland Organ Co., 2-5 Suffolk St., Queensway Birmingham	1 Year	1	1	1	1	1
McCormacks, 33 Bath St., Glasgow	From Beginning	1-2	1	-	-	-
Minns, 5-7 Gervis Place, Bournemouth	3 Years	1	-	-	1	-
Minn's Music, 11 Lismore Rd., Eastbourne	-	1	1	-	1	-
Musical Sounds, 274 London Rd., Sheffield Yorks	From Beginning	1	-	-	-	1
Organ Loft, Lord St., Huddersfield, Yorks	1 Year	1	-	1	1	-
Pall Mall Music, Pall Mall, Chorley, Lancs.	1 Year +	-	1	1	1	-
Simpsons, 68 Watling St., Gillingham	3 Years	Waiting for delivery	-	-	-	-
Sound Centre, 9 St. John's Sq., Cardiff	8 Months	1	1	1	1	-
Sound Pad, 64 London Rd., Leicester	1 Year	1	1	1	1	1
Soundwave Music, 60 High St., Brentford, Middx	-	1	1	1	-	1
Western Music Co., 130-132 Kings St., London W6	13 Months	1	2	2	2	2
Geo. A. Williams, Blackwellgate, Darlington	3 Years	1	1	-	-	1
Wolverhampton Organs, 65-67 Mauden Sq., Mauden Centre, Wolverhampton	3 Years	1	1	-	1	-
Minns Music Ltd., 5-7 Gervis Place, Bournemouth	3 Years	-	1	-	-	1
Riverside Organs, 4 Richmond Rd., Kingston Surrey	1 Year	1	1	1	1	-
Rock City Music, 48 Cloth Market, Newcastle	5-6 Months	1	1	1	1	1

RS101	Item Sold Per Month	Service Personnel	Average Repair Time	Reliability	Delivery From stock	Bands Supplied with Roland	Sales Service	Good Points	Weak Point
-	1-2	Freelance	Never	Good	Very Quick	Micky Most	Good	Recording	-
-	3	Staff	-	Very Good	7 Days	Mostly private homes	Good	"One of the leaders"	-
-	3	Staff	-	Very Good	10 Days	-	Very Good	-	More promotional material
-	Impossible to say	Staff	Same Day	Very Good	Varies	Mainly soloists	Very Good	Good value	Should make organs
-	1-2	Staff	Never	Good	14 Days	-	Fair	-	-
-	1	Staff	Couldn't say	Good	Same Day	-	Good	Good value	-
-	1-2	Freelance	1 Week max	Good	-	-	Indifferent	-	-
-	-	Freelance	Never	Good	Long Time	Rainfords	Bad	Price	No
-	1	Staff	Minimal	Good	6-8 Weeks	Home owners	Indifferent	Quality	-
1	2	Staff	Miminal	Good	1 Week	-	Good	Engineering	-
-	Couldn't Say	Staff	1-2 Days	Very Good	1 Week	Winkle Bill + local organists	Good	Good construction	-
-	1	Staff	1-2 Days	Indifferent	2-3 Weeks	Mountain Child	Excellent	Robust construction	None
1	Steady Sales	Staff	24 Hours	Very Good	3-4 Weeks	Loco	Good	Well designed	-
1	-	Staff	Same day	Good	Varies	-	Good	-	-
2	Varies	Staff	-	Good	-	-	Good	Uncomplicated	No
1	Varies	Staff	24 Hours	Good	3 Days	Local groups	Good	Very Satisfactory	-
-	1-3	Staff	-	Good	-	-	Good	Reliability	-
-	2	Staff	-	Very Good	-	-	Very Good	"Piano best of its kind"	-
1	10-12	Staff	24 Hours	Good	Same Day	Lots	Good	Good quality	-
1	2-3	Staff	-	Excellent	1 Week	-	Good	Quality, reasonable price.	-

Midland Organ Studio

ROLAND
MAIN AGENTS - BIRMINGHAM

Always a wide range of
Synthesisers - Electric Pianos -
and Rhythm Units on show!

Midland Organ Studios
2/5 Suffolk Street, Queensway, Birmingham B1
Telephone 021 6430232/2056

PALL MALL MUSIC

58 Pall Mall
Chorley, Lancs
Phone: Chorley 71124

FULL RANGE OF ROLAND AVAILABLE

*Most makes of AMPLIFICATION in stock
Electronic Repair Service
Late Night Opening: Monday 9.00 p.m.*



CARLSBRO SOUND CENTRES

We have the full range of all
ROLAND Products at
the Carlsbro Sound Centres

182-184 Chesterfield Rd. North
Mansfield, Notts.
Tel: Mansfield 26976/26199

13, Berkley Precinct,
Ecceshall Rd, Sheffield.
Tel: Sheffield 663862

SIMPSONS MUSIC

Medway 51131

*Effects Pedals - Keyboards - Rhythm Units
we stock all the*

ROLAND PRODUCTS

68 WATLING STREET, GILLINGHAM, KENT

Nantwich Road, Crewe, Cheshire
Phone: Cheshire (0270) 4779

for all your enquiries for
ROLAND

We are a main dealer for all Roland gear

CUSTOM AMPLIFICATION



BADDELEY

The Electronic Keyboard Specialists
Full range of Roland Keyboards
- in stock -

*All sales are backed by our second-
-to-none after sales service.*

Phone 720128 anytime
28 Leek Road, Stoke On Trent



Roland

TEL. (0325) 66224/60454)
For keyboard instruments of every
description, with service to match.

GEO.A. WILLIAMS

Blackwellgate Darlington County Durham

HAMMONDS OF WATFORD



Roland

Stocked by all our Hertfordshire Music Shops

MUSIC CENTRE
WATFORD
161-165 HIGH STREET
WATFORD HERTS WD1 2ET
TELEPHONE 3973377

MUSIC CENTRE
AYLESBURY
43a BUCKINGHAM STREET
AYLESBURY BUCKS HP20 2ND
TELEPHONE 3131

MUSIC CENTRE
Welwyn Department Stores
WELWYN GARDEN CITY
HERTS
TELEPHONE 23456

SPECIAL ONCE-ONLY DEAL at Macari's

To draw attention to our famous-name stocks, throughout the year we offer a few once-only bargains. This month we have selected this superb ROLAND STRING MACHINE at an unrepeatable low price. See this genuine bargain now, and our other great lines. But hurry! we can only afford this for a LIMITED PERIOD ONLY!



The ROLAND STRING MACHINE is a master piece of electronics. A split keyboard, string voices of violin and 'cello, PLUS Brass and a variable vibrato, and an unbelievable percussive Bass sound complete with hard-top cover. Try the Roland NOW!

Usual Price £490

Macari's Price £399

it's at
macari's

122 CHARING CROSS ROAD, LONDON W.C.2

From **MI** - Straight Guitar Strings,
packed in the
way they are
made to be
played

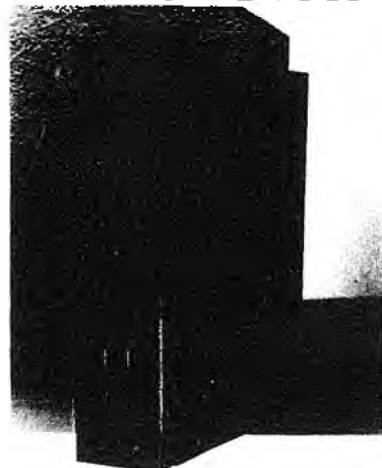
Available for Acoustic, Electrical and Classical guitars. Send 10p stamp for illustrated brochure.

A Sound improvement from MI

Cleartone Musical Instruments Ltd.,
27 Legge Lane,
Birmingham, B1 3LD.
Tel: 021-236 6100.



Binder Offer



NOW YOU CAN GET A LUXURY BALACRON - COVERED BINDER TO KEEP YOUR ISSUES OF INTERNATIONAL MUSICIAN AND RECORDING WORLD TIDY AND IN GOOD CONDITION!

In response to many requests from readers, we've had some special hard binders produced which will take 12 separate issues of this magazine. Each binder has our logo embossed in gold lettering on the spine and comes complete with date pack and all necessary fixings. Price of the binder (which includes postage and packing) is £1.95. Cut the coupon and send to: Binders, International Musician, 17 Tavistock Street, London WC2E 7PA.

Make cheques and postal orders payable to Cover Publications Ltd.

..... cut here

Please rush me *binder(s) for International Musician. I enclose a cheque/postal order for £ which I understand includes postage and packing.

Name Address

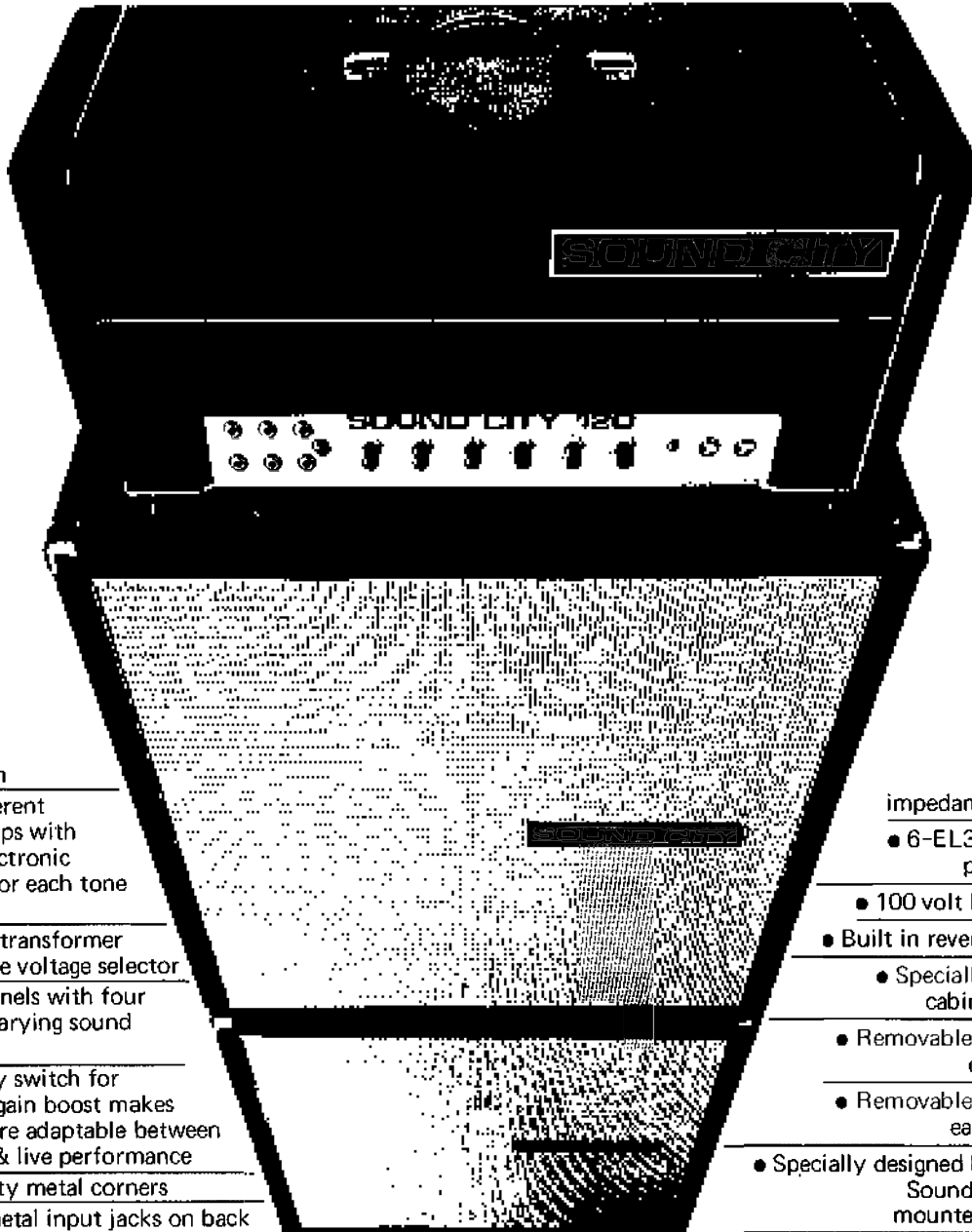
*insert the numbers of binders you require.

Sound City® Amps

Made in
England

120RMS Stack

\$1299



- All tube construction
- Four different tube pre-amps with separate electronic crossovers for each tone control.
- Multi tap transformer with variable voltage selector
- Two channels with four inputs for varying sound capability
- Sensitivity switch for immediate gain boost makes amp far more adaptable between studio use & live performance
- Heavy duty metal corners
- Double metal input jacks on back

- Variable impedance selector
- 6-EL34 Tubes in power stage
- 100 volt line output
- Built in reverb optional
- Specially designed cabinet handles
- Removable grill frame on cabinets
- Removable casters for easy stacking
- Specially designed heavy duty Sound City front mounted Speakers

Compare our prices to other English made amplifiers. Save \$100s with a Sound City.



Dallas Music Industries | USA | Ltd.
301 ISLAND RD, MAHWAH, N.J. 07430 201-327-6300

Please send me information on Sound City Amps

Name _____
Address _____
City _____
State/Zip _____

Please also send me information on your other products

Sound City Pianos SMF Amps Kelsey Boards Mellotrons Hayman Guitars
Kelsey Stage Return Systems SMF Flight Cases SMF Stereo Power Amp SMF Mic Stands

Riverside Organ Studio Limited

4 Richmond Road,
Kingston-on-Thames

ROLAND

AS WELL AS A FULL RANGE OF ROLAND PRODUCTS WE ALSO HAVE A VERY COMPREHENSIVE RANGE OF OTHER LEADING MAKES OF KEYBOARD INSTRUMENTS AND ACCESSORIES.

We have a full range of organs for use in the home from £200 upwards.
H/P, 10% deposit up to five years to pay!
Part exchange, Free delivery.
Open all day Monday-Saturday
TELEPHONE 01-546 1231

SOUND PAD

MUSIC CENTRE

64 London Road, Leicester

Phone Leicester 20760 (STD 0533)

Largest selection of guitars, Amplification Percussion, Keyboards & Disco Equipment in the Midlands



ROLAND DEALER

MAIN AGENTS FOR:

Fender, Rogers, Rhodes, Gibson, Crumar
Premier Carlsbro, Guild,
Peavey, Hi-Watt, Marshall, Rickenbacker, WEM, SAI,
Simms-Watts, AKG, Shure, Beyer, Sennheiser, Coloursound
Hayman, Beverley, Antoria, CSL, Ibanez,
Arbiter Auto - Tunè Paiste, Zildjian.



SOLE AGENTS FOR:



Ampeg, Amcron, Altec, Citronic, DJ Electronics,
Yamaha, Orange, Custom Sound, Anglo -
Norwegian, Pearl, Ludwig, Martin.

SH2000 ROLAND

SYNTHESISER

ALWAYS IN STOCK AT SHEFFIELDS LEADING MUSIC STORE Musical Sounds



Roland Keyboards

	Price	Monthly
EP20	£354.53	£20.07
EP30	£485.65	£27.49
RS101 Strings	£489.41	£27.71

Roland Synths

	Price	Monthly
SH2000	£572.91	£32.43
SH1000	£498.90	£28.23
SH3A	£493.59	£27.94
SH5	£821.33	£46.54

Roland Amps & Effects

	Price	Monthly
Space Echo	£283.21	£16.04
Revo 30	£251.89	£14.23
Revo 130	£524.88	£29.72

Jazz chords 120
combo £378.80 £21.43
Jazz chords 160
combo £424.59 £24.03
NOTE payments reduced if you
have Dep. or P/X
rush this coupon to us

LITERATURE ON ALL ROLAND PRODUCTS
AVAILABLE ON REQUEST
(Please send a 10p S.A.E. Large)

Name _____
Age Over 18 _____
Address _____

Item Required _____
Cost _____
Dep. Available _____
Part Exchange if any value of P/X _____

274 LONDON ROAD TEL. 0742-50445
SHEFFIELD S24NA OR, 0742-54381

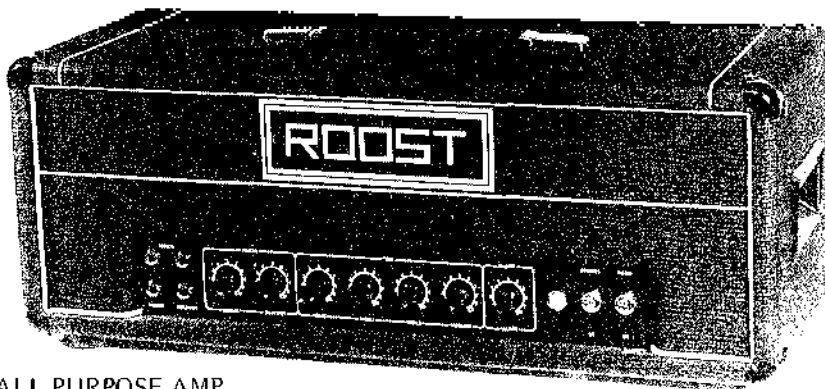
THE SHERGOLD MODULATOR GUITAR



Showing to the trade on the Mick Johnson stand
Morton Hotel · Russell Square · 22 to 26 August

Shergold (Woodcrafts) Limited · 9 Avenue Industrial Estate · Southend Arterial Road · Harold Wood · Romford RM3 0BY · Tel: Ingrebourne 70721

ROOST



ALL PURPOSE AMP
AVAILABLE AS 50w, 100w and 150w

oversees overseas

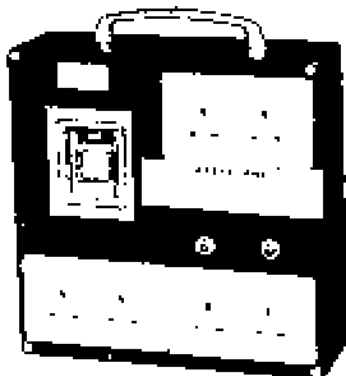
EXPORT AGENCY ENQUIRIES
WELCOME

DETAILS FROM:-
ROOST SOUND EQUIPMENT LTD.
UNIT Q, STARLINE WORKS,
GRAINGER ROAD, SOUTHEND-ON-SEA,
ESSEX, ENGLAND.
Telephone: (0702) 613232

STAGE SAFETY UNIT

*THIS IS ESSENTIAL EQUIPMENT TO ALL GROUPS
AND BANDS AS ANY LEAKAGE TO EARTH WILL
BE DETECTED IN A MAXIMUM OF 0.03 SECONDS*

INSTANT POWER CUT OFF!



- * Alarm Bell Rings
- * Visual Neon Safety Light
- * Easily Portable
- * Strong Metal Construction
- * 6 13 Amp Sockets

* £75 INCLUDING CARRIAGE PACKING & VAT.

Cleveland Music

19-21 CLEVELAND SQUARE, CLEVELAND CENTRE,
MIDDLESBROUGH, CLEVELAND TS1 2NU

Telephone (0642) 210889

MILES PLATTING AMPLIFICATION

TOP QUALITY.
REASONABLY
PRICED

VALVE AMPS.
CELESTION
SPEAKERS



For details send s.a.e. to

JOHN HORNBY 3KEYS BROS LTD 50/50 ROAD WAINFORD BRISTOL GLOUCE

hornby shows

110, 114/115, 116/117, 118, 119

PRICE SCANNER

Compiled by Tony Bacon

ALL PRICES ARE WITHOUT VAT

I.M.'s Price Scanner aims to be the most comprehensive guide to the retail prices of musical instruments and equipment available. All our new retail prices are exclusive of V.A.T. and while we have taken exhaustive care to ensure that the prices are correct, we'd be obliged if you could let us know of any alterations, additions or deletions necessary. Unfortunately we have to disclaim responsibility for any problems arising out of any inaccuracy in this price guide.

SOUND EQUIPMENT

AMEK

X SERIES	
8/4	540.00
12/4	790.00
15/4	940.00
15/4/2	1038.00
8/2	575.00
12/2	730.00
15/2	880.00
20/2	1036.00

JOHN BIRCH

PENETRATOR	
12" Crescendo	95.00
12" Gauss	108.00
15" Crescendo	140.00
15" Gauss	170.00

BOOSEY & HAWKES

AMPFG	
COMBOS	
VT40 60w/v/v 4 x 10	357.40
VT22 120w/v/v 2 x 12	419.44
G212 120w tran.	
2 x 12	432.41
G412 120w tran.	465.74
4 x 12	494.44
BASS COMBOS	
B115 120w tran.	
4 x 15	388.89
B410 120w tran.	
4 x 10	450.93
PIGGYBACKS	
B165 60w/v/v 1 x 15	450.93
B15N 30w/v/v 1 x 15	370.37

HDB25B 85w valve	263.89
HDB1 100w valve	355.48
HDV2 80w valve	323.15
HDV65 240w tran.	341.67

SPEAKERS	
EXSVT 240w 8 x 10	325.93
EXB48 240w 2 x 15	483.33
Atac	
EXB25B 120w 2 x 15	186.11
Reflex	
EXV4 120w 4 x 12	238.89
Inf.	
EXV2 120w 4 x 12	236.11
Ducted	
EXV5B 240w 2 x 15	266.67
a.d.p.	
EXVT2 100w 2 x 12	159.26

OUTFITS	
SVT 300w + 218 x 10	1170.37
V-4B 100w bs.	
1 horn	806.48
B-25B 55w bs +	
2 x 15 reflex	450.00
V-4 100w + 214 x 12	834.26
V-2 80w + 4 x 12	
d.ref.	559.26
V-65 240w + 2	
*15 d.p.	608.33

PAEQUIPMENT	
CS8R Mixer	719.44
A120 Slave	390.74
S48 Columns	211.11

BOSE

BOSE 180C Amp	570.00
800 Spkr. pr. + eq.	440.00
800 Spkr. add-on	375.00
Base 800 eq.	85.00

BRØDR JØRGENSEN

ROLAND RHYTHM UNITS	
RHYTHM BOXES	
TR33	129.64
TR330	106.76
TR55	154.01
TR66	144.85
TR77	246.37

ROLAND AMPS.	
PA80	206.57
PA120	312.82
PA120S	151.20
JC60	258.15
JC80	292.39
JC120	350.76
JC150	393.14
VX55	214.46
CA40	187.83

ROLAND REVO SOUND	
SYST 030	
VT40 60w/v/v 4 x 10	223.90
REVO120	488.00
G212 120w	713.26

EFFECTS UNITS	
RE201	262.23
AD50	41.71
AF80	25.22
AF100	25.50
AG5	34.10
AP2	35.07
AP5	77.08
AF7	60.17
AS1	24.80
AW10	31.85
DP1	5.07
FS1	3.80
FV1	21.42

COMBOS	
C203B	120.33
C203C	126.68

C2536B	138.51
RB120 (S & DS)	289.57
SR120 (S & DS)	283.09

CANARY MIXERS

B SERIES MIXERS	
12/1	496.00
12/2	573.00
15/2	697.00
18/2	856.05
10/4 mini studio	531.00

FREIGHT CASES	
12 ch.	31.00
15 ch.	38.75
18ch.	44.00

A' SERIES CUSTOM MIXERS	
20/8/2	2860.00
15/8	2600.00
24/2	1700.00

CROSSOVERS	
2 way stereo	58.19
3 way stereo	79.04

CARLSBRO

AMPS	
Marlin Mk II	155.00
Slave Mk II	85.00
Stringer	105.00
Stringer Mk II	120.00
Stringer Super Mk II	148.00
Stringer Combo Mk II	190.00
Stringer Super Combo Mk II	219.00
Bass Combo (Stringer)	257.00
Bass Combo (Stringer Super amp.)	285.00

SPEAKER UNITS	
4 x 12 B/L 120w	153.00
1 x 18 100w	117.00
Bass Bin 2 x 15 100w	144.00
Bass Bin 2 x 12 100w	158.00
Mini bin 100w	139.00
2 x 12 PA 80w Pr.	138.00
2 x 12 PA 120w Pr.	160.00
2 x 12 1 horn	
80w Pr.	175.00
2 x 12 1 horn	
120w Pr.	196.00
2 x 12 1 horn	
240w Pr.	220.00

CBS/ARBITER

GITAR AMPS	
COMPLETE WITH AMPS	
2 x JBLD 130F	719.00
Dual Showman Rvb.	747.10
2 x BLD 140F	
Dual Showman Rvb.	424.70
Top only	
Dual Showman Rvb. cab	348.75
2 x JBLD 130F	
Quad Rvb. 4 x Fender	539.00
12" 120F	768.50
Quad Rvb. 4 x JBLD	
120F	768.50
Super Six Rvb. 6 x	
Fender 10"	517.70
Vibrosonic. 1 x JBL	
D130F	488.25
Super Twin. 180 watts	532.20
Twin Reverb. 2 x	
Fender 12"	457.25
Twin Reverb. 2 x	
JBL D120F	588.80
Bandmaster. 2 x	
Fender 12"	449.50
Bandmaster. 2 x	
JBL D120F	564.20
Bandmaster. Top only	291.40

Bandmaster. cab.	
2 x Fender 12"	198.40
Super Reverb.	
4 x Fender 10"	395.25
Super Reverb.	
4 x JBL D110F	610.70
Pro Reverb.	
2 x Fender 12"	367.35
Vibrolux. 2 x	
Fender 10"	305.35
Deluxe Reverb.	
1 x Fender 12"	251.10
Princeton Reverb.	
1 x Fender 10"	193.75
Princeton.	
1 x Fender 10"	141.05
Vibro Chorus	
1 x Fender 8"	83.70
Champ. 1 x Fender 8"	75.95

BASS AMPS.	
Bassman 100.	496.00
Bassman 100. Top	277.45
Bassman 100. cab.	263.50
2 x Fender 15"	413.85
Bassman 50. 2 x JBL	550.25
D140F	215.45
Bassman 50. Top	215.45
Bassman 50. Cab	232.50
2 x Fender 15"	
Bassman 10.	
4 x Fender 10"	316.20
Musicmaster.	
1 x Fender 12"	122.45

P.A. SYSTEMS	
PA100 + 8 x Fender 8"	492.90
PA100 Top	322.40
PA100 S4-8 Col. 4 x 8	212.35
High freq. horn	55.10
PA180 + 4 x	
SC3-10 cols.	905.20
PA180 Top	547.15
PA180 SC3-10 Col	108.50

CERWIN VEGA

AMPS	
A1800 400W + 400W	450.00
(Lad meters)	
A1800/1 400W + 400W	550.00
VU meters + LF/HF	
c/w/rev	
A3000 700W + 700W	795.00
Lad meters	
A3000/1 700W + 700W	895.00
c/w/rev	
A3000/R 850W + 850W	1095.00
Stab. P/S	

CLEAR TONE

CM1	
2x15 Ld. cab. 120w	122.21
2x15 Bs. cab. 120w	118.62
2x12 Ld. cab. 50w	97.50
1x18 Bs. cab. 100w	98.81
4x12 Ld. Cab. 100w	129.00
4x12 Bs. cab 100w	129.00
PACABINETS	
2x10 col. 60w. Pr.	100.11
4x10 col. 120w. Pr.	142.26
Horn cab	81.87
2x12 col. 100w. Pr.	158.57
6x10 col. 150w Pr.	127.87
SOLID STATE	
50w L&B	118.84
100w L&B	127.57
50w PA	118.84
100w Mst. PA	153.60
100w Slv.	111.36
250w Slv.	191.60
8 Ch. Mx.	267.41
50w Combo Amp	173.05

CELESTION SPEAKER	
G12 M25W	16.33
G12 H30W	18.28
G15 M50W	22.98
G18 C100W	41.23
G10 15W	5.49
G15 Twin Cone 60W	25.07

VOCAL REINFORCEMENT SYSTEMS

V.30A 150W	226.18
V.32B 300W	315.74
V.34 300W	325.70
VH.36 400W	527.74
VH.48 600W	652.14

MUSICAL INST. SYS	
G.32 200W	256.03
GB.38 400W	453.08
BF.36 300W	305.78
B.36 300W	285.89
B.48 400W	405.82
B.38MF 300W	345.58
B.48MF 400W	455.05

SOUND REINFORCEMENT SYSTEMS	
L.48CF 500W	418.25
L.48CFD (L.48CF with	
hrm ext. op.)	517.77
L.48DD 2000W	1027.84
RMH 1 100W	293.84
M.35 300W	375.00
M.48 600W	430.89
HMF 4 200W	413.31
HF.5 100W	244.09
MLT. 4 250W	305.79
PZ.12 35W	181.87

CHINGFORD ORGAN STUDIOS

Solton Cabinet	425.00
----------------	--------

CITRONIC LTD.

Stataline II	
Kansas. st.	346.00
Stataline II	
lowe st.	430.00
Stataline II	
Texas. st.	524.00
Stataline II	
Delaware. mono.	230.00

MODULES	
SMP505 Ster. Mix	
Pre-Amp	117.00
MMP303 Mono Mix	
Pre-Amp	69.00
P50 65 w. amp	44.00
P100/100 Ster Amp	99.00

LIQUIDSPEAKER ENC.

CS7212 100w 2 x 12	66.00
CS7212S 100 2 x 12	
twin cone	78.00
CS721-12H 100w	
2 x 12 + Horn	84.00
CS7115 75w 1 x 15	93.00
bin	
CS7115S 100w 1 x 15	117.00
bin	
CS7115H 100w 1 x 15	120.00
bin for bass	
CS7112DH 75w 2 x 12	128.00
+ horn	
CS7215 150w 2 x 15	120.00
All purpose	160.00
CS7215S 200w 2 x 15	160.00
CS7215B 200w 2 x 15	186.00
bass	
CS7015FH 100w 1 x 15	165.00
folded horn	
CS7412 200w 4 x 12	135.00
V-baffle	
CS70H Double HF horn	61.00
box	

MONITORING

CS7WM 50w wedge	45.00
monitor	
CS7WMS 60w wedge	54.00
monitor	

DALLAS

AMPLIFIERS	
Portable	17.00
5w	42.00

212 100w	105.62
152 100w Bin	116.87
100w Combo Amp	196.91

J.T. COPPOCK

ELGEN	
100w Id.	115.27
100w bs.	115.27
100w ster.	127.31
100w ster. slv.	104.82
100w PA.	119.80
100w PA. slv.	80.09
50w G/P	80.09
50w combo w/reverb	159.25
50w bs. combo	137.07
fld. hrn. cab. FH10A	194.44
50w bs. combo	
fld. hrn. cab. FH100A	165.74
1x15 cab 150w	168.05
1x15 cab 100w	146.29
4x12 cab	114.81
4x12 cols. pr.	177.31
2x12 cols. pr.	113.42

CUSTOM SOUND

AMPS	
CS700MYR 12ch. st.	360.00
CS700A 150w	
5ch. PA	160.50
CS700B 150w	133.50
CS700BM 150w	
bassmaster	123.00
CS700C 150w slave	97.50
CS700CV 150w slave	
+ wu	112.50

COMBOS	
CS7000 75w	193.00
Twin reverb	
CS700B 75w	
Bassmaster 2ch.	201.00
CS700DS 100/150w	
twin reverb + Altac	277.50
CS Trucker 30w twin	
input	POA

LIQUIDSPEAKER ENC.

CS7212 100w 2 x 12	66.00
CS7212S 100 2 x 12	
twin cone	78.00
CS721-12H 100w	</

SOUND EQUIPMENT/KEYBOARDS

Table listing various audio equipment including amplifiers, mixers, and speakers. Items include FAL 100, FARFISA RSC 350, FELDON AUDIO, MARLBORO AMPS, FM ACOUSTICS, HORNBY-SKEWES, MALCOLM HILL ASSOCIATES, JASMYN ELECTRONICS, and POWER AMPS.

ALL PRICES ARE WITHOUT VAT

Table listing audio equipment including amplifiers, mixers, and speakers. Items include G and B SERIES COMBO AMPS, MATAMP (RADIOCRAFT), KINGFISHER ACOUSTIC, N.B. AMPLIFICATION, NICHOLLS, ROCK-ON, and NOVANEX.

SOUND EQUIPMENT/KEYBOARDS

Table listing audio equipment including amplifiers, mixers, and speakers. Items include 18ch. Mix. Desk, B.L. PAGE, DYNACORD, MM ELECTRONICS, NICHOLLS, ROCK-ON, and NOVANEX.

SOUND EQUIPMENT/KEYBOARDS

Table listing audio equipment including amplifiers, mixers, and speakers. Items include SHURE, DAVE SIMMS MUSIC PRODUCTS, SW AMPLIFICATION, ROSETTI, R.S.D., SISMO/GODWIN, SOKA SOUND, and SOUNDRAFT ELECTRONICS.

SOUND EQUIPMENT/KEYBOARDS

Table listing audio equipment including amplifiers, mixers, and speakers. Items include YC-6 10, 6x10", W.M.I., ZOOT-HORN, TYAS, VITAVOX, VOX, W.E.M., BOOSEY & HAWKES, and DIAMOND KEYBOARD.

100 W/16 ohms IC204 S	70.00	2 meters	36.00
200 W/4 ohms IC208 S	110.00	2 Peak-reading LED arrays	24.00
200 W/8 ohms IC404 S	180.00	Canon connectors	22.00
400 W/4 ohms IC402 S	180.00	IC420 SERIES 400w 2ch. P.A.	
400 W/2 ohms IC602 S	300.00	Standard	219.00
800 W/2 ohms		2 meters	36.00
WEDGE MONITORS		2 peak-reading LED arrays	24.00
W12 60 W	65.00	Canon connectors	24.00
W15CH 100 W	125.00		
W15CH 100 W JBL	260.00		
W15 RH 200 W JBL	375.00		
HORNS		IC320 SERIES 300w 2ch. P.A.	139.00
JBL2420		Standard	88.00
N.P. radial	190.00	IC110 SERIES 150w single ch. P.A.	
JBL2482		Standard	88.00
M.F. radial	260.00	STAGE MONITOR AMPS	
BINS		IC110M spkr/amp/combo 150w amp 12" spkr + horn	159.00
B15 15" 200W			
GAUSS reflex	145.00	GUITAR AMPS	
MARTIN 15"		IC210G 200w Tone boost + overdrive	159.00
200W GAUSS	199.00	SPEAKERS	
		Mini bin (100w)	145.00
		1 x 15" + 1 horns	145.00
H. H. ELECTRONICS			
POWER AMPS.		THE MAXI PA SPEAKER SYSTEM	
TPA1000	107.80	Maxi bass bin (200w)	185.00
TPA500	77.00	1 x 15" Gauss	
AM/8/12"	56.00	Maxi-midrange Bin (200w)	
TPA250	57.20	1 x 12" Gauss	169.00
TPA250 15"	57.20	Maxi-HF-Horn (100w)	95.00
TPA250-M	55.00	Variable Active Crossover unit Stereo	168.00
AMPS.			
1/C 100 lbs.org.			
1/C 100-5 od.bs.org.	137.94		
100w	111.60		
VS Musician R 100w	150.97		
VS Musician 100w	130.97		
VS Bass Amp 100w	124.23		
PA. AMPS.			
MA100 5 ch./rev	138.72		
100w	118.34		
MA100-S Sch.100w	118.34		
S130 st.amp 120w	89.90		
SPEAKERS			
8.1 1x18"	95.00		
8.2 2x15"	115.00		
8.3 1x15"	78.01		
8.4 4x12"	139.50		
160w			
UNIT P.A. SYSTEMS			
100w radial hn.	99.20		
115bs.compact			
1x15" 100w	100.75		
COMBINATION AMPS			
1/C100.Twin Rev.			
Tremolo + Sustain	206.15		
75/100w			
1/C100-S.Sustain			
75/100w	189.10		
VS Musician R 100w	212.35		
VS Musician 100w	196.85		
INSTRUMENT SPKRS.			
412BL.kd.bs.org.			
4 x 12", 200w	155.00		
215BL.kd.bs.org.			
Twin ported reflex enclosure, 200w	165.85		
Mini Horn	62.77		
MONITOR SYSTEMS			
Combo	134.46		
Extension	68.98		
ECHO UNITS			
Single Sliding Hd.	134.85		
Multi Head	145.70		
HIWATT			
AMPLIFIERS			
DR604 AP 50w	115.00		
DR103 AP 100w	149.00		
DR201 AP 200w	189.00		

100 W/16 ohms IC204 S	70.00	2 meters	36.00
200 W/4 ohms IC208 S	110.00	2 Peak-reading LED arrays	24.00
200 W/8 ohms IC404 S	180.00	Canon connectors	22.00
400 W/4 ohms IC402 S	180.00	IC420 SERIES 400w 2ch. P.A.	
400 W/2 ohms IC602 S	300.00	Standard	219.00
800 W/2 ohms		2 meters	36.00
WEDGE MONITORS		2 peak-reading LED arrays	24.00
W12 60 W	65.00	Canon connectors	24.00
W15CH 100 W	125.00		
W15CH 100 W JBL	260.00		
W15 RH 200 W JBL	375.00		
HORNS		IC320 SERIES 300w 2ch. P.A.	139.00
JBL2420		Standard	88.00
N.P. radial	190.00	IC110 SERIES 150w single ch. P.A.	
JBL2482		Standard	88.00
M.F. radial	260.00	STAGE MONITOR AMPS	
BINS		IC110M spkr/amp/combo 150w amp 12" spkr + horn	159.00
B15 15" 200W			
GAUSS reflex	145.00	GUITAR AMPS	
MARTIN 15"		IC210G 200w Tone boost + overdrive	159.00
200W GAUSS	199.00	SPEAKERS	
		Mini bin (100w)	145.00
		1 x 15" + 1 horns	145.00
H. H. ELECTRONICS			
POWER AMPS.		THE MAXI PA SPEAKER SYSTEM	
TPA1000	107.80	Maxi bass bin (200w)	185.00
TPA500	77.00	1 x 15" Gauss	
AM/8/12"	56.00	Maxi-midrange Bin (200w)	
TPA250	57.20	1 x 12" Gauss	169.00
TPA250 15"	57.20	Maxi-HF-Horn (100w)	95.00
TPA250-M	55.00	Variable Active Crossover unit Stereo	168.00
AMPS.			
1/C 100 lbs.org.			
1/C 100-5 od.bs.org.	137.94		
100w	111.60		
VS Musician R 100w	150.97		
VS Musician 100w	130.97		
VS Bass Amp 100w	124.23		
PA. AMPS.			
MA100 5 ch./rev	138.72		
100w	118.34		
MA100-S Sch.100w	118.34		
S130 st.amp 120w	89.90		
SPEAKERS			
8.1 1x18"	95.00		
8.2 2x15"	115.00		
8.3 1x15"	78.01		
8.4 4x12"	139.50		
160w			
UNIT P.A. SYSTEMS			
100w radial hn.	99.20		
115bs.compact			
1x15" 100w	100.75		
COMBINATION AMPS			
1/C100.Twin Rev.			
Tremolo + Sustain	206.15		
75/100w			
1/C100-S.Sustain			
75/100w	189.10		
VS Musician R 100w	212.35		
VS Musician 100w	196.85		
INSTRUMENT SPKRS.			
412BL.kd.bs.org.			
4 x 12", 200w	155.00		
215BL.kd.bs.org.			
Twin ported reflex enclosure, 200w	165.85		
Mini Horn	62.77		
MONITOR SYSTEMS			
Combo	134.46		
Extension	68.98		
ECHO UNITS			
Single Sliding Hd.	134.85		
Multi Head	145.70		
HIWATT			
AMPLIFIERS			
DR604 AP 50w	115.00		
DR103 AP 100w	149.00		
DR201 AP 200w	189.00		

100 W/16 ohms IC204 S	70.00	2 meters	36.00
200 W/4 ohms IC208 S	110.00	2 Peak-reading LED arrays	24.00
200 W/8 ohms IC404 S	180.00	Canon connectors	22.00
400 W/4 ohms IC402 S	180.00	IC420 SERIES 400w 2ch. P.A.	
400 W/2 ohms IC602 S	300.00	Standard	219.00
800 W/2 ohms		2 meters	36.00
WEDGE MONITORS		2 peak-reading LED arrays	24.00
W12 60 W	65.00	Canon connectors	24.00
W15CH 100 W	125.00		
W15CH 100 W JBL	260.00		
W15 RH 200 W JBL	375.00		
HORNS		IC320 SERIES 300w 2ch. P.A.	139.00
JBL2420		Standard	88.00
N.P. radial	190.00	IC110 SERIES 150w single ch. P.A.	
JBL2482		Standard	88.00
M.F. radial	260.00	STAGE MONITOR AMPS	
BINS		IC110M spkr/amp/combo 150w amp 12" spkr + horn	159.00
B15 15" 200W			
GAUSS reflex	145.00	GUITAR AMPS	
MARTIN 15"		IC210G 200w Tone boost + overdrive	159.00
200W GAUSS	199.00	SPEAKERS	
		Mini bin (100w)	145.00
		1 x 15" + 1 horns	145.00
H. H. ELECTRONICS			
POWER AMPS.		THE MAXI PA SPEAKER SYSTEM	
TPA1000	107.80	Maxi bass bin (200w)	185.00
TPA500	77.00	1 x 15" Gauss	
AM/8/12"	56.00	Maxi-midrange Bin (200w)	
TPA250	57.20	1 x 12" Gauss	169.00
TPA250 15"	57.20	Maxi-HF-Horn (100w)	95.00
TPA250-M	55.00	Variable Active Crossover unit Stereo	168.00
AMPS.			
1/C 100 lbs.org.			
1/C 100-5 od.bs.org.	137.94		
100w	111.60		
VS Musician R 100w	150.97		
VS Musician 100w	130.97		
VS Bass Amp 100w	124.23		
PA. AMPS.			
MA100 5 ch./rev	138.72		
100w	118.34		
MA100-S Sch.100w	118.34		
S130 st.amp 120w	89.90		
SPEAKERS			
8.1 1x18"	95.00		
8.2 2x15"	115.00		
8.3 1x15"	78.01		
8.4 4x12"	139.50		
160w			
UNIT P.A. SYSTEMS			
100w radial hn.	99.20		
115bs.compact			
1x15" 100w	100.75		
COMBINATION AMPS			
1/C100.Twin Rev.			
Tremolo + Sustain	206.15		
75/100w			
1/C100-S.Sustain			
75/100w	189.10		
VS Musician R 100w	212.35		
VS Musician 100w	196.85		
INSTRUMENT SPKRS.			
412BL.kd.bs.org.			
4 x 12", 200w	155.00		
215BL.kd.bs.org.			
Twin ported reflex enclosure, 200w	165.85		
Mini Horn	62.77		
MONITOR SYSTEMS			
Combo	134.46		
Extension	68.98		
ECHO UNITS			
Single Sliding Hd.	134.85		
Multi Head	145.70		
HIWATT			
AMPLIFIERS			
DR604 AP 50w	115.00		
DR103 AP 100w	149.00		
DR201 AP 200w	189.00		

100 W/16 ohms IC204 S	70.00	2 meters	36.00
200 W/4 ohms IC208 S	110.00	2 Peak-reading LED arrays	24.00
200 W/8 ohms IC404 S	180.00	Canon connectors	22.00
400 W/4 ohms IC402 S	180.00	IC420 SERIES 400w 2ch. P.A.	
400 W/2 ohms IC602 S	300.00	Standard	219.00
800 W/2 ohms		2 meters	36.00
WEDGE MONITORS		2 peak-reading LED arrays	24.00
W12 60 W	65.00	Canon connectors	24.00
W15CH 100 W	125.00		
W15CH 100 W JBL	260.00		
W15 RH 200 W JBL	375.00		
HORNS		IC320 SERIES 300w 2ch. P.A.	139.00
JBL2420		Standard	88.00
N.P. radial	190.00	IC110 SERIES 150w single ch. P.A.	
JBL2482		Standard	88.00
M.F. radial	260.00	STAGE MONITOR AMPS	
BINS		IC110M spkr/amp/combo 150w amp 12" spkr + horn	159.00
B15 15" 200W			
GAUSS reflex	145.00	GUITAR AMPS	
MARTIN 15"		IC210G 200w Tone boost + overdrive	159.00
200W GAUSS	199.00	SPEAKERS	
		Mini bin (100w)	145.00
		1 x 15" + 1 horns	145.00
H. H. ELECTRONICS			
POWER AMPS.		THE MAXI PA SPEAKER SYSTEM	
TPA1000	107.80	Maxi bass bin (200w)	185.00
TPA500	77.00	1 x 15" Gauss	
AM/8/12"	56.00	Maxi-midrange Bin (200w)	
TPA250	57.20	1 x 12" Gauss	169.00
TPA250 15"	57.20	Maxi-HF-Horn (100w)	95.00
TPA250-M	55.00	Variable Active Crossover unit Stereo	168.00
AMPS.			
1/C 100 lbs.org.			
1/C 100-5 od.bs.org.	137.94		
100w	111.60		
VS Musician R 100w	150.97		
VS Musician 100w	130.97		
VS Bass Amp 100w	124.23		
PA. AMPS.			
MA100 5 ch./rev	138.72		
100w	118.34		
MA100-S Sch.100w	118.34		
S130 st.amp 120w	89.90		
SPEAKERS			
8.1 1x18"	95.00		
8.2 2x15"	115.00		
8.3 1x15"	78.01		
8.4 4x12"	139.50		
160w			
UNIT P.A. SYSTEMS			
100w radial hn.	99.20		
115bs.compact			
1x15" 100w	100.75		
COMBINATION AMPS			
1/C100.Twin Rev.			
Tremolo + Sustain	206.15		
75/100w			
1/C100-S.Sustain			
75/100w	189.10		
VS Musician R 100w	212.35		
VS Musician 100w	196.85		
INSTRUMENT SPKRS.			
412BL.kd.bs.org.			
4 x 12", 200w	155.00		
215BL.kd.bs.org.			
Twin ported reflex enclosure, 200w	165.85		
Mini Horn	62.77		
MONITOR SYSTEMS			
Combo	134.46		
Extension	68.98		
ECHO UNITS			
Single Sliding Hd.	134.85		
Multi Head	145.70		
HIWATT			
AMPLIFIERS			
DR604 AP 50w	115.00		
DR103 AP 100w	149.00		
DR201 AP 200w	189.00		

100 W/16 ohms IC204 S	70.00	2 meters	36.00
200 W/4 ohms IC208 S	110.00	2 Peak-reading LED arrays	24.00
200 W/8 ohms IC404 S	180.00	Canon connectors	22.00
400 W/4 ohms IC402 S	180.00	IC420 SERIES 400w 2ch. P.A.	
400 W/2 ohms IC602 S	300.00	Standard	219.00
800 W/2 ohms		2 meters	36.00
WEDGE MONITORS		2 peak-reading LED arrays	24.00
W12 60 W	65.00	Canon connectors	24.00
W15CH 100 W	125.00		
W15CH 100 W JBL	260.00		
W15 RH 200 W JBL			

Belgrave	700.00
Baltimore	780.00
Berkley	1007.89
Beresford	1260.00
Buckingham	1518.48
Super Piano	743.07
VIP200 Amp	44.81
VIP200	395.38
Syntorchestra	389.20
RSC350	603.07
RSC180	316.92
VIP233	220.00
DR200	467.89
Pro. Duo	973.84
VIP500	759.48
VIP500	564.61
Pedalboard	101.53
VIP233	426.15
VIP370	458.48
Pedalboard	41.53
Pro. Piano	441.53
CH25	980.00
Transilvox P	884.61
Transilvox TX2M	980.00
Transilvox TX10M	672.30
X13	316.92
X17	396.92
S.I.V.	407.89
S.V.I.	543.07
Polyphonica XIV	406.15
A251 Cordovox	3098.45

GALANTI

X300 D/L	305.24
X300 R8	342.23

F.RANGE

F.1.	351.40
F.2.	425.74
F.2 D/L	518.25
F.3	839.87
F.5.	740.46

Insta-str. w/	
legs/cs	276.86
Insta-piano w/ lgs/cs	
sustain pedal	184.47

HAMMOND

SOUNDER	
Model 1	313.78
Model 3	817.78

SPINET	
Super Dolphin	
9722K	580.00
Super Dolphin	
deluxe 9822K	850.86
Super Dolphin Premier	
deluxe 9922K	1208.99
Phoenix 1222	1450.67
Aurora 8222	2586.67

CONSOLE	
Monarch 16122	3450.67
Grande 11122	4318.44
Regent 4172	4318.44
Concorde 2107	5180.44

PORTABLE

X-2	475.55
X-5	1088.99

ACCESSORY PRODUCTS

Auto-varn 64	
Rhythm unit	193.78
Hammond Synthesizer	
SY-100	400.00

HÖHNER

KEYBOARDS	
Mini KORG 700	300.93
Mini KORG 700S	358.48
Clavinet D6	323.55
Pianet N	221.39
Combo Pianet	173.98
Hi Piano	212.27
Bass 2	125.93
Electra	462.04

ORGANS	
Organet 41	223.89
Organet 40	388.33

LIVINGSTON

Chorister 61 MB	380.00
Minirel	T.B.A.
Abbey Chapel	890.00
Abbey Chapel/13	
Nt. pdlbrd.	548.00
Abbey Chapel/	
spkr.cab.	580.00
Choral 30/30 nt	
pdlbrd.	960.00
Chorale 30/30 nt.pdlbrd.	
+ spkr.cab.	1080.00
Chorister 2-69 'B'/32	
nt.pdlbrd.	1350.00
Chorister 2-69 'B'/32	
nt.pdlbrd+spkr.cab	1470.00

M.C.H.

A100 Solina + Rhy.	528.80
G110 Solina + Rhy.	620.00
A104 Solina + Rhy.	
/Jg. Rth+Matic	782.00
B26 Solina/Rth-O-Matic	
Multivoice	1000.00
C116 Solina Straight,	
Rth-O-Matic, Multivoice,	
Orbitone	1240.00
C116 Solina, Semi-horseshoe,	
Rth-O-Matic, Multivoice	
Orbitone	1276.00
310 Eminent Theatre/Rhy.	
Orbitone, String	
Ensemble	1420.00
2000 Eminent Grand Theatre,	
Rth-O-Matic, Orbitone	
String Ensemble, Arpeggio,	
Drawbars and lgs 3516.00	
SE4 Solina String Ensemble/	
pedal tone cabs,	
70w, 3ch.	536.00

ROSE-MORRIS

GEM ELECTRONIC KEYBOARDS	
297 Intercontinental	
Dual Manual organ	726.85
TBA Dakota Synth.	
Dual Manual organ	590.95
291 Caravan single man	
4 octave	104.00
290 Europe single man	
3 octave	79.20
282 Jumbo Gem	140.00
part. 4 oct	164.00
293 Jumbo 61 5 oct	164.00
198 Jumbo 61/fy/un	236.00
139 Combo piano	184.50

LORENZO ORGANS

296 12bs	67.42
----------	-------

MINI-KORG SYNTH.

280 Model 700	300.90
281 700s	349.95
279 800	542.25

LOWREY

TG-1	599.20
TG44-1	920.00
TG88-1	1199.20
TG98-1	1439.20
TG0-1	1788.00
TGS-1	2136.00
TLOKS-25	2388.00
GAK-H-1	3468.00
GAK-25H-1	3468.00
H25-3	6360.00

MOOG SYNTHESIZERS

Mini-moog	856.48
Sonic six	841.67
Taurus pedal synth.	480.55
Micro-Moog	480.55

PIANO ACCORDIONS

Bellini Multi-grade	205.56
Bellini '80'	128.63
Bellini '48'	89.89
Bellini '24'	62.04

WURLITZER

305 Sprite	358.00
320 Sprite, Fwd	554.00
350 Sprite, Fwd	595.00
375 Sprite, Fwd	887.00
400 Sprite, Fwd	905.00
Nt. pdlbrd.	1098.00
542 Chapel Spinet	
Wal	1284.00
545 Chapel Spinet	
Mah/Wal	1900.00
55 Chapel Spinet,	
Wal	1548.00
605 Centura, Wal.	2025.00
800 Centura, Wal.	2221.00
802 Centura, Wal.	2221.00
805 Centura, Wal.	2623.00
4700 Concert, Wal	3574.00

PIANOS

200 Elect. Black	467.00
2109 Fwd.	549.00
2126 Lt.Fwd/Fwd	82.19
2850 Wal.	810.00

PAISTE CYMBALS & GONGS

13" Sound edge	81.54
Hi-hat pr.	82.18
14" Sound edge	88.97
Hi-hat pr.	89.61
15" Sound edge	94.48
Hi-hat pr.	95.12
13" Hi-Hat pr.	56.46
14" Hi-hat pr.	58.06
15" Hi-hat pr.	64.96
16" Crash, Medium or	37.21
Ride	38.81
18" Crash, Medium or	44.70
Ride	46.30
20" Crash, Medium or	55.33
Ride	56.93
22" Crash, Medium or	70.89
Ride	72.49
24" Crash, Medium or	85.34
Ride	86.94
18" China type	59.02
20" China type	74.86
8" Bell Cymbal	29.07
11" Splash Cymbal	34.53

FORMULA 602

13" Sound edge	81.54
Hi-hat pr.	82.18
14" Sound edge	88.97
Hi-hat pr.	89.61
15" Sound edge	94.48
Hi-hat pr.	95.12
13" Hi-hat pr.	68.01
14" Hi-hat pr.	68.01
15" Hi-hat pr.	76.13
18" Thin, Thin Crash, Medium	43.46
or Medium Ride	45.98
17" Thin, Thin Crash, Medium	45.98
or Medium Ride	48.50
18" Thin, Thin Crash, Medium	52.34
or Medium Ride	54.86
19" Thin, Thin Crash, Medium	59.83
or Medium Ride	62.35
20" Thin, Thin Crash, Medium	67.32
or Medium Ride	69.84
22" Thin, Thin Crash, Medium	85.23
or Medium Ride	87.75
24" Thin, Thin Crash, Medium	100.45
or Medium Ride	102.97

K. ZILDJIAN

10" crash	17.55
12" crash	22.68
13" Hi-hat	25.88
14" Hi-hat	29.63
15" crash/ride	33.79
16" Hi-Hat	35.65
17" crash/ride	37.73
18" crash/ride	43.98
19" crash/ride	48.84
20" crash/ride	54.63
22" crash/ride	64.77

IZMAR

12"	11.06
13"	12.92
14"	18.47
15"	19.40
16"	22.17
18"	28.86
20"	35.14
22"	50.88

POWERONE 18" x 20

Tom	179.80
Powerone Bongos	75.95
Powerone Timbales,	
Powerone Timbales,	195.30
Chrom.	195.30
Accusonic Timpani,	
20"	469.65
Accusonic Timpani,	
26"	496.00
Accusonic Timpani,	
28"	599.30
Accusonic Timpani,	
29"	620.00

CONCERT TOM-TOMS

8" x 8"	43.40
7" x 10"	48.05
8" x 12"	51.15
9" x 13"	54.25
10" x 14"	62.00
12" x 15"	71.30

CONCERT TOMS (inc. stands)

90 Low Pitch	227.39
91 High Pitch	141.02

LATIN AMERICAN PERCUSSION

Prices to be announced.

DALLAS

Arbiter Autotune	642.40
Arbiter Autotune/	
stands	477.30

HAYMAN OUTFIT

Snownam 22" Outfit	367.40
--------------------	--------

HAYMAN DRUMS

Vibronic snare	64.90
12" x 8" T	51.70
13" x 9" T	51.70
16" x 18" T (lgs)	71.50
22" Bass	101.20

HAYMAN CYMBALS (SWISS)

10" High Hat	10.00
18" Cymbal	19.00
20" Cymbal	25.00

DAVOLI

UFIP CYMBALS	
RITMO	
10"	9.50
11"	10.50
12"	11.50
13"	13.50
14"	17.00
15"	18.00
16"	21.00
18"	29.50
20"	36.00
22"	44.00
24"	50.00

TAM-TAMS

20"	65.00
28"	90.00
32"	126.00
36"	285.00
40"	380.00

REDSOUND

12"	5.60
13"	8.00
14"	8.50
15"	11.00
16"	12.00
18"	16.50
20"	20.00

HEAVY BAND CYMBALS

11" pr.	17.81
12" pr.	19.18
13" pr.	23.90
14" pr.	30.37
15" pr.	37.50
16" pr.	37.50
18" pr.	56.25
20" pr.	67.87

EMI HAMMA

Kit 770	277.73
Kit W770	277.73
Kit 660	237.04
Kit W660	237.04
22" bass	55.32
Set	58.70
12" x 9 tom	29.30
14" x 10 tom	30.92
13" x 9 tom (SH)	23.15
14" x 10 tom (SH)	27.73
16" x 16	42.87
14" x 5 1/2 snare	40.69
(metal)	
16" x 16" 20"	50.47
1163 22"	52.52
1170 22"	45.01
1171 20"	45.35
1172 22"	48.43
1173 22"	49.84
1175 24"	62.85

CONCERT TOMS (inc. stands)

90 Low Pitch	227.39
91 High Pitch	141.02

LATIN AMERICAN PERCUSSION

Prices to be announced.

DALLAS

Arbiter Autotune	642.40
Arbiter Autotune/	
stands	477.30

HAYMAN OUTFIT

Snownam 22" Outfit	367.40
--------------------	--------

HAYMAN DRUMS

Vibronic snare	64.90
12" x 8" T	51.70
13" x 9" T	51.70
16" x 18" T (lgs)	71.50
22" Bass	101.20

HAYMAN CYMBALS (SWISS)

10" High Hat	10.00
18" Cymbal	19.00
20" Cymbal	25.00

DAVOLI

UFIP CYMBALS	
RITMO	
10"	9.50
11"	10.50
12"	11.50
13"	13.50
14"	17.00
15"	18.00
16"	21.00
18"	29.50
20"	36.00
22"	44.00
24"	50.00

TAM-TAMS

20"	65.00
28"	90.00
32"	126.00
36"	285.00
40"	380.00

REDSOUND

12"	5.60
13"	8.00
14"	8.50
15"	11.00
16"	12.00
18"	16.50
20"	20.00

HEAVY BAND CYMBALS

11" pr.	17.81
12" pr.	19.18
13" pr.	23.90
14" pr.	30.37
15" pr.	37.50
16" pr.	37.50
18" pr.	56.25
20" pr.	67.87

EMI HAMMA

Kit 770	277.73
Kit W770	277.73
Kit 660	237.04
Kit W660	237.04
22" bass	55.32
Set	58.70
12" x 9 tom	29.30
14" x 10 tom	30.92
13" x 9 tom (SH)	23.15
14" x 10 tom (SH)	27.73
16" x 16	42.87
14" x 5 1/2 snare	40.69
(metal)	
16" x 16" 20"	50.47
1163 22"	52.52
1170 22"	45.01
1171 20"	45.35
1172 22"	48.43
1173 22"	49.84
1175 24"	62.85

PREMIER

DRUM OUTFITS

B201 22"	282.36
B201 18"	259.38
C201 18"	275.71
B202 22"	294.13
B202 18"	295.15
D202 24"	304.02
B203 22"	361.47
D203 24"	398.64
B204 22"	425.89
D204 24"	425.75
B304 20"	360.30
B304 22"	361.38
D304 24"	370.25
B305 22"	390.88
B305 24"	391.90
D305 24"	400.77
B308 20"	418.84
B308 22"	419.86
D308 24"	426.73
B604 20"	346.55
B604 22"	347.57
D604 24"	356.44
B605 20"	411.95
B605 22"	412.87
D605 24"	421.74
B606 20"	421.74
B606 22"	524.22
D606 24"	641.95
B717 22"	471.35
B717 24"	472.38
D717 24"	481.24
B808 20"	646.80
B808 22"	648.84
D808 24"	666.57
R1031 20"	119.06
B1031 22"	202.63
1033 20"	237.49
B10	

GUITARS/MICROPHONES

F 45	58.90	2355 8g Jhn. SAc. S'bst	101.85
F 55-12	71.30		
F 65	72.85		
F 75	89.90		
F 85	117.80		
F 95	150.35		
F 80	91.95		
F 110	220.10		
FENDER BANJOS			
Artist Bluegrass + case			
Artist Bluegrass	785.85		
+ case	713.00		
Allegro Bluegrass + case			
+ scruggs	558.00		
Allegro Bluegrass + case			
+ scruggs	439.00		
CLEARTONE			
MELODY			
1200	34.65		
1250	43.71		
500	30.81		
525	38.09		
325	13.00		
450	21.81		
460	29.94		
350	15.33		
1300	34.47		
600	39.38		
MIAMI			
FT1	25.35		
FT2	29.83		
FT1 Bs.	32.69		
KLIRA			
Westbury	54.79		
310 Elec.	89.93		
360 Bs.	68.19		
Blue Hill 6	58.78		
Blue Hill 12	62.17		
SMB Solid	80.13		
SM9 Solid	90.57		
35 S Bs.	75.86		
149 Classic	27.61		
GUYATONE STEEL			
HG91	20.66		
HG306	55.52		
HG188 C	88.71		
CMJ			
Custom 6	109.95		
Custom 4	122.75		
Sallybury	109.95		
SG 2 S	42.06		
SG10 B	41.06		
ST300	64.42		
HASHIMOTO CLASSIC			
G100	38.72		
G130	44.18		
G160	51.41		
G200	57.79		
G250	68.68		
J.T. COPPOCK			
DOBRO			
Hnd. Dg. sq. nk.	163.89		
B/grsd. nk.	163.89		
NATIONAL DOBRO			
36 HndEng	263.89		
33 D. Dva. encl.	231.48		
30 Gd. encl.	178.00		
HAWAIIAN			
2390 Gr.	21.75		
2391 O/fn	42.61		
ANTORIA CLASSICAL			
361	30.09		
RA2	31.02		
ANTORIA CLASSICAL			
2838	38.35		
2940	45.37		
2841	47.22		
2850	39.81		
2855	53.70		
2858 sto.grd.	94.44		
F2871 Flmco.	94.44		
TAMA			
3661 S	120.83		

SEMI-ACCOUSTIC			
07301 5/120	200.92		
JAZZ			
03302 5/80	137.03		
13503 AZ/10	362.96		
CLASSIC			
Torre Student	13.50		
Torre Chica 3/4	20.10		
Torre Classic	25.50		
Torre Spagnola	35.70		
Torre Granada	54.75		
JUMBO			
Arbiter	33.50		
Arbiter	35.10		
Arbiter	44.20		
Arbiter XII	47.50		
Arbiter	49.50		
Arbiter	88.50		
Martin Colletti - Small Body	100.00		
ARBITER ELECTRIC			
E250 1 P/U	28.60		
Solid			
E255 2 P/U	32.35		
Solid			
E260 Solid Bass	41.75		
E210 L.P. S/B	90.75		
E215 L.P. S/B			
Split P/U	101.65		
E220 S.G.	125.85		
E225 Flying "V"	117.40		
E230 S.G. 3 Gold P/Ups	105.30		
Trem	124.00		
E235 TV	124.00		
E240 Double Neck 6 & 12 String	170.50		
E245 L.P. Jun	124.00		
E265 Ster. Bass	148.50		
E270 Deluxe	187.00		
E275 dble Neck 6 String + Bass	170.50		
4445 Jedson Jet Bass	82.50		
GIANNINI GUITARS			
Classical - Nylon	25.85		
Classical - Nylon	29.70		
Classical - Nylon	42.35		
Classical - Nylon	51.70		
Classical - Nylon	64.35		
12 String Jumbo	64.35		
6 String Jumbo	49.50		
6 String Jumbo	53.35		
6 String Jumbo	44.00		
6 String Jumbo	53.35		
6 String Jumbo	55.00		
DAVOLI			
GHERSON			
L2FR Mahog/Gold	112.00		
G2 Nat/Chrome	97.50		
G2 Bass Nat/Chrome	110.00		
LANDOLA			
6 STRING			
V62 Folk	33.60		
V66	35.40		
V70	38.50		
V71	39.48		
E200	45.92		
E211	51.24		
12 STRING			
V89	43.54		
V73	53.48		
E231	67.90		
FLETCHER, COPPOCK & NEWMAN			
KIMBARA ACOUSTICS			
N105 Cls.	26.39		
N108 Cls.	27.73		
N189 Cls.	28.65		
N175 Cls.	35.09		
N29 Cls.	43.06		
N108 Cls.	55.51		
MS 200 Bass	76.20		
N75 Cls. w/cs	96.30		
N78 Cls. w/cs	96.30		
N30 Flk.	30.70		
N71 Jmb	35.98		
N72 12 str.	40.61		

FG295	80.00		
FG7005 With Handmade Case	179.00		
FG1000 With Handmade Case	259.00		
FG1200 With Handmade Case	289.00		
FOLK & PICK UP			
FG 110 E	53.05		
FG 160 E	64.53		
SEMI ACOUSTIC			
SA 30	78.18		
SA 60	175.60		
SA 90	221.21		
SA 75 Bass	183.84		
SOLIDOS			
SG 30	77.26		
SG 35	93.84		
SG 40	104.52		
SG 45	109.10		
SG 85	160.88		
SB 35 Bass	93.54		
SBL 55	136.03		
SBL 75	159.09		
ACOUSTIC ELEC.			
AE 12	200.33		
AE 18	263.01		
IVOR MAIRANTS			
MARTIN			
D.18	231.50		
D.28	305.58		
D.35	324.07		
D.45	918.67		
D.12.2B	259.26		
O16NY/case	231.48		
O021/case	324.10		
AROSTEGUI			
No. 2	18.52		
No. 3	20.37		
No. 6	22.22		
9504	49.95		
9505	50.88		
9583	74.03		
9507	49.03		
9553 (12 string)	53.81		
9551 Folk (12string)	39.77		
9582	41.62		
LARAMIE			
9714	24.95		
9715 (12 string)	29.17		
9716	10.17		
9717	23.10		
EROS JUMBO			
9353	32.36		
9358	41.62		
9350 Folk	31.43		
9351 Folk (12string)	39.77		
EROS ELECTRICS			
9709 bass	71.95		
9710	70.35		
9711	63.95		
9712	68.75		
9713 bass	68.75		
9585 bass	85.95		
9586 bass	95.95		
9578	76.00		
9579	74.20		
9587	84.00		
SAKURA			
C1385	64.82		
C113A	16.87		
LS26	40.00		
LS26S	36.00		
B.L.PAGE			
MICRO-FRETS			
Thndstr.	244.44		
Husky	195.56		
Stage II	171.11		
Sgr Bs.	171.11		
B/in.6/e.bs.	183.33		
Huntington	205.56		
Spacatone	255.87		
Swng Cust.	226.11		
Stage II	207.78		
Swng	195.56		
Sgr. Cust.	195.56		
Sgr.	171.11		
Calbra I	171.11		
Calbra	152.78		

Navajo 12 st	33.79		
El Dorado 6st	78.99		
El Dorado 12st	88.23		
El Guacho cutaway			
Acoustic 6st	86.72		
El Paso Jumbo 6st	67.39		
STUDENT GUITARS			
Dulcer Nyl. str.	12.80		
Constante Nyl. Str. 3/4	8.28		
Kansas 5 st. steel	8.90		
Kansas 6st. steel Fxd			
Bridge	6.73		
Kapak 5 st. steel 1/2	6.73		
Dulcet II class.	16.10		
Texan 6 st. Jumbo	19.45		
Django 6 st.	19.86		
ROSETTI			
TATRA			
9198	18.05		
9225	21.06		
9625N	12.82		
9525S	11.99		
EPHPHONE			
FT200	87.92		
FT15	46.25		
FT550	148.10		
FT165	100.00		
FT566	129.63		
FT570BL	106.48		
FT140	68.40		
FT145	69.40		
FT150	106.48		
FT165	120.32		
FT160	87.62		
FT130	64.49		
EC 2	55.51		
EC20	62.96		
EC24	62.96		
FT120	55.51		
KISO SUZUKI			
9502	41.62		
9503	46.25		
9504	49.95		
9505	50.88		
9583	74.03		
9507	49.03		
9553 (12 string)	53.81		
9551 Folk (12string)	39.77		
9582	41.62		
CIMAR CLASSIC			
309	27.31		
361	33.33		
363/2839	39.35		
364/2840	42.56		
387	48.61		
388	45.83		
HIROSHITAMURA			
P36	122.22		
P46	152.77		
A MATSUOKI CLASSIC			
M20	88.43		
M25	89.53		
M30	117.13		
M40	142.59		
M50	166.67		
MITSURU TAMURA			
P700	217.59		
P800	254.62		
10P1200	379.62		
MASARU KOHNO			
M.K.10	370.37		
M.K.16	550.33		
M.K.20	736.11		

3560 S	133.33
3558 S Jbo.	119.91
3550 P Grd.	
concert	86.11
3550 S Grd.	
concert	86.89
YAMAKI	
225 12 str. jbo.	93.51
220 12 str. jbo.	89.80
215 12 str. jbo.	75.46
120 6 str. bo.	81.02
115 6 str. bo.	62.96
112 6 str. fk.	43.51
ANTORIA	
755 Herald	74.54
757 GL Wstrn Std	56.33
758 GL Wstrn.	
Art. jbo.	103.70
695 N'shvl. 6	40.28
697 D'ngt.	69.44
357 Fk.	37.96
62 B'co Fk.	32.87
627 L/h.	47.22
627 B'co jbo.	40.74
627/12 B'co jbo.	48.15
79 Calif. fk.	34.72
628 Calif. jbo.	47.22
628/12 Calif. jbo.	53.70
684/5 L/h.	53.70
684/5 Sup. jbo.	50.00
648/12 Sup. jbo.	56.94
693 Gnt. Jm. d/l	52.78
696 Gnt. Jm.	50.00
698 MGT. Wst. bs	71.76
698 GL Wst. jbo.	61.57
684 E Sup. Etc.	56.48
698 E. G. Wst. Elec.	72.68
2374 sem. Ac. Id.	87.04
2371 sem. Ac. bs	75.46
2370 sem. Ac. Id.	79.17
1782/45/ mat. bs.	39.35
1755 S/ mstr. II	48.15
1917 Twncstr.	47.22
1912 Twncstr.	45.37
2385 Clpr. T/ boy bs.	107.41
2384 Clpr. d/ II	109.26
2386 L I/h.	127.31
2386 Memphis ctm d/l	
2376 Dixie I/bs bs.	98.15
2375 Ash	118.98
2375 N Rock/ mn	
Natural	97.22
2375 Ls batl/ h	89.81
2375 W Rock/ mn	
White	90.74
2375 Rock/ mn	
Maple lb.	86.57
2375 Rock/ mn	
Rwd. fb.	81.02
2366 FLB. F/tes	
Bass	75.46
2365 BMksm.	75.48
2365 B Dixie bs	75.85
2365 Dvmsr.	58.33
2368 Cpr. F/ bl.	64.81
2353 LDX Clpr.	
I/bs. bk.	89.91
2353 Clpr. I/bs.	58.33
2352 C tom.	77.31
2352 d/ ix	83.33
2352 MCpr. d/l	56.48
2352 Clipper	50.00
2354 W/ stk. I/bs	80.09
2354 W/ stk. nat.	77.31
2347 W/ stk. ja.	96.30
2338 W/ stk. sid.	94.00
2383 W/ stk. ctm	110.19
2382 W/ stk. d/l	88.11
2377 W/ stk. pro.	81.94
2354 SL I/h	74.54
2354 3/4W/ stk. sid.	65.28
2354 W/ stk.	67.78
2350 B Mem. bs.	72.69
2405 Mem. orig. d/l	123.61
2391 N Mem. Nat.	77.31
2351 MMem. orig	80.11
2351 DX Mem. d/l	91.67
2351 Mem. d/l	89.09
2350 L Mem. sid I/h	77.31
2350 ctm. Cust.	
Snd. Bst.	79.85
2350 Mem. sid.	71.76
2350 G Mem. Custum	77.31
2357 Mr. Strad.	
Vio. bs.	47.22
2355 Bq. Jhn.	
S. Ac. Mpl.	112.98

N73 Jmb.	49.95
N107 12 str.	52.31
N95 Cust. c/w	
mond w c/s	92.55
N95 Cust. c/w	
swn w c/s	92.55
ELECTRICS	
N114 Solid Bk	
w/cs	90.80
N115 gold	90.80
N117 sun	90.80
N117 nat.	90.80
N118 mahog.	76.40
N120 white	105.60
N121 nat.	114.40
N123 Bass sun	105.60
N124 nat.	114.80
N125 stereo Bass	
nat w/cs	171.20
N126 Bass nat	
w/cs	111.20
N128 Solid nat	
w/cs	107.20
CONCERTER	
SK 514 N	14.77
N120 white	20.28
WK 599 SH	30.37
WK 599 F	30.85
FK 599	27.15
FK 299	25.50
HORNBY-SKEWES	
PALMA ACOUSTICS	
S00	10.14
C103N	11.57
C103N	18.10
WFS	23.81
WF301	30.09
WF301-12	35.65
NEUTSCHMANN CLASSIC	
203-7	53.33
KASUGA ACOUSTICS	
G100L	36.57
G200	48.07
FI40	48.30
N110 Fk.	50.89
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
LORENZO	
N98 Student	12.92
N111 Cls.	14.12
N89 Cls	17.55
N110 Fk.	13.84
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
COLUMBUS	
N197 Jumbo sun	31.96
N122 12 str.	34.36
N36 s/ac. 6 str.	45.20
N83 solid	32.76
N84 Bass	38.04
N113	39.58
N85 Bk.	50.36
N89 S sun	50.36
N62 3 p/u	52.78
N54 mahog.	43.80
N66 Bass	46.04
N77 sun	51.15
FRAMUS	
CLASSIC	
O1010	50.92
O1210	69.44
O1510	137.96
WESTERN 6 STRING	
O5011 Dix 6	65.66
O5810 Falcon	
Jumbo	118.51
O5950 Falcon	
Jumbo	147.22
O5710 Nasv.	
D/night	180.55
O5910 Nasv.	
Jumbo	205.00
WESTERN 12 STRING	
O5011 Dix 12	75.38
O6810 Falcon	
D/night	128.70
SOLID BODY	
10170 FS/74	78.70
10200 E/155	127.77
11010 Nasv.	
Stan.	165.74
11110 Nasv.	
Stan. D/ix	230.55
11210 Nasv.	
Super D/ix	369.51
10980 Jan Akkerman	508.33
SOLID BODY BASSES	
12002 J/156.2	85.18
12510 Nasv.	
Stan.	165.74
12610 Nasv.	
Stan. D/ix	368.51
12980 Triumph Bass	239.81

SE 2 B Bass	36.81
SE 2 T	26.81
SG 2 S	37.36
SG 10 B Bass	43.10
SG 22	37.45
SG 220 V	64.03
SG 2000	54.03
SP 1	25.74
ST 30	51.76
ST 300	65.19
TF 200 N	52.31
CONCERTER	
SK 514 N	14.77
N120 white	20.28
WK 599 SH	30.37
WK 599 F	30.85
FK 599	27.15
FK 299	25.50
HORNBY-SKEWES	
PALMA ACOUSTICS	
S00	10.14
C103N	11.57
C103N	18.10
WFS	23.81
WF301	30.09
WF301-12	35.65
NEUTSCHMANN CLASSIC	
203-7	53.33
KASUGA ACOUSTICS	
G100L	36.57
G200	48.07
FI40	48.30
N110 Fk.	50.89
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
LORENZO	
N98 Student	12.92
N111 Cls.	14.12
N89 Cls	17.55
N110 Fk.	13.84
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
COLUMBUS	
N197 Jumbo sun	31.96
N122 12 str.	34.36
N36 s/ac. 6 str.	45.20
N83 solid	32.76
N84 Bass	38.04
N113	39.58
N85 Bk.	50.36
N89 S sun	50.36
N62 3 p/u	52.78
N54 mahog.	43.80
N66 Bass	46.04
N77 sun	51.15
FRAMUS	
CLASSIC	
O1010	50.92
O1210	69.44
O1510	137.96
WESTERN 6 STRING	
O5011 Dix 6	65.66
O5810 Falcon	
Jumbo	118.51
O5950 Falcon	
Jumbo	147.22
O5710 Nasv.	
D/night	180.55
O5910 Nasv.	
Jumbo	205.00
WESTERN 12 STRING	
O5011 Dix 12	75.38
O6810 Falcon	
D/night	128.70
SOLID BODY	
10170 FS/74	78.70
10200 E/155	127.77
11010 Nasv.	
Stan.	165.74
11110 Nasv.	
Stan. D/ix	230.55
11210 Nasv.	
Super D/ix	369.51
10980 Jan Akkerman	508.33
SOLID BODY BASSES	
12002 J/156.2	85.18
12510 Nasv.	
Stan.	165.74
12610 Nasv.	
Stan. D/ix	368.51
12980 Triumph Bass	239.81

SE 2 B Bass	36.81
SE 2 T	26.81
SG 2 S	37.36
SG 10 B Bass	43.10
SG 22	37.45
SG 220 V	64.03
SG 2000	54.03
SP 1	25.74
ST 30	51.76
ST 300	65.19
TF 200 N	52.31
CONCERTER	
SK 514 N	14.77
N120 white	20.28
WK 599 SH	30.37
WK 599 F	30.85
FK 599	27.15
FK 299	25.50
HORNBY-SKEWES	
PALMA ACOUSTICS	
S00	10.14
C103N	11.57
C103N	18.10
WFS	23.81
WF301	30.09
WF301-12	35.65
NEUTSCHMANN CLASSIC	
203-7	53.33
KASUGA ACOUSTICS	
G100L	36.57
G200	48.07
FI40	48.30
N110 Fk.	50.89
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
LORENZO	
N98 Student	12.92
N111 Cls.	14.12
N89 Cls	17.55
N110 Fk.	13.84
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
COLUMBUS	
N197 Jumbo sun	31.96
N122 12 str.	34.36
N36 s/ac. 6 str.	45.20
N83 solid	32.76
N84 Bass	38.04
N113	39.58
N85 Bk.	50.36
N89 S sun	50.36
N62 3 p/u	52.78
N54 mahog.	43.80
N66 Bass	46.04
N77 sun	51.15
FRAMUS	
CLASSIC	
O1010	50.92
O1210	69.44
O1510	137.96
WESTERN 6 STRING	
O5011 Dix 6	65.66
O5810 Falcon	
Jumbo	118.51
O5950 Falcon	
Jumbo	147.22
O5710 Nasv.	
D/night	180.55
O5910 Nasv.	
Jumbo	205.00
WESTERN 12 STRING	
O5011 Dix 12	75.38
O6810 Falcon	
D/night	128.70
SOLID BODY	
10170 FS/74	78.70
10200 E/155	127.77
11010 Nasv.	
Stan.	165.74
11110 Nasv.	
Stan. D/ix	230.55
11210 Nasv.	
Super D/ix	369.51
10980 Jan Akkerman	508.33
SOLID BODY BASSES	
12002 J/156.2	85.18
12510 Nasv.	
Stan.	165.74
12610 Nasv.	
Stan. D/ix	368.51
12980 Triumph Bass	239.81

SE 2 B Bass	36.81
SE 2 T	26.81
SG 2 S	37.36
SG 10 B Bass	43.10
SG 22	37.45
SG 220 V	64.03
SG 2000	54.03
SP 1	25.74
ST 30	51.76
ST 300	65.19
TF 200 N	52.31
CONCERTER	
SK 514 N	14.77
N120 white	20.28
WK 599 SH	30.37
WK 599 F	30.85
FK 599	27.15
FK 299	25.50
HORNBY-SKEWES	
PALMA ACOUSTICS	
S00	10.14
C103N	11.57
C103N	18.10
WFS	23.81
WF301	30.09
WF301-12	35.65
NEUTSCHMANN CLASSIC	
203-7	53.33
KASUGA ACOUSTICS	
G100L	36.57
G200	48.07
FI40	48.30
N110 Fk.	50.89
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
LORENZO	
N98 Student	12.92
N111 Cls.	14.12
N89 Cls	17.55
N110 Fk.	13.84
N102 Fk.	22.84
N103 Jmb.	27.41
N104 12 str.	28.06
COLUMBUS	
N197 Jumbo sun	31.96
N122 12 str.	34.36
N36 s/ac. 6 str.	45.20
N83 solid	32.76
N84 Bass	38.04
N113	39.58
N85 Bk.	50.36
N89 S sun	50.36
N62 3 p/u	52.78
N54 mahog.	43.80
N66 Bass	46.04
N77 sun	51.15
FRAMUS	
CLASSIC	
O1010	50.92
O1210	69.44
O1510	137.96
WESTERN 6 STRING	
O5011 Dix 6	65.66
O5810 Falcon	
Jumbo	118.51
O5950 Falcon	
Jumbo	147.22
O5710 Nasv.	
D/night	180.55
O5910 Nasv.	
Jumbo	205.00
WESTERN 12 STRING	
O5011 Dix 12	75.38
O6810 Falcon	
D/night	128.70
SOLID BODY	
10170 FS/74	78.70
10200 E/155	127.77
11010 Nasv.	
Stan.	165.74
11110 Nasv.	
Stan. D/ix	230.55
11210 Nasv.	
Super D/ix	369.51
10980 Jan Akkerman	508.33
SOLID BODY BASSES	
12002 J/156.2	85.18
12510 Nasv.	
Stan.	165.74
12610 Nasv.	
Stan. D/ix	368.51
12980 Triumph Bass	239.81

SE 2 B Bass	36.81
SE 2 T	26.81
SG 2 S	37.36
SG 10 B Bass	43.10
SG 22	37.45
SG 220 V	64.03
SG 2000	54.03
SP 1	25.74
ST 30	51.76
ST 300	65.19
TF 200 N	52.31
CONCERTER	
SK 514 N	14.77
N120 white	20.28
WK 599 SH	30.37
WK 599 F	30.85
FK 599	27.15
FK 299	25.50
HORNBY-SKEWES	
PALMA ACOUSTICS	
S00	10.14
C103N	11.57
C103N	18.10
WFS	2

DEALER GUIDE

BATH
ASSEMBLY MUSIC
 Alfred Street, Bath
 0225 63508
 EC, IR, MA, RS, Spec, ERS, EK, G.A.D.B.W.H.A.
 AC, SF, PA, PSG, S/Hnd, M, RC, P, CM, Premier
 Traynor/Sonor Carhbrio Gibson/Tama

BEDFORDSHIRE
AFLYN MUSIC
 71 Windmill Road, Luton
 0582 3695
 G.A.D.S.ERS, 11, CB, S/Hnd, Di
JERRY ALLEN ORGANS LTD
 8-10 High Street, South Dunstable
 0582 603374
 G.A.D.K.D.I.

BOOGALOO BASEMENT
 17 Bridge Street, Leighton Buzzard
 05293 66622
 G.A.D.B.W.S, Di, RS, Gibson Star Dealer
MARSHALL MUSIC LTD
 15/17 Upper George Street
 Luton, Beds
 G.A.D.K.B.W.S.P, Ac, M.O, SM



LUTON MUSIC CENTRE Ltd.
 114 Leagrave Road Luton Beds.
 Tel. Luton 26826
 Part Exchange Credit and Ca.h. G.A.D.K.B.W.S.



Drumland Birmingham
 90 Navigation St., Birmingham B5
 021 643 8841
 Tom D.P.
Woodroffes
 119 John Gough St., Birmingham B1 1BE
 021 643 8546
 Tom G.A.P.M., Paul Hnd, D.I.

YARDLEYS
 Snow Hill, Birmingham
 021 236 7441
 G.A.D.B.W.S, Di, PA, RS.



Western Organ Studios
 19 Union Street, Bristol 0272 25897
 G.A.D.K.M.H.RS, Spec, USA Equip

BUCKINGHAMSHIRE
HAMMONDS MUSIC & ORGAN CENTRE
 43 Buckingham St., Aylesbury, Bucks.
 0296 3131
 G.A.D.K.B.W.S, EC, Di, L, Ac, Syn.
 RS, EK, SM, RC.



SUN MUSIC
 110-111 Oxford Rd., High Wycombe
 0494 36686 G.A.D.

CHEESHIRE
CUSTOM AMPLIFICATION
 45 Nantwich Road, Crewe
 0270 4779
 G.A.D.K.S, Di, L.

THE ORGAN CENTRE
 (J G Flattley & C R Durrant)
 26 Edleston Road, Crewe
 G.A.D.K.B.W.S, P, M.

JONES MUSIC STORE
 5 Queen Victoria St., Macclesfield
 0625 22677
 G.A.D.K.B.W.S.

RUMBELLOWS/STROTHERS
 Coronation Bldgs. Wallasey Rd., Wallasey
 051 638 3622/9871
 G.A.D.K.W.S.

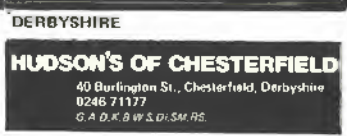
CLEVELAND
CLEVELAND MUSIC
 19-21 Cleveland Sq., Middlesborough
 0642 210889
 G.A.D.K.S, Di, ERS, S/Hnd, Fender S/House

COVENTRY
COVENTRY MUSIC CENTRE
 3-4 White Friars St., Coventry
 0203 58571
 G.A.D.K. Di, T, G.K.

CUMBRIA
J.P. DIAS (CARLISLE) LTD.
 149-153 Botchergate, Carlisle
 0228 22369/28700
 EC, D, O, Syn, G.A.D.K.B.W.S, Di, Ac, PA, RS, ERS.
 EK, T, M.S, M.P.



Northern Sounds
 41 Jane St., Workington CA14 3BW
 Workington 4797
 G.A.D.K.S.D., RS, T, O.



HUDSON'S OF CHESTERFIELD
 40 Burlington St., Chesterfield, Derbyshire
 0246 71177
 G.A.D.K.B.W.S, Di, SM, RS.

DEVON
MUSIC MARQUEE
 47 Noite St., Plymouth PL1 2AG
 0752 63559
 G.A.D.K, Di, L, RS.

THE DAVID VANE MUSIC CENTRE
 28 Market St., Exmouth, Devon,
 03952 75246
 A.O.D, Di, S/Hnd, H.S, M, ERS, Spec, G.T., G.K.

ESSEX
CHRIS STEVENS MUSIC CENTRE LTD.
 11 Queen Road, Southend-on-Sea.
 0702 45451
 G.A.D.K.B.W.S.

CHRIS STEVENS MUSIC CENTRE LTD.
 33 North Street, Romford
 0708 45542
 G.A.D.K.B.W.S.

GLOUCESTER
RAY ELECTRICAL (CHELTENHAM) LTD
 387 High Street, Cheltenham
 0242 22317
 G.A.D.K.B.W.S, RS, PA, Di, L, H, FI.

ST. ALDATE MUSIC LTD
 11 St. Aldate Street, Gloucester
 0452 32450
 G.A.D.K, Di, RS.



JIMZ
 83 Bargate, Christchurch,
 Bournemouth
 02015 71270
 G.A.EK, RS, ERS, M.A, Ca, S/Hnd, Fender Soundhouse



Kingfisher Music Company
 20 Kings Road, Fleet
 02514 21210
 EC, CB, O, U.R.C, SM, P.
 RS, ERS, SF, EK, Fender Soundhouse, Gibson Star Dealer

HEREFORD
MUSICAL INSTRUMENTS LTD
 (HEREFORD)
 30 Broad Street, Hereford
 0422 2848
 G.A.D.K.B.W.S, RS, PT.

HERTFORDSHIRE
JERRY ALLEN ORGANS LTD
 144 Shenley Road, Borehamwood
 953 6924
 G.A.D.K, Di.



Ware Music Ltd.
 8 Baldock St., Ware, Herts., 0920 5939
 G.A.K.EK, B.W.S, T.M, RC, SM, P, ERS, O, SH
 M.A., Yamaha, Rika, Electrolyt, Philips



Craven's Music Centre
 188-190 Holderness Rd., HU9 2AE
 0482 23702
 G.A.RS

IRELAND
THE BAND CENTRE
 9 Harcourt Road, Dublin 2
 0001 75 2663
 G.A, K, PA, Spec, H., PA.

CRYMBLES
 75 Dublin Road, Belfast
 0232 26818
 G.A.D.K.B.W.S, Di, Ac, RS, SM.



Evans Musical
 53 Bridge Street, Lsburn O23B2 2011
 G.A.D.K.B.W.S, RS

SPORTS & MUSIC CENTRE
 73-75 Broughshane Street
 Ballymena Tel. (0266) 41792
 1/3 The Strand
 Coleraine Tel. (0625) 1665
 G.A.D.K, PA, S, PSG, M, ERS, MA, W, Ac, T.

T. Tuition PA. Public Address
 M. Mikes PSG. Pedal Steel Guitars
 RC. Reconditioning CB. Custom Building
 SM. Sheet Music Di. Discs

MARCUS MUSICAL INSTRUMENTS
 30 Gresham Street, Belfast
 0232 22871
 G.A.D.K, B.W.S, Di, RS.



Drumland Percussion
 75 Lowfield Street, Dartford
 322 4449
 D.P.

PEPPER MUSIC
 86 Northdown Road, Margate
 0843 23205
 G.A.D, PA, RS.

MATTHEWS MUSIC STORE
 20 The Broadway-Markstone
 0622 673355
 1R, Syn, RCn, O, G, A, D, K, B, W, S, D, L, H, PA.
 PSG, S/Hnd, MA, RS, EK, M, P.

MATTHEWS MUSIC STORE
 331 High Street,
 Rochester
 Medway 407268

IR. SYN. RCN. O. G. A. D. K. B. W. S. D. L. H. PA.
 PSG, S/Hnd, MA, RS, EK, M, P.



Music Meters
 01-904-4274
 105-7 Ballygrove Road Welling Kent
 ERS, Di, PA, M, G, A, L, S, Hnd.

SHARON MUSIC
 422 Bromley Road, Downham
 Bromley, Kent
 01 698 0916
 A.K, T, SM, Syn, MA, EK, O.
 (O, RS, ERS.)

LANCASHIRE
BARRATTS
 1 Meadow Street, Preston
 0772 55628
 1R, SYN, RS, ERS, EK, G.A.D.B.W.S, Di, L, H, PA, M, P.

HOBBES MUSIC
 Sir Simon Arcade, Lancaster
 0524 60740
 G.A.D.B.W.S, RS.

OLDHAM MUSIC CENTRE
 81 Yorkshire Street, Oldham
 061 620 1263
 G.A.D.K.B.W, Di, RS, T, G, O.

PALL MALL MUSIC
 58 Pall Mall, Chorley, Lancashire
 025 72 71124
 G.A.S, Di, E, K, M, PA, S/Hnd, ERS.

MUSICAL ELECTRONICS
 87 Euston Road, Morecambe
 0524 412147
 G.A.D.K.B.W.S, Di, RS.

S.A.I.
 Regent Street Showrooms.
 Regent St., Copull, Nr Chorley
 0257 791645
 G.A.D, Di, L, PA, RS.

WOODS PIANOS & ORGANS LTD
 15-17 Manchester Road, Bolton
 0204 27171
 Syn, G.A.D.K.B.W.S, Ac, SF, RS, ERS, EK,
 M, RC, SM, T.

WOODS ORGANS & PIANOS LTD
 1a-b Manchester Road, Burnley
 0282 33709
 Syn, G.A.D.K.B.W.S, Ac, SF, PA, RS, ERS.
 EK, M, RC, SM, P, T.

WOODS PIANOS & ORGANS LTD.
 84 Church Street, Preston, Lancs.
 0772 52865
 Syn, G.A.D.K.B.W.S, Ac, SF, PA, RS, ERS.
 EK, M, RC, SM, P, T.



Kitchens
 27/31 Queen Victoria
 Street, LEEDS 1
 0532 445341
 G.A.D.K.B.W, Di, L, RS.

STEPHENS MUSICAL
 70 New Briggate, Leeds LS1
 0532 34710
 G.A.D.P.

SCHERRERS
 8 Merlan Centre, Leeds LS2
 0532 32401/2
 G.A.D.B.W.S, RS.

LEICESTERSHIRE
CENTRAL MUSIC LTD
 12 New Bond Street,
 Leicester
 0533 538681
 EC, Q, I, R, RS, EK, ERS, F, A, D, B, W.
 Di, PA, S/Hnd, T.
DRUMBEAT
 233 Melton Road, Leicester
 0533 63830
 Spec. D, P, T.



Loughborough Music Centre
 18 The Rushes, Loughborough 0509 30398
 G.A.D.K.S, Di, RS.

POWER MUSIC
 124c Green Lane Road, Leicester
 0533 769318
 G.A.D.K.S, Di, RS.

SOUND PAD
 64 London Road, Leicestershire
 0533 20760
 G.A.K, Di, L, RS, P. Fender Soundhouse

LIVERPOOL
FRANK HESSY LTD
 62 Stanley Street, Liverpool 1
 051 236 1418
 G.A.D.K.B.W, Di, L, RS.

LONDON
CABIN
 156a Goldhawk Road, London W12.
 01 749 1121
 G.A.D, H, RS, RCn.

CASCADE MUSIC
 42-44 Upper Tooting Rd., Tooting SW17.
 01 672 3997
 G.A.D, K, B, W, S, PA, Di, RS, H.

COOPERS MUSICAL INSTRUMENTS
 76 Upton Lane, Forest Gate E7
 01 472 9837
 CB - G.A.

STEPHEN DELFT
 242 Cable Street, E1.
 01 790 7028
 G.A.S, F, I, CB, 24 hr. RS.

DMI MUSIC CENTRE
 210-212 High Rd., Willesden, NW10
 01 965 1809
 G.D, Di, H, RS, EC, ERS, PA, CB, A.
 Fender Soundhouse

F. D. & H. MUSIC
 138-140 Charing Cross Road, WC2
 01 836 4766
 G.A.D, K, B, W, S, M, RS, SM.

FREEDMANS
 631 High Road Leytonstone E.11
 01 539 0288
 G.A.D, K, B, W, S, PA, Di, RS.

GUITAR VILLAGE
 80 Shaftesbury Avenue, W.1.
 01 734 8840
 Spec. G.A, AC, S/Hnd, EC, MA.

MUSIC EQUIPMENT LTD
 55 Camberwell Church Street, SE5
 01 701 2270
 G.A.D, K, Di, L, RS.



macari's
 MACARI'S ELECTRONIC KEYBOARDS
 20 Denmark St., WC2.
 01 836 2856
 EK, Syn, RS,
 MACARI'S LTD,
 122 Charing Cross Rd., WC2.
 01 836 9149
 G.EK, Ac, SM, RS,
 MACARI'S MUSICAL EXCHANGE
 102 Charing Cross Rd., WC2.
 01 836 2856
 A-PA, Di, RS.

MUSIC HOUSE (S.E.ENTS).
 375 Lewisham High St., Lewisham SE13
 01 690 2205
 G.A.D, K, S, Di, L, PA, RS.
NB AMPLIFICATION
 17 Perivale, Forest Hill, London SE23
 01 699 5019
 EC, CB, G.A, D, K, Di, H, PA, S/Hnd, RS, M, RC.

MAURICE PLACQUET
 358-360 Uxbridge Rd., Shepherds Bush
 W12. 01 749 3232
 G.A.D, B, W, S, Ac, PA, RS, P.

ROSE-MORRIS RETAIL SHOWROOMS
 81-83 Shaftesbury Ave., London W1.
 01 437 2211
 G.A.D, EK, Syn, B, W, S, Di, SF, I, PSG.
 S/Hnd, RS, M.

DAVE SIMMS MUSIC CENTRE
 1-5 The Grove, Ealing W5.
 01 560 0520
 Spec. G.A, PA, S/Hnd, Di, L.

S.M.I. MUSICAL INSTRUMENTS
 14 Charing Cross Road, London WC2.
 01 240 3386
 G.A.D, K, B, W, RS.

ST. GILES MUSIC CENTRE
 16-18 St. Giles High Street, WC2
 01 836 2888/4080
 G.A.D, B, W, S, K, Syn, RS.


TOP GEAR
 5 Denmark Street, WC2H 8LP.
 01 240 2118
 Spec. G.A, Q, PA, EC, Ac, CB, M, RC, P, MA.
 RS, PSG, S/Hnd.

WESTERN MUSIC CO LTD
 130-132 King St., Hammersmith W6.
 01 748 5824
 G.A, D, K, RS, T.

WESTERN MUSIC CO LTD
 50 The Broadway, Wimbeldon SW19
 01 540 0494
 G.A.D, K, RS, T.

WESTERN MUSIC CO LTD
 14 Westow Hill, Upper Norwood SE19
 01 670 9289
 G.A.D, K, RS, T.

WESTERN MUSIC CO LTD
 28 Electric Avenue, Brixton SW9
 01 733 7326
 G.A.D, K, RS, T.



KEY

EC.	Echo Chamber	P.	Percussion
RCn	Re-Coning	RS.	Repair Service
O.	Organs	Spec.	Specialists
IR.	Instrument Rental	ERS.	Electronic Repairs
Syn.	Synthesisers	EK.	Electric Keyboards
G.	Guitars	K.	Keyboards
A.		B.	Brass
D.		W.	Woodwind
S/hnd	Second Hand	L.	Lighting
MA.	Main Agents	H.	Hire
		Ac.	Accordians
		SFI.	Special Fretted Inst.

WOOLWICH TRADING POST
21 Plumstead Rd., Woolwich, SE18
01 854 7911
G.A.D.K.B.W.S.D.I.L.P.Ac.PSG.S/Hnd.

MANCHESTER

A1 MUSIC CENTRE (GM SERVICES)
88 Oxford Street, Manchester 1
061 236 0340
G.A.D.K.D.I.L.RS.

BARRATTS
8a Oxford Road, Manchester M1 5 QA
061 236 0542
IR.RS.B.W.H.SM.

BARRATTS
72-74 Oxford Street, Manchester
061 236 0052
IR.SYN.RS.ERS.EK.G.A.D.K.D.I.L.H.SFI.PSG.P.

TONY SAVILLE MUSIC CENTRE
Peter House, Lower Mosley St., Manchester 2.
061 236 4012
G.A.D.K.S.DI.RS.H.

NEWCASTLE-UPON-TYNE

BARRATTS
158 Newbridge St., Newcastle upon Tyne
0632 22331
IR.SYN.RS.ERS.EK.G.A.D.B.W.S.D.I.L.H.PA.M.P.

JEAVONS MUSICAL ENTERPRISES LTD
33-35 Percy St., Newcastle-upon-Tyne
0632 20895
O.G.A.D.MA.-Wurlitzer



Higham House, New Bridge St.
0632 22866 G.A.D.K.B.W.D.L.RS.

LEWIS MUSIC
16 Bede burn Road, Jarrow
Jarrow 897784 D.P.Sp.MAP.SCB.

NORFOLK



34 St. Benedict Street, Norwich 0603 23853
G.A.D.K.S.DI.AC.COIR.SYVA.ERS.EK.G.A.H.PA.MA.

NORTHAMPTONSHIRE

JORDANS MUSIC CENTRE LTD
17-18 Victoria Road, Wellingborough
093 332 689
G.A.D.O.B.W.S.DI.RS.

MIDLAND MUSIC CENTRE LTD
5 Cowper Street, Northampton
0604 36832
G.A.D.K.B.W.S.DI.RS.T.I.R.

TREASURE MUSIC
64 Gold Street, Kettering
0536 2031
G.A.D.B.W.Spec.K.ERS.

NOTTINGHAM

CARLSBRO SOUND CENTRE
182-184 Chesterfield Rd. North, Mansfield
0623 26199
G.A.D.K.D.I.M.RS.L.PA.Inst.

CARLSBRO SOUND CENTRE
5-7 Station Street, Mansfield
0623 25804
B.W.K.Ac.SFI.SM.

CLEMENTS PIANOS LTD
21-23 Derby Road, Nottingham
0602 47912
G.A.D.P.B.W.S.M.S.RS.

HARDY SMITH MUSIC CENTRE
2a Ostram St., Sutton-in-Ashfield
062 35 6242
G.A.D.K.B.W.S.RS.SM.

PETERBOROUGH

A.E. COOKE & SON LTD
293 Lincoln Road, Millfield
Peterborough 62331
G.A.D.K.H.RS.

SCOTLAND

BRADLEYS MUSIC LTD
69a West Regent St., Glasgow
041 332 1830
EC.RCN.MA.RS.Spec.G.A.D.B.S.PA.S/Hnd.T.M.P.

JERRY ALLEN ORGANS LTD
28 John Finnie St., Kilmarnock, Ayrshire
0563 28450
G.A.D.K.DI.



277 White Street, Nottingham
09893 73097 G.A.D.K.S.DI.RS.

McClaren Music Ltd
31-33 Bruntsfield Place, Edinburgh
031-229 0018/8979
G.A.D.K. 24 hrs

MCCORMACKS
33 Bath Street, Glasgow G2 1H.
041 332 6644
G.A.EK.EC.DI.RS.

THE MUSIC BOX
7-9 Whitburn Road, Bathgate
0506 52893
G.A.D.K.B.W.S.RS.SM.

PATRICK THOMSON'S
House of Fraser Ltd. 3-29 Northridge
Edinburgh. EH1 1SE. 031 556 2552
A.K.EK.O.Syn.H.S/Hnd.Spec.RC.RS.ERS.CB.

SHEFFIELD

CARLSBRO SOUND CENTRE
13 Berkley Precinct, Off Eccashall Road,
0742 663862
G.A.D.K.D.I.M.Syn.RS.LPA.Inst.

HUDSONS OF SHEFFIELD
131 The Moor, Sheffield 1
0742 78701
G.D.S.B.W.S.M.RS.

MUSICAL SOUNDS
274 London Road, S24 NA
0742 50445
G.A.K.B.W.RS.T.Spec.D.

STAFFORDSHIRE
THE ABBEY MUSIC CO
4-6 Market Place, Burton-On-Trent
0283 68404
G.A.K.B.W.S.P.DI.I.RS.

CHATFIELD'S MUSIC STORE
2 Hope Street, Hanley, Stoke-on-Trent
0782 22415
G.A.D.B.W.S.Syn.Ac.SFI.PA.SM.RS.

NORMANS
1 Lichfield Street, Burton-on-Trent
0283 42401
G.A.D.K.B.W.S.RS.

SURREY
BOB ANDERSON MUSIC LTD
179 London Road, Camberley
0276 29060
G.A.O.RS.

ANDERTON'S MUSIC CENTRE
5 Stokefields, Guildford
0483 75928
G.A.D.K.W.RS.DI.

CASSMUSIC
38 Monarch Parade, London Rd., Mitcham
01 640 1870
G.Spec.CB.A.M.S/Hnd.RS.SM.

DOWN UNDER
82 High Street, Redhill RH1 1SG.
01 916 8821
G.A.K.D.W.H.RS.

HANDS MUSIC CENTRE
2 Fairfield Road, Kingston-upon-Thames
Surrey. 01 546 9156
IR.E.A.RS.Spec (Educational inst.) ERS.
ER.D.K.B.W.S.H.AC.SFI.S/Hnd.T.M.RC.SM.P.

JOHN KING SOUNDS
6 Richmond Road, Kingston
01 546 9100/9124
G.A.D.K.B.W.DI.RS.

SUTTON MUSIC CENTRE
64 Haddon Road, Sutton
01 642 2838
G.A.D.B.W.S.M.RS.H.DI.

WESTERN MUSIC CO LTD
53-59 High Street, Croydon
01 689 1248
G.A.D.K.RS.T.

SUSSEX

BROADWAY MUSIC
9 The Broadway, Brighton Rd., Worthing
BN11 3EG.
0903 202458
W.S.13.G.A.D.P.Ac.PA.EC.M.EK.



37 Kings Road, St. Leonards-on-Sea
0424 428970 G.A.D.DI.S/Hnd.RS.

TYNESIDE

WHITE SOUND EQUIPMENT
3 Albion Place, Sunderland
0783 78058
G.A.S.PA.H.RS.

WALES

JOHN HAM
75 Mansel Street, Swansea
0792 50968
G.A.D.K.B.W.DI.RS.SM.

MUSIC CENTRE ABERDARE
13c Cannon Street, Aberdare
068 588 4141
G.A.D.K.B.N.S.T.DI.L.Spec.ERS.Coffee

PETER NOBLE LTD
11 Station Road, Llanishen, Cardiff
0222 753911
EC.Syn.G.K.B.D.P.W.S.DI.L.S/Hnd.M.Spec.
PA.ERS.

SOUND CENTRE
129 High Street, Bangor
0248 53320
A.DI.L.RS.SFI.H.SM.Spec.-G.D.O.

BERT VEALE (MUSICAL) LTD
8 New St., Neath Glam.
Neath 2825
EC.RCN.O.Syn.MA.RS.Spec.ERS.EK.G.A.
D.K.B.W.S.DI.L.Ac.SFI.PA.PSG.S/Hnd.T.
M.S.M.P.

WARWICKSHIRE

MIDLAND SOUND LTD
57 Albert Street, Rugby
0788 71419
A.DI.L.H.PA.RS.M.

WILTSHIRE

BOTTLENECK
62 Winchester Street, Salisbury
0722 23689
G.A.D.K.S.H.CB.EC.DI.L.PSG.S/Hnd.Spec.
ERS.

STRINGS & THINGS
39 Fleet Street, Swindon
0793 39304
G.A.D.K.B.W.S.DI.

SUTTONS
Endless Street, Salisbury
0722 27171
O.SYN.H/H.RS.ERS.EK.G.A.D.K.B.W.S.DI.
LAC.PA.S/Hnd.M.S.M.P. Gibson Star Dealer

YORKSHIRE
JSG MUSICAL SERVICES
106b Main Street, Bingley
09766 68843
A.D.S.H.PA.S/Hnd.RS.ERS.M.CB.-G.



28 North Parade, Bradford 33 Peel Street, Barnsley
0274 23577 0226 5867

G.A.D.K.B.W.DI.L.RS.

MUSIC GROUND
Station Road, Stainford, Doncaster
South Yorkshire
0302 841398
EC.RCN.O.Syn.MA.RS.G.A.Spec.ERS.
EX.D.K.PSG.S/Hnd.T.M.RC.P.

PROFESSIONAL CENTRE
13 Netherhall Road, Doncaster
0302 68157
G.A.B.W.K.T.

ULTRA SONIC SOUND
Dolby R Sound Systems
207-209 Richardshaw Lane, Pudsey
09738 4995
G.A.D.K.S.DI.L.H.S/Hnd.CB.Syn.EC.M.T.
SM.RC.ERS.EK.Spec.PA.

Studio Guide

ACORN RECORDS LTD
Church Road, Stonesfield, Oxford
099 389 444
16 T 4 T 2 T £10 p/h Cap 7 Tf D
£12 p/h R-R-CR-CP-PA.ACBA.

BASING STREET STUDIOS (ISLAND)
8-10 Basing Street, London W11
01 229 1229
Studio 1 24T £35 p/h Cap 80
Studio 2 24T £35 p/h Cap 20
R-R-C-Cr-£10 p/h D OTC

BIRD SOUND STUDIOS
Kings Lane, Nr. Stratford-on-Avon
078 985 705
8 T £7 p/h Cap 20 DC/ba R-R-C DBX

CBS RECORDING STUDIOS
31/37 Whitfield St., London W1
01 636 3434
Studio 1 16T £38 p/h Cap 75
Studio 2 16T £33 p/h Cap 25
Studio 3 16T £32 p/h Cap 12
DC R-R-C-Cr D

CHALK FARM STUDIO
12 Baimot St., London NW1
01 267 1542
16T £20 p/h 8 T £14 p/h Cap 10

COUNTDOWN SOUND STUDIOS
104104 High St., Manchester M4 1HQ.
061 832 3339
8 T £12 p/h Cap 15 R-R

DECIBEL STUDIOS
19 Stamford Hill, London N16
16T £15 p/h 8T £8 p/h 2T £5 p/h OTC
Cap 15. M.S.R-R-C-CP.If.Ka.SM

DRUMBEAT RECORDING STUDIOS
233 Melton Road, Leicester
0533 62011
8T £8 p/h 2T £6 p/h 8 T M £8 p/h
Cap 25 DC/ba R-R-C-Cr

EMI RECORDING STUDIOS
3 Abbey Road, London NW8
01 286 1161
Studio 1 16T £39 p/h Cap 100
Studio 2 16T £38 p/h Cap 50
Studio 3 24T £39 p/h Cap 30
DC.R-R-D.Q.

ESCAPE STUDIOS
Island Farm, Edgerton, Kent
023 376 259
16T £350 p/d Cap 10 D Ac

FREERANGE STUDIO
22 Tavistock Street, London WC2
01 836 7608
£14.50 P/H 16T
£7.50 P/H 8T
Keyboards. Session Musician

GOOSEBERRY STUDIOS
19 Gerrard Street, London W1.
01 437 6255, 01-734 2257
16T £16 p/h
8T £10 p/h Cap 10
D.TF.Iba.R-R-CP.KA-R-C.Jt.T.M.S.

INDIGO SOUND STUDIOS
72 Garside St., Manchester M3 3EL
061 834 7001.
Studio 1 16T £19 p/h Cap 12
Studio 2 8T £16 p/h Cap 15
DC/ba R-R-C-Cr CP.

PEACOCK SOUND STUDIOS
98 Medina Ave., Newport, Isle of Wight
098 381 2379
4T Cap 8 £4.00 p/h Tf R-R-C Cp Ka
DC/ba d-t (no OTC) Ac/ba Rhr

DICK JAMES MUSIC LTD
71-75 New Oxford St., London WC1 1DP
836 1168
Studio 1 16T £35 p/h Cap 12
Studio 2 24T £28 p/h Cap 6
R-R-C-Cr d-t D

R. G. JONES RECORDING STUDIOS
Baulah Road, Wimbledon SW19 3SB
01 540 4441
24T £1ba 16T £25 p/h Cap 40 R-R-C D

KINGSWAY RECORDERS LTD
129 Kingsway, London WC2B 6NH
01 242 7245
24T £38 p/h 16T £34 p/h Cap 35

MARGRITTE
15 Holloway Lane, Harmondsworth
West Crayton 01897 9670
16T £16 p/h 8T £8 p/h Cap 8
DC/ba Tf/ba

MAJESTIC RECORDING STUDIO LTD
146 Clapham High St., London SW4
01 622 1228/9
24T £24 p/h Cap 50 R-R DBX

MANOR STUDIO
Shipton Manor, Shipton-on-Cherwell
Kidlington, Oxford
08675 2128
16T £300 p/d Cap 20 D Ac

MAYFAIR SOUND
84 South Molton St., London W1
01 499 7173/5
16T £28 p/h Cap 15 CP D Ka

MORTONSOUND
13-15 Carlhol Square
Newcastle-upon-Tyne, NE1 6UF.
4T £6 p/h Cap 16 Dc R-R-C
0632 26902

MUSHROOM STUDIOS
18 West Mail, Clifton, Bristol
0272 35994
8T £10.50 p/h Cap 17
R-R-C-CR.CP.DBX.D.Ka

NEST STUDIOS
78 Bristol St., Birmingham B5 7AH
021 622 3417
8T £10 p/h Cap 15 R-R-R-C-Cr-D Dc Ka

PLUTO STUDIOS
3 Waterloo Road, Stockport, Cheshire
061 477 0434
8T £12 p/h Cap 5 Tf R-R-C-C Ka

RADIO WORCESTER PRODUCTIONS
Worcester Music Centre, Russel & Dorrell,
High Street, Worcs.
0905 20279
8T £8 p/h Cap 12 R-R-C D

REELS ON WHEELS
22 York Road, London W3
01 993 1703
4T 2T £4.50 p/h Tf 21T mixing

REGENT SOUND STUDIOS
4 Denmark Street, London WC2
01 836 6769
8T £12 p/h Cap 20 R-C OTC

RIVERSIDE RECORDINGS
78 Church Path, Off Fletcher Road
Chiswick W4.
01 994 3142
8T from £10 p/h Cap 10 R-R-C-Cr CP.Ka D

ROCKFIELD STUDIOS
Amberley Court, Rockfield Rd., Monmouth
0600 2449
Studio 1 24T £24 p/h Cap 35
Studio 2 16T £20 p/h Cap 25
R-R-C D Ac (min. 10 hrs.)

SARM STUDIOS
Osborn House, 9-13 Osborn St. London E1
01 247 1311
24T £35 p/h 16T £30 p/h 8T £25 p/h
2T £25 p/h Cap 30 R-R-C-Cr D (no OTC)

SOUND DEVELOPMENTS STUDIO
Unit 11, Spencer Court, Chalcot Road,
London NW1. 01-586 4488
16T £22 p/h Cap 10 Wt CP D R-R-C-Cr Ka
Cap 15 R-R-C OTC

**STRAWBERRY RECORDING
STUDIO (UK) LTD**
3 Waterloo Road, Stockport, Cheshire
061 4809711
16T £25 p/h Cap 35 Tf D

SUN STUDIO
34-36 Crown Street, Reading, Berks.
07345 6647
8T £8 p/h 2 days @ £130. £380wk. 4T &
2T Cap 15 R-R-C t-d/ba Syn.

**THEATRE PROJECTS SERVICES
SOUND STUDIOS**
11-13 Neals Yard, Monmouth Street,
London WC2. 01 836 1168
M/5 £12 p/h 4T £14 p/h 8T £16.50 p/h
Cap 15 R-R-C OTC

T W STUDIOS
211 Fulham Palace Rd, London W6.
01 385 4630
16T Cap 12T £18 p/h R for Ka

WEST OF ENGLAND SOUND LTD
14 Swan Street, Torquay, Devon
0803 50029
Studio 1 8T £20 p/h Cap 30
Studio 2 8T £20 p/h Cap 10
R-R-C-Cr

ZODIAC STUDIOS
59 Dean Street, London W1.
01 439 1827
16T £32 p/h Cap 25 R-R-D

KEY FOR STUDIO GUIDE

T	Track	Dc	Disc cutting
Cap	Capacity	d-t	Disc to tape
p/h	per hour	G	Quad
p/d	per day	OTC	Overtime charge
D	Dolby	M	Mono
Tf	Transfer facilities	S	Stereo
R-R	Reel to Reel	fcf	fully coated film
CP	Copying	VS	Video Studio
tba	to be advised	Ac	Accommodation
Ka	Keyboards available	ba	by arrangement
R-C	Reel to Cassette	SM	Session Musicians
R-Cr	Reel to Cartridge		

Hire Guide

BONZA P.A.
27 Amery Street, Alton, Hants.
0420 83517/0483 65203
500 watt P.A. 10 cm T&C

CABIN
156A Goldhawk Road, London W12
01-749 1121
G.A.D.H.RS.RCn.

ENTEC
90 Wardour Street, London W1
01 903 5790
P.A.SL.M.T&C.CTM

EUROPA CONCERT SYSTEMS
Soundcraft, 4th Floor,
5-8 Great Sutton St
EC1. 01 251 3631
P.A.M.T&C.CTM

EZEE HIRE LTD
7-9 Market Road, London N7.
01 609 0246
ME.PA.T&C.RhR — £25 p/d

GERMANY
FLASH LIGHT & SOUND GMBH
Bussestrasse 11
2000 Hamburg 60
Germany 010 49 40 511 27/68
ME.T&C SL Sc. CM CTM PA.

GROUND CONTROL
7a Wilby Mews, W11 3NP.
PA.T&C.

JULIAN STUDIO INSTRUMENT
RENTALS LTD.
01 452 6751, 01 450 7554
ME

KELSEY ACOUSTIC HIRE
1 Apsa Place London W11
01-727 1046
ME. T & C.CM. CTM.PA.

Loughborough Music Hire
18 The Rushes, Loughborough
0509 30398
ME.T&C. RhR.Di.CM.DA.CTM.

MAURICE PLACQUET HIRE
69 Jeddo Road, London W12
01 749 3232
PA.ME.T&C.RhR.SL.Sc.Di.CM.CTM

PILEDRIVER HIRE
45 Barrmill Road, Beith, Ayrshire
050 552481
PA.P&C.5 L.CM.

RATFINK & CORNGRABBER
2 High Street, Bexley, Kent
ORPINGTON 72278
PA.ME.T&C.SL.DI.CM.CTM.

SCOPE EQUIPMENT HIRE LTD
54-56 Stamhope Street, NW1
01 387 0300
PA.SL.Sc.T&C.

STANDISH LIGHT & STUDIO HIRE
358 Preston Road, Standish, Wigan
0257 421603
PA to 2,000 watts Di.T&C.SL

KEY FOR HIRE COMPANIES
ME Musical Equipment
T&C Transport & Crew
RhR Rehearsal Rooms
SL Stage Lighting
Sc Security
Di Disco
CM Channel Mixer
CTM Concert Tour Management
PA Public Address

MANNY'S 48TH ST. MUSICAL INSTRUMENTS

manny's MUSIC STORE

everything for the musician

"you've heard about us...now you can buy from us."

WRITE FOR OUR PRICES

manny's music store

156 West 48th Street
New York, New York 10036
U.S.A. Tel. 212-757-0576

MMX-IBB
Mimmax disco
Mimmax disco st
Mimmax chassis
Mimmax chas st

STOP PRESS

SOUND EQUIPMENT

addition

NEXUS

change

VOX

SI. Pow. Amp. 100w
Chassis
Disco Mix 145
Disco Mix 145/S
Disco Unit
Disco Unit/100w
Amp
Disco Unit D/ix
(Obie. T)
Mik. 8000/AM
Mik. 8000/AMP

ORANGE

D. LOUSCO UNITS
120 120w
120 120w
120 120w
120 DI. est.d/ix

PA-CE

Disco Console

P & N ENGINEERING

173 Disco Stand 19 12

ROSE-MORRIS

DISCO UNITS
1993 2.0k. 162.53
1994 100-w. Trans. 90.72
Slave Amp.
1395 50-w. 1x12" Spkr. Cab. 62.92

S.A.I.

Maverick 144.00
Disco IVS Sp. 189.00
1200 PDSA Mixer 253.30
TC10 46.25
BAS300 30w combo 124.43
BAS 600 60w combo 180.03
PAX 800 Prof Mixer 179.60
PMX 1600 Prof. Mixer 1689.63
Verb 102 281.46
Verb 052 227.48
PB 7100 AS 341.75
100w Bass Amp.

DAVE SIMMS PRODUCTS

AUGUST UNITS
MD 2 90.60
MD 1 123.20
MD 3 169.50
SD 5 T.B.A.
MD 3/100 223.00
SD 5/200 T.B.A.

SW DISCOS

300/2 Disco 100A 215.74
150/9 Disco 134.72
150/4 Disco 30 156.02

SOUNDOUT

DISCO CONT. MOODS.
Srs. III mono/170w 324.00
Srs. III mono 262.00
Srs. IV mono 210.00
Srs. IIIa ster. 339.00
Srs. III 170w ster. 450.00
Srs. IV mono/170w 270.00

SPERRIN

MKV VI 189.00
MK. VI Mixer 75.00

TYAS

MIXERS & DISCO UNITS
MMX-B 291.00

DISCO EQUIPMENT

CARLSBRO

Twin Deck 153.00

CUSTOM SOUND

CS 7212 PA/enclosure 66.00
CS 7212H PA/enclosure 84.00

DISCO SUPPLIES

CONSOLES
Studio 100 S 249.00
Mini 100 S 198.00
SPKR SYSTEMS
2-12 120 W2-12 87.00

DAVOLI

Disco Jnr. 50w 154.00

TYAS

MIXERS & DISCO UNITS
28.20
MMX-B 291.00
354.00
106.00
Mimmax disco 135.00
Mimmax disco st. 45.00
Mimmax chas. st. 66.00

D.J. ELECTRONICS

100 Mk II 63.00
Amp 83.37
Disco Mk V 84.00
Disco-Vox 84.00
Stereo Mixer 109.00
Powermaster 100 73.00
Powermaster 150 88.00
Powermaster 200 120.00
Powermaster 300 150.00

SPEAKERS

Pricea 51.00
Consort 81.00
Sovereign 120.00
Royale 140.00
Mini 162.00
Mini-Vox 162.00
Stern 200.00
Stern 235.00
Stern Vox 242.59
Disco-Vox 285.00
Disco-Vox 340.00
Disco-Vox 375.00
Sup-Vox 400.00
Ster-Mini 435.00
Disco Stand 230.00
18.57

F.A.I.

Disco pre-amp 18.40
Disco 78.75
Power Disco 117.90

L.S.E.

SOUND UNITS
STAK S.L. 72.95
STAK I 87.00
STAK S.L. 115.00
STAK S.L. 98.00
STAK S 102.83
STAK Cab. 102.83

588SB 25.80
588SB-CN 27.60
588SE 27.60
588S 30.00

STUDIO SERIES

SM33 99.00
SM58 168.60
SM5C 176.40
SM50 51.60
SM51 100.80
SM52 100.80
SM53 106.80
SM54-CN 108.20
SM56 83.60
SM57 49.80
SM57-CN 52.20
SM58 63.60
SM58-CN 66.00
SM60 32.40
SM61-CN 43.80
SM61 46.20
SM62 49.80
SM7 151.80
SM76 79.80
SM82 97.80

PROFESSIONAL ENTERTAINER SERIES

B5 155A 20.40
B548 40.20
B548 47.40
B55SW 40.80
B565 45.00
B588SA 28.20
PE505P 66.00
PE54D 42.60
PE56D 46.80
PE56E 87.80
PE58S 35.40
PE589 32.40

SOUNDOUT

MICROPHONES
AKG D 190 cs 28.00
AKG D 707 22.00
LM 300 18.00

TOP GEAR

PEAVEY
Low 1 mp. 39.00
High 1 mp. 39.00

VITAVOX

MICROPHONES
B 50 25 ohms 19.76
25 ohms par. 19.76
B 60 25 ohms 24.39
B 64 23.00
B 80 25 ohms 27.77
B 80 25 ohms w/raht. 43.14

W.M.I.

KIM-1 7.16
KIM-2 11.16
KIM-3 10.36
KIM-4 14.00
KIM 33 18.00
KIM 44 18.96
KSH-22 8.00

MILES PLATTING AMPLIFICATION

TOP QUALITY
REASONABLY
PRICED

VALVE AMPS.
CELESTION
SPEAKERS



For details send s.a.e. to

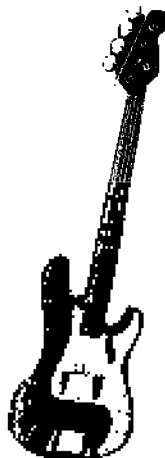
JOHN HORNBY SKEWES & CO. LTD. BALGH HOUSE, 10A, STREET, GARFORTH, W. LEEDS.

hornby skewes

U.K. TRADE DISTRIBUTORS:

STAGE MUSIC

46 Henderson St
Bridge of Allen
Telephone 3490



**GENEROUS TRADE IN ALLOWANCES
H/P FACILITIES
AND A FULL BACK-UP SERVICE**

**A fair deal on leading makes of
Amplifiers, Keyboards, Drums
Synthesizers, Guitars, and a large
range of accessories.**

Mrs Beans Diary
2nd Musicians Edition

WE TELL IT LIKE IT IS !!

The Teac 2340 and 3340S are remarkable tape recorders they will make you sound like something else. Of course that doesn't mean that if you feed Max Bygraves in you get the Dagenham Girl Pipers out, no multitrack recorder is that good ! Whether it's for rehearsing, composing improvising or just plain fooling around, one of these machines can make you a better musician. Both machines are four channel with full sync and over dubs facilities, the larger and more expensive 3340S runs at high speed takes big reels and offers full remote control the 2340 is just as versatile takes 7" reels, standard speed and is not for use with remote control it also happens to be £200 cheaper. To find out more about multi-track recorders, or about the mics, mixers and amps that go with them why not call round and see us? You'll find we stock a wider range of goodies than most places outside London.

As well as being one of Britains best known Hi-Fi shops. We also stock a wide range of quality Professional Equipment by . . . Teac, Cerwin Vega, J.B.L., Bose, Uher, A.K.G., Revox, Shure, Turner, Tascan, Nakamichi, Trio, Quad, Sennheiser, Yamaha, A.R., Stanton Etc. Etc.

Mrs Bean

Mrs. Bean Sound Systems,
4 Station Lane Precinct,
Featherstone, Pontefract,
West Yorkshire.
Tel. Pontefract 76173.

Free delivery
and installation
throughout Yorkshire
and Northern England.

SOUTHERN MUSIC EXCHANGE CO.

34 Waterloo Street, Hove, Sussex
Tel: (0273) 733387

Hove's Pearl Percussion Centre
Stockists of: Paiste — Zildjian
Hayman & Zyn Cymbals

Stockists of virtually all makes of new & S/H Guitars
Amplification & effects (keyboards to order)

Free delivery on large items in the Brighton & Hove area
Distance by arrangement. Amps & Guitars repaired.

We buy — Swop — P.X. — most musical requirements.
H.P., Access, Barclaycard welcome

£1,000 REWARD

FOR INFORMATION LEADING TO RECOVERY

GIBSON GUITARS

Les Paul Signature. S/No's 120946.
177255 S.G.'s. 397087. 395995. 409596.
Bass. Les Paul Signature 509076.
Bass. EBO. 512096
S.G.'s. 400075. 553035. 398922. 398913
Les Paul. 430162. 395826. 403808.
395846.

GIBSON. LEF HANDED.

EPIPHONE BASS GUITAR
RICKENBACKER BASS
RICKENBACKER
FENDER GUITARS

OG 4047. 04 or 093470
Six String. NH 5018
Precision Bass 504016. Stratocaster
Guitar 552021.

REYNOLDS TROMBONE
FLUTES
PICCOLO

Telecaster Guitars 529933. 500440
240277.
Bach 319664. Regent 513090
Yamaha YSL 1

YAMAHA P.A. Amplifier, 6 channel with Auto Rhythm.
All the above are NEW. J. RENO & CO. LTD. 64, OXFORD ST.
MANCHESTER Tel: 061-236 6273

Classified

Contact Rosemarie Willis
on 01 836 5061
to advertise in this section.

JSG

BUY — SELL — HIRE
ALL INSTRUMENTS —
AMPLIFICATION — DRUMS

MUSICAL SERVICES. CUSTOM BUILT P.A.'s.

100B, VANDERSTREET, GUITAR CUSTOMISING, ALL REPAIRS
BINGLEY CLOSED TUESDAY BINGLEY 68843
WEST YORKSHIRE

WIGTAN

01-
650 8150

We can help you get it together!
Our clients range from hi-fi manu-
facturers to publishing companies and a
national charity. We believe in making
creative advertising and design work at a
realistic price. No job is too big or small
for us to handle.

We also specialise in promotional
material, e.g., printed T-shirts, metal
badges, vinyl or paper stickers, posters
and designing stands and mobile display
units.

BAHR PROMOTIONS

Custom modular P.A. and backing speakers in
flight cases. Other flight cases made to order, guitar
cases a speciality. Professional case fittings.

SAE for details:
c/o 4 DELAMERC GROVE, TRENTHAM,
STOKE-ON-TRENT, STAFFS, ST4 8LA

AS NEW!

Revox A77

£ 350. 00 incl. VAT

Phone: Waltham Cross 22542

16 track £12 p.h.

8 track £6 p.h.

ALPAC 16 and 8 TRACK
DOLEY 'A' Noise reduction
AKG 8220 Stereo Reverb.
VAL. SPEED A.D.T.
EVENTIDE PHASING
VARIOUS DELEYS drums
REVERB and A.K.G. Amps
FENDER Amps. Grand Piano
8 TO 12 TRACK TRANSFER

GOOSEBERRY

0207 8888 704 8887
19 GERRARD ST., LONDON, W.1



EQUIPMENT HIRE

01-749 1121/2/3

BEST RATES BEST SERVICE BEST QUALITY

Please ring for a quote on your every need
Frank or Howard

Some of the best 16-track recording you can get costs only £12/hr.
It uses the latest equipment.

And it's in a comfortable new studio away from the hustle of London.
Isn't it time you visited your friends in the country?

Acorn Records, Stonesfield, Oxford. Stonesfield (099 389) 444.
Write or call, We'll send you our full-colour brochure.

You can't really choose a studio by reading their adverts.
So drop in, see how good we are (everyone who has, has
booked us) Or send us a quid for a cassette of what we can
do. For £59.40 a day you'll be surprised how good a
you can sound.

spaceward write or phone or drop in and see us.
19 Victoria Street, Cambridge. tel. (0223) 64263.



CABINET & AMP FITTINGS

ALUMINIUM OR FIBRE
FLIGHT CASES

CHASSIS SPEAKERS

Good prices - excellent service
rapid mail order, if required

Send S.A.E. for catalogue

& price list or call at

SOUND PROJECTS

(near) 493, Green Lanes, Haringay
London, N4 1LG

Telephone 01-348-9940

PALLMALL MUSIC

58 PALL MALL,
CHORLEY, LANCS.

Tel: Chorley 71124

Most makes of
AMPLIFICATION
in stock

Electronic repairs servicing

Late Night Opening:
Monday — 9.00 p.m.

Riverside Recording Ltd.

offers 16 Track Recording

Facilities at £15.00 per hour
down to £12.00 per hour for
block bookings

8 Track Facilities at £8.50
per hour

For further details phone or
write to

Riverside Recording Ltd.
78 Church Path
Fletcher Road
London, W4

Tel 01-994 3142

NEW PICKUPS

Gibson Large Humbucking

£33. inc. VAT

Fender Stratocaster

£24. inc. VAT

Other types available. Prices in-

clude covers/surrounds and post-

age. Send cheques/PO's to:

PLECTRUM MUSIC CO.,

12, CLIFTON RD., COULSDON,

SURREY. 01-469 5001

Freerange Studios



GET YOUR
Sixteen track LAID

We'll supply FREE Amps, Bech-
stein grand, Brinsmead upright,
Drumkit, Electric Piano and lots
more. What you pay for is a 3m
Recorder, Sound Techniques, 18
18 x 8 Desk, Neumann & AKG
miking and a studio capacity for
35 musicians

£14.50 PER HOUR 16 Track

£7.50 PER HOUR 8 Track

01-836 7608

ZB

Custom

THE WORLD'S FINEST PEDAL STEEL GUITAR
ZB GUITARS (UK), 2 UPPER FANT ROAD, MAIDSTONE, KENT G73355

ROLL YOUR OWN CABINETS?

ADAM HALL (I.M.) SUPPLIES

Mail Order Service For:

CASTORS : FEET : HANDLES : COVERINGS :
FRET CLOTH : GRILLE : LOCKS : CATCHES :
HINGES : SPECIALISED HARDWARE :
CORNERS : PIPINGS : TRIM : ETC :::

QUANTITY DISCOUNTS.

9" x 5" S'A'E' for Illustrated Catalogue

Unit Q Starline Works Grainger Road Southend on Sea SS25DA

THE SMOOTHER

INCREASES
SUSTAIN, ATTACK
& INTRODUCES
PROGRESSIVE
SMOOTH 2ND
HARMONIC DISTORTION at any
VOLUME with any AMP/GUITAR



£15
Totally Inclusive
UK only

YOU AINT HEARD NOTHIN LIKE IT!

EXCLUSIVE FROM **PRECINCT**
ON **0252 511899** (FARNBOROUGH)

Decibel Studios

"For Your Masters"

16 Track Ampex, 8 Track Ampex, 24 Channel Mixing
Stereo Ampex, Audio & Design Compressors, Limiters,
& Noise Gates, Tape Delay, ADT, Eventide Phasing,
Master-Room Reverb, Full Range AKG & Neuman
Microphones, Grand Piano, Musicians Available.

16 Track £15 per hour
8 Track £8 per hour

01 802 7868

19, Stamford Hill, London N16.

Building Mixers?

zero88

AUDIO MODULES

offer high quality at competitive prices
Contact Richard Brown at Zero 88,
115 Hatfield Road, St. Albans, Herts
AL1 4JS Tel: 63727

CHARNLEY MUSIC

177 Main St., Wishaw, Lanarkshire
Tel: 06983 73097

GIBSON STAR DEALER
FENDER SOUNDHOUSE
GUITARS:

GIBSON, FENDER, ANTORIA, YAMAHA, ETC.

DRUMS:
SONOR, HAYMAN, ROGERS, LUDWIG.

AMPLIFICATION:
CARLSBRO, MARSHALL, LANEY, SOUND CITY,
FENDER.

DAVIES accessories

PLASTIC CABINET FITTINGS
* POCKET RECESS HANDLES
for fitting into side of Cabinet 68P. per pkt of 2.
* CORNER PIECES
to fit rounded corners 27P. per pkt of 4
* ROBUST FEET 35mm - 15mm. 63P. per pkt of 8
* SOCKET RECESS PLATE
for mounting jack sockets etc. 18P. per 2
s.a.e. for full price list. (rear of) **3 High Street, Crawley, Sussex.**
Telephone: (0293) 37188

COVENTRY MUSIC CENTRE

FDR

Gibson STAR dealer

soundhouse

Cash Discounts

H|H

Credit Facilities

AMPLIFICATION

3/4 WHITEFRIARS STREET COVENTRY
Telephone: 58571

RECORDING IN LIVERPOOL

In just a few weeks time a fully equipped, professional
STUDIO will be opening in Liverpool.

Conveniently placed in the City centre it offers:
2, 4 and 8 Track production of Demos and Masters.
Easy access 24 hours a day.

Free use of many Instruments -
including a Hammond Organ & a Bechstein Piano.
Comprehensive electronic music facilities -
by Moog and E. M. S.

Superb rates and a 16 Track option for period bookings

Interested? Phone: 051 652 6936
any evening for details

AUGUST SOUND RECORDING STUDIO

SEND THIS PAGE BACK!

Use this page to get more information about the products advertised in this issue. Place a tick against any advertiser from whom you would like to get catalogues, brochures, price lists etc. and we will make sure the information is rushed to you !!

Our Advertisers

A1	129	Hamlyns	128	Page	114
Acoustic Research	48	C.E. Hammond	40	Pall Mall	132
Alan & Heath	135	Hammonds	132	Pearl	121
Alex	8,9	Hammond Organs	68	Percussion Sounds	64,93
Amek	81	Hessy	120	REW	78
Andertons	50	HH Electronics	108,109	Riverside	135
Ashworth	36	Hohner	37	Rock On	104
Assembly	114	Hornby Skewes	32,119,147	Roost	136
Baddeley	132	How	80	Rose-Morris	20
Mrs. Bean	147	Jeavons	36	Rosetti	112
Beyer	67	Kemble Yamaha	6,7	RSD	11
Bradleys	60	Keyboard Harmony	80	SAI	104
Boosey & Hawkes	99	Kingfisher	116,129	John Savage	92
Broadway Music	128	Kitchens	98,128	Selmer	152
Brodr Jorgensen	106,124,125	Kneller	56,57	Sharma	62
Bose	9	Kustom	52	Shergold	136
Carlsbro Sound Centre	98,132	Luton Music	114	Shure	66
Carlsbro Sound Equipment	76,77	McCormacks	60	G Simpson	63
CBS/Arbiter	54	McDonald	98	Simpsons	132
Chingford Organs	3	Macinnes	82	Soundcraft	90
Cleartone	60, 133	Macaris	28,29,133	Soundpad	135
Cleveland	146	Maine	104	Soundwave	55
J.T. Coppock	70	Mannys	146	Summerfield	88
Custom	118	Matamp	119	Telecomms	24
Dallas U.S.A.	134	MEH	4	Top Gear	86
Dandelion	116	Midas	17	Triad	32
Dindy	136	Midland Organs	132	Varsity	62
D.J. Electronics	151	Minns	129	Victors	32
Dynacord	44	Morley	74	Vox	105
Elka Orla	92	MSL	92	Western Music	128
EMI	71	Music Instrument Corps	89	White	136
Fletcher Coppock & Newman	42	Musical Sounds	102,135	Geo. Williams	132
J.T. Forbes	63	Nashville	80	Wing	94,95
Funkshun	116	Nexus	25	WMI	100
GMS	36	Nolan	2	Woods	84
Greenhalgh	129	PA:CE	33		

Name _____

Address _____



The greatest name in the Disco business

Check out your disco gear Now !

Isn't it time

you had that really professional sound?

Hear the D.J. Electronics range and see

what kind of boost, a DJ set up can

give you

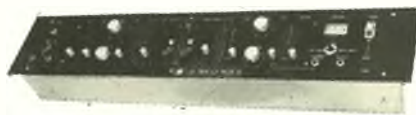
DECKS



Pictured are the D.J. DISCOVOX Mk.II, D.J. STANDARD MKV, and the D.J. SUPERVOX II with built-in Phillips cassette player.

A choice of 3 different pre-amps are available for these units

MIXERS



The DISCOVOX II, incorporating panel mounted deck switches, and illuminated deck volume controls. Also features, tape input, two microphone inputs and voice activated over ride system. This preamp is available in mono or stereo form.



DISCO MIXER MKV
Featuring mic input with its own volume tone controls, Mic override switch, Deck inputs with own volume control Cross fade for deck to deck transfer etc. etc.

SPEAKERS



The heart of the new range is the Power speaker made to extreme standards.



DISCOLITE MKII
Two way sequential flashing circuit with a built in speed control. This enables the light to be projected at random with complete control over the pulsating speed.



Further details of these
and all our range are available from:

DJ ELECTRONICS

D.J. ELECTRONICS SHOWROOMS at
Head Office, 56 Queens Rd.,
83 Queens Rd., Southend, Essex
Southend, Essex 0702-353033
0702-352613

Don't be Voog, ask for Moog



Moog invented the synthesizer. So, when you buy a synthesizer, make sure you get the real thing – a genuine Moog.

We make a compact range of Moogs ideally suited for stage or studio, from the Mini-Moog down to the economically priced all new Micro-Moog.

Imagine the incredible sounds and the vast range of tone colours and electronic effects you could produce from a Moog. And since the introduction of the Micro-Moog, you haven't got to be Keith Emerson to be able to afford one.

moog

ELECTRONIC SYNTHESIZERS.

Distributed by
HENRI SELMER & Co Limited.
Woolpack Lane, Braintree, Essex CM7 6BB.
Tel: Braintree 0376 21911.
A Norlin Company

Trade Mark Application No. 1018178
Another Quality Product from Norlin

